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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

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EXECUTIVE SUMMARY

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Volume IA: Compensation of Full-Time Support Personnel,

Volume IB: National Guard and Reserve Retirement,

Volume IC: Compensation in Support of Reserve Medical Manpower,

Volume II: Compensation and Personnel Readiness, and

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PREFACE

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This document summarizes the findings and recommendations contained in the report of the 6th QRMC. Volume I of the QRMC report presents a systematic evaluation of the elements of compensation for reserve members, to include those serving in a full-time status with the active components and those serving full-time or part-time in the reserve components. Volume I covers the full range of military compensation elements, including basic pay and related issues, incentive programs, allowances, health care, disability and survivor benefits, and civilian employment, tax and mobilization-related issues.

Three issue areas were identified for separate analysis within the overall context of the review. The first, compensation for members providing full-time support to the reserve components, is summarized in Chapter 3 of Volume I and set out in detail in Volume IA of the report.

The second issue, the reserve retirement system, was addressed separately within the context of the costs and benefits of reserve compensation. This was due in part to a statutory requirement to submit a separate report to the Congress on reserve retirement. Findings and recommendations are summarized in Chapter 9 of Volume I and presented in depth as Volume 1B of the report of the 6th QRMC.

Finally, Volume IC, addresses compensation in support of reserve medical manpower. The findings and recommendations on this issue are summarized in Chapter 10 of Volume I.

Volume II of the report of the 6th QRMC examines the compensation system for part-time members of the Selected Reserve, the way in which that system functions in the environment in which National Guard and Reserve service is performed, and the way in which reserve compensation can best be structured in support of personnel readiness goals. Volumes ID (Working Papers) and III (Supporting Studies), provide background data and additional detail on the QRMC study effort.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs, of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services, were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988) and the Reserve Center Commanders Conference (1987) were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard Association of the United States, National Military Family Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis, and advice at every stage of the review.

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Part I. OVERVIEW

The ultimate purpose of all military manpower policies, and of the compensation system that supports those policies, is to recruit, train, and field a force capable of preserving the peace and protecting the vital interests of the United States and its allies. The men and women currently in the reserve are an integral part of that force. Since the proclamation of the Total Force policy in the All-Volunteer Force era, and particularly since 1980, greatly increased reliance has been placed on reserve members and units.

To help achieve the increased readiness associated with this reliance, unprecedented attention has been focused on compensation and benefits in support of reserve force manpower objectives. New bonus, stipend, loan repayment, and educational assistance programs have been authorized and implemented. Improved and expanded medical, incapacitation, and survivor benefits have been enacted and commissary privileges enhanced. These measures have been considered necessary to achieve manpower goals in a rapidly expanding reserve force and to provide adequate protection to reservists, who must meet Total Force readiness standards, employ state-of-the art weapons systems, and perform training and support missions throughout the world.

Scope and Objective of the QRMC Evaluation

The QRMC has been tasked by the President to perform a comprehensive evaluation of the benefits and costs of all reserve compensation programs. The military compensation system covers both regular and reserve members. Regular members are, by definition in law, on active duty. The service of reserve members, by contrast, ranges from extended active duty service in an active duty career path to part-time or intermittent service in the Ready or Standby Reserve. The compensation of reserve members depends on their duty status and, if serving on active duty, on the duration of service specified in their orders. As a result, within the military compensation system, the compensation of reserve members is considerably more complex than that of regular members.

The comprehensive study of reserve compensation can be divided into two broad categories. The first category is the systematic evaluation of the elements of compensation for reserve members,

to include those serving in a full-time status with the active components and those serving full-time or part-time in the reserve components.

The second category of study is the analysis of the way in which the levels and types of reserve compensation affect the ability of the reserve components to meet unit manning requirements for part-time reservists. The report of the 6th QRMC treats these two categories in Volume I and Volume II, respectively.

Within this context of the overall review, separate studies were conducted to review the costs and benefits of compensation for members providing full-time support to the reserve components, the system of retirement for National Guard and Reserve members, and compensation in support of reserve medical manpower. These studies are reported in Volumes IA, IB and IC of the report.

Reserve Forces in Historical Perspective

The military reserve system of the United States has its roots in the English militia tradition and a century and a half of American colonial experience. The legal framework for our current reserve forces--which combines purely federal reserve forces with the uniquely American dual state and federal status of the National Guard--was established in this century.

Following World War II, it was recognized that significant problems with existing reserve forces needed immediate attention. Studies were directed to address how reserve components should be structured and organized. To encourage longer reserve service so there would be well trained reserves available if needed for mobilization, a nondisability retirement program for reserve personnel was enacted in 1948.

Reserve mobilization for the Korean War served to underscore the need for an improved reserve system. The Armed Forces Reserve Act of 1952 was the first of several major legislative initiatives of the 1950s and 1960s that, taken together, formed the basis for a reserve structure with much more rigorously defined systems for training, promotion, pay, and personnel. A clear hierarchy of mobilization priorities was also established.

The Act declared the reserve components to be "maintained for the purpose of providing trained units and qualified individuals to be available for active duty...in time of war or national emergency, and at such other times as the national security may require, to meet the requirements of the Armed Forces...during and after the period needed for procurement and training of additional trained units and qualified individuals."

The Act specified the seven reserve components, including the Army National Guard of the United States and the Air National Guard of the United States, and reaffirmed that it was essential to maintain and assure the strength and organization of the National Guard as an integral part of the first-line defenses of the Nation. Established in law as a result of the Act were Ready, Standby, and Retired Reserve categories.

Other legislation established reserve officer appointment, separation, and retirement policies. A Selected Reserve was established within the Ready Reserve with priority status and a strength to be authorized annually by Congress. Also, specific statutory civilian and military positions were authorized within the DoD for the administration of reserve matters.

With the cessation of the draft, establishment of the All-Volunteer Force and announcement of the Total Force policy in 1973, increasing reliance was placed on the National Guard and Reserve as a combat-ready part of the Total Force structure. As small an active peacetime force was to be maintained as national security policy, military strategy, and overseas commitments would permit. With increasingly ready reserve forces, total military capability could be maintained while reducing the overall cost of defense programs.

The 1970 report of the President's Commission on an All-Volunteer Armed Force (Gates Commission) indicated that the Commission "recognized from its first meeting the need for special attention to the problem of the reserve forces."[1] The Gates Commission had tentatively concluded that a reserve force associated with an active force of 2.25 to 2.5 million members could be maintained in an all-volunteer environment. The precipitous decline in strength (from 987,000 in 1970 to 788,000 in 1978) experienced by the Selected Reserve in the postdraft environment, however, caused widespread concern. Contemporary analysis of this trend revealed that the manpower deficits varied markedly by component, being significantly greater for the Army Reserve and Marine Corps Reserve (and, to a lesser extent, for the Army National Guard). Also, heavy losses of draft-motivated members at the end of their first enlistment could have been expected to cause a drop in reserve strengths despite significant increases in reserve accessions.[2]

The decline in Selected Reserve strength experienced in the 1970s triggered significant, if belated, attention to reserve manpower issues. Increased management attention, greatly expanded recruiting resources, and the new bonus authorities combined with the higher continuation rates of volunteer enlistees to help reverse the unfavorable strength trends after 1978.

During the 1980s there have been a series of significant improvements in reserve compensation, including substantial restructuring of benefits for members who are incapacitated in connection with reserve service and for survivors of members whose death is connected with reserve service, and the 1985 implementation of the Montgomery GI Bill for the Selected Reserve. By 1984, Selected Reserve numbers had reached an all time high, surpassing the previous peak in strength of 1959 when reserve service could qualify an individual for deferment from the draft. Selected Reserve strength continued to grow as missions and roles for reserve forces expanded, reaching a strength of nearly 1.2 million by the end of Fiscal Year 1987.

Missions of the Reserve Components

With the advent of the All-Volunteer Force, the scope, size, and criticality of missions assigned to reserve components have increased dramatically. Today, a substantial portion of the manpower and equipment of each of the Services is resident in their reserve components.

The armed forces now depend heavily on reservists as part of a Total Force comprising 1.5 million Ready Reservists in addition to more than 2 million active component members. Reserve training assignments have been more closely integrated with the missions of active duty units, so that the reservist receives on-the-job training while providing valuable services to the armed forces.

Reserve components routinely participate with active component units in realistic arms training and field exercises at home and abroad. Approximately 33 percent of the tactical airlift missions flown by the Military Airlift Command have Air Force Reserve air crews. Seventy-five percent of the continental air defense is performed by Air National Guard crews. Reservists train on and maintain state-of-the-art weapons systems and equipment such as Abrams tanks, Bradley fighting vehicles, Blackhawk helicopters, M198 howitzers, Perry and Knox class guided missile frigates, C-5A transport aircraft, and F-16 and FA-18 fighter/attack aircraft.

Each of the Services uses its reserve in a somewhat different way. Differing missions and weapons systems of the reserve components result in differing training and manpower requirements. In this respect, the seven reserve components differ significantly from one another. This has implications for reserve compensation: divergent manpower requirements and utilization implies the need for a compensation system sufficiently flexible to meet differing needs in a cost-effective manner.

Reserve Manpower Accomplishments and Priorities in the 1980s

The 1980s have seen further new and expanded reserve missions together with significant improvements in equipment modernization, training strategies, and achievement of objectives for overall personnel strength. Table 1 shows the relative size of each reserve component from 1970 through 1987.

Table 1. Selected Reserve Strength by Component, FY 1970-1987 (in thousands)

Fiscal Year	Army Natl Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air Natl Guard	Air Force Reserve	Coast Guard Reserve	Armed Forces Total
1970	409	261	128	49	90	50	17	1,004
1971	402	263	130	47	86	50	15	993
1972	388	235	124	41	89	48	12	937
1973	386	235	126	38	90	44	11	930
1974	403	235	115	31	94	46	12	937
1975	395	225	98	32	95	51	12	908
1976	362	195	97	30	91	48	12	835
1977	355	189	90	31	92	50	12	820
1978	341	186	83	33	92	54	11	799
1979	346	190	88	33	93	54	12	819
1980	367	206	87	35	96	59	12	862
1981	389	225	88	37	98	62	12	910
1982*	408	257	94	40	101	64	12	975
1983**	417	266	109	42	102	67	12	1,016
1984	434	275	121	41	105	70	12	1,058
1985	440	292	130	42	109	75	13	1,101
1986	446	310	142	42	113	79	13	1,143
1987	452	314	148	42	115	80	13	1,163

Source: Official Guard and Reserve Manpower Strengths and Statistics, 1982 & 1987 Summaries

* Reservists with required annual training but not required to drill added to Sel. Reserve
** Naval Reserve TARs added to Selected Reserve

Recent success in meeting reserve manpower objectives and improving the quality of accessions is attributable in part to the new bonus authorities. In addition, since 1981 significant new benefits and protections have been implemented for reservists and their families. These enhancements recognize the increased demands of reserve service. At the same time, many reservists are being asked to train more intensely and for longer periods than ever before. To the extent that longer

training results in an increase of time and schedule conflicts between reservists and their civilian employers and puts additional stress on family and on community and personal obligations, the result may be increased turnover and reduced personnel readiness.

In addition to the increases in employer, family, and personal conflicts that may be associated with intensified or extended training, civilian income is lost by a substantial number of reservists, and this is not fully made up by military pay. This situation creates a compensation environment substantially different from that experienced by and relevant to full-time members of the uniformed services. This report addresses issues and initiatives that may improve the effectiveness of military compensation in the compensation environment of the part-time reservist.

The Structure of Compensation for National Guard and Reserve Members

The work of the 6th QRMC concentrated primarily on compensation for full-time and part-time reservists who serve and train in the reserve components. Although compensation for regular members was generally excluded from the study plan, the QRMC did not ignore the compensation of reserve members serving with the active components, since their status differs in some respects from that of regular members.

The compensation structure for reserve members depends on their duty status and, if on active duty, the duration of service specified in their orders. For example, all reservists in an active status receive 15 retirement points each year--the equivalent of 15 days of active duty--for their membership. Members performing inactive duty training may receive pay, benefits, and survivor benefit protections for line-of-duty incapacitation or death, depending on the type of inactive duty training performed. Reservists serving on active duty have differing entitlements and benefits, depending on whether the duty is "for training" or "other than for training," and depending on the length of the period of duty. For example, if members are serving on orders that specify a period of more than 30 days, they accrue leave, and they and their dependents gain medical care entitlements and benefits. Members ordered to active duty for a period of 140 days or more are eligible for Variable Housing Allowance payments. Reserve members may serve for two or more years of continuous active duty for training and yet not qualify as veterans for the purpose of obtaining a Veterans' Administration guaranteed home loan. This anomaly occurs because title 38 of the United States Code treats active duty for training differently from active duty for the purpose of veterans' benefits.

This complex system has evolved piecemeal in response to the demands of our national defense. The QRMC studied the way in which specific elements of compensation are structured for reserve members across the range of statuses in which they serve. These statuses include active duty, active duty for training, full-time National Guard duty and inactive duty training. They include service in an active component, which is paid from active component military appropriations, whether in a career, specified term, or temporary status. They also include full-time duty paid from National Guard or Reserve personnel appropriations in support of the reserve components, part-time duty entailing active duty or inactive duty training, and reserve membership without participation in training activities.

The Effect of Duty Status on Compensation

Active Duty

After Korea, large numbers of reserve officers served on extended active duty, many with the hope of a full active duty career. For these officers, continuation on active duty was subject to changing military requirements, and involuntary release after long service frequently resulted in hardship and inequity. New compensation provisions were enacted in response to this situation; however, for reserve officers on extended active duty, there were substantially different promotion, separation, and retirement provisions than for regular officers. The Defense Officer Personnel Management Act (DOPMA) of 1980 was intended to diminish these differences.

The DOPMA legislation served to reduce much of the turbulence and uncertainty that had been associated with the active duty service of reserve officers. In conjunction with the personnel management and compensation provisions already in effect, the result was generally more equitable treatment of reserve officers pursuing a career in an active component.

Full-Time Duty in Support of the National Guard and Reserve

Coincident with the consideration and enactment of DOPMA, much greater reliance was being placed on reserve members and units as part of the Total Force. Achievement of the increased readiness associated with this reliance required significant growth in full-time support to reserve units. This growth was achieved primarily through placing National Guard and Reserve members on full-time duty in support of reserve administration, training, and recruiting.

Most of the increase in full-time reservists was in enlisted members of the Army National Guard, Army Reserve, and the Air National Guard. Over 57,000 enlisted members of the National

Guard and Reserve now serve full-time. Compensation issues have emerged affecting these enlisted members, issues that are similar to those that developed in the 1950s and 1960s when reserve officers were needed for extended service on active duty.

Approximately 30,000 officers and enlisted members of the Army National Guard or Air National Guard now serve in a full-time status. A new duty status--full-time National Guard duty--was created to preserve the peacetime command structure within the National Guard. Members on full-time National Guard duty are not in federal service. For the purposes of laws that provide benefits for members and their dependents and beneficiaries, however, full-time National Guard duty is considered active duty in the federal service. The exception is that full-time National Guard duty is considered active duty for training for the purposes of determining veterans' benefits. As a result, members serving in this status who are not veterans as a result of prior active duty are not eligible for all veterans' benefits.

Part-Time Duty

Active Duty for Part-Time Members: Part-time reservists typically serve on active duty or full-time National Guard duty for two weeks annually. Many part-time reservists serve additional periods of active duty, however, including new entrants, those receiving additional formal training, and those performing special work. For purposes of pay, there is no distinction between the types of active duty, but there are varying benefits depending on the length of the duty.

Inactive Duty for Part-Time Members: Most of the military duty performed by part-time reservists is in an inactive duty training (IDT) status. IDT is authorized, scheduled training performed by a reservist or member of the National Guard who is not on active duty or active duty for training.

IDT consists of regular training periods, assemblies or drills, and periods of additional or equivalent training. Typically, it consists of training conducted monthly on a weekend, with two four- to six-hour drills per day. For each training period or drill, a member's compensation is 1/30 of the monthly basic pay of an active component member with the same pay grade and length of service.[3] This basic compensation does not include allowances, but special and incentive pays may be added to IDT compensation. For members entitled to a special pay during IDT, the compensation for each IDT period is increased by an amount equal to 1/30 of the monthly amount of the special pay. DoD policy prescribes a minimum four-hour duty period and limits paid IDT periods to two in any calendar day. Thus, as compensation for a four-drill weekend with two drills

each day, members receive a total of 4/30 of the monthly basic pay of an active component member of the same grade and service longevity and 4/30 of the monthly amount of any special pay to which they are entitled.

Additional IDT periods may be authorized for the purpose of improving readiness. These additional training periods fall into three categories:

- Additional training periods (ATPs) to accomplish additional required training as defined by a unit's wartime mission
- Additional flying and flight training periods (AFTPs) authorized for primary aircrew members to conduct aircrew training and combat crew qualification training, to attain and maintain aircrew flying proficiency, and to sustain mobilization readiness
- Readiness management periods (RMPs) to support the ongoing day-to-day operation of the unit, including unit administration, training preparation, support activities, and maintenance functions

This combination of duty statuses for part-time members has assisted the reserve components in meeting training objectives and Total Force mission requirements. It also creates situations in which compensation status differs for members performing the same duty. Additionally, reservists may perform duty with or without pay,[4] broadening the range of differences even further.

The Structure of the Reserve Components

Active duty and IDT for members of the reserve components is conducted within a structure only slightly modified from that initially set out in the Armed Forces Reserve Act of 1952. Regulatory implementation of the statute provides policy guidance for maintaining and reporting personnel data, designates uniform reserve component categories and training and retirement categories, establishes minimum training criteria for each category of the reserve components, and provides uniform planning policies and procedures for training reservists.

All National Guard and Reserve member are assigned to one of three reserve component categories as shown in Figure 1.

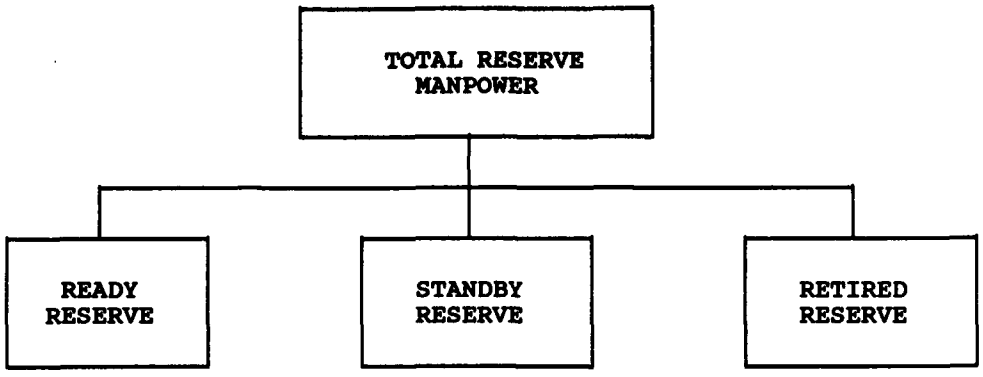


Figure 1. Reserve component categories

The Ready Reserve comprises military members of the National Guard and Reserve, organized in units or as individuals, liable for recall to active duty to augment the active components in time of war or national emergency. The Ready Reserve consists of three reserve component subcategories as shown in Figure 2: the Selected Reserve, the Individual Ready Reserve (IRR) and the Inactive National Guard (ING).

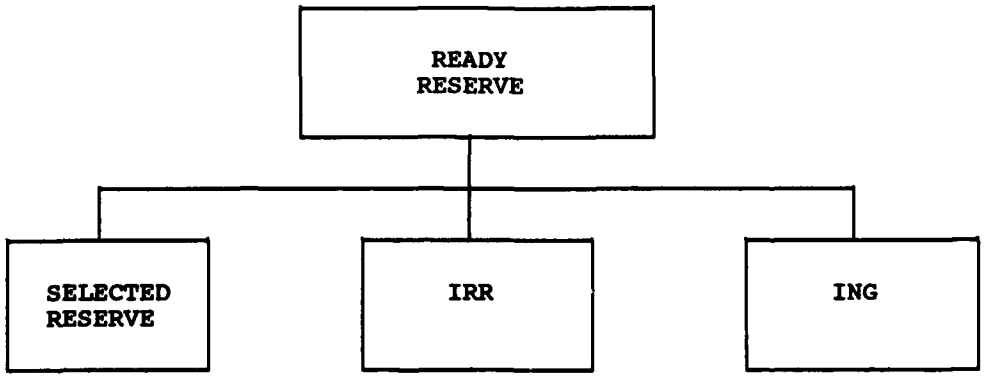


Figure 2. Ready Reserve subcategories

The Selected Reserve consists of units and individuals within the Ready Reserve that are designated by their respective Services and approved by the Joint Chiefs of Staff as so essential to initial wartime missions that they have priority over all other reserves. In addition to part-time Guardsmen and Reservists, the Selected Reserve includes full-time Active Guard and Reserve Members (AGR) and military technicians (MT). Military technicians are federal civilian employees who provide full-time support to reserve units and support activities in their civilian status. As a condition of their civilian employment they are required to be part-time reservists in the units they support.

The Individual Ready Reserve (IRR) and Inactive National Guard (ING) consist of Ready Reservists who are not in the Selected Reserve:

- The IRR is a manpower pool consisting principally of individuals who have had training and who have served previously in the active component, or in the Selected Reserve, and have some period of their military service obligation remaining.
- The ING consists of National Guard personnel in an inactive status, not in the Selected Reserve, who are attached to a specific National Guard unit but do not participate in training activities. Upon mobilization, they would mobilize with their units.

The Standby Reserve consists of individuals who have been designated as key civilian employees, who have a temporary hardship or disability, or who wish to maintain their military affiliation without being in the Ready Reserve. It includes members on the active status list as well as members on the inactive status list. The inactive status list includes reservists who are not required by law or regulation to remain in an active program and who retain their reserve affiliation in a nonparticipating status, and reservists who have skills that may be needed by the armed force concerned. Members on the inactive status list may not train for points or pay and are not eligible for promotion.

The Retired Reserve comprises all reserve officers and enlisted members who receive retired pay on the basis of their active duty and/or reserve service as well as all members who are otherwise eligible for retired pay but have not reached age 60, have not elected discharge, and are not voluntary members of the Ready or Standby Reserve. The composition of the Retired Reserve is discussed in detail in Volume IB of the QRMC report.

Reserve Status, Compensation, and Mobilization Priorities

The training status of the reservist sets the conditions under which the member may be involuntarily ordered to active duty (other than for training), thereby establishing a hierarchy of vulnerability to mobilization in time of crisis. For example, the President may order as many as 200,000 Selected Reservists to active duty involuntarily for 90 days. The period of the call-up may be extended for not more than 90 additional days. This authority may be used whenever the President determines that it is necessary to augment the active forces for any operational mission and may be considered the first tier of mobilization priority.

The second tier of the statutory mobilization priority affects the entire Ready Reserve (the Selected Reserve and the Individual Ready Reserve). The President may, upon declaring a state of national emergency, order to active duty as many as one million members of the National Guard and Reserve for up to 24 months. The enabling statute requires the President to inform the Congress of the necessity for the involuntary order, the use of the forces ordered, and their performance.

The condition setting the third tier of mobilization priority is a declaration of war or of national emergency by the Congress. During such time, any reserve member may be ordered to active duty for the duration of the war or emergency and for six months thereafter.

In summary, the statutory scheme sets out a priority for mobilization, centering on three conditions: (1) any operation or contingency, (2) a Presidential declaration of a state of national emergency, and (3) declaration of war or national emergency by the Congress. These mobilization priorities are directly associated with the minimum training requirements set out in the training and pay categories, and reserve compensation programs also track to mobilization priority. Special bonuses, stipends, loan repayment programs, and insurance programs have been established for Selected Reservists. Separate programs for bonuses, stipends, and insurance are authorized for the Individual Ready Reserve. The size and value of IRR programs reflect the reduced training requirements and mobilization vulnerability of the IRR. Finally, reservists who are in an inactive status may not receive pay or retirement credit.

The Principles of Military Compensation

The President's 1982 memorandum, which authorized the work of the 5th QRMC and set its agenda, also requested a coherent and logical statement of the principles and concepts of military compensation in relation to national security objectives. The

statement of principles developed by the 5th QRMC,[5] slightly revised and updated, are now set out in the Military Compensation Background Papers.[6] The 6th QRMC used this statement of principles as a reference in its work.

A condensed version of these principles and subprinciples was developed by the 6th QRMC and used as a reference by the QRMC Steering Committee and staff. This seemed appropriate in light of the reserve compensation focus of the 6th QRMC and the relatively greater significance of certain principles in the reserve setting. The following is an abbreviated list of principles used by the 6th QRMC:

- **Compensation Must Support Defense Manpower Policies:** Military manpower accession, retention, training, promotion, separation, and retirement programs are designed to achieve the combination of age, experience, grade, and skill needed for an effective military force. The elements of military compensation are integrally related to the effectiveness with which these programs achieve their objectives. Thus compensation for members of the armed forces cannot be treated simply in terms of labor market factors but must be synchronized with the military manpower system to most effectively support that system.

- **Compensation Must Support Changing Tactics and Technologies:** The effect of changing weapons systems and of changing combat tactics (often resulting from the characteristics of new weapons) has been most noticeable in terms of the need for new or modified special and incentive pays. Often overlooked has been the effects of revisions to the mix of active and reserve forces and of new missions in the National Guard and Reserve. Such changes often result in the need for new incentives in the reserve environment and can possibly reduce the efficiency of existing elements. The introduction of newer, high performance weapons and their effects on combat tactics was the reason why long-term reviews of military compensation were first begun. Today it is particularly important that efforts to keep military compensation in line with changing technologies and tactics consider both active and reserve component impacts.

- **Compensation Must Provide Equity:** This principle applies to the active, reserve, and retired forces. It entails a sense of relative fairness in the system. Achievement of a sense of fairness includes maintaining a balance between general comparability of pay for those performing substantially equal work and the necessary competitiveness of pay to assure adequate manning of all specialties. For the reservist, comparability with the pay of approximate counterparts in the American economy is even more difficult

than for full-time members of the armed forces: there are few part-time pursuits in the marketplace that demand priority commitment over a lengthy career during which technical and leadership skills and abilities must be developed. Relative comparability and competitiveness between full-time and part-time members is important. If a sense of fundamental fairness is maintained between the two, it is unlikely that unwarranted competition will result.

- **Compensation Must be Effective in Peace and War:** This principle suggests a requirement for one military compensation system, sufficiently flexible to permit entry and departure of reservists and retirees from active duty in both peacetime and wartime situations. Retirement credit and related elements of compensation must not be confused in transition, and mobilization planning must be accommodated. The compensation system must effectively and fairly credit both the long- and short-term active service of reservists in terms of either an active or reserve career.

- **Compensation Must be Flexible:** This principle recognizes the need to adjust quickly to changes in manpower supply and demand. Subprinciples specify that the compensation should be no higher or lower than necessary to meet manpower objectives, should have the capacity to respond to differing active and reserve component needs of the armed forces, and should link adjustments of compensation elements effectively and provide rapid and equitable adjustments. The principle of flexibility is particularly important in the reserve environment because the reserve components must recruit and retain members with the necessary aptitudes and skills and do so within thousands of local labor markets. The linkage of active and reserve pay elements is important in terms of the principle that calls for effectiveness of transfer to and from active duty in both peace and war. The linkage can also have unintended effects unless the impacts of changes on both active and reserve members are systematically assessed.

- **Compensation Must Support the Distinctive Contribution of Military Members:** The military compensation system must recognize and respond to the distinctive elements of military service, including ultimately the fact that the military members may have to put their lives in jeopardy in the course of their duties. This suggests the need for institutional benefits that reflect and support the distinctive character of military service. Unlike supplemental employment in the secondary market of the civilian sector, reserve service can require arduous and hazardous military training and missions and always carries

the risk of mobilization. These risks, voluntarily assumed, continue through active, inactive, and retired reserve service. Thus benefits that support the institutional character of career military service are also an important principle of compensation for reserve service.

Part II. THE RESERVE COMPENSATION SYSTEM AND ITS ENVIRONMENT

Some reservists, primarily officers, serve with the active components. Others are on active duty or full-time National Guard duty to provide full-time support to the reserve components. The majority are part-time members of the Selected Reserve and, of these members, most are employed full-time in the civilian economy.

Basic pay is the principal element of military compensation. With limited exceptions, all members on active duty receive basic pay. Retired pay for both regular and reserve members and compensation for inactive duty training (IDT) performed by National Guard and Reserve personnel are directly linked to basic pay. For a typical part-time reservist, 90 percent of compensation from reserve service is either basic pay or compensation for IDT, which is a percentage of basic pay.

The Reserve Compensation System

Compensation for the reserve components is an adaptation of the active duty system. In order to allow movement of reservists to and from active duty without disruption, the reserve compensation systems must be compatible with the active duty system. Although the appropriate level of military compensation for members on active duty may be debated, comparison with compensation in related systems such as private civilian employment, civil service, etc., does help to establish the military pay levels necessary to be competitive. However, unlike reserve membership, part-time employment in the civilian environment typically makes no long-term demands on individuals and does not require individuals with lengthy training and long experience. In this respect, the reserve compensation environment is unique; compensation for part-time jobs in the civilian environment does not provide a realistic comparison to reserve membership. Active duty comparability studies, together with active duty manning requirements, manpower shortages, and retention indices, frequently provide the basis for adjustments to active duty compensation, and the affected elements of reserve compensation automatically change in tandem. Thus additional incentives may be required to ensure that reserve manpower needs are met.

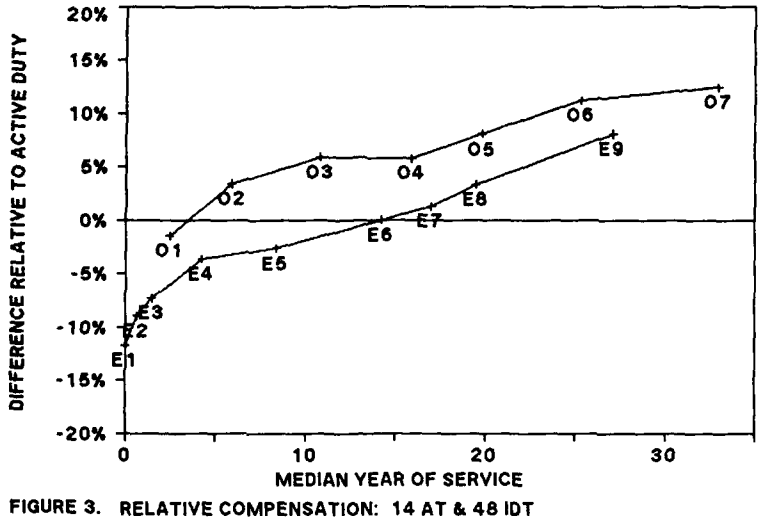


FIGURE 3. RELATIVE COMPENSATION: 14 AT & 48 IDT WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLE

Effect of Linkage of Compensation for IDT to Basic Pay

Implicit in the tie to the active duty system is the assumption that compensation differentials for grade and length of service are essentially parallel. The QRMC found that, relative to the compensation system for members on active duty, the reserve pay system was less advantageous for members in lower pay grades than for members in higher pay grades.

Using the active duty compensation system as a standard, the QRMC compared the compensation ratios for reserve compensation with those of active duty compensation, pay grade by pay grade. In this analysis, a "tilt" was apparent when comparing the relative value of reserve compensation by pay grade to that of active compensation. Using pay grade E6 as a baseline for comparison, Figure 3 shows, for each pay grade, the percentage by which reserve compensation departs from being parallel to active duty Regular Military Compensation. (In this case, the reservist is assumed to perform 48 drills and 14 days of annual training.) The observed tilt in the relative value of compensation of active duty and IDT occurs because compensation

for IDT is directly tied to basic pay: there is a greater relative differential in the basic pay of junior and senior grades than there is in the quarters and subsistence allowances.

Effect of an Age-Based Retirement System

The receipt of reserve retired pay is based on age, whereas receipt of active duty retired pay is based on years of service. In both systems, enlisted members are typically about four years younger than officers when they first join. As a result, active duty enlisted members are first eligible to receive retired pay when they are four years younger than officers, and their age at retirement is, in fact, four years younger. In the reserve system, officers and enlisted members retire at age 60.

All members have a personal value that they place on time and money. This value varies from person to person and for individuals over time; it is termed the personal discount rate. Underlying the concept of personal discount rates is the notion that a dollar today is worth more than a dollar tomorrow. At a conservative personal discount rate of 1.6 percent per year above inflation, the loss for an enlisted reservist of waiting four additional years would be perceived to be 6 percent; at a personal discount rate of 5 percent, the loss would be 19 percent.

In addition, there are mortality-related differences that have a greater impact on reserve enlisted members than on reserve officers. Because retirement-eligible reserve enlisted members must typically wait four years longer than officers before they become age 60 and can draw retired pay, they experience additional mortality during the years after qualifying for retirement but prior to receiving their retired pay. Combining both influences, the loss in the relative value of reserve retirement for enlisted members at a personal discount rate of 1.6 percent is 21 percent; at 5 percent, the loss is 30 percent. Thus, relative to active duty retirement, reserve retirement is less valuable for enlisted members than for officers.

Environmental Effects on the Value of Reserve Compensation

Most experienced reservists are employed full-time in the civilian economy. Figures 4 and 5 show, for officers and enlisted members by pay grade, the proportion of members who are employed full-time, self-employed, in school, unemployed, employed part-time, and retired. A substantial percentage of the more senior officers are self-employed. Examination of the following environmental features of reserve compensation indicates that these features combine to make compensation relatively less attractive for the more junior members.

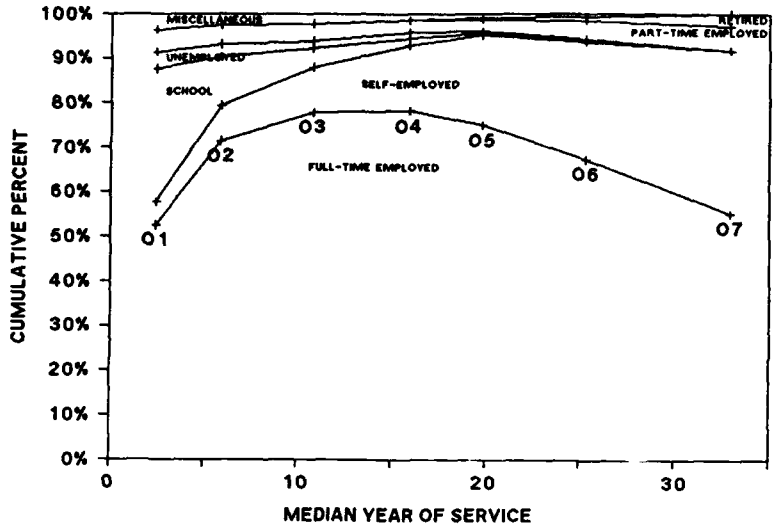


FIGURE 4. CIVILIAN EMPLOYMENT: OFFICERS
SOURCE: 1986 RESERVE COMPONENTS SURVEYS

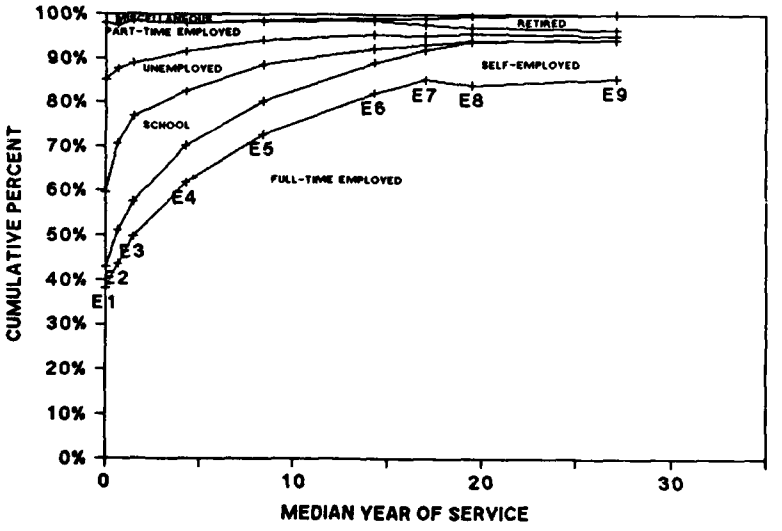


FIGURE 5. CIVILIAN EMPLOYMENT: ENLISTED
SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Type of Civilian Employer

Forty percent of reserve officers who are employed full-time are employed by federal, state, or local government. The percentage is relatively constant regardless of pay grade, although slightly higher for pay grade O5 and above (44 percent). Thirty-two percent of reserve enlisted members who are employed full-time are employed by federal, state, or local government. The percentage is lower for junior members and increases steadily by pay grade. Forty-five percent of members in pay grade E7 and above are employed by government. This is important, since governments as employers are generally more supportive of employees who are reservists.

Employer Support and Conflicts

Employer support for reserve participation plays a significant role in reserve retention. Employer support includes the employer's and supervisor's attitude toward reserve participation and specific compensation policies, such as whether the reservist is provided military leave (as the law requires) or uses vacation time for reserve obligations and whether the employer provides full or part pay for the reservist during military leave. The minimum standard required by federal law for all employees is an unpaid leave of absence for reserve training obligations.

Some kinds of civilian occupations are more likely than others to give rise to work-schedule conflict, as are some kinds of reserve duty. Reservists employed in industries with around-the-clock coverage may have rotating or changing work schedules; these schedules are more likely to conflict with regularly scheduled reserve training than is the traditional work week schedule.

Civilian Pay During Annual Training

One indication of the level of employer support is the percentage of employers who pay full wages during the two weeks of annual training. Most governmental employers have this policy and the policy is encouraged by the DoD. Federal employees with reserve affiliation are entitled to 15 days paid leave per year to perform military duty. Many states also provide for paid leaves of absence of varying lengths for state, local, and municipal employees with reserve obligations.

Among private employers, the likelihood of the employer having a paid leave-of-absence policy is directly related to the size of the firm. Even among large- and medium-size companies that do have a paid leave-of-absence policy, executive and

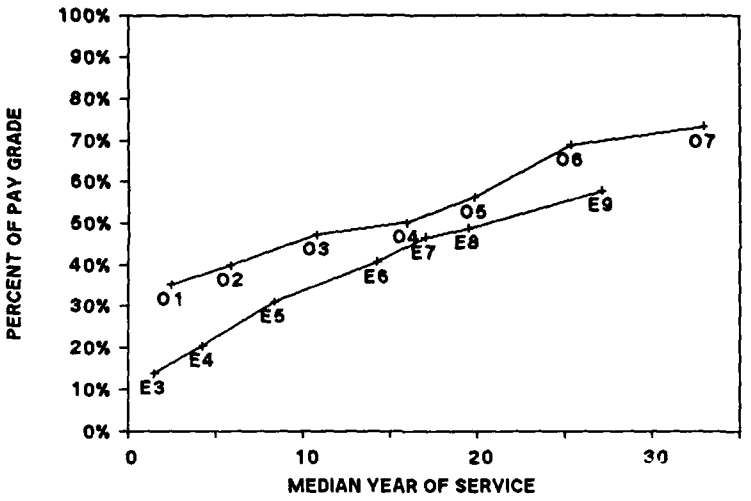


FIGURE 6. RECEIVED FULL CIVILIAN PAY DURING RESERVE TRAINING (FULL-TIME EMPLOYED)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

professional employees are more likely to receive paid leave than are production employees, and leave is typically for longer periods of time.

A higher percentage of officers who are employed full-time receive full civilian pay during annual training than do enlisted members. For both officers and enlisted members who are employed full-time, the percentage who receive full pay during annual training increases with pay grade. Figure 6 shows the percentage of members employed full-time who reported receiving full civilian pay as well as military pay during time taken from their civilian job for reserve obligations. For enlisted members, the percentage is 20 percent or less for members in pay grade E4 and lower, and increases to approximately 50 percent for members in the senior enlisted pay grades. For officers, the percentage is approximately 40 percent for members in pay grades O1 and O2 and increases to 70 percent for the senior pay grades.

Reservists with full-time employment who receive full civilian pay during annual training are 6 percent more likely to reenlist than reservists who do not receive it. Holding all other factors constant, enlisted and junior members will be more

difficult to retain because only a comparatively low percentage receive full pay during annual training, relative to the percentage of officers and senior members who receive full pay during annual training.

Lost Civilian Pay Opportunities

Reserve members who lose opportunities for overtime pay or lose other civilian pay opportunities because of reserve obligations have a lower level of satisfaction with reserve pay, are less satisfied with the Guard and Reserve overall, and have less likelihood of reenlisting than do members who occasionally or never lose extra pay opportunities. For members with equivalent years of service, twice the percentage of enlisted members as officers lose opportunities for extra pay. For both officers and enlisted members, a higher percentage of junior members lose civilian pay opportunities as a consequence of their reserve service than do senior members.

The left half of Figure 7 shows the level of satisfaction with reserve pay and allowances for enlisted reservists, grouped by the frequency of reported lost civilian pay opportunities. The right half of the figure shows that members' overall satisfaction with the Guard and Reserve is equally affected when reserve obligations result in lost civilian pay opportunities.

Members who frequently lose extra pay opportunities are also less likely to reenlist or extend at the end of their current enlistment. Figure 8 shows a member's likelihood of reenlistment, grouped by the frequency of lost extra pay opportunities.

Over 50,000 members in pay grades E1 through E4 reported frequent lost opportunities for extra pay. When compared with officers, twice the percentage of enlisted members reported frequent lost pay opportunities. Of members employed full-time, approximately 20 percent of enlisted members in pay grades below E5 and 10 percent of officers in pay grades below O3 reported frequent lost civilian pay opportunities. For senior members, these percentages are about half as large.

It is apparent that members who frequently lose civilian pay opportunities (mostly enlisted or junior members) are more difficult to retain. This is not necessarily reflective of the level of employer support. It may simply reflect the nature of the civilian employment and work schedule. Whatever the cause, it dramatically illustrates the effect of civilian employment variables on reserve retention.

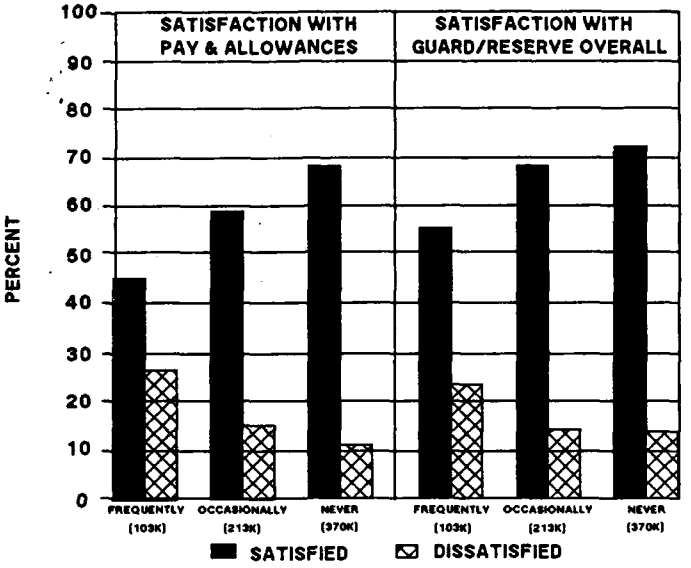


FIGURE 7. LOST PAY OPPORTUNITIES - ENLISTED RESERVISTS
SOURCE: 1986 RESERVE COMPONENTS SURVEYS

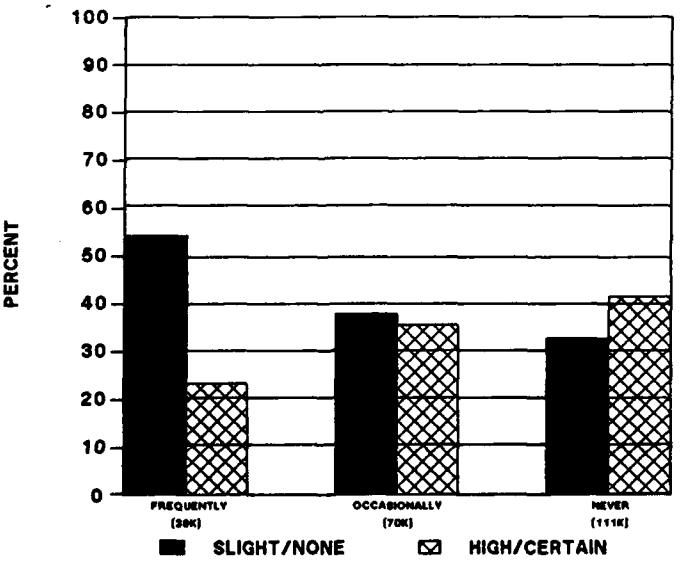


FIGURE 8. PROBABILITY OF REENLISTMENT BY EXTENT LOST CIVILIAN PAY OPPORTUNITIES
SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Reserve and Civilian Income of the Reservist

Pay from civilian employment is relevant to reserve compensation in that retention may be affected by a member's comparison of reserve pay with civilian pay. The 6th QRMC analysis indicates that, if reserve pay is relatively low in comparison with the member's income from civilian employment, the reservist will be less satisfied with reserve pay. In general, when comparing reserve pay with the pay they receive in their civilian employment, enlisted members compare their reserve pay less favorably than do officers. As a result, reserve pay may appear less attractive to enlisted members than to officers, relative to the pay scale of their civilian employment.

The relative attractiveness of reserve pay can be evaluated through the analysis of ratios of officer and enlisted pay. For example, while fulfilling Selected Reserve obligations, the reservist in pay grade E5 makes about 50 percent of the pay of a reservist in pay grade O3. The civilian pay of the average reservist in pay grade E5, however, is about 65 percent of the civilian pay of the average reservist in pay grade O3. Median civilian pay for reservists in pay grade E8 is equal to the median civilian pay for reservists in pay grade O3, yet reserve pay for pay grade E8 is only 80 percent of reserve pay for pay grade O3. Thus reserve pay, compared with the civilian pay of the two groups, is relatively less for enlisted members than for officers. At comparable years of service, military pay for enlisted reservists is 53 to 63 percent of the pay of comparable reserve officers. When civilian median income ratios for the same members are compared, civilian income of enlisted members is 64 to 72 percent of civilian income of officers.

Second Job Travel Expense

Although travel time is less for members in junior and enlisted pay grades than for more senior members, analysis shows that travel expenses are relatively larger in proportion to pay for the junior enlisted pay grades.

A second component of transportation costs is the value reservists place on their driving time. This valuation is implicit in many decisions individuals make concerning housing choices and distance to work, and empirical analysis shows that leisure time is valued at some fraction of the civilian hourly rate. The assumption that driving time is valued at one-quarter of the civilian hourly wage, results in costs of between $40 and $140 for enlisted personnel and between $60 and $300 for officers. Time costs rise with rank because of the higher civilian income of more senior personnel.

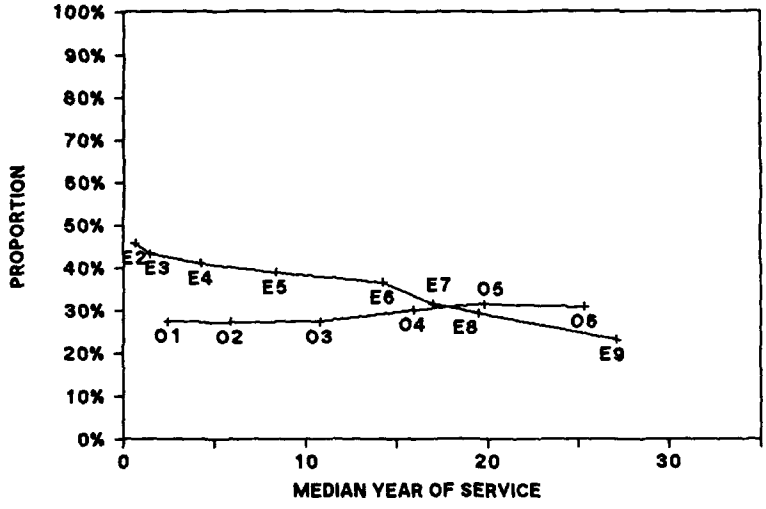


FIGURE 9. PARTICIPATION COSTS AS PROPORTION OF AFTER TAX INCOME TRANSPORTATION + FORGONE CIVILIAN INCOME

SOURCE: THE RAND CORPORATION

Transportation costs were combined with foregone civilian income to estimate a total cost associated with reserve participation. These costs, shown in Figure 9, represent either real reductions in gross income or opportunity costs resulting from reserve participation. Participation costs amount to 45 cents of each after-tax dollar for reservists in pay grade E2, but only 23 cents for reservists in pay grade E9. For officers, costs are between 25 and 30 cents of each after-tax dollar.[7]

Satisfaction with Pay and Allowances

Reported levels of pay satisfaction reflect the tilt of reserve compensation. Member satisfaction with pay and allowances was measured in both the 1986 Reserve Components Surveys and the 1985 DoD Survey of Officer and Enlisted Personnel (active duty).

Both surveys show officers as more satisfied with pay than enlisted members. Further, reserve members indicate a higher level of satisfaction with pay than do active duty members. Reservists' satisfaction with pay increases with pay grade for both officers and enlisted members. This contrasts with active

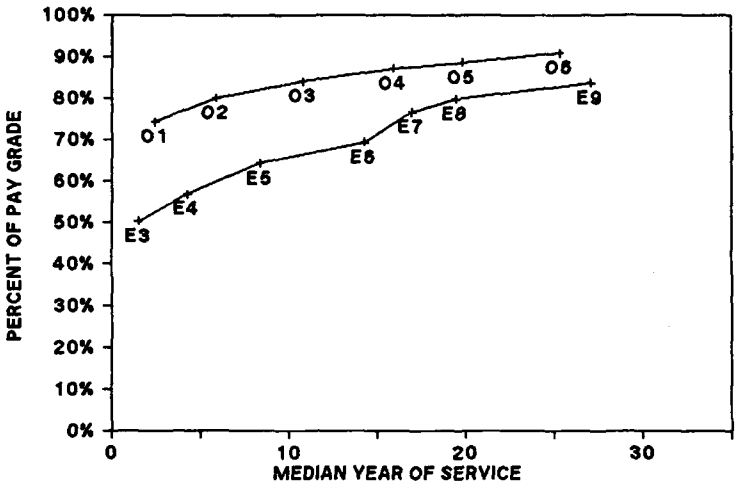


FIGURE 10. SATISFIED/VERY SAT WITH PAY (FULL-TIME EMPLOYED)
SOURCE: 1986 RESERVE COMPONENTS SURVEYS

duty members, where the percent satisfied is relatively the same across the pay grades within the officer and enlisted categories. The satisfaction of reserve members with their pay and allowances, by paygrade, shown in Figure 10, reflects the effects of the pay system tilt and environmental factors discussed above.

The expressed intent of members to reenlist or extend at the end of their current term of service is directly related to their satisfaction with reserve pay and allowances. Reserve continuation rates (percentage of those in the reserve on a given date who are still in the reserve one year later) are typically lower than active component rates. The spread between the active and reserve continuation rates is greatest in the lower pay grades, particularly in the case of enlisted members. Continuation rates in the reserve components reflect the pay system tilt and environmental factors in a similar fashion to their satisfaction with pay and allowances.

Part III. RESERVE MANPOWER FORCE STRUCTURES AND PERSONNEL READINESS

The ability of the reserve components to meet mission requirements depends heavily on their ability to man units with qualified personnel. Reserve component units must be manned with persons trained and qualified in military and technical skills, possessing the needed levels of experience, and with the proper mix of age and grade. Rapid advances in technology also demand better educated members in almost every skill area. The requirement for geographical availability of these members makes the overall task of manning reserve units a complex and continuing challenge. As components with new, added missions strive to meet personnel requirements, the technology-driven force structures will continue to add new dimensions to personnel management, bringing additional pressures on an already challenged environment.

Reserve Force Manpower Requirements

Military compensation analysis depends in large measure on the ability to identify and understand manpower requirements. Within reasonable and practical constraints, these requirements are best derived by the components charged with the military missions of the Nation. To establish the benchmarks necessary for a proper examination of reserve compensation systems, each component was asked to provide manpower force structures; that is, the personnel structure of the component expressed in numbers and years of service desired for officers, enlisted, warrant officers, and subgroups, such as medical or full-time support personnel that might usefully be considered separately. The preparation of these structures required establishing specific rates of accession, attrition, and continuation for the course of an individual hypothetical reserve career period in the particular reserve component. The data provided describes three distinct structures. These are interrelated in that they describe where the component is, where it would prefer to be, and where it would prefer to find itself five years in the future.

The QRMC used the force structure data to compare how the current personnel inventory, derived by the policies of the past, matches up with today's need. After this comparison, the QRMC used force structures of the future requirement to help understand how the reserve pay system, with current and deferred reserve pay and benefits, could be adapted to promote the evolution of the desired forces.

The three force structures requested were the Fiscal Year (FY) 1986 Actual, FY 1986 Steady-State, and FY 1992 Steady-State. They were described in the following manner:

- **FY 1986 Actual** - The actual force configuration, by number and year of service (YOS), as it existed on September 30, 1986.

- **FY 1986 Steady-State** - A conceptual force structure at the 1986 year-end actual level but reflecting desired numbers and years of service consistent with experience/vigor and stability/promotion opportunity tradeoffs. The continuation rates needed to sustain such a hypothetical force were to be made consistent with preferred force management practices. This steady-state force was not to be bound by factors such as cost, external economic conditions, or historic continuation rates.

- **FY 1992 Steady-State** - A conceptual structure constructed in the same manner as the FY 1986 Steady-State force, with the exception that this steady-state force was built at the FY 1992 strength as described in the Program Objective Memorandum (POM) FY 1988. It reflects, among other things, Service-desired changes in endstrength, promotion, skill composition, and experience levels, compared with those characteristics of the FY 1986 Steady-State Force.

There are significant differences among the force structures provided by the Military Departments and the Coast Guard. For most components, the desired FY 1986 Steady-State force structures differ from the FY 1986 Actual force structures.

Actual FY 1986 force structures for most components, when compared with steady-state structures, show more members than desired in the later years of service. Conversely, a comparison of FY 1986 Actual accessions without prior service, versus steady-state accession patterns, shows fewer members than desired in the earliest years of service in the components that have the greatest need for large numbers of personnel without prior service. Most components indicate a desire for fewer members with more than 30 years of service in all pay grades.

All components indicated a desire to retain a higher percentage of the force from 6 to 20 years of service, with an increase in the separations occurring after 25 to 30 years of service; that is, the Services want more sustainable force structures. This desired force structure shape means that the components would need to increase retention rates during the first 20 years of service and lower retention rates after the 20th year.

Reserve components with manpower force structures that require large numbers of relatively youthful individuals consider early entry important. Two components, the Army National Guard and Army Reserve, together representing almost 70 percent of the numerical strength of the Selected Reserve, desire that, at any given time, 55 percent of the enlisted force and 28 percent of the officer force be in junior grades with less than six years of service. The personnel flow rates required to maintain proper balance include a high rate of loss of junior members (although clearly not as great as the present high rate of unprogrammed early attrition).

The reserve components do not want to maintain all individuals on a career path. The majority of members are not expected to remain in service through eligibility for retirement, and the required force structures do not need to retain all members for 20 or more years of service. Some components indicated a need for more retention than they are now getting, however. Thus, a retention incentive for midcareer members is necessary to build and maintain the desired force structures as well as the required levels of management talent and technical experience.

For all components, the age distribution of part-time reservists is currently being affected by a sizeable hump of members who initially joined the armed forces during the Vietnam War period. Individuals in the age cohort who represent the peak of this hump were 40 to 41 years old in 1987. It is clear that most components will have to implement personnel policies to provide effective management of this hump over the next 10 years as well as policies for evolving the desired steady-state structures. Examination of the differing requirements of the reserve components, as indicated in their steady state force structures, suggests the requirement for a compensation system that is highly flexible and adaptable to each component's needs.

Reserve Component Personnel Readiness

Unit Readiness

In support of QRMC objectives, Logistics Management Institute (LMI) conducted research and analysis of the personnel readiness conditions existing within the reserve components. The objective of this analysis was to determine how compensation initiatives might be used to improve personnel readiness. LMI analysts found that over 40 percent of the Selected Reserve units that report readiness show a less-than-ready status, and that a major contributing factor was the personnel status of those units. Table 2 shows that almost half of the more than 4,800 National Guard and Reserve units reporting readiness are considered marginally ready or not ready in personnel.

Table 2. Units Reporting Marginally Ready or Not Ready in Personnel

Components (in descending order of number of reporting of reporting units)	Status of Reporting Units: Marginally Ready %	Not Ready %	Marginally or Not Ready %
Army National Guard	24	23	47
Army Reserve	20	42	62
Air National Guard	13	7	20
Air Force Reserve	18	17	35
Naval Reserve	12	9	21
Marine Corps Reserve	19	31	50
All Units (4,800 + units)	20	26	46

Source: UNITREP, April 1987.

The QRMC review concentrated on personnel readiness in the Army National Guard and Reserve. This concentration was based on the relative size of the Army National Guard and Reserve compared with the size of the reserve components of the other armed forces; the very high dependence of the Army on its reserve components (half of Army manpower is in its reserve components); and the Army's straightforward approach to unit priority assignments.

UNITREP (now SORTS) is a system that provides, for a selected point in time, the status of a unit's resources and training measured against that required to undertake the mission for which the unit was organized or designed. UNITREP is primarily an internal management tool for use by the Services and the Joint Chiefs of Staff. Personnel readiness is but one of four elements that contribute to overall unit readiness under UNITREP.

Each unit has an overall rating based on the lowest rating of the unit in any of the resource categories. Table 3 shows the aggregated readiness ratings of all reporting units of the Army National Guard and the Army Reserve. It is clear that, by a small margin, personnel deficiencies represent the most serious readiness problem, although significant equipment deficiencies also exist. As late as Fiscal Year 1986, the equipment-on-hand resource category was the factor imposing the greatest limitations on unit readiness across all the DoD's Selected Reserve. The equipment situation has been improving steadily, however, as a result of changes made to procurement and distribution policies, and personnel readiness is now emerging as the primary limitation on Selected Reserve readiness.

Table 3. Readiness Status of All Army National Guard and Reserve Units Combined

Resource Category	Readiness Ratings as Percent of Total Units: Ready %	Marginally Ready %	Not ready %
Overall	32	23	45
Personnel	45	22	33
Equipment Readiness	66	9	25
Equipment-On-Hand	57	13	30
Training	66	23	11

Source: UNITREP, 1987

Although the kinds of summary information contained in Tables 2 and 3 help to illustrate the extent to which a personnel readiness problem exists, aggregate data cannot show the specific nature of personnel readiness problems. To do so, data must be broken down into specific groups of units and skills.

Personnel Readiness of High-Priority Units

Analysis of personnel readiness data shows that high-priority Army National Guard and Reserve units do not have noticeably higher personnel readiness than do all Army National Guard and Reserve units taken together. To illustrate this issue, two groups of Army National Guard and Army Reserve high-priority units have been selected:

- Scenario 1 - Army reserve component units scheduled for early deployment in a major scenario using primarily combat support and combat service support forces
- Scenario 2 - Army reserve component units scheduled for deployment in a major scenario using primarily combat forces

Figure 11 shows that, although the several hundred Army Reserve component units due for early deployment in Scenario 1 have slightly higher personnel readiness ratings than do all the units of the Army Guard and Army Reserve taken together, the units assigned to Scenario 2 are actually less ready.

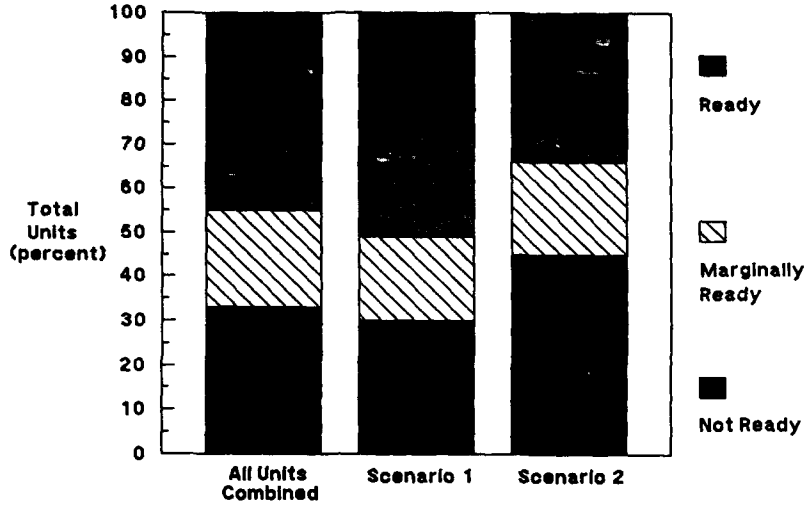


FIGURE 11. ARMY GUARD/RESERVE UNIT PERSONNEL READINESS BY GROUPS OF UNITS

SOURCE: UNITREP, April 1987

Personnel Readiness on a Unit Basis

Aggregated unit data shows the existence of widespread and serious personnel readiness shortcomings in Army National Guard and Reserve units, even in the case of units considered as having the highest priority. Because reserve component service members are not readily transferable among units (unlike members of the active forces), it is important that personnel status in the reserve components be looked at on a unit basis.

In computing unit personnel readiness, the commander asks, What percentage of required unit strength is now available to be deployed? Of the people available for deployment, what percentage are trained and qualified to meet unit requirements? Finally, what percentage of the unit's required leaders are available to provide adequate direction and management? Deficiencies or shortages in one or more of these areas lower the unit's personnel readiness rating.

The analysis reveals low skill qualification percentages as the personnel factor that most interferes with personnel readiness in Guard/Reserve units. Skill qualification problems

are more serious than simple personnel shortages or insufficient numbers of personnel in senior grades, for all units, including high-priority units.

Table 4 shows, for all units and for scenario 1 and 2 units, the percentage of assigned, available, and qualified members. From left to right, the table columns show the increasing reduction in available, qualified personnel when comparing wartime required strengths with assigned strengths, with available strengths, and finally with available skill-qualified strengths--all expressed as percentages of the wartime requirement. As seen earlier in the case of overall personnel readiness ratings, high-priority Army reserve units are not better off than all Guard and Reserve units combined.

Table 4. Successively Restricted Personnel Strength Percentages (Selected groups of Army reserve component units)

	Group Strengths as Percent of Group's Total Wartime Requirement		
Unit Group	Assigned %	Available %	Available and Qualified* %
All Guard/Reserve Units	93	80	69
Scenario 1	99	87	72
Scenario 2	89	75	65

* Qualified for assigned position specialty

Source: UNITREP, April 1987

Army Specialties Adversely Affecting Personnel Readiness

In support of the QRMC, LMI developed lists of Army specialties with shortfalls contributing heavily to personnel readiness problems and related them to early-deploying National Guard and Reserve units found in Scenario 1 and Scenario 2. The complete lists of specialties contain the numbers of additional qualified personnel needed to make up shortages in all specialties and for all units in each group. These numbers would raise a unit's percentage of fully-qualified personnel enough to attain a personnel readiness rating equal to the unit's authorized manning level. In other words, if the numbers

of qualified personnel identified were added to the appropriate units, the result would be that each high-priority unit would achieve the highest peacetime personnel readiness rating possible within existing personnel ceilings.

The objective was to identify the minimum number of soldiers, by specialty, who could be added to produce a satisfactory personnel readiness rating. The significance of the procedure, as it relates to reserve compensation, is that it implies the possibility that initiatives targeted at the most critical skills and units could potentially result in substantial readiness improvements within reasonable cost limits. Through this or similar procedures, what may appear to be a problem of overwhelming proportions can potentially be reduced to a manageable size.

Skill Qualification in the Reserve Components

Individual skill qualification training and matching of individual skills to unit billets are inherently more difficult in the reserve force than in the active force. Part-time reservists are available only on a limited basis for training. Many are far removed from specialty training facilities. Particularly in the more technical specialties, unit capability to provide adequate skill training may be severely limited. Civilian job changes often require relocation. For the reservist this may mean unit transfer, retraining, broken service, or even separation.

As part of their work in support of the QRMC, the RAND Corporation and LMI analyzed the process of individual skill training and the matching of individual skills to unit billet requirements. LMI analysis revealed wide variances by Military Occupational Specialty (MOS) when matching the primary skill qualification of a member with duty qualification. Personnel files and manpower authorization documents were used to analyze MOS qualification rates and levels and their effect on unit personnel readiness. RAND analysts used data from 1979 Reserve Force Studies Surveys of the Army National Guard and Reserve and from the 1986 Reserve Components Surveys to analyze causes of low MOS qualification levels and suggest compensation-related incentives that might improve skill qualification levels.

With very limited exceptions for individuals with relevant civilian training or experience, recruits without prior service receive basic military training and training in a military specialty during a period (sometimes split) of initial active duty for training (IADT). After trained members return to their units, however, they may change units or skills. In these cases, skill retraining is difficult because of limits on the member's time and the difficulty of scheduling additional formal

school training. One year after entry, only about 80 percent of Army reserve component accessions without prior service have formal school training in the skill to which they are assigned. For those with six or more years of service, only about 50 percent have formal school training in their skill. On-the-job training in the reserve unit is the most common alternative training method for members without prior service who have not received formal training in the skill to which they are assigned.

The reserve affiliation of members with prior service can result in an increased return on the training investment and a reduced requirement for formal skill training. In the Army National Guard and Reserve, however, less than half the accessions with prior service are initially assigned against their active duty primary specialty. With promotion and reassignment, the proportion drops to one in four or less after seven years of reserve service. RAND analysis indicates that members who join the reserve after a period of prior active duty service will continue to trail the qualification rates of those without prior service by a significant amount. A substantial percentage will remain unqualified even after years of reserve service.

A great deal of time is required to learn a new specialty. Low occupational qualification levels can be traced to low rates of occupational matching for personnel with prior service, high turnover of personnel in units, the long process for occupational retraining, and promotion incentives that encourage occupational movement.

Attrition of Junior Enlisted Personnel

Requirements for junior enlisted members are filled mainly by recruiting, retaining, and training individuals without prior service, but some requirements for pay grade E4 are also filled by new personnel with prior service. Shortages can result from high unprogrammed attrition rates early in careers as well as inability to recruit the required number and quality of personnel.

One measure of the stability of groups of reservists is the probability of attrition over a three-year period. Figure 12 shows, at each year of service, the probability of officer and enlisted reservists leaving the reserve within the following three years. The data shows that junior enlisted personnel have significantly higher three-year attrition rates than either junior or senior officers or senior enlisted personnel. If it is assumed that a reservist is fully trained after two years, the data shows that only about four in ten enlisted reservists will remain for an additional three years. This ratio declines

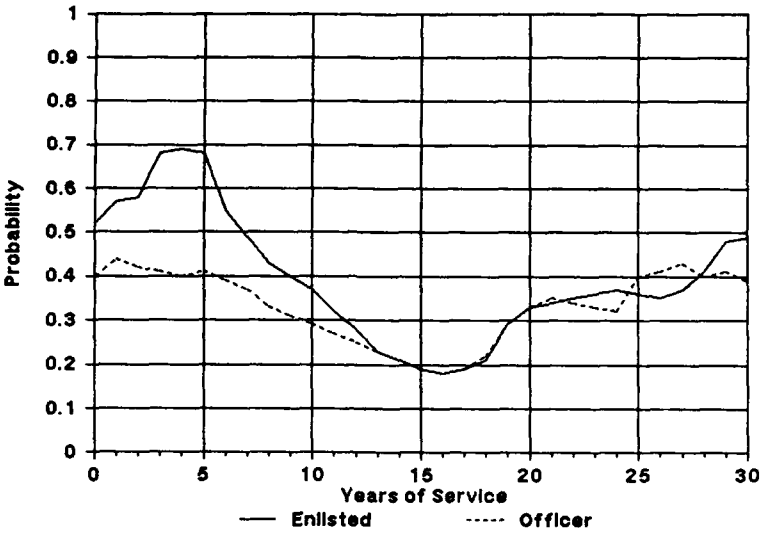


FIGURE 12. 3 YEAR ATTRITION PROBABILITY (SELECTED RESERVE)

Source: Grissmer, Buddin, and Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, R-3669 FM&P/RA. The RAND Corporation, Forthcoming.

to about 3 in 10 for personnel with four to six years of experience. In contrast, junior reserve officers show significantly lower three-year turnover rates and correspondingly greater retention of experience in junior billets.

Attrition, particularly early attrition that is unrelated to Expiration of Term of Service (ETS), is generally regarded as one of the most important issues facing the Selected Reserve today. The longer the individual stays, provided performance is satisfactory, the better the return on the training investment. A few reservists leave to enter the active force, more leave and return to the Selected Reserve at a later time, and others are lost permanently from the Selected Reserve. For the Fiscal Year 1980-1982 cohorts studied by RAND, these two categories of reserve attrition, active duty transfers and returnees, accounted for 20 to 30 percent of the two-year attrition of the Army Reserve and for 10 to 15 percent of attrition in the Guard.

All attrition from reserve units affects unit personnel readiness, however, and an objective of the 6th QRMC is to identify compensation alternatives that can reduce attrition.

High attrition of recruits, whether or not they have prior service, seriously affects personnel readiness. The loss of junior personnel is directly related to the demographics and aptitude of recruits, the turbulence associated with the civilian lives of younger recruits, the level of net reserve pay for junior enlisted members, and the lack of opportunity for promotion to higher grades. Changes are needed that produce longer service from initial recruits, with and without prior service.

Difficulties in matching the military specialties of personnel to the skill requirements of units are affecting personnel readiness. The deficiencies result from a low level of matching of prior service personnel skills with billet requirements, from turnover of personnel, from the length of the process of skill retraining, and from promotion policies that motivate individuals to move to skills for which they are not trained. Initiatives are needed that can influence choice of initial skills and units, impede undesirable kinds of unit transfer, reduce unit turnover, and keep individuals in occupations longer.

Unit Personnel Shortages

There are over 6,000 distinct Army National Guard and Army Reserve units located throughout the United States. Each unit has a specified function a mobilization mission. Reserve units, which must recruit locally, have had differing degrees of success in meeting manning goals, with manning rates varying from undermanning by more than 50 percent to overmanning by more than 25 percent.

Both unit size and unit mission are important to fill rates. Combat and combat-support units have considerably more trouble achieving their strength levels, particularly in the Guard. Several locational characteristics also appear to have significant effects on unit manning levels. For example, the size of the recruiting pool (proportion of population age 16 to 34 years) and the proportion of veterans in this pool are both positively related to unit manning levels. In addition, fast county growth rates are positively related to higher manning.

The effects of county economic characteristics (measured by unemployment rate, average household income, and percent of labor force with a high school education) were all in the expected direction and strongly significant for the Guard. Higher unemployment is associated with higher manning levels,

while counties with high income tended to have lower manning levels, as did counties with high average levels of education. The research also found regional effects: the South tends to have relatively higher overall manning, although effects for the other regions are not consistent across components.

The RAND analysis has implications for reserve compensation: persistent personnel problems exist in certain types of units and in certain locations, even during periods where overall manpower goals are achieved. Again, this indicates that flexible forms of compensation, which can be targeted against persistent problems, are likely to be most cost effective.

These impediments to personnel readiness are hurting even the units identified by the Army as high priority. The Army Reserve and Guard units designated as high priority and early deploying do not have significantly higher personnel readiness ratings than the Army Reserve and Guard components as a whole.

Changes to compensation are not a sufficient answer to solving reserve component problems, but they are a necessary part of any answer. Compensation initiatives aimed at the general age distribution problems of the component profiles and others targeted to the specific readiness problems of units critical to the Nation's military plans would produce improvement by themselves and would support the noncompensation policy initiatives needed to get the rest of the way.

Most factors in the civilian environment make reserve participation relatively more difficult for junior members than for senior members, and generally these factors more adversely affect the participation of enlisted members than that of officers. Additionally, reservists, especially those without prior service, can be recruited most effectively during a transitional period in their civilian lives. Soon, however, the transition from school, unemployment, or active duty to full-time civilian employment brings new tensions to the life of the reservist.

The combination of compensation system factors and a difficult civilian environment is reflected in the patterns of member satisfaction and attrition. In conjunction with the increasing training challenge inherent in expanded missions and the complexity of modern war, and with the reported large increases in competition for the limited training time available, these factors result in lower personnel readiness than that which otherwise could be achieved. In the decade of the 1980s, the shortfall is less often numbers and more often skill mismatch and shortage. It is often localized, often concentrated in military-only skills, and often concentrated among younger members.

Reserve compensation initiatives to assist in alleviating the factors affecting personnel readiness could, at one extreme, include major structural changes requiring redefinition of fundamental system elements. Alternatively, initiatives could be restricted to less revolutionary changes requiring no more than alteration of the relative emphasis of existing system elements.

Diffidence about embarking on courses of major change is in part due to the lack of historical experience with change in reserve compensation and in part to the shortage of reliable and complete reserve data, notwithstanding some recent improvements. This situation greatly favors improvements that can be carefully monitored and, most of all, those that can be tested by actual experiment before being generally applied.

A 1981 review of the compensation system for the Selected Reserve concluded that, given the relatively low pay elasticity for reserve members, there was no basis "to decouple reserve compensation from active duty to effect minor payline variations."[8] The report noted that reservists look to active duty pay levels as a reference point and that uncertainty and irritation in the minds of reservists with respect to alternative systems could offset any benefit. The 6th QRMC reached a similar conclusion. This does not imply that the existing payline and environmental factors documented in the previous sections should be ignored.

This conclusion also derives from the fact that aggregate force distribution patterns are relatively less important in the reserve setting than they are in the active components. Far more important are the specific critical skills in the early deploying units and other units furnishing essential support to combat formations. Because of geographical inflexibility, compared with the active components, the reserve components are less able to translate aggregate force structure solutions into local unit personnel readiness. Thus, broadly applied compensation adjustments to meet the manpower force structure objectives will not be efficient for specific unit shortfalls and may not be effective at all unless combined with elements that can be focused on individual skills and units.

The specific recommendations of the 6th QRMC were made within the framework of the general description of the reserve compensation environment and personnel readiness shortfalls discussed above. These recommendations are discussed in the section that follows, together with a recommendation for revisions to the reserve retirement system, the one systemic change that the QRMC believes can improve reserve personnel management and readiness by affecting aggregate reserve manpower force characteristics.

Part IV. RECOMMENDATIONS OF THE 6TH QRMC

Basic Pay and Related Issues

For the purpose of the 6th QRMC review, compensation for inactive duty training (IDT) is included in the discussion of basic pay issues since it is directly linked to basic pay. Several issues related to basic pay were reviewed: the years of service in the reserve that are creditable in the computation of basic pay for military members (longevity credit); the computation of the travel time that is creditable for pay when a reservist is ordered to or from active duty; restrictions on dual compensation from reserve service and veterans' benefits deficiencies in the timeliness and accuracy of reserve pay; and the use of the commissary by reserve members and their dependents.

In addition, for a great many of the specific reserve compensation issues analyzed by the 6th QRMC, there was evidence that the development of new compensation programs and the revision of elements of compensation for the uniformed services was undertaken without an assessment of the effect of the new program on reservists. The QRMC found several recent examples where the implementation of new or revised compensation programs overlooked reserve considerations, resulting in unwarranted expenditures or inequities. Examples include the accrual accounting system for military retirement, the variable housing allowance, longevity credit, and travel authorities relating to funeral attendance and hospitalization of the military member.

- **The 6th QRMC recommends that formal procedures be established within the Departments of Defense and Transportation to ensure that the assessment of reserve component costs and benefits is evaluated as part of any proposal to revise military compensation.**

Longevity Credit

A 1985 change relating to the crediting of reserve component service when computing the basic pay of a member of a uniformed service (longevity pay) provides a recent example of a statutory revision that was made without a complete review of its effects on National Guard and Reserve programs and members. The 1985 legislation terminated longevity credit for enlistment in a reserve component prior to entry on active duty. The rationale for the change was that granting longevity credit for the

nonproductive time spent in the Delayed Enlistment Program (DEP) resulted in substantial costs without positive effect on recruiting. (The DEP is a program in which an individual is enlisted in a reserve component pending later enlistment in a regular component in order to obtain a commitment from the individual and facilitate scheduling of training.) Unlike enlistees into the DEP pending duty with an active component, new enlistees in the National Guard and the Reserve components of the Army and Air Force have always been required to commence training on enlistment.

Because the criterion for denying longevity credit to those in the DEP (no military duties or productive work) does not apply to most members enlisting for reserve service, the 6th QRMC concludes that legislation should be enacted to provide longevity credit for pay purposes, provided the member is authorized or required to train prior to initial active duty for training (IADT). Not all members enlisted for reserve service have a training requirement, however. The QRMC concludes that a member not authorized to attend drills or training prior to IADT should not receive longevity credit. The QRMC also noted several deficiencies in statutory provisions pertaining to the DEP. Clear autnority for the DEP itself, and authority to order a member in the DEP to active duty during mobilization, is not now provided in statute. Amendatory legislation is required.

- **The 6th QRMC recommends a legislative proposal be developed to accomplish the following:**
  - **Amend title 10, United States Code, to authorize the enlistment of persons in the reserve components of the armed forces for later enlistment, under a Delayed Entry Program, into regular components of the armed forces.**
  - **Amend title 37, United States Code, to specify that service of persons enlisted under such Delayed Entry Program or under the existing Delayed Entry Training program, prior to entry on active duty or active duty for training, may not be counted for the purpose of computing basic pay entitlements, except when a member is required or permitted to participate in training before beginning service on active duty or beginning an initial period of active duty for training.**

Because the 1985 change has not been implemented with respect to individuals enlisted for service in the reserve components pending further amendatory legislation, the 6th QRMC staff estimates that enactment of the above recommendation will result in a reduction of approximately $1 million annually in the budgets of the reserve components.

Reserve Pay Administration

During the QRMC staff's visits to National Guard and Reserve units, members frequently commented on problems with the timeliness and accuracy of their pay. New members experienced problems upon initially joining a reserve unit, and other members frequently had problems with pay for short periods of active duty for training that did not coincide with the unit's annual training period. A large number of the written comments furnished by members and their spouses who participated in the 1986 Reserve Components Surveys discussed problems with the timeliness and accuracy of reserve pay.

All Services use automated systems to compute and issue pay to reserve component members, but only the Air Force reserve components are reported to be in compliance with GAO requirements. Longstanding problems in providing accurate and timely pay to reservists have been identified in past inspection and audit reports. For members who depend on reserve pay to meet family financial obligations, a delay in receiving pay can be more than a serious irritant. The majority of reservists receive no civilian pay while performing their annual training. In the case of junior enlisted members, three out of four receive only their military pay while performing annual training. Many of these members are dependent on a weekly or semimonthly paycheck to make ends meet. If pay for annual training is not provided at the completion of such training, many experience hardship.

The Services have plans to improve their pay systems. Along with these efforts, however, must go measures to ensure the timely accession of members into associated personnel systems and enhancements to the reporting of duty performance. Although improvements are planned or in progress, the QRMC concludes that timeliness of pay is an issue of great concern to a significant number of reserve component members and spouses. This issue is of utmost importance to retention and to the effectiveness of reserve compensation in general. An ancillary concern is the ability of the reserve pay systems to respond to mobilization needs and integrate mobilized reservists into active pay systems quickly and efficiently.

- **The 6th QRMC recommends that a systematic audit of the timeliness of reserve pay in all DoD components be conducted by the Defense Audit Agency at the earliest practical date consistent with their audit program.**

Pay Entitlement for Reservists' Travel Time

Reservists called to active duty are entitled to pay and allowances for the allowable travel time going to and from active duty. This is a pay entitlement, set out in the DoD Military Pay and Allowances Entitlement Manual (DODPM). It is separate from any travel entitlement based on the Joint Federal Travel Regulations (JFTR).

Under the DODPM, compensable time is uniformly determined for travel to and from active duty tours of 30 days or less. However, reservists ordered to active duty for more than 30 days receive differing treatment when allowable time is computed. Under the existing Executive Order, compensable time for travel from the last duty station to home is based on "public surface transportation, without regard to the actual performance of such travel," unless private conveyance is authorized and used, in which case 350 miles per day is the basis.

The Executive Order was promulgated in 1955, a time when air travel was not the readily accepted mode; however, its outdated provisions with respect to public surface transportation remain in effect. In practice, calculations to determine the pay entitlement have been based on the JFTR rather than the DODMP. The JFTR provides that per diem and travel payments are based on the lesser of actual or constructive travel time. Clearly, however, the JFTR and DODPM must be consistent, and a revision to the Executive Order is warranted.

- **The 6th QRMC recommends that Executive Order 10153, as amended, be further amended to update and standardize computation of travel time for the purpose of pay and entitlements. Specifically, the Executive Order should specify that the lesser of actual or constructive travel time be used in the computation of allowable time. In addition, the restriction that limits specific authorization of private conveyance to active duty periods of 90 days or more should be removed from the Executive Order. This would eliminate any possible inconsistency in the calculation of compensable time for travel reimbursement.**

Dual Compensation

Reservists who are entitled to Veterans' Administration (VA) compensation may elect to receive, for their reserve duty, either VA compensation or, if they specifically waive VA compensation, their reserve pay. Between 15,000 and 20,000 reservists in a pay status receive VA compensation for disabilities incurred during prior active service.

There have been serious problems in the administration of programs to prevent dual compensation. The DoD and the VA have worked hard to correct these problems, but current procedures are necessarily complex and are not working as well as they should. The QRMC concluded that, if the law were changed so that military pay (almost always the larger sum) were the default entitlement, the VA could withhold VA disability benefits unless the member were to file a military compensation waiver through the VA. With this change, current DoD and VA plans would be sufficient to prevent dual compensation, provide appropriate checks and balances, improve recoupment of funds, and ensure recoupment into the proper appropriation. Workload would be negligibly increased for the VA and substantially decreased for each DoD component.

- **The 6th QRMC recommends that section 684 of title 10, United States Code, be amended to provide that reservists may elect to receive for their duty either of the following:**
  - **The pay and allowances authorized by law for the duty they perform**
  - **If they specifically waive payments authorized for their duty, the payments to which they are entitled because of their earlier military service (VA compensation)**

Commissary Privileges

Until recently, commissary use by reservists was tied to receipt of basic pay, and commissary privileges were extended only to reservists serving on active duty or active duty for training for periods in excess of 72 hours. The Department of Defense Authorization Act, 1984, directed the DoD to conduct a test of expanded commissary shopping privileges for reserve component members. The test was conducted between January 1984 and October 1985. It allowed reserve members in three regional areas to use the commissary, at their convenience, one time for each day of active duty for training performed, but not to exceed 14 visits. The DoD report to Congress on this test indicated that, by the end of the test period, as many as 28 percent of eligible members used the commissary privilege, resulting in a 4 percent increase in store sales.

When the 1986 Reserve Components Surveys were fielded, the test was complete, and the prior procedures for use of the commissary had been reinstated. A survey question requested the respondents to indicate their level of satisfaction or dissatisfaction with several features of Guard and Reserve service. Dissatisfaction with commissary privileges was much more widespread than with any other feature. Thirty-seven

percent of spouses, 41 percent of enlisted members, and 51 percent of officers indicated that they were dissatisfied or very dissatisfied with commissary privileges. Written comments expressing dismay that the commissary test had been halted with no improved privileges forthcoming, were among those most frequently provided by respondents.

The National Defense Authorization Act for Fiscal Year 1987 provided expanded reserve commissary privileges along the lines that had been authorized for the test. The new authority allows reservists to use the commissary, based on performance of active duty, at any time during the following year. A limit of 14 visits per year is imposed.

In reviewing the law and implementing directives, the QRMC found several actual and potential problems in the use of commissary privileges by reservists. Several of these problems are caused by imprecise language in the law. Others result from the implementation procedures. The QRMC concludes that the expanded commissary privileges implemented in 1987 provide a much more effective and meaningful benefit than the system previously used. The method initially used for administering the new system was complex and cumbersome, however. It was also inequitable because members who perform multiple periods of ADT could lose entitlement to commissary privileges, based on the 14-day limit.

- **The 6th QRMC recommends revision of DoD Directive 1330.17 to provide the following:**
  - **Members of the Selected Reserve should be authorized 12 visits to the commissary each year by virtue of their membership in the Selected Reserve.**
  - **Any reserve member on active duty for a period of 72 hours or more should be authorized commissary use without penalty as to authorized annual visits.**

The QRMC review of the procedures for identification of commissary entry concluded that two factors are essential. First, the system must be the same for all reserve components. Lack of uniformity among the Services or their reserve components inevitably causes confusion at the commissary with resultant inconvenience for reserve members and families. Second, the system must not place a significant burden on reserve unit administration.

The QRMC considered two primary alternatives for effective identification: (1) a ration card system and (2) a leave and earnings statement system. There are advantages to both, but

the QRMC concludes that the ration card is more feasible in the long run because it is more direct and straightforward in application.

- **The 6th QRMC recommends establishment of a ration card system and the use of ADT orders for admission to the commissary during training.**

Reserve Component Incentive Programs

The three principal types of incentives available to the reserve components are Special and Incentive (S&I) pays, bonus programs, and educational assistance programs. For the Selected Reserve, each of these three forms of incentives plays a distinctive role in helping the reserve components to meet specialized and aggregate manpower requirements. Although bonus programs are technically S&I pays, they were considered independently by the 6th QRMC because of their relative importance to the National Guard and Reserve.

Special and Incentive Pays

Special pays provide compensation for specific types of career occupations requiring unusual degrees of responsibility. Historically, part-time members have not been eligible for most special pays since they have been developed to attract and retain members in the active components. Members receiving such special pays normally possess special or critical skills in specialties that are undermanned in the active components.

Incentive pays differ somewhat from special pays in that they typically provide additional compensation to members who are performing duties that may be hazardous, rigorous, or unappealing. The basic precept for entitlement to these pays is that a member possessing such skills must meet specific performance standards before receipt of the pay. Currently, entitlement to these incentive pays is applicable to both active and reserve members. Eligibility, however, may depend on the status of a member: regular or reserve, active component or reserve component, and on full-time active duty, active duty for training, or IDT. Members of the Selected Reserve possessing the required duty skills and qualifications and performing part-time duties are compensated, for each IDT period, at a rate of 1/30 of the monthly rate authorized for active duty members.

In 1982, the 5th QRMC performed an extensive review of all S&I pays to determine whether S&I pays were accomplishing the purpose for which they were established. The 5th QRMC review was the most comprehensive study of S&I pays ever undertaken, but it did not include a review of the cost data and benefits of S&I pays within the reserve components. Using the comprehensive

work of the 5th QRMC as a starting point, the 6th QRMC review of S&I pays completes that analysis by reviewing the operation of these pays in the reserve setting.

The DoD legislative contingency for the Fiscal Years 1988 and 1989 President's Budget contained a number of initiatives dealing with reserve S&I pays. The 6th QRMC was directed to evaluate these initiatives prior to submission of a legislative proposal for clearance. Additionally, the Departments of the Army and Navy asked the QRMC to review other selected S&I pays and their application to members of the reserve components.

Unfortunately, the 6th QRMC encountered difficulties in obtaining data on the numbers, cost, and use of S&I pays in the reserve components. Special and incentive pay costs are not separately identified in the detailed justification of estimates for reserve personnel as part of the budget submissions. From examination of service pay files, the 6th QRMC was able to determine that a member was receiving a special and/or incentive pay, but was unable to identify the specific pay(s) received. Current programs do not permit identification of total amounts or the number of members receiving specific pays. In the absence of definitive data, the 6th QRMC was unable to conduct an empirical analysis on the effectiveness of specific S&I pays; instead, it was necessary to address this subject from a more general perspective: whether the current construct of S&I pays is applicable to the reserve forces.

Analysis of Special and Incentive Pays

The 6th QRMC review revealed several differences in both philosophy and application when comparing the entitlement to S&I pays for members of the active components with the entitlement for reservists performing ADT or IDT. For example, reservists performing ADT are not entitled to most special pays. These pays are restricted to members serving on active duty or in an extended active duty status. Pays that fall into this category include a variety of special pays for health professionals, special duty assignment pay, and a number of continuation and accession pays.

Generally, incentive pays are designed to attract members to skills that are inherently dangerous, rigorous, or unappealing. Members of the Selected Reserve who perform and maintain these skills are entitled to such pay during both ADT and IDT. A review of the legislative history of incentive pays did not reveal specific congressional intent to limit such pays to periods of active duty. However, unlike special pays, incentive pays are performance-oriented; that is, members possessing such skills must perform their duties and maintain specific levels of proficiency before being authorized to draw a particular S&I pay.

Reservists on ADT or IDT, performing in certain specialties, receive 1/30 of the basic pay rate authorized for active duty members for each period of duty performed. The 6th QRMC believes that this rate of pay is both appropriate and consistent with the manner in which members of the reserve components are compensated. It provides a level of compensation relative to an individual's participation and meets the criteria of being both fair and reasonable. There is no evidence that a revision of current practice is needed to relieve recruiting or retention shortfalls.

Diving Duty Pay

Until December 1987, the law restricted entitlement to Diving Duty Pay to officer and enlisted divers in receipt of basic pay who were assigned by competent orders to diving duty positions, and who maintained the required qualifications and performed diving duty. Reservists were not eligible for diving duty pay during periods of IDT, because they were not entitled to basic pay. This restriction precluded reservists from drawing diving duty pay during drill weekends even though they performed diving duties.

The 6th QRMC review indicated that undermanning existed in the diving programs of the Navy, Marine Corps and, to a lesser extent, the Air Force. Most critical was the Naval Reserve, where only 38 percent of authorized diving positions were manned. The 6th QRMC recommended that legislation be prepared to extend the eligibility for diving duty pay to Selected Reservists performing inactive duty for training. Subsequently, section 624 of Public Law 100-180 authorized the payment of diving duty pay to reservists during periods of IDT.

Special Duty Assignment Pay

Special Duty Assignment Pay (SDAP) is the only proficiency pay program authorized for current use by all the Services. It is an additional monthly payment for enlisted members performing duties designated as extremely difficult or as demanding an unusual degree of responsibility in a military skill. The pay ranges from $55 to $275 per month and is paid only to members fully qualified in the skill for which SDAP is being paid.

SDAP is limited by statute to members performing active duty. By regulation, the DoD has further limited SDAP to personnel serving on active duty for at least 180 days. Depending on Service, SDAP is paid for such duties as recruiting, drill sergeant, pararescue, and underwater welding.

Generally, the Services do not believe that SDAP is warranted as an incentive for service in these or other duties in the reserve. The major exception is the Army with respect to

members of the Army Reserve performing duty as drill sergeants. The Army Reserve has had significant problems in meeting requirements for drill sergeants. In the active Army, where SDAP is authorized, the 4300 drill sergeant positions are manned at 100 percent with MOS-qualified soldiers. In comparison, drill sergeant positions in the USAR are manned at 93 percent, with only 51.2 percent fully qualified. Personnel turbulence (50 percent drill sergeant attrition) has been a major contributing factor in the low level of fully qualified drill sergeants.

Army drill sergeants, both active and reserve, are required to be highly proficient in their military skills. Both require the same specialized training, coupled with demonstrated performance. When reserve drill instructors report for their annual tour of active duty, they are required to be at the same peak of personal readiness as their active duty counterparts and must function at the same level of performance. The requirement to maintain an exceptionally high degree of readiness often entails participation in additional training throughout the year, training that is not normally required of other reservists. Reserve drill sergeants also perform drill sergeant duties during periods of IDT. The Department of the Army has concluded that the duties performed by reserve component drill sergeants and the conditions of their service are comparable to the duties and service conditions of active duty drill sergeants. Only the Army intends to use SDAP for reservists on short tours.

The QRMC concludes that the determination of SDAP eligibility for reserve members should be left to the discretion of the Military Departments based on their evaluation of the extent to which the specific duties, as performed by reservists, meet the stated intent of the law and based also on their assessment of the relative effectiveness of SDAP in meeting specific reserve manpower objectives within budgetary constraints.

As in the consideration of diving duty pay, the QRMC concludes that the statutory limitation of incentive pay to members in receipt of basic pay (i.e. performing active duty including ADT) is unnecessarily restrictive. The reserve pay and duty system is quite complex. The reserve components and reserve commanders use this complex but relatively flexible system to accomplish training and peacetime missions using reservists in a wide range of duty statuses. It is not unusual for reservists to serve together for a single mission with some on active duty mandays, others on ADT, and still others in an IDT status. As a general

principle, the QRMC concludes that all incentive pays for duties that reservists perform be authorized for payment for IDT. The estimated annual cost is $1.5 million.

- **The 6th QRMC recommends the following:**
  - **Amendment of section 307 of title 37, United States Code, to authorize payment of SDAP to reservists during periods of inactive duty training**
  - **Revision of DoD Instruction 1304.22 (Administration of Enlisted Personnel Bonus and Special Duty Assignment Pay Programs) to delete the restriction that limits payment of SDAP to members on active duty for 180-days or more**

Unit Incentive Pay for Enlisted Selected Reservists

A unit incentive pay initiative was developed by the Department of the Navy to help meet manpower needs for personnel assigned to the Naval Reserve Fleet (NRF) and for hospital corpsmen assigned to Marine Corps Reserve units. It would authorize the payment of a $10 per drill incentive pay to enlisted Selected Reservists who voluntarily affiliate and train with certain high priority units that are inadequately manned.

Manning and retention problems among Selected Reservists of the Naval Reserve who are assigned to NRF ships are of concern to the Navy. Initially, the Navy adopted a policy of mandatory assignment to NRF ships for enlisted members in the Naval Reserve. Mandatory assignment solved the manning problems in the short run, but dissatisfaction among enlisted personnel resulted in high turnover rates and recurring readiness problems. During the period from July 1, 1986, to June 30, 1987, the turnover rate among reservists assigned to NRF ships exceeded 30 percent.

A unit incentive pay of $10 per drill period would significantly increase the total compensation of junior enlisted personnel, among whom turnover is the highest. A unit incentive pay of $10 per drill period for enlisted members of all grades does have attractive features for application in the specific setting proposed by the Navy and the QRMC recommends an experimental test. The estimated cost of the test would be $1.6 million for each year of the proposed two-year test. The QRMC concludes that a unit incentive pay could stabilize the Selected Reserve compliment of NRF ships, allow the training received during both drill weekends and periods of annual active duty to be concentrated on fewer Selected Reserve members, and produce platforms available for immediate service in the event of a national emergency.

- **The 6th QRMC recommends that legislation be prepared to permit the Secretary of the Navy to authorize payment, under a two year test program, of "Naval Reserve Fleet Pay" to enlisted Selected Reserve members serving on NRF ships.**

Other Special and Incentive Pays

The 6th QRMC also specifically reviewed Foreign Language Proficiency Pay, Hostile Fire and Imminent Danger Pay, and Sea Duty Service Credit as they apply to reservists. No legislative changes were recommended.

General Findings - Special and Incentive Pays

Data for the reserve components is not available under current reporting systems to properly identify and quantify the use of S&I pays in the reserve components. No data could be provided to show the numbers of positions authorized to receive S&I pays or the number of members currently receiving these pays.

Notwithstanding the scarcity of data on S&Is, the 6th QRMC supports the basic principle of compensating reservists in proportion to their participation through the 1/30 formula. The 6th QRMC concluded that, for certain S&Is, limiting entitlement to those who receive basic pay has an adverse impact on reservists who perform the same duties as their active component counterparts. This limitation should be eliminated.

Although the effectiveness of S&I pays could not be determined in terms of recruiting and retention effects, the QRMC believes that S&Is are necessary if the reserve components are to meet their manpower requirements. S&I pays serve to recognize the unique skill requirements placed upon the reserve components and act as an inducement for members of the Selected Reserve to gain and maintain skill qualification.

- **The 6th QRMC recommends the following general changes relative to special and incentive pays in the reserve components:**
  - **Each special and incentive pay for the reserve components should be identified in budget documents, with a separate line item for AGR and part-time personnel.**
  - **Financial accounting systems used by the Services should aggregate each S&I pay separately so that cost and recipient data can be specifically identified in an automated fashion.**

Reserve Component Bonus Programs

Bonus programs were first authorized for members of the reserve components in the late 1970s. By 1986, 39 percent of reservists with less than 10 years of service were receiving a bonus and, for these reservists, the bonus represented about 21 percent of pay. Actual expenditures for new and anniversary payments for reserve bonus programs in FY 1987 were $107.9 million. The Coast Guard Reserve bonus program, always small, has not been used since 1985.

Figure 13 shows the total DoD bonus costs, actual and programmed (all bonuses, both new and anniversary payments), from their inception in FY 1978 through FY 1989. Data for FY 1987 and prior years is historical; for years after FY 1987, data is projected. The total bonus program has grown from $1.7 million in FY 1978 to a projected $56.2 million in FY 1989 ($107.9 million in current year dollars). Figure 14 shows the growth in the numbers of bonus recipients over the same time period. In FY 1978 there were 2,108 recipients; the number of recipients is projected to grow to 247,415 in FY 1989.

Review of earlier studies and studies conducted for the QRMC by the Army Research Institute, the RAND Corporation, and the Center for Naval Analyses show that bonuses for the reserve components are an effective and relatively inexpensive recruiting and retention tool. For reservists, the primary effects of bonuses are longer enlistment terms of service, longer committed man-years of service, reduced attrition, and higher quality recruits. These positive effects of increased compensation and reduced attrition result in the reserves being better able to meet their annual strength requirements. Longer-term effects are increased readiness and a better trained force, because members reenlist for longer periods.

Results of the 6th QRMC analysis support findings of prior studies. Examination shows that bonused skill cohorts tend to have higher continuation rates than unbonused cohorts and therefore lower attrition. However, after six years of service, bonuses tend to have less effect on the continuation rate.

Analysis of data from the 1986 Reserve Components Surveys indicates that both enlistment and reenlistment bonuses provide significant improvement in length of service. Longer terms of service, combined with higher continuation rates, should result in lower attrition and an improved ability to meet manpower strength objectives. Furthermore, bonuses provide a potential increase in total man-years of service. This potential gain in man-years should result in lower additional training costs for new enlistees (since fewer are required as members reenlist) and

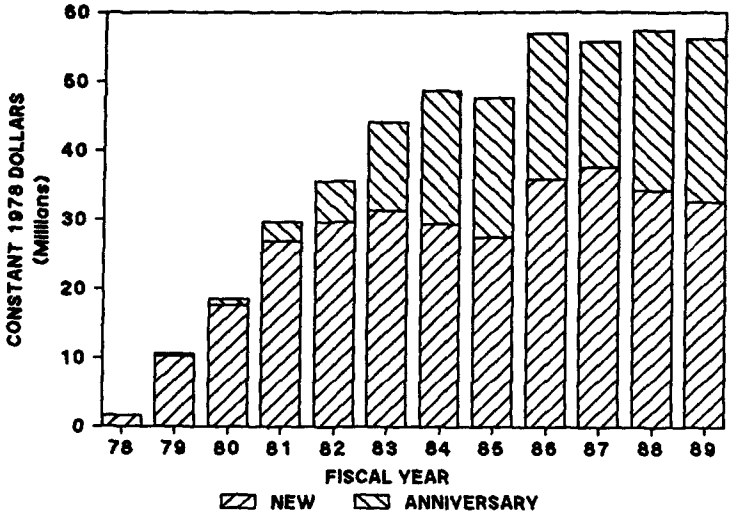


FIGURE 13. COST OF RESERVE BONUSES
ALL DOD RESERVE COMPONENTS - ACTUAL AND PROGRAMMED EXPENDITURES

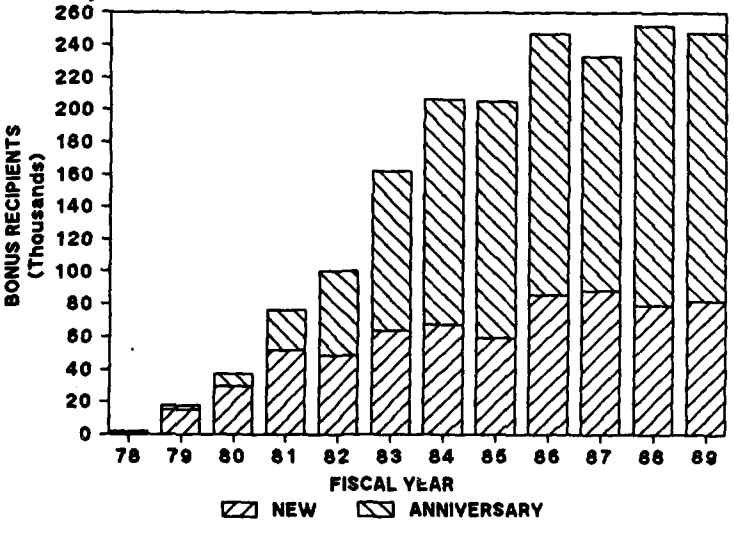


FIGURE 14. TOTAL BONUS RECIPIENTS
ALL DOD RESERVE COMPONENTS - ACTUAL AND PROGRAMMED RECIPIENTS

a higher quality force. However, the gain in man-years is dependent upon a member fulfilling the obligation incurred by the bonus.

Although some anomalies exist in the reserve component bonus program, the program is essentially sound. Specific changes recommended with respect to individual bonus programs are intended to make the bonuses more productive at the current level of resource allocation. Active duty bonus studies have shown that enlistment bonuses are most effective if paid in a lump sum, with the largest amount possible paid up front. This is reasonable in the active components, but appears not to be optimal for the reserve. In support of the QRMC, the Army Research Institute developed the parameters for a reserve enlistment bonus experiment to test the effectiveness of different bonus amounts and payout schedules. The 6th QRMC concludes that a test of a modified Selected Reserve Enlistment Bonus is warranted, to judge the effect of reducing the initial payments and increasing the anniversary payments to provide a greater incentive to complete the contracted obligation.

Another recommended change would lengthen the period of eligibility for the Selected Reserve Prior Service Enlistment Bonus and the Selected Reserve Reenlistment Bonus from less than 10 years to less than 14 years of total military service. This change is consistent with active duty bonus program criteria and increases the pool of potential reserve members in critical skills that might be targeted. Because an individual can receive only one of these bonuses, there should be no budget impact. Members receiving these bonuses after the tenth year of service should be only those with very critical specialties.

The timing of final bonus payment under the Selected Reserve Affiliation Bonus should be changed. By moving the final payment to the sixth year after the original enlistment instead of the fifth year, the bonus is returned more closely to its original structure (when the MSO was six years rather than eight years) and provides a greater incentive near the end of the enlistment period.

The 6th QRMC also concludes that the General Educational Loan Repayment Program for the Selected Reserve must be justified as to its use and cost relative to manpower requirements. Because of low usage, apparent minimal impact on reserve accessions, and high per capita cost when compared with other incentives, the program requires a thorough review by the Services.

Finally, the lack of consistent and reliable data on reserve incentive programs severely restricts analysis of the cost-effectiveness and of the accession and retention effects of these programs in relation to overall reserve compensation and manpower requirements. The Services and the DoD must develop an

accurate and reliable tracking and evaluation system in order to evaluate the effectiveness of reserve incentives in support of personnel readiness.

In summary, the 6th QRMC recommends the following steps:

- Legislative authority should be pursued to enable the DoD to conduct a Selected Reserve Enlistment Bonus test in order to improve the effectiveness of the bonus.
- The law should be amended so that the eligibility window for the Selected Reserve Prior-Service Enlistment Bonus is extended to members with less than 14 years of total military service.
- Legislation should be developed to modify the Selected Reserve Reenlistment Bonus authority, extending eligibility for the bonus to members with less than 14 years of total military service.
- Legislation should be developed to modify the current requirement to pay the remainder of the Affiliation Bonus at the fifth year anniversary by providing for payment of the remainder at the sixth anniversary of the original enlistment. This would relink the bonus to the end of the service obligation and provide a greater incentive for an individual to meet the terms of the agreement.
- A thorough review should be conducted by the Services of the program payment levels of the General Educational Loan Repayment Program for the Selected Reserve, as authorized under section 2171 of title 10, United States Code, in light of their manpower requirements. Maximum payment levels should be established on the basis of this review. The review should also determine the most effective method of coordinating the Student Loan Repayment Program with other reserve incentives. It is recommended that participation in the program be limited to critical or hard-to-man skills.
- To apply reserve bonus programs with maximum effectiveness the following are recommended:
  - Continuing priority attention should be placed on improvement of the quality and accuracy of the Reserve Components Common Personnel Data System.
  - DoD Instruction 7770.2 "Magnetic Tape Extracts of Military Pay Records," should be revised to require that reserve component pay file data be furnished quarterly to the Defense Manpower Data Center on the same basis as presently required for active pay file data.

- **Standard data displays on bonus programs for all reserve components should be developed and periodically reported.**

Educational Assistance Programs

Educational assistance programs have been used since World War II to assist veterans in their return to civilian life and to recognize their contribution to the nation. More recently, educational assistance has been demonstrated to be important as a recruiting incentive. The principal forms of educational assistance have been the G.I. Bill programs administered by the Veterans' Administration and the Tuition Assistance program of the DoD. Until recently those programs applied only to active component service. The exception has been state-funded programs for members of the National Guard and, occasionally, the Reserve.

Only recently have federal educational assistance programs been authorized for reserve component members. The Montgomery G.I. Bill for the Selected Reserve was implemented on July 1, 1985, and Tuition Assistance for members of the Army's reserve components has been paid since 1986. The QRMC assessed these educational programs as part of the compensation package for Selected Reserve members.

Montgomery G.I. Bill Act of 1984

The new G.I. Bill program consists of educational assistance for active duty service personnel (chapter 30 of title 38, United States Code) and for members of the Selected Reserve (chapter 106 of title 10, United States Code). Basic educational benefits under the active duty program are funded and administered by the Veterans' Administration. Participation in the chapter 30 program is only available to new entrants into the armed forces and requires that each new entrant agree to a nonrefundable reduction of $1,200 in basic pay ($100 per month for 12 months).

The following options are available to active duty personnel:

- Three years of active duty service entitles an individual to $300 per month for a maximum of 36 months of full-time school attendance (or the equivalent): a total of up to $10,800 in educational assistance.
- Two years of active duty service entitles an individual to a benefit level of $250 per month for a maximum of 36 months of full-time school attendance (or the equivalent): a total of up to $9,000.

The Services may provide additional benefits, known as "kickers" and funded by DoD, to qualified recruits who enlist for hard-to-fill occupational specialties. To date, only the Army and Navy have implemented this option.

The program is also available with a combination of active duty and reserve participation. A member participating in the MGIB, who serves two years on active duty and agrees to serve at least four additional years in the Selected Reserve, is entitled to $300 per month for a maximum of 36 months of full-time school attendance (or the equivalent thereof for part-time school attendance): a total benefit of up to $10,800. Educational assistance may start immediately upon commencement of Selected Reserve service. This feature is known as the "section 1412" or "2X4" program. It is part of the chapter 30 program for service on active duty. This program was included in the QRMC review because it also provides an incentive for reserve service.

The MGIB provided the first educational assistance program for members of the Selected Reserve. To qualify, Selected Reserve members must meet the following criteria:

- Enlist, reenlist, or extend the service obligation for a period of six years
- Possess a high school diploma or equivalent
- Complete Initial Active Duty for Training (IADT) and serve as a member of the Selected Reserve for at least 180 days

The following individuals are not eligible to participate:

- Those who have a baccalaureate degree
- Those currently receiving an ROTC Scholarship
- Those entitled to educational assistance under Chapter 30 of title 38 based on Section 1412

There are important differences between the MGIB as it applies to active duty members and to Selected Reservists. Only new entrants into the active force are eligible. All members of the Selected Reserve are eligible, however, provided they enlist or reenlist for the prerequisite term and meet program qualifications. Active duty personnel cannot use their benefits until they have completed at least two years of active duty. In contrast, reservist's benefits can be used almost immediately. Finally, the Selected Reserve benefit does not require a contribution from the member, and the reserve program is entirely funded by the DoD (and, for the Coast Guard, the Department of Transportation).

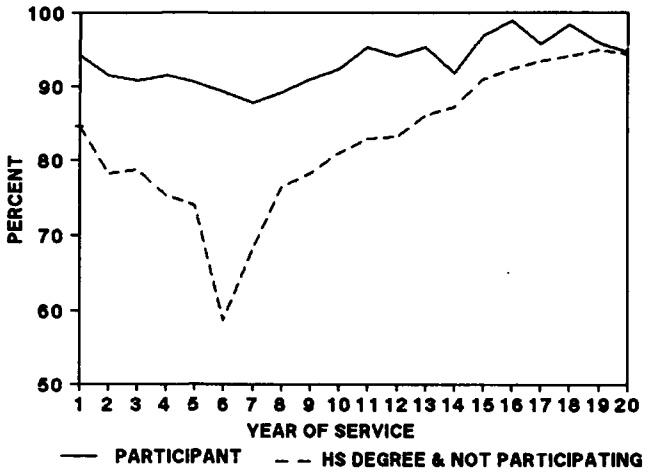


FIGURE 15. CONTINUATION RATE FOR MONTGOMERY GI BILL PARTICIPATING (ENLISTED ALL COMPONENTS)

SOURCE: MGIB DATABASE Sep 1986 - Mar 1987

Selected Reservists who qualify are entitled to educational assistance up to a total of $5,040 at the rate of $140 per month for full-time education and proportionally reduced rates for 3/4-time or 1/2-time study.

The time since implementation is relatively short, but there are clear indications that the MGIB is having a positive impact on the quality and numbers of reserve accessions. QRMC analysis found that participants in the MGIB are more likely to remain in the reserves than are their nonparticipating counterparts. Figure 15 shows the comparative annual continuation rates (i.e. the probability that a member will still be in the reserve one year later). The continuation rate for MGIB participants is 15.2 percent higher.

For those completing six years of service, MGIB participants have a 89.2 percent continuation rate compared with 58.7 for nonparticipants. The data is not conclusive; it cannot be known whether the gain in retention will be sustained throughout the commitment of those participating in the MGIB. However, the comparisons strongly indicate that a reduction in attrition can be obtained from the commitment associated with qualifying for and participating in the MGIB.

The 6th QRMC reviewed possible MGIB program changes relative to their potential effects on recruiting and retention and concluded that extending graduate education and vocational training entitlements to members of the Selected Reserve would have a positive but modest effect on recruiting and retention. The added annual costs of such change would be $13.4 million and $21.6 million respectively.

The 6th QRMC also reviewed the value of providing eligible reservists the option of using their MGIB educational entitlement for attending school less than half-time. Although most participating reservists are attending full-time, the need was identified for a benefit for less than half-time attendance. The annual cost is estimated at $1.1 million. This change would allow members to balance their priorities without penalty when they must pursue their education on less than a half-time basis.

- **The 6th QRMC recommends an amendment to chapter 106 of title 10, United States Code, to provide educational benefits for less than half-time attendance.**

Program modifications to ease administration were also reviewed. The QRMC concluded that the requirement to complete 180 days of service in the Selected Reserve for entitlement to benefits is a significant administrative burden that is not essential to an effective program. Because every member must complete an initial period of active duty for training before receiving educational benefits, it is redundant to also require 180 days of service.

- **The 6th QRMC recommends that section 2132(b)(2) of title 10, United States Code, be amended to delete the requirement to complete 180 days of service in the Selected Reserve.**

Today, members who enlist for two years of active duty receive educational benefits totalling $9,000 ($250 per month for 36 months). A member who serves two years of active duty, followed by at least four years in the Selected Reserve, receives benefits totalling $10,800 ($300 per month for 36 months). Comparing both programs and their benefits, the two-year enlistment option appears more attractive. By agreeing to serve for four years in the Selected Reserve, a member gets benefits that are increased by only $1,800. This appears to be a disproportionately small benefit for the time required.

An alternative benefit formula would set the basic monthly entitlement at $300 and allow the months of entitlement to accrue based on months of service, i.e. one month of educational assistance for each month of active duty, and one month of educational assistance for each four months of Selected Reserve service. The alternative formula is shown in Table 5.

Table 5. MGIB and Benefits Current System vs. Suggested System

Service	Monthly Entitlement	Months	Maximum $ Value
Current System			
2 Yrs AD	$250	36	$ 9,000
2 Yrs AD with 4 Yrs SELRES	$300	36	$10,800
(Incentive for reserve service = $1,800)			
Suggested System			
2 Yrs AD	$300	24	$ 7,200
2 Yrs AD with 4 Yrs SELRES	$300	36	$10,800
(Incentive for reserve service = $3,600)			
Maximum Value "2X4" Program for either system =			$10,800

The 6th QRMC concludes that this alterative would provide a greater incentive for a member to affiliate with a reserve component upon separation or to elect the "2x4" option initially. Under this alternative, the benefit for Selected Reserve time increases from $1,800 in benefits to $3,600, while the combined value for the "2X4" Program remains constant.

Enactment of an alternative that would base educational benefits on months of service would solve other problems asscciated with the "2X4" Program. Currently, a "2x4" participant discharged from the service for the convenience of the government (COG) before completing 3 1/2 years of Selected Reserve service receives educational benefits based on active duty time (36 months of educational benefits at a rate of $250 per month or $9,000). However, an individual who is separated from the service for hardship or a service-connected disability receives educational benefits on a month-for-month basis (i.e., 24 months X $300 = $7,200) plus one month's benefit for each four months served in the Selected Reserve. This anomaly, shown in Table 6, should be corrected.

Table 6: "2x4" ENTITLEMENTS

	Active Duty	With SELRES Option	Separation after One Year	Reason for Separating
Individual A	$9,000	$10,800	$9,000	Unsatisfactory performance / COG
Individual B	9,000	10,800	8,100	Hardship / Medical

- **The 6th QRMC recommends that sections 1413(a)(1) and 1415 of title 38, United States Code, be amended to base the accrual of basic educational assistance on the months of active duty service performed, deleting the $250 entitlement for two years of service and setting a monthly dollar entitlement of $300, the total entitlement to be dependent on the months of service performed. To prevent a reduction in benefit levels for members participating in the existing program, a grandfather provision should be included.**

Administrative procedures are sufficiently complex for the "2X4" Program to raise a question of whether effective administration is possible without undue expense.

- **The 6th QRMC recommends that a DoD study group review the existing and prospective administrative problems associated with the "2X4" option. The study group should ensure that problem resolution is within the limits of reasonable administrative capability and resource expenditures.**

Another inconsistency in the present law relates to entitlements of AGR members. AGRs potentially have eligibility for MGIB benefits under both chapter 30 and chapter 106. The Selected Reserve benefit was specifically aimed at part-time members. There is no evidence of intent that AGRs receive benefits in excess of those received by an active component counterpart or that Congress ever intended to include full-time AGRs under the chapter 106 program. To promote uniformity, active AGR members, like their active counterparts, should be afforded educational benefits only under chapter 30.

- **The 6th QRMC recommends amendment of section 2132, chapter 106 of title 10, United States Code, to limit benefits for Active Guard/Reserve members to those authorized under chapter 30 of title 38, United States Code.**

Tuition Assistance Program

The Tuition Assistance Program was started following World War II to provide financial assistance to military personnel in the active components. Since 1954, officers who receive tuition assistance are required to serve two years of active duty after completion of the program for which assistance was received. No payback is required for enlisted members.

In 1983, because a large percentage of the officers in the Army National Guard had not completed a college degree, the Army explored the use of the tuition assistance program for reserve officers. The Fiscal Year 1986 Department of Defense Appropriations Act provided temporary authority to extend the Tuition Assistance Program to officers serving in the Army National Guard and the Army Reserve. The Act provided that tuition assistance could be paid if the officer agreed to remain a member of the Ready Reserve for at least four years after completing the training or education.

Permanent authority, still applicable only to members of a reserve component of the Army, was provided in the Fiscal Year 1987 National Defense Authorization Act. The Act also stipulated that tuition assistance could not be used for pursuit of education beyond the baccalaureate degree. In addition, the Congress stated that the authority should be used only in instances where the MGIB was not available (less than half-time attendance).

Although the Services have the legal authority to provide tuition assistance to enlisted reservists not on active duty, the Army is the only Service currently doing so for reserve component members not on full-time duty. In Fiscal Year 1986, the Army extended the use of the Tuition Assistance Program to both officers and enlisted part-time reservists. This appears to be the first time tuition assistance has been offered to part-time enlisted reservists in any Service. Unlike the officers, enlisted members who use this program have no further service requirement as a payback for the assistance received.

In Fiscal Year 1987, over 25,000 Army members (20,730 enlisted and 5,103 officers) used the Tuition Assistance Program. Expenditures totaled $6.04 million. Unlike the MGIB, which provides an entitlement, funding for the Tuition Assistance Program is discretionary and thus its availability and benefit levels can be reduced or eliminated in the budget process.

- **The 6th QRMC recommends the following:**
  - **Benefits for part-time National Guard and Reserve members under the Tuition Assistance Program should be limited to members who do not meet the MGIB eligibility**

criteria for reasons other than failing to enlist, reenlist, or extend for six years in the Selected Reserve.

- **Tuition Assistance authority for the reserve components should be extended in law to all Services.**

- **The current statutory provision limiting Tuition Assistance to baccalaureate degree programs should be removed.**

Allowances

The authors of the third edition of the Military Compensation Background Papers found that there are over 40 separate pays and allowances in the military compensation system. If benefits are added, the total is nearly 70.[9] Most members, however, are only entitled to a few of the many separate pays and allowances. All members on full-time duty in the uniformed services are entitled to receive basic pay, basic allowance for quarters (BAQ), and basic allowance for subsistence (BAS) (or the in-kind equivalent of BAQ and BAS). When the federal tax advantage (which accrues because BAQ and BAS are not subject to federal income tax) is added, the total is the base level of compensation received by members on full-time duty. The term used to describe this base level is Basic Military Compensation (BMC). A closely related term, defined in law, is Regular Military Compensation (RMC). RMC differs from BMC in that it also includes any variable housing allowance (VHA) or station housing allowance and the federal tax advantage of these allowances. RMC is conceptually different from BMC in that not all members on active duty receive housing allowances in addition to BAQ. BMC is used to provide a general basis for comparison of military and civilian compensation.

Basic pay and compensation for inactive duty training, which is directly linked to basic pay, represent the bulk of the military compensation for most part-time reservists. All Selected Reservists spend a minimum of two weeks each year on active duty, however, and some spend significantly more time, performing periods of active duty for training or of active duty in support of active or reserve force missions. Entitlements for allowances often are dependent on the length of the active duty period being served. Other factors may also be important in determining entitlements, such as whether or not the member has dependents. The 6th QRMC reviewed housing, family separation, subsistence, uniform allowances, and related issues pertaining to travel allowances, housing, and subsistence during inactive duty training. The QRMC also analyzed the feasibility

of substituting an allowance in lieu of pay and allowances for members of the Individual Ready Reserve who fulfill their annual reporting requirement.

Housing Allowances

The QRMC review focused on two aspects of housing allowance entitlements for reservists: BAQ and VHA. Current BAQ authority creates a disparity in entitlements for members in essentially identical situations in that reserve members with and without dependents are treated differently with respect to the BAQ when on short tours of active duty. A further result is that active and reserve component members without dependents are treated differently in essentially identical situations.

The disparity results from the fact that Executive Order No. 11157 defines the permanent duty station of members of the reserve components on active duty for training as the place where the training is being performed. The apparent intent of the provision was to set a standard that would apply to National Guard and Reserve members during their annual training periods.

As a consequence, reservists without dependents do not receive a BAQ allowance when assigned quarters while on active duty for training. This is true even though they also must continue to maintain their permanent household. Reservists who have dependents do not lose their BAQ when they are provided quarters during active duty for training because quarters are not provided for their dependents.

In reviewing this issue, the QRMC first looked at the basic rationale for payment of a quarters allowance to reservists on short tours of active duty. It could be argued that the government has no obligation to help defray the permanent housing costs of reservists in their civilian community. Under the BMC concept, however, the BAQ is part of the base level of compensation for military members on active duty. This standard is an important one to reservists, both as a benchmark for mobilization income level and, during peacetime, as income replacement for lost civiliar s.

The latter is critical because the majority of reservists simply substitute military income for civilian income when they are on active duty for training. Only 37 percent of Selected Reservists receive either partial or full civilian pay during their required annual training. Virtually no reservists receive civilian pay for active duty beyond 15 days annually. Further, 88 percent of reservists own or rent their homes and should reasonably expect a compensation standard that recognizes that these expenses continue through annual training and other short tours of active duty.

During a 14-day annual training period, a member in pay grade E4 who has no dependents will receive $125 less than will an E4 with dependents. In the case of a member in pay grade O3, the difference is $198.

The reservist's situation is directly comparable to that of a single active duty member who is authorized to live off base, but who is absent from his or her permanent station on temporary periods of sea or field duty. The single active duty member is not penalized by loss of the BAQ entitlement during temporary field or sea duty; the same principle is appropriate and applicable in the case of short-term reserve duty.

Seventy percent of members in pay grade E4 and below have no dependents. Furthermore, 46 percent of members with dependents receive full or partial civilian pay during reserve duty, compared with only 21 percent of members without dependents.

There is no rationale for this difference in entitlements, which disproportionately affects the very members whose attrition is most likely and most costly. The disparity could be corrected by designating the reservist's home as the permanent duty station for BAQ entitlement purposes for tours of less than 140 days active duty. For active duty tours of 140 days or more, permanent change of station rules would apply.

The 6th QRMC also reviewed the provision of VHA to reservists on active duty for less than 140 days. VHA was first authorized in 1980 as a means of offsetting additional housing costs experienced by members assigned to high-cost areas. Initially, the VHA entitlement was applicable to qualifying reservists during active duty tours, regardless of length. This was apparently due to oversight when the VHA legislation was developed. Because VHA is tied to the BAQ entitlement, receipt of VHA increased the pay differential between reserve members with dependents and those without when they were performing required annual training or serving on other short tours of active duty.

In 1983, concern over cost growth in the VHA program resulted in the enactment of a DoD proposal to eliminate the VHA entitlement for short-term reserve service. The DoD concluded that it was not consistent with program intent to pay VHA to reservists not subject to government-directed relocation to high-cost areas. Under the new law, reservists on active duty for less than 140 days were no longer entitled to VHA.

Substantial revisions to the VHA program in 1985 tended to obscure the basic rationale for VHA, but the legislative history of the program indicates that VHA remains a supplemental allowance, intended to help mitigate the financial burden members experience as a result of reassignments to high-cost

areas solely for convenience of the government. Reservists' permanent housing expenses are a function of civilian employment, not military assignment.

Since variable levels of housing costs for reservists are not related to military assignment, the QRMC concludes that BMC provides an appropriate level of income replacement for reservists on active duty tours of less than 140 days. Eliminating BAQ for members with dependents would be a further departure from this standard and could have a severe impact on retention and readiness. Although the formula for determining housing allowance entitlements has changed, the intent of VHA is to reimburse members for high housing costs incurred due to military reassignments.

- **The 6th QRMC recommends that entitlement to BAQ be provided to all reserve members on active duty with the exception of members without dependents performing initial active duty for training.** Implementation of this recommendation would provide an equitable solution to the current disparity in BAQ between reservists with dependents and those without dependents and between reserve component and active component members performing duty together. Concomitantly, it would provide an additional financial incentive to junior enlisted personnel, the category with the greatest personnel turbulence that is dysfunctional to readiness. The QRMC concludes that this recommendation should be implemented by amending section 403 of title 37, United States Code, to provide that the reservist's home be considered as the permanent duty station for BAQ entitlement purposes when the reservist is on active duty for less than 140 days.

Annual cost of the QRMC recommendation is estimated at $49 million. Implementation of the QRMC recommendation with respect to housing allowances will also prevent a potential problem with respect to Family Separation Allowance entitlements, which can result in unwarranted expense to the government.

Travel Allowances, Quarters, and Subsistence During Inactive Duty Training (IDT)

BAQ and BAS are not authorized for members who are not entitled to basic pay; thus National Guard and Reserve members performing IDT do not receive these allowances. It appears that, under the circumstances that existed when paid drill periods were first authorized, it was not anticipated that quarters or subsistence expenses would be incurred. Under modern circumstances, in which most monthly IDT includes at least four drill periods covering two 8-hour days, quarters and subsistence expenses become a concern.

The actual practices in place in the reserve components are complex and, in some cases, vary among the components. Member comments indicate that many believe that they should be compensated for travel, quarters, and meals. The flexible use of duty status to meet specific training or Total Force missions also creates situations in which the pay status will differ for members performing the same duty. Thus a member placed on active duty will, dependent upon distance from the unit, be compensated under almost totally different provisions than the member on IDT.

As reserve missions have become more demanding and complex, modifications to law and practice have been made to meet the needs of the reserve components. There is a tradeoff between flexible programs (for travel, quarters, and subsistence during IDT to meet the differing needs of the seven reserve components) and increased standardization (to preclude inequity to members in components with more constrained budgets). It seems clear that increased emphasis on uniform practice is desirable.

The QRMC concludes that one step in this direction should be made now. Statutory provisions preclude payment of quarters expenses for reservists on active duty for training when government quarters and messing are available. Since the time when these provisions were enacted, however, service charges for members occupying government quarters have become the norm. The QRMC concludes that clear statutory authority is required to provide that these service charges may be paid for reservists performing training.

- **The 6th QRMC recommends that section 404 of title 37, United States Code, be amended to authorize the expenditure of appropriated funds to pay actual expenses incurred by reservists when they occupy government housing while performing annual active duty for training or inactive duty training, whether at the normal or the temporary training site.**

It is estimated that the annual cost of the enactment and implementation of this recommendation would be $3 million.

Uniform Allowances

When individuals enlist in an armed force, the government assumes an obligation to clothe (as well as feed and shelter) them during their enlistment. There is no comparable obligation with respect to officers.

Enlisted members are provided either replacement-in-kind for clothing or cash clothing replacement allowances. These procedures are, in our judgment, reasonable and equitable as they apply to part-time and full-time enlisted members.

For officers, specific uniform allowances are authorized in law. The current rates were established in 1952, and have not been revised. It was recognized that the allowances would not repay reserve officers for the entire amount of their expenses. They were intended merely to alleviate hardship or to partially defray expenses, because it was felt that the reserve officer should absorb part of the expenses.

The officer uniform allowances are not fully consistent for part-time and full-time members. Elimination of the $50 uniform maintenance allowance paid to reserve officers upon completion of each four-year period of satisfactory participation would provide more uniformity of entitlements. The $50 rate is so low that it has no positive impact on retention or morale, and there is no reason to anticipate that elimination of this allowance would affect the officer force. Elimination would reduce considerable recordkeeping, and would free about $1.5 million for use in programs with greater readiness impact.

- **The 6th QRMC recommends that the quadrennial $50 uniform maintenance allowance be eliminated. In order to ensure that a member just short of qualifying for this allowance would not be disentitled, an effective date one year after enactment is recommended.**

Muster Allowance

Each person who becomes a member of an armed force serves for a total initial period of not less than six nor more than eight years. Current directives implementing this statutory military service obligation (MSO) prescribe an 8-year MSO. Members who have completed their active service or Selected Reserve obligation and who have not completed their MSO are transferred to the Individual Ready Reserve (IRR) pending completion of their MSO. Other members of the IRR serve voluntarily.

The IRR is part of the nation's pretrained military manpower resource. Its members are immediately liable for order to active duty in time of war or national emergency. IRR personnel would be needed to bring active and reserve component units to full strength and to replace initial combat casualties. A significant shortfall in junior enlisted members trained in the combat arms resulted in priority attention to the IRR and in a series of initiatives to increase its size and viability. These initiatives helped, particularly in increasing the size of the IRR, but they did little to ensure its readiness.

Because the IRR is so important to wartime readiness, many statutory and regulatory provisions have been established to ensure that members of the IRR understand their responsibilities and that the Services have complete and current information on

IRR members. The law requires a system of continuous screening of IRR members to ensure there will be no significant attrition during a mobilization. It also requires that a current personnel record be maintained on each IRR member and that members be examined as to their physical fitness every four years and certify their physical condition annually.

All Services have had difficulty in meeting these requirements. In an effort to improve this situation, in 1986 the Army began a program to order members of the IRR to active duty for one day each year. This trial program was based on a voluntary call to active duty. After a detailed review within the DoD, it was determined that expansion of the muster program to IRR members of all DoD Services was essential to meet the statutory and regulatory requirements necessary for the management of the IRR.

The DoD is committed to the IRR annual reporting requirement as a matter of policy. The cost of conducting the IRR muster remains a significant consideration. Under current procedures, participating members are ordered to active duty with full pay and allowances, including travel allowances, and credited with one or more days of active duty for retirement. Taxes, including FICA, are deducted. A matching FICA contribution (7.51 percent of basic pay) is made, and an amount equal to 26.4 percent of basic pay is transferred to the military retirement fund. For a member who is injured, disabled, or killed at the reporting site or while travelling to or from the site, the same entitlements and benefits accrue as for any member on active duty for a period of 30 days or less.

In this respect, there is no difference between the compensation of an IRR member reporting for the muster and that of a Selected Reservist performing a one-day active duty tour. There are, however, significant differences between the nature of the duties required for these substantially different forms of military duty. The IRR member is not required to wear a uniform or meet service grooming standards when meeting the annual reporting requirement. There is unlikely to be a pay file for the IRR member, and in most cases this will be the member's only direct contact with the military during the year. The primary objective of compensation for members participating in the annual reporting requirement is to provide adequate allowances for expenses associated with travel, subsistence, and scheduling conflicts.

The Army, with the largest IRR, recommended a flat rate allowance for the annual reporting requirement. Three advantages were envisioned: actual compensation costs could be reduced, administrative costs would be reduced, and member acceptance of the program would be improved because a check to cover expenses could be provided on completion of muster duty.

The adoption of a fixed allowance for all members of the IRR who are subject to this one-day annual reporting requirement would save nearly 34 percent of basic pay, because no retirement accrual payment would be required and because the Services would not need to pay the employer FICA contribution on the basic pay. The elimination of these two very substantial payments is warranted, because IRR members who must report annually do not otherwise participate in training. Few members of this group will ever qualify for a military retirement. In addition, there would be no FICA employer contribution, because allowances for expenses are not considered wages for FICA tax purposes. There would also be significant administrative savings from a uniform nontaxable allowance in lieu of basic pay and allowances, travel allowances, and tax and retirement accrual deductions and contributions.

IRR members who participate in the muster are located throughout the United States and its territories. All considerations examined by the QRMC suggest that an objectively determined daily rate of compensation unrelated to pay grade is the most appropriate reimbursement for expenses associated with IRR muster. The average per diem rate for locations where IRR members muster, as of June 1, 1988, is $81.30. This rate is comparable to that currently paid and should be viewed by IRR members as just compensation for muster duty. Only individuals in the upper pay grades who would have to travel long distances would receive less compensation than under an active duty pay system. In most cases, these members will be excluded from muster duty by Service policy because they typically participate voluntarily at other times during the year.

Under current law, the proposed muster allowance would likely be considered taxable to the extent that it exceeds ordinary and necessary expenses associated with muster duty. It would not, however, be considered "wages" for FICA tax purposes. By comparison, a Family Separation Allowance (FSA-II) is intended to offset additional expenses and inconvenience associated with an aspect of military service--in the case of FSA-II, family separation of 30 days or more. FSA-II is nontaxable. The muster allowance should also be nontaxable for similar reasons.

The QRMC concludes that a fixed allowance equal to the average per diem rate for the geographical areas participating in the muster (currently $81.30) would provide members with fair compensation for muster duty travel expenses as well as for personal inconvenience. An $80 allowance would result in savings of approximately $18.9 million in Fiscal Year 1988. Members ordered to muster duty should be entitled, in addition to the allowance, to the protections normally afforded reservists while performing IDT. These entitlements include

medical care for duty-related injuries, compensation during a period of duty-related injury, disability compensation for permanent duty-related injury, and survivor benefits.

- **The 6th QRMC recommends enactment of legislation to establish a new form of duty known as "Muster Duty," which would allow the Services to call reserve members to duty for one day annually for the required screening. Additionally, the 6th QRMC recommends that members called to muster duty be compensated with a nontaxable allowance of $80 that is indexed to average per diem rates, and that these members be entitled to the same medical, income protection, and survivor benefits as is a reserve member performing inactive duty training.**

Civilian Employment, Tax, and Mobilization Issues

Most part-time members of the Selected Reserve have a full-time civilian job. Thus, matters relating to the reconciliation of civilian employment and reserve duty schedules, the effect of reserve compensation on federal income taxes, and the potential impact of involuntary mobilization on income are of very great importance to reservists.

Income from reserve service can be reduced substantially by payment of taxes at marginal rates, transportation costs, and foregone civilian income. The military leave policies of civilian employers have a major effect here: some employers continue civilian pay while the reservist is performing annual training duties, others make up the difference between military and civilian pay, while the majority of private sector employers simply provide the time off. Inactive duty training on the weekends may also result in foregone civilian income as members lose opportunities for civilian pay, including extra civilian pay or overtime, because of their reserve obligations.

Underlying these factors is the more general problem of the potential effect of Selected Reserve participation on getting or keeping civilian employment. These features of the civilian environment affect personnel readiness in that they result in increased attrition, particularly among junior enlisted members, and make it harder to rectify shortfalls in skill training. It is very difficult to qualify reservists in new technical specialties when necessitated by changes in unit mission or equipage or by individual transfers. Difficulties stem in significant part from members' problems in getting time off from their civilian jobs to attend necessary training courses. Attendance at these courses typically results in added costs and scheduling problems for employers and increased likelihood of conflicts between job and reserve duties for members.

The QRMC analysis indicates that some of these environmental difficulties can be reduced or offset by direct compensation initiatives, particularly bonus programs that are targeted at priority units and at reducing skill qualification problems and skill mismatches. In addition, the QRMC looked at programs or initiatives that can potentially reduce the impact of some of the environmental features that discourage reserve service.

Statutory Employment Protections

Statutory employment rights set a clear minimum standard for employer conduct with respect to the reserve obligations of their employees and applicants for employment. The statute (codified as chapter 43 of title 38) also provides a basic set of rights for reservists with respect to their current or prospective employers. Earlier studies have concluded that employment conflicts account for as many as one-third of unprogrammed losses to the Selected Reserve. Because statutory employment protections provide the underlying framework against which many of these conflicts are set, the 6th QRMC included statutory employment protections within its study plan as an element of reserve compensation.

During the course of the QRMC's review of this issue, an Interagency Committee was formed to recommend legislative changes in this area. The QRMC participated in the Interagency review, along with representatives from the Departments of Labor and Justice, the Veterans' Administration and the Office of the Assistant Secretary of Defense for Reserve Affairs. Since the Interagency Committee is developing a detailed legislative proposal, the QRMC review and recommendations are focused on setting out the relationship between statutory employment protection and reserve compensation and service, outlining the deficiencies in the existing statutes and associated administrative and legal procedures, identifying the main issues in need of corrective legislation, and recommending general remedies.

The basic right provided under the law is the right of reinstatement in employment following military service. Included in this basic right are the seniority, status, and rate of pay the employee would have had but for the performance of military service. Additional protections, benefits, and entitlements may also exist, but they depend upon a variety of factors, including the manner of entry into the military and the type of duty performed.

Since the enactment of the basic statutory employment protections, the law has been amended on several occasions and there have been several changes to related laws and programs, changes that have not been reflected in the employment

protection statute. As a result, the current law is complex and difficult to interpret, leading to much litigation and resulting in a body of questionable case law.

Enforcement of the law in a timely and equitable fashion has become a major problem. The proportion of cases and problems associated with enforcement and involving reservists has grown dramatically as the Nation has placed greater reliance on its reserve forces. Delays inherent in the investigation and prosecution of claims by reservists are of immediate concern to the armed forces because the individual's continued service may be contingent upon timely enforcement and meaningful relief. Reservists who believe that their only choice is between their reserve service and their full-time job will generally choose the latter. The absence of an enforcement presence that is meaningful to affected reservists must, therefore, be of great concern to the DoD. Progressive changes in the statute, coupled with changing circumstances of duties, have resulted in a law that no longer serves the original intent of Congress, i.e. to eliminate disincentives to military service by providing a speedy right to employment in a position for which the person has previously shown an aptitude.

Because of the ongoing work on this issue by the Interagency Committee, it appeared most useful for the QRMC to set out general recommendations for statutory revision to serve as a guideline for the development of legislation. Briefly, the recommendations would have the following effects:

- Revise, standardize, simplify, and update the law.
- Eliminate complex classifications.
- Create uniform classifications of service and rights.
- Standardize employment protections on length of absence.
- Cap employer costs.
- Cap cumulative military leaves of absence.
- Provide speedy, balanced, local arbitration.

■ **The 6th QRMC recommends development of legislation to revise the existing system of statutory employment protections in accordance with the following guiding principles:**

1. General modifications:

■ **Recodify the law into a standard statutory structure, provide accurate section titles, a logical structure, and adequate cross references.**

■ **Standardize the terminology and provide statutory definitions.**

- Include an introductory section setting forth the purpose of the law and rules of construction to aid in providing uniform interpretation and application of the law.

- Eliminate obsolete references and, where appropriate, preserve rights based upon those references through a savings clause.

- Structure the law to provide uniform rights over a variety of circumstances so that it can operate under changing manpower programs without amendment.

2. Classification and length of absence:

   - Eliminate the current classification of persons for employment protections and retain only minimum distinctions based upon whether the member has a military obligation and may be presumed to have been in military service long enough to be aware of his or her rights and obligations.

   - Substitute one standard definition of military duty in place of the current multiple classifications of duty for employment protections.

   - Base eligibility and entitlements on the length of the absence.

   - Define the continuous service limits at five years, with exceptions for persons who are unable to obtain release through factors beyond their control (e.g. extended due to national emergency) and for those whose minimum enlistment for an initial military occupational specialty exceeds five years.

   - Eliminate limits on cumulative service for reemployment with longevity. The law should, however, preclude the situation in which a reservist serves on several extended active duty tours, returning to work for a private employer for only days or weeks each time, while still retaining reemployment rights.

3. Clarification of entitlements:

   - Define the terms in the statute that accord the employee seniority, status, benefits, incidents and advantages, and promotions.

   - Redefine pensions and profit sharing plans as benefits rather than as perquisites of seniority.

- Clarify that benefits are to be accorded to persons according to the rules and practices of the employer for any employee on leave of absence or furlough, except for absences of 30 days or less.

- Permit employers to establish a cumulative cap of five years on seniority (other than longevity), pensions, and other benefits of employment that accrue over time for absences of 30 days or more.

4. Clarification of applicability to federal employees:

   - Extend protections to federal employees of federal corporations, employees of nonappropriated fund activities, and other employees of federal activities that are neither private or state employed.

   - Update the provisions relating to executive branch employees to reflect the jurisdiction of the Merit Systems Protection Board.

   - Provide for regulatory authority and relief coterminous with the rights and obligations under the law.

   - Clarify who is to provide assistance to eligible claimants and to what extent.

   - Provide procedures for the prompt resolution of claims for all federal employees.

   - Provide adequate cross-references to the provisions of title 5 and eliminate sections of title 5 that duplicate coverage.

5. Administrative hearings and procedures:

   - Provide for local informal consideration of the claims of employees and employers arising under the law.

   - Provide for a hearing authority that reflects the community and interests involved, including the claimant's reserve component if applicable.

   - Provide the hearing authority with mediative authority and powers to investigate and enforce its decisions, including authority to order employers to reemploy claimants pending any appeal.

   - Provide time limitations to assure speedy hearing of claims.

- **Provide for limited appeal to Federal District Court.**

- **Provide for penalties, such as the award of special damages, costs, and attorney's fees (including the reasonable cost of a United States Attorney) to discourage unnecessary appeals.**

- **Clarify and specify the responsibilities and limitations of the Secretary of Labor in providing assistance to persons with military obligations, in providing public information, and in issuing policy or regulations.**

6. **Miscellaneous:**

   - **Modify the authority of the Assistant Secretary of Labor for Veterans' Employment and Training (ASVET) to include preferential employment assistance to members of the Guard and Reserve who do not otherwise qualify as veterans, either by providing that they are veterans for the purposes of such preferences or by defining them as eligible persons (the next lower category of preference), and by including the National Guard and Reserve components in the statement of purpose of the employment preference law (sections 2001, 2002 of title 38, United States Code). This modification would assist in reducing hardship to reservists who are unemployed, and it may reduce administrative costs resulting from pursuit of claims for reinstatement when the reservist would, in fact, prefer to be employed elsewhere.**

   - **Extend the nondiscrimination provisions to prohibit discrimination based upon any present, past, or potential military obligation. This would prohibit the current practice of some employers (mainly state agencies) of forbidding employees to join reserve components and would protect returning veterans who may be refused employment, not only because they are veterans but because of residual reserve obligations or potential for reserve affiliation.**

Employer Tax Credit

Most reservists are required to attend at least one weekend of inactive duty training monthly and 14 days of active duty training annually. Additional training may be required, and reservists may be involuntarily activated in an emergency. These features of reserve service impose actual and potential costs on employers of reservists. Unfortunately, many employers reduce these costs by discriminating against members of the National Guard and Reserve.

From an employer's viewpoint, the absence of an employee for reserve duty may mean rescheduling or redistributing work. Temporary help or overtime for other employees may be necessary. All of these increase an employer's costs, reduce revenue, or otherwise affect profits. The reason for an absence has virtually no effect on these additional costs. When an employer has little or no control over when absences occur, the problems can become particularly aggravating.

Federal law prohibits employers from discriminating against reservists and requires employers to grant a leave of absence to accommodate military training. Voluntary support is obviously most effective and least costly. From initial efforts in 1970, the DoD has developed an aggressive program to encourage employer support of the National Guard and Reserve. This program has grown from several hundred employers and professional and labor organizations to more than 3,000 community leaders nationwide. It involves multimedia public service advertising with a value of approximately $25 million per annum. This effort has paid important dividends, but 10 to 20 percent of reservists continue to experience significant employment-related conflicts and approximately one-third of total losses are attributable in major part to these conflicts.

Since the major reason for employers' lack of support for employee participation in the reserve appears to be the costs associated with that participation, an offsetting financial incentive would appear the most appropriate remedial action, in conjunction with updated statutory protections. Since the DoD is not in a position to provide direct incentives, an indirect financial incentive, in the form of a tax credit to employers who support their employees' reserve service, is a reasonable way to encourage support as a matter of national policy.

Tax incentives, such as the Targeted Jobs tax credit, have been used to encourage employment in particular segments of the civilian work force. A tax credit to employers who support reserve participation by their employees would reduce an employer's costs associated with employee absence due to reserve participation, thus reducing the disincentive to hire and retain reservists. Rather than addressing symptoms such as discrimination, offering a tax credit has the potential to eliminate or significantly reduce the reason for discrimination; the additional employer costs associated with employee absence. The credit would reflect the overriding value to the Nation of employer policies that are supportive of the reserve service obligations of their employees. The credit would not override market-based resource allocations because it would apply to all employers, rather than a narrow sector. Without such an incentive, unsupportive employers may gain undue advantage over

supportive employers, since direct and indirect costs accrue to employers who actively support the National Guard and Reserve service of their employees.

The QRMC concludes that an employer tax credit should be evaluated as a possible means of enhancing employer support for the National Guard and Reserve.

The 6th QRMC reviewed previous legislative proposals to provide employers of reservists with a tax credit that would recognize the cost to employers of their employees' participation in the National Guard and Reserve, the value to the Nation of reserve service, and the significant dollar savings that can accrue through reduced conflicts between reserve service and civilian employment. After reviewing the prior proposals, the QRMC developed the framework for a tax credit which would have the following characteristics:

- Provide a nonrefundable credit, in addition to an employer's normal deduction for wages paid, of 50 percent of any amount paid by the employer during the military leave of the reservist employee, and a credit of 10 percent of the reservist's salary for military leave uncompensated by the employer.

- Establish a limit of $7,500 on the maximum credit for any one employer.

- Include a credit for self-employed reservists.

- From employers claiming the credit, require certification that they have not been the subject of employment rights litigation initiated by a United States Attorney.

Enactment of an employer tax credit would cause no increase in the budgetary requirements for the DoD. There would be a modest loss of revenue to the federal government due to a decrease in the amount of business taxes that would otherwise be due. Based on 574,000 reservists employed by private employers, average income levels, and current pay practices, enactment of an employer tax credit with these features would result in a tax expenditure of less than $100 million in Fiscal Year 1988.

Tax Deductions for Reserve Component Members

Prior to enactment of the Tax Reform Act of 1986, members of the National Guard and Reserve, as employees, were permitted to deduct expenses related to their military duties. In particular, expenses of travel and transportation to a drill site in excess of any reimbursement (considered an employee travel and transportation expense) were deductible as an adjustment to income. These deductions are made from gross

income in arriving at adjusted gross income and have been described as "above the line" deductions. In addition, other duty-related expenses in excess of reimbursement (e.g. uniforms) were deductible as miscellaneous itemized business deductions. Total itemized deductions in excess of a standardized amount were subtracted from adjusted gross income to determine taxable income.

The Tax Reform Act of 1986 made substantial changes to the deductibility of employee business expenses:

- Employee travel and transportation expenses are only deductible as adjustments to income ("above the line") to the extent of reimbursements. Expenses in excess of reimbursements are only deductible as a miscellaneous itemized business expense.

- Miscellaneous itemized business expenses (including unreimbursed travel and transportation expenses) of an employee are only deductible to the extent that they exceed 2 percent of adjusted gross income.

- Only 80 percent of unreimbursed business meal and entertainment expenses are deductible and then only as a miscellaneous itemized business expense subject to a floor of 2 percent of adjusted gross income.

- The standard deduction has been increased for most taxpayers. This increase means that total itemized deductions must be greater before taxes are reduced.

Uniformity of treatment accorded to similarly situated members of the reserve and active duty communities is fundamental to the Total Force. Preferential treatment is appropriate to compensate for fundamental differences between these two groups. This concept is reflected in the differing tax treatment of reserve retirement as opposed to retirement for active duty service. Reservists performing less than 90 days of active duty are not considered "active participants" in a retirement plan for purposes of determining the deductibility of a contribution to an Individual Retirement Account (IRA). Members on active duty longer than 90 days are "active participants." Active participants may only deduct a contribution to an IRA if adjusted gross income is below certain levels. Those not considered active participants may deduct the entire IRA contribution without regard to adjusted gross income. This differing tax treatment is consistent with the substantial differences in the types of service required and retirement available thereafter.

Unlike most members on active duty, the vast majority of participating reservists are full-time employees in the civilian economy. Reserve duty is secondary part-time employment. As with other employment, reserve-related travel and transportation expenses (including meals) are deductible (although not at full-value under current law). In addition, the expenses of transportation between civilian employment and reserve duties are deductible. Preferential tax treatment of these expenses is appropriate.

Other unreimbursed reserve-related expenses, it may be argued, are not substantially different from the unreimbursed expenses of members on active duty. On the other hand, these expenditures can represent a substantially larger percentage of annual compensation for military duty. In addition, the partial nature of reserve duty does not diminish all annually recurring expenses related to reserve activities. In fact, some expenses are greater because they arise infrequently.

The QRMC concludes that, within the context of Total Force policy, legislation permitting reservists to deduct unreimbursed reserve-related travel and transportation expenses (including meals) as an adjustment to income without reduction may be warranted. Further, all unreimbursed expenses related to reserve activities aid national defense, and their deduction appears to be warranted within the context in which reserve service is performed.

- **The 6th QRMC recommends that the Administration review the feasibility of amending the Internal Revenue Code in the following ways:**
  - **Permit unreimbursed travel and transportation expenses of drilling reservists to be deductible as an adjustment to gross income.**
  - **Permit all other reserve related expenses to be deductible as miscellaneous itemized business expenses without reduction by 2 percent of adjusted gross income.**
  - **Eliminate the existing 80 percent limitation on meal/entertainment deductions incurred in connection with the performance of services as a drilling member of the National Guard or Reserve.**

Adoption of any legislation will not directly affect the Defense Department budget. The tax expenditure (revenue loss) of the QRMC recommendation is minimal.

Rental Rate in the Soldiers' and Sailors' Civil Relief Act

The purpose of the Soldiers' and Sailors' Civil Relief Act, as enacted in 1940, was to provide broad protection to persons in military service. The Act is identical in substance with the original Act of 1918. It provides for the temporary suspension of legal proceedings and transactions that may prejudice the civil rights of persons in the military service of the United States. The Act is applicable to all persons in military service on active duty, including members of the reserve components. The Act contains adequate safeguards to prevent any person from taking undue advantage of its provisions.

Article III of the Act provides that proceedings for eviction or distress (i.e. the taking of personal property to secure the payment of rent), in respect to any premises occupied as a dwelling by the dependents of a person in military service, may be stayed for not longer than three months, provided the agreed rent does not exceed $150 per month. The $150 per month limit has not been raised since 1966. This limit clearly results in significant limits on the number of families protected from eviction without court review. It appears reasonable to adjust the rate in peacetime to provide an adequate rate for peacetime service and to preclude the need for emergency legislative revision in time of war. The QRMC considered a number of alternatives and concluded that the most effective would be to adopt an adjustable rate that would be an amount equal to the member's housing allowance (BAQ and VHA). This would replace an inadequate fixed sum with an amount that is regularly updated under close congressional scrutiny to fairly reflect true housing costs faced by active duty military personnel.

- **The 6th QRMC recommends that the Soldiers' and Sailors' Civil Relief Act be amended to establish in the law that the dependents of a member of a uniformed service on active duty may not be evicted from any premises occupied as a dwelling, without the permission of a court, as long as the agreed rent does not exceed an amount equal to the member's housing allowance (the member's BAQ and VHA).**

Health Care, Disability, and Survivor Benefits

Until recently, significant gaps existed in the program of entitlements and protections for reservists who become ill, are injured or are killed in the line of duty; and benefits were not uniform among the reserve components. Since 1983, a series of statutory changes have been made to provide adequate protection for reservists or their survivors when members are disabled or die as a result of their military service.

The new provisions reflected the great changes that had occurred in the rigors and demands of training in the National Guard and Reserve. Forty years ago, much reserve participation was on an ad hoc basis at the discretion of the individual. As reserve forces have taken on a significant share of national defense responsibilities, reserve training is often integrated with the missions of active component units so that the reservist receives training while conducting day-to-day missions. Reservists routinely participate with active component units in realistic arms training and field exercises at home and abroad, and they operate state-of-the-art weapons systems and equipment. To function in this demanding environment, Guard and Reserve members must meet the same standards for physical condition and evaluation as their active component counterparts.

The 6th QRMC reviewed the existing scheme of medical, disability, and survivor benefits for National Guard and Reserve members in the light of the recent initiatives to extend these protections and make them uniform. Eight major issue areas were identified and reviewed in depth: incapacitation pay, benefits for dependents of incapacitated reservists, reserve members' eligibility for dependency and indemnity compensation, the death gratuity, group life insurance programs for reservists, eligibility for burial in national cemeteries, survivor travel to a member's burial, the survivor benefit program for reservists, and the authority to provide pay and allowances for reserve members undergoing medical evaluation.

Incapacitation Pay

Incapacitation pay is monetary compensation (equal to pay and allowances) paid to reservists who are injured or who aggravate an illness or disease in the line of duty, during inactive duty training, during active duty for 30 days or less or while traveling to or from such duty. The National Defense Authorization Act for 1987 changed rules governing the circumstances under which reservists are entitled to military pay and allowances (incapacitation pay) while disabled as a result of reserve duty.

Until November 1986, if a member of a reserve component was on active or inactive duty for 30 days or less and suffered a disability, the authority for continued military pay and allowances was determined by the ability of the member to perform normal military duties. Thus, if disabled reservists could perform their civilian jobs but not their military jobs, they could be paid for both during the period of disability. Prior to passage of the new law, a person could remain disabled with respect to their military duties and remain employed in the civilian community until such time as further treatment would not improve their medical condition. There was no statutory

termination of incapacitation pay and, in many cases, it was paid for one or more years. On the other hand, where the incapacitation left the member able to perform military duties but not the civilian job, there was no authority to provide any compensation. Because the military duty is only part-time, the financial consequence of such incapacitation was sometimes severely detrimental to the reservist.

The 1986 change corrected this inequity by authorizing pay and allowances, limited to a six-month period, to disabled reservists unable to earn income from civilian sources as a consequence of the disability. The maximum payment could not exceed the lesser of the demonstrated loss of civilian earnings or military pay and allowances. Members who could perform in their civilian jobs but could not perform their military duty could be paid for scheduled inactive duty training notwithstanding their inability to train.

The objective of the legislative change was twofold: first, to prevent reservists from "double dipping" by eliminating the possibility that a reservist could collect incapacitation pay and civilian pay at the same time; second, to compensate reservists for lost civilian earnings (their primary source of income) due to a disability incurred or aggravated during active duty, active duty for training, or inactive duty training. It was estimated the legislative change would reduce the $27 million annual cost of incapacitation pay by between $7 million and $11 million.

The QRMC evaluated the adequacy of protections and benefits for reservists with respect to the support of personnel readiness requirements and the uniformity and adequacy of coverages. A review was conducted to determine whether the new system of compensating reservists for a qualified disease, illness, or injury is adequate, or whether it needs to be refined in order to treat all reservists equitably.

The QRMC found that certain reservists would be ineligible to receive more than the minimal pay authorized for the training periods they missed as a result of their disability. For example, students, housewives, seasonal workers, and those not employed in the civilian community now qualify for very limited incapacitation pay, even if they incur a severe injury in the line of duty. This limitation is due to the fact that these reservists have no civilian income. Therefore, if incapacitated in the line of duty, they would only receive compensation equal to that they would have received from any regular drill period they were unable to perform because of the incapacitation.

The active duty disability system is based on the ability of a member to perform all military duties commensurate with their military occupation. If active members are unable to perform

their military duties due to a medical condition, they are entitled to have their cases reviewed by their Service's Disability Evaluation System. The same is true for reserve members receiving incapacitation pay. If the incapacitation results in a permanent or potentially permanent disability, the reservist is also processed for disability retirement or separation pay. In the case of the temporarily disabled member, however, there is now a major disconnect: the member disabled while on active duty orders specifying a period in excess of 30 days draws full pay and allowances, but the member performing duty of 30 days or less is subject to the new system and may be left essentially without income.

Although distinctions, based on primary source of income, need to exist between benefits for reservists and members of the active components, there should be reassessment of the inequity allowing payment of disability income to reservists based on ability to perform a civilian occupation while basing active duty members' "disability income" on ability to perform military duties.

- **In order to ensure that reservists are justly compensated for illness, disease, or injury incurred or aggravated by military service, and to remove the inequity that now exists, the 6th QRMC recommends the following changes:**

  - **Compensation payable to a reservist incapacitated in the line of duty should be restructured to provide a common standard for compensation of members incapacitated while performing active duty or inactive duty or while travelling to or from such duty.** The new standard would provide full pay and allowances to incapacitated members except those who received earned income from nonmilitary employment or self-employment performed during a month in which they were entitled to incapacitation pay. (Earned income includes wages, salaries, professional fees, tips, and other amounts received as compensation for personal services actually rendered.) If a member received such earned income, the incapacitation pay would be reduced by the amount of the earned income. Income from an income protection plan, vacation pay, and sick leave would be included as earned income if the member elected to receive such income.

  - **A separate standard should be provided for reserve component members who suffer an injury, illness, or disease or the aggravation of an injury, illness or disease in the line of duty, which does not incapacitate them for their military duties but does incapacitate them for their civilian employment, resulting in a loss of earned income from nonmilitary employment or self-employment.** The amount of compensation for such

incapacitation would be the member's demonstrated loss of earned income, not to exceed the amount of military pay and allowances that would be payable during the period. By distinguishing between members who are not physically qualified to perform their military duties and members who are not physically qualified to perform in their civilian occupation, the statutory distinctions between reserve component members and active duty members are reduced, at the same time providing compensation for loss of civilian income for members who cannot perform their primary livelihood.

- The following limits should be established on compensation for incapacitated reservists: (1) the total amount of incapacitation pay for any period should be limited to the amount of pay and allowances provided by law or regulation for a regular member of the same grade and length of service; (2) the compensation period should be limited to a maximum of six months unless a specific determination is made that continuation is warranted in the interests of equity and fairness; (3) there should be no entitlement to compensation for incapacitation as a result of gross misconduct of the member; and (4) the payment of incapacitation pay should be under regulations prescribed by the Secretary of Defense or, in the case of the Coast Guard Reserve, the Secretary of Transportation.

It is estimated that the annual cost of the QRMC recommendations would be approximately $1 million.

Benefits for Dependents of Incapacitated Reservists

The reservist receiving incapacitation pay is not on active duty. As a result, the member's dependents do not have the same entitlements and privileges as the dependents of members on active duty. The practical effects of this distinction were demonstrated, during the QRMC review, by a case involving the hospitalization of members seriously injured in an aircraft accident. Some of the members who were hospitalized as a result of the accident were on active duty for more than 30 days (and remained on active duty while hospitalized). Other hospitalized members were on active duty for 30 days or less. The place of hospitalization was over a thousand miles from the members' homes.

As a result of the differences in military status of the injured members, their dependent spouses, who travelled to their bedsides at the military installation where they were hospitalized, received disparate treatment. The QRMC review found that, for members hospitalized and drawing incapacitation pay but not on active duty, authority existed to provide their

dependents with access to base facilities, including commissary, exchange, and transient quarters. There is no authority with respect to medical treatment of the dependents, however, and this was a specific problem and source of confusion. Further, a 1987 change to the law provides authority for the transportation of up to two family members to the bedside of a member on active duty who is hospitalized. This creates further potential for disparate treatment of the dependents of active and reserve members hospitalized as a result of injuries received in a military accident.

- **The 6th QRMC recommends the following:**
  - **Section 411h(a) of title 37, United States Code, should be amended to provide authority for the round-trip travel of not more than two dependents of a reserve member who is entitled to compensation for incapacitation incurred in the line of duty and who is hospitalized and seriously ill or injured. With this change, the dependents of seriously ill or injured reservists would be accorded the same benefit as the dependents of an active duty member in the same circumstances.**
  - **Section 1076 of title 10, United States Code, should be amended to provide space-available medical and dental care in facilities of the uniformed services, for dependents of reservists who are hospitalized in a facility of the uniformed services as a direct result of an injury, illness, or disease incurred or aggravated while on active duty for 30 days or less, on active duty for training, on inactive duty training, or while traveling to or from. The purpose of this recommendation is to eliminate the disparate treatment accorded to dependents of reservists in receipt of incapacitation pay, as compared with the treatment of dependents of members on active duty, when the military sponsor is hospitalized. This care would be subject to the availability of space and facilities and the capabilities of the medical and dental staff.**

The QRMC concludes that, in addition to the need, on their own merits, for the recommended medical care and travel benefits, the existence of these authorities would underscore and support the policy of providing installation support to dependents in the limited circumstances under discussion. The number of dependents who would meet the conditions of these benefits would be quite small and any budgetary impact of the medical and travel authorities would be minimal.

Reserve Members' Eligibility for DIC Coverage

The purpose of Dependency and Indemnity Compensation (DIC) is to provide an annuity to the dependents of deceased service members and veterans who die from a service-connected or compensable disability. This compensation is partially to replace family income lost due to the member's death and partially to serve as reparation for that death. DIC is administered by the Veterans' Administration.

DIC is payable to survivors of members who die from a disease or injury incurred or aggravated in line of duty while on active duty or active duty for training, and to survivors of members who die from an injury incurred or aggravated in line of duty during inactive duty training. Another death benefit, the death gratuity, has long been payable for death of members on active training duty or inactive training duty. It is also paid for death resulting from disease or injury incurred or aggravated while performing active duty training or while traveling to and from such duty, and for death resulting from injury incurred or aggravated while performing inactive duty training or while traveling to and from such duty that occurs within 120 days following released from the duty.

Statutory provisions relating to the death gratuity were amended in 1986 to add death from illness or disease incurred or aggravated during inactive duty training or during travel to and from that training. This amendment was part of the same legislation that modified and made uniform the medical and incapacitation benefits for reservists. No provision was made, however, to provide DIC coverage consistent with the expanded coverage provided for payment of the death gratuity.

- **The 6th QRMC recommends legislative amendment to extend eligibility for DIC to survivors of reserve members who die from disease incurred or aggravated in line of duty while performing inactive duty training or while traveling to or from inactive duty training.**

The estimated annual cost to the Veterans' Administration of extending DIC coverage as proposed would initially be less than $400,000 per year. The pool of beneficiaries would increase over a 25-year period, after which time the number of additional survivors receiving DIC should stabilize at approximately 1,000. At that time the annual cost is estimated at $9 million.

Death Gratuity

The current death gratuity provisions were established in 1956, with the stated purpose of providing an emergency fund to assist the survivors of deceased members of the armed forces to meet their financial needs during the six- to twelve-week period

immediately following a member's death before other survivor benefits are made available. Current law provides for the payment of a death gratuity to the survivors of a military member who dies while on active duty or within 120 days following release from active duty if the cause of death is from a disease or injury incurred or aggravated while on active duty. Reserve component members are included within this eligibility while serving on active duty for training (ADT) or inactive duty training (IDT), or while traveling to or from such duty. The death gratuity entitlement is equal to six months' basic pay and special and incentive pays at the rate to which the decedent was entitled, with a floor of $800 and a ceiling of $3,000. These limits, as enacted, actually ranged from 10.3 months' pay for the lowest enlisted grade to 2.1 months' pay for the most senior officers.

The upper and lower limits on the amount of the death gratuity have remained unchanged since their enactment in 1956. As a result, all grades now receive the maximum amount of $3,000. Because the amount of the death gratuity has not been adjusted since 1956, its economic benefit has been severely eroded and no longer provides the financial assistance originally intended by Congress.

The 5th QRMC recommended that the death gratuity be based on three months' basic pay, quarters allowance, and subsistence allowance to which the member was entitled at the time of death. The 5th QRMC also recommended that the floor and ceiling amounts be increased to $3,000 and $9,000, respectively, with the amounts to be reviewed and revised as needed every four years.

Following the Newfoundland air crash of 1985, which resulted in the death of over 200 soldiers, Congress provided an entitlement for dependent survivors to remain in government quarters for up to 90 days or continue to receive housing allowances for up to 90 days if they were not occupying government quarters. This added benefit partially offsets the erosion of the economic value of the death gratuity.

The authority to provide quarters or housing allowances is limited to dependent survivors, whereas the death gratuity may be paid to other immediate family members, such as parents or brothers and sisters, when the member does not leave any dependent survivors. In the view of the QRMC, this is preferable; it provides the benefits to the directly affected survivors who will experience the greatest immediate costs.

The QRMC reviewed this entitlement in view of the recent legislative changes to the death gratuity, including the extension of eligibility for the death gratuity to reservists who die as a result of illness or disease while traveling

directly to or from inactive duty training. The review focused on the adequacy of the immediate payment to the survivors of military members and on its application to the Total Force.

If the floor and ceiling amounts of the death gratuity were adjusted upward to provide an economic benefit equivalent to that provided in 1956, the following amounts would be applicable based on 1987 military pay scales and the original floor and ceiling amounts expressed in the number of months base pay each represented:

FLOOR - $608 (lowest pay grade) x 10.26 months = $ 6,238

CEILING - $5900 (highest pay grade) x 2.06 months = $12,154

The QRMC concludes that death benefit payment should be based on the compensation elements that typically support household expenses for the length of the period between the death of the member and the receipt of other survivor benefits. To increase the death gratuity to accomplish this purpose, would result in higher payments being made to all survivors, not just to surviving dependents who usually suffer the costs associated with the member's death and the cessation of the member's pay. It is also important that the payment keep pace with the cost of living in the future.

A review of the new entitlement provided in 1985 indicates that with slight modification it could, in combination with the existing death gratuity, be reasonably close to three months of pay and allowances for junior members with dependents. By making the entitlement payable for six months instead of three and making the payment immediate, the objective of prior death gratuity proposals could be achieved. This approach would provide an indexed payment amount and provide a higher payment to the survivors with the greatest need. Because the additional pay would go only to dependent survivors, cost increases would be only 60 percent of previous proposals. The existing death gratuity would remain at $3,000, and there would be a gradual reduction in its value over time.

Consideration of the Total Force application of the death gratuity indicated unwarranted differences. Currently, reserve members who die during or following IDT do not receive payment of three months' quarters allowance because they are not entitled to basic pay, which is a prerequisite for entitlement to the basic allowance for quarters. There is no logical difference in their status as compared with fellow reservists who die while performing annual training or other short periods of active duty.

The QRMC concludes, therefore, that the death gratuity system is defective in that it does not provide a means to adjust the amount of the benefit payable to the survivors of a deceased service member. As a result, the economic benefit of the gratuity was severely eroded between 1956 and 1987. In addition the death gratuity payment does not treat members uniformly and the differences that exist are not warranted by differing conditions of service or need.

- **The 6th QRMC recommends that Public Law 99-227 be amended to extend the current three months' housing allowance payment to six months, payable immediately or when quarters are vacated (with an offset for the time quarters were occupied). This allowance would be payable only to dependent survivors or on their behalf if the dependents are minors. This benefit would apply the same eligibility criteria as for the $3,000 death gratuity, including coverage for IDT, ADT, and travel to and from such duty.** The QRMC recommendation would provide for benefits (depending upon pay grade) for those with dependent survivors, ranging from $1,986 to $5,592 which, with the existing death gratuity, would provide a combined benefit of from $4,986 to $8,592. Those whose survivors are not dependents would continue to receive only the $3,000 death gratuity.

- **The 6th QRMC also recommends amendment of section 403(l) of title 37, United States Code, to provide the same death gratuity to dependent survivors of all members who would have received a housing allowance at the "with dependents" rate had they been serving on active duty instead of inactive duty training at the time of their death. This will ensure that the death gratuity is applied in an equitable manner to all members of the Total Force.**

The annual cost of the recommendation is estimated to be $3.5 million.

Group Life Insurance

When established in 1965, SGLI was available only to members on active duty for more than 30 days. In 1970, SGLI was made available to reservists on active duty for less than 31 days or performing inactive duty training scheduled in advance. The program for reservists was modified in 1974, so that all Ready Reserve members scheduled for 12 inactive duty training periods a year were eligible to participate. Eligibility was also extended to reservists under age 61 who were eligible for receipt of reserve retired pay except for having reached their 60th birthday. The 1974 Act also created a new program of Veterans' Group Life Insurance (VGLI).

Today, continuous SGLI is available to reservists who have qualified for retired pay at age 60 and to most members of the Selected Reserve within the Ready Reserve. The following Ready Reservists are not eligible for continuous SGLI (unless qualified for retired pay except for being at least age 60):

- Certain Individual Mobilization Augmentees in the Selected Reserve
- Members of the Individual Ready Reserve (IRR)
- Members of the Inactive National Guard (ING)

In 1985, eligibility for VGLI was extended to members of the IRR and ING, that is to all members of the Ready Reserve not in the Selected Reserve. Thus, all Ready Reservists, with the exception of Selected Reserve IMAs who have an annual active duty for training requirement but do not perform IDT, are eligible for either SGLI or VGLI coverage.

Selected Reserve IMAs are subject to the same mobilization vulnerabilities as all Selected Reservists and may be mobilized for up to 180 days at Presidential discretion. Currently there are approximately 13,500 Selected Reservists who are not required to perform IDT. Ninety-seven percent are in the Army Reserve. About 10,000 of these members are eligible for neither SGLI nor VGLI (approximately 3,500 are eligible for SGLI as a result of their having completed 20 good years for reserve retirement).

Neither SGLI nor VGLI is now subsidized by the government. They are, in effect, self-sustaining group insurance plans that contract with outside civilian insurance companies to obtain insurance coverage. SGLI, which covers members with a lower median age, provides coverage for a very low group rate. VGLI participants constitute a much older group with much higher premiums. The QRMC concludes that the most reasonable alternative is to provide SGLI coverage for all Selected Reservists.

- **The 6th QRMC recommends that subchapter III of chapter 19 of title 38, United States Code be amended to provide full Servicemen's Group Life Insurance benefits on an equal basis to all members of the Selected Reserve.**

Eligibility for Burial in National Cemeteries

Ready Reservists who are not veterans of prior active service are veterans for the purpose of eligibility for burial in national cemeteries under the following circumstances:

- They die while hospitalized or undergoing treatment at government expense for injury or disease contracted under honorable conditions while performing active duty for training, inactive duty training, or traveling to or from such duty.

- They are disabled or die from disease or injury incurred or aggravated in line of duty during or enroute to or from active duty for training.

- They are disabled or die from injury (but not disease) incurred or aggravated in line of duty during or enroute to or from inactive duty training.

Under the current provisions, reserve members who have not met one of the above requirements, are not eligible for burial in a National Cemetery. In the view of the 6th QRMC, these provisions fail to recognize sufficiently the nature of National Guard and Reserve service in the Total Force.

- **The 6th QRMC recommends that all members of the Selected Reserve, plus reservists in any category who have completed the service requirements for retired pay under chapter 67, United States Code, or who are in receipt of such pay, should be added to the list of persons qualified for burial in a national cemetery.** Extension of this benefit to such members is clearly warranted. Their participation requirements, their mobilization vulnerability and the requirement that they be prepared to report within 24 hours of notification underscore the fact that today's Selected Reservists are continuous members of the Total Force. National Guard and Reserve members who have maintained a commitment to the armed forces for at least 20 years should also be afforded eligibility for burial in our national cemeteries as a reflection of the service they have voluntarily rendered their country.

The Veterans' Administration has estimated that implementation of the QRMC recommendation would increase its annual budget by approximately $123,000.

Funeral Travel Allowances for Survivors of Reservists

The Department of Defense Authorization Act, 1986, provided discretionary authority for the DoD to provide round-trip travel and transportation allowances to the dependents of members who die while on active duty for a period of 30 days or more so that they can attend the member's burial ceremonies. This authority was added after the Gander, Newfoundland, aircraft crash involving soldiers of the Army's 101st Airborne Division.

In providing this discretionary authority, the Congress unintentionally created a situation where the Secretary of a Military Department might be faced with the dilemma of authorizing travel for the next of kin of members who had been on active duty under orders specifying a period of 30 days or more but not having authority to authorize such travel for dependents of members serving shorter tours.

- **The 6th QRMC recommends that section 411f(a) of title 37, United States Code, be amended to provide transportation for survivors of deceased reserve members to attend the member's burial ceremonies identical to the authority now provided for survivors of members on active duty for a period of 30 days or more. The cost for this authority would be minimal.**

Survivor Benefit Plan for Reserve Retirees

Congress created the Survivor Benefit Plan (SBP) to provide an improved program of income protection for survivors of retired and retirement-eligible members of the uniformed services. Predecessor plans had failed to produce a reasonable level of participation. Coverage for retirement-qualified reservists prior to receipt of retired pay at age 60 was established in 1978 and is known as the Reserve Components Survivor Benefit Plan (RCSBP).

In 1986 a number of revisions were made to SBP, the most important of which was a two-tier annuity adjustment that replaced a method under which the Social Security offset was separately calculated for each annuitant. This change was generally positive with respect to active force survivors and retirees, but the effect on survivors of members in the reserve retirement system appeared to be unfavorable. The QRMC study plan thus included the evaluation of this aspect of SBP so as to determine whether further modification was warranted with respect to survivors of reservists.

The purpose of SBP is to provide survivors of military personnel who die after retirement eligibility with a reasonable level of income. The SBP annuity provides a payment of up to 55 percent of the deceased member's retired pay. Eligible members are active duty personnel with at least 20 years of active service, active duty retirees, reservists with 20 years of qualifying service, and retired reservists. Eligible beneficiaries include surviving spouses or former spouses, children, and persons with insurable interest.

The size of the survivor's annuity depends on the base amount (in general, any amount between $300 and full monthly retired pay) chosen by the member. For members who initially become eligible for retirement after October 1, 1985, the two-tier

system applies. Fifty-five percent of the base amount is paid to spouses until they reach age 62, after which the benefit level drops to 35 percent of the base amount. This two-tier system does not apply to eligible children. A further reduction of the annuity may result from entitlement to Dependency and Indemnity Compensation (DIC). SBP annuities for children are not reduced by DIC.

SBP coverage is automatically provided at no cost to members on active duty who have completed 20 years of active service and are married or have dependent children. Upon retirement from active duty, these members must make an election concerning SBP.

Reservists who complete 20 qualifying years for retired pay eligibility must make the SBP decision within 90 days of receiving their "20-year letter." Upon receipt of this notification, there are two basic choices available under the RCSBP. A reservist may choose to participate in SBP, electing either a deferred annuity or an immediate annuity for the surviving spouse. The result of this election of coverage before age 60 is a higher premium cost than that for the standard SBP. The other choice is to decline participation until receipt of retired pay at age 60, when an election to accept or decline coverage under standard SBP is required.

There is a risk inherent in an election to defer the SBP election until age 60. If the reservist dies before reaching age 60, beneficiaries will not be eligible for an annuity under the SBP. Furthermore, survivors will not be eligible for such benefits as medical and dental care, or use of commissaries, exchanges, and base recreational facilities, to which they would otherwise have been eligible on the 60th anniversary of the deceased reservist's birth.

Eligible survivors of reservists who elect deferral of survivor annuity payment until age 60 or the date of death of the member, whichever is later, will be entitled to the medical and other benefits that are available to dependents of a member in receipt of retired pay, as mentioned above. This eligibility commences on the 60th anniversary of the deceased reservist's birth. Similarly, if the member elects survivor annuity payments beginning at time of death, eligibility for the associated benefits commence on the 60th anniversary of the deceased member's birth.

For active duty retirees and reserve retirees who choose standard SBP at age 60, the cost of participation for spouse-only coverage is fairly straightforward. The 1985 law provides an indexing mechanism for the minimum base amount ($300). This threshold increases annually by the same percentage as basic pay. Currently, the threshold subject to a 2.5 percent charge

for SBP is $324, amounting to very low-cost minimum coverage. The cost for coverage above the threshold is 10 percent of the remaining base amount.

Retired reservists who elect either deferred or immediate annuity options for coverage before age 60 are subject to a cost structure that factors in the ages of the member, spouse, and children. The additional cost of coverage before age 60 increases the standard plan premium and also reduces the survivor's annuity. Coverage before age 60 (RCSBP) is entirely funded by members and survivors; the government does not share this cost.

SBP premiums will increase by the same percentage as does retired pay in the event of cost-of-living adjustments. Survivor payments also increase at the same rate so that the buying power of the annuity will not be adversely affected by inflation. The true cost of SBP participation is somewhat less than the actual premium because premiums are deducted from gross retired pay for federal tax purposes.

A comparison of the rates for active versus reserve participation indicates that reserve members find SBP more attractive than do active force retirees. Participation rates for nondisability active duty and reserve retirees are as follows:

	Active	Reserve
Officer	68%	84%
Enlisted	46%	82%

One reason for this difference is that reservists are subsidized to a greater degree than are active duty retirees. SBP was designed as a cost sharing plan. Congressional intent was that, for the program as a whole, the government share of the cost should approximate 40 percent, while premiums from retirees should fund 60 percent of the cost of the SBP program. Current subsidy levels are as follows:

	Officer %	Enlisted %	Total %
Nondisability Retirees (excluding reservists)	34	53	44
Retired Reservists (age 60)	62	79	68
Disability Retirees	60	70	67
Death on Active Duty	100	100	100
Overall Group Subsidy	45	60	52

Two factors affect the subsidy rate: age at retirement and size of the base amount. Older retirees pay premiums over a shorter life span. Reservists are not entitled to receive retired pay until reaching age 60, and SBP reductions commence at that time. The active duty retiree will in most cases draw retired pay at a much earlier age and therefore have many more years of SBP premium payments than will the reservist.

The size of the base amount also has an impact because of the 2.5 percent rate applied to the threshold amount (currently $324). For a large base amount, the premium is nearly 10 percent. Smaller base amounts result in a premium closer to 2.5 percent. The government subsidy is much greater for the low-cost coverage. Average gross monthly retired pay for active duty and reserve nondisability retirees in FY 1987 is provided below:

	Active	Reserve
Officer	$2,098	$842
Enlisted	$1,035	$492

This illustrates the substantial difference in the relative size of possible base amounts for active versus reserve members, which has a significant impact on subsidy rates. Since benefit levels are the same for active and reserve retirees, it would appear that reservists are getting equal benefits for lower cost.

Beneficiaries of members who were retirement eligible, retired, or had achieved 20 qualifying years before October 1, 1985, may receive the higher of the annuity calculated under the new two-tier offset or under the prior offset method. Prior to the 1985 change, survivors incurred up to a 40 percent reduction in SBP annuity, based on the value of Social Security wage credits earned during the member's active military service. For most active duty retirees, this offset is equal to the cap of 40 percent, resulting in a benefit level at age 62 of 33 percent of retired pay. Reserve retirees, on the other hand, have an average offset of approximately 16 percent, resulting in a benefit level at age 62 of 46 percent of retired pay. Until January 1, 1988, reservists paid no Social Security tax on inactive duty training pay and therefore did not earn wage credits for a substantial portion of their reserve service. Their Social Security wage credits were earned predominantly from civilian employment. The two-tier system represents an effective offset rate of 36 percent, which is uniformly applied to survivors of both active duty and reserve retirees without consideration of type of earnings base, military or civilian.

Obviously, this new method of calculating survivors' benefits at age 62 is advantageous for active duty members but relatively less beneficial for reservists.

On the other hand, reservists are receiving equal SBP benefits and paying lower SBP costs than active-duty retirees. The lower costs result from the high government subsidy for reserve retirees. To reinstate the offset method for reservists would increase the subsidy rate from 68 percent to 76 percent, thereby further reducing the costs for this subgroup. Costs for coverage before age 60 (funded by the member and not considered as part of subsidy levels) were reduced because of the reduced benefit level as provided in the 1978 law that established RCSBP.

Major beneficiaries of the 1985 change that indexed the base amount subject to the 2.5 percent rate are enlisted members and reservists, because of their relatively lower retired pay. The 6th QRMC concludes that it would be difficult to justify a change to remedy an adverse feature for one subgroup without considering appropriate adjustments to cost levels to ensure that all participants are treated fairly.

The 1982 enactment of the Uniformed Services Former Spouses' Protection Act, concerned with protection of unremarried former spouses, broadened the scope of SBP coverage and added a new dimension of complexity to a program that is already somewhat difficult to explain and comprehend. The purpose of the QRMC review of this feature is to discuss an inconsistency created by the Act, which extended military-related benefits to former spouses when certain conditions concerning marital status and length of concurrent marriage/creditable service are met. These benefits may include such entitlements and privileges as medical and dental care, and use of commissaries and exchanges. Unremarried former spouses of reserve retirees may be entitled to these benefits on the 60th anniversary of the deceased member's birth without regard to the member's SBP election.

This situation is clearly inconsistent with the statutory provisions governing benefits afforded the surviving spouse of a reserve retiree who dies before age 60 without electing SBP coverage. The surviving spouse in this case is not entitled to benefits because they are tied to the SBP election of the member. The Uniformed Services Former Spouses' Protection Act eliminated, for former spouses only, the requirement that the deceased reservist must have elected to participate in SBP in order for medical and other benefits to be available.

Previously, denial of these entitlements and privileges was based on the rationale that, without entitlement to retired pay, there is no entitlement to the benefits. It would appear that the provisions of the Former Spouses' Protection Act would serve

as a basis for extending these entitlements and privileges to all unremarried surviving spouses of retired reservists who die before attaining age 60. This would eliminate the significant inequity borne by the unremarried widows and widowers of certain deceased reservists, as distinguished from the unremarried former spouses of deceased reservists. It would also eliminate what the QRMC concludes is an unintended nexus between SBP and other benefits normally available to survivors of active and retired military members.

SBP is an important element of the compensation package and also one of the most complex and least understood. The results of the 6th QRMC reserve unit visit program and the 1986 Reserve Components Surveys reflect a widespread lack of information and knowledge concerning SBP. Survey results indicate that 40 percent of married reserve enlisted personnel who have completed over 12 years of service but are not yet eligible for retirement lack sufficient understanding of the SBP to indicate their participation intentions. Overall, 40 percent of reserve officers and 46 percent of enlisted members indicated that they are either unaware of the SBP or do not understand it. Over 80 percent of Selected Reservists and 85 percent of their spouses expressed a high degree of interest in receiving informational materials concerning SBP.

Benefit levels, costs, linkage to other military benefits, and individual financial and dependent circumstances must all be considered and weighed as part of the SBP decision making process. Although each service provides members RCSBP information and election forms upon issuance of the "20-year letter," these materials are limited in scope and often complicated. Reservists are forced to make a long-term decision within 90 days with little preparation. SBP materials of general informational value would be helpful, placing less emphasis on mechanical calculations and providing a clear overview of the program.

During the course of the QRMC review, the QRMC Steering Committee requested that two additional issues be evaluated. The first was the feasibility of an option that would permit reservists electing RCSBP upon completion of 20 satisfactory years for retirement to change SBP coverage at age 60. The second was a proposal that would provide a flat 50 percent SBP annuity not integrated with Social Security. The QRMC did not recommend either of these options.

- **The 6th QRMC recommends the following:**
  - **That section 1076(b) of title 10, United States Code, be amended to authorize medical and dental care in facilities of the uniformed services, subject to the availability of space and facilities and the**

capabilities of medical and dental staff, and CHAMPUS entitlement under section 1086 of title 10 (which applies to retired members and their dependents) for unremarried surviving spouses of retired reservists on the 60th anniversary of the deceased member's birth, without regard to SBP election.

- That the services make maximum distribution of information on RCSBP to increase awareness and understanding of the program and to promote its use as a midcareer retention tool.

Implementation of the QRMC recommendation with respect to medical and other benefits for surviving spouses of members who died prior to age 60 without electing an SBP option would cost an estimated $895,000 in the first fiscal year ($75,000 of this amount is the cost for surviving spouses of retirees who would reach age 60 in the first fiscal year after implementation).

Compensation for Reservists Undergoing Medical Evaluation

In 1965, the Comptroller General ruled that (B-155974) "an enlisted reservist in an inactive status who traveled at his own expense incident to orders to report for 1 day of 'active duty for training' for the purpose of a physical evaluation to determine his fitness for retention in the Reserve may not have the compliance with orders regarded as 'active duty' for entitlement to pay and allowances where the member performed no active duty and none was contemplated; therefore, the member is not entitled to pay and allowances and point credit for retirement." A 1975 Comptroller General ruling (B-181762) reached the same conclusion. As a result, military pay and allowances may not be paid to reservists ordered to active duty for a medical evaluation to determine their fitness for duty or retention in service.

In accordance with current DoD policy, reserve members who test positive for the HIV virus will be retained in the Selected Reserve unless they cannot be used there because of assignment limitation policies established for military personnel with serologic evidence of HIV infection. All Services now hold that a reserve member infected with the HIV virus incurred this condition while in the civilian community. Therefore, the condition existed prior to service and the government has no liability for a severance pay discharge, disability benefits, or treatment for the condition. To confirm the medical status of the member, however, periodic evaluation is required. Review with the Services indicates that there are a variety of circumstances where medical evaluation is required. For example, the reserve components of the Air Force would use such authority to call pilots and aircrew members to active duty, should unusual or abnormal findings be encountered during a

flight physical, in order for these members to undergo a specialized medical evaluation. As with the HIV evaluation, the medical evaluation would take approximately five days to complete.

- **The 6th QRMC recommends that authority in law be provided to recall a reservist to active duty for a medical evaluation with full pay and allowances.** In the view of the QRMC, such law should be implemented in accordance with DoD and Military Department policies. The law should provide broad authority for medical evaluation when it is determined to be in the best interest of the Service in conformance with policies established by DoD and the Military Departments.

For all Services and for all types of cases where medical evaluation is required, the annual cost is estimated at $863,000.

Compensation of Full-Time Support Personnel

Background

Compensation of full-time National Guard and Reserve members employed in support of the reserve components was one of the reserve compensation programs reviewed by the 6th QRMC as a separate issue. As administratively classified by the DoD, full-time support personnel include active component personnel (15,738), military technicians (61,651), Active Guard/Reserve (AGR) members (63,518), and civil service employees (18,333). The full-time support total of 159,240 (as of September 30, 1986) makes it readily apparent that this function requires an important segment of total defense manpower. Military technicians and AGR members, who account for four out of five full-time support personnel, were the focus of attention. The review did not include the Coast Guard Reserve because full-time support in that component is provided by reserve program administrators who are part of the active component. The background, findings, and recommendations of the QRMC are set out in detail in Volume 1A of the report.

The objective of full-time support is to enhance the readiness of reserve forces. This program is largely responsible for enabling reserve forces to perform the expanded missions they have been assigned under Total Force policy. The cadre of military technicians and AGRs plays an especially important role in providing support at reserve unit level. Military technicians are full-time federal employees who are, as a condition of employment, active military members of the reserve component in which they are employed as civilians. They must enter active military service when called. AGRs are members of

the Selected Reserve who have been called to full-time active military duty for the purpose of organizing, administering, recruiting, instructing, or training the reserve components. "TAR" is the Navy acronym for a special category of AGR members whose career specialty is Training and Administration of Reserves.

During the past decade, many difficult questions have arisen about the growth, cost, force mix, program objectives, and management of the full-time support program. From a compensation perspective, two major questions have arisen:

- Should AGRs and TARs receive essentially the same compensation as active component members, given the perceived differences in conditions of service between these two groups? This question potentially affects all components. It stems from the perception that the hardships associated with military service occur less frequently and with less severity in AGR/TAR service than in active component service.

- Are military technicians or AGRs the most cost-effective form of full-time support manpower? This question potentially affects the reserve components of the Army and Air Force.

In reviewing these questions, the 6th QRMC operated from the premise that military compensation must support defense manpower policies that, in turn, support the military, strategic, and operational plans of the Nation. Therefore, conclusions and recommendations were sought that would enhance the readiness objective of the full-time support program.

Origin of Reserve Component Full-Time Support Programs

The practice of providing full-time support to reserve units is not new. At the turn of the century, full-time civilian caretakers were hired to maintain the horses and supplies in National Guard units. During the same period, active component members were detailed to reserve units as instructors and inspectors. There is also a long tradition of calling reservists to full-time duty at the seat of government on so-called "statutory tours," to other tours of duty at state headquarters of the National Guard, and to intermediate military headquarters for the purpose of preparing and administering the policies and regulations affecting the reserve components. Descendants of all these programs exist in the reserve components today, encompassed by the term "full-time support."

After World War II, it became apparent that the traditional concept of reserve forces constituted in the "civilian components" was inadequate to meet the challenges of modern

defense requirements. The wartime experience had proven that reserve forces as organized and trained before the war simply would not be prepared for mobilization, deployment to an overseas theater, and employment in combat in a timely fashion and at the necessary levels of proficiency.

Today, the Nation maintains only the minimum essential active forces and has placed increased reliance on the reserve components, not only to provide forces to support a full mobilization in the event of war, but also to provide forces to be called upon in circumstances short of war. As a consequence, the Nation now also relies heavily upon operational support from its reserve forces in peacetime. Each of the reserve components has developed different approaches to this dual challenge within the context of its own specific requirements and missions; however, they all rely heavily on full-time support in one form or another to get the job done.

Army Full-Time Support Programs

Army full-time support programs include both military technicians and AGRs. Military technicians provide unit support. Most are members of the units in which they work as civilians, although large numbers are employed as civilians in area support activities and in some headquarters elements that are not mobilizing units. Beginning with a military technician conversion test in FY 1978 and 1979, AGRs have been assigned in increasing numbers to provide unit support along with military technicians. All Army AGRs are managed as careerists.

Navy Full-Time Support Programs

The Navy relies primarily on TARs for full-time support of its reserve forces. Beginning in 1945 the Navy pioneered the concept of reliance on uniformed, full-time active duty reservists to provide unit support. TARs play a key role as ship's company in the Naval Reserve Fleet. To keep Naval Reserve forces current with operations in the active fleet, TARs maintain a close association with the regular Navy. Among their other assigned functions, TAR officers routinely serve tours of duty with the regular Navy. Before FY 1983, TARs were members of the active Navy. They were transferred to the Naval Reserve in that year for personnel strength accountability and funded from reserve personnel rather than from military personnel appropriation accounts to provide AGR program uniformity within the DoD. In addition to TARs, the Navy AGR program also includes other full-time reservists on statutory tours and on recruiting duty.

Marine Corps Full-Time Support Programs

Although the Marine Corps Reserve does use full-time reservists, most of its full-time unit support is provided by active Marine Corps Instructor-Inspector (I&I) teams attached to Marine Corps Reserve units. The Marine Corps Reserve is organized as a division/wing team that mirrors the three teams composing the bulk of the Corps' active component manpower structure. The nature of the Marine Corps Reserve training mission and day-to-day operational requirements generally does not demand a large proportion of full-time members with relatively narrow, highly technical skills in long-term, stable assignments. It is in this context that the active component provides full-time support for reserve units. The simplicity and flexibility of such a plan is self-evident. In addition to instructing and inspecting, I&I teams provide a natural means of coordination and liaison with active units. This assists the Corps in integrating the peacetime and wartime support provided by its reserve forces.

Air Force Full-Time Support Programs

When the Air Force was established as a separate service in 1947, its full-time support force had its roots in the National Guard's system of military technicians. The Air Force has continued to depend primarily on technicians to provide most required full-time support. Both Air Force reserve components use AGR personnel for statutory tours and reserve recruiting duty, and the Air National Guard uses AGRs for unit support. All full-time unit support in the Air Force Reserve is provided by military technicians. The full-time support programs in both Air Force reserve components have been highly successful.

Life-Cycle Management of Full-Time Support Personnel

There are significant differences in the full-time support programs of the Military Departments. These differences emanate from the unique structure and functional needs of each component, and are reflected in both law and policy. Consequently, there are distinct management procedures and force characteristics for each category of full-time support in each component. For example, military technicians in the National Guard are in the excepted civil service category, while technicians in the Army Reserve and Air Force Reserve are in the competitive service. Career programs vary for AGRs with highly developed programs in the Navy while Marine Corps Reserve AGRs serve on specified tours in a noncareer status.

AGR/TAR and Active Component Compensation

Should AGRs and TARs receive essentially the same compensation as active component members, given the perceived differences in conditions of service between these two groups? Full-time AGR members, including Navy TARs, are compensated under essentially the same pay and benefit systems as active component military members. Concern has been expressed about this situation, based on the perception that AGRs and TARs are not subject to the same rigors and hardships characteristic of service in the active military components. Most often mentioned among the hardships of the active component member are the frequent permanent change of station (PCS) moves brought about by changes in duty assignments and the family separations caused by remote overseas assignments or deployments aboard ship.

The 6th QRMC analysis entailed two major avenues of investigation: a comparison of conditions of service and a comparison of the elements of compensation as they are paid to these two groups. The comparison of conditions of service included institutional policy and perspectives as well as perceptions of active and reserve component members about service conditions, using the results of the 1985 DoD Survey of Officer and Enlisted Personnel (active component) (1985 DoD Member Survey) and the *1986 Reserve Components Survey*: Full-Time Support Officer and Enlisted Personnel (1986 RC AGR Survey). Results of the surveys are supported by available objective data in the Reserve Components Common Personnel Data System (RCCPDS). The 1986 RC AGR Survey provides the first available comprehensive reserve component data in this area; therefore, this analysis provides a new and unique perspective on the issue. The comparison of compensation elements was made to validate the hypothesis that their application is essentially identical for both groups.

The policies that govern conditions of service for individuals must be developed within the context set by statutory authority and congressional guidance. AGR duty assignments must be made to accomplish the reserve support functions specified in the law. National Guard members ordered to full-time National Guard duty are not in federal service, and they generally serve in their home state. Guardsmen and Reservists ordered to active duty under section 672(d) of title 10, may be detailed to other duties only for the specific purpose of periodic refresher training under the authority of section 678 of title 10; they may not be detailed to other duties simply to meet the requirements of the active component.

Comparison of Conditions of Service

Through the analysis of survey data and other supporting data, it has been possible for the first time to make across-the-board quantitative comparisons of many aspects of the conditions of service for active component members and AGR/TARs. As expected for the two most often-cited areas, frequency of moves and family separations, active component members do have the most rigorous service conditions, but the comparisons also depict a wide variation within and between components and reveal that a relatively high level of short-term separation from family is experienced by the AGR population.

Navy TARs report short- and long-term separation from their families at rates virtually identical to those reported by their counterparts in the active Navy, but there are wide differences between members of other reserve components and their active component counterparts. When comparing officer and enlisted populations within components, the differences in conditions are often far greater than the corresponding differences between active component members and AGR/TAR members. Across the range of conditions of service, the results are mixed; because the results are mixed, it would be especially difficult to devise a general formula to relate rigors of service to compensation rates.

Comparison of Compensation Elements

A systematic review of all compensation elements confirmed that compensation systems for active component members and AGR/TARs are essentially the same. However, equal application of compensation rules does not necessarily mean that compensation costs are identical for these two groups. The number of members drawing special pays, for example, was found to be higher on the active component side. Likewise, since enlistment, reenlistment, and other bonuses are paid by policy on the basis of service needs, AGR/TAR members do not currently receive bonuses even when the statutes authorize them. Finally, several pays and allowances, such as the variable housing allowance, family separation allowance, dislocation allowance, and hostile fire/imminent danger pay are paid on the basis of exposure to a particular condition of service. Compensation elements that are related to conditions of service are inherently more efficient and equitable than any general remedy ever could be.

Four technical or structural differences were found in examining elements of active component and AGR/TAR compensation:

- VA Benefits for active component members and AGRs in federal service differ from benefits for National Guard AGRs on full-time National Guard duty under state control.

- Entitlement to nondisability separation pay for regular enlisted members differs from that for AGR/TAR enlisted members.
- Entitlement to selective reenlistment bonuses for regular enlisted members differs from that for AGR/TAR enlisted members.
- Educational benefit entitlements for active component members differ from those for AGR members.

Conclusions about AGR/TAR and Active Component Compensation

Although there are specific, measurable differences in conditions of service when comparing active component members and AGR/TARs, there is no rational basis for making a general adjustment in the compensation structure. Applying specific elements equally to each member on the basis of exposure to rigorous conditions appears to be an equitable and efficient approach to this issue. The compensation of active component and AGR/TAR members is essentially the same except for the four differences noted above. The 6th QRMC concludes that all AGRs should accrue veterans' benefits on an equal basis, and educational benefits for AGRs should be limited to the active duty program. Changes are not required in the other two areas; there is insufficient need to pay bonuses to attract AGRs at this time, and there is a continuing need for separation pay for active duty enlisted reservists.

- The 6th QRMC recommends that there be no overall change in the way the compensation system structure accounts for differences in conditions of service between active component and AGR/TAR members, but that these four specific recommendations on structural and technical issues be adopted:
  - Develop remedial legislation to amend the United States Code so that members serving on full-time National Guard duty (other than for training only) have the same status, with the same consequences for title 38 purposes, as members who serve on active duty.
  - Make no change to current statutes that authorize separation pay for enlisted reservists but not for enlisted regular members. Given the existing state of AGR enlisted program management within the reserve components and the fact that enlisted members have typically left established civilian careers to serve in AGR status, the QRMC recommends that no change be made to existing legislative authority at this time.

- **Do not amend section 308 of title 37, United States Code, to authorize payment of selective reenlistment bonuses (SRBs) to TAR/AGR members until a requirement for such authority can be demonstrated.**

- **Amend section 2132, chapter 106 of title 10, United States Code, so that full-time active duty service as AGR members of the Selected Reserve can be credited only for use with the educational assistance program established under chapter 30 of title 38, United States Code.**

Relative Costs of Military Technicians and AGRs

Are military technicians or AGRs the most cost-effective form of full-time support manpower? This is the second of the two major full-time support compensation questions reviewed by the 6th QRMC. Potentially, it affects the reserve components of the Army and Air Force.

Background

During the past decade, much controversy has focused on the relative cost-effectiveness of military technicians and AGRs in providing full-time support for the reserve components of the Army and the Air Force. If there has been a consensus about any aspect of the issue, it has been that additional full-time support is necessary to meet the increasing missions and responsibilities that have been assigned to these components. Congressional guidance has consistently stressed that a balance of cost and readiness (as a measure of effectiveness) should form the basis for decisions about the full-time support manpower force mix. However, each new budget cycle has marked another round in the debate on which category of full-time support manpower is the most cost-effective, and there have been no easy answers on either side of the equation.

The 6th QRMC analysis included a review of the historical development of the issue and an examination of prior efforts to measure and portray the actual compensation costs. Computer Based Systems, Inc. developed an automated cost comparison model for significant elements of military technician and AGR compensation costs as part of the QRMC study effort, and the results were used as the basis for objective comparisons in this report. Since compensation costs are intricately connected to manpower management systems, management practices for both military technicians and AGRs were reviewed.

By the late 1970s, new missions and the need for increased responsiveness under the Total Force Policy had generated a basic requirement for more full-time support personnel in the

reserve forces. Additional full-time active duty reservists had already been called to duty as recruiters after the 1973 transition from conscription to voluntary service in the Armed Forces; however, the need for additional support extended to the day-to-day operation of units as well. The requirement was especially great in the Army's reserve components, where obtaining more full-time manpower to meet mission requirements was perhaps more important than whether the best choice of manpower was military technicians or full-time active duty members. Although "What kind?" has often overshadowed "How many?," sustained growth has occurred. In the four reserve components of the Army and Air Force, the combined strength of military technicians and AGRs grew 63 percent (from 66,668 to 108,377), between 1979 and 1987. The increase in AGR strength during this period was 447 percent, while the increase in military technician strength was only 7 percent.

In the decade between 1968 and 1978, major concerns were raised about the cost and management of military technician programs, including concerns about the potential impact of unionization. A series of studies and congressional actions occurred during this period, culminating in a military technician conversion test in 1978 and 1979 to determine the feasibility of recruiting full-time active duty reservists as an alternative source of manpower. The addition of large numbers of AGRs has not produced significant cost savings, and some of the original concerns about military technicians (such as union activities) have not proven significant. In recent years, the Congress has established technician strength floors, AGR strength ceilings, and a prohibition on converting occupied and vacant technician positions.

6th QRMC Cost Comparison Analysis of Military Technicians and AGR Members

In reviewing the historical record of full-time support personnel cost comparisons, the following precepts and general trends were identified:

- Manpower programming is based on costs to the government, not on benefit to the individual.
- To form a true picture of compensation costs, all significant immediate and deferred, direct and indirect costs must be considered.
- Because pay raises and other compensation system changes may alter relative costs, cost analyses must be updated periodically.

- The availability of accurate, integrated databases is essential to the computation of valid cost comparisons.

- Relative costs cannot be determined without establishing a linkage, such as military pay grade, as a basis of comparison. Such linkages may take the form of grade equivalency tables, service or component manpower organization classification guidance, or population averages.

- The more recent analyses show that AGRs generally cost more than general schedule military technicians but somewhat less than most wage board technicians. In addition, AGR officers are relatively more expensive than enlisted AGRs, and the relative costs of AGRs within enlisted, warrant officer, and officer categories increase with military pay grade as compared with military technicians.

6th QRMC Full-Time Support Cost Comparison Model

The 6th QRMC full-time support cost comparison model incorporates the above precepts and has produced up-to-date cost estimates reflecting compensation system changes since the last major analysis. The results provide the basis for 6th QRMC conclusions about the relative costs of military technician and AGR manpower from a perspective of reserve component compensation. This model incorporates military and civilian income data for military technicians and AGRs. Data on reserve component; military and (if applicable) civilian grade, step and category; military specialty; marital status; and direct, indirect and in-kind elements of compensation are included. The basis of comparison selected for use was military grade, in view of the paramount importance of the military aspects of the functions performed. The following points summarize the model results:

- GS/GM military technicians have lower average annual costs than AGRs in most military pay grades and lower than average costs than wage board technicians in all military pay grades.

- In the military grades with the highest population strengths, wage board military technicians generally cost more than AGRs. In the more senior military grades, AGRs generally cost more than wage board military technicians.

- Costs increase more rapidly with military pay grade for AGRs than for military technicians.

- Although the three observations listed above are valid for all four components, there are significant differences among these components. The difference between the average civilian grade held among military technicians at any military grade varies by as much as 3.4 civilian grade levels across the components. Air Force Reserve AGR and military technician forces cost more per capita than in other components because the AGR force consists largely of higher grade statutory tour officers and recruiters. The Air National Guard generally has the least difference between AGR and military technician costs while the Army Reserve has the greatest.

Cost Comparison Conclusions

Changing the force mix, either through program growth or through realignment, is unlikely to produce significant savings since changes would occur only at the margin. Short-term savings are especially unlikely assuming members of the existing force would be protected from mandatory conversion of status. Few members could be expected to volunteer for any status change yielding less compensation. Because cost savings are unlikely, military requirements for meeting readiness objectives should be the principal factor in force mix decisions.

Full-Time Support Manpower Management

Once the costs of available forms of manpower have been determined, they must be examined in relationship to military requirements and other needs of the DoD before any determination can be made about which form of manpower is most suitable for a specific function.

Manpower Objectives

To enable the 6th QRMC to identify and understand the overall objectives of full-time support manpower objectives, each Service was asked to provide appropriate force structures for its reserve components. The Army and Air Force were asked to provide separate structures for military technicians and AGRs. These structures were to be based on three separate and distinct strength profiles. The first was a profile of the existing force as of September 30, 1986. The second was a steady-state structure for FY 1986 showing where the Service would like its reserve component(s) to be, and the third was a steady-state structure showing where the Service would like its component(s) to be heading assuming FY 1992 program strengths. The steady-state profiles were to include the basic force configuration required for the actual force, and they were to include additional flow dynamics (e.g. promotion, continuation and

accession rates, years of service). The 6th QRMC formed the following conclusions about the full-time support force structure profiles:

- Since the full-time support force structures produced for this review generally represent a new, single iteration effort, they should be viewed as a "first draft" rather than as a definitive statement of Service force structure objectives.

- Full-time support force structure analysis, if institutionalized, can provide a disciplined method for defining force structure objectives and requirements as a basis for personnel program management.

- Efforts should be continued to improve full-time support manpower, personnel, and pay data integration so that it can be used more effectively in the analysis of manpower costs and personnel management issues.

Compensation-Related Conflicts

Friction between military technicians and AGRs in the daily work environment has existed since the inception of the AGR program. The individual problems that exist are generally attributable to the existence of two separate personnel management and compensation systems for the performance of one set of functions.

According to members responding to the 1986 Reserve Components Surveys, friction continues to create tension in the Army's reserve components and in the Air National Guard. This friction manifests itself in several ways as another problematic aspect of mixing technicians and AGRs in units. The compensation system has a direct impact in creating two sources of this friction. The first is pay inversion that occurs when a supervisor (typically a general schedule military technician) earns less than subordinate (often an AGR). The second is grade inversion that occurs when the level of responsibility, even supervisory relationship, may be reversed between daily work status and unit training when military technicians switch between their civilian and military position/status.

There are other sources of friction: for example, active duty rules for work hours differ from civil service rules, and promotion rules and opportunities differ. This friction, much of which centers on compensation or compensation-related matters, tends to work against organizational effectiveness. It demonstrates that employing military technicians and AGRs in the same working environment in mobilizing units is not sound

personnel management practice. Such practice specifically disrupts the very efficiency and organizational cohesiveness that compensation systems, grade structure, and other personnel management mechanisms are designed to promote. Although management can ameliorate some problems, it cannot eliminate the structural differences that are a root cause of friction between the two groups.

After examining the Army's reserve components full-time manning program in 1985, the General Accounting Office concluded that mixing technicians and AGR personnel in deployable troop units is not organizationally sound and detracts from effectiveness. A primary reason cited by the GAO was compensation variances and perceived inequities between the two groups. The Department of the Army and the DoD agreed with this conclusion and indicated to the Congress that they would implement a program to reduce such mixing if necessary authority were granted. Congressional approval necessary to implement such a program has not been forthcoming.

Conclusions about Full-Time Support Manpower Management

Although the separation of military technician and AGR forces in mobilizing units is highly desirable from a compensation perspective, the means of achieving such separation is an equally important consideration. Plans to achieve separation should focus on improving combat readiness in a cost-effective manner. In achieving this objective, the QRMC analysis indicates that the following key points should be addressed:

- Mixed forces should be aligned t separate AGRS and technicians in their daily work environment or provide clear and separate career patterns. Any program of change should pay particular attention to existing commitments to and expectations of current members.

- The separation should not be based on the performance of "peacetime" and "wartime" functions. With few exceptions, both military technicians and AGRs should perform functions, applicable to both peace and war, that require individuals on a full-time basis for the efficient and effective accomplishment of mission objectives. Peacetime-only functions generally do not require a military status.

- Separation of the AGR and military technician full-time forces would be facilitated by clearer conceptual standards for delineating the difference between military technicians and AGRs. These cannot be formulated in absolute terms, but guidelines could be developed based on Service functional requirements and the characteristics of each force. Clearer role

definitions, in addition to contributing to the development of cost-effective force mixes, would assist in allaying some of the animosity and counterproductive competition that exists between these two groups.

- Increased emphasis should be placed on the compatibility of military and civilian grade and position for military technicians. Associated with each military technician position should be a specific range of military grades and skills within limits specified by the Service.

- Finally, opportunities for support system modernization should be sought in conjunction with force realignment. Obsolete systems and procedures employed in the support of reserve units are one of the major causes of data problems noted throughout this review. During the 6th QRMC unit visit program, full-time support personnel were observed to be overburdened with administrative work, much of which is no longer performed at the unit level in the active components. This obsolescence may also limit wartime capability. The full-time force should be organized in peacetime to provide support through the same up-to-date systems required to support their units in combat.

National Guard and Reserve Retirement

In addition to Presidential direction that the 6th QRMC conduct a comprehensive study of reserve compensation, the Military Retirement Reform Act of 1986 required the Secretary of Defense to submit a report on reserve retirement to the Congress, together with any proposals for modification of the system. The Committee of Conference on the Retirement Reform Act stated their intent that this review be conducted as part of the 6th QRMC, in conjunction with its overall review of reserve compensation.

The 6th QRMC analysis of reserve retirement was conducted from the perspective of the original objectives of the system and of these objectives in light of the subsequent evolution of the reserve components and of current and projected manpower requirements. Three major areas were identified for review: 1) the effects of the retirement system on manpower force structure; 2) the motivational effects of the retirement point system; and 3) technical issues that have arisen over time as the organization, missions, and support of the reserve components have changed. Reserve retirement was reviewed as an integral part of the entire reserve compensation system, with a

focus on compensation as a force management tool. The findings and recommendations of the QRMC analysis, summarized here, are published as Volume 1B of the QRMC report.

History and Description of Reserve Retirement

A reserve retirement system was enacted in 1948 to provide a monetary incentive for continued membership and training in the reserve components. World War II experience had demonstrated the need for a large, well-trained, organized, and equipped reserve force, capable of immediate mobilization and deployment. A deferred income incentive was considered necessary to build and maintain the planned reserve component manpower structure.

The system has remained essentially unaltered since enactment. Recent changes in law affecting the determination of the retired pay base in calculating retired pay (1980) and the indexing of retired pay (1986) have resulted in a significant reduction in the value of both active and reserve retirement benefits for new members who are affected by these changes.

Computation of Retired Pay

To be eligible to receive reserve retired pay, an individual must complete a minimum of 20 years of qualifying service and be at least 60 years of age. Retired pay is computed based on the basic pay scale in effect when the individual applies for retired pay at or after the age 60 minimum. Retired pay is calculated by multiplying the reservist's equivalent years of active service by 2.5 percent and multiplying the resulting fraction by basic pay.

Equivalent years of active service are computed using a point system, in which retirement points are credited for each day of active service and for each attendance at a drill or period of equivalent instruction. In addition, fifteen points per year are credited for active status membership in a reserve component. There is a 60-point annual limit on the total of all points awarded for drill attendance or equivalent instruction, or for membership in a reserve component, and a maximum of 365 points may be credited toward retirement in any one year.

Subject to these limitations, years of equivalent active service are computed by totaling all points, including those earned in years when the minimum 50 points for a satisfactory year was not attained. This point total is then divided by 360.

Costs of Reserve Retirement

Since Fiscal Year 1985, military retirement has been funded on an accrual basis. It previously was funded on a current cost basis, and a single line in the DoD budget reflected the

projected annual costs of retired pay. Under the 1984 law that created the accrual funding system, a military retirement fund was established in the Treasury. The fund receives monthly payments on accruing liabilities from the DoD and yearly amortized payments from the Treasury on the unfunded liabilities.

The DoD payments are a percentage of the total basic pay for members on active duty or in the Ready Reserve. This percentage of pay is contributed over the active career of new military entrants in order to pay for all future retirement benefits of the group. Thus, under the accrual method of funding military retirement and survivor benefits, the future costs of military retirement must be taken into account in the formulation of service budgets and, consequently, in their manpower plans and policies. Since Fiscal Year 1987, the law has provided that two percentages will be determined: one for members on full-time duty with either the active or reserve components and one for members of the Ready Reserve who are not serving full-time.

The future costs of reserve retirement and the relative value of retired pay for reservists vary, based on when the reservist first entered a uniformed service. Legislative changes to the system in 1980 and 1986 have created three categories:

- Members who joined prior to September 8, 1980, have their retired pay calculated as a percentage of the basic pay scale in effect when the member is first entitled to draw retired pay.

- Members who first entered on or after September 8, 1980, and before August 1, 1986, will have their retired pay calculated as a percentage of the average of their highest 36 months of basic pay. This reduces the percentage of pay that must be set aside in the Military Retirement Fund from 27.7 percent to 25.3 percent, a nine percent reduction.

- Members who entered on or after August 1, 1986, will have a change in the method of adjusting their retired pay to maintain its value against inflation. This further reduces the relative cost and value of reserve retirement. The percent of basic pay that must be set aside for this group is 22.8 percent, which is a total reduction of 18 percent from the system applicable to members who first entered service prior to September 8, 1980.

The percentage of pay that must be set aside for full-time active and reserve component members now entering service is 40.9 percent. To provide a perspective on the cost of reserve retirement relative to that of private sector pension and capital accumulation plans, the Hay/Huggins Company was asked to make a comparison using the same economic assumptions in both

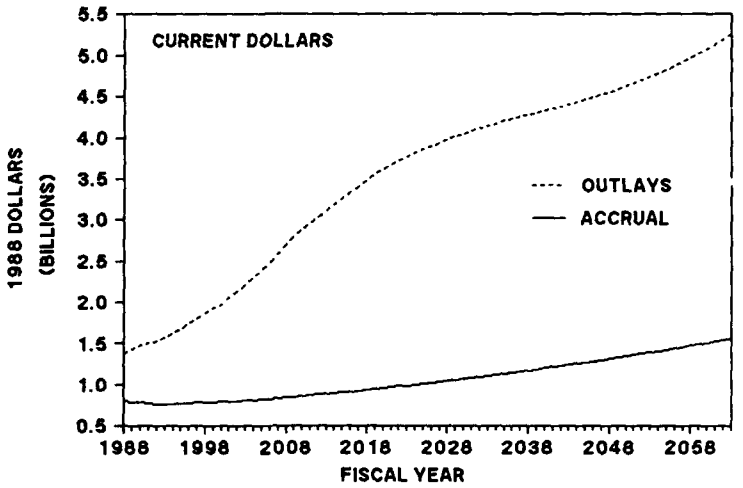


FIGURE 16. CURRENT RESERVE RETIREMENT SYSTEM ACCRUALS AND OUTLAYS IN 1988 $

calculations. Their analysis concluded that the average cost of retirement benefits in the private sector is 13 percent of salary. Using the same economic assumptions, the cost of reserve retirement would be 18.8 percent of basic pay. Since basic pay, on which retired pay is calculated, is only about 70 percent of military compensation, it is not directly comparable to private sector salary. Multiplying the 18.8 percent of basic pay cost calculated by Hay/Huggins by 70 percent results in a cost of approximately 13 percent of pay for the reserve system, indicating that it is very close to average private sector plans in terms of cost.

In Fiscal Year 1986, 158,696 reserve retirees were paid $1.2 billion in retired pay. Projected costs (in 1988 dollars) of retired pay outlays for reserve retirees and of accrual payments in the DoD budget are shown in Figure 16. The average monthly retired pay for officers who retired (at or after age 60) in Fiscal Year 1986 was $762. The average retired pay for enlisted members first retired in that year was $428. Historically, the population drawing reserve retired pay has included about three officers for every enlisted member. This has led some to question the utility of reserve retirement as a retention incentive for the enlisted force. 6th QRMC projections, based on current continuation rates, indicate that the officer-to-enlisted ratio among those receiving reserve retired pay is

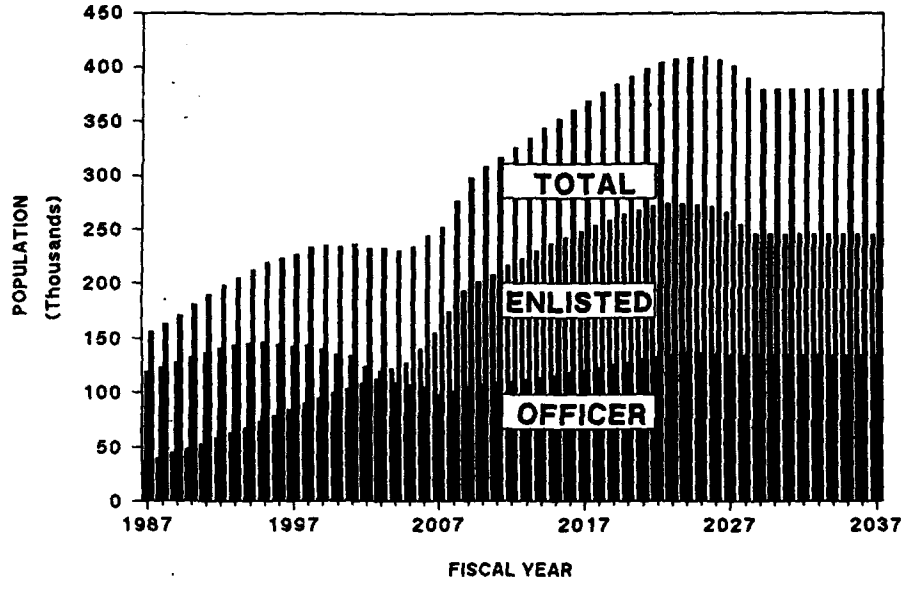


FIGURE 17. PROJECTED RETIRED POPULATION DRAWING PAY, 1987 TO 2037

rapidly changing and will result in a very different population of reserve members drawing retired pay. Figure 17 shows these projections.

The cost of reserve retirement must ultimately be related to the system's effects on the readiness of the reserve components and to the value of that readiness to the national defense. Its relative costs can be compared with the cost and effectiveness of system alternatives.

QRMC Analysis

The objective of the QRMC analysis was to determine the extent to which the current reserve retirement system effectively supports service and reserve component manpower objectives and policies, and aids in achieving desired manpower force structures. There were three primary activities in conducting the analysis: assessment of the effects of the current system, comparison of these effects with those desired by the Services and their reserve components, and identification and evaluation of the costs and benefits of alternatives.

Data Sources

Primary data sources for the QRMC analysis included the Reserve Components Common Personnel Data System (RCCPDS), the 1986 Reserve Components Surveys (1986 RC Surveys), the QRMC unit visit program, and DoD Office of the Actuary retiree data and retired population and cost projections. There have been continuing and well-documented problems with the accuracy and completeness of data on reserve personnel. These problems did impact on the QRMC analysis. Missing data or data of questionable validity with respect to creditable years for reserve retirement, total days of active service, and data on paid, creditable and total points were of particular concern. Nevertheless, the availability of extensive historical RCCPDS data, which was of generally good quality from 1981 forward, provided a sound base for the QRMC analysis.

The 1986 RC Surveys provided heretofore unavailable data concerning reserve members and their spouses, much of it directly relevant to the analysis and understanding of reserve retirement. The 1986 RC Surveys provided extensive demographic, household, and familial data on reservists, including occupational and civilian income information previously unavailable. Detailed information on patterns of previous active and reserve component service was available from the survey, largely offsetting weaknesses in the RCCPDS in this area. Using survey data, it was possible to relate the strength and direction of reservist and spouse attitudes and experiences concerning specific aspects of reserve compensation to their military status, background, and demographic characteristics.

The 6th QRMC unit visit program was conducted during April and May of 1987. Its objective was to provide QRMC staff with firsthand exposure to the views of unit members, to identify concerns and issues that might not otherwise surface and to help place the quantitative data from the 1986 RC Surveys in context.

The 6th QRMC relied heavily on the DoD Office of the Actuary for supporting data. Data concerning the future costs of the current reserve retirement system and of alternative systems is entirely based on Office of the Actuary projections using the economic assumptions approved by the Board of Actuaries.

Analytic Tools

The availability of tools for the analysis and evaluation of the costs, benefits, and specific effects of active component manpower and compensation policies and programs is many times greater than that of tools for analyzing reserve manpower. This is clearly a result of the paucity of research on reserve component manpower as compared to the active components. It is also a consequence of the relatively greater complexity of

reserve manpower programs. All the following characteristics of reserve manpower make its analysis particularly difficult: accession programs that combine significant proportions of individuals with and without prior service, frequent lateral entry and reentry into the Selected Reserve, markedly different participation intensities among Selected Reserve programs, a wide range in the amount of prior active service possessed by current members (which affects the degree of investment in reserve retirement), and the fact that reserve service is not the full-time job of most members of the Selected Reserve.

A number of models and other analytic tools were developed by the 6th QRMC staff or through contract. Most important in that regard are two models developed by the RAND Corporation. Part of this effort included the development of estimation and projection models that were capable of separately estimating future populations for part-time reservists, military technicians, and AGRs. This model is the RAND Reserve Policy Screening Model. The second part of the project was the development of a Reserve Dynamic Retention Model. This model creates retention rates by quantifying compensation, taste for military service, and random disturbances that affect continued service. The effect of retirement system and other compensation alternatives on retention rates developed by the reserve dynamic retention model can then be entered into the inventory projection model to estimate force structure effects of compensation alternatives. With the addition of alternative system costs, a systematic tool has been provided for the evaluation of the costs and benefits of retirement system alternatives.

The Effects of the Current Reserve Retirement System

The 6th QRMC began its study of the effects of the current system with the review of earlier studies. The most extensive previous review was conducted as part of the Reserve Compensation System Study (RCSS) from October 1976 through June 1978. The RCSS concluded that, for reserve forces, there should be greater emphasis on current compensation than on deferred compensation, and that the need for a retirement system for reserve members was much less apparent than for active force members.

The RCSS analysis concluded that reserve retirement was too costly, fostered an aging force, and was hindered by the lack of comprehensive planning and control relative to manpower force effects and retirement costs. The RCSS developed two preferred alternative reserve compensation systems. The first alternative included a number of modifications to reserve retirement, the cumulative effect of which would have been annuity reductions in the range of 20 to 35 percent. No retirement system was included in the second alternative. A Reserve Career Bonus,

structured to provide an incentive for continued service through 30 years, was proposed in place of retirement. The RCSS study was completed at a time when there was greater concern with recruitment and early attrition than with retention. Its recommendations may have reflected this concern.

The 5th QRMC conducted a detailed analysis of the uniformed services retirement system but, by design, did not undertake a comprehensive study of reserve retirement. The 5th QRMC did find that a number of the RCSS conclusions were still valid, including the finding that reserve retirement results in a high flow of officers and a low flow of enlisted members to retirement.

As shown earlier in Figure 17, 6th QRMC projections indicate that the officer-to-enlisted ratio among those receiving reserve retired pay is rapidly changing. Reserve retirement is now a major factor in the retention of enlisted members with critical leadership and technical skills. The QRMC analysis indicates that an incentive for career reserve service is absolutely required to maintain the reserve components at required strength beyond eight years of service. Results of the RAND Reserve Dynamic Retention Model indicate that, with elimination of retirement as a career incentive, the Selected Reserve could not maintain its required manpower force structures and would lose critical experience. Although the analysis indicates that it is possible to replace retirement with current income incentives, it is uncertain whether this could be accomplished at less cost or with equal effectiveness in attracting and retaining high quality members with the needed experience. The model indicates that, in the absence of reserve retirement, retention in the midyears of service becomes a problem even with current compensation alternatives in place.

The QRMC looked in some detail at the relationship between reserve retirement and continuation trends in the reserve components. The retirement system retains needed manpower to 20 or more years of service. Once qualified for eventual retired pay at age 60, however, there is little economic incentive to discontinue active reserve service. Indeed, since continued service increases retirement points and retired pay at age 60, the reserve retirement system provides a strong incentive to remain in the reserve program beyond completion of the minimum years of satisfactory service for retirement eligibility.

The analysis of continuation rates in the reserve components indicates that reserve retirement works well as an incentive to draw qualified junior members into reserve careers and to attract members with active component service. The pull of reserve retirement is evidenced in continuation rates as early as five to seven years of service, and this pull gradually

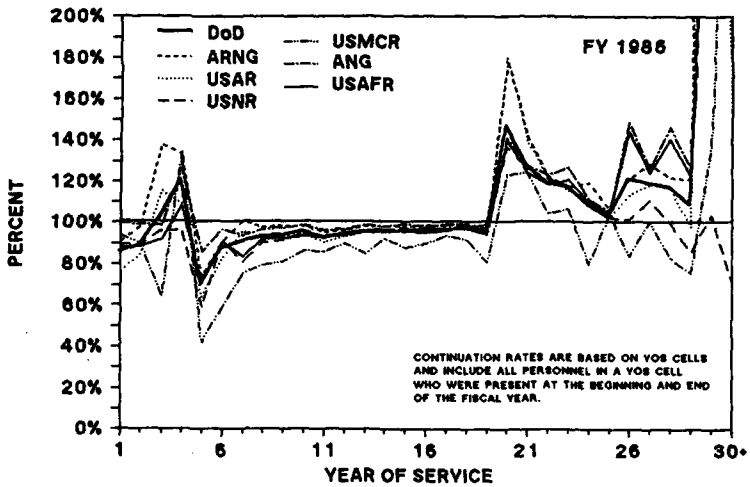


FIGURE 18. RESERVE COMPONENT CONTINUATION RATES AS A PERCENT OF ACTIVE COMPONENT ENLISTED BY COMPONENT

SOURCE: SELECTED RESERVE CONTINUATION RATES FROM 1986 RCCPDS. ACTIVE COMPONENT RATES FROM DMDC.

increases through 20 years of service. There is a drop in the continuation rates at the 20-year point, but they immediately increase again and remain high well beyond 30 years of service. Comparison with active duty continuation rates, shown for enlisted members in Figure 18, indicates that reserve rates are slightly lower through the first 20 years of service and much higher than active rates after that point.

In most of the reserve components, the manpower force has continued to age. The impact of this trend on the readiness of reserve components is difficult to assess. The Logistics Management Institute (LMI) conducted an analysis of the age distribution of reservists by military specialty. Their report indicates that, as of early 1987, members in specialties with the greatest demand for youth and vigor were only about two years older than their active force counterparts. Older members were in specialties where age is less critical. LMI did not, however, attempt to project the current force into the future.

As a benchmark against which to evaluate the effectiveness of current and proposed reserve compensation programs, the Military Departments and the Coast Guard were asked to develop manpower force structures reflecting desired continuation rates and force management practices for their reserve components.

Considerations such as age of the force, promotion flow relative to length of service, training requirements, and skill levels relative to grade were to be balanced in the development of the desired structures. There are significant differences among the force structure profiles provided. In general, however, they indicate a desire to continue a higher percentage of the force from 6 to 20 years of service, with increased separations occurring after 25 to 30 years of service.

The age distribution of part-time reservists for all reserve components is currently being affected by a sizeable hump of members who initially joined the armed forces during the Vietnam War period. A major concern of the QRMC was to assess what the manpower force structure will look like after this major hump passes through the system.

The RAND Reserve Policy Screening Model was used to assess future manpower force distributions. The projections indicate a continuing aging trend into the next century, with the trend stronger in the enlisted force than in the officer force. The projections indicate a doubling, by the year 2000, of the percentage of the part-time Selected Reserve enlisted force with over 20 years of service.

The 6th QRMC concluded that a retention incentive is necessary to maintain required manpower force structures, and personnel with needed leadership, technical qualifications, and experience. There are, however, current and projected manpower force management problems that are related to the effects of the current reserve retirement system. In the absence of personnel policies that set maximum tenure points or actively select out some members, the strong incentive for personnel to continue as long as possible contributes to an aging force. Associated problems of promotion stagnation potentially reduce retention prior to 20 years of service. The current system provides no flexibility to offset these trends or deal with an increasing rate of involuntary transfers to the Retired Reserve; transfers that will likely be required as members who initially entered the military during the Vietnam Era complete 20 or more years of service.

Alternative Systems Analysis

The QRMC examined a number of alternatives to the current reserve retirement system. The development and assessment of possible alternatives was guided by several considerations that resulted in the following design criteria for alternative systems:

- The reserve retirement system must be fully compatible with the active duty retirement system, with active duty and reserve service creditable in either system.

- Reserve retirement should be sufficiently attractive to aid in recruiting members with prior active duty service, without being so competitive as to cause undesired attrition from the active components.

- An alternative system should be structured to support the accomplishment of reserve manpower objectives in the near term.

- Members who first entered a uniformed service prior to the enactment of any proposed alternative should be provided the option of electing the alternative system or remaining under the current system.

- An alternative system must be sufficiently flexible to meet the needs of all seven reserve components.

- There should be an incentive to continue to serve beyond 20 years, and the incentive should increase until 30 years of service.

- A means should be provided for replacing some percentage of lost reserve compensation for members who have qualified for retirement at age 60 but can no longer participate.

- Any alternative should be relatively simple in application, so that the modified or optional system can be readily communicated to and understood by reservists.

- Retirement system alternatives should be cost neutral or reduce long-term retired pay costs.

In addition to the development and examination of alternatives that would meet the above criteria, a review was conducted of previous proposals for change to reserve retirement. These included reducing the value of reserve retirement, creating a penalty for those who cease active participation prior to 30 years of service, lowering the age of eligibility for reserve retired pay or providing a lump sum payment option before age 60, and eliminating reserve retirement altogether.

Increased Current Compensation in Lieu of Reserve Retirement

Using the RAND models it is estimated that an average increase of between 10 and 17 percent (depending on component) in after-tax pay would be required to offset the elimination of reserve retirement and hold accessions constant. When the DoD calculates its compensation costs of achieving the required after-tax increase, there would be a slight increase in the DoD budget even with the reduced accrual payments into the Military Retirement Fund. Federal outlays to pay for the retired pay of grandfathered reservists and the increased compensation for new

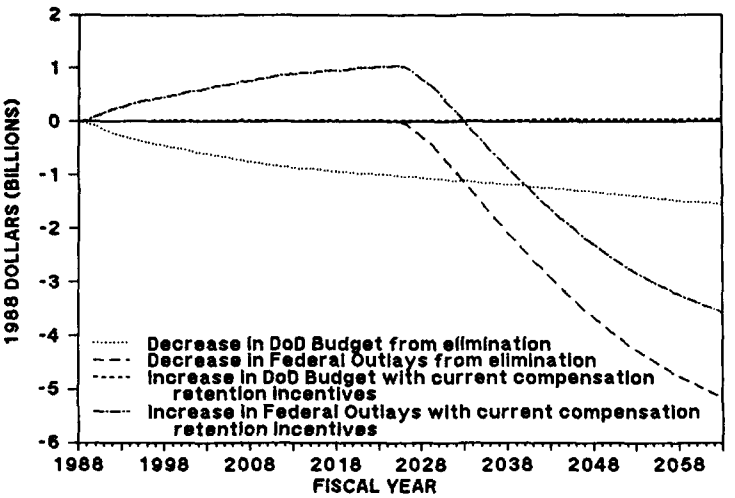


FIGURE 19. MARGINAL DIFFERENCE IN DEFENSE BUDGET AND FEDERAL OUTLAYS FROM ELIMINATION OF RESERVE RETIREMENT

entrants would increase until FY 2033. Total excess cumulative outlays peak at over 29 billion 1988 dollars and are not recaptured until FY 2053 (Figure 19). These estimates represent a "best case" scenario, in that potential significant increases in accession and training costs have not been included.

While monetary costs are a major consideration, potential impacts on manpower force structures are also important. The QRMC analysis indicates that, in the absence of reserve retirement, retention in the midyears of service becomes a problem even with current compensation alternatives in place. Increased accession requirements result from the reduction in career retention. Substitution of youth for midcareer experience is especially problematic in the reserve components. These projected effects might be reduced through the skillful targeting of current compensation alternatives, but the long-term ability to provide an incentive as stable and effective as reserve retirement is uncertain.

The QRMC concludes that current compensation alternatives would be more expensive than reserve retirement. Substitution of current compensation would reduce the proportion of members with very long service--a change that is warranted--but it would also be likely to reduce the proportion of members in midcareer, a change that would almost certainly impact on readiness.

Reductions in Value of Reserve Retirement

Analysis of the potential effects of reductions in the value of reserve retirement indicates that such a change would result in increased accession requirements. Initial entry training costs would overwhelm the relatively small savings that can be achieved from a more junior part-time force. Under this alternative, force distribution problems would remain, since members who have completed 20 years of service would still be likely stay for as long as possible in order to increase their retirement benefit. The QRMC concludes that this alternative would exacerbate the problems of the current retirement system while increasing costs.

Actuarially Neutral Early Annuity

Actuarially neutral means that, if you offer a reduced early retirement annuity in lieu of an existing annuity, the present value of a stream of early payments is equal to the present value of the payment stream of the old annuity. An actuarially neutral early annuity was calculated and its effects examined. The principal defect found with this alternative was that the annuity amount represented a very high percent of monthly drill pay for many members and, for some, would be twice the monthly drill pay. The more retirement points held by a member electing this option, the higher the payment. This would induce unwanted losses, and the losses would be greatest among those whose point totals were higher as a result of past active duty or more intense participation.

The QRMC attempted to adapt the actuarially neutral early annuity concept to an alternative providing a better fit with the established criteria. The most promising was a two-tier early annuity based on years of service rather than on the age of the member when the first tier of the early annuity starts. This two-tier system is the recommended alternative of the QRMC.

The Two-Tier Years-of-Service-Based Early Annuity Option

This alternative would provide an optional early annuity at any point after initial qualification for retirement through completion of 20 years of service. The first tier would be a flat percentage of the retired pay base calculated under the high-three averaging method. The second tier would be at age 62. There would be a retirement point reduction for election of the option. The point reduction and percentage of the retired pay based used for the QRMC analysis are shown in Table 7. Election of the optional system would require a retirement point reduction. Retired pay before and after age 62 would be annually adjusted for inflation, based on the increase in the Consumer Price Index (CPI) minus 1 percent. A one-time catch up at age 62 is made to the first tier. The amount of the first-

Table 7. Point Reductions and Percent of Retired Pay Pay Base for Electing The Two-Tier Year-of-Service Based Early Annuity Option

Years of Service at Retirement	Point Reduction for the 1st Tier	Percent of Retired Pay Base for 1st Tier
20	1500	5.0%
21	1575	5.5%
22	1650	6.0%
23	1725	6.5%
24	1800	7.0%
25	1875	7.5%
26	1950	8.0%
27	2025	8.5%
28	2100	9.0%
29	2175	9.5%
30	2250	10.0%
Greater than 30	2250	10.0%

Members with over 30 years of service receive 10 percent and are charged 2250 points. Members electing the Two-Tier Option who have not accumulated the minimum required points are awarded the highest level their total point accumulation will allow. Members with less than 1500 points may not elect the Two-Tier Option.

tier monthly annuity would be constant for all members in the same grade who elect the two-tier option at the same years-of-service point, regardless of their age. While the two-tier system would be optional for all current members, it would replace the age 60 annuity for future entrants.

The QRMC assessment of this alternative indicates that its implementation would result in a reserve retirement system better able to support reserve manpower objectives. It would be capable of supporting objectives immediately after enactment and would be sufficiently flexible to meet the needs of all reserve components. The size of the first-tier annuity would not be large enough to discourage further paid participation or to attract active component members to the reserves who would not otherwise have separated. Tables 8 and 9 provide an example of the value of the option for typical reservists in pay grades O5 and E7, respectively. Similar examples for reservists in the same grades who have high participation requirements (e.g. aviators or flight crew members) are provided in Tables 10 and 11.

Table 8. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member

Pay Grade O5 at 20 YOS in 1987. FY 2007

					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	42	483	160	33.2%	2399	426	962	1387	904	483	160	362	523
21	43	513	191	37.2%	2468	482	1000	1482	930	488	182	377	559
22	44	564	225	39.9%	2537	541	1037	1578	956	511	204	391	595
23	45	599	263	43.9%	2606	602	1076	1678	982	517	227	405	632
24	46	636	304	47.8%	2675	663	1110	1773	1008	523	250	418	668
25	47	675	348	51.5%	2745	723	1139	1861	1034	529	272	429	701
26	48	717	394	54.9%	2814	780	1162	1941	1060	535	294	438	732
27	49	761	444	58.3%	2883	838	1185	2023	1086	541	316	447	762
28	50	809	500	61.8%	2952	897	1209	2106	1112	547	338	456	794
29	51	859	560	65.2%	3021	958	1234	2191	1138	554	361	465	826
30	52	912	626	68.6%	3090	1020	1258	2278	1165	560	384	474	859
31	53	969	665	68.6%	3159	1031	1337	2369	1191	566	389	504	893
32	54	1029	706	68.6%	3228	1043	1418	2461	1217	573	393	534	927
33	55	1092	750	68.6%	3297	1055	1500	2555	1243	579	398	565	963
34	56	1160	796	68.6%	3366	1067	1584	2651	1269	586	402	597	999
35	57	1232	846	68.6%	3435	1079	1669	2748	1295	593	407	629	1036
36	58	1308	898	68.6%	3504	1092	1756	2848	1321	599	411	662	1073
37	59	1389	954	68.6%	3573	1104	1846	2950	1347	606	416	696	1112

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.

Table 9. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member

Pay Grade E7 at 20 YOS in 1987. FY 2011

					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	38	227	77	33.8%	1359	248	559	807	421	227	77	173	250
21	39	241	90	37.5%	1396	278	574	852	433	230	86	178	264
22	40	273	107	39.0%	1433	312	594	905	444	248	97	184	281
23	41	290	126	43.3%	1470	350	619	969	456	251	108	192	301
24	42	308	147	47.6%	1507	389	643	1033	467	254	121	200	320
25	43	327	168	51.5%	1544	426	661	1087	479	256	132	205	337
26	44	391	195	50.0%	1581	470	688	1158	490	291	146	213	359
27	45	415	229	55.3%	1618	526	729	1255	502	295	163	226	389
28	46	441	268	60.7%	1655	584	769	1354	513	298	181	239	420
29	47	468	305	65.2%	1692	634	796	1430	525	302	197	247	444
30	48	497	341	68.6%	1729	675	810	1485	536	305	209	251	460
31	49	528	362	68.6%	1766	683	859	1542	548	309	212	266	478
32	50	560	385	68.6%	1803	691	910	1601	559	312	214	282	496
33	51	595	409	68.6%	1840	699	962	1660	570	316	217	298	515
34	52	632	434	68.6%	1877	707	1014	1721	582	319	219	315	534
35	53	671	461	68.6%	1914	715	1068	1783	593	323	222	331	553
36	54	713	489	68.6%	1950	723	1123	1846	605	327	224	348	572
37	55	757	520	68.6%	1987	731	1179	1910	616	330	227	366	592

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.

Table 10. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member

Aviator in
Pay Grade O5 at 20 YOS in 1987. FY 2007

					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	42	1032	160	15.5%	2399	426	962	1387	904	1032	160	362	523
21	43	1092	191	17.5%	2468	482	1000	1482	930	1040	182	377	559
22	44	1194	225	18.8%	2537	541	1037	1578	956	1083	204	391	595
23	45	1264	263	20.8%	2606	602	1076	1678	982	1092	227	405	632
24	46	1338	304	22.7%	2675	663	1110	1773	1008	1101	250	418	668
25	47	1417	348	24.5%	2745	723	1139	1861	1034	1110	272	429	701
26	48	1501	394	26.2%	2814	780	1162	1941	1060	1120	294	438	732
27	49	1589	444	27.9%	2883	838	1185	2023	1086	1130	316	447	762
28	50	1684	500	29.7%	2952	897	1209	2106	1112	1140	338	456	794
29	51	1784	560	31.4%	3021	958	1234	2191	1138	1150	361	465	826
30	52	1891	626	33.1%	3090	1020	1258	2278	1165	1161	384	474	859
31	53	2004	665	33.2%	3159	1031	1337	2369	1191	1172	389	504	893
32	54	2124	706	33.2%	3228	1043	1418	2461	1217	1183	393	534	927
33	55	2251	750	33.3%	3297	1055	1500	2555	1243	1194	398	565	963
34	56	2387	796	33.4%	3366	1067	1584	2651	1269	1205	402	597	999
35	57	2531	846	33.4%	3435	1079	1669	2748	1295	1217	407	629	1036
36	58	2683	898	33.5%	3504	1092	1756	2848	1321	1229	411	662	1073
37	59	2846	954	33.5%	3573	1104	1846	2950	1347	1242	416	696	1112

Notes:
1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.
5. Monthly drill pay for aviators and flight crew members is based on eight drill periods per month plus the pro rata share of aviation career incentive pay (the minimum level was used for officers, the appropriate grade level was used for enlisted members).

Table 11. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member

Flight Crew Member in
Pay Grade E7 at 20 YOS in 1987.

					FY 2011								
					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	38	507	77	15.1%	1359	248	559	807	421	617	77	173	250
21	39	535	90	16.9%	1396	278	574	852	433	620	86	178	264
22	40	600	107	17.8%	1433	312	594	905	444	661	97	184	281
23	41	634	126	19.8%	1470	350	619	969	456	665	108	192	301
24	42	670	147	21.9%	1507	389	643	1033	467	670	121	200	320
25	43	708	168	23.8%	1544	426	661	1087	479	674	132	205	337
26	44	835	195	23.4%	1581	470	688	1158	490	757	146	213	359
27	45	883	229	26.0%	1618	526	729	1255	502	763	163	226	389
28	46	934	268	28.6%	1655	584	769	1354	513	769	181	239	420
29	47	989	305	30.8%	1692	634	796	1430	525	775	197	247	444
30	48	1047	341	32.6%	1729	675	810	1485	536	781	209	251	460
31	49	1109	362	32.7%	1766	683	859	1542	548	788	212	266	478
32	50	1174	385	32.8%	1803	691	910	1601	559	795	214	282	496
33	51	1244	409	32.8%	1840	699	962	1660	570	802	217	298	515
34	52	1317	434	32.9%	1877	707	1014	1721	582	809	219	315	534
35	53	1396	461	33.0%	1914	715	1068	1783	593	816	222	331	553
36	54	1479	489	33.1%	1950	723	1123	1846	605	824	224	348	572
37	55	1567	520	33.2%	1987	731	1179	1910	616	831	227	366	592

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.
5. Monthly drill pay for aviators and flight crew members is based on eight drill periods per month plus the pro rata share of aviation career incentive pay (the minimum level was used for officers, the appropriate grade level was used for enlisted members).

The RAND Reserve Dynamic Retention Model designed to assess the probable impact of reserve compensation revisions indicates that more members would be likely to continue through 25 years of service, and that there would be somewhat lower continuation after that point. Accession requirements under the two-tier option decline by about 1 percent. Projected changes in the enlisted force profiles of the reserve components of the Army and the Air Force under the two-tier option are shown in Figure 20.

Implementation of this option would initially increase outlays from the military retirement fund. These increased outlays would peak at just over $200 million, early in the next century. At the highest level this would represent less than a 1 percent increase in outlays from the fund. Long-term costs for reserve retirement would be substantially reduced. This reduction would immediately be reflected by a reduction of about $132 million per year in the DoD accrual payments into the fund. This is shown in Figure 21. The system should be easily understood by most reservists. Many technical details necessary to integrate the two-tier option with current law and policy also remain to be worked out in the course of developing a legislative proposal. Because of the complexity of the SBP program, the QRMC did not study the integration of SBP with the two-tier option. The development of equitable SBP modifications would be an important part of the development of legislation to implement the two-tier option.

- **The 6th QRMC recommends the development of legislation to amend chapter 67 of title 10, United States Code, to provide an optional early annuity at any point after initial qualification for retired pay with 20 years of satisfactory service. A second tier would commence at age 62. All members not electing an early annuity would receive retired pay and benefits beginning at age 60 as provided in current law. Members electing the two-tier option, as well as those remaining under the current system, would receive medical benefits at age 60. The two-tier option would apply to all new entrants into the armed forces.**

Retirement Point System Analysis and Recommendations

As with the reserve retirement in general, the retirement point crediting system established in 1948 has remained essentially unchanged. Documentation on the original basis for some aspects of the point system is slight, however it is clear that the following objectives were achieved in the system as established:

- Active duty and reserve participation were both creditable for retirement.

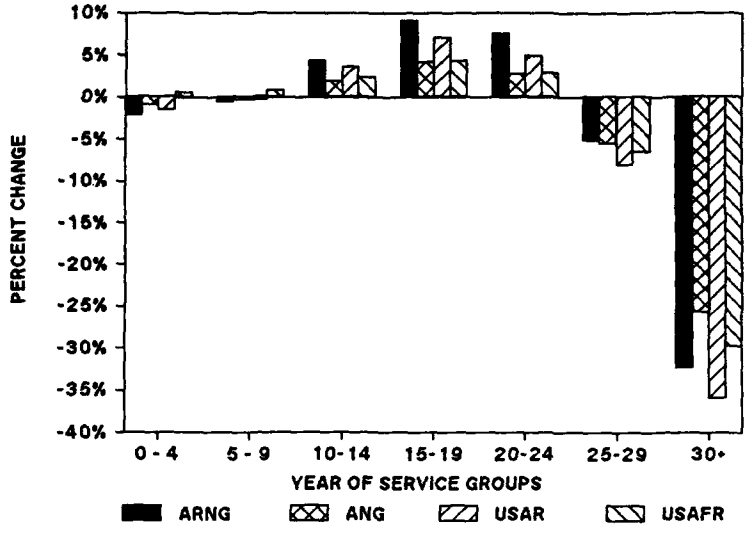


FIGURE 20. TWO TIER OPTION: CHANGE IN ENLISTED FORCE PROFILES
SOURCE: RAND DYNAMIC RETENTION MODEL

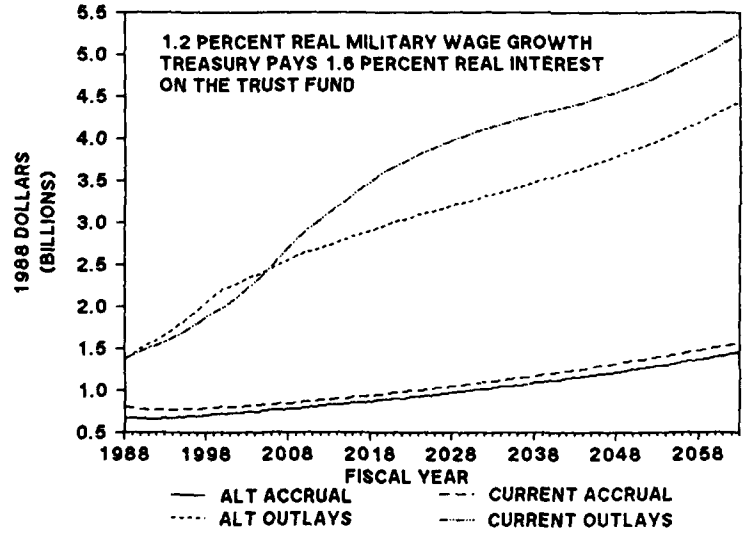


FIGURE 21. TWO TIER YOS BASED EARLY ANNUITY OPTION
ACCRUALS AND OUTLAYS IN 1988 $

- Individuals were to be credited on the actual level of their future participation.

- A minimum annual point standard was set for satisfactory reserve participation for retirement qualification.

The QRMC analysis reviewed the retirement point system from the perspective of current conditions of reserve service. A major change from 1948 is the much greater participation level required and performed by today's reservists. This higher level of participation has resulted in concern in many quarters that the 60-point annual cap on points for inactive duty training is inequitable. Under the cap, members who perform the most inactive duty receive the same retirement credit as those who meet minimum training-pay category A requirements. In part, this is also an effect of the 15 membership points awarded each year. Data from QRMC unit visits and from the 1986 RC Surveys indicates that the 60-point annual cap on inactive duty training points is perceived by many members as inequitable. A comparative analysis of the point value for each day actually worked indicates that, even when credited at two points per day for inactive training, the probability is that the category A reservist will earn less retirement point credit per working day than the member on active duty.

An estimation of the probable effects of raising the annual point cap to 75 while eliminating the 15 membership points indicated that such a change would bring the active duty and reserve credit per working day much closer together. While the QRMC review was handicapped by the lack of verifiable retirement point data for most reservists, analysis of the existing system led to the following recommendations for change:

- Increase the annual cap on inactive duty training points from 60 to 75.

- Eliminate the 15 annual membership points.

- Reduce the number of points required for a satisfactory retirement year from 50 to 35 (with elimination of membership points this keeps the participation requirement for a satisfactory retirement year unchanged).

- Cap the number of retirement points that may be credited in one year at 360 instead of 365 (since the division in the formula for calculating equivalent years of active service is 360, this ensures that no more than one year of credit may be received for one year of duty).

The QRMC believes that implementation of the above recommendations would result in providing greater retirement credit for members who perform additional inactive duty training

beyond minimum training requirements. The retirement credit earned would not exceed the benchmark per working day for active duty credit. The QRMC proposal is judged to be cost neutral. Because of the inadequacy of retiree point accounting systems, further review by the next QRMC is recommended.

Structural Issues

The QRMC also conducted a detailed review of structural and technical aspects of the reserve retirement system. The requirement to keep large numbers of reserve officers on extended active duty to meet national defense requirements after the Korean War resulted in several changes affecting reserve retirement. Similar changes are now required in response to the needs of the last decade; i.e. the requirement for significant numbers of enlisted members to serve on active duty in their reserve status to meet the needs of the reserve components for full-time recruiting, technical, and administrative support.

There are two results of the failure to update the reserve retirement system. The first is the complex, overlapping, and confusing structure in terms of which retired military members are categorized. The second is a number of unintended inequities that have developed over the years. While some of these are superficial, others are quite substantive and can have a significant impact on individual members. As the active and reserve components become even more closely aligned, it is increasingly important for all provisions to work equitably in order to encourage both active and reserve service.

To achieve this objective, the QRMC recommends the following:

- Legislation to simplify the regular and reserve retired structure. Laws that require the assignment of regular enlisted retirees to the Retired Reserve should be repealed as unnecessary and anachronistic. The Fleet Reserve and Fleet Marine Corps Reserve would be continued, but would not be accounted for as part of the Naval or Marine Corps Reserve.

- Amendment of section 688 of title 10, United States Code, to provide recall authority to the Secretary of Transportation equivalent to that possessed under this section by the Secretaries of the Military Departments.

- Revision of DoD Directive 1200.15 to eliminate the category of honorary retiree and provide that only members who are or will be eligible for retirement benefits be placed in the Retired Reserve in the future. Existing honorary retiree lists would be reduced by attrition and then discontinued.

- **Legislation to provide uniformity between the Services and their active and reserve components with respect to the retired grade of enlisted personnel qualifying for active duty retirement. (NOTE: This change was enacted as section 512 of Public Law 100-180, December 1987.)**

- **Legislation to require continuous membership in a reserve component after receiving notification of completion of the years of service required for retired pay at age 60, in order to qualify for that pay.**

- **Legislative amendment to allow reserve enlisted members to receive years-of-service credit for inactive duty training points in the computation of active duty retired pay.**

- **Legislative amendment to update the provisions of the active duty retirement sanctuary for reserve members on active duty who have more than 18 years of active federal service.**

- **Study of alternatives to provide a monetary benefit for reservists whose further participation is precluded due to their being found not physically qualified when the cause of the disqualification was not service connected.**

Nonpay Benefits for Retired Reservists

There are approximately 64,000 members of the Retired Reserve who do not receive retired pay but will be entitled to retired pay at age 60. These members, sometimes referred to as gray area retirees, have important benefits but are precluded from participating in military activities that are available to reservists in either an active or retired status. During the period between the point when they transfer to the Retired Reserve and the time when they begin to draw retired pay, some reservists feel shut out and cut off from their Service and the way of life to which they have devoted most of their working years.

The 6th QRMC examined the costs and advantages of extending certain benefits to retired reservists in the gray area. The QRMC concluded that expanded benefits for gray area retirees would recognize their long and dedicated service. The QRMC reviewed several options in arriving at the preferred alternative.

- **The 6th QRMC recommends that temporary lodging facilities, military exchange stores and services and Class VI/Package store privileges be extended to gray area retirees. The QRMC also noted that these expanded benefits would increase**

monies for nonappropriated fund activities and provide an incentive for members with more than 20 years of service to transfer to the Retired Reserve.

The two-tier option to the current retirement system, if implemented, would effectively eliminate the issue of gray area retirees.

- **Under the two-tier option, the 6th QRMC recommends that all Retired Reservists under age 60 who are receiving first-tier retainer pay or are eligible for retired pay at age 60 have the same benefits as members of the Selected Reserve. At age 60 all reservists receiving retired pay or first-tier retainer pay would be eligible for the same benefits as are all military retirees.**

Air Force Concerns

In the course of the review of the QRMC report by the Military Departments, the Department of the Air Force (the reserve components of which are structured and manned somewhat differently than are the components of the other Military Departments) provided areas of concern with respect to certain QRMC recommendations. These views follow:

The Two-Tier Years-of-Service Based Early Annuity Option. The QRMC concludes that the current system contributes to an aging force and causes promotion stagnation. The Air Reserve Forces are combat ready today for many reasons which include experience and stability. The forces are managed in such a way as to make promotion stagnation a minor issue. If it were a problem, the related dissatisfaction with reserve service would result in a decreased retention rate. Current retention rates are excellent. The early annuity option could make it attractive for the most experienced personnel to leave, causing a significant decrease in readiness. This could be especially significant if reserve force pilots began to separate after 20 years of service, certainly not an intended goal by management. The increased early outflow of reserve forces pilots would create more vacancies, which would in turn provide more opportunity for active forces pilots to affiliate with reserve units, exacerbating an already critical active pilot retention problem. The early annuity option may be especially detrimental to the IMA program. IMA positions are established by the Major Commands and are typically senior grades. Since IMAs typically receive less income from reserve participation than do unit members, a significant portion of our IMAs may find it attractive to take the early annuity thus causing a significant shortfall. Before any decision is made for an early annuity,

these questions should be the subject of a thorough quantitative analysis, and perhaps the subject of a survey, to project possible effects on Air Force combat capability.

Second Tier of Annuity at Age 62. Current reserve retirement pay begins at age 60. Recommend age 60 vice age 62 be considered as an alternative to the Two-Tier Years of Service Based Early Annuity Option. The analysis and conclusion of this review is not contained in the final report.

Elimination of Membership Points. If membership points were eliminated, well over half of the Air Reserve Forces would take a corresponding reduction in retired pay. Few members in the Air Reserve Forces are authorized additional Inactive Duty Training Periods (IDTs). These periods are primarily used by aircrews to enhance their combat capability, but aircrews only represent 10 percent of the force. Unpaid IDT is unusual in the Air Reserve Forces and is not mission productive nor does it necessarily enhance combat capability. Any change in the retirement system of this magnitude is certain to have a negative impact on combat capability. We are concerned that the Reserve Components Surveys data which indicated many unpaid IDT points could be used to offset the loss of membership points is over stated. The specific question from which this data was extracted was ambiguous and provided great leeway for personal interpretation. It cannot be used as the basis to support the recommendation. The elimination of membership points has not been quantitatively analyzed and may have an adverse impact on retention and combat capability.

Elimination of the Honorary Retiree Category from the Retired Reserve. Although the QRMC sees little value to the Honorary Retiree this category has a great deal of emotional appeal and is a positive public relations issue for the Air Force and has negligible costs. Recommend the category be retained but not interfere with any lists used for mobilization.

Finally, it has been stated numerous times that "Reserve Retirement is too expensive and needs to be cut." In 1987, the total DoD budget for reserve retirement was $958 million for a force of 1.1 million personnel in the reserve components. This is certainly not too expensive considering the Reserve Components contribute 25-30 percent of the Total Force warfighting capability. While it is important for the Department to constantly ensure the best capability for least cost, this does not translate directly to an "a priori" assumption that costs must be reduced.

Compensation in Support of Reserve Medical Manpower

The highest priority of the military health care system is combat medical readiness. Although quality health care during peacetime may be the most visible aspect of military medicine, the primary mission is to support military forces in conflict. This mission requires trained personnel in sufficient quantity and with the right skills, ready to perform their duties when called. A report on compensation in support of reserve medical manpower is published as Volume 1C of the QRMC report.

In recent years, the reserve components have assumed an increasing portion of the combat medical support mission. Today, the reserve components are counted on for 53 percent of required health care personnel for combat. Fifty-five percent of medical officers, 76 percent of nurses, and 47 percent of enlisted health care personnel required for the worldwide combat mission must come from the reserve. By Fiscal Year 1992, 61 percent of required combat medical manpower is projected to come from the reserve components, which will then be providing 58 percent of the total required enlisted health care strength. The Services will then rely on the reserve components to provide 78 percent of wartime staffing for the critically short wartime physician specialties of anesthesiology, general surgery, and orthopedic surgery.

For the reserve components, the other critical shortage has been for professional nurses. The total reserve component shortfall for nurses, currently projected at 31,000, is more than twice as large as the total number of nurses serving in the active components. Despite the magnitude of the demand for nurses in the reserve, it is only very recently that special incentives or training programs to make reserve service more attractive to nurses began to be developed and implemented. In addition, there is a shortfall of 73,000 enlisted health care specialists in the reserve components.

In the past there was relatively little concern with reserve component health professionals and their compensation. Attention to medical readiness has reversed this pattern of neglect, and efforts on the part of DoD and the Services have resulted in improvements in manning levels of health care personnel and overall medical readiness. Medical readiness goals have not yet been achieved, however. The following concepts, along with implementation of programs and development of initiatives based on recognition of the concepts, have all been significant for achieving future preparedness:

- The priority of mobilization requirements in medical planning

- The requirement for a strong peacetime reserve medical force
- The need for standardization in establishing medical manpower requirements

Historical Perspective

The primacy of the medical readiness mission has not always been clearly perceived in the past. The clear necessity of providing health care to active and retired members and their dependents assumed priority during the period after the Draft Era, when large numbers of health care personnel were leaving the military. Initiatives to attract and retain health care professionals on active duty in the All-Volunteer Force were being developed. During a time when it was already difficult to provide day-to-day care, the need to maintain medical readiness went largely unaddressed.

By 1980, Congressional and Service initiatives had begun to stabilize the active duty population of health care professionals at an adequate level. In 1981, DoD efforts were turned toward correcting deficiencies in medical readiness; the reserve medical forces began to receive significant attention for the first time since World War II. A number of initiatives were undertaken, ranging from the establishment of DoD training policy designed to achieve peacetime medical readiness to establishment of the general and flag officer Reserve Components Medical Council organized to review medical readiness issues and to recommend actions to increase the reserve medical readiness posture.

A significant problem has been that of establishing medical manpower requirements. Staffing ratios, casualty estimates, and evacuation policies make the development of requirements exceptionally difficult. Past studies indicate that planning, analysis, and management within the defense medical department has been impeded by inadequate data and information systems and by lack of standardization when reporting assets and projecting requirements. Perhaps the most important single effort in the establishment of a systematic method for determining defense medical manpower requirements was the development of the Medical Planning Module (MPM), a subsystem of the Joint Operation Planning System. The MPM is an automated program that predicts workload-related, hospital-based medical requirements based on varying combat scenarios. Among the requirements generated are hospital beds, blood/fluids, medical supply, and manpower. The MPM, in combination with Service unique requirements, is now the official source of combat medical manpower requirements.

Details of the Shortfall

Based on total wartime requirements and incorporating Service yield estimates, the DoD estimates that it has an overall shortfall of 7,100 physicians and 31,000 nurses. Of the total physician shortage, 5,265 requirements are for physicians qualified in specialties that are designated as critically short for wartime, including anesthesiologists, general surgeons, and orthopedic surgeons. The DoD has designated nurse anesthetists and operating room nurses, as well as all other nurses, as critically short for wartime. The marked shortfalls observed for medical officers and nurses do not occur in the other health care disciplines. The shortage of enlisted health care personnel is also large, with the DoD reporting a shortage of 73,000 members in the health care skills.

The shortage of reservists who are qualified as medical officers, nurses, and enlisted health care specialists is compounded by skill mismatches in which billets are filled by untrained individuals or members qualified in skills other than those required by their billet. Personnel readiness among medical units for the Army and the Air Force (the two components for which data was available) is lower than that for nonmedical units. Personnel shortfalls and skill mismatches are a significant cause of the low levels of personnel readiness of medical units throughout the reserve components.

The Fiscal Year 1988-1992 Defense Guidance, reflecting a strong Total Force emphasis on medical mobilization preparedness, included the guidance that the Services should establish reserve recruiting programs that would reduce overall wartime shortages of nurses and physicians in the critically short wartime skills, by 20 percent per year from FY 1988 through FY 1992.

History of Incentives for Health Professionals

The history of special incentives for health care personnel is almost exclusively a history of incentives for those serving in the active components. From the beginning of World War II through the beginning of the All-Volunteer Force, except for a brief period, health care manpower requirements were met primarily through the draft or draft-related programs. During this entire period (and particularly since the late 1960s) there have been a series of measures, with both direct and indirect compensation effects, designed to provide reasonable and more effective compensation and personnel programs for health professionals. In historical perspective, the net result of these measures has clearly been positive for active component medical manpower programs. These measures failed to consider reserve component members not on active duty, however, and in

aggregate, may have actually reduced the ability of the reserve components to offer attractive personnel and compensation programs for health professionals.

For example, from 1956 through 1980, both active and reserve medical officers were awarded constructive service credit for use in computing longevity credit for basic pay and in the multiplier used to compute retired pay. When this authority was repealed in 1980, this loss was offset for active duty medical officers by provisions included in the Uniformed Services Health Professionals Special Pay Act of 1980 which enhanced the direct compensation incentives for medical officers. For reserve component health professionals, however, the new law added no new special or incentive pays; the loss in indirect compensation due to the repeal of constructive service credit for compensation purposes was real and lasting. The 1980 Defense Officer Personnel Management Act also restricted the use of constructive service credit for initial grade and future promotion credit for individuals appointed in the reserve, causing further difficulties for the reserve components in the appointment of health professionals.

Only three incentive programs for reserve health care professionals exist today, and two of those were enacted as recently as FY 1985. Since 1974, a special pay for medical officers who have had prior active duty has been paid for periods of active duty that are less than one year ($100 per month for those with at least one but less than two years of prior active duty and $350 per month for medical officers with two or more years of active duty). It is payable for periods of active duty only; no entitlement exists for drill periods. This was the first special pay specifically authorized for reserve health care professionals; it remains the sole such entitlement today.

In 1985, to provide recruiting and retention tools to alleviate the significant shortage of critically short wartime specialists in the reserve, Congress authorized two incentives for health care professionals in the reserve: a stipend program for qualified medical officers and nurses in training in a critically short wartime specialty and a loan repayment program, for medical officers and nurses qualified in a critically short wartime specialty. These programs were expanded in 1987 to provide an option for participation in the IRR, to expand the eligible population to include third- and fourth-year undergraduate nursing students, and to authorize the repayment of additional categories of loans.

In summary, incentive programs for reserve component health care officers are a recent and limited development. The incentives enacted in 1985, as modified and expanded, represent the only significant attempt to provide needed incentives for

reserve component health care professionals during this period, even though shortfalls now identified demonstrate the severity of the problem.

Current personnel management programs for health care officers do not provide sufficient flexibility with respect to health professionals. Appointment grades for individuals with like experience and training should be standardized and provisions that would allow separate promotion consideration and timing for health professionals are needed. The Reserve Officer Personnel Management Act (ROPMA) proposed by the DoD would remedy most of these deficiencies.

Noncompensation Programs and Initiatives

Any direct compensation or incentive program designed to attract and retain health professionals in the reserve must also consider the benefits, indirect compensation, and related factors functioning in the civilian and reserve environments. Individually or in combination, such programs have a significant potential for impact on the recruiting and retention of health care personnel.

One of the first medical training programs developed was Continuing Health Education to Enhance Readiness (CHEER). It is DoD policy that reserve health care personnel shall be afforded the opportunity to attend at least one health education course annually. Funding constraints, however, have generally been a limiting factor in enabling health care personnel to participate in continuing health education on an annual basis. Generally, the Services have problems in funding all officers for attendance at such courses annually.

The program has multiple benefits, including increased medical readiness through assisting health care professionals in maintaining and enhancing their professional skills and in meeting certification, recertification, and licensure requirements. Health care officers are likely to value such training at or above the opportunity cost, or lost income, during the period of absence from the professional job and perceive the opportunity to attend through the military as an important benefit of reserve service.

A strong additional impact may be made in the area of direct advertising. There is a very low level of awareness of reserve opportunities among the civilian health care community. When a health professional attends a civilian training experience, the reserve medical department obtains direct exposure to the very populations from which it seeks to recruit potential members. Further, there are strong indications that health professionals respond much more favorably to recruiting efforts by professionals in the same field than they do to those of laymen.

The QRMC considered the feasibility of providing a guaranteed opportunity for all health professionals in the Selected Reserve to attend at least one health education conference or experience per year through the mandatory fencing of program funds. It concluded that a requirement for mandatory fencing was unnecessarily cumbersome and restricted management flexibility. The QRMC concluded that a review of current program procedures is indicated in order to determine the effectiveness of Service programs implementing DoD Directive 1215.4 which governs the CHEER program.

Simultaneous with the development of training programs for reserve health care personnel, recruiting resources were increased and recruiting operations intensified. Those developments in the early 1980s now serve as cornerstones for current broader initiatives. Experience during the 1980s has indicated that, although increased success in recruiting brought unprecedented numbers of health care personnel into the reserve components, the length of stay for many was very short, indicating the need to make reserve service more attractive for personnel in the health care disciplines.

Recent strides have been made in another area with the increase of maximum age requirements for initial appointment and retention in the reserve. A 1987 statutory change stipulated that professional applicants who are qualified in a critically short wartime specialty may qualify for initial appointment through at least 47 years of age. It also authorized the retention of health care professionals in the reserve until age 67. These authorities should help the reserve to recruit from the pool of physicians and nurses who, having reached a certain point in their careers or family life cycles, find that they have more time for additional activities.

The Act also provided broader authority to grant constructive service credit for experience in the health professions. This change should be particularly helpful in the recruitment of nurses with extensive professional experience.

Attitudes and Environment of Physicians and Nurses

For both the recent past and the foreseeable future, rapid and sweeping changes are a hallmark of the United States' health care system. Scientific and technological advances have greatly expanded the potential of medicine. Demographic changes in the Nation's population, changing methods of financing increasingly costly health care delivery, and reorganization and structural changes in the health care system may all be expected to have major impact. Such major changes can be anticipated to affect the requirements for health professionals and in turn the supply of personnel entering the health professions.

Amid this change, the reserve medical force faces its greatest historical challenge--that of achieving medical readiness during peacetime. The reserve medical force is particularly sensitive to environmental changes in health care and employment practices of health professionals, due to the reliance of the reserve on the civilian community as its source of professional manpower. The 6th QRMC identified several major trends and conditions that may impact on the ability of the reserve to recruit and retain health professionals now and in the future.

Environment and Supply Trends

The American Medical Association predicts that the environment for the physician will be less economically advantageous in the near future. Many factors are contributing to this change, and a primary factor is the increasing supply of physicians which is projected by many to become an oversupply by the year 1990. A concomitant decrease is expected in the number of physicians entering the medical field as conditions surrounding medical school, residency, and medical practice become less desirable. Modes of alternative practice are increasing, with a trend away from solo practice. All these factors tend to produce an environment less economically advantageous for the physician, but possibly conducive to greater success in attracting physicians to the reserve components through well-designed compensation programs.

The supply trends for civilian nursing professionals may be the opposite of those for physicians. Beginning in 1986, high vacancy rates for nurses in some areas of the country are beginning to result in increased wages and benefits. Wage increases are targeted at individuals who are employed during evening, night, and weekend shifts, the same periods of time the reserve vies for participation of its members. This may make the recruiting and retention of nurses more difficult.

Student Indebtedness

The cost of tuition and overall educational costs, at the baccalaureate level and particularly for medical school, have risen dramatically in recent years. This has been accompanied by increased borrowing, in higher amounts and at higher interest rates, to finance student education. This trend has resulted in increased levels of student debt. A study of the debt burden of graduates of several different health professions disciplines found that accumulated educational debt may be so great relative to anticipated earnings that repayment of debt may be very difficult for many graduates. The widespread existence of high student indebtedness can be used as a basis for developing attractive loan repayment programs for health professionals.

Malpractice Insurance

Professional legal liability is a significant problem nationwide; many observers believe that there is a crisis in medical malpractice insurance because physicians leave active medical practice prematurely or refuse to treat certain high risk categories of patients because of the high risk of lawsuit and the escalating cost of malpractice insurance. This area has particular impact on the future of reserve recruiting of health professionals. The insurance industry now offers primarily claims-made insurance for physicians and increasingly for other health care disciplines. This type of insurance requires purchase of an extended reporting endorsement or, more commonly, "tail" coverage upon retirement, cessation of practice, or termination of insurance, in order to retain coverage for any future claims made for prior practice. The reserve health professionals covered under claims-made insurance, if mobilized, would be required to purchase tail coverage to be covered for any claims brought against them for the previous period of private practice. The tail coverage often costs three to four times the cost of the annual premium, which would require a very large lump sum insurance payment upon mobilization. This situation has potential for a highly negative impact on recruitment of health professionals into the reserve, a problem which has been recognized and is being addressed by the Office of the Assistant Secretary of Defense for Health Affairs.

Attitudes of Physicians and Nurses

The analysis of survey and statistical data by the QRMC indicates that policies and programs incorporating both compensation and noncompensation incentives will be most effective in attracting and retaining the personnel need to achieve medical readiness goals. Analysis of survey data indicates that compensation plays a major role for many health professionals, both as a recruiting and a retention factor. This is particularly true for nurses, who indicate a high priority of compensation relative to their retention decisions. The role of compensation for medical officers is less clear; compensation is less important in retention decisions according to reserve medical officers surveyed. This fact, taken in tandem with relatively low levels of satisfaction with reserve compensation, makes it apparent that many physicians who do remain in the reserve consider many other factors that serve as stronger motivators. For civilian physicians not in the reserve, the view of compensation differs somewhat and many indicate that higher levels of compensation would increase their interest in reserve service. The QRMC concludes that enhanced compensation programs would make reserve service appealing to a broader percentage of the civilian health care population by expanding its appeal to individuals who would be more responsive to economic motivators.

Attacking the Shortages of Physicians and Nurses in the Reserve Components

Since very limited data is available on compensation in support of reserve medical manpower, studies addressing active duty medical manpower were reviewed in detail to determine to what extent findings from these studies might have application for the reserve. Combining data from surveys conducted for the DoD by the American Medical Association and professional research organizations, surveys of reserve members conducted by the Services, and the 1986 Reserve Components Surveys, the QRMC analyzed demographic, economic, and attitudinal information relative to medical officers and nurses in the reserve components. This information was compared with similar information for nonmedical officers. Basic demographic factors and economic characteristics of physicians and nurses in the civilian sector were also identified. The characteristics of reserve physicians and nurses were then analyzed relative to civilian health professionals who were not reserve members. Major trends in supply and demand for those professionals in the civilian sector were identified.

Based on these comparisons, the QRMC analyzed several compensation alternatives, projecting the impact on supply and cost for each option evaluated. The QRMC evaluated modification of the current special pay for reserve physicians on active duty for training. The program evaluated would provide for payment to all medical officers irrespective of prior service, payment at a flat rate of $450 per month, and expansion of entitlement to periods of inactive duty training. Segments of the stipend program for reserve physicians and nurses in training in the critically short wartime specialties were evaluated at the current rate. A modification of the current loan repayment program that authorizes annual payments in the amount of $3,000 was analyzed for increased annual payment levels ranging from $4,000 to $8,000. Incentive bonuses were evaluated in amounts ranging from $2,000 to $10,000. The impact of attendance at one health education conference or experience annually was also analyzed for health professionals in the Selected Reserve.

The amounts of the bonus options evaluated were not considered to be definitive or optimal values for inclusion in an incentive program. Rather, the values for the bonus programs analyzed were selected from the range of reserve income observed in the database. The use of values that fall too far outside the range decreases the reliability of the projected estimates. Experimentation with various programs and additional data collection may show that there are other program values that have more optimal effect. The values and responses are offered as baseline estimates for use by planners in developing experimental test designs or compensation policy.

The 6th QRMC does not recommend the payment of all alternatives to all reserve physician and nurse personnel. In an environment of limited resources, the impact of incentive programs can best be maximized through effective targeting of incentives. The QRMC did evaluate the effect of incentives for broad categories of reserve physicians and nurses, including those qualified in specialties not currently classified as critically short wartime specialties, in order to estimate the relative responsiveness of different groups to economic incentives and the projected impact on the total supply of physician and nurse personnel and on budget resources.

Based on the projections of an econometric model and given the specific alternatives and values analyzed, the QRMC estimated that implementation of the evaluated alternatives could potentially result in elimination of shortages for the Selected Reserve at the FY 1986 level over a five-year period both in the aggregate and for critically short wartime specialties for both reserve physicians and nurses. In the aggregate, accessions generated by the alternatives would exceed shortages for the Selected Reserve. Based on the QRMC projections, it appears that additional incentives would be required to eliminate the entire wartime shortfall for the Ready Reserve in a five-year period. The model projects that, at the program levels analyzed, a shortfall of anesthesiologists, orthopedic surgeons, and medical-surgical nurses would remain. It is emphasized, however, that empirical evidence on the effect of compensation initiatives is lacking. Therefore, it is far from certain that the effects of specific initiatives as projected in the model would be adequate to significantly reduce or eliminate the shortfall, even in the Selected Reserve. For this reason, the QRMC recommends a test program of incentives for medical officers and nurses and careful evaluation of the effects of the stipend and loan repayment programs.

Enlisted Health Care Personnel

The basic approach to the study of compensation of enlisted health care personnel was to determine manpower requirements and shortfalls and to compare recruiting, retention, and skill qualification success with that achieved in other military skills and units in the reserve components. To the extent that differences were identified, the approach was to determine whether the health care differed from the nonmedical population and in what ways, and to discover whether any major variations occurred in areas where compensation policies might produce a beneficial effect.

The primary variances found for members in health care skills compared with other enlisted reservists were lower levels of satisfaction with reserve training, lower levels of skill qualification, and higher rates of unprogrammed attrition. With

the exception of the forgoing differences, the QRMC found no significant differences between health care specialists and other enlisted reservists that would be likely to require special compensation initiatives.

Recommendations

The QRMC analysis indicates that the existing compensation programs for health care professionals in the reserve, including the new educational initiatives, are inadequate to reduce existing shortfalls at the rate specified in DoD program guidance. This analysis is based on estimated effects on supply. These estimations necessarily have used secondary measures rather than measures derived from actual compensation changes. It was not possible to work with actual compensation changes because the first significant changes were the initiatives that began to implemented in Fiscal Year 1986, and there is insufficient data as yet to assess their actual separate or interactive effects.

- **The 6th QRMC recommends continuation of the stipend and loan repayment programs; analysis indicates that these programs will help to reduce shortfalls in critically short wartime skills. It further recommends that accessions gained through these programs be carefully tracked with respect to their continuation and use in the reserve.**

The 6th QRMC also estimated the effects on supply of a range of compensation initiatives and of modifications to existing programs targeted at meeting Selected Reserve and IRR requirements for health professionals. It was not judged feasible to recommend a complete program of incentives until more empirical evidence concerning actual program effects was available.

The 6th QRMC recommends three initiatives:

- **A geographically limited experimental test program of an annual bonus for critically short wartime physician and nursing specialties. Since full implementation would require substantial outlays, assessment through a test is warranted.**

- **Revision of section 302(h) of title 37, United States Code, to increase special pay for reserve medical officers when on active duty for training, increasing pay from the current rate ($100 a month for those who have completed at least one but less than two years of active duty and $350 a month for those who have completed two or more years) to $450 a month without respect to previous active duty as a medical officer and to extend this pay to periods of inactive duty training.**

- **A review of current procedures for funding and ensuring compliance with DoD Directive 1215.4, which stipulates that health care officers shall be afforded an opportunity to attend one health education conference or experience on an annual basis.**

The 6th QRMC also found that the provisions of current statutes for appointment and promotion of reserve health professionals were inadequate for the most effective personnel management of the numerous categories of health professionals. The statutes also result in unwarranted differences among the Services, differences that directly affect the compensation of reserve members.

- **The 6th QRMC recommends early consideration and enactment of the Reserve Officer Personnel Management Act (ROPMA), which includes provisions that will materially improve the management of reserve health professionals and provide the capability to treat reserve health professionals in all reserve components in a uniform and equitable manner.**

Part V. SUMMARY AND CONCLUSIONS

In this era of the All-Volunteer Force, the United States has placed increasingly heavy reliance on National Guard and Reserve forces as force-in-being, fully integrated with the active components of the armed forces under Total Force policy. A complex system of duty statuses for Guardsmen and Reservists has evolved in support of Total Force requirements for their full- and part-time service. The compensation system for reservists is tied to and integrated with the compensation system for active component members. It too is necessarily complex.

The 6th QRMC, within its charter to perform a comprehensive review of the benefits and costs of reserve compensation, considered compensation issues affecting reservists in all duty statuses. The primary focus, however, was on compensation for part-time members of the Selected Reserve, with special emphasis on compensation in support of personnel readiness. --> to p. 11

The QRMC review was conducted during a period when the reserve components were generally successful in meeting overall objectives for manpower strength. Persistent problems limiting the readiness of National Guard and Reserve personnel were receiving increased attention. The overall success was due in significant part to a series of compensation initiatives and enhancements after 1981. New bonus, stipend, loan repayment and educational assistance programs were enacted, and a greatly improved system for commissary privileges authorized. Improved medical, disability, and survivor benefits were implemented, reflecting the fact that reservists increasingly train on state-of-the-art weapons systems and perform world-wide missions side-by-side with their active component counterparts.

The QRMC looked in detail at the effect of structural aspects of the reserve compensation system and concluded that the relative value of reserve compensation, as compared with the compensation of members on active duty, was less for members in the junior pay grades. An analysis of the environment in which reserve compensation was received found that environmental factors were also relatively more disadvantageous for junior members, thus exacerbating the compensation system differences. These factors were shown to affect reservists' satisfaction with their pay and allowances.

The review of aggregate manpower force structure requirements for the reserve components found that the needs of the components differed greatly from one another. This indicated

the need for a compensation system sufficiently flexible to effectively and efficiently support differing manpower requirements. Most components indicated that they required fewer members with very long service. The QRMC found that this would likely create short-term difficulties for most components as they managed a large cohort of Vietnam Era veterans now moving through the system. The QRMC analysis concluded that, under the current compensation system and personnel management practices, all reserve components would have more members with long service than desired in the future, even after the Vietnam Era cohort passes through the system.

The QRMC found that, for the reserve components of the Army, which together account for 70 percent of Selected Reserve manpower, personnel deficiencies now represent the most serious limitation on unit readiness; equipment-on-hand deficiencies have been reduced. The percentage of members who are qualified in the military specialty against which they are assigned is the personnel factor that most interferes with personnel readiness in Army reserve component units.

The study calculated the minimum number of qualified soldiers, by specialty, that would be required to produce a satisfactory personnel readiness rating in high-priority units. Also calculated was the number of additional qualified reservists that would be required to raise every specialty in all high-priority units to a satisfactory level. These calculations imply that compensation initiatives targeted at the most critical skills and units could potentially result in substantial readiness improvement within reasonable cost limits.

A contributing factor to skill qualification problems is the high probability of unprogrammed attrition of junior enlisted members. This factor is due in significant part to factors in the civilian environment of the reservist that make reserve participation relatively more difficult for junior enlisted members than for more senior members or officers. It is also true that persistent personnel problems exist in certain types of units and in certain locations, even during periods when overall manpower goals are achieved.

The extent to which reserve personnel problems most affecting readiness are related to unit size, type, and location, and to skill qualification difficulties rather than to aggregate and general shortages, led the QRMC to conclude that fundamental restructuring of the compensation system was not warranted. Aggregate force distribution patterns are relatively less important for the Selected Reserve than they are for the active components. Thus the preferable solution appears to lie in flexible compensation programs to meet unit skill priorities, geographical shortfall, and differing age and experience requirements. The exception is the reserve retirement system,

which the QRMC concluded should be revised to increase midcareer retention and support Service objectives with respect to the retention of long service members. The other specific recommendations of the 6th QRMC, to the extent that they relate to the compensation of part-time Selected Reservists, were evaluated within the context of the broader compensation system, environmental and personnel readiness conclusions, and considerations outlined in this volume and detailed in the report of the QRMC.

Notes

1. The Report of the President's Commission on an All-Volunteer Force. U.S. Govt. Printing Office, 1970, p. 97.

2. R.V.L. Cooper, Military Manpower and the All-Volunteer Force. The RAND Corporation, 1977, pp. 150-158.

3. Compensation of reserve members performing IDT is authorized by 37 U.S.C. §206, which reads in part: "(a) Under regulations prescribed by the Secretary concerned, and to the extent provided for by appropriations, a member of the National Guard or a member of a reserve component of a uniformed service who is not entitled to basic pay under section 204 of this title, is entitled to compensation, at the rate of 1/30 of the basic pay authorized for a member of a uniformed service of a corresponding grade entitled to basic pay, for each regular period of instruction, or period of appropriate duty, at which he is engaged for at least two hours, including that performed on Sunday or holiday, or for the performance of such other equivalent training, instruction, duty, or appropriate duties as the Secretary may prescribe."

4. Under 10 U.S.C. §683, any reservist may perform active duty with pay or, with the member's consent, without pay. Duty without pay is considered for all purposes as if it were duty with pay. 37 U.S.C. §206, which authorizes compensation for IDT, provides broad discretionary authority for promulgation of regulations specifying when compensation may and may not be provided for IDT. All statutory entitlement to IDT is qualified by language making such entitlement contingent on regulations and appropriations provided for IDT.

5. Office of the Secretary of Defense, Executive Summary, Fifth Quadrennial Review of Military Compensation, U.S. Govt. Printing Office, January 1984, pp. II-1 - II-6.

6. Office of the Secretary of Defense, Military Compensation Background Papers, 3rd ed., U.S. Govt. Printing Office, June 1987, pp. 5-10.

7. The calculation of transportation costs is set out in greater detail in a forthcoming RAND Corporation report, R-3669-FM&P/RA, pp. 29-40.

8. Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), Review of the Compensation System for the Selected Reserve: Final Report, January 1981, p. iii.

9. Office of the Secretary of Defense, Military Compensation Background Papers, 3rd ed., U.S. Govt. Printing Office, June 1987, p. 19.

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6th QRMC Report

Executive Summary

Volume I: National Guard and Reserve Compensation

Volume IA: Compensation of Full-Time Support Personnel

Volume IB: National Guard and Reserve Retirement

Volume IC: Compensation in Support of Reserve Medical Manpower

Volume II: Compensation and Personnel Readiness

Volume III: 6th QRMC Supporting Studies

PREFACE

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This volume is part of the report of the 6th QRMC. It covers one of the three issue areas identified for separate analysis within the overall context of the review: compensation for reserve component health care personnel. This issue is also summarized in Chapter 10 of Volume I.

The reserve components are counted on for 53 percent of the health care personnel required to support Unites States forces in combat. By Fiscal Year 1992, 61 percent of the required health care manpower is projected to come from the reserve components.

The primacy of the medical readiness mission of military medicine is now fully recognized by the Department of Defense. In support of that mission, a large peacetime reserve medical force is required. Although great strides have been made in meeting reserve medical manpower requirements, particularly since the early 1980s, there remain significant deficiencies in medical readiness. The Office of the Secretary of Defense for Health Affairs reports a wartime shortfall of 7,100 physicians, 31,000 nurses, and 73,000 enlisted health care personnel. The Fiscal Year 1988-1992 Defense Guidance directed the Services to program resources necessary to eliminate the shortage of nurses and of medical officers qualified in the critically short wartime specialties by Fiscal Year 1992.

The size of the health care shortfall and the DoD initiatives to improve wartime medical readiness as the highest priority of the military health care system, coupled with a long history of neglect of compensation in support of reserve health care personnel, led to the selection of this area as a separate topic of evaluation by the 6th QRMC. In recognition of the importance of the compensation issues for health care personnel, the Principal Deputy Assistant Secretary of Defense for Health Affairs has served as a member of the Coordinating Council, providing policy direction to the QRMC study, member of the Reserve Components Medical Council was as a member of the flag and general officer 6th QRMC Steering Committee.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs, of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services, were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988) and the Reserve Center Commanders Conference (1987) were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard Association of the United States, National Military Family Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis, and advice at every stage of the review.

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Units Visited

Army National Guard

2d Battalion, 116th Field Artillery, Lakeland, Florida

26th Aviation Brigade, 26th ID, MA ARNG, Camp Edwards, Massachusetts

Headquarters, Puerto Rico Army National Guard, and elements of the 192d Separate Infantry Brigade, San Juan, Puerto Rico

United States Army Reserve

Headquarters and Headquarters Company, 78th Training Division, Edison, New Jersey

694th Maintenance Battalion (HQ & 340th S&S Co), San Antonio, Texas

328th Personnel and Administration Battalion, San Antonio, Texas

5506th Dental Service Detachment, St. Louis, Missouri

21st General Hospital, St. Louis, Missouri

803d Medical Group, Boston, Massachusetts

United States Naval Reserve

USS Clifton Sprague (FFG16), Philadelphia, Pennsylvania

Patrol Squadron 64, NAS Willow Grove, Pennsylvania

RNMCB 21, NAEC Lakehurst, New Jersey

Naval Hospitals 119 and 219, Long Beach, California

Naval Hospital Newport Branch Medical Clinic - NAS South Weymouth, Massachusetts

Naval Reserve MED/DEN 0191, South Weymouth, Massachusetts

United States Marine Corps Reserve

H&S Company, 4th Tank Battalion, 4th Marine Division, FMF, USMCR - MCRTC, NAS Miramar, California

H&MS 41, Detachment B - MCAS El Toro, Santa Ana, California

4th Fleet Service Support Group - N&MCRC, Miramar, California

Air National Guard

143d Combat Communications Group, Seattle, Washington

156th Tactical Fighter Group, Muniz ANGB, San Juan, Puerto Rico

United States Air Force Reserve

514 Military Airlift Wing, McGuire AFB, New Jersey

702 Military Airlift Squadron, McGuire AFB, New Jersey

37th Aeromedical Evacuation Group, MacDill AFB, Florida

34th Aeromedical Evacuation Squadron, Kelly AFB, Texas

United States Coast Guard Reserve

1 Seattle (General Support) - NAS Sand Point, Seattle, Washington

Bellingham/Anacortes (General Support), Bellingham, Washington

San Juan Coast Guard Station, San Juan, Puerto Rico

Chapter 1. DEFINITION OF THE PROBLEM

Role of the Medical Reserve

The highest priority of the military health care system is combat medical readiness. Although quality health care during peacetime may be the most visible aspect of military medicine, the primary mission is to support military forces in conflict. This mission requires trained personnel in sufficient quantity and with the right skills, ready to perform their duties when called.

DoD policy states that each Service will conduct its own medical support mission with the exception of the Marine Corps whose medical support is provided primarily by Naval medical personnel. The independent provision of medical support by each Service is based on the unique wartime mission of the Services. This has led to development of medical support structures tailored to support each Service's unique combat mission. Differences in wartime missions and medical support structures have also resulted in different modes of patient evacuation within the combat zone for the Services.

The combat medical support structure of the Army is organized in levels of increasing complexity from the most forward aspect of the combat zone, extending rearward throughout the theater to CONUS. Medical support is deployed in support of land forces and therefore is field oriented and to some degree mobile. In general, the support structure is designed to meet the need of the immediate operational environment as well as provide progressively comprehensive levels of medical care as patients are evacuated rearward or are returned to duty.

The Navy medical department has a dual wartime mission as it must provide medical support to both Fleet Marine Force units and accompanying Navy amphibious support units as well as to fleet operations on a worldwide basis. Like the Army, the Navy support structure is designed to provide different echelons of care at different types of medical facilities progressing rearward throughout the theater of operations. Navy medical support is unique in its partial dependence on shipboard medicine. Several levels of care exist both ashore and afloat depending on the combat environment.

Because the Air Force is primarily deployed at fixed air bases, medical support is also relatively fixed. The air bases are generally high threat areas which may represent first strike targets with deployed personnel being at risk very early in combat. It is therefore Air Force policy to preposition the majority of war readiness materiel in advance in a condition that permits operational readiness within hours.

Under current mobilization doctrine, the active duty medical forces would deploy immediately with combat forces to care for initial casualties. Reserve health care personnel would be called to active duty for many different missions. A large percentage of medical reserve units and individuals would be deployed immediately with the active forces. Others mobilized immediately would be used as backfill for positions vacated by active personnel. The remaining reservists would be called for more gradual mobilization through a time-phased plan.

In recent years, the reserve components have assumed an increasing portion of the combat medical support mission. While each Service would use its reserve medical capability differently, in all Services the reserve would play a major role in providing combat medical care.

The Army reserve components are assigned an extremely large role in providing medical support. Approximately 70 percent of the Army medical units designed to support troops in combat are reserve component medical units. These units provide approximately 73 percent of the required combat medical manpower. The percent of hospitals and other medical units represented by active component (AC) and reserve component units is depicted in Table 1-1.[1]

Table 1-1. Army Medical Unit Distribution by Component

	AC %	ARNG %	USAR %
Army Hospitals (146 units)	23	11	66
Other Medical Units (510 units)	36	23	41

Note: Air ambulance companies are not included.

In the Naval Reserve, health care personnel currently represent only 23 percent of the total Naval combat medical force. Yet, for specific missions, reserve assets represent a much larger portion of the Navy's medical manpower requirement. In Fleet Hospitals, reservists will constitute approximately 65 percent of the manpower required by Fiscal Year 1994. Of the 23

Fleet Hospitals planned by the Navy by 1994, 14 are planned to be in the Naval Selected Reserve and one will be manned by IRR personnel. The total number of reserve personnel required to man Fleet Hospitals is approximately 11,000. The Navy also activated two 1,000-bed hospital ships in Fiscal Year 1987 to provide emergency medical care to combat casualties. Requirements for reservists in the health care skills also exist on these hospital ships. Major growth in the Navy's medical reserve is projected through 1992, when reserve health care personnel are projected to supply approximately one-third of the total required combat medical support. At that time, 48 percent of the Navy's nurse requirements will be filled by Naval Reserve Nurse Corps officers.

Air Force reserve components provide approximately 36 percent of the Air Force's total combat medical manpower. Among the largest of the Air Force's reserve component missions is the requirement to provide 97 percent of all aeromedical evacuation capability as well as roughly two-thirds of health care manpower for second-echelon medical units, where triage, basic first aid, and resuscitative treatment are provided.

Through Fiscal Year 1993, the Service medical departments will receive the new Deployable Medical Systems (DEPMEDS). These standardized modular medical equipment systems will be used by all Services; reservists, as well as active force health care personnel, will train extensively on the equipment.

The role of the reserve medical force is even more extensive when viewed as a percentage of the total manpower requirement. Today, the reserve components are counted on for 53 percent of required combat health care personnel. Fifty-five percent of medical officers, 76 percent of nurses, and 47 percent of enlisted health care personnel required for the world-wide combat mission must come from the reserve. By Fiscal Year 1992, 61 percent of required combat medical manpower is projected to come from the reserve components, which will then be providing 58 percent of the total required strength of enlisted health care personnel. The Office of the Assistant Secretary of Defense for Health Affairs projects that the Services will then rely upon the reserve components to provide 78 percent of wartime staffing for the critically short wartime physician specialties of anesthesiology, general surgery, and orthopedic surgery.

Recruiting and retaining an adequate number of health professionals for the military has been a continuing problem. Staffing in a peacetime environment with adequate numbers of military health care personnel for time of war is even more problematic. The mission of combat medical readiness is a Total Force mission. Although there is an interrelationship between this mission and the peacetime patient care mission, combat

medical readiness must be recognized as distinct, and resourced accordingly. Recognition that success in attaining combat medical readiness requires a strong peacetime reserve medical force is relatively recent.

Factors Unique to Health Professionals

There are several factors that differentiate the military health professional community from other military members and contribute to the difficulties in attracting and retaining a military health care force.

Dual Role of Military Medicine

The role of military medicine is twofold: maintenance of medical readiness for war and provision of a viable health care system during peacetime. The peacetime medical mission requires major expenditures for manpower, facilities, and equipment: quality is mandated by real world demands; resource outlays must be maintained to preclude compromising the quality of patient care; the system must meet or exceed civilian standards for accreditation of patient treatment facilities and for credentialing health care providers. These requirements place additional strains and costs on the system.

The simultaneous requirement for medical readiness places a tremendous strain on a fully-committed active component system. The demand of the peacetime patient care mission is largely consuming for the active components. Given the life-and-death peacetime mission, along with the need for simultaneous training and equipping for war, the development of a strong medical reserve force is imperative.

The dual role of medicine is also reflected in the peacetime role of reserve health professionals. As with their active component counterparts, the mission of reserve health professionals is medical readiness. While reserve health professionals are already trained in the basic medical skills which they will employ during combat, there is need for general military training and training in combat-specific medical skills. The reserve medical force does not act as a primary care provider to reservists, although reserve health professionals may conduct physical examinations or provide primary care during drills or annual training. In fact, reserve use of health professionals in direct patient care has often served as a disincentive to retention, particularly in the case of medical officers. The nature of the work may be repetitious of the civilian job or underutilize medical skills in a peacetime role that is less challenging than the civilian job. Reserve health professionals are involved in special training for enhancement of medical skills for combat. They also plan

and conduct training for other health care and nonmedical personnel. Reserve health care professionals are also frequently employed in support of active component medical facilities. The challenge that the reserve medical force faces is that of developing medical readiness through activities which are simultaneously meaningful and challenging to reserve health professionals.

Income of Health Professionals

The principle of comparability in military compensation indicates that service members should be paid "about the same as their approximate counterparts (in terms of function and responsibility) are paid in the American economy."[2] This principle is particularly significant as it relates to the health professional officer. Several health professions are among the highest paid occupations in the country. The basic pay structure of the military does not compare favorably to civilian income for these professions.

Lending further complexity to the problem are the wide variety of specialties within each health profession, particularly within the field of medicine, that command incomes ranging over a very broad continuum. This has been well-recognized over the last 40 years. The recruitment and retention of medical officers has been of concern ever since World War II. The greatest problem has generally been in specialties commanding the highest civilian incomes. Special and incentive pays and sponsored medical education have been used to meet this problem. While the discrepancy between military pay and civilian income also exists for reserve component medical officers, only one minor compensation incentive and, until very recently, no sponsored training have been available to assist in meeting requirements for reserve medical officers.

For the reserve components, the other shortage of critical proportion has been for professional nurses. Military compensation, training opportunities, and work environment have generally been sufficiently attractive to meet the demand for nurses for the peacetime mission in the active components. The demand for nurses in the reserve components is significantly greater than in the active components, however. In fact, the total reserve component shortfall for nurses, currently projected at 31,000, is more than twice as large as the total number of nurses serving in the active components. Despite the magnitude of the demand for nurses in the reserve, until very recently there has been no attempt to develop special incentives or training programs to make reserve service more attractive to nurses.

A related principle of military compensation acknowledges that additional compensation may be required to adequately man certain military specialties during peacetime when no draft is in effect. Difficult-to-man specialties may suffer from internal or external competition. In the case of physicians, external competition in the private market place is severe. Special and incentive pays have been necessary in order to staff the active duty health care system since 1947, even in time of draft. A particular problem in the medical area, however, is the large differential between civilian compensation and the military compensation package; a larger outlay in special and incentive pays has been required for active duty medical officers than even for hard-to-man nonmedical specialties. In the case of dental officers, special pays for active component personnel have generally closed the differential between military and average civilian income. For active duty medical officers, the differential between military and civilian incomes has also been reduced through use of a wide variety of special incentive pays.

No comparable incentive pay program has ever been developed for reserve health professionals. The only special pay for reserve health professionals is restricted to medical officers with prior active component service while serving on active duty for training. At maximum, this special pay increased the reserve income of the eligible medical officers by an average of only $175 per year. Given the high external market competition for health professionals, this sum cannot be expected to be an economic motivator in a decision to join or remain in the reserve. The principle of additional compensation for difficult-to-man specialties has not been applied to the reserve medical force.

Institutional Benefit

In retrospect, it is surprising that there has been so little concern with reserve component health professionals and their compensation. In part, the reason for this neglect may be that the benefit to the military or the reserve medical force was not sufficiently integrated into the institutional fabric of the military. The concept of institutional benefit, or the value of the member to the Service, is relative to environmental conditions. The absolute necessity for health care professionals is clear during time of combat. In peacetime, concern with day-to-day missions has, in the past, resulted in the neglect of the institutional benefit derived from retaining more health care professionals than are required for quality patient care for the immediate peacetime force. In an environment of limited resources, planners may be tempted to make tradeoffs when spending for the reserve medical force.

Reserve Military Training and Medical Manpower

Determining the extent of initial and continuing training needed to assure that military health professionals will be prepared for mobilization is a persistent problem. Health care professionals in the reserve represent a pool of largely trained manpower. Their primary skills are not specific to the military; instead, they are universal medical skills in which the military member (with the exception of the trainee) is already trained and proficient. This situation poses two issues unique to reserve medicine: the need to determine minimum adequate levels of training in military medicine and ancillary military skills, and the need to provide training that is individually challenging and meaningful to personnel already trained in their professions. The level of training required of reserve health professionals may vary considerably. Some medical unit missions may require intensive training and unit integration, while other categories in the reserve medical force have limited requirements for active participation during peacetime.

Time

Time is of concern to most reservists. This may be especially true for many health care professionals. The establishment of reserve training requirements for health professionals has been considered to be of particular concern to reservists because of potential conflicts with the exercise of the civilian profession. Ninety-seven percent of all reserve medical officers and 85 percent of reserve nurses are employed as civilians. Of those employed, 94 percent of medical officers and 90 percent of nurses are employed full-time in their civilian jobs. The average number of hours worked per week in the civilian job for all reserve medical officers is approximately 57 while the average number of hours worked per week for reserve nurses is approximately 42. Thus reserve duties for these health professionals are accomplished during extra hours that to some extent must be considered premium time.

Highly demanding schedules relative to the number of hours spent in the civilian job and, equally important, the frequent irregularity and lack of control over those hours, can make participation in the reserve more difficult than for the nonmedical reservist. Integration of military and civilian schedules may be of particular concern. For example, in the case of nurses, although the number working overtime in their civilian jobs is not high, the frequent requirement for shift work may make attendance at standard unit weekend drills very difficult. The 1986 Reserve Components Surveys sampled member opinion regarding time spent in reserve activities. Although reserve physicians and nurses indicated less dissatisfaction than did nonmedical officers regarding the amount of time which

they spend in the reserve, they spend significantly less time in reserve activities than do nonmedical officers, possibly reflecting the demands of their civilian work environment. As an example, 54 percent of medical officers and the same percent of nurses spend no additional unpaid drill hours in the reserve. In contrast, only 28 percent of nonmedical officers work no additional unpaid drill hours. There is also a significantly higher percentage of medical officers and nurses who work no extra paid mandays than there is nonmedical officers. These considerations have begun to be recognized. The first initiatives to improve wartime readiness in the medical reserve forces were aimed at more flexible training schedules to accommodate the demands of the work environment of the civilian health professional.

Historical Perspective

All-Volunteer Era

A look at trends in military medical manpower following the inception of the All-Volunteer Force in 1973 is helpful in understanding the shortfall of health care personnel that exists in the reserve components today. At worst, the problems in medical readiness have been severe, with military medicine potentially unable to support U.S. forces in combat. Recognition of the deficiencies in medical readiness, in both manpower and equipment, and efforts on the part of DoD and the Services have resulted in major improvements in manning of health care personnel requirements and overall medical readiness. Medical readiness goals have not yet been achieved, however. Recognition of the priorities and requirements listed below has evolved during the years of the All-Volunteer Force. These concepts, along with implementation of programs and development of initiatives based on recognition of the concepts, have all been significant for achieving future preparedness.

- The priority of mobilization requirements in medical planning
- The requirement for a strong peacetime reserve medical force
- The need for standardization in establishing medical manpower requirements

The primacy of the medical readiness mission of military medicine may appear today as a clear and self-evident concept. This priority has not been clearly perceived in the past, however, nor has the institutional value of this priority been clearly established. Although all branches of the military are subject to the environmental pressures of budget cycles and

manpower trends, perhaps none have been more pressed than the medical. The clear necessity of providing health care to active and retired members and their dependents assumed priority during the postdraft era, when large numbers of health care personnel were leaving the military. Initiatives to attract and retain health care professionals were being developed to attract health care personnel to active duty in the All-Volunteer Force. During this period, the military medical departments entered a period of declining capability. Active component manpower deficiencies were accompanied by deficiencies in reserve manning and mobilization equipment and supplies. During a time when it was already difficult to provide day-to-day care, the need to maintain medical readiness went largely unaddressed. As a consequence, the status of the reserve medical force was not a priority.

Yet the military must maintain the ability to provide adequate medical care to soldiers during war. This is not only a moral imperative, but a requirement firmly established in law, because involuntary induction is based on the availability of adequate medical care. The Military Selective Service Act states:[3]

> No person shall be inducted for such training and service until adequate provision shall have been made for such shelter, sanitary facilities, water supplies, heating and lighting arrangements, medical care, and hospital accommodation for such persons as may be determined by the Secretary of Defense or the Secretary of Transportation to be essential to the public and personal health.

In the last 10 years, however, the severity of the shortfall of personnel in some of the health care disciplines in a mobilization environment has become increasingly apparent. The DoD mobilization exercises conducted in 1978, 1980, and 1982 all revealed serious deficiencies in medical readiness.

The 1980s

A 1981 General Accounting Office (GAO) report asked "Will There Be Enough Trained Medical Personnel in Case of War?"[4] The report estimated that DoD had only 50 percent of the health care personnel required for wartime and that health care personnel had not developed the skills to perform wartime missions effectively. The report stated that "plans for dealing with medical personnel shortages expected to occur if the Nation went to war tomorrow, especially during the early months after mobilization, are incomplete."[5] Exercise Proud Saber in 1982 revealed significant manpower shortages and equipment shortfalls. In October 1983, the Acting Assistant Secretary of Defense for Health Affairs stated, "We could not treat our casualties today because of our lack of qualified and trained

manpower."[6] In a hearing before the House Armed Services Committee in 1984, this concern was dramatically portrayed by the Assistant Secretary of Defense for Health Affairs, who stated, "Only one out of ten combat wounded would receive the surgical care he required in a major conventional European conflict today."[7] Increasingly sophisticated tools for projecting readiness have since been developed, but such stark comments served to call attention to the medical readiness problem.

In 1986, the Assistant Secretary of Defense for Reserve Affairs presented to the Congress the results of a study conducted for his office that compared the ratio of people killed versus wounded to the availability of hospital beds in the theater of operations during the Korean War.[8] During the Vietnam Conflict, the ratio of killed to wounded was 1 to 8. During the first month of the Korean War, however, there were almost as many killed (2,051) as there were wounded (2,344). That ratio was the highest since the Civil War when there were 3 killed to every 1 wounded. He postulated a direct correlation between the availability of hospital beds and the medical support system available and the number of deaths. At the beginning of the Korean War, the United States had no operating hospital beds in the country and built up to only 400 beds by the end of the first month of combat. It is essential that adequate medical support for United States forces in combat be available immediately upon mobilization. Delays in meeting requirements for health care personnel and equipment may needlessly cost the lives of American combat personnel.

By 1980, medical manpower initiatives had begun to stabilize the active duty health care population at an adequate level. In 1981, DoD efforts were turned toward correcting deficiencies in medical readiness; the reserve medical forces began to receive significant attention for the first time since World War II.

Following the 1981 GAO report on medical readiness, the Office of the Assistant Secretary of Defense for Health Affairs developed a package of six training programs for the medical reserve. The program was published in DoD Directive 1215.4, "Medical Training in the Reserve Components," January 26, 1983. This was the first revision of the directive since 1952 and represented one of the first major actions taken to improve the status of the medical reserve. The DoD policy promulgated in the revised directive reflected the new emphasis on mobilization readiness and the medical reserve: "It is the policy of the Department of Defense to structure reserve component medical training to achieve peacetime medical readiness that will ensure the maximum effectiveness of combat forces during wartime."[9]

In a second major medical readiness initiative, the Office of the Assistant Secretary of Defense for Health Affairs and the Office of the Deputy Assistant Secretary of Defense for Reserve Affairs established the Reserve Components Medical Council (RCMC) in 1981. The RCMC is composed of medical officers of general and flag officer rank representing each of the reserve components with a reserve medical force. The council was established to review medical readiness issues as they affect the reserve components and to recommend actions to increase the reserve medical readiness posture. The RCMC has called attention to the need to significantly reduce the processing time required to appoint health care officers in the reserve and to require submission of manpower data from the Services to DoD in a standard form on a regular basis. To date, the primary focus of the council in the manpower arena has been on personnel and training initiatives.

In FY 1983, the Reserve Forces Policy Board also recognized combat medical care as a serious problem warranting study and included, for the first time, a separate chapter assessing medical readiness in their annual report.

Problems in Establishing Medical Manpower Requirements

Lack of Management by Specialty

When lack of mobilization readiness and the medical manpower shortage first became apparent, the Services viewed the shortfall on a broad, aggregate scale. Shortfalls were generally large and spread across the specialties to such an extent that little emphasis was placed on recruiting of specific specialties. The recruiting goals were generally set on a broad generic basis such as physician, dentist, and nurse.

In 1983, the Reserve Forces Policy Board concluded in the Fiscal Year 1982 Readiness Assessment of the Reserve Components, that "during the course of assessing medical readiness, it was suggested that it would be prudent to examine the status of some specific medical specialties relating to the treatment of battle casualties--especially in the surgical field."[10] Data collected by the DoD Inspector General strongly supported this view. The Inspector General conducted an audit to assess the degree and success with which the Services implemented the reserve medical readiness initiatives set out in 1983 in DoD Directive 1215.4. The August 1985 audit report emphasized the need to manage reserve shortfalls of health care personnel by specialty. The report drew two primary conclusions:

- That newly devised DoD programs were not being fully or in [illegible] cases correctly implemented by the Services.
- [illegible]at there was a strong need for management by specialty.[11]

Many billets for critically short wartime specialties were filled by members with specialties in oversupply. Further, programs designed to attract medical students had no mechanism for insuring that a student would eventually qualify in a critically short wartime specialty. The audit found that "the services had 18,200 officers in excess of wartime requirements in 89 medical specialties and conversely had 14,200 personnel shortages in 89 other medical specialties."[12] The improper mix of health care specialties pertained to the Total Force, but was particularly apparent relative to the reserve medical force. Achieving the correct mix of specialties for combat has become a major emphasis of the DoD since that time, and the Services have implemented recruitment and personnel policies that emphasize management by health care specialty and are targeted to the critically short wartime specialties within the reserve community.

Lack of Consistent Methodology

The ability to attract reserve health care personnel has been impeded, however, by the lack of agreement on the size and distribution of the shortfalls. Staffing ratios, casualty estimates, and evacuation policies make the development of requirements exceptionally difficult.

The Report of the Military Health Care Study[13], published in 1975, was one of the first to call attention to this problem. This report indicated that planning, analysis, and management within the defense medical department was impeded by inadequate data and information systems, and by lack of standardization. Some of the ramifications of such inconsistencies were discussed in the 1979 Defense Resource Management Study,[14] which found that the Air Force showed a requirement for fewer overseas hospital beds than did the Army, but showed a requirement for twice as many medical officers. Further, the ratio of anesthesiologists to surgeons was 1 to 2 for the Navy, 1 to 9 for the Army, and 1 to 19 for the Air Force. Progress in standardizing the methodology for assessment of needs was slow, however. In order to resolve the wide disparities among the Service projections for combat requirements for both medical units and health care personnel, the Secretary of Defense directed a major study of wartime medical requirements in 1984. The final classified report, The Study of Wartime Medical Requirements,[15] was published in March 1985. This study was pivotal for defense medicine. It reiterated the concern that no Service, given its combined authorized strength for the active and reserve components, could meet its combat medical requirements. It also called attention once again to the disparity in the Services' methodology for predicting wartime manpower requirements. It was clear that the problem of discrepant requirements continued to exist when the Assistant Secretary of Defense for Health Affairs indicated that "to staff

1000 wartime hospital beds in the United States, the Army predicts it would require 106 physicians, the Air Force 166, and the Navy 392."[16] Such wide discrepancies contributed to marked difficulty in developing effective mobilization plans.

The 1975 Report of the Military Health Care Study, did more than call attention to the discrepancies in military data and information management systems. The report recommended that the size and composition of the peacetime medical force should be determined by the needs of medical readiness. Ten years later, The Final Report of the Blue Ribbon Panel on Sizing Department of Defense Medical Treatment Facilities[17] reached the same conclusion. By this time, the concept had been accorded serious consideration by defense leadership. The Blue Ribbon report became a landmark in the conceptual development of readiness as the paramount mission of defense medicine. The study panel was composed of national health care authorities. It was chartered by the Secretary of Defense to evaluate the defense criteria used for sizing military hospitals and the efficacy of expanded use of civilian facilities. Although the charter of the panel was not specifically related to medical readiness, one of their primary recommendations addressed this area. The panel pointed out the direct connection between the peacetime medical force and readiness requirements: "Medical readiness requirements should be the primary criterion for determining the size and composition of the peacetime active duty medical force and of the facilities in the direct-care system."[18] The panel concluded that additions to the peacetime medical force should be made only when health care would otherwise be denied to military personnel, when the quality of medical training programs would otherwise suffer, or when adding to the active medical force would provide patient care at a lower cost than other alternatives. In other instances, the requirements of medical combat readiness should determine the size of even the peacetime medical force.

In December 1984, the GAO, at the request of the Chairman of the House Committee on Armed Services, initiated a review to assess defense wartime manpower requirements. The 1987 GAO report, Medical Readiness: Progress in Stating Manpower Needs,[19] again emphasized the marked dissimilarities in the Services' personnel databases and in their methodologies for projecting wartime medical requirements. The report chronicled the long-existing need for standardization in reporting assets and projecting requirements, emphasizing the lack of progress in this area. It underscored the need for accurate and standardized reporting of manpower resources as a necessary prerequisite to accurate projection of requirements. While acknowledging ongoing efforts in this area, the report concluded that the DoD was unable to predict defense wartime medical manpower needs. Because the Offices of the Assistant Secretary of Defense for Health Affairs and the Assistant Secretary of

Defense for Reserve Affairs had several initiatives underway for solving the problem, initiatives that the GAO believed to be steps in the right direction, the report did not make specific recommendations. It did urge the DoD to provide strong centralized management in this problem area and to assume responsibility for consolidating defense information for medical manpower management and information.

Medical Planning Module (MPM)

Perhaps the most important single effort in the establishment of a systematic method for determining defense medical manpower requirements was the development of the Medical Planning Module. With the growing emphasis on medical readiness and the clear need for a standardized methodology in establishing readiness requirements, the Assistant Secretary of Defense for Health Affairs directed the development of a medical planning model. This model would be used to project medical manpower requirements using standard criteria for all Services. The need for such a system had been identified earlier. In 1978, in response to evidence of inconsistencies in the Services' databases and in their methods for projecting wartime manpower requirements, the Secretary of Defense directed that a joint study be conducted. Representation from the Services, the appropriate defense offices, and the Office of the Joint Chiefs of Staff was included. The recommendations of that study, the Report of the Wartime Posture Study (1980), became guidelines for the development of the Medical Planning Module, a subsystem of the Joint Operation Planning System. The study concluded that projections of patient workload were the most appropriate criteria for predicting medical manpower requirements and recommended the development of a standard methodology for projecting those requirements. There were a series of delays in widespread use of the MPM until 1986, when the DoD directed that the Services use the MPM in developing manpower requirements from Fiscal Year 1988 forward.

The MPM is an automated program that predicts workload-related, hospital-based medical requirements based on varying combat scenarios. Among the requirements generated are hospital beds, blood/fluids, medical supply, and manpower. Manpower requirements generated by the MPM vary from standard requirements: they are derived from a workload perspective, whereas previous requirements were generated in consonance with individual Service force structure. Because the MPM is now the official source of combat manpower requirements, it is important to be aware of some limitations of its current capabilities:

- MPM projections are generated for hospital-based requirements only. To these must be added Service-unique requirements for other types of medical units such as separate Army medical battalions, battalion aide stations, shipboard medicine, and the aeromedical evacuation system.

- The MPM does not project requirements generated in the Continental United States, which include requirements for treatment of the training base. These requirements and a number of others must be added to those generated by the MPM in order to predict complete medical requirements for a wartime scenario.

- The MPM is workload oriented; it does not apportion manpower among active and reserve components or among elements of the reserve components. The Services are responsible for the distribution of personnel according to their active and reserve missions.

In February 1986, a revised version of DoD Instruction 1100.19, "Wartime Manpower Planning Policies and Procedures," was published. This instruction covers the Wartime Manpower Planning System (WARMAPS), which is the automated Defense system for compiling, comparing, and reporting wartime manpower supplies and demands. The instruction, as revised, directs that the MPM be used to generate workload-related manpower requirements for health care personnel.

Development of Reserve Medical Databases

The newly developed emphasis on the reserve medical force, and the capability to make standard projections of medical manpower requirements through the MPM, focused attention on the need for improved management information systems for reserve personnel data. The need to accurately determine shortfalls as measured against projected requirements is dependent upon the ability to assess available assets.

Health Manpower Information System (HMIS)

In 1986 the Office of the Assistant Secretary of Defense for Health Affairs made major improvements in HMIS, the official DoD database for health personnel and manpower. The system was expanded to consolidate manpower and personnel information for both the active and reserve components in a single database. The Office of the Assistant Secretary of Defense for Health Affairs directed the Services to provide reports periodically that include data on requirements, authorizations, and inventories for the total medical force including the active components and all categories of the reserve, incorporating the Ready Reserve, Standby Reserve, and retired categories. The

Health Manpower Statistics Report for FY 1986 included reserve data for the first time, thereby significantly upgrading the manpower and personnel data available for the reserve.

Reserve Medical Management Information System (REMMIS)

The Assistant Secretary of Defense for Reserve Affairs sponsored development of REMMIS, a new medical reserve database, to provide access to information, at a level previously unavailable, on the personnel status of reserve component medical units and health care specialties. The system enables the comparison of peacetime authorizations, wartime requirements, and actual unit manning levels. The system is the first with the capability to compare skill qualification with unit position requirements, enabling assessment of readiness from a perspective of skill qualification. Currently, the system contains data from the Army and Air Force reserve components, with the addition of Navy data projected for the near future.

Reserve Unit Priority System (RUPS)

The RUPS database, developed simultaneously with REMMIS, provides reserve component readiness data. Although the system is not uniquely medical, the database includes information on the Army, Navy, and Air Force medical units that report readiness ratings in the defense Unit Status and Identity Report system. RUPS provides the capacity to assess medical unit readiness on the basis of personnel and equipment criteria. In addition, levels of medical unit readiness can be compared with levels of readiness for nonmedical units, and the relationship of readiness and deployment priority can be examined.

Fiscal Year 1988-1992 Defense Guidance

The Secretary of Defense issues guidance during each Planning, Programming and Budgeting System cycle which includes criteria and assumptions upon which the Services are to size and structure their military forces. The Fiscal Year 1988-1992 Defense Guidance contained specific guidelines with respect to medical readiness. These guidelines, reflecting a strong Total Force emphasis on medical mobilization preparedness, included the following:

- Growth in numbers of fully-trained medical officers in the active components should be limited to the level programmed for FY 1988. Additional resources thereby made available should be reprogrammed to recruit physicians with critically short wartime skills.

- Each Service should establish a reserve recruiting program that would reduce, by 20 percent per year from FY 1988 through FY 1992, overall wartime shortages of nurses and wartime shortages of physicians with critically short wartime skills.

- Each Service should investigate and pursue any other alternatives that might contribute to reduction or elimination of these shortfalls.

The Defense Resources Board added 111 million dollars to the Service medical programs for FY 1988 through FY 1992 to support the goal of reducing the medical shortfall.

Details of the Shortfall

The following discussion of relative strengths and shortfalls is based on official total wartime requirements for the Total Force, the REMMIS database, and data provided by the Services for the Selected Reserve. Although HMIS first included reserve data for all reserve components for FY 1986, that data was not available in time for use in the 6th QRMC analysis. Because Naval data has not yet been integrated into REMMIS, the Navy has been omitted from many of the tables. Navy data is also available from the DoD Reserve Components Common Personnel Data System and other defense sources.

Physicians and Nurses

Based on Service wartime requirements, the DoD projects that it has an overall shortfall of 7,100 physicians and 31,000 nurses. Table 1-2 shows the distribution of this shortfall by military Service and shows the numbers required to fill vacancies in units of the Selected Reserve and the shortfall within the Individual Ready Reserve. For purposes of the 6th QRMC analysis, the entire shortfall is distributed across the reserve components, based on an assumption of immediate mobilization with no time available for increasing active component manpower. In calculating the shortfall on the basis of total wartime requirements, Service yield estimates are used. Yield estimates are the projected personnel show rates at mobilization taking into account members who are temporarily unavailable due to hospitalization and similar factors: these estimates vary by Service and for each reserve category.

It is not adequate that medical manpower requirements be met late in combat; instead, it is imperative that adequate medical manpower be available at the onset of any war. The Selective Service, even with newly authorized authority to develop a postmobilization registration program for health care disciplines, does not project the capability to meet the initial

Table 1-2. Reserve Component Health Professional Shortfalls, FY 1986

Service	Physicians	Nurses
Army	5,525	18,750
Navy	1,125	5,850
Air Force	450	6,400
Total shortfall	7,100	31,000
Selected Reserve shortfall	2,200	5,900
IRR shortfall	4,900	25,100

Note: Allocation of shortfall to Selected Reserve and IRR determined by the Military Departments.

Source: Office of the Assistant Secretary of Defense for Health Affairs.

DoD requirements following mobilization. It is thus necessary that the medical manpower shortfall be eliminated during peacetime through increases in the strength of the reserve medical force according to specifications of the DoD. Table 1-3 shows the estimated time-phased shortfalls for health care personnel following initiation of combat. The most significant shortfalls occur early in the combat scenario.

Table 1-3. DoD Estimated Shortfalls for Health Care Personnel

	Time-Phased Shortfalls				
Specialty	D+10	D+30	D+60	D+90	D+180
Physicians	4,867	690	259	144	74
Nurses	25,091	3,985	581	789	561
Enlisted health care personnel	41,826	23,444	5,364	1,328	1,025

Note: The total wartime shortfall shown in Table 1-2 is somewhat higher than that depicted above as it is derived from peak requirements for each of the individual Services.

Source: Office of the Assistant Secretary of Defense for Health Affairs FY 1988-1992 Program Objective Memoranda

The Assistant Secretary of Defense for Health Affairs has designated specialties with critical wartime shortages. These disciplines currently include the following:

Medical Officers	Nurses
Anesthesiologists	Nurse Anesthetists
General Surgeons	Operating Room Nurses
Orthopedic Surgeons	All Other Nurses

Table 1-4 shows the reserve component shortfall by military Service for the specific specialties which are projected by the MPM.

Table 1-4. Reserve Component Shortfalls in Critically Short Wartime Specialties, FY 1986

Service	Anesthesiologist	General Surgeon	Orthopedic Surgeon	Nurse Anesthetist
Army	750	1,355	1,365	955
Navy	230	285	150	430
Air Force	335	280	515	330
Total shortfall	1,315	1,920	2,030	1,715
Selected Reserve shortfall	260	710	370	815
IRR shortfall	1,055	1,210	1,660	900

Note: Comparable data for operating room nurses is not available.

Source: Office of the Assistant Secretary of Defense for Health Affairs. Allocation of shortfall to Selected Reserve and IRR determined by the Military Departments.

Although the MPM does not project specific requirements for operating room nurses, it does project the number of operating rooms required. Based on that projection, the Services have estimated, from the "other nurse" category projected by the MPM, the numbers to be allocated to operating room nurse requirements, with a resultant DoD-wide shortfall of approximately 2,200 operating room nurses.

Health professionals may be recruited for two types of positions within the Selected Reserve: in a reserve unit, or in an Individual Mobilization Augmentee position with individual assignment to an active component unit that the reservist would join on mobilization. Remaining Ready Reserve requirements are

in the Individual Ready Reserve, where specific assignment does not generally occur prior to mobilization. At the present time, reserve component medical units not only have vacancies for health professionals but also have many assigned personnel who are not qualified for the positions they are filling. Tables 1-5 and 1-6 show the fill rate and the qualification rate in Army and Air Force Selected Reserve units, respectively, for the critically short wartime health care specialties.

Table 1-5. Staffing Condition of Selected Health Care Specialties in Army Selected Reserve Units, as of June 30,1987

	Percent of Authorized Positions	
Specialty	Filled %	Filled with Qualified Personnel %
Anesthesiologist	61	42
General Surgeon	76	36
Orthopedic Surgeon	56	26
Operating Room Nurse	75	50
Nurse Anesthetist	47	38
Medical-Surgical Nurse	99	74

Source: Army Medical Functional Review 1987 for the Army National Guard and the Army Reserve

Table 1-6. Staffing Condition of Selected Health Care Specialties in Air Force Selected Reserve Units, as of June 30, 1986

	Percent of Authorized Positions	
Specialty	Filled %	Filled with Qualified Personnel %
Anesthesiologist	42	42
General Surgeon	38	29
Orthopedic Surgeon	13	5
Operating Room Nurse	74	65
Nurse Anesthetist	45	43
Clinical Nurse	94	90
Flight Nurse	84	62

Source: REMMIS Database FY 1986. (Assigned strength as of June 30, 1986. Authorized strength as of September 30, 1986.)

Selected Reserve units must recruit enough people to fill vacancies in these critically short wartime specialties and to replace the assigned personnel who are not qualified. In the Army, for example, as seen in Table 1-5, 56 percent of the orthopedic surgeon positions are filled, but only 26 percent of those positions are filled by qualified orthopedic surgeons. Additional importance is placed on recruiting for the Selected Reserve because of the projected increase in authorized positions as new medical units are activated. As an example, Table 1-7 shows the planned growth in the authorized strength of the critically short wartime specialties for the Army reserve components.

Table 1-7. Projected Increase in Authorized Strength for Selected Health Care Specialties, Army Selected Reserve Units

Specialty	Percent Increase FY87 to FY93
Anesthesiologist	16
General Surgeon	7
Orthopedic Surgeon	12
Operating Room Nurse	23
Nurse Anesthetist	17
Medical-Surgical Nurse	24

Source: Army Medical Functional Review 1987 for the Army National Guard and the Army Reserve

Health Professionals other than Physicians and Nurses

The marked shortfalls observed for medical officers and nurses do not occur in other professional health care disciplines. Although there is some variability among the Services and not all specialties are manned at 100 percent, overall unit fill is generally good or in excess of authorization, as evidenced in Table 1-8. The fill percentage shown on the table is calculated from a straight inventory of officers with a given primary specialty code; there is no attempt to identify the correctness of the match between the unit position and the officer's specialty. In general, where shortages do occur, the number authorized is small, or the authorizations are low-density specialties; although the fill percentage may be very low, the actual number short is also small. Further, when measured against total mobilization requirements, the shortfall for a specific Selected Reserve requirement is often overcome when

pretrained manpower available from the Individual Ready Reserve, Standby Reserve, and retiree categories is credited against total available manpower. After inclusion of all available personnel categories, wartime shortages that remain for these other specialties are very small in absolute numbers.

Table 1-8. Staffing of Other Health Professionals in Selected Reserve Units, FY 1986

	Percent Fill		
	Army	Navy	Air Force
Corps	%	%	%
Dental Corps	96	137	99
Medical Service Corps	103	117	89
Bio-medical Science Corps	N/A	N/A	71
Army Medical Specialist Corps	78	N/A	N/A
Veterinary Corps	93	N/A	N/A

Source: Army - REMMIS Database as of September 30, 1986.
Navy - NRPC Report - 4080-1020-7C as of September 30, 1987.
Air Force - REMMIS Database. Authorizations as of September 30, 1986; assigned strength as of June 30, 1986.

Enlisted Health Care Personnel

Enlisted health care specialists are an essential part of the reserve components' medical force structure. Wartime medical readiness is dependent upon filling these enlisted positions with qualified people.

Table 1-9 shows the shortfall of enlisted health care specialists by Service. It also shows the number required to fill vacancies in units of the Selected Reserve and the number required for the Individual Ready Reserve. The data includes projected requirements for enlisted health care personnel qualified in direct patient care specialties; ancillary medical skills such as laboratory, pharmacy, and diet therapy; and medical administration and logistics.

Over 70,000 enlisted health care jobs are authorized in Selected Reserve units. About 70 percent of the authorized positions are in the Army National Guard and Reserve; the remainder are in the Naval Reserve, the Air National Guard, and the Air Force Reserve. The Coast Guard Reserve has a very limited number of enlisted health care personnel. Coast Guard data has not been included in this study.

Table 1-9. Reserve Component Shortfalls in Enlisted Health Care Specialties, FY 1986

Service	Enlisted Health Care Specialists
Army	58,100
Navy	12,200
Air Force	2,700
Total shortfall	73,000
(Selected Reserve shortfall)	(26,200)
(IRR shortfall)	(46,800)

Note: Allocation of shortfall to Selected Reserve and IRR determined by the Military Departments.

Source: Office of the Assistant Secretary of Defense for Health Affairs.

Table 1-10 summarizes the personnel status of enlisted health care specialists in the medical and nonmedical units of the Army's Selected Reserve, highlighting the skill mismatch problem.[20] Although nearly all jobs are filled, more than 30 percent of the assigned personnel are not qualified for the billets they fill: 94 percent of the authorized positions are filled, but only 63 percent are filled with people whose qualifications match the jobs they are filling. About half of the "assigned but unqualified personnel" have not completed their initial training (basic military training and skill training). The other half have completed initial training but are qualified in skills that do not match the requirements of the jobs they are filling. Some are qualified in medical skills other than those required by their assignments; others are qualified in nonmedical skills. Completion of initial training or its equivalent is required by law before a member can be deployed overseas in wartime.

Table 1-11 summarizes the same type of data for the Air Force reserve components. The skill mismatch problem is less severe in the Selected Reserve of the Air Force. In the Air National Guard and Air Force Reserve, 97 percent of the enlisted health care jobs were filled as of September 30, 1986, and 80 percent of the authorized positions were filled with qualified personnel. About one-third of the "assigned but unqualified personnel" are awaiting or undergoing initial training; the remainder have completed initial training but are qualified in a medical or nonmedical skill that does not match the job they are filling.

Table 1-10. Staffing Condition of Enlisted Health Care Specialist Jobs in Army Selected Reserve Units, as of June 30, 1987

Component	Number of Unit Members			Percent of Authorized	
	Authorized	Assigned	Qualified	Assigned	Qualified
Army National Guard	19,688	18,545	13,290	94	68
Army Reserve	32,749	30,593	19,694	93	60
Total	52,437	49,138	32,984	94	63

Source: Army Medical Functional Review 1987 for the Army National Guard and the Army Reserve

Table 1-11. Staffing Condition of Enlisted Health Care Specialist Jobs in Air Force Selected Reserve Units, as of June 1986

Component	Number of Unit Members			Percent of Authorized	
	Authorized	Assigned	Qualified	Assigned	Qualified
Air National Guard	3,470	3,548	2,982	102	86
Air Force Reserve	6,366	6,023	4,892	95	77
Total	9,836	9,571	7,874	97	80

Source: REMMIS Database FY 1986. (Assigned strength as of June 30, 1986. Authorized strength as of September 30, 1986.)

In the Air Force reserve components, the staffing condition of enlisted health care positions is better than it is in the Army reserve components for a number of reasons:

- The Army's medical force structure is five times the size of the Air Force structure.
- The authorized health care positions in the Army's reserve components have a larger proportion of the specialties that are difficult to recruit or train, e.g. practical nurse, operating room specialist.
- The Army has a larger proportion of its assigned personnel in a training status (15 percent Army; 6 percent Air Force) because the personnel turnover rate is higher in the Army.

Personnel Readiness

The manpower accounting system for the active forces has a separate, centralized account for trainees and students. Personnel undergoing formal training outside the unit are charged to this central account, not to the assigned strength of operating units. By contrast, reserve component personnel who are awaiting or undergoing training count as part of the strength of their units. Guard and Reserve units carry individuals in the training pipeline as assigned strength. This accounting convention may change in the future, but until it does change, reserve component units should carry enough overstrength to offset the training pipeline. For Army Selected Reserve medical units, the overstrength in enlisted health care personnel should average about 15 percent.

The readiness of Army Selected Reserve units is diminished by the number of assigned personnel who have completed initial training but are qualified in skills other than those required by the position to which they are assigned. Although training seats may be available, there are significant problems in getting National Guard and Reserve members through this formal training. Many reservists are unable to take leave from their civilian jobs to attend the courses that would qualify them for their unit jobs. Some components appear to have additional problems with administrative procedures for application and confirmation of training seats for reservists. Controls are needed on enlistment of personnel who carry nonmatching medical skills or nonmedical skills, and who cannot be retrained.

Unit Readiness

The readiness of medical units is based on personnel, training, and equipment criteria. As we have noted, programs are in place that will solve the equipment shortfalls. Personnel readiness criteria include three measures that compare available personnel, qualified personnel, and senior grade personnel to the wartime authorized strength of the unit.

As of September 30, 1986, there were 523 medical units in the Army National Guard and Army Reserve, with a wartime authorized strength of 75,000, including both health care and nonmedical jobs. Readiness ratings are available for 456 of those medical units. In the Air National Guard and Air Force Reserve, there were 178 medical units with an authorized strength of 14,300. Approximately 97 percent of these jobs required medical skills. Readiness ratings are available for 174 of these units. The personnel readiness ratings are lower for medical units than for nonmedical units in the reserve components of both the Army and the Air Force.

Although Navy data is not shown, Army and Air Force data are indicative of the defense medical readiness status, since the Army and Air Force account for about 85 percent of the Selected Reserve medical manpower.

Comparing medical and nonmedical units in the Army, medical units were 6 percent more likely than nonmedical units to be "not ready." In the Air Force, medical units were 10 percent more likely to be "not ready." Readiness varies considerably with the type of medical unit. In the Army, the lowest levels of readiness were among the hospitals, with the lowest rating occurring in hospitals that would be employed in the Communications Zone. The lowest personnel readiness ratings in the Air Force were for the USAF hospitals, which supply health care personnel to staff medical facilities in the Continental United States, in order to replace deploying active component personnel. Next lowest were the Aeromedical Evacuation Units (flights, squadrons, and groups) and Medical Service Squadrons.

In the Army, 22 percent of the rated medical units are hospitals, but those units account for 68 percent of the authorized strength of the 456 reporting medical units. To provide a way of summarizing readiness data which takes unit size into account, a weighting system for units was developed. For example, when unweighted, a unit that is authorized 10 people and a unit that is authorized 200 people count the same. When weighted, a unit that is authorized 200 people is given a weighting equivalent to 20 detachments with 10 members. When the ratings are weighted, a 74 percent increase occurs for Army units judged "not ready." The number of Army medical units reporting a "not ready" personnel status is 31 percent higher than the number of nonmedical units reporting "not ready." When weighted, the Air Force "not ready" rating increases by 72 percent.

It can thus be readily observed that personnel shortfalls and skill mismatches are a significant cause of lack of readiness throughout the medical units of the reserve components.

Summary

In summary, when viewed from a historical perspective, it appears clear that relatively little attention has been directed toward the reserve medical force. When health care personnel were unavailable in adequate numbers, the answer was generally found in draft legislation. Between draft periods, there was often a residual supply of reservists from previous draft and draft-era programs. Even after the expiration of the last conscription in 1973, the reserve medical force gained personnel who were serving obligations after leaving active service following the end of the draft period. The advent of the All-

Volunteer Force, however, did place immediate strain on the defense health care system. Multiple efforts had to be made to increase the strength of the active health care system simply to meet the everyday demands of providing health care to the peacetime force and other eligible beneficiaries. In the active arena, this emphasis was so strong that little or no thought was given to the mission of medical readiness in the new All-Volunteer environment.

By 1978, however, numerous assessments and defense exercises began to point out that defense medicine did not have the ability to support combat forces in time of war. As concern over an increasingly apparent deficiency in medical readiness grew, it was gradually recognized that the reserve medical force would be required to play an extremely major role in any medical combat mission if that mission were to succeed. Even in view of that recognition, planning and resourcing for this major reserve medical mission have been slow in gaining support. The deficits in combat medical equipment, though severe, were somewhat more readily addressed than the problems with manpower shortages. In general, initiatives that addressed the manpower shortage have focused on recruitment and, to a lesser extent, on training. It is only recently that there has been a conscious effort to address the manpower shortage through compensation programs developed specifically for reserve health care personnel. The entire area of special pay and incentives for reserve health care personnel remains largely unevaluated. The object of this report is to present an evaluation of the potential impact of a number of forms of compensation for reducing the manpower shortage of health care personnel in the reserve components.

Notes

1. Department of the Army, The Office of the Chief, United States Army Reserve, The Posture of the Army Reserve 1988, p. D-8.

2. Department of Defense, Office of the Secretary of Defense, Military Compensation Background Papers, 3rd ed., June 1987, p. 7.

3. 50 U.S.C., App. §454(a).

4. Government Accounting Office, Will There Be Enough Manpower in Case of War?, (GAO/HRD-81-67), June 24, 1981.

5. Ibid. p. 20.

6. Address by John F. Berry, III, M.D., to the 90th Annual Meeting of the Association of Military Surgeons of the United States, October 31, 1983.

7. U.S., Congress. House, Committee on Armed Services, Medical Activities Hearings, 98th Cong., 1984, p. 721.

8. U. S., Congress. House, Committee on Armed Services, Wartime Medical Personnel, Hearings before the Subcommittee on Military Personnel and Compensation, 99th Cong., 2nd sess., 1986, pp. 9-11.

9. Department of Defense, Office of the Assistant Secretary of Defense for Health Affairs, DoD Directive 1215.4, Medical Training in the Reserve Components, January 26, 1983, p. 1.

10. Department of Defense, Office of the Secretary of Defense, Reserve Forces Policy Board, Fiscal Year 1982 Readiness Assessment of the Reserve Components, March 1983, p. 60.

11. Department of Defense, Inspector General, Report on the Audit of Reserve Component Medical Manpower, August 1985.

12. Ibid. p. 4.

13. Department of Defense, Department of Health, Education and welfare, Office of Management and Budget, Report of the Military Health Care Study, December 1975.

14. Donald B. Rice, Defense Resource Management Study, February 1979, p. 93.

15. Department of Defense, Study of Wartime Medical Requirements, March 1985.

16. Department of Defense, Office of the Assistant Secretary of Defense for Health Affairs, Memorandum for the Deputy Secretary of Defense: Subject: Final Report of the Study of Wartime Medical Requirements--Information Memorandum, March 15, 1985, p. 1.

17. Department of Defense, Final Report of the Blue Ribbon Panel on Sizing Department of Defense Medical Treatment Facilities, June 28, 1985.

18. Ibid. p. 5.

19. Government Accounting Office, Medical Readiness: Progress in Stating Manpower Needs, (GAO/NSIAD-87-126), April 1987.

20. The skill mismatch problem cannot not be presented for the Navy as REMMIS data is not available. The HMIS database, however, indicates a shortfall of 1,042 enlisted health care personnel in the Naval Selected Reserve for FY 1987.

Chapter 2. HISTORY OF INCENTIVES FOR HEALTH PROFESSIONALS

Shortages of health care professionals have been a continuing problem for the military. Until recently, the primary concern has been to procure and retain the numbers of qualified health professionals needed to meet the health care requirements of the active components. This concern became particularly acute with the substitution of an All-Volunteer Force for the draft. The Report of the President's Commission on an All-Volunteer Armed Force (The Gates Commission) assumed that "whatever steps are taken to convert to a fully volunteer military medical service, the quantity and quality of care supplied to the present patient population will be maintained."[1]

Under this assumption, the report concluded that two courses of action were open: substitution of civilians or improved compensation and conditions of employment.[2] The report and its supporting studies dealing with medical manpower and reserve forces mentioned wartime medical requirements only once. In considering the pros and cons of replacing military staff with civilians at military medical facilities, the author of the staff paper on health services wrote:

> The major disadvantage would be the lack of manpower to meet crises. This can be met by creating a reserve medical corps. Members of the civilian medical groups could be required to be members of the reserve. In place of compulsion, adequate compensation could be given to encourage voluntary enlistment in the reserve. In time of war a standby draft might be required.[3]

Similarly, the Defense Manpower Commission, chartered by Congress in 1973 to study the overall manpower requirement of the Department of Defense and its effective utilization, looked only at military medical officer requirements in terms of current patient care needs.[4] The Reserve Compensation System Study, completed in 1978, did not address reserve medical manpower.[5] Other examples may be cited, but this pattern holds for most studies and reviews conducted in the 1970s and 1980s:

- Studies of the compensation of health professionals neglected those in the reserve components.
- Studies of manpower and compensation in the reserve components paid little or no attention to health professionals.

Overview

The history of special incentives for health care personnel is almost exclusively a history of incentives for those serving in the active components: regular active duty members and reservists on active duty for periods of one year or more.

From the beginning of World War II through the beginning of the All-Volunteer Force, there was only a brief period when medical manpower requirements were not primarily met through the draft or draft-related programs. During this whole period, and particularly since the late 1960s, there has been a series of measures, with both direct and indirect compensation effects, designed to provide reasonable and more effective compensation and personnel programs for health professionals. In historical perspective, it is clear that the net result has been very positive for active component medical manpower programs. These measures failed to include consideration of reserve component members not on active duty, however. Indeed, in aggregate, they may have actually reduced the ability of the reserve components to offer attractive personnel and compensation programs for health professionals.

During the 1960s and 1970s, a series of new special and incentive pays were authorized for active duty health professionals. With the very limited exception of special pay authorized for reserve medical officers when they are on active duty for training, however, none of these incentives applied to reservists not serving on active duty. In 1980, the enactment of the Uniformed Services Health Professionals Special Pay Act (Public Law 96-284) provided a major restructuring of special pays for active duty health professionals. Late the same year, the Defense Officer Personnel Management Act (DOPMA) made significant revisions to constructive service credit as it affected the appointment and compensation of health professionals.

For reserve component health professionals, DOPMA took away the use of constructive service credit in computing longevity and retirement pay, and the new Uniformed Services Health Professionals Special Pay Act added no new special or incentive pays. Thus, when the DoD began to struggle with the issue of reserve medical readiness early in this decade, it did so after more than 30 years during which concern about compensation and personnel management of health professionals was almost exclusively concentrated on active component requirements.

The remainder of this chapter addresses the compensation and personnel incentives authorized by Congress and used by the Services to attract and retain health professionals. The incentives are discussed in light of their relative emphasis on the active and reserve forces.

Early History

The recognition of a need for special pays for health care professionals dates back as far as the Revolutionary War. In 1777, General George Washington wrote to Congress:

> There is one more thing which claims in my opinion the earliest attention of Congress. I mean the pay of regimental surgeons, and that of their mates. These appointments are so essential, that they cannot be done without. Their pay in the first instance is so low, so inadequate to the services which should be performed, that no man sustaining the character of gentleman, and who has the least medical abilities, or skill in the profession, can think of accepting it.[6]

Although General Washington recommended a special pay in 1777, it was not until 1814 that Congress adopted a special additional pay for medical officers. The Act of March 30, 1814, authorized a special pay for medical officers at the rate of $15 a month for surgeons and surgeons' mates. The pay remained in effect only through June 30, 1815, and no other special pay was authorized to take its place until 1947.

World War II

Special Pay

No special pays for health care personnel were authorized during World War II; instead the draft and training programs were used together to fill the requirements for health care personnel in the military forces.

Education-Related Programs and Benefits

The military has long recognized that to meet its requirements for health care professionals, it must participate in their professional training. That participation may be through professional training provided directly by the military or through several types of programs that sponsor trainees while they undergo civilian training. During World War II, the military conducted two physician training programs: The Army Specialized Training Program and the Navy's V-12 program. Certain medical schools contracted with the military to provide training, and the military provided subsistence payments to the students while in training. The programs reached their peak in 1944, when 14,042 medical students and 4,000 undergraduate students were enrolled. The two programs were terminated during the postwar period.

The Period After World War II

Special Pay for Medical and Dental Officers

Following World War II, with no doctor draft and with the phasing out of special wartime training programs for medical officers, the DoD faced difficulty in attracting adequate numbers of health professionals. As a consequence, special pays for selected health professionals were included in the military pay system in 1947. A special pay of $100 per month was authorized by the Army-Navy-Public Health Service Medical Officer Procurement Act of 1947.[7] The entitlement was authorized for regular commissioned officers in the Medical and Dental Corps of the Army and Navy as well as commissioned medical and dental officers in the Regular Corps of the Public Health Service. As members of a uniformed service, commissioned medical and dental officers in the Regular or Reserve Corps of the Public Health Service on active duty have generally been authorized special pays parallel to those authorized commissioned officers in the armed forces. Simultaneously, Congress authorized this special pay for reservists who volunteered and were accepted for periods of extended active duty of one year or more. The pay was intended to attract physicians and dentists to military service and encourage them to continue in the active military. Until 1980, the creation of special pays for health care professionals was not a result of permanent authorization; it was the result of a series of extensions, modifications, or new program development from 1947 forward.

Based on recommendations of the Advisory Commission on Service Pay (The Hook Commission) in 1948, Congress, in the Career Compensation Act of 1949,[8] retained special pay for all previously-qualifying officers except medical and dental interns. Since 1949, medical and dental officers in internship or residency training have not always been authorized special pay; when it has been authorized, these officers have received a lesser entitlement than that received by their peers not in training.

No consideration was given to reserve health professionals during the postwar period except for the attempt to attract them to entry into the active service.

The Period from the Draft to the All-Volunteer Force: Special Pays

Special Pay for Medical, Dental, Veterinary, and Optometry Officers

In 1950, due to the Korean War buildup, an inadequate number of health professionals was entering the military service. The Act of September 9, 1950,[9] established the "doctor draft." The emphasis during the draft period was solely on obtaining adequate numbers of health care personnel for the active force. Even during the draft period, insufficient numbers of medical and dental officers were remaining as career officers. In response to that situation, Congress authorized increased special pays, again targeted solely at the regular officer or the reserve officer serving on active duty.

The draft required all males under 50 years of age, qualified in the fields of medicine, dentistry, or other allied specialist categories, to register with the Selective Service; it also rendered them subject to induction. In an attempt to encourage medical and dental officers who were involuntarily ordered to active duty to accept commissions rather than be inducted as enlisted personnel, the law also extended entitlement to special pay at the rate of $100 per month to reservists, whether they were entering active duty on a voluntary or an involuntary basis. Veterinarians were authorized this special pay for the first time in the Act of June 29, 1953,[10] because they were also eligible for the draft.

The first call, for 717 doctors of medicine, occurred in 1951. Before the draft expired in 1973, other health care professionals became draft-eligible: doctors of osteopathy, veterinarians, optometrists, and male nurses. The draft authority was extended several times, with the last call issued in 1971-1972. Between 60,000 and 70,000 induction notices were issued to health care professionals between 1951 and 1972. Except for an extremely small percentage, all accepted a reserve commission. For example, as late as 1968 there were only 54 physicians and 29 dental officers who had chosen to be inducted as enlisted members.[11]

Even with the draft, existing pay levels were inadequate to retain sufficient numbers of medical and dental officers, so Congress, in the Act of April 30, 1956,[12] authorized increases in special pay and the first graduated special pay scale for health professionals. Special pay rates for veterinarians remained at $100 per month, but special pay rates for medical and dental officers were based on length of active service as shown in Table 2-1.

Table 2-1. Special Pay Rates for Medical and Dental Officers - Act of April 30, 1956

Years of Active Service	Monthly Rate
Less than 2	$ 100
2 but less than 6	150
6 but less than 10	200
10 or more	250

In 1963, Congress once again raised the special pay rates for medical and dental officers in an attempt to improve the declining rate of retention among those professional groups. The Uniformed Services Pay Act of 1963[13] raised monthly rates from $200 to $250 for medical and dental officers with 6 to 10 years of active service, and from $250 to $350 for those who had 10 or more years of active service.

With the Act of September 28, 1971,[14] optometry officers became eligible for special pay at the $100 per month rate. Optometrists were included because of their draft eligibility, competitive civilian salaries, and the perception of poor staffing of optometry officers in the Services.

Continuation Pay for Medical and Dental Officers

In 1967, special measures were taken to meet a serious physician retention problem. The Act of December 16, 1967,[15] authorized a new special pay for medical and dental officers: a bonus of up to four times the basic monthly pay rate in return for a commitment to remain on active duty for an additional year. The pay was called continuation pay and was payable to medical and dental officers who met the following criteria:

- Qualification in a critical specialty
- Completion of all periods of active duty obligation
- Execution of a one-year service agreement to remain on active duty for an additional year

Although an entitlement for dental officers was authorized in 1967, it was not used until 1972, when the retention of dentists dropped acutely.

The qualifying criteria for completion of the active duty obligation were amended by the Act of October 18, 1968,[16] to require completion of only the initial active duty obligation.

Entitlement to continuation pay was as indicated in Table 2-2, although some variations existed.

Table 2-2. Entitlement to Continuation Pay

Pay Grade	Annual Rate
O8	2 months basic pay
O7	3 months basic pay
O3 thru O6	4 months basic pay

The Act of May 6, 1974,[17] terminated continuation pay for medical officers. A larger entitlement was authorized, called variable incentive pay. Only medical officers in pay grades O7 and above retained entitlement to continuation pay, and these officers were not authorized entitlement to variable incentive pay.

Dental officers continued to receive continuation pay through September 30, 1985, when the authority was terminated by the Fiscal Year 1986 National Defense Authorization Act and replaced by a comprehensive revised special pay program. Before that time, implementation by the DoD placed additional restrictions on qualification for continuation pay, establishing a minimum period of three years of active duty or constructive credit and a reduced rate of pay for dental interns. In determining eligibility for continuation pay, the DoD considered all dental specialties as critical.

The Period from the Draft to the All-Volunteer Force: Education-Related Programs

It was necessary for the DoD to exercise multiple options to obtain an adequate number of health care personnel. The increase in special pay was only one of several initiatives designed by Congress and the DoD to attract health professionals to military service through routes other than actual draft. These initiatives were also an attempt to increase the likelihood that health professionals would accept commissions in their specialties rather than serving in an enlisted capacity.

A variety of training programs were developed by the military departments for individuals studying medicine, dentistry, nursing, psychology, and several of the allied health specialties. Not every Service used every program, however, and eligibility, implementation of programs, obligation, and other details frequently differed from one military department to another.

Nursing Training Programs

The following represent the primary programs developed by the Services to assist in achieving adequate levels of manning of nurse corps officers. Some programs began in the 1950s and some still existed as late as the early 1980s.

Diploma Program: Pay and allowances at pay grade E3 were provided for the last twelve months of a nurse diploma program.

Baccalaureate Program: The cost of tuition, fees, and books was paid by the military during the junior and senior year. A participant received pay and allowances at pay grade E3 until six months before graduation, when the student was promoted to pay grade O2. Later in the program, promotion was delayed until graduation from nursing school.

Walter Reed Army Institute of Nursing Program: The Army provided tuition, fees, and book costs, as well as pay and allowances at pay grade E3, for the entire four years of a baccalaureate program. A participant spent the first two undergraduate years in an approved civilian program of the student's choice and the last two years of training at the University of Maryland.

Registered Nurse Program: Registered nurses could be commissioned and paid the appropriate pay and allowance for up to 24 months in a baccalaureate or master's degree program.

Medical Training Programs for Medical officers

The following education-related programs were used by the Services at different times during the 1951-1972 draft era to attract medical students and physicians to the military medical departments:

- Scholarship Program
- Excess Leave Program
- Early Commissioning Program
- Intern Program
- Senior Medical Student Program
- Residency Program
- Berry Plan

Scholarship Program: Tuition, cost of books, and certain fees, as well as military pay, were provided during the four years of medical school. Eligibility for reserve officers varied among the Services.

Excess Leave Program: Regular officers could be placed on leave without pay or other financial assistance in order to attend medical school.

Early Commissioning Program: Medical students were commissioned while in training. No financial assistance was provided, but paid summer clerkships were available. Participants could enter the Service of their choice upon completion of training.

Senior Medical Student Program: Senior students participating in the Early Commissioning Program could serve the final year of medical school in an active duty status with full pay and benefits of their rank.

Intern Program: Medical school graduates were selected to serve a one-year internship while on active duty in the military. Some individuals were also sponsored for internship training in civilian hospitals.

Residency Program: Physicians were selected for residency training in military medical facilities while on active duty, and some individuals were sponsored for civilian residencies.

Berry Plan: Physicians who were eligible for the draft could register with the DoD and could request delayed entry on active duty in the Service of their choice until completion of internship training, until one year after completing an internship, or until completion of residency training. A parallel program existed for doctors of osteopathy. The Berry Plan was the main source of physicians during the draft period.

These programs ran the gamut from full subsidy of training costs with all pay and benefits of military rank to programs with no benefit except deferral from the draft during training. Some intermediate programs included full pay and allowances with the officer paying the training costs; others gave no subsidy but made training time creditable toward the military service obligation.

Response to these programs corresponded to draft pressure. At the end of the draft era, with the threat of the draft removed, the programs no longer provided an ample number of physicians and other health professionals; an alternative source was badly needed. A residual supply of draft era Berry Plan participants continued to enter active duty as late as 1977, but the numbers were drastically reduced and entirely inadequate for manning the active medical force.

All-Volunteer Force: Special Pays

Immediately following the draft period, the emphasis shifted to meeting the immediate health care needs of the active duty peace time force; therefore, Congressional legislation was directed toward sustaining the active duty medical force. That concern became even more pronounced with the implementation of

the All-Volunteer Force. Once again, there was minimal concern for Total Force readiness needs. For a period of time, there was no apparent negative impact on reserve health professionals, because a supply of health care personnel flowed into the reserve as individuals from the draft period paid back the remainder of their military service obligation in the reserve components. Berry Plan participants provided the reserve with a continuing supply of medical officers for some time following the end of the draft.

As the reserve accessions dwindled during the postdraft era, both the aggregate strength and the functional mix of specialties in the reserve health care population eventually declined to levels of extreme inadequacy. Today, although some active duty shortfalls exist, the most significant manpower deficiencies are within the reserve components; however, the reserve has no integrated or extensive special incentive package that is comparable to the active component special pays.

Special Pay for Medical, Dental, Veterinary, and Optometry Officers

The Act of May 6, 1974,[18] extended the special pay cut-off date from July 1, 1975, to July 1, 1977, for medical and dental officers, but not for veterinary and optometry officers. As a consequence, veterinary and optometry officers who were on active duty before July 1, 1975, were eligible for special pay, but those who entered active duty for the first time after that date were not eligible. In order to address a critical physician shortage, the Act also increased the special pay for medical officers, entitling all physicians with two or more years of active service to a monthly rate of $350.

The Act of September 30, 1977,[19] reinstituted special pay for veterinary and optometry officers at the previous $100 per month rate.

Table 2-3 lists the special pay rates in effect until July 1, 1980, which marked the beginning of major revisions in the special pay system for medical and dental officers. Effective that date, all previous special pays for medical officers were terminated; they were replaced by a comprehensive special pay program authorized by the Uniformed Services Health Professionals Special Pay Act of 1980. A similar restructuring of the entire special pay program for dental officers was put into effect by the Fiscal Year 1986 National Defense Authorization Act.[20]

As a result of the revision of the special pay programs for medical and dental officers, the rates shown in Table 2-3 are currently in effect for veterinary and optometry officers only.

Table 2-3. Medical and Dental Officer Special Pay Rates in Effect Until July 1, 1980

Monthly Rate	Recipient
$ 100	Medical and dental officers with less than 2 years of active medical or dental service; all veterinary and optometry officers
$ 150	Dental officers with 2 to 6 years of active dental service
$ 250	Dental officers with 6 to 10 years of active dental service
$ 350	Medical officers with 2 or more years of active medical service; dental officers with 10 or more years of active dental service

Variable Incentive Pay for Medical Officers

Variable incentive pay, authorized for medical officers in 1974, created entitlement of up to $13,500 per year in return for execution of an agreement to remain on active duty for one year. Variable incentive pay was payable to medical officers below pay grade O7 who met the following criteria:

- Qualified in a critical specialty
- Have completed the first four years of an initial active duty obligation of more than four years or the entire obligation of an active duty obligation of four years or less
- Not undergoing internship or initial residency training

As was the case with continuation pay for dental officers, the DoD considered all medical specialties critical and therefore entitled to variable incentive pay. The DoD expanded the types of disqualifying obligated service to include education and training related obligations such as: (1) obligations which resulted from execution of an agreement to enter active duty following completion of professional education and training such as deferment through the Berry Plan, (2) obligations resulting from professional qualification programs taken while on active duty. As implemented by the DoD, medical officers could execute an agreement to remain on active duty for periods of one, two,

three, or four years. The annual rate was determined by years of service (including constructive service credit) and length of the agreement as shown in Table 2-4.

Table 2-4. Variable Incentive Pay Rates for Medical Officers

Years of Service (Including Constructive Service Credit)	Length of Active Duty Agreement			
	1 Year	2 Years	3 Years	4 Years
4 through 13	$ 12,000	$ 12,500	$ 13,000	$ 13,500
14 through 19	11,500	12,000	12,500	13,000
20 through 25	11,000	11,300	11,600	12,000
26 or more	10,000	10,300	10,600	11,000
Obligated Officers	9,000	9,000	9,000	9,000

Note: Medical officers obligated by military-funded training programs of one year or more in length, who had no disqualifying obligation, were entitled to variable incentive pay at a reduced annual $9,000 rate.

Variable incentive pay was repealed on June 30, 1980, by the Uniformed Services Health Professionals Special Pay Act of 1980.

Special Pay for Medical Officers of the Armed Forces

The Uniformed Services Health Professionals Special Pay Act, a fully-revised and comprehensive system of special pays effective July 1, 1980, established four types of pay for medical officers. Eligibility for all four pays required that the officer be on active duty under a call or order to active duty of not less than one year. Another significant aspect of the new pay law was that it made special pay entitlement permanent for health professionals (medical, dental, veterinary, and optometry officers).

As before, two primary types of pay were included in the program. The program included both monthly entitlement and lump sum bonus payments paid in return for a service commitment.

The following special pays were legislated under the new program and are all still in effect today:

- Variable Special Pay
- Board Certified Pay
- Additional Special Pay
- Incentive Special Pay

The same four pays were authorized for commissioned medical officers in the Regular or Reserve Corps of the Public Health Service by an amendment of the Public Health Service Act approved October 7, 1980.[21] The Public Health Service Act, as amended, provided as follows:

> Commissioned medical and dental officers in the Regular and Reserve Corps shall while on active duty be paid special pay in the same amounts as, and under the same terms and conditions which apply to, the special pay now or hereafter paid to commissioned medical and dental officers of the Armed Forces under chapter 5 of title 37, United States Code.[22]

Special Pay for Dental Officers of the Armed Forces

The Fiscal Year 1986 National Defense Authorization Act revised the special pay program for dental officers in a manner similar to the revision for medical officer special pay in 1980, modeling the new program after the program for medical officers. Although the rates are not identical, the program includes three of the special pays in the medical officer program:

- Variable Special Pay
- Board Certified Pay
- Additional Special Pay

Incentive Special Pay, a bonus targeted at critically short wartime specialties, was not included for dental officers; at the time of passage of the legislation, no critical shortages existed comparable to those for medical officers.

Details of the current special pay programs for both medical and dental officers are provided in Appendix A.

All-Volunteer Force: Education-Related Programs

Armed Forces Health Professions Scholarship Program (AFHPSP)

The Armed Forces Health Professions Scholarship Program was authorized by the Uniformed Services Health Professions Revitalization Act of 1972.[23] The program was established to replace the draft and draft era programs, particularly the Berry Plan for physicians. It was intended as the primary source of commission for physicians and other health professionals needed under the All-Volunteer Force. Through this program, the DoD paid all educational expenses including tuition, fees, books, and laboratory expenses. Members were commissioned in pay grade O1 in the reserve components and were required to serve on active duty for a period of 45 days annually. Training took place at accredited civilian institutions to develop skills in

the applicable health profession. In addition, a $400 per month stipend was payable to each participant except during the annual 45-day active duty period. In the late 1970s, the DoD fell short of its physician-recruiting goal for the AFHPSP. In September 1983, to make the program more competitive and to help offset inflation, Congress added an inflation adjustment provision for the monthly stipend.[24] Since then, the rate of the stipend has been increased annually, effective on July 1st, at the same percentage as the basic pay increase for members of the uniformed services.

Uniformed Services University of the Health Sciences (USUHS)

In continuing response to the shortage of medical officers, Congress, in the same 1972 law that authorized the AFHPSP, established the Uniformed Services University of the Health Sciences. The university was designed in part to provide for career progression into academic medicine for medical officers and also to advance the study of military medicine. Both factors were viewed as long-term enhancements for recruiting and retention of physicians. The university was established with the authority to grant advanced degrees in the health sciences and in public health, but was given the primary mission of training medical students for active duty in the uniformed services. The first class of 29 medical officers graduated in 1980, but the size of graduating classes has increased substantially and is projected to remain at 150 to 155 medical officers annually. Thus the university provides a small but steady flow of physician manpower to the military medical departments. Under current law, medical students are commissioned on active duty in pay grade O1 with full pay and allowances of that grade, incurring a minimum active duty obligation of seven years upon graduation. The reserve components derive no direct benefit from this program unless an officer elects reserve service after completing the active duty obligation.

All-Volunteer Force: Incentives and Education-Related Programs for the Reserve Forces

Until FY 1985, the only special incentive for part-time reserve service was special pay for reserve medical officers on active duty for training. This pay was originally paid in 1974.[25] Until that time, a reservist was entitled to any special pay authorized for his specialty, but only when on extended active duty for a period of at least one year. Until 1950, reservists were ineligible for special pay specific to health professionals, even though on active duty for a full year or more, if their service was a result of involuntary order to active duty.

In FY 1985 Congress legislated two additional incentive programs. These were the first special incentives specifically designed to assist in attracting and retaining adequate numbers of health professionals for the reserve. Thus it is only very recently that incentives have been designed specifically to encourage direct participation of health care personnel in the reserve components with no attendant active duty requirement.

Special Pay for Medical officers on Active Duty for Periods of Less than One Year

Since 1974, reserve medical officers on active duty for periods of less than a full year have received special pay. The pay rates were those authorized in 1974 for regular active duty officers and reservists on active duty for one year or more ($100 per month for those with one but less than two years of prior active duty and $350 per month for medical officers with two or more years of active duty). This special pay is authorized only for reserve medical officers. It is payable for periods of active duty only; no entitlement exists for drill periods. This was the first special pay specifically authorized for reserve health care professionals; it remains the sole such entitlement today.

In the Fiscal Year 1986 Department of Defense Authorization Act, to provide recruiting and retention tools to alleviate the significant shortfall of specialists in the critically short wartime skills in the reserve, Congress authorized two incentives pertaining to education for health care professionals in the reserve components:

- Specialized Training Assistance in the Health Professions for Members of Reserve Components
- Education Loan Repayment for Certain Health Professionals who Serve in the Selected Reserve

Specialized Training Assistance in the Health Professions for Members of Reserve Components

Effective October 1985, Congress authorized a stipend program for qualified medical officers and nurses in training in a specialty designated as critically short for wartime. As originally legislated, qualifying participants received a monthly stipend equivalent to that received by a medical student participating in the active duty Armed Forces Health Professions Scholarship Program. The stipend is adjusted annually, based on the percent of increase in the basic pay rates. As of July 1, 1987, the monthly rate was $664 per month or $7,968 per year.

Recipients were required to be participating members of the Selected Reserve and incurred an obligation of three years for each year of assistance or part thereof.

Due to continuing concern over the magnitude of medical manpower shortages that Congress termed serious "war-stoppers",[26] Congress modified and expanded the stipend program in the National Defense Authorization Act for Fiscal Years 1988 and 1989. Significant changes were made to provide an option for participation in the IRR and to expand the eligible population to include third- and fourth- year undergraduate nursing students. For fully qualified physicians and nurses in training in a critically short wartime specialty, a two-tiered program was developed with the levels of participation shown in Table 2-5.

Table 2-5. Two-Tiered Stipend Program for Fully Qualified Physicians and Nurses in Training in a Critically Short Wartime Specialty

Stipend	Obligation
Full Stipend ($664 per month)	Selected Reserve
One-Half Stipend ($332 per month)	IRR

For each year of participation or part thereof, the contractual obligation is two years, to be served following completion of training.

Undergraduate nursing students in their third or fourth year of nursing school may receive $100 per month ($1,200 annually) in return for a commitment to serve one year in the IRR for each year of assistance or part thereof.

In order to insure a minimum level of training during the obligated period, annual active duty for training requirements were established: 12 days for Selected Reserve participants and, for IRR participants, five days in addition to a requirement for 30 days initial active duty for training.

Education Loan Repayment for Certain Health Professionals who Serve in the Selected Reserve

In the Fiscal Year 1986 Department of Defense Authorization Act, Congress also authorized a loan repayment program. This program is available to medical officers and nurses who are qualified in a critically short wartime specialty and are active members of the Selected Reserve. Outstanding debts on certain federal education assistance loans may be repaid at an annual

rate of $3,000 annually following completion of a complete year of service in the Selected Reserve. The total amount that may be paid on behalf of any individual is $20,000.

In the National Defense Authorization Act for Fiscal Year 1988-1989, Congress extended the authority for the loan repayment program through October 1, 1990, and corrected a technical omission in the law by adding nursing loans made under Section B of Title VII of the Public Health Service Act.

Summary of Special Pay and Education Assistance Programs

The history of incentive programs for active duty health care officers is lengthy, special pays having been introduced as a permanent component of military income over 30 years ago. The special pay programs have been characterized by frequent change and growing complexity as needs and philosophy changed, but one factor has remained constant: recognition of the need to pay additional income to certain health professionals in order to meet active duty manning requirements. The current special pay programs for medical and dental officers provide significant income above the basic pay and allowances. A medical officer with 10 to 12 years of service creditable for special pay purposes is, if board certified, potentially entitled to $21,500 in special pays. If qualified in certain other designated specialties, the officer may be eligible for an additional annual bonus of up to $8,000, depending on individual Service policy. The $8,000 limit for the incentive special pay bonus was removed for payments made to medical officers qualified in the critically short wartime specialties from FY 1989 on, opening the way for payment of still larger bonuses to those qualified in the critically short wartime skills. A dental officer with 18 or more years of creditable service for special pay purposes, if board certified, may be entitled to as much as $17,000 annually in special pays. For many health care specialties, education assistance programs for active duty health care officers continue to exist today, and many programs provide full pay and allowances as well as all educational expenses.

By contrast, the development of incentive programs for reserve component health care officers is only recent and piecemeal; programs were initiated without basis in central guiding principles. The only special pay currently authorized is not comparable in value to active component special pay by any criterion. This special pay, as previously discussed, is for medical officers with prior active duty, while on active duty for training; it produces an average annual income of $175 or less for medical officers who are eligible. The two education assistance programs authorized in FY 1985 do, however, provide a sound foundation from which badly needed additional incentives can be developed.

Personnel Management Programs for Health Care Professionals (All Periods)

In addition to authorizing the first special pay for health care personnel since 1815, the Army-Navy-Public Health Service Medical Officer Procurement Act of 1947 recognized the need for the Services to recruit physicians and dentists at all career levels. Lateral entry into the military system was made feasible by this Act, which authorized the Army and Navy to appoint physicians and dentists in entry grades up to colonel in the Army and up to captain in the Navy. Constructive service credit was also authorized. Medical Corps officers were granted four years of constructive service credit, dental officers were awarded three years, and veterinary officers were authorized two years. Individuals who were appointed as Medical Service Corps officers and who had a doctorate in a medically related health science could be awarded three years constructive service credit. The award of constructive service credit for periods of advanced professional training was authorized to create parity in rank and seniority between the two groups: health professionals who have a delayed service entry following medical or dental school or other professional medically related training, and officers who enter the military directly following completion of a baccalaureate degree. Because rank and promotion are directly related to military income, award of constructive credit had a direct beneficial impact on the military compensation of the health care professionals receiving such credit.

An additional means of providing increased income for medical and dental officers was also established by the Act of April 30, 1956. Initially, the Act authorized four years of constructive service credit for completion of medical or dental school and one year for completion of medical internship training. The act thereby increased constructive service credit, for both medical and dental officers, by one year over the existing law. More importantly, in the case of medical and dental officers only, the credit was authorized for use in the calculation of longevity for pay and for the calculation of retirement pay. The constructive service credit had a greatly increased impact because it was used to determine an expanded number of factors, all of which have a direct impact on pay. Following passage of the 1956 Act, constructive service credit for medical and dental officers had impact on the following group of variables:

- Appointment Rank
- Seniority
- Promotion
- Longevity Pay
- Retired Pay

Congress believed that the Act's powerful combination of increased special pay levels and constructive service credit was necessary because of the severe attrition of medical and dental officers from the military at that time. The benefits of a military career were not adequate to retain the large numbers of individuals who had entered the military through the draft and draft retention programs.

The following excerpts from House Report No. 1806, accompanying H.R. 9428, 84th Congress, reflect the problem facing the military departments and the Congress at that time:

> Even should the doctor-draft law be continued to a limited extent it is doubtful whether the Services, under existing law and existing pay scales, would be able to obtain the specialists needed to provide the medical care required in the armed forces.[27]
>
> The Committee on Armed Services is convinced that pay and promotion are the two most important factors that have led so many career medical and dental officers to resign their commissions and have convinced so many Reserve doctors not to make a career of the uniformed services.[28]
>
> The proposed legislation will not solve all of the problems...But, if enacted, it will provide physicians and dentists with a much more favorable income than that which they have heretofore experienced, reflected in increased pay and improved promotions.[29]
>
> This puts the physician or dentist serving on active duty in the uniformed services in a somewhat more favorable position when his present income is compared with that of his counterpart who is serving as a physician or dentist under the civil-service system or in the Veterans Administration.[30]

The foregoing discussion of constructive service credit pertains primarily to the appointment of regular officers. For much of the post-Korean War period, officer promotions that affected pay were temporary appointments. Regular and reserve officers serving on active duty competed together for these temporary promotions and the Services had greater flexibility in advancing special groups, such as some health professionals. The major constraint was the Officer Grade Limitation Act (OGLA) of 1954, which controlled the number of officers who could serve on active duty in pay grades O4 and above. As a result, in 1968 medical and dental officers in pay grades O4 through O6 were excluded from the OGLA limits, the Services were able to promote them more rapidly and appoint them initially at higher grades.

For reserve officers, the 1954 Reserve Officer Personnel Act (ROPA) set minimum amounts of constructive service credit for award to health professionals with the upper limit not specified. As a result, there was great flexibility in reserve appointments. Constructive service credit serves a second major function that is separate from its compensation effects: it allows the armed forces to balance professional experience and military experience in setting the seniority of officers in professional specialties. This capability helps to keep senior positions from being filled either by officers with long military experience but limited professional experience or by officers with long professional experience but no military experience.

In 1980, Congress completely overhauled the special pay system for medical officers (similar revisions for dental officers were made in 1985). With this legislation, Congress changed its approach to the issues of special pay and constructive service credit but acknowledged the continuing shortfall of health care personnel. In view of the considerable expansion of special pay programs since 1956 (when constructive service credit was first authorized for use in calculating longevity pay and the retired pay multiplier), and particularly in view of the new special pay program in the Uniformed Services Health Professionals Special Pay Act of 1980 (which was viewed as more nearly competitive than previous special pay programs), Congress felt that changes were indicated in the use of constructive credit for longevity and retirement pay calculations. Under DOPMA, constructive credit for medical and dental officers was limited once again to use in determining rank, seniority, and promotion. It was not the intent of the Congress to produce an adverse economic impact; instead, the Congress concluded that any extra pay that might be required to recruit and retain physicians and dentists should be provided "up front" and clearly identified in appropriate legislation as additional pay required for retention.

When the Uniformed Services Health Professionals Special Pay Act of 1980 was being considered, reserve incentives were not reviewed. The restructuring of special pay for reserve medical officers was left for separate and future consideration when more complete information could be obtained, but this review was never conducted. The loss of income due to restriction on the use of constructive service credit for computing longevity pay and retired pay was offset by the new special pay program for active duty medical officers; however, there was no similar compensatory program for reserve health care personnel. The loss sustained was real and lasting.

The noncompensation features of the personnel management system instituted by DOPMA have worked well for the active components. DOPMA created uniform provisions for original

appointments in both the regular and reserve components of all Services and for the promotion of regular and reserve officers serving in the active components. The new law substituted a system of permanent appointments for all active duty officers for the dual temporary and permanent appointment scheme that had previously existed, and it revised and standardized service credit authorities. The statutory personnel management scheme for reserve officers, however, has not been updated to accommodate the impacts of DOPMA changes on the reserve components. Although the law now sets uniform standards for the amount of service credit that may be awarded to a health professional at initial appointment, equal service credit does not result in equal appointment grade. For example, 14 and 21 years of actual and constructive credit are required for appointment in the reserve pay grades of O4 and O5, respectively, in the Army and the Air Force. In the Navy, appointment as a medical officer for reserve service in these pay grades would require only about 9 and 14 years of credit.

Some parts of the law have been updated since 1980 to partially ease these problems. Section 1014 of Public Law 98-94 partially addressed the problem of identical service credit resulting in differing appointment grades, depending upon the Service making the appointment. The change was limited to authorizing a minimum initial appointment in pay grade O3 (captain, naval lieutenant) for all medical corps officers. This was only a two-year authority, however, and it has been necessary to extend the authority twice since its original enactment.

A second serious problem was resolved with the enactment of section 521 of Public Law 98-525. This allowed officers separating from active duty to accept reserve appointments without loss of grade. Until this change was made, many Army and Air Force health professionals who held a regular appointment and agreed to accept a reserve appointment on leaving active duty were required to accept an appointment in a lower grade.

Most recently, section 714 of Public Law 100-180 provided authority to credit professional experience when appointing health professionals in the regular or reserve components, even in the absence of a graduate degree. This authority was "designed primarily to reduce the 'war stopping' 39,000 shortfall of skilled nurses in the military."[31]

Summary

In summary, statutory changes affecting compensation and personnel management of military health professionals over the past 40 years have largely ignored reserve component issues and

requirements. The incentives enacted by the Congress in 1985, and modified and expanded in 1987, represent the only significant attempt to provide needed incentives for reserve component health professionals during this period, even though shortfalls now identified in the community demonstrate the severity of the problem.

Current officer personnel management programs do not provide sufficient flexibility with respect to health professionals. The grades of appointment need to be standardized for individuals with like experience and training. Provisions are badly needed that would allow separate management of promotion lists for health professionals. Also needed is the ability to promote and retain certain health professionals without regard to specific unit billet authorizations. The Reserve Officer Personnel Management Act (ROPMA), proposed by the Department of Defense, would remedy most of these deficiencies.

Notes

1. The Report of the President's Commission on an All-Volunteer Armed Force, February 1970, p. 90.

2. Ibid. pp. 91-95.

3. Mordechai Lando, "Health Services in the All-Volunteer Armed Force", Studies Prepared for the President's Commission on an All-Volunteer Force, vol. II, November 1970, p. IV-3-25.

4. Defense Manpower Commission, Defense Manpower Commission Staff Studies, vol. IV, May 1976, pp. D1-D33.

5. Department of Defense, Office of the Deputy Assistant Secretary of Defense for Reserve Affairs, Reserve Compensation System Study, June 1978.

6. "Differential Pays for the Armed Services of the United States", Report of the Commission on Incentive-Hazardous Duty and Special Pays, vol. II, March 1953, p. 205.

7. Pub. L. No. 80-365, 61 Stat. 776.

8. Pub. L. No. 81-351, 63 Stat. 802.

9. Pub. L. No. 81-779, 64 Stat. 826.

10. Pub. L. No. 83-84, 67 Stat. 86.

11. William D. Tribble, Ph. D., The Doctor Draft Justified?, (San Antonio: National Biolaboratories, 1968), p. 109.

12. Pub. L. No. 84-497, 70 Stat. 119.

13. Pub. L. No. 88-132, 77 Stat. 210.

14. Pub. L. No. 92-129, 85 Stat. 348.

15. Pub. L. No. 90-207, 81 Stat. 649.

16. Pub. L. No. 90-603, 82 Stat. 1187.

17. Pub. L. No. 32-274, 88 Stat. 94.

18. Pub. L. No. 93-274, 88 Stat. 94.

19. Pub. L. No. 95-114, 91 Stat. 1046-1047.

20. Pub. L. No. 99-145, §639, 99 Stat. 649-651.

21. Pub. L. No. 96-398, 94 Stat. 1608.

22. Public Health Service Act (42 U.S.C.) 210(a).

23. Pub. L. No. 92-426, 86 Stat. 716.

24. Pub. L. No. 98-94, 97 Stat. 652.

25. The special pay for reserve medical officers, which had been paid since May 6, 1974, has been twice subject to interruption through legislative inadvertence. The Uniformed Services Health Professionals Special Pay Act of 1980 (Pub. L. 96-284) was interpreted in such a way as to cause this special pay to be gradually eliminated after June 30, 1980. Section 641 of Public Law 96-513 (December 12, 1980) corrected this unintended result. In 1985, §640 of Public Law 99-145 included a clerical amendment intended to further clarify the entitlement of reserve medical officers to the special pay that was interpreted as repealing the authorization. This unintended result was corrected by §1342(d) of Public Law 99-661.

26. U.S., Congress. House, Committee on Armed Services, Report No. 100-58 to accompany H. R. 1748, 15 April 1987, p. 207.

27. U.S., Congress. House, Committee on Armed Services, Report No. 1806, 22 February 1956, p. 2.

28. Ibid. p. 3.

29. Ibid. p. 4.

30. Ibid. p. 6.

31. U.S., Congress. House, House Report No. 100-446 to accompany H.R. 1748, 17 November 1987, p. 649.

Chapter 3. NONCOMPENSATION PROGRAMS AND INITIATIVES

Any direct compensation or incentive program designed to attract and retain health professionals in the reserve must also consider the benefits, indirect compensation, and related factors functioning in the civilian and reserve environments. Individually or in combination, such programs have a significant potential for impact on the recruiting and retention of health care personnel. Complex interrelationships, which have a direct impact on the effectiveness of incentive programs, exist between direct incentive programs and indirect forms of compensation and environmental factors.

As detailed in the preceding chapter, compensation and personnel management programs for reserve health professionals were largely neglected until recently, when it was recognized that medical manpower shortfalls in the reserve could severely effect wartime medical readiness. When the impact of the reserve shortfall was recognized in the early 1980s, emphasis on initiatives to reduce shortfalls was initially placed on training and recruiting programs.

This chapter describes training programs, recruiting operations, and other incentives established or planned to attract and retain health professionals in the National Guard and Reserve. The medical mission in combat is a Total Force mission; as a result, some of the initiatives discussed below are aimed at the active medical force as well as the reserve medical force.

Training Programs and Graduate Medical Education

In 1983, the DoD established a number of training programs unique to health care personnel and medical units to enhance combat medical readiness and the medical reserve forces. These important initiatives in individual and unit training are addressed in the next sections of this chapter.

1983 DoD Initiatives for Individual Training

In recognition of some of the unique factors pertinent to the time and training of health care professionals, high priority was given to developing and improving individual training programs in an effort to make training more accessible and meaningful and to reduce conflicts with civilian practice. An improved training environment was viewed as having the potential

to increase both accession and retention of health care personnel. Programs were devised to provide more flexible and higher quality individual training. Other initiatives were developed to introduce training and commissioning opportunities into the civilian educational environment of the health professional, with the expectation that recruiting would be increased by exposing health care trainees to opportunities for participation in the reserve medical force. These programs included the following:

- **Reserve Flexibility (REFLEX).** The REFLEX program permits health care personnel to receive reserve pay and retirement credit by participating in flexibly-scheduled training programs apart from regular unit training assemblies. In general, activities are creditable with prior approval of the commander if they contribute to the combat readiness of the individual, unless they are a compensated part of the individual's civilian medical practice. Officers in the IRR may participate in the program by performing inactive duty training with the approval of the appropriate personnel center managers. Such flexible training options are designed to make reserve participation more feasible for health care personnel whose careers place extreme time limitations on reserve participation.

- **Continuing Health Education to Enhance Readiness (CHEER).** The continuing education program was established to help health care personnel to maintain and enhance their professional skills and to meet and maintain requirements for licensing and certification. DoD policy calls for each health care professional to be afforded the opportunity to attend at least one approved health education program or experience annually.

- **Physician Reservists in Medical Universities and Schools (PRIMUS).** This program provides opportunities for physicians to earn pay and retirement credit while performing inactive and active duty for training with medical universities and schools. Program objectives are to increase flexible training opportunities for physicians and to stimulate interaction between military and civilian physicians in the educational environment.

- **Medical Direct Early Commissioning Program (MEDCOMP).** The MEDCOMP was originally designed to commission health care students training in medical, osteopathic, dental, nursing, or veterinary programs before they qualify for military service in the profession in which they are training. The opportunity for participation in Ready Reserve training provides a source of income and the opportunity for challenging training in fields such as aerospace medicine, undersea medicine, and jump school. Only the Army National

Guard and the Air National Guard currently use this program and its use is now restricted to medical students. Findings in the 1985 DoD audit report indicated that, because no control was exercised over the choice of specialty of participating medical students, those who completed the program tended to have specialties already in oversupply, rather than the critically short wartime specialties. The great demand for medical officers to provide primary care in forward medical units, irrespective of specialty, makes this program more useful for the National Guard than for the other reserve components.

Current Individual Training Initiatives

Combat Casualty Care Course (C4)

The Army is the agent for a tri-Service course in San Antonio, Texas, designed to train military health care professionals to provide direct medical support to the fighting force. The on-site course is eight days long and includes the American College of Surgeons Advanced Trauma Life Support (ATLS) course and training in use of field medical skills. Instruction includes such topics as triage, patient education, life support, preventive medicine, nuclear/biological/chemical protection, and direct patient care in a combat environment. Approximately 2,400 students attend annually, primarily physicians, dentists, nurses, and physician assistants.

The course is recognized as a major tool for enhancing mobilization readiness; its potential value to the reserve components is significant. Recognizing that value, the House Armed Services Committee directed that the C4 course be expanded to make it available to the reserve components at the local unit level and to increase the overall Guard and Reserve participation rate proportionate to reserve manpower in the total medical force.

Because C4 enhances individual medical mobilization skills and provides training not always readily available in the civilian sector, this course may serve as an important retention factor for the reserve components. Successful medical officer participants are qualified to take the ATLS examination, for which professional civilian certification is awarded through the American College of Surgeons, so the course is also highly desirable from a professional enhancement perspective.

The Deputy Secretary of Defense signed "The Plan for Expanding the Combat Casualty Care Course" on January 4, 1988. With adequate funding, the following major goals of the plan can be accomplished:

- Increase the number of individuals who complete the on-site course by more than 400 graduates per year which would include both active and reserve component participation.
- Expand the course transported to the reserve components and increase the number of graduates by 6,000 per year.
- Use regional training sites to facilitate participation by all Services.
- Increase participation by nonphysician health professionals with combat roles.
- Reduce the time required to train all military physicians currently in the armed forces, both active and reserve, from the current estimate of six years to approximately four years. This projection does not include new entrants or refresher training.

Expansion of the C4 course to the reserve includes plans to make the entire C4 course available to the reserve components on a transportable basis and to increase the number of mobile medical training teams capable of exporting the course. When implemented, the Joint Medical Training Center will have three joint service training teams that will travel to units throughout the United States to provide C4 training.

Deployment Medicine Course

This course was first made available to reserve component units in FY 1987 by the Mobile Medical Training Team of the U.S. Army Academy of Health Sciences. This course stresses another aspect of combat medicine: responsibility for recognizing environmental hazards and instituting protective measures. The course consists of two phases: Tropical Medicine/Disaster and Environmental/Behavior. A single phase may be conducted during a full drill weekend. The course is designed for 48 students.

Unit Training

Two additional training programs in the 1983 DoD training package focused on reserve medical unit training. These programs, described below, included active force participation and were designed to increase joint training for active and reserve medical units using realistic field exercises.

- **Wartime Alignment of Reserve and Active Medical Systems (WARAMS).** The objective of WARAMS is to integrate training of active and reserve members and units that potentially would work together during wartime.

- **Medical Readiness Exercises (MEDREX).** The goal of MEDREX is to achieve the highest level of medical readiness through full participation, by reserve medical units and members, in command post and field exercises. Exercises are conducted at actual employment locations in the United States and at potential overseas theaters of operation.

Continuing emphasis is being placed on enhancing unit as well as individual training. Two current initiatives are discussed below.

Reserve Component Joint Service Training

There is a perception that an increase in joint service medical training would allow better use of personnel, equipment, and facility resources in the effort to attain medical readiness. Further, decentralized training, conducted closer to local reserve units, would potentially decrease travel time to training sites and save training dollars. Through the use of common equipment and programs in a local geographic area rather than duplication of Service efforts, expenditure for training may be reduced. Under the auspices of the Reserve Components Medical Council, a joint service committee is evaluating this issue. The committee goal is to identify aspects of medical training that are common to the Services and to find regional training sites where joint training in like programs could be conducted for all Services.

Army Regional Training Sites (RTS-MED)

The regional training site concept was developed by the Army in response to the need for extensive training on the new DEPMEDS equipment. Through consolidation of trainers and equipment in central locations that are open for reserve training throughout the entire year, it is possible for units without their own equipment (and thus unable to train at their mobilization site) to train at the regional training sites. The Army National Guard and Reserve both have such sites and will share facilities when appropriate. In addition, some joint service training may occur.

These individual training initiatives and unit training programs established by the DoD and the Services have the potential for marked impact on recruiting and retention of health care personnel if the Services can implement them extensively. Collectively, the programs provide opportunities to increase both individual and medical unit readiness.

Individual readiness should be enhanced by opportunities for flexible, individually challenging training that contributes to the military and civilian qualifications of the participant. Unit readiness is increased through opportunities to participate in field exercises, particularly those relating to real-world missions. The opportunity to travel and to receive mission-oriented training is a strong retention incentive.

Graduate Medical Education (GME)

In February 1986, the Secretary of Defense chartered the Department of Defense Graduate Medical Advisory Committee. The Committee was to advise the Secretary regarding management of military graduate medical education programs, particularly regarding the alignment of military graduate medical education systems to support the defense goals of combat medical readiness. Committee members were representatives from nine prominent medical professional organizations. Committee meetings took place during the period from June 1986 through July 1987.

Several recommendations of the Committee are relevant to the 6th QRMC study and are briefly summarized here. It was the assessment of the Committee that, even with adjustments to existing DoD GME programs, the Department could not train the required numbers of physicians in designated specialties and that the Services and their reserve components must rely on civilian GME programs to meet combat medical readiness requirements. The Committee made a number of recommendations of significance for the reserve medical force. The Committee recommended the following:

- That civilian physicians be recruited for training in civilian residency programs in the critically short wartime specialties. Participants would incur an obligation of three years part-time reserve component service for each year of sponsored training.

- That monetary incentives be used to assist in reserve recruiting and retention, indicating that "scholarships, stipends and bonuses are perceived to be the most effective in addressing the physician wartime shortages."[1]

- That the DoD provide cross-training and retraining in specified wartime skills for reserve component medical officers whose peacetime specialties are not required during wartime.

- That a more aggressive reserve military medical marketing program be undertaken, to create an awareness of various reserve military options among medical students and physicians.

Recruiting Operations

Increased Recruiter Support

Since 1980, staffing of the reserve medical force has increased by 78 percent for physicians, 68 percent for nurses, and 38 percent for enlisted health care personnel. The Office of the Assistant Secretary of Defense for Health Affairs attributes much of this success to intensified recruiting efforts by the Services and to improvements in marketing techniques and management of personnel procurement programs.

Continued enhancement of the reserve recruiting effort is a major factor in the success of the Department's five-year plan. The Services believe that, without significant increases in recruiting resources, it will be impossible to meet the DoD requirement to decrease the shortfall of critically short wartime specialties by 20 percent per year. The following increases have been made recently or have been requested as programmed growth for Fiscal Year 1988-1992:

- Army National Guard and Army Reserve - These components estimate they will need approximately 300 additional recruiters in order to meet both officer and enlisted health care recruiting goals by 1992.

- Naval Reserve - The Navy is currently filling 37 billets authorized in Fiscal Year 1986 for recruiters of health care officers and 42 for recruiters of enlisted health care personnel.

- Air Force Reserve - The Air Force Reserve projects a need for 35 additional recruiters for health care personnel, to be added at approximately 7 per year, and a need to cross-train 330 line recruiters to enable simultaneous recruiting for the health care disciplines. Program adjustments reduced the projected growth of recruiters specifically for health care personnel; instead of 35 new recruiters, the program allows for only three. The Air National Guard projected no additional need for health care recruiters.

American Medical Association Study of Physicians

In response to DoD and Congressional concern about the magnitude of the shortfall of critically short wartime specialties in the reserve components, the American Medical Association (AMA) conducted a major survey of medical students, residents, and young practicing physicians, both civilian and military. The survey included military physicians serving as medical officers in the active and reserve components and some civilian physicians with prior military service. The purpose of the study was to provide the DoD with information to assist in

improving and expanding reserve recruiting efforts and to aid in developing incentive programs effective for attracting and retaining physicians into the reserve components. The study had four primary goals:

- To estimate the extent of the current reserve recruiting effort
- To estimate physicians' level of awareness regarding reserve component options
- To evaluate the impact of more targeted recruitment and of incentive programs
- To analyze factors related to physician retention through a survey of current medical officers and those with prior service

This study, Physicians and the Military: A Study of Contact, Awareness, and Interest,[2] was published in April 1987 and is discussed extensively in Chapter 4, relevant to the attitude of physicians toward the military.

DoD Advertising for Reserve Health Professionals

All the Services conduct reserve advertising campaigns for health care personnel, including direct mailing to target populations. Nonetheless, the AMA survey of physicians, discussed previously, indicated a very low level of awareness and knowledge regarding reserve component options. Awareness of the more flexible nonunit reserve participation options was especially low. Similarly, civilian leaders in the nursing profession have indicated to the DoD that there is little awareness of reserve programs and benefits within the civilian nursing community. Concerned by the current shortage of health care professionals, the Office of the Assistant Secretary of Defense for Health Affairs began a direct mail marketing campaign in 1988. The American Medical Association and professional nursing organizations that represent the specialties that the DoD has designated as critically short for wartime have cooperated with the DoD by identifying members of their organizations in the applicable specialties. These members were sent personal letters that informed them of opportunities for service in the reserve.

A national media campaign was also conducted by the Office of the Assistant Secretary of Defense for Health Affairs. Several professional publications have included information pertaining to reserve opportunities for health care professionals. A number of other professional organizations are cooperating with the DoD in an attempt to increase civilian professional awareness of opportunities in the reserve components.

Health Care Team Recruiting

Another concept under review by the Office of the Assistant Secretary of Defense for Reserve Affairs is that of recruiting reserve members qualified in the critically short wartime specialties based on team membership. Such recruiting would be applicable to individual IRR members rather than to unit members or IMAs. Individuals would be recruited as professional team members who would train together annually as members of designated teams, such as surgical teams with pre-established manning requirements. Teams could be made up of professionals qualified in the critically short wartime specialties. Because unit training would not be required, an annual training period of five days would probably be adequate. Precedence exists for such a concept: during World War II, such teams were formed throughout the country.

Other Reserve Medical Manpower Initiatives

Individual Ready Reserve Obligation for Health Professions Scholarship Program (HPSP) Participants

In an effort to obtain an increased supply of medical officers for the Ready Reserve, the Assistant Secretary of Defense for Health Affairs revised the obligation incurred by participants in the Health Professions Scholarship Program to specifically include a reserve obligation as well as an Active Duty Obligation (ADO). Previously, the typical HPSP participant did not serve a reserve obligation following completion of the ADO. The HPSP is a highly successful program and has become the primary source of physicians for the active components since the inception of the All-Volunteer Force and is thus potentially a major source of input into the reserve. The revised obligation formula requires an ADO of eight years; however, any time in excess of the actual number of years of HPSP participation would be served in the IRR unless the service member and the Service mutually agreed that the remaining time would be spent on active duty. Provisions also exist for service in the Selected Reserve or the Active Guard/Reserve by mutual agreement of the participant and the Service.

Maximum Age Requirements

Professional organizations have indicated to the DoD that there is a potential pool of physicians and nurses who, having reached a certain point in their careers or family life cycles, find that they have more time for additional activities. Numerous professional organizations believe that many such medical and nursing professionals would be interested in reserve participation. The Services have also indicated that interest in the reserve is increasing, particularly among older members

of the nurse population. In the past, these individuals had frequently passed the maximum age for initial appointment to the reserve, so this potential pool of professional manpower was going untapped. At the other extreme, the age limitation could work against retention; some highly qualified health care professionals who were already serving and wanted to remain in the reserve were required to leave based on a mandatory retirement age which ranged from 60 to 64 years old, depending on the Service.

In an effort to reduce the shortfall of health care personnel by expanding the pool of potential eligible reservists, Congress, in the National Defense Authorization Act for Fiscal Years 1988 and 1989, stipulated that professional applicants who are qualified in a specialty designated as critically short for wartime may qualify for initial appointment through at least 47 years of age. The Act also authorized the retention of health care professionals in the reserve until age 67, thereby making a 20-year retirement potentially available to those initially entering the service at age 47 or younger.

From a recruiting perspective, this increase in the age of eligibility for reserve participation should expand the pool of eligible civilian professionals. With increases in both maximum eligibility age and maximum retention age, reserve service should be more attractive to senior professionals because retirement is potentially available to them. Further, the revised legislation should increase retention of senior personnel.

Increases in the maximum ages for appointment and retention may offset the current rank structure and promotion systems for health care personnel. Enactment of the proposed Reserve Officer Personnel Management Act (ROPMA) would provide the flexibility needed for the effective management of reserve health professionals over a wide range of conditions and manpower force profiles.

Expanded Organizational Flexibility in the Reserve Components

In order to make reserve service more desirable to a greater number of health care personnel, all of the Services are exploring creative and more flexible use of the reserve organizational structure.

As an example, the Navy has recently included enlisted operating room technicians in its IMA program due to the critical shortfall in this specialty. The flexible type of participation required by the nonunit IMA programs may be attractive to health care specialists.

The Air Force Reserve, which has had regulatory proscriptions against direct appointment into the IRR, will begin to appoint directly into the IRR and is developing training and management programs in support of the new program.

The Army has successfully employed a program that provides an administrative headquarters to manage reserve medical officers in critically short wartime specialties. The unique aspect of this program is that members are not IMAs, but are assigned to Selected Reserve units with which they would deploy; however, they are not required to train with the units except on a limited basis. In this way, units may be assigned specialists who could not be recruited locally. The medical officer benefits because the program provides flexible training options and at the same time provides enough structure to permit obtaining a valid retirement year. Reserve medical officers are allowed to break IDT into four-hour segments and annual training into three separate segments, again permitting more flexibility to the officer. The program appears to be an excellent recruiting tool: 61 percent of the program participants are directly appointed into the program. Participants who have transferred to the program from units, IMA positions, or the IRR constitute a much smaller percentage. The Army plans to implement the program on a national basis, expanding it to include nurses in the specialties critically short for combat. The inclusion of enlisted health care specialists that are critically short for wartime is also being evaluated.

The establishment of reserve Nurse Detachments (NURSEDETS) by the Army is another effort to provide training flexibility for the busy professional nurse. The program is designed for nurse anesthetists and operating room nurses. Nurses are assigned to a unit with an authorization in their specialty, but are attached to another unit located near a medical treatment facility where the nurse may perform drills on an individual basis. The Navy employs a similar program for health professionals who need to drill at a geographic site that is distant from the unit of assignment. If no billet exists in the correct specialty in the local area, the member is assigned to a distant unit in an appropriate billet, but is attached to a geographically accessible unit for training.

Selective Service

The Selective Service System is currently projected to provide 100,000 inductees to the military within 30 days of mobilization. The identification and induction of civilians with health care skills would take significantly longer. In keeping with the need to greatly improve medical readiness, the Fiscal Year 1988-1989 National Defense Authorization Act authorized the Selective Service System to develop a postmobilization registration and classification system for

health care personnel. Such a system would allow the Selective Service to prepare for the registration and classification of personnel with medical skills. The Selective Service System, when funded, will develop a computer program to facilitate registration upon mobilization. This system is projected to decrease mobilization time significantly for first inductions of health care personnel, from an estimated 7 to 12 months to only 55 days. Even considering this reduced period, the Selective Service projects that it would not be able to meet the initial requirements of the DoD for many health care specialties.

Summary

In summary, multiple factors combine to create the overall environment in which reserve health care personnel function and to affect the desirability of reserve service. The combination of these factors (direct compensation, indirect compensation, and many other aspects of military service) affects decisions to enter and remain in the reserve components.

Historically, efforts to enhance the attractiveness of service in the reserve for health care personnel have concentrated on areas other than direct compensation. As the role of medical readiness was identified and the requirement for a strong reserve medical force grew, new and flexible training programs were developed, tailored explicitly for health care personnel. Simultaneously, recruiting resources were increased and recruiting operations intensified. Those developments in the early 1980s now serve as cornerstones for current initiatives that are yet broader in scope. Experience during the 1980s has indicated that although increased success in recruiting brought unprecedented numbers of health care personnel into the reserve, the length of stay for many was very short, indicating the need to make reserve service more attractive for members of the health care disciplines.

Although analysis and recognition of the role of direct compensation is imperative, it is equally important that efforts continue to enhance recruiting programs, training programs, and all aspects of personnel management. The analysis of survey and statistical data by the 6th QRMC indicates that success in attaining medical readiness will not be achieved by exclusive concentration in either the compensation or noncompensation areas, but through policies and programs that incorporate both of these aspects of the reserve environment.

Notes

1. Department of Defense, Office of the Secretary of Defense, Final Report of the Graduate Medical Education Advisory Committee, September 1987, p. 8.

2. Richard J. Willke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987.

Chapter 4. ATTITUDES AND ENVIRONMENT OF PHYSICIANS AND NURSES

For both the recent past and the foreseeable future, rapid and sweeping changes are a hallmark of the United States health care system. Scientific and technological advances have greatly expanded the potential of medicine. Demographic changes in the Nation's population, changing methods of financing increasingly costly health care delivery, and reorganization and structural changes in the health care system may all be expected to have major impact. Such changes can be anticipated to affect the requirements for health professionals and in turn the supply of personnel entering the health professions.

There are trends in medicine and nursing that may have significant impact on the ability of the reserve to recruit. There are some indicators that physicians in the future may lose some of their economic advantage in the civilian marketplace, which might enhance the positive impact of well-designed reserve compensation programs on recruiting and retention. On the other hand, many leaders in the field of nursing indicate that the supply of professional nurses is diminishing, with potential for a serious nationwide shortage. Any resultant increase in nurses' wages may increase competition for the reserve. Amid this change, the reserve medical force faces its greatest historical challenge--that of achieving medical readiness during peacetime. Further, the reserve medical force is particularly sensitive to environmental changes in health care and employment practices of health professionals, due to the reliance of the reserve on the civilian community as its source of professional manpower.

This chapter reviews trends in the supply of physicians and nurses that may affect their availability and willingness to serve in the reserve. It also explores other trends in the civilian environment of physicians and nurses, such as levels of indebtedness stemming from educational expenses and the potential impact of changes in malpractice insurance. The attitudes of reserve medical officers and nurses concerning compensation and other features of their service are summarized and compared with those of nonmedical officers. The perspective of civilian physicians and nurses with respect to potential reserve service, gained from recent surveys, is also reviewed. The major supply trends and the characteristics and attitudes of reserve and civilian health professionals indicates that compensation initiatives may be effective in reducing

current shortfalls in wartime critical health care specialties. They also provide a sense of the types of initiatives that may be most effective.

Environment and Supply Trends

Physicians

Although the net income of physicians has increased substantially since 1970, there has been an overall decline in their real income. According to the American Medical Association (AMA), there are general economic indicators that suggest that physicians as a group "have been unable to maintain their economic status or level of practice activity."[1] One factor is the increasing costs of practicing medicine. The share of gross practice revenues paid toward expenses increased from 40 percent in 1974 to 46 percent in 1984. This has many causes, among which are the increasing costs of technological advances in medicine, inflationary pressures on employee wages and cost of supplies and equipment, and the increasing cost of medical malpractice insurance.

Trends in the supply of physicians are also changing. In 1976 the Graduate Medical Education National Advisory Committee was chartered to advise the Secretary of Health and Human Services on the aspects of physician supply and requirements, geographic distribution, and ways to finance graduate medical education. The summary report of the Committee, published in 1980, projected an excess of 70,000 physicians by the year 1990 and of 145,000 by the year 2000. While these projections have been challenged; between 1970 and 1983 the increase in practicing physicians outpaced the population growth. The per capita distribution of physicians per 100,000 persons increased from 156 to 208. Between 1963 and 1985, increases in practicing physicians in specific medical specialties ranged from 15.7 percent to 113.5 percent. The supply of surgical specialists increased by 58.1 percent and the number of anesthesiologists increased by 102.8 percent.[2] As a percent of total physicians, however, the surgery group dropped from 11.2 percent to 10.7 percent.

Another major change is in the rapidly proliferating alternative practice modes. The trend has been away from the solo fee-for-service practitioner toward a wide array of alternative options. Group practice increased by 36 percent between 1969 and 1980; between 1980 and 1984, group practice expanded by an additional 44 percent. Similarly, health maintenance organizations (HMOs) and related managed health systems have become popular with patients and physicians. The AMA concludes that the number of physicians who practice in other than solo situations will continue to increase due to the

high costs of establishing a new private practice, the relatively greater flexibility of younger physicians in accepting and entering such nontraditional practice environments, and the increasing number of positions available in organizations such as HMOs in general and in those where direct financial participation of the physician is allowed.

The AMA Council on Long-Range Planning and Development report envisions the following environment:

- Increased costs for undergraduate medical education due to both increased costs of medical school and greater use of more expensive loans
- Development of pressures to limit growth in the number of physicians by reducing the size of medical school classes, closing medical schools, and by reducing residency positions
- Economic pressures causing hospitals to reduce the size of residency programs
- Increased competition for residency programs combined with the leveling off or declining of resident incomes
- Increased difficulty for new physicians in getting started in practice, with a trend for new physician graduates to become salaried, at least initially
- Increased assumption of risk to include choice of specialty, location, type of practice, and professional liability
- Increased competition among physicians
- Possible decline of income and status, and decline in financial return due to increased costs of education and loans
- Increased isolation of physicians in administrative and economic decision-making from those who remain in clinical care

Should the AMA predictions prove accurate, the physician will lose some current economic advantage. This may benefit the reserve in that alternative sources of income, both direct and indirect, may become more attractive. This is not an argument for the status quo in the compensation of military physicians. The QRMC believes that enhanced compensation incentives are necessary to attract the numbers of physicians required by the reserve, even in a less economically advantageous environment.

A program well designed for today may become even more effective should the environment for recruiting reserve medical officers become somewhat more favorable.

Nurses

Trends for the supply of civilian professional nurses may be the reverse of those for physicians. Many national nursing leaders believe there is a significant shortage of nurses today, a shortage that they predict will worsen over time. There is lack of consensus on this issue, based, in part, on which supply and requirement models are used. The Secretary of Health and Human Services has convened a commission to assess current nursing supply and demand and to make recommendations if indicated.

The Public Health Service has developed models that project supply and requirements for full-time equivalent positions for registered nurses; these result in differing outcomes for the year 2000. The historical model, based on current roles and usage of the professional nurse, projects an excess of 67,000 by the year 2000. The criteria model, on the other hand, is based on idealized roles of the professional nurse and realignment of requirements based in part on changing educational standards. This model projects higher requirements for nurses, resulting in a projected shortage of 578,000 by the year 2000.[3]

Of immediate importance are the real vacancy rates currently experienced by hospitals. According to the American Hospital Association, based on a December 1986 survey of hospitals,[4] only 17.6 percent of hospitals reported no vacancies for registered nurses. Twenty-four percent of all hospitals surveyed reported a vacancy rate of 15 percent or more. Nationwide, 13.6 percent of all full-time equivalent positions for registered nurses were vacant. These trends and rates are potentially significant to the reserve for many reasons. Nurse specialties that the DoD has identified as critically short wartime specialties tend to be the same as those that the civilian health care system is recruiting. As an example, 90 percent of all hospitals had recruited for medical-surgical nurses, with two-thirds of those recruiting categorizing the recruiting process as difficult or very difficult (60 or more days to fill a position). Seventy-one percent of hospitals were recruiting for operating room nurses, with approximately two-thirds of those hospitals taking 60 days or more to hire a qualified individual.

Wages may be one important determinant in the rates of nurse vacancies. According to one analysis, there is an inverse relationship between nurses' relative wages and nursing vacancies.[5] Tracing this relationship back to 1960, Dr. Linda Aiken indicates that nurses' salaries were generally low compared with those of teachers and other predominantly female

professions. The introduction of Medicare resulted in relative increases in nursing wages. With the introduction of wage and price control into hospitals and efforts at hospital cost containment, nursing salaries began to fall relative to those of the other predominantly female professions. In 1979, a shortage of nurses occurred. In response, their wages began to increase more rapidly than did other female professions, and, by 1984, vacancy rates for nurses dropped. However, after 1984, nurses' salaries began to stabilize. In 1986, hospitals again reported significant nursing vacancies. Research indicates that nurses are less likely to participate in the labor force as increases occur in the level of spousal income or income from other than employment sources.[6] Employment in the nursing field appears to be relatively responsive to levels of pay, a relationship that is relevant to the reserve.

By 1987, the increased need of hospitals for nurses had begun to generate changes in the pay and benefits received by registered nurses. According the American Journal of Nursing (AJN), however, it was not until the fall of 1987 that salaries began to rise significantly in response to continued nursing vacancies.[7] Nurse anesthetists and operating room nurses, both designated by the DoD as critically short wartime specialties, did sustain significant civilian pay increases in 1987. The AJN reported that the midyear salary survey conducted by the University of Texas, Galveston, indicated a 6 to 7 percent increase for certified registered nurse anesthetists. The AJN reported the Roth Young Personnel Service in Philadelphia as estimating starting salaries for nurse anesthetists at $33,000, with the potential to reach $60,000 including "differentials, on-call pay and pension plans."[8] The Roth Young Personnel Service in Pittsburgh predicted double-digit increases in income in 1988 for open-heart operating room nurses.[9] There is also a major increase in hospitals' use of temporary staffing agencies. A recent survey conducted by the American Hospital Association showed a 31 percent increase in the use of such agencies by hospitals between December 1986 and April 1987.[10] This is significant because temporary staffing agencies often pay salaries two to three times those of permanent employees at the same hospital. This may be of particular significance for the reserve because the periods of employment are often for the hard-to-man shifts such as evenings, nights, and weekends, thereby increasing competition with the reserve.

Significant wage increases have recently occurred across the country, although the gains have not been equally distributed geographically. For example, at Pennsylvania Hospital in Philadelphia, new base salaries advertised in November 1987 ranged from $28,184 to 36,109; permanent evening salaries ranged from $33,072 to $41,799; and permanent night salaries ranged from $35,880 to $45,406.[11] This contrasts with an average starting salary of $20,340 in 1986.[12]

Some hospitals raised salaries by as much as 18 percent, and one supplemental staffing agency estimated that their rates for staff nurses had increased by 15 to 20 percent. Bonuses were paid more frequently, and shift differentials increased significantly in many areas. The AJN reported that Yale-New Haven Hospital had employed a shift incentive bonus program. The hospital's starting salary is $26,000, and a nurse who commits to weekend work for one year earns an additional $6,000. With the addition of a $915 shift differential, the annual salary is $32,915. A nurse who commits to working straight weekend/evening shifts earns an income of $38,307, and the nurse who works weekend nights earns $40,211. Experienced nurses who work straight nights and weekends earn $51,401. At the St. Francis Hospital in Wilmington, a 50 percent differential is paid for working nights and weekends, resulting in an annual salary of approximately $40,000.

Among other benefits that health care employers are using to attract nurses is the sponsoring of nursing education, which may take the form of advanced education for registered nurses and licensed practical nurses, or may provide tuition to employees or other individuals who commit to working for the organization upon completion of basic nursing training. The two hospitals that the AJN cites as sponsoring such programs have reportedly been very successful in recruiting participants.

Should salaries continue to increase significantly and on a nationwide basis, and employment practices expand to where a nurse can command high wages for a short period of time or for other than daytime shift work, more competition may be created for the reserve components. The reserve most often demands nurses' time for the same period (evenings, nights, and weekends) for which they may be most highly paid in the civilian labor force.

An additional area of concern is the supply of new nurses. There has been a significant drop in enrollment in full-time undergraduate baccalaureate nursing students.[13] Between academic years 1984-1985 and 1985-1986, full-time enrollment of baccalaureate nursing students dropped by 8.5 percent; the following year, enrollment decreased an additional 10.7 percent. Part-time enrollment has increased, but at a declining rate. Whereas there was an increase of 6.5 percent in part-time enrollment between academic years 1983-1984 and 1984-1985, by academic year 1986-1987 the increase over the previous year was only 0.4 percent. Many part-time enrollees are nurses with two-year associate degrees or three-year diplomas, returning to school in order to obtain a baccalaureate degree in nursing. This group is a potential target for reserve recruiting.

Many reasons are offered for the decrease in enrollment. The School of Nursing at the University of Pennsylvania surveyed a sample of member schools of the American Association of Colleges of Nursing in the Spring of 1987. Listed below in rank order are the factors cited by nursing school deans for the decreasing enrollment in nursing schools:[14]

- Decreased pool of qualified applicants
- Decreased availability of scholarships/financial aid for students
- Inefficient recruitment efforts
- Increased tuition; changes in financial situation of the institution or state
- Changes in students' perceptions of nursing as an attractive career option
- Decreased availability of qualified nursing faculty
- Decreased availability of clinical facilities

One immediate impact of the decreasing levels of enrollment is an increase in the number of nursing schools that are closing. The impact is greatest on private nursing schools.

The change in perception of nursing as a rewarding career is corroborated by research conducted by the Cooperative Institutional Research Program of the American Council on Education.[15] This research group has conducted a comprehensive survey of entering college freshmen for the last 20 years. As part of a study of the 20-year trend, analysts tracked the interest of entering freshmen in various careers, including nursing. Both the percent and absolute numbers of freshmen who expressed an interest in a nursing career have declined. The percent of full-time entering freshmen interested in nursing declined in 1986 to a low of 2.7 percent from 3.3 percent as recently as 1985. There has been a decline of nearly half from the peak of 5.1 percent in 1974. This reflects a drop in actual numbers from 40,631 to a low of 28,500 in 1986. The study further indicates that the absolute number of graduating high school students has also declined by 15 to 20 percent since the 1970s. Even were the percent of interested students and graduates to remain constant, there would still be a drop in the actual number of qualified nurses produced annually.

Two of the factors (listed above) identified by the deans of nursing schools as accounting for enrollment declines are related to the financial aspects of nursing education. This is an area where the reserve might play a role by partially

subsidizing nursing education in return for reserve service. This would help the reserve to obtain obligated nurses and potentially help the Nation by stimulating an increase in the supply of civilian nurses. As previously noted, the FY 1986 DoD Authorization Act did authorize stipends to fully qualified nurses training as nurse anesthetists and operating room nurses. The National Defense Authorization Act for Fiscal Years 1988 and 1989 added a monthly stipend in the amount of $100 per month for baccalaureate nursing students in their third and fourth year of training. There may be even greater potential for recruiting at the undergraduate level, were more comprehensive scholarship programs to be offered.

The number of graduates from nursing programs has also decreased annually. The average size of the graduating class of 1985 was down slightly from the previous year, and the class graduating in 1986 was 2.3 percent smaller than that of 1985. This trend continued in 1987. Many leaders in the nursing field believe that there will be a further decrease in both nursing enrollment and graduations at the baccalaureate level over the next three years.

In summary, a true decline in registered nurses could be anticipated to have a negative impact on the availability of nurses to the reserve. The existing supply would be highly in demand by the civilian community, and because the nursing field is one in which weekend and night work are standard, competition for the reserve would potentially be intensified. Further, actual nurse vacancies in the civilian sector tend to increase wages and other benefits over time, particularly for those hard-to-man shifts such as weekend, and evening and night shifts, which again heightens competition for the reserve. On the other hand, trends in education, such as the return to school of registered nurses in order to earn a baccalaureate degree in nursing, and the large number of part-time nursing students may provide valuable populations from which the reserve might recruit, particularly if attractive educational support packages were offered.

Student Indebtedness

Rising Costs of Education

According to the Washington Office of the College Board,[16] the cost of college attendance increased greatly between academic year 1980-1981 and 1986-1987, from a low of 56 percent for public two-year programs to a high of 81 percent for private universities. Even when measured in constant 1982 dollars the increase is significant, ranging from a low of 22 percent for public two-year institutions to a high of 41 percent for private universities. This is matched by an increase of only 15 percent

in disposable personal income and by a 5 percent increase in family income over the same time period. The increased costs of earning a baccalaureate degree affect both nurses and physicians. For nurses, that may be the sole source of potential educational debt. For physicians, any debt incurred is compounded by additional debt incurred while attending medical school.

Trends in tuition and overall educational costs, financing of student education in the health professions, and levels of student and graduate indebtedness have caused concern in the Congress. In the Health Professions Training Assistance Act of 1985 (Section 221 of Public Law 99-129), Congress required that the Secretary of Health and Human Services submit a report containing "an analysis of any financial disincentive to graduates of health professions schools which affects the specialty of practice they choose or the decision to practice their profession in an area which lacks an adequate number of health care professionals." [17] That report, published in 1986, concluded that costs of training in the health professions continue to be greater than are costs of training in other fields. Between the academic year 1980-1981 and 1985-1986, an increase in tuition of 51 percent occurred for private medical schools and 78 percent for public medical schools. Cost of attendance at both public and private osteopathic schools has also risen significantly.

Educational Debts

In programs providing student aid, there has been a major shift toward the use of funds that must be repaid; the award of grants and scholarships has decreased and the use of loans increased. There is also a trend away from subsidized loans and toward nonsubsidized loans. Since the mid-1970s, loans have grown from one-fifth of student financial aid to half of all student aid available in academic year 1986-1987. In that year, grants and financial loans each comprised just under one-half of the student aid awarded, with student jobs constituting the remaining three percent. Although there is also a trend toward an increase in assistance from nonfederal sources, the federal government still remains the largest provider of student educational assistance.

Because there are few other financing alternatives, the trend is for students to borrow more often, in higher amounts, and at higher interest rates to meet increased tuition and educational costs. The Health and Human Services study indicates that "a study simulating the debt burden pattern of graduates of several different health professions disciplines found that accumulated educational debt may be of such a magnitude relative to expected

earning in the initial years of practice that repayment of loans could be difficult for a substantial percentage of these graduates."[18]

In the case of physicians, the earning curve rises rapidly, thus diminishing the burden of loan repayment over time. Yet, the debt levels of physicians are particularly high because they are built on debts incurred during the undergraduate years as well as the very expensive years of medical school. Moreover, the majority of medical school graduates continue their training as residents, with typically low stipends, in a specialty field. Although some loans defer payment during the residency period, interest continues to accrue. In addition, some loans have only two-year deferments and are due prior to completion of the many residency programs that are longer than two years. The extended training represented by periods of graduate medical education further delays the time when the physician will have a significant level of income from practice of his profession.

According to the AMA, the average educational debt in 1986 for all physicians who were indebted was $33,500. Table 4-1 shows the projected levels of indebtedness of senior medical students who graduated in 1987 as indicated by responses to a survey taken during their senior year. There is a wide range of debts, with many graduates possessing educational debts far in excess of the average. Only 18 percent projected that they would have no debt. Roughly 20 percent expected to owe $50,000 or more, and debt levels for some ranged over $100,000. The average indebtedness increased by approximately 11 percent per year between 1981 and 1986, with an increase for the entire period of approximately 70 percent. Table 4-2 indicates the high and growing average debt as a percent of the average physician income for the years 1981 to 1985. The situation for the new graduate in internship or residency training can be seen in Table 4-3, which portrays average annual salary ranges for interns and residents during 1986. Because the income for this period of training is low, the burden of the debt is much greater. Upon completion of training, income would generally not reach that of the national average for several years, and physicians who choose to set up practice have the additional burden of extremely high start-up costs. The AMA found that, in 1983, physicians in their first five years of practice earned an average of $31,000 a year less than did physicians with over ten years of practice.

Table 4-1. Projected Levels of Indebtedness of Medical Students Graduating in 1987

Debt Level	Percentage of Respondents
No debt	18
Less than $20,000	20
$20,000 - $29,999	18
$30,000 - $49,999	24
$50,000 - $74,999	13
$75,000 - $99,999	5
$100,000 or more	2

Note: Mean of all indebted students - $35,621

Source: Association of American Medical Colleges, Medical Student Graduating Questionnaire Class of 1987

Table 4-2. Student Debt as a Percentage of Average Net Income (After Expenses, Before Taxes) of Medical Doctors

Year of Graduation	Average Net Income	Average Debt	Debt %
1982	$ 99,500	$21,051	21
1983	106,300	23,647	22
1984	108,400	26,496	24
1985	113,200	23,500	30

Source: American Medical Association, Socioeconomic Characteristics of Medical Practice 1986

Table 4-3. Sample Annual Salary Ranges for Medical Interns and Residents as of July 1, 1986

Physician Category	Salary Range
Intern	$16,000 - $24,529
1st year resident	$16,700 - $26,629
2nd year resident	$17,700 - $29,035
3rd year resident	$18,700 - $31,450
4th year resident	$20,000 - $32,500

Source: Compensation Report on Hospital-Based and Group Practice Physicians 1986-1987, Hospital Compensation Service, John R. Zabka Associates, Inc., November 1986

Student debts for osteopathic physicians tend to be even larger. Table 4-4 shows projected debts as indicated by osteopathic students who graduated in 1986 and by those who will graduate in 1989. The average debt for those graduating in 1986 was $55,400, with a projected increase in 1989 to $58,300. The increase in average debt for osteopathic students rose 79 percent between 1983 and 1986.

Table 4-4. Projected Levels of Indebtedness for Osteopathic Students Graduating in 1986 and 1989

Debt Level	1986 Graduates %	1989 Graduates %
No debt	7	9
Less than $20,000	8	14
$20,000-$40,000	25	20
$40,001-$60,000	24	14
$60,001-$80,000	16	15
Over $80,000	22	28
Average debt	$55,400	$58,300

Sources: Don C. Zobell, The Debts of Osteopathic Students in 1986, American Association of Colleges of Osteopathic Medicine, July 1987

Don C. Zobell, Unpublished data, 1987

Much less data is available on indebtedness of nurses. This area has been recently recognized as important, however, and there are now several studies under way. In the interim, the American Association of Colleges of Nursing has indicated the appropriateness of using data applicable to the baccalaureate degree, based on the assumption that the indebtedness of the typical nurse is at least as high as other students at the same academic institution. Nurses bear not only the standard costs of college attendance, but incur some additional costs associated with nursing such as costs for immunizations, stethoscopes and other medical equipment, and transportation to clinical work sites.

Table 4-5 depicts the results of a 1986 survey of financial aid directors; it shows progressive average indebtedness from all student aid sources for public and private two-year and four-year institutions.[19] Table 4-6, reflects in much greater detail the levels of indebtedness at the end of four years for public and private four-year institutions.[20] The average debt of private school students is greater than the debt of those who

attend public colleges for both the two-year and the four-year programs. Although the levels of debt shown here for baccalaureate students are not as impressive in magnitude as are those of the physician, they represent a very high percentage of the average annual starting salary for a graduate nurse and may therefore be assumed to have similar impact. The average four-year public school debt of $6,685, for those who borrowed in academic year 1985-1986, represents 34 percent of the average nurse's starting salary in 1985 ($19,440);[21] the four-year private school debt of $8,895 represents 46 percent of the average nurse's starting salary.

Table 4-5. Average Indebtedness From All Sources for Undergraduates Who Borrowed, 1985-86

	After Two Years		After Four Years	
Institutional Type	Number of Institutions	Amount	Number of Institutions	Amount
Public 2-year	485	$3,303	-	-
Private 2-year	107	$4,461	-	-
Public 4-year	335	$3,217	333	$6,685
Private 4-year	735	$4,340	736	$8,950

Source: College Scholarship Service and National Association of Student Financial Aid Administrators, Survey of Undergraduate Financial Aid Policies, Practices and Procedures

Loan Repayment and Forgiveness Programs

Loan repayment and forgiveness have long been used as a mechanism by differing levels of government and by the private sector to induce health professionals to join a particular organization or to practice in a specified area. Congressional endorsement was given to this concept in 1965, when the Health Professions Educational Assistance Amendments of 1965 (Public Law 89-290) allowed the cancellation of up to 50 percent of health professional loans at a rate of 10 percent per year for practice in a State-certified manpower shortage area. Under the Comprehensive Health Manpower Training Act of 1971 (Public Law 92-157) loan repayment (as opposed to cancellation) was authorized for up to 60 percent of an individual's qualifying loans following two years of service, with an additional 25 percent authorized after a third year of service. Several

Table 4-6. Average Debt From All Sources at the End of Four Years, as Reported by Financial Aid Officers*

Debt After 4 Years	% of Public 4-Year Institutions	% of Private 4-Year Institutions
Under $1,000	0.0	.4
$1,000 - $1,999	1.5	.5
$2,000 - $2,999	5.1	1.5
$3,000 - $3,999	7.8	2.2
$4,000 - $4,999	20.4	6.8
$5,000 - $7,499	31.8	19.3
$7,500 - $9,999	22.8	38.7
$10,000 - $14,999	9.0	27.3
Over $15,000	1.2	2.6
N/A	.3	.7
Total number of schools	333	736
Approximate mean debt	$6,685	$8,950

Notes:
* Percent distribution represents the distribution of survey respondents (one per school), not the number of students in each category.

N/A = Not applicable

Source: College Scholarship Service and National Association of Student Financial Aid Administrators, Survey of Undergraduate Financial Aid Policies, Practices and Procedures

modifications of this program have been enacted since that time. The General Accounting Office (GAO) evaluated the loan forgiveness program in 1974,[22] relative to its impact on physicians and dentists, and the loan repayment program in 1978,[23] surveying physicians only. Both studies concluded that the programs were largely ineffective in influencing the location of practice for groups of health professionals who participated in the program. Further, the program had attracted only small numbers of participants. Based on these concerns, the Bureau of Health Personnel Development and Service of the Public Health Service commissioned Mandex Incorporated to conduct additional research on the effectiveness of the loan repayment program. The conclusions of that study, published in 1981,[24] were similar to those of the GAO studies.

State governments and state medical associations have also used loan forgiveness (loan cancellation) programs frequently in the past. An early study found that, of a total of 27 local student loan programs then existing, 17 programs provided some degree of loan forgiveness to physicians in return for service in a rural area upon completion of education and training.[25] In the 11 programs that had existed long enough to have accumulated meaningful data, approximately 38 percent of physicians preferred to repay the loan rather than practice in a small community. Those who chose to enter rural practice ranged by state from 33 percent to 98 percent of borrowers. Five additional programs had been terminated, four due to failure and the fifth due to a level of success that made the incentive no longer necessary. The rate of participation varied by state and was, overall, much higher than that of the federal loan forgiveness and loan repayment programs.

Currently, there appears to be renewed confidence in the potential of loan repayment programs to affect individual behavior. The economic environment of students, with increased educational costs and greatly increased levels of indebtedness, appears to be such that programs that have previously been unsuccessful may now be successful. An example of this change in perspective is a recommendation made by the Department of Health and Human Services in their report to Congress in November 1986. Among other recommendations, the report encouraged "expansion of state and local programs designed to provide loan forgiveness programs for low-income students who will serve in medically underserved areas."[26] Further indication of the newly revived relevance of loan repayment programs is the establishment of a loan repayment program for the National Health Service Corps of the Public Health Service, authorized by Public Law 100-177 in December 1987. The law authorized disbursement of up to $20,000 annually ($25,000 for individuals who agree to serve in the Indian Health Service) in loan repayment funds for government and commercial educational loans to health professionals who join the National Health Service Corps to work in designated health manpower shortage areas. The law also authorized the federal government to make grants to states to support local establishment of programs similar to the loan repayment program of the National Health Service Corps.

A similar government loan program was established for nurses in the late 1960s. The Federal Nursing Student Loan Program authorizes payment to students pursuing a full-time or half-time course of study leading to a baccalaureate, associate, or graduate degree in nursing. Payments of up to $2,500 annually are authorized, not to exceed an aggregate of $10,000 for any one student. Currently, however, there is a high rate of delinquency and consequent termination of school participation in the federal nursing student loan program. Nurses are also

eligible to receive funding from other federal student loan programs. Of nurses who borrow, a high percentage do so from multiple sources. Other types of funding available include loans from states, colleges, and a wide variety of private sources.

A government loan repayment program similar to that for other health professionals also exists for nurses who agree to serve in a state having a shortage of nurses. The Public Health Service will repay 30 percent of the outstanding principal and interest under the Federal Nursing Student Loan program for each of the first two years of service. An additional 25 percent is paid upon completion of the third year of service.

Malpractice Insurance

Professional legal liability is a significant problem nationwide. Many observers believe that there is a crisis in medical malpractice insurance because physicians leave active medical practice prematurely or refuse to treat certain high risk categories of patients because of the high risk of lawsuit and the escalating cost of malpractice insurance. According to the American Medical Association, the average dollar amount of liability claims has increased significantly in recent years, as have insurance premium rates.[27] Between 1982 and 1985, the average malpractice insurance premiums for self-employed physicians rose at an annual rate of 21.9 percent, increasing from $5,800 to $10,500. During the same timespan, "one-quarter of increased physician gross revenues adjusted for inflation have been devoted to paying higher premiums."[28] Premiums continued to rise until, in 1986, the average was $12,800. This amounted to 5.1 percent of average total practice revenue. There are very significant variances in the premiums paid by specialty groups, however. The highest average premiums are paid by physicians in obstetrics/gynecology, followed by two of the specialties designated as critically short for wartime by the DoD: surgery and anesthesiology. Average premiums for surgeons rose from $16,600 in 1985 to $21,300 in 1986. The average premium for anesthesiologists in 1985 was $18,800; no comparative 1986 data was available.

As far back as the mid-1970s, pressures in the medical malpractice insurance market caused a change in the type of insurance available. The standard type of insurance had been occurrence-based until that time. Occurrence-based liability insurance covered any claim arising from care provided while the policy was in effect. Due to major economic pressures, insurance companies then found it more practical to offer a claims-made type of insurance. Under a claims-made policy, a claim is covered if two criteria are met: the claim must arise from care provided while the policy is in effect and the claim

itself must be submitted during the life of the policy; claims filed after policy expiration are not covered unless the policy holder has bought special additional coverage to extend coverage beyond the policy termination date. For example, a retired physician needs no liability coverage for any current or future malpractice, but if he wished to be covered for any possible claims based on his previous medical practice, he would be required to purchase what is called an extended reporting endorsement or, more commonly, "tail" coverage. The cost of the lump sum payment required to purchase tail coverage varies; it is generally based on the annual premium. The tail may cost as much as three to four times the annual premium and typically is most expensive for physicians practicing in specialties that the DoD has classified as critically short wartime specialties.

The prevalence of claims-made insurance has grown until, in the mid-1980s, it is the predominant form of medical malpractice insurance available. The DoD has recognized claims-made insurance as a potentially significant deterrent to recruiting in all physician categories, including both active duty and reserve medical officers as well as DoD civilian contract physicians. Health care providers are generally covered against liability while actually on active duty; however, upon mobilization, the reserve medical officer may need to purchase tail coverage to cover any future claims filed for occurrences resulting from his civilian practice. In September 1987, the Assistant Secretary of Defense for Health Affairs received an opinion from the DoD General Counsel indicating that the *Soldiers' and Sailors'* Civil Relief Act is very limited in the protection that it provides medical personnel for lawsuits that arise from previous civilian practice. Although the government may provide some procedural assistance, it does not provide an absolute defense, nor is the government responsible for providing tail coverage to a mobilized reservist under the current act. There is concern that the need to make a large lump sum purchase for tail coverage when terminating civilian medical practice to enter active duty or contract service in peacetime (or, for the reservist, upon mobilization) may have a significant negative impact on the recruiting of physicians. There is already indirect evidence that it has begun to interfere with recruiting of physicians in the reserve components.

The potential exists for a similar problem in other health care disciplines as well. The American Dental Association has indicated that the liability market for dentists is now also dominated by claims-made insurance. The requirement for liability insurance for nurses varies by state and by institution; not all nurses require insurance. Some institutions provide insurance for their staff members; some nurses carry individual insurance. Nurses with advanced training, such as nurse practitioners and midwives, are most

likely to require coverage. Insurance for nurse anesthetists, a critically short wartime specialty, carries one of the highest premiums. According to the American Nursing Association, the four primary insurance companies providing liability insurance to individual nurses continue to offer occurrence-based policies, while institutional coverage for staff members is frequently of the claims-made type.

This has potential impact for all categories of physicians and nurses in the critically short wartime specialties. The need for both short-term and long-term solutions is acknowledged, with the Office of the Assistant Secretary of Defense for Health Affairs currently developing proposed courses of action. For the reservist, alternatives to defray the cost of (or eliminate the need for) a lump sum payment upon mobilization must be evaluated.

Characteristics of Reserve Physicians and Nurses

Education Level

Comparing the level of education of reservists with that of physicians and nurses in the civilian sector is most relevant for the nursing population. Respondents to the 1986 Reserve Component Surveys were requested to indicate the highest grade or year of regular school or college completed. For purposes of comparing survey data with 1984 data from The Registered Nurse Population-1984,[29] the QRMC assumed that respondents who indicated two years of college as the highest level of education completed have an associate degree in nursing and that three years of college is equivalent to a diploma in nursing. A response indicating four years of college may reflect completion of a baccalaureate in nursing or another degree. Reserve personnel policies have resulted in a reserve nursing population with a higher level of education than that of registered nurses at large. Associate degree nurses represent 23 percent of the national population but only 10 percent of the reserve nursing population based on survey respondents; diploma nurses constitute 45 percent of the national registered nurse population and 12 percent of the reserve population; nurses with a baccalaureate in nursing or with other degrees comprise 26 percent of the national population and 76 percent of the reserve population. In summary, unlike education for physicians, where high levels of education are mandatory, levels of education for nurses are variable. When planning challenging training and apportioning leadership and training responsibilities, it may be significant for reserve planners to be aware of the high levels of education of reserve nurses.

Distribution by Sex

In FY 1986, female medical officers constituted 11 percent of active component medical officers and 7 percent of reserve medical officers. This compares with 14.6 percent female physicians nationwide, up from 7.6 percent in the 1970s. The representation of women in residency training has doubled since 1970, reaching 26.2 percent in 1985. Because women physicians as a group are younger and are more likely to be salaried employees than male physicians (both characteristics tending to result in a reduced level of income), female physicians may potentially be an appropriate target for reserve recruiting. A high percentage of women physicians enter the primary care specialties, however, for which the reserve currently has limited need.

The representation of males in the military nursing population is approximately equivalent in the active and reserve components: 24 and 21 percent, respectively, in FY 1986. In both components, the representation of males is much higher than in the civilian nurse population. In 1984, males represented only 3 percent of the national registered nurse population.[30]

Age

The AMA reports the percent of physicians who are age 40 or under has increased from 39.8 percent in 1970 to 41.4 percent in 1985.[31] Almost half of all United States medical school graduates have received their medical degree since 1970. The American Osteopathic Association reports 55 percent of osteopathic physicians as being age 44 or under.[32] Reserve survey data indicates that the percentage of reserve medical officers in the 40 and under age group is somewhat less than the national 41 percent rate. For all components combined, only 32 percent of reserve medical officers fall into the 40 and under age category. The Army National Guard and Air National Guard have a higher percentage of younger physicians, however, with 47 percent and 46 percent, respectively, in the 40 and under category. Based on survey data, the average age of all DoD reserve medical officers is 46.9 years. Thus there is a large population of young civilian physicians, which the reserve might profitably target in recruiting efforts.

The average age of civilian nurses in 1984 was 38, with 35 percent of registered nurses falling in the age range of 35 to 49. The average age of reserve nurses surveyed was 39, with 57 percent in the 35 to 49 year range. This emphasizes the importance of recent legislation increasing the initial appointment and retirement ages for critically short wartime specialties. The potential value of the mature nurse is also emphasized by the pattern of nurse participation in the work force. There is a high rate of participation for nurses in

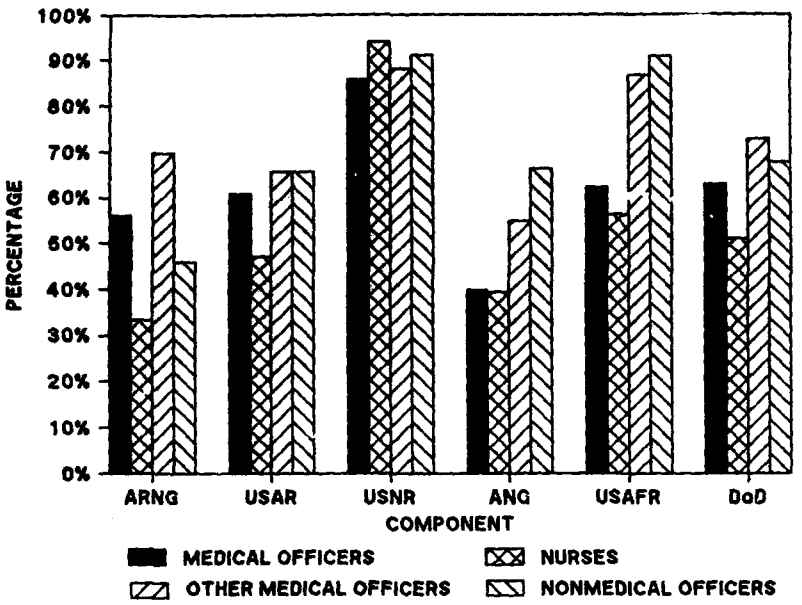


FIGURE 4-1. PERCENT OF OFFICERS WITH PRIOR ACTIVE SERVICE, BY COMPONENT AND SPECIALTY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

their 20s, followed by a decline for nurses in their 30s, and then a resurgence of employed nurses in their 40s following the growth of children.[33]

Prior Active Service

Figure 4-1 shows the percent of National Guard and Reserve officers, by occupational category, who have prior service in an active component. In the aggregate, nonmedical and other medical officers include the highest percentages with prior active duty. Medical officers as a group fall in third position, with nurses exhibiting the lowest rate of prior active duty over all. There are some notable variances among the reserve components, the most obvious being in the Naval Reserve, which has a much higher percentage of all officers with prior active duty.

Civilian Employment

Most reserve officers are employed in the civilian economy. The employment status of officers is displayed in Table 4-7. Data is shown for reserve medical officers, nurses, and "other" officers, which represents officers outside of the health care

Table 4-7. Employment Status, by Component

Employment	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
MEDICAL OFFICERS						
Employed full-time	30	47	56	42	47	46
Self-employed	50	42	39	58	52	45
Employed part-time	6	9	3	-	-	6
Unemployed	3	1	2	-	-	1
In school	11	1	-	-	1	2
NURSES						
Employed full-time	77	78	51	78	71	74
Self-employed	3	2	1	1	1	2
Employed part-time	11	7	12	9	11	9
Unemployed	5	8	24	8	10	9
In school	4	6	12	3	7	6
OTHER OFFICERS						
Employed full-time	71	77	82	73	79	76
Self-employed	11	10	11	13	11	11
Employed part-time	3	2	2	5	2	3
Unemployed	5	4	2	6	4	4
In school	10	6	3	2	3	6

Source: 1986 Reserve Components Survey of Officers, Question 93

disciplines. Only 1 percent of physicians are unemployed and 45 percent are self-employed. The highest rate of unemployment (9 percent) is among reserve nurses. This percentage ranges from 5 percent for those in the Army National Guard to 24 percent for those in the Naval Reserve. Reserve nurses have a lower unemployment rate than the 15 percent unemployment rate for nurses nationally.[34] The percentage of reserve nurses employed in fields other than nursing is higher than that found in the civilian sector, however. Excluding those reserve nurses who are employed in administrative and managerial occupations that may be nursing-related jobs, 17.7 percent of reserve nurses are employed in occupations other than nursing. This contrasts with 6 percent of nurses nationally who are employed in fields other than nursing. According to the U.S. Department of Health and Human Services, as of November 1984, 79 percent of registered nurses were employed in nursing. Of those employed in nursing, 66 percent were employed full-time and 34 percent were employed part-time.[35] By comparison, of the reserve nurses who indicated that they are currently employed in civilian jobs very similar

or similar to their military job, 90 percent are employed full-time and 10 percent are employed part-time. It is apparent then that the reserve is not drawing primarily from the large pool of part-time employed civilian nurses; such nurses may be a potential recruiting pool for the reserve components.

Changes in the nations's health care delivery system have resulted in a decrease in the number of self-employed physicians and an increase in the number of physicians employed by others. The AMA defines employed physicians as those employed by hospitals, state or local governments, HMOs, group practices, and in certain other settings. In 1985, according to the AMA, 26 percent of nonfederal, patient care physicians (excluding residents) were employed physicians.[36] This percentage included 29 percent for anesthesiologists and 14 percent for the broad surgery group, and compares with 53 percent of reserve physicians who are employed. The AMA indicates that "self-employed physicians consistently earned nearly $38,000 more per year than employee physicians, however employees worked an average of one and one-half fewer weeks per year and spent four hours less per week in practice related activities."[37] Of further note for the reserve is the fact that a much higher percent of physicians under age 36 were employees (47 percent) than were physicians age 55 and over (19 percent). Even the next youngest age category (36 to 45 years of age) had only 27 percent employed physicians. Among the specialties, surgeons had one of the two lowest percentages of employees (13.9 percent). Females were almost twice as likely to be employed (45 percent) as were their male counterparts (24 percent). Another significant difference between the reserve physician and the national population is the higher percentage of reserve physicians employed by government. The AMA has indicated that, in 1985, only 2.7 percent of employee physicians were employed by state and local government. By contrast, 26 percent of reserve medical officers, who indicated that they are employees, are employed by state and local government. All government physician employees in 1985, including Federal employees, constituted 4.6 percent of the total physician population, whereas 43 percent of reserve employee physicians responding as being employed in the government and private categories indicated government employment. A direct correlation cannot be drawn between this data, however, because the AMA survey provided more discrete employer choices than did the 1986 Reserve Components Surveys, but the data clearly indicates that the reserve physician population differs from the general population of physicians.

As shown by Table 4-8, for physicians not self-employed, slightly more are employed by private health care organizations than by government. The pattern for nurses is almost identical, with the percentage of both groups slightly exceeding the percentage for other reserve officers. Since very few nurses

Table 4-8. Type of Civilian Employer (Full-time Employed Excluding Self-Employed)

Employer	Medical Officer %	Nurse %	Other Officer %
Government	43	44	40
Private	57	56	60

Source: 1986 Reserve Components Survey of Officers, Question 97

are self-employed, the percentage of all employed nurses who are employed in government is the highest of the three groups and nearly twice that of medical officers.

Not surprisingly, most medical officers and military nurses work full-time in the civilian economy as physicians and nurses. Table 4-9 displays this data. It is noteworthy that most reserve nurses are employed in the civilian economy. The major exception is in the case of nurses in the Naval Reserve.

Table 4-9. Percentage of Reserve Medical Officers and Nurses, by Civilian Occupational Category and Component

Civilian Occupation of Reservist	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
MEDICAL OFFICERS						
No civilian job	3.0	0.5	-	-	-	0.7
Administrative, managerial, and management-related	4.3	3.0	3.8	-	4.2	3.2
Physicians	86.3	78.9	84.8	80.0	82.5	81.7
Other	6.5	17.7	11.4	20.1	13.3	14.5
REGISTERED NURSES						
No civilian job	2.8	2.6	18.7	2.6	3.0	4.1
Administrative, managerial, and management-related	7.7	8.3	1.7	6.6	5.9	7.2
Registered Nurses	72.1	70.9	60.9	78.7	73.0	71.0
Other	17.4	18.2	18.7	12.1	18.1	17.7

Source: Research Triangle Institute, Description of Officers and Enlisted Personnel in the U.S. Selected Reserve: 1986, November 1986

Table 4-10 shows the relationship between civilian occupation and reserve duty from the opposite perspective. It shows the military occupational category of reservists who work as physicians and registered nurses in their civilian life. Most, but not all, serve as medical officers and military nurses in the reserve.

Table 4-10. Percentage of Reservists Who Work as Physicians or Registered Nurses in the Civilian Economy Who Also Work in the Reserve, by Military Occupations (Civilian Equivalent) and Component

Military Occupation of Reservist	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
PHYSICIANS						
No civilian equivalent/ nonoccupational	10.9	1.0	9.4	8.1	-	5.2
Administrative & managerial	9.7	7.1	2.7	-	-	5.4
Physicians	77.1	83.5	84.1	87.9	100	84.2
Other	2.3	8.4	3.8	4.0	-	5.2
REGISTERED NURSES						
No civilian equivalent/ nonoccupational	1.1	0.5	-	3.0	-	0.6
Administrative & managerial	6.4	1.4	2.7	-	0.6	1.8
Registered Nurses	91.2	97.2	93.3	92.4	99.4	96.3
Other	1.3	0.9	4.0	4.6	-	1.3

Source: Research Triangle Institute, Description of Officers and Enlisted Personnel in the U.S. Selected Reserve: 1986, November 1986

Employer Attitudes

As recorded by survey respondents, the overall attitude of civilian employers toward participation of employees in the Guard/Reserve is very similar for all groups. Further, the reported rate of unfavorable employer attitudes was similar for both private and government employees. Those recording unfavorable attitudes range from a low of 14 percent for nonmedical officers employed by private sources to a high of 20 percent for nurses employed by government.

Reserve medical officers and nurses report that their employers have greater problems with their absence from work than do the employers of nonmedical officers. Medical officers indicate the greatest degree of difficulty for employers in all categories of absence. For annual training, reserve nurses rate a degree of employer difficulty equivalent to that of medical

officers, but no greater than that of nonmedical officers for drills and extra time spent at Guard/Reserve activities. Table 4-11 shows the percent of officers in each category who indicate that their absence for reserve duties caused problems for their employer, by type of training.

Table 4-11. Percentage Indicating Serious or Somewhat Serious Problems with Civilian Employers for Absence for Reserve Training, by Type of Training

Type of Training	Medical Officer %	Nurse %	Other Officer %
Drills	37	25	25
Annual training	45	44	31
Extra time at Guard/Reserve	40	32	36

Source: 1986 Reserve Components Survey of Officers, Question 95

Impact of Guard/Reserve Participation on Income

Table 4-12 shows how reserve officers are paid when they work more than 40 hours per week. Of particular significance here is the lower rate of nurses who are not paid, or are paid at the regular rate, and the much higher rate of nurses who are paid time-and-a-half. On the other hand, nurses indicate that they work more than 40 hours per week much less frequently than do reserve medical officers and somewhat less frequently than do nonmedical officers. This is consistent with responses in Table 4-13, which indicate that nurses lose opportunities for overtime pay less frequently than do the other two categories of officers. Although nurses as a group are paid better for overtime, it appears that they lose fewer opportunities for overtime or civilian pay than do physicians or nonmedical officers, which diminishes any income loss incurred due to reserve participation. Unfortunately, this information does not directly shed light on the shift work of nurses, which may be paid at higher than standard rates but is not in excess of a 40-hour week. Although nurses many not lose opportunities for civilian pay so often, their irregular work schedule may still make reserve participation difficult.

A 30-day mobilization would decrease the income for a high percentage of reserve officers, both medical and nonmedical. As shown in Table 4-14, a decrease in income was projected by 89 percent of reserve medical officers.

Table 4-12. How Paid for Working More Than 40 Hours per Week

how Paid	Medical Officer %	Nurse %	Other Officer %
Not paid	63	46	72
Regular rate	35	10	12
Time-and-a-half	1	42	16
Double-time	0	1	0.3
More than double-time	0.6	0.5	0.2

Source: 1986 Reserve Components Survey of Officers, Question 102

Table 4-13. Lost Opportunities for Civilian Income

Frequency of Lost Opportunities	Medical Officer %	Nurse %	Other Officer %
Frequent	10	5	10
Occasional	25	21	21
Never	65	74	69

Source: 1986 Reserve Components Survey of Officers, Question 103

Table 4-14. Effect of Mobilization on Total Income

Effect on Income	Medical Officer %	Nurse %	Other Officer %
Greatly decreased	76	21	23
Somewhat decreased	13	20	24
Remains the same	5	13	15
Somewhat increased	5	31	25
Greatly increased	1	14	12

Source: 1986 Reserve Components Survey of Officers, Question 117

Attitudes and Opinions Concerning Reserve Service

This section compares the attitudes and opinions of reserve health professionals and of other officers concerning specific aspects of reserve service.

Education and Training Opportunities

Satisfaction with opportunities for education and training in the reserve varies by component. Overall, nurses in all components expressed a higher level of dissatisfaction with opportunities for education and training, as shown in Table 4-15.

Table 4-15. Level of Satisfaction with Opportunities for Education/Training, by Component

Level of Satisfaction	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
SATISFIED						
Medical Officers	49	50	32	*	39	45
Nurses	52	43	41	32	49	44
Other Officers	55	41	39	47	37	44
DISSATISFIED						
Medical Officers	*	14	27	*	*	16
Nurses	24	31	35	29	21	28
Other Officers	16	18	16	13	12	16

* Inadequate cell size

Source: 1986 Reserve Components Survey of Officers, Question 123

Reserve Training

Training in the health professions is often thought to be more difficult than other reserve training because of difficulties in providing adequate facilities and equipment and practical limitations in training outside a normal medical treatment setting. This view is supported by the 1986 Reserve Components Survey data.

Table 4-16 compares satisfaction with specific aspects of reserve training. Both medical officers and nurses show lower satisfaction and greater dissatisfaction with all training-related items than do nonmedical officers, with nurses consistently expressing the highest levels of dissatisfaction.

Table 4-16. Percentage Satisfied with Aspects of Reserve Training, by Component

Aspect of Training	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
MEDICAL OFFICERS						
Training during unit drills	42	59	45	56	51	53
Opportunities to use skill at drill	53	54	55	70	63	56
Unit activities at 1985 annual training	70	70	75	85	75	73
NURSES						
Training during unit drills	34	46	37	50	61	47
Opportunities to use skill at drill	38	46	28	46	68	48
Unit activities at 1985 annual training	53	71	66	59	67	67
OTHER OFFICERS						
Training during unit drills	64	57	55	73	66	61
Opportunities to use skill drill	69	56	52	76	72	62
Unit activities at 1985 annual training	78	77	83	83	80	79

Source: 1986 Reserve Components Survey of Officers, Questions 46, 47, and 52

Opportunities to use skills elicited the highest levels of dissatisfaction for all three officer groups. At the component level, the highest levels of dissatisfaction with "opportunities to use skill at drill" was in the Naval Reserve. Relative to unit activities at 1985 annual training, the highest levels of dissatisfaction for all populations was in the Army National Guard.

Respondents were further asked to rate specific situations relative to the degree of problem they posed in the ability to meet unit training objectives. Overall responses, by skill category, are shown in Table 4-17. The responses show that a higher percentage of medical officers and nurses consider equipment problems, lack of adequate staff resources, and ineffective annual training to be serious or very serious problems with respect to meeting unit training objectives. As compared with medical officers or officers in nonmedical skills, nurses were more likely to view the lack of instructional materials and supplies as serious or very serious problems. Tables 4-18 through 4-20 show the same data by reserve component for medical officers, nurses, and other officers.

Table 4-17. Comparison of Percentage of Officers Indicating Serious or Moderately Serious Problems in Meeting Unit Training Objectives, by Specialty

SITUATION	Medical Officer %	Nurse %	Other Officer %
Out of date equipment/weapons	33	38	28
Poor mechanical condition of equipment/weapons	25	30	18
Below strength in grades E1-E4	15	16	21
Below strength in grades E5-E9	13	17	14
Not enough staff resources to plan effective training	28	30	22
Low attendance at unit drills	6	11	8
Low attendance at annual training	4	8	5
Ineffective training during annual training	17	19	12
Shortage of skill-qualified personnel	24	21	20
Low quality of personnel in low grade unit drill positions	13	16	13
Not enough time to plan training and do administrative work	34	52	51
Lack of access to good training facilities and grounds	30	39	32
Lack of good instruction manuals and materials	19	31	16
Lack of supplies (ammunition, gasoline, etc.)	20	31	23
Not enough drill time to practice skills	17	29	29

Source: 1986 Reserve Components Survey of Officers, Question 43

Table 4-18. Percentage of Medical Officers Indicating Serious or Moderately Serious Problems in Meeting Unit Training Objectives, by Component

Situation	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
Out of date equipment/weapons	42	28	39	42	21	33
Poor mechanical condition of equipment/weapons	33	20	30	30	24	25
Below strength in grades E1-E4	23	9	30	*	12	15
Below strength in grades E5-E9	9	11	26	8	12	13
Not enough staff resources to plan effective training	31	28	36	22	17	28
Low attendance at unit drills	15	7	2	4	*	6
Low attendance at annual training	13	4	*	4	*	4
Ineffective training during annual training	19	15	19	19	19	17
Shortage of skill-qualified personnel	33	21	35	11	15	24
Low quality of personnel in low grade unit drill positions	26	11	9	11	5	13
Not enough time to plan training and do administrative work	31	29	39	58	35	34
Lack of access to good training facilities and grounds	20	27	43	43	27	30
Lack of good instruction manuals and materials	19	16	27	30	15	19
Lack of supplies (ammunition, gasoline, etc.)	25	19	26	20	11	20
Not enough drill time to practice skills	13	16	15	23	19	17

* Inadequate cell size

Source: 1986 Reserve Components Survey of Officers, Question 43

Table 4-19. Percentage of Nurses Indicating Serious or Moderately Serious Problems in Meeting *Unit Training* Objectives, by Component

Situation	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
Out of date equipment/weapons	48	40	39	35	26	38
Poor mechanical condition of equipment/weapons	35	31	27	20	27	30
Below strength in grades E1-E4	15	16	27	18	14	16
Below strength in grades E5-E9	13	19	27	14	11	17
Not enough staff resources to plan effective training	32	28	45	40	24	30
Low attendance at unit drills	11	11	16	13	8	11
Low attendance at annual training	16	7	8	11	3	8
Ineffective training during annual training	30	18	24	16	12	19
Shortage of skill-qualified personnel	18	20	39	19	16	21
Low quality of personnel in low grade unit drill positions	20	17	23	8	10	16
Not enough time to plan training and do administrative work	41	46	71	76	59	52
Lack of access to good training facilities and grounds	43	41	56	45	24	39
Lack of good instruction manuals and materials	31	34	53	25	17	31
Lack of supplies (ammunition, gasoline, etc.)	34	36	34	19	12	31
Not enough drill time to practice skills	27	28	21	51	29	29

Source: 1986 Reserve Components Survey of Officers, Question 43

Table 4-20. Percentage of Other Officers Indicating Serious or Moderately Serious Problems in *Meeting Unit Training* Objectives, by Component

Situation	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
Out of date equipment/weapons	36	28	24	27	15	28
Poor mechanical condition of equipment/weapons	21	20	19	9	12	18
Below strength in grades E1-E4	28	22	20	8	12	21
Below strength in grades E5-E9	15	16	25	4	8	14
Not enough staff resources to plan effective training	19	28	24	12	16	22
Low attendance at unit drills	11	10	4	4	3	8
Low attendance at annual training	7	7	3	3	1	5
Ineffective training during annual training	12	14	10	8	10	12
Shortage of skill-qualified personnel	19	25	25	10	9	20
Low quality of personnel in low grade unit drill positions	16	18	10	4	5	13
Not enough time to plan training and do administrative work	49	58	60	38	30	51
Lack of access to good training facilities and grounds	34	36	35	19	14	32
Lack of good instruction manuals and materials	13	16	27	10	11	16
Lack of supplies (ammunition, gasoline, etc.)	[illegible]	29	20	11	7	23
Not enough drill time to practice skills	3[illegible]	36	19	24	14	29

Source: 1986 Reserve Components Survey of Officers, Question 43

Time Requirements of Participation in the Guard/Reserve

Table 4-21, shows that nonmedical officers are more likely to be dissatisfied with the time requirements of reserve service than are health professionals.

Table 4-21. Percentage Satisfied and Dissatisfied with Time Required at Guard/Reserve

	Medical Officer %	Nurse %	Other Officer %
Satisfied	60	67	62
Dissatisfied	10	10	15

Source: 1986 Reserve Components Survey of Officers, Question 123

When asked to rate reserve time requirements as too much, just right, or not enough, 13 percent of reserve medical officers and 14 percent of nurses express the opinion that time requirements for the Guard/Reserve are excessive. This compares with 23 percent for nonmedical officers.

Given the demanding and often irregular schedules of physicians and nurses in the civilian community, this response is surprising. The data shown in Tables 4-22 and 4-23 provides a possible explanation. Nonmedical officers clearly spend more hours of extra unpaid time than do either reserve medical officers or nurses. The pattern is similar for extra paid mandays. It appears the reason that health professionals show lower levels of dissatisfaction with reserve time demands may be because they are simply not participating at the level of nonmedical officers.

Table 4-22. Unpaid Hours at Drill Site

Number of Unpaid Hours	Medical Officer %	Nurse %	Other Officer %
None	54	54	28
1-8	29	28	34
9-32	14	14	29
33 or more	3	4	8

Source: 1986 Reserve Components Survey of Officers, Question 35

Table 4-23. Extra Paid Mandays

Extra Paid Mandays	Medical Officer %	Nurse %	Other Officer %
None	68	57	24
1-5	15	21	13
6-10	11	6	14
11 or more	5	15	49

Source: 1986 Reserve Components Survey of Officers, Question 34

The travel time from home to the drill or meeting site was also compared. Nonmedical officers travel for the longest periods, nurses the second longest, and medical officers spend the shortest periods in travel to drill. While the differences are not great, in view of the smaller number of medical units available as compared with nonmedical units, it might be hypothesized that flexible training options reduce travel time for physicians, or that physicians (and to a lesser extent nurses) are less likely to join units unless the units are within reasonable proximity of their homes.

Table 4-24 shows that the percentage of physicians satisfied with reserve pay is lower than the percentage satisfied in the other two groups. Unlike satisfaction levels for pay and allowances, levels of satisfaction with retirement benefits were similar for all three groups.

Promotion

Nurses expressed the greatest dissatisfaction with opportunities for promotion (33 percent). The expressed dissatisfaction of medical officers and nonmedical officers was about the same (23 percent and 21 percent, respectively). There is some variation by reserve component, but nurses reflect the highest levels of dissatisfaction with promotion in all components.

Likelihood of Remaining in the Reserve

Table 4-25 indicates the expressed likelihood of staying until qualified for retirement for health professionals and other reserve officers by year of service groupings. Medical officers with less than 12 years of service are less likely to say they expect to remain in the reserve long enough to qualify for retirement than are nurses or nonmedical officers. For officers

Table 4-24. Percentage Satisfied with Reserve Compensation, by Skill Category and Component

Compensation	ARNG %	USAR %	USNR %	ANG %	USAFR %	TOTAL %
MEDICAL OFFICERS						
Military pay and allowances	61	59	69	74	47	61
Retirement benefits	44	55	68	*	52	55
NURSES						
Military pay and allowances	81	79	89	87	80	81
Retirement benefits	45	57	67	60	51	55
OTHER OFFICERS						
Military pay and allowances	84	85	85	87	81	85
Retirement benefits	52	59	67	59	61	59

* Inadequate cell size

Source: 1986 Reserve Components Survey of Officers, Question 123

Table 4-25. Percentage of Reserve Officers Indicating They Intend to Remain Until Eligible for Retirement, by Skill Category and Years of Service Group

Years of Service	Medical Officer %	Medical Officer Number	Nurse %	Nurse Number	Other Officer %	Other Officer Number
Less than 6 (prior service)	51	113	44	345	56	1,388
Less than 6 (no prior service)	44	821	51	2,370	52	8,399
6 through 11	63	1,057	68	2,819	69	24,981
12 through 19	88	1,402	85	2,824	89	24,998

Source: 1986 Reserve Components Surveys of Officers, Questions 15, 17, and 19

with less than 6 years of service, those who had prior active service generally indicated a higher intent to stay until qualified for retirement. The patterns of intent generally correlate with actual continuation rates.

Continuation Rates

Figures 4-2 and 4-3 show FY 1986 continuation rates by component and in the aggregate for members with less than six years of service and for those with six or more years of service. Aggregate DoD continuation rates show relatively slight differences for those with less than six years, although there is some variance by reserve component. FY 1986 continuation rates by years of service for all components are shown in Figure 4-4. The continuation rates for medical officers are about four percentage points lower than the rates for nonmedical officers in the aggregate. Although these differences may not appear to be substantial, they are sufficient to result in a 21 percent difference in the two populations over a period of only five years.

Additional Physician and Nurse Surveys and Studies

In addition to using the 1986 Reserve Components Surveys, the 6th QRMC extracted relevant data from prior surveys and studies. In the case of physicians, surveys of both civilian and reserve physicians were obtained. This provided valuable insight because many responses remain similar over the years and across the different groups surveyed. The constancy of such data demands attention and increases its probable utility in developing programs to enhance accessions and increase retention of physicians in the reserve.

The 1980 Reserve Forces Physician Survey and the 1981 Civilian Physicians Survey

The 1980 Reserve Forces Physician Survey

In 1980, Presearch Incorporated conducted a survey of reserve medical officers under the auspices of the Assistant Secretary of Defense for Health Affairs. The survey was designed to examine social and demographic data, projected retention behavior, and attitudes toward specific aspects of the reserve. Members of the Selected Reserve, IRR, and Standby Reserve were included in the survey. A second survey assessed attitudes and opinions of civilian physicians toward the reserve and military medicine and toward some proposals and incentives that might induce civilian physicians into the reserve. Both surveys were designed to elicit information to assist planners in developing policies and programs to attract more civilian physicians into the reserve medical force and to increase retention of reserve medical officers.

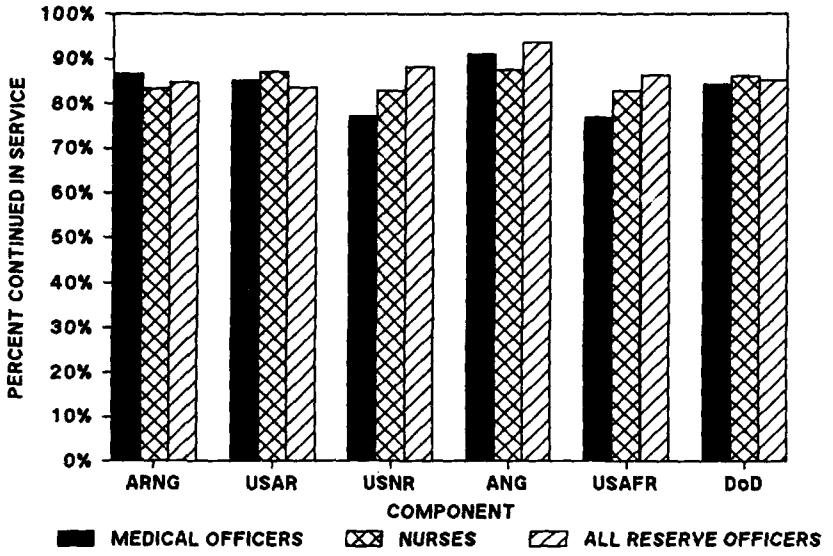


FIGURE 4-2. FY 1986 CONTINUATION RATES OF OFFICERS WITH LESS THAN 6 YEARS OF SERVICE, BY COMPONENT AND SPECIALTY

SOURCE: RCCPDS

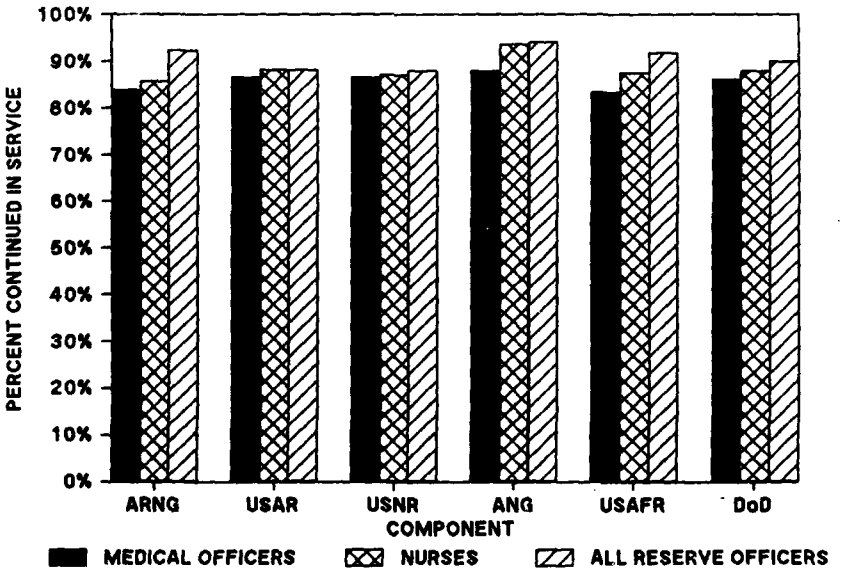


FIGURE 4-3. FY 1986 CONTINUATION RATES OF OFFICERS WITH 6 OR MORE YEARS OF SERVICE, BY COMPONENT AND SPECIALTY

SOURCE: RCCPDS

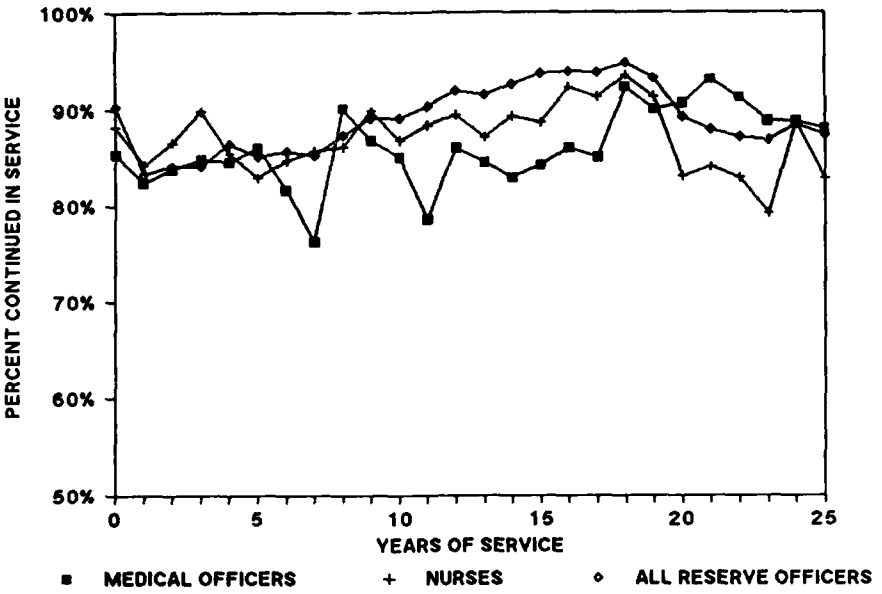


FIGURE 4-4. FY 1986 CONTINUATION RATES OF RESERVE OFFICERS, BY YEARS OF SERVICE AND SPECIALTY

SOURCE: RCCPDS

A total of 4,707 reserve medical officers were selected as the survey universe. The unadjusted response rate of 51.3 percent and the adjusted response rate of 54.6 percent are based on the return of 2,413 usable questionnaires. The adjusted response rates for the Selected Reserve, IRR, and Standby Reserve, respectively, were 68.6 percent, 47.3 percent, and 20.7 percent.

Reserve physicians were asked to evaluate a hypothetical reserve participation option requiring very minimal commitment of time. The hypothetical program required no drills or active duty after an initial 14-day training period. The officer would be required, however, to maintain contact with the reserve to ensure current information. Fifty retirement points would be automatically credited. Due to the limited participation requirement, promotion would be capped at major/lieutenant commander. The program possessed no real income opportunities for the reserve member. Of all Ready Reserve members, 62 percent indicated that they would not change their current level of participation to the proposed level if that option should become available. Of those who indicated no desire to change,

52 percent indicated that a reason for not changing was that there was "no income associated with the proposed new level." Seventy-three percent of Selected Reserve members indicated no likelihood of changing their participation level. Lack of income under the option was cited as a reason by 60 percent of those who indicated they would be unlikely to change. Although both Ready Reserve and Selected Reserve members who would not change participation options cited other reasons even more frequently, financial considerations were an important factor in assessing reserve participation options for the majority of physicians.

Reserve physicians were also asked to assess the probability that a bonus would be an inducement for civilian physicians to enter the reserve medical force as part of a program requiring 48 drills and 15 days of active duty per year. A very high percentage of both Selected Reserve and IRR members in all Services responded that the offer of a bonus would induce additional physicians to enter the reserve. This is shown in Table 4-26. Table 4-27 shows the percentage responding in the affirmative, tabulated by age. Table 4-28 shows the percentage of reserve medical officers who responded that a bonus in a given range would be effective to induce other physicians to join the reserve. Larger amounts were frequently indicated, with bonuses of $5,000, $10,000, $15,000, and $20,000 included among the six amounts most frequently mentioned.

Table 4-26. Percentage of Reserve Physicians Who Believe a Bonus Could Induce Additional Physicians to Join the Reserve, by Component

Component	Selected Reserve %	IRR %
Army	78	69
Navy	71	67
Air Force	81	89
All components	77	76

Source: S. J. Kershaw and R. P. Mack, A Statistical Analysis of the 1980 Reserve Forces Physician Survey, Presearch Incorporated, August 12, 1981

Table 4-27. Percentage of Selected Reserve Medical Officers who Believe a Bonus Could Induce Additional Physicians to Join the Reserve, by Age

Age	Percent
Less than 30	68
31 to 35	80
36 to 40	81
41 to 45	79
46 to 50	75
51 to 55	79
Over 55	69
Total	77

Source: S. J. Kershaw and R. P. Mack, A Statistical Analysis of the 1980 Reserve Forces Physician Survey, Presearch Incorporated, August 12, 1981

Table 4-28. Percentage of Reserve Medical Officers Responding That a Given Bonus Level Could Induce Additional Physicians to Join a Standard Selected Reserve Program

Bonus Amount	Selected Reserve and IRR %	IRR Only %
$1,000 to $6,000	60	55
$6,001 to $10,000	21	22
Over $10,000	20	23

Source: S. J. Kershaw and R. P. Mack, A Statistical Analysis of the 1980 Reserve Forces Physician Survey, Presearch Incorporated, August 12, 1981

The 1981 Civilian Physicians Survey

Surveys were mailed to 6,187 civilian physicians who were selected at random from 12 medical societies across the United States. The unadjusted response rate was 43.9 percent and the adjusted response rate 46.8 percent, with 2,718 usable questionnaires returned. The response rate for physicians under 35 years old, however, was only 6.5 percent.

For compensation policy, the most important questions were those which requested physician respondents to make choices regarding the following three proposed options for varied levels of physician participation in the reserve:

- Option A - No required drills or active duty after an initial 14-day training period. Must maintain contact with reserve to ensure current information. Fifty retirement points automatically credited. Promotion capped at major/lieutenant commander. (Identical to the option evaluated by reserve medical officers)

- Option B - No required drill. Fourteen days of active duty required annually. Award of 50-60 retirement points plus one point for each day of active duty. No cap on pay grade.

- Option C - Standard Selected Reserve participation with 48 drills and 14 days of active duty required. Standard benefit and privilege package with opportunity for full advancement in rank.

Option B was chosen the most frequently, and Option C was chosen the least frequently. The implication of the fact that the option with a moderate requirement for participation was chosen most often may be that, in order to acquire greater opportunities for income, promotion, and retirement, moderate levels of participation are acceptable. Conversely, the increased benefits deriving from participation in the Selected Reserve may not be viewed by many civilian physicians as adequate to offset or compensate for the increased participation requirements. Two specialty groups, however, preferred Selected Reserve participation (Option C), and one of the two was the critically short wartime specialty of general surgery.

Another question asked whether respondents would have been more interested in Option C (Selected Reserve participation) if a bonus had been offered. In the aggregate, 30 percent answered in the affirmative and 70 percent indicated that it would have made no difference. When the response was analyzed further, the type of practice was found to be an important variable. Sixty-three percent of physicians in local government hospitals and 61 percent employed in federal hospitals indicated that the offer of a bonus would have made a positive difference in their interest in Option C. This may be significant for the reserve; as previously noted, reserve medical officers are employed by government at a much higher rate than are physicians nationwide. A 30 percent increase in physicians willing to enter the Selected Reserve represents a significant increase in levels of interest and would have a major impact on the ability of the reserve to meet its physician manpower requirements. Table 4-29 shows, for critically short wartime physician specialties and

all specialties combined, the percentage who indicated that their interest in the Selected Reserve would have increased had there been a bonus offered. Although the percentage responding favorably is, for some specialties, below the average for all physicians, there is no specialty that fails to indicate some positive impact from receipt of a bonus.

Table 4-29. Percentage of Civilian Physicians Indicating That Their Interest in the Selected Reserve Option Would Have Been Greater if a Bonus Had Been Offered, by Specialty

Specialty	Percent
Critical wartime specialties	
Anesthesiology	22
Orthopedic Surgery	31
General Surgery	40
Neurosurgery	30
Plastic Surgery	23
Thoracic Surgery	24
All specialties	30

Source: M. A. Culp and R. P. Mack, A Statistical Analysis of the 1981 Civilian Physicians Survey, Vol. I, Presearch Incorporated, November 20, 1981

Another survey question asked respondents to indicate what amount of bonus would induce them to join the Selected Reserve for two years. Table 4-30 shows the median response range for critically short wartime specialties as well as that for all specialties. The median response range was higher for all of the critically short wartime specialties than for all physicians combined. Additionally, among those specialties (with the exception of neurosurgery, which is a very low-density specialty for the reserve), anesthesiology and orthopedic surgery exhibited a higher median response range than did general surgery and all of those surgery specialties grouped in the general surgery category.

An additional question requested that respondents place a value on 15 different items pertaining to reserve service, ranging from the value placed on the opportunity to serve one's country to the value placed on specific compensation-related aspects of reserve participation. For all age groups, the highest valued feature was "the option to vary my level of participation from year to year as the demands of my practice changed." The second highest valued item for physicians 45 years old and younger was "a financial bonus paid at the time of

Table 4-30. Bonus That Would Induce Civilian Physicians to Join the Selected Reserve, by Specialty

Specialty	Median Response Range
Critical wartime specialties	
Anesthesiology	$29,001 - $34,000
Orthopedic Surgery	$29,001 - $34,000
General Surgery	$14,001 - $19,000
Neurosurgery	$64,001 - $74,000
Plastic Surgery	$24,001 - $29,000
Thoracic Surgery	$19,001 - $24,000
All specialties	$14,001 - $19,000

Source: M. A. Culp and R. P. Mack, A Statistical Analysis of the 1981 Civilian Physicians Survey, Vol. I, Presearch Incorporated, November 20, 1981

accepting a Reserve commission." Receipt of a bonus upon commissioning was valued somewhat lower by older physicians. The aggregate physician group ranked receipt of a bonus in fifth place out of the 15 items. This data is significant because it depicts the high value the physician consistently places on flexibility and highlights the importance of supplemental income for physicians overall, but more particularly for the group 45 or under. The data indicates that the young physician can be influenced by financial incentives and is therefore a primary target for recruiting into the reserve medical force.

Complementary responses, emphasizing the importance of additional financial incentives for physicians, were obtained when respondents were asked to rate 13 reasons why they had not joined the reserve. One of the listed reasons was "financial incentives are lacking." When cross-tabulated by age, all groups indicated this to be a major consideration. With increasing age, however, the importance became less significant. Of all specialties combined, 55 percent indicated that the lack of financial incentives was a major reason for not having joined a reserve program. Table 4-31 shows responses by specialty. As can be seen, with the exception of general surgery and thoracic surgery, those in critically short wartime specialties indicated inadequate compensation to be a greater problem than all physicians combined.

Table 4-31. Percentage of Civilian Physicians Indicating Agreement or Strong Agreement That Lack of Financial Incentives Was a Reason for Not Joining the Reserve, by Specialty

Specialty	Percent
Critical wartime specialties	
Anesthesiology	67
Orthopedic Surgery	61
General Surgery	49
Neurosurgery	57
Plastic Surgery	77
Thoracic Surgery	46
All specialties	55

Source: M. A. Culp and R. P. Mack, A Statistical Analysis of the 1981 Civilian Physicians Survey, Vol. I, Presearch Incorporated, November 20, 1981

Civilian and reserve physicians surveyed indicated very similar preferences for a bonus as the method of payment. For both groups, the preferred method was a lump sum payment. For civilians, however, there was an equal preference for a deferred retirement fund, whereas reserve medical officers rated that option a distant second. Table 4-32 compares the preferences of the two groups. For both physician categories, the younger physicians preferred the lump sum payment while older physicians tended to prefer the deferred retirement fund option.

Relatively high percentages of all civilian physicians strongly agreed or agreed that one reason for not joining the reserve was lack of familiarity with reserve programs. This was more true for physicians 35 years old and under (51 percent) than for older physicians (37 percent for physicians 36 to 45 years old and 36 percent for those 46 and over).

Both civilian physicians and reserve medical officers were queried as to their preference for using their time during periods of reserve participation. Out of 11 choices provided, the highest ranked was "practicing medicine in my specialty area;" the second highest ranked was "attendance at continuing medical education meetings that relate to civilian medicine." The third activity preferred was "attendance at continuing medical education meetings that relate to military medicine," followed by "assisting in the training of paramedical personnel." Reserve medical officers included the same four

Table 4-32. Preference for Type of Payment, by Civilian and Reserve Physicians

Type of Payment	Reserve %	Civilian %
Lump sum	47	40
One-half initially, with remainder prorated	11	9
Equal amounts each pay period	17	11
Deferred retirement fund	25	40

Sources: S. J. Kershaw and R. P. Mack, A Statistical Analysis of the 1980 Reserve Forces Physician Survey, Presearch Incorporated, August 12, 1981

M. A. Culp and R. P. Mack, A Statistical Analysis of the 1981 Civilian Physicians Survey, Vol. I, Presearch Incorporated, November 20, 1981

options in the highest ranked preferences; the only difference was that training of paramedical personnel ranked in the number two position. It is clear that members of the medical profession, whether civilian or reservists, place great value on opportunities for continuing medical education.

American Medical Association Study of Physicians - 1987

The 1987 study by the American Medical Association (AMA), Physicians and the Military: A Study of Contact, Awareness, and Interest, like the surveys conducted in 1980 and 1981 by Presearch Incorporated, was undertaken in an effort to obtain information from both military and civilian physicians that might permit planning of more efficient policies and programs for the recruiting and retention of physicians in the reserve medical force. Table 4-33 shows the categories of physicians surveyed, along with the survey techniques used and the unadjusted response rates. (Although not analyzed due to late receipt, surveys returned late increased the response rates for medical students and residents to 47 percent and 41.5 percent respectively.) The AMA did not select the entire civilian physician population for survey--only young practicing physicians, defined as those who were less than 40 years old and who had completed residency training within the previous two to six years. Similarly, military physicians surveyed were restricted to those under 40 years old. The active duty medical officers surveyed were also limited to those who had completed

Table 4-33. 1987 AMA Physician Study Techniques and Response Rates

Population Surveyed	Survey Technique	Completed Surveys	Unadjusted Response Rates %
Medical students	Mail	996	35.4
Residents	Mail	807	29.4
Civilian physicians	Telephone	498	44.2
Military physicians	Telephone	399	60.5

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

their residency in the last two to six years; reserve physicians were not similarly restricted, due to the small number of reserve medical officers identifiable in the AMA Masterfile.

The percentage of civilians who indicated any consideration of entering the military is very small compared with the percentage who indicated that they are unlikely to consider the military at any time. Table 4-34 shows the expressed likelihood of future service for survey respondents. The largest percentage who currently consider or are likely to consider military service in the future are medical students and residents. More students consider active duty, possibly due to a preexisting scholarship obligation or for the benefits of internship and residency training. The in-between group that indicated potential future consideration of the military may be a potential reserve recruiting target.

In a manner similar to that used in the Presearch surveys, respondents to the AMA survey were requested to respond to several options for reserve participation. The three reserve plans presented included the following levels of participation:

- Option 1 - The standard Selected Reserve program with monthly drills, an annual two-week field exercise, income averaging $240 per weekend and $1500 for annual training, retirement at age 60 averaging $700 per month, other standard military privileges and benefits, and an eight-year commitment

Table 4-34. Percentage of Civilian Physicians Indicating Likelihood of Military Service

Physician Category	Considering Active %	Considering Reserve %	Might Consider in the Future %	Unlikely to Consider %
Medical student	7	4	32	51
Resident				
Anesthesiology	0	2	36	54
Surgery	1	7	37	48
Other	1	3	30	58
Practicing physician				
Anesthesiology	0	3	24	63
Surgery	0	3	19	67
Other	1	1	20	66

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

- Option 2 - (Participating IRR) A program allowing the member to determine how much time to spend at drills and annual exercises. Pay and retirement eligibility scaled according to commitment. Incurs an eight-year obligation.
- Option 3 - (Nonparticipating IRR) A program with essentially no drill or field exercise requirements, but with continuing education available as in the first two plans.

Table 4-35 shows the level of response for each option as tabulated by physician category. The two IRR programs, representing lower required levels of participation, elicited a higher level of interest overall than did the Selected Reserve unit membership program. For medical students and residents, the two IRR options appear to have approximately equal appeal. In the case of the fully qualified physician, the nonparticipating IRR option was selected more frequently and there was a significant lowering in the percentage who expressed interest in the Selected Reserve option. (Option 3 did not address obligation, which may have had some impact on respondent choice.)

For both the AMA and the Presearch surveys, options that are more flexible than the Selected Reserve option were chosen most frequently. However, there are major limitations on the comparisons that can be made beyond that point, because different option variables were identified and option

Table 4-35. Percentage of Civilian Physicians and Medical Students Very Interested and Possibly Interested in Reserve Options, by Physician Category

Physician Category	Selected Reserve %	Reserve Option IRR (Participating) %	Reserve Option IRR (Nonparticipating) %
Medical student	36	45	45
Resident			
Anesthesiology	26	35	37
Surgery	30	48	46
Other	32	42	40
Practicing physicians			
Anesthesiology	16	26	39
Surgery	17	26	35
Other	14	26	34

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

descriptions varied significantly as presented to respondents. A desire for flexibility of participation is indicated by both surveys, however. Survey participants were also requested to indicate whether their interest in reserve participation would increase for any of the options if pay were increased. The pay increase stipulated in the survey was a 50 percent increase from an average of $240 to an average of $360 per weekend. Based on that level of increase, 31 percent of students and 29 percent of residents indicated that their interest in reserve participation would be heightened. If, in lieu of drill pay, the military were to repay outstanding student loans at a rate twice that of the stipulated weekend pay (2 X $240 =$480), between 40 and 50 percent of the student and resident groups indicated that they would be more interested in reserve participation. A monthly rate of $480 equates to an annual rate of $5,760 which is $2,760 more than the annual $3,000 cap on loan repayment currently authorized. The impact of pay increases was somewhat lower for young practicing physicians, but an increase in responsiveness was also registered by this group. A 50 percent increase in pay would heighten interest for 18 percent of qualified physicians, and an increase of 100 percent targeted at debt repayment would heighten interest levels for 22 percent. Once again, the younger physician appears to have greater sensitivity to financial incentives.

Based on survey responses, the AMA correlated levels of debt with civilian physicians' interest in the reserve. The AMA categorized debt as low (less than $20,000), moderate ($20,000-

$30,000), and high (above $30,000). Table 4-36 displays the correlation between debt levels and interest in the reserve. Moderate debt correlated most highly with interest in the reserve. Low and high debts were accompanied by decreasing levels of interest. It may be that the high debtor perceives reserve participation as an additional obligation that detracts from the ability to earn money for debt repayment. The low debtor may perceive less monetary incentive or need for reserve service.

Table 4-36. Interest in the Reserve Expressed by Civilian Physicians, by Physician Category and Level of Debt

Physician Category	Level of Interest with High Debt	Level of Interest with Moderate Debt	Level of Interest with Low Debt
Medical student	No	No	No
Resident	No	Yes	No
Practicing physician			
Anesthesiology	Yes	No	No
Surgery	No	Yes	No
Other	No	Yes	No

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

The success of any compensation program will to an important extent be dependent on the ability of the reserve components to disseminate information about available compensation and benefits. As with earlier surveys, the 1987 AMA study found very low levels of awareness of the reserve on the part of civilian physicians. This is shown in Table 4-37. It is also significant that 19 percent of the young, practicing physicians surveyed indicated that contact by a recruiter who was a physician would increase the likelihood of their considering participation in the reserve.

Military respondents and civilians with prior military service were asked to rate their reasons for joining the military. Responses are shown in Table 4-38 for reserve medical officers as well as for medical officers currently in the active components and civilian physicians with prior military service as medical officers. For all groups, participation in some type of scholarship program was the strongest motivator. The high percentage of reserve medical officers responding in this category represents the flow of active component officers into the reserve, because no scholarship program was available to

Table 4-37. Percentage of Civilian Physicians Unaware of Reserve Programs, by Category

Physician Category	Reserve Option: Selected Reserve %	IRR (Participating) %	IRR (Nonparticipating) %
Medical student	65	92	94
Resident			
Anesthesiology	56	91	94
Surgery	53	93	97
Other	62	92	95
Practicing physicians			
Anesthesiology	58	76	84
Surgery	49	82	93
Other	56	87	94

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

Table 4-38. Specific Reasons for Joining the Military Reported by Physicians, by Current Status

Reason for Joining	Current Status: Active %	Reserve %	Civilian With Prior Service %
Military scholarship	84	58	76
Medical training and opportunities	10	8	12
Service to country	10	18	8
Pay, pension, other benefits	6	9	3
Opportunities to travel	5	5	9
Influence of friends/relatives	2	8	6
Other	10	23	13

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

reservists without concurrent active duty until FY 1987. Yet reservists' significantly lower responses in this category and higher responses in other categories may indicate that many respondents without prior service were motivated more highly by other reasons such as patriotism, and the influence of friends

and relatives. All other responses are ranked significantly lower than entry based on a scholarship. Reserve medical officers do rate receipt of pay, retired pay, and benefits more highly than the other two physician groups, but in no group is compensation listed as a major consideration.

Another question asked physicians with current or past experience as medical officers to indicate the most appealing features of military service. Responses are shown in Table 4-39. There is a broad, "other" category that captured the highest percentage of responses in all groups. Reserve medical officers rated "continuing education and other medical training" relatively high.

Table 4-39. Most Appealing Features of Military Service, by Current Status

Feature	Current Status: Active %	Reserve %	Civilian With Prior Service %
Travel	24	29	30
Continuing education and other medical training	11	19	17
Income supplement	12	16	13
Military scholarship	19	16	19
Variety of medical activities	14	16	11
Service to country	7	11	4
Residency training	10	9	13
Pension and other benefits	12	10	7
Forgiveness of medical loans	0	0	0
Other	59	53	61

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

When asked to rate the least appealing features of military service, about one out of five rated "low pay, poor pension and other benefits" in that category. Although by itself not predictive of negative retention behavior, this high level of dissatisfaction is consistent with the responses on the 1986 Reserve Components Surveys. Further, it is reflective of the potential need for some revision of compensation for physicians. Responses regarding least appealing military features are shown in Table 4-40.

Table 4-40. Least Appealing Features of Military Service, by Current Status

Feature	Current Status: Active %	Reserve %	Civilian With Prior Service %
Military organization and discipline	51	53	50
Low pay, poor pension, and other benefits	20	22	21
Too much travel	29	21	22
Manpower and medical supply shortages	23	14	18
Could not get desirable duty station	14	13	11
Limited educational opportunities	1	7	1
Insufficient continuing education and training	2	4	1
Length of time commitment	1	4	2
Weekend drills	1	3	2
Annual field exercises	2	1	2
Other	41	40	45

Source: Richard J. Wilke, Phillip R. Kletke, William D. Marder, Sara L. Thran, and Richard C. Strouse, Physicians and the Military: A Study of Contact, Awareness, and Interest, Center for Health Policy Research, American Medical Association, April 1987

One additional item is offered from the AMA survey--that of intent to continue in the reserve. Whereas 56 percent of all reserve physicians indicated a likelihood of remaining in the reserve, only 29 percent of surgeons responded that they were likely to stay.

Summary of AMA Findings

Medical students expressed the highest level of interest in all participation options, followed by resident physicians, with the lowest levels of interest exhibited among practicing physicians. Based on their expressed interest in additional service, the AMA recommends individuals with prior service as a potential recruiting target. For young practicing physicians, the AMA investigators conclude that "the profile of the interested practicing physician appears to be one who has been out of residency for awhile, has decided not to start his own practice, still owes for some of his medical education and is possibly looking for diversity in practice or experience."[38]

For all groups, the two more flexible plans elicited the highest levels of interest. Compensation appears to have impact on potential levels of interest in the reserve for all three groups. In this instance, the rate of practicing physicians who express a potential positive interest is significantly higher

than that of the medical student or resident. The survey indicates that changes in economic incentives may have potential impact on behavior, resulting in increased accessions into the reserve. The important role of income and retirement in physician retention is apparent once again in this survey.

Army Reserve and Army National Guard Nurse Corps Survey - 1982

In January 1982, the Office of the Chief, Army Nurse Corps, conducted a survey of reserve component nurses to obtain data that might facilitate mobilization and, more specifically, to assist in developing policies and programs to enhance recruiting and retention of nurses in the Army reserve components.[39] Questionnaires were mailed to 2,647 Army National Guard and Army Reserve nurses. The adjusted response rate for the survey was 55 percent. Several items pertaining to pay and benefits have been extracted from that survey as they are instructive regarding the impact of compensation on Army nurses at that time.

Nurses were asked to indicate factors that influenced them to join the reserve: for both the Army National Guard and the Army Reserve, the three highest ranked were additional current income, retirement benefits, and patriotism. When requested to rate the influence of factors in a decision to stay in the reserve, the income responses were again rated highest by nurses in both components. Army National Guard nurses rated current income in the highest position (83 percent), followed by retirement benefits (75 percent). Army Reserve nurses reversed the order, but also rated the income-related factors in the first two positions (retirement at 83 percent, followed by current income at 80 percent). Professional development through leadership experience and through specialized training were ranked third and fifth highest by both groups, followed by opportunities for clinical experience. Out of ten retention factors, five of the top six ranked, with the single exception of the opportunity to serve one's country, related to compensation or training. Another question asked that respondents rate specific factors with respect to their relative value to a reserve career. Out of 12 potential responses, the top three were the opportunity to perform active duty for retired pay and points, the pay grade applicable if called to active duty, and seminars in military nursing.

The importance of continuing education opportunities for nurses was also reflected in the survey. Asked whether there was adequate allocation for continuing education courses, 78 percent of the Army National Guard nurses and 72 percent of Army Reserve nurses indicated that there was not. Of nurses who had not attended a funded education program through the reserve in the last twelve months, 19 percent of Army National Guard nurses and 12 percent of Army Reserve nurses attributed lack of

attendance to inadequate funding available. Based on survey data, the report stressed the extreme importance of all forms of military education and training and, relative to continuing education opportunities, recommended that "continuing education must be stressed" and that "budgeted funds should be programmed for continuing education."[40] Eighty percent of respondents in both components indicated that a scholarship program would enhance the recruiting of nurses.

Air National Guard Chief Nurse Survey (Air Command and Staff College Student Report) - 1984

In 1984, Major Susan J. Troyer of the Air National Guard Nurse Corps, conducted a survey of 98 Air National Guard Chief Nurses as partial fulfillment of requirements for the Air Command and Staff College.[41] Data pertaining to factors relating to recruiting and retention of Air National Guard nurses was compiled from 79 usable surveys. The Chief Nurses were asked to poll their nurses and then to list, in order of priority, the three main reasons for nurses' retention in the Air National Guard. Salary was rated the highest (73 percent); second highest ranked was retirement benefits (52 percent), followed by camaraderie (33 percent). When the Chief Nurses themselves were asked to rank 11 benefits and programs with respect to their likelihood to benefit retention, salary was again rated the highest.

Summary

The following points highlight medical attitudes and environmental factors:

- Supply trends for physicians and nurses in the civilian economy are the subject of much debate. Even should estimates that physicians will lose some of their current economic advantage prove correct, compensation initiatives will be needed to enable the reserve components to reduce current shortfalls of physicians, particularly physicians in specialties designated as critically short for wartime health care. There are indications that shortages of nurses for civilian health care will result in the continuation and possibly the acceleration of current trends toward higher wages for many nurses. Increased competition for nurses and wage growth in the profession may make the recruitment of nurses for reserve service even more difficult.

- The costs of education for students in health disciplines have continued to rise, and student assistance programs are now more likely to be in the form of nonsubsidized loans. As a result, the level of debt of physicians and nurses

when first entering practice has increased. Loan repayment and forgiveness programs have had mixed success in attracting health professionals into specific specialties or geographic areas, but the utility of student loan repayment incentives in attracting physicians and nurses to reserve service is likely to grow.

- Current trends with respect to professional legal liability and malpractice insurance could adversely effect the recruitment and retention of health professionals to the reserve. Initiatives to offset these trends may be needed.

- Review of the characteristics of the medical officers and nurses currently serving in the National Guard and Reserve indicates that this population differs somewhat from the total population of physicians and nurses, which may help to target incentives and recruiting effects.

- Analysis of the attitudes of medical officers and nurses toward reserve service, training, and compensation found that education and training opportunities were valued highly by reserve health professionals and that health professionals were less likely to be satisfied with reserve training than were other officers. Reserve medical officers and nurses were less likely to be dissatisfied with the time required by reserve service than their nonmedical counterparts. This may be because they are also considerably less likely to spend additional time on reserve duties beyond that required by their training schedule. Reserve physicians were much less likely to be satisfied with the pay and allowances received from reserve service. Satisfaction with retirement benefits did not differ significantly between health professionals and other reserve officers.

- Comparing medical officers, military nurses, and nonmedical officers, the expressed likelihood of remaining in reserve service and actual continuation rates show a similar pattern with the retention of medical officers lowest and of nonmedical officers highest.

- Review of earlier surveys of reserve medical officers and nurses and of civilian physicians indicates that the time requirements associated with reserve service are important to health professionals, with intermediate levels of participation intensity preferred. Educational programs were clearly identified as an important incentive associated with reserve service. Compensation was important, with a substantial percentage of health professionals in and out of the reserve indicating that an incentive in the form of a bonus would be effective.

In general, we can draw broad conclusions from the data. Compensation does appear to play an important role in physicians' evaluation of reserve military service. Both reserve medical officers and civilian physicians indicate that increased compensation for reserve service would enhance recruiting. Whether increased interest would correlate with increased levels of accessions cannot be determined here, but it would at least open the door for the communication of military options and benefits.

The data from the 1986 Reserve Components Surveys clearly shows lower levels of satisfaction with income among physicians than for the nurse and nonmedical officer groups. Yet, physicians indicate income to be of very low influence in their retention decision. It may be, however, that the motivation of the medical officers who are now in the reserve does not reflect the motivation of those who would be attracted if additional incentives were provided for medical officers. Additionally, indications are strong that increased compensation for physicians is of particular value up front in a civilian physician's initial decision to join the reserve.

In the case of nurses, compensation appears to be a more important factor. Nurses tend to be highly responsive to increases in civilian wages; although the relationship to increases in reserve income is more complex, much of the same impact could be anticipated to occur with increased reserve income.

The student or newly graduated health professional appears to be a potentially responsive target for compensation initiatives as the current cost of a professional education and increased levels of indebtedness make acceptance of a reserve obligation in return for the benefit of a loan repayment program more attractive. Accessions from this population now incur a full eight-year military service obligation. Thus, even if the individual leaves the Selected Reserve after completion of service required, the reserve would still have gained a valuable asset for the IRR, which must increasingly be the site of participation for many medical officers and nurses.

The physician or nurse may also be more responsive to reserve income during the early years of practice. Income is lowest for physicians at a time when the debt load is apt to be highest, and the cost of practice start-up is high for those who enter solo practice. In the case of newly graduated nurses, starting salaries are relatively competitive, but do not tend to increase significantly over time. This may be a factor in long-term retention of nurses in the reserve, with the appeal of built-in increases in the basic pay scale.

Another consistent pattern in the data is the importance of training and opportunities for health education. The significantly higher levels of dissatisfaction with training on the part of medical officers and nurses reflects a problem in reserve medical training which may affect retention. Enlisted health care personnel also exhibit more dissatisfaction with training than do their nonmedical counterparts. The greater dissatisfaction on the part of the nurses may be particularly indicative of a serious problem; frequently, it is nurses who are the primary trainers in the medical skills taught to enlisted health care personnel.

The importance of continuing education opportunities for health professionals runs throughout the data from the surveys. The reserve might better capitalize on the professional requirements of health care professionals for such continuing education, as well as the apparently high valuation placed by officers on the provision of such educational opportunities by the reserve. The reserve may also be able to capitalize on the increased responsiveness of civilian health professionals to recruiting efforts by military officers in like professions by affording reserve health care professionals expanded opportunities to attend health education courses and conferences where they can advertise the benefits of the reserve on a personal basis.

Notes

1. American Medical Association, Council on Long-Range Planning and Development, "Health Care in Transition: Consequences for Young Physicians", Journal of the American Medical Association, vol. 256, No. 24 December 1986, p. 3386. Concerned about the impact of significant changes in the practice of medicine, the Council on Long-Range Planning and Development of the American Medical Association reported in December 1986 on the changing socioeconomic environment of medicine. Particular emphasis was given to changes that potentially would have the greatest impact on medical students and resident physicians.

2. Bradley Seidman and Diane Mead, National Physician Trends from 1970-1985, American Medical Association, Department of Data Release Services, Division of Survey and Data Resources, February 1987.

3. U. S. Department of Health and Human Services, Fifth Report to The President & Congress on the Status of Health Personnel in the United States, March 1986, pp. 10-65 to 10-68. Projections from these models in the forthcoming Sixth Report are an excess of 56,000 and a shortfall of 17,900, respectively.

4. American Organization of Nurse Executives, American Hospital Association, Report of the 1986 Hospital Nursing Supply Survey, December 1986.

5. Linda D. Aiken, "Nurses for the Future", "Breaking the Shortage Cycles" (excerpts from summary materials for conference on Nurses for the Future sponsored by the University of Pennsylvania and the Pew Memorial Trust), American Journal of Nursing, December 1987, pp. 1616-1620.

6. C. Link and R. Settle, "Financial Incentives and Labor Supply of Married Professional Nurses: An Economic Analysis", Nursing Research, vol. 29, 1980, pp. 241-242.

7. "Nurses Again Lost Some Economic Ground in '87", American Journal of Nursing, January 1988, pp. 112-116.

8. Ibid. p. 115.

9. Ibid. p. 116.

10. Ibid. p. 115.

11. "New Salary Wars Promise Solid Gains This Year: Hospitals are Bidding Up Start and Shift Rates", American Journal of Nursing, January 1988, pp. 113-122.

12. Peter I. Buerhaus, "Not Just Another Nursing Shortage", Nursing Economics, vol. 5, no. 6, November-December 1987, p. 271.

13. Barbara K. Redman and Susan S. Jackson, Report on Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing-Public, Private Religious, and Secular 1983-1987, American Association of Colleges of Nursing, Washington, D.C., February 1987.

14. Mary D. Naylor and Marian B. Sherman, "Wanted: The Best and the Brightest" (excerpts from summary materials for conference on Nurses for the Future sponsored by the University of Pennsylvania School of Nursing and the Pew Memorial Trust), American Journal of Nursing, December 1987, pp. 1601-1602.

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Chapter 5. ACHIEVING AN ADEQUATE SUPPLY OF PHYSICIANS IN THE RESERVE COMPONENTS

Achieving an adequate supply of physicians for service as medical officers in the reserve has been a persistent problem. This problem received relatively little attention prior to 1980, however. The concern with wartime medical readiness brought the problem to the forefront, and the DoD and Congress are now focusing on ways to reduce identified shortages. An important result of the focus on medical readiness in this decade has been the creation and acceptance of a standard methodology for setting wartime medical manpower requirements. The hospital-based aspect of these requirements are projected by the Medical Planning Module (MPM) to which are added the Service-unique requirements. Compared with the newly set requirements, the reserve shortfall is larger and more clearly defined than before.

A major part of the physician supply problem, affecting both the active and the reserve components, is that in the civilian sector, the demand for physicians has consistently exceeded the supply. Physician compensation in the civilian sector has steadily risen to very high levels. For example, the average annual income for anesthesiologists in 1985 was over $150,000.

At the time of the initiation of the All-Volunteer Force, compensation adjustments (with subsequent modification for obtaining physicians in hard-to-recruit specialties) were made for the active force. No adjustments were made for the reserve forces, however, and limited help was provided for recruiting reserve physicians.

Even so, physicians join the reserve. They do so for many reasons. Surveys over the past several years indicate that many physicians have "felt it was their patriotic duty" to serve in the reserve; others have continued in the reserve components after leaving active duty to vest their active service in the reserve retirement system. Pay is usually not given as the primary reason for joining the reserve, but survey data indicates that it is not insignificant in its impact.

The relatively lesser importance of reserve pay in recruiting physicians to the reserve can be partially traced to the fact that compensation for reserve medical officers has not increased parallel with compensation for active duty medical officers. On the other hand, it is not clear that the relative level of reserve compensation should parallel active duty compensation;

the desired mix of medical specialties is different. It does appear clear, however, that reserve compensation for physicians must be adjusted, simply to accommodate changes in the economic conditions of physicians.

Of particular importance in understanding the reserve situation is the specific need for physicians by specialty. The mix of specialties needed in the reserve forces does not mirror the mix needed in the civilian sector or in the active components. The active force must meet two missions: readiness for wartime and the provision of peacetime health care benefits. In peacetime medical officers are needed to serve the medical needs of military members, their dependents, and other eligible beneficiaries. Therefore, the specialty needs of the active medical force generally mirror physician specialties required by the civilian sector, reflecting specific demographic and occupational mixes: gynecology, internal medicine, surgery, anesthesiology, general practice, pathology, pediatrics, psychiatry, etc. The National Guard and Reserve components, however, whose mission is solely medical readiness require a significant number of physicians who can deal with trauma. Thus, anesthesiologists and physicians with surgical skills are in particular demand in the reserve forces. Unfortunately, these specialties are the specialties with relatively fewer physicians, and physicians who practice in these specialties have relatively high annual incomes. As a result, the ability of the reserve components to attract physicians in these specialties is limited, given current reserve compensation and benefits.

The 6th QRMC analysis was concerned with understanding the extent to which compensation alternatives can increase the supply of physicians to the reserve. The immediate answer, based on this analysis, is that compensation can increase the supply. The more important question is by how much and at what cost? Sections that follow present an estimate of the effect of increased compensation on the supply of physicians and indicate the limitations of compensation in attracting physicians into the reserve.

This chapter first describes the supply of physicians in the civilian sector, delineating the basic demographic factors and economic characteristics of the physicians. Next, a description of physicians currently in the reserve is provided together with the demographic and economic profiles of reserve physicians. Many leaders in the medical community project that it is likely that, over the next decade, the supply of physicians in the United States will be changing relative to demand. The nature of this change will have an impact on the supply of physicians to the reserve. Moreover, the way that the supply changes will affect reserve compensation alternatives and influence the mix of alternatives that will be effective in increasing the supply

of physicians to the reserve. Finally, a number of compensation alternatives are identified together with their estimated effect on the supply of physicians, by specialty, to the reserve. The potential costs of implementing these compensation alternatives over a five-year period are also identified.

Characteristics of U.S. Physicians

In 1986, there were 542,343 physicians in the United States. Of these, 21,860 (approximately 4 percent) were anesthesiologists; 17,028 (approximately 3 percent) were orthopedic surgeons; 37,679 (approximately 7 percent) were general surgeons; and 41,521 (approximately 8 percent) were other surgeons, excluding obstetrician/gynecologists. There were 30,354 obstetrician/gynecologists (approximately 6 percent); for the purpose of calculating wartime requirements, these are categorized as "other" surgeons by the Office of the Assistant Secretary of Defense for Health Affairs. The remaining 393,901 include general practitioners, internists, pediatricians, psychiatrists, and other medical (as opposed to surgical) specialties and constitute approximately 73 percent of all physicians. Table 5-1 shows the distribution of these physicians by region. Physicians are concentrated in the regions with the largest population centers: the Middle Atlantic region, including New York; the East North Central region, including Chicago; the South Atlantic region including Atlanta and Miami; and the Pacific region, including Los Angeles and San Francisco.

Table 5-1. Distribution of Civilian Physicians, by Specialty and Region

	Regions of the United States										
Specialty	NE	MA	ENC	WNC	SA	ESC	WSC	MTN	PAC	Possessions	Total
Surgery											
General	2,694	7,537	6,007	2,446	6,390	2,141	3,452	1,675	5,337	490	37,679
Other	2,439	7,572	6,128	2,554	7,420	2,176	4,218	2,006	7,008	433	41,521
Orthopedic	1,150	2,762	2,526	1,063	2,885	849	1,666	946	3,181	138	17,028
OB/GYN	1,813	5,621	4,738	1,603	5,550	1,565	3,027	1,453	4,984	513	30,354
Anesthes	1,454	4,141	3,453	1,221	3,372	981	2,125	1,151	3,962	161	21,860
Other	28,236	76,661	59,763	26,701	67,897	17,560	33,096	18,540	67,447	5,658	393,901
Total	37,786	104,294	82,615	33,588	93,514	25,272	47,584	25,771	91,919	7,393	542,343

Source: The American Medical Association, Physician Characteristics and Distribution in the U.S., 1986 Edition

Ten years ago, an excess demand for physicians existed in the aggregate. Over the past several years, however, the supply of physicians has been increasing relative to the demand. Now the supply of physicians is approximately equal to the demand; however, the supply is not uniformly equal to the demand. In rural areas, the supply of physicians is significantly below the demand; in urban areas, the supply exceeds the demand. Aggregate numbers do not tell the whole story. In certain specialties, the supply of physicians does not equal the demand. Moreover, the training required to become fully qualified in some specialties is greater than that required for others: for example, anesthesiologists and surgeons require more time in residency training than do family practitioners. These factors contribute to differences in physician income.

As shown in Table 5-2, the mean net income for physicians in 1985, after expenses but before taxes, exhibits a pattern similar to that of the distribution of physicians across regions. The highest incomes were in the regions with the largest population centers: the Middle Atlantic, East North Central, South Atlantic, and Pacific regions. Moreover, the distribution of pay by specialty is particularly high in four major specialties: surgery, radiology, anesthesiology, and obstetrics/gynecology. The income differs quite markedly; physicians in the surgical categories receive more than twice the income of general practitioners/family specialists.

Table 5-2. Mean Income of Physicians, by Specialty and Region

	Regions of the United States								
	NE	MA	ENC	WNC	SA	ESC	WSC	MTN	PAC
Specialty	$	$	$	$	$	$	$	$	$
GP/FP	60,600	78,200	77,000	68,500	82,000	84,200	83,300	67,900	80,300
Int Med	83,700	94,800	119,000	118,900	100,600	89,500	120,200	70,600	99,000
Pediatrics	80,200	77,600	70,900	70,600	76,300	96,900	75,700	58,500	83,500
Surgery	159,800	156,000	159,000	171,500	145,200	156,100	169,600	120,900	159,300
OB/GYN	144,000	106,800	110,400	-	125,800	155,800	137,700	129,400	111,500
Radiology	195,300	153,800	165,800	155,000	140,600	-	131,200	-	161,000
Psychiatry	78,900	92,300	89,400	102,300	89,100	-	94,000	91,900	83,600
Anesthes	121,800	133,300	135,500	107,700	146,700	168,000	145,700	-	156,800
Pathology	-	100,100	128,500	-	135,900	-	153,800	-	115,000

Source: The American Medical Association, Socioeconomic Characteristics of Medical Practice 1986

Trends in Supply and Demand

The number of physicians is expected to increase from 1986 until the year 2000. However, the rate of increase will not be as rapid as in the past because of the decrease in college age population over the next several years. At the same time, however, the number of people requiring medical care is not expected to increase at the same rate that the physician supply increases. If physicians continue to work the same number of hours in the future as they have in the past, then it is generally believed that there will be an excess supply of physicians. If the number of hours worked by physicians were to be reduced in any sizeable amount, then the excess supply of physicians may never materialize. In essence, the supply of physicians is a supply of services rendered and the demand for physicians is a demand for these services. In the future, an excess supply will put downward pressure on civilian net compensation for physicians, whereas an excess demand exerts upward pressure on the compensation.

The American Medical Association has projected that, over the next 15 years, the supply of physicians will outstrip the demand and that an excess supply will ensue during the 1990s. Because the reserve force needs to recruit an additional number of physicians, an excess supply should bode well for the reserve. The supply of civilian physicians shown previously in Table 5-1, differs across the nine census regions. As noted above, the number of physicians is not distributed across the country as the general population is distributed. The number of physicians per capita is greater in larger population centers than in less populated regions. The income of physicians by specialty also varies across the regions. In addition, the distribution of income for physicians varies significantly according to specialty. Thus an anesthesiologist makes twice as much as a general practitioner, and physicians in New England earn significantly more than do physicians in the West North Central region of the United States.

The number and income of physicians also varies by age. The age distribution of physicians, shown in Table 5-3, and the income distribution of physicians by age, shown in Table 5-4, are important indicators for identifying the population from which reservists are most likely to come.

Table 5-3. Distribution of Federal and Nonfederal Physicians by Specialty & Age, (Excluding Interns and Residents)

Specialty	Total			Age: Less than 35			Age: 35-44			Age: 45-54			Age: 55-64			Age: Over 65		
	Fed&Non	Fed	Non	Fed&Non	Fed	Non	Fed&Non	Fed	Non	Fed&Non	Fed	Non	Fed&Non	Fed	Non	Fed&Non	Fed	Non
GP/FP	67,051	2,238	64,813	16,850	1,193	15,657	15,104	529	14,575	10,268	251	10,017	13,567	248	13,319	11,262	17	11,245
Int Med	90,417	4,642	85,775	35,114	1,732	33,382	26,657	1,654	25,003	13,145	749	12,396	9,731	440	9,291	5,770	67	5,703
Pediatrics	36,839	1,137	35,702	12,304	526	11,778	11,853	420	11,433	6,342	165	6,177	4,381	25	4,356	1,959	1	1,958
Surgery:																		
General	38,169	1,619	36,550	11,934	693	11,241	8,821	453	8,368	7,234	269	6,965	6,318	181	6,137	3,862	23	3,839
Other	19,806	647	19,159	3,262	193	3,069	6,417	242	6,175	5,364	114	5,250	3,173	77	3,096	1,590	21	1,569
Orthopedic	17,166	609	16,557	4,425	291	4,134	5,280	198	5,082	4,131	63	4,068	2,243	48	2,195	1,087	9	1,078
OB/GYN	30,867	774	30,093	7,864	390	7,474	8,859	253	8,606	6,644	90	6,554	5,026	37	4,989	2,474	4	2,470
Radiology	8,757	310	8,447	503	30	473	2,103	102	2,001	3,008	102	2,906	2,238	67	2,171	905	9	896
Psychiatry	32,255	1,981	30,274	5,990	348	5,642	9,171	688	8,483	7,596	486	7,110	6,285	423	5,862	3,213	36	3,177
Anesthes	22,021	660	21,361	6,157	307	5,850	6,648	169	6,479	4,569	107	4,462	3,506	70	3,436	1,141	7	1,134
Pathology	15,456	964	14,492	3,407	181	3,226	4,492	378	4,114	3,870	242	3,628	2,760	151	2,609	927	12	915
Misc list	103,688	5,123	98,565	24,887	1,534	23,353	37,238	2,059	35,179	21,135	970	20,165	12,781	504	12,277	7,647	56	7,591
Address Unk	2,980	2,980	-	14	14	-	615	615	-	762	762	-	393	393	-	1,196	1,196	-
Other	6,398	372	6,026	507	38	469	1,275	105	1,170	1,501	125	1,376	1,732	84	1,648	1,383	20	1,363
Unspecified	8,250	491	7,759	4,955	377	4,578	1,340	67	1,273	678	23	655	621	20	601	656	4	652
Unclassified	13,950	0	13,950	2,696	0	2,696	7,576	0	7,576	2,145	0	2,145	663	0	663	870	0	870
Inactive	38,646	0	38,646	753	0	753	1,303	0	1,303	1,300	0	1,300	3,569	0	3,569	31,721	0	31,721
Grand Total	552,716	24,547	528,169	141,622	7,847	133,775	154,752	7,932	146,820	99,692	4,518	95,174	78,987	2,768	76,219	77,663	1,482	76,181

Source: *The American Medical Association Physician Masterfile, 1986*

Table 5-4. Mean Physician Net Income After Expenses and Before Taxes ($000), 1985, by Specialty and Age

Specialty	Age Groups: Less than 36	-45	46-55	56-65	66 or Over
GP/FP	$ 64.6	$ 83.8	$ 84.6	$ 86.4	$ 59.1
Int Med	80.0	105.3	129.3	100.8	67.3
Pediatrics	57.6	78.9	87.1	84.5	-
Surgery	124.2	166.0	169.4	144.4	119.6
OB/GYN	84.3	132.0	138.8	130.0	76.0
Radiology	99.5	159.4	164.3	160.0	-
Psychiatry	78.8	80.8	108.4	89.7	71.4
Anesthesiology	112.4	132.2	169.0	156.7	145.3
Pathology		105.0	145.5	144.8	-

Source: The American Medical Association, Physician Characteristics and Distribution in the U.S., 1986 Edition

Physicians in the National Guard and Reserve

In Fiscal Year 1986, weighted population estimates from the 1986 Reserve Components Surveys indicate that there were 4,288 medical officers in the Selected Reserve. For the reasons described below, these weighted numbers differ from those found in the Reserve Components Common Personnel Database (RCCPDS) and in other sources used elsewhere in this report. The RCCPDS contains records for 5,366 physicians as of September 30, 1986. The distribution of physicians by region and specialty was taken from the RCCPDS file and the characteristics of this distribution were imputed using the distributions of characteristics from the 1986 Reserve Components Surveys.

1986 Reserve Components Surveys - Sampling/Weighting Techniques

Three portions of the 1986 Reserve Components Surveys of part-time officers and enlisted personnel were used in this analysis: the surveys of members and the surveys of their spouses. The 1986 Reserve Components Surveys were administered to a sample of approximately 121,000 Guard and Reserve members in the United States and Puerto Rico.

The basic stratification variable was reserve component. In most strata, the design provided for a 10 percent sample. The sample design also provided for larger sampling ratios of women officers, Marine Corps Reserve, and Coast Guard Reserve personnel. There was no stratification for military specialties such as health professionals. Individuals who were in the

training pipeline (about 9 percent of the total) were excluded from the sample. These include unit members awaiting or attending initial active duty for training and untrained Selected Reservists attending specialty training programs such as those for chaplain candidates and health professionals.

Differential weights were required for these subgroups with disproportionate sampling. In addition, weights were required to adjust for the fact that the sample subgroups did not respond to the survey in identical rates. From weighted samples, population statistics could be computed, indicating estimates for the population at a given time. The final combined sample weights can be used to produce consistent estimates of the Selected Reserve trained population as of mid-1986.

For health professionals, the population sampled was 2,695 with 1,654 members responding. The 317 respondent physicians represent a weighted population of 4,288 physicians in the Selected Reserve. However, as mentioned above and as reflected in the RCCPDS database, based on identification of all those holding a medical officer primary specialty code, irrespective of duty specialty code, the reserve medical officer strength was 5,366 as of September 30, 1986.

Distribution by Specialty and Region

The distribution of the Selected Reserve medical officer population by specialty and region is shown in Table 5-5. This population represents 0.99 percent of the total number of physicians in the civilian economy. Of these reserve physicians, 647 were in the general surgical category, 589 were in the other surgical category, 202 were orthopedic surgeons, and 173 were anesthesiologists. There were 3,755 physicians in all the other specialties. As shown in Table 5-6, anesthesiologists represent 0.79 percent of all the anesthesiologists in the civilian economy; orthopedic surgeons represent approximately 1.19 percent. General surgeons represent 1.72 percent of the general surgeons in the civilian sector. Approximately 0.71 percent of the civilian physicians in the Middle Atlantic region are in the reserve, approximately 0.69 percent of those in the East North Central are in the reserve, approximately 1.04 percent of those in the South Atlantic and approximately 0.93 percent in the Pacific region are in the reserve. Moreover, 1.56 percent of the physicians in the East South Central region, 1.73 percent of the physicians in the Mountain region, and 1.33 percent of the physicians in the West North Central region are reservists. The lower income regions of the United States have a higher percentage of civilian physicians in the reserve. Reserve income is determined according to a national wage scale and can represent

Table 5-5. Reserve Medical Officers, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Total
New England	12	10	26	32	190	270
Middle Atlantic	27	21	82	52	562	744
East North Central	17	19	58	44	428	566
West North Central	13	15	58	41	320	447
South Atlantic	26	34	135	126	650	971
East South Central	13	11	71	41	258	394
West South Central	20	22	70	66	393	571
Mountain	18	22	48	62	297	447
Pacific	26	45	89	113	586	859
Other	1	5	10	12	71	99
Total	173	202	647	589	3,755	5,366

Source: RCCPDS FY 1986

Table 5-6. Reserve Medical Officers as a Percentage of Civilian Physicians, by Specialty and Region

Region	Anesthesiology %	Orthopedic Surgery %	General Surgery %	Other Surgery %	Other Physicians %	Avg %
New England	0.83	0.87	0.97	1.31	0.63	0.71
Middle Atlantic	0.65	0.76	1.09	0.69	0.68	0.71
East North Central	0.49	0.75	0.97	0.72	0.66	0.69
West North Central	1.06	1.41	2.37	1.61	1.22	1.33
South Atlantic	0.77	1.18	2.11	1.70	0.88	1.04
East South Central	1.33	1.30	3.32	1.88	1.35	1.56
West South Central	0.94	1.32	2.03	1.56	1.09	1.20
Mountain	1.56	2.33	2.87	3.09	1.49	1.73
Pacific	0.66	1.41	1.67	1.61	0.81	0.93
Average	0.79	1.19	1.72	1.42	0.89	0.99

Source: RCCPDS FY 1986
The American Medical Association, Physician Characteristics and Distribution in the U.S., 1986 Edition

a higher proportion of civilian income, on average, in the lower income regions. This also implies, on average, that a higher proportion of physicians will join the reserve.

The characteristics of reserve physicians vary from region to region and by specialty. The age distribution of physicians in the various regions is shown in Table 5-7. It appears that specialties with higher incomes, discussed previously, are also the specialties with an older average age, largely because it takes longer to train specialists. Longer training which results in higher skill levels, and increased time in a specialty field generally result in a higher level of income.

Table 5-7. Average Age of Reserve Medical Officers, by Specialty and Region

Region	Anesthesiology Years	Orthopedic Surgery Years	General Surgery Years	Other Surgery Years	Other Physicians Years	Avg Years
New England	55.0	42.9	45.2	51.8	53.2	49.6
Middle Atlantic	32.0	54.8	43.0	45.4	47.3	44.5
East North Central	47.0	50.0	53.0	46.7	45.1	48.4
West North Central	45.1	47.6	49.3	44.6	41.9	45.3
South Atlantic	45.3	52.4	43.7	44.7	41.9	45.7
East South Central	46.0	46.9	39.6	50.0	39.8	43.9
West South Central	43.2	48.6	46.0	55.5	44.3	47.3
Mountain	49.0	49.3	46.5	50.9	48.4	48.7
Pacific	43.1	49.3	54.3	51.6	45.9	48.7
Average	45.0	50.0	46.7	49.0	45.3	46.9

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Income from National Guard and Reserve Service

Reserve income for the medical specialties is shown in Table 5-8. Unlike medical officers serving on active duty, reserve income for physicians does not vary by specialty or level of professional qualification. Pay grade and amount of paid duty performed are the primary factors affecting the pay of reserve medical officers. It is not surprising, therefore, that there is relatively little difference between specialties in terms of the income received from reserve service. In the reserve components, the average incomes for physicians are as follows: general surgeons, $6,152; orthopedic surgeons, $5,649; "other" surgeons, $7,767; and anesthesiologists, $8,115. Other physicians earn an average of $7,199 per year in the Selected Reserve.

Table 5-8. Average Reserve Income of Medical Officers, by Specialty and Region

Region	Anesthesiology $	Orthopedic Surgery $	General Surgery $	Other Surgery $	Other Physicians $	Avg $
New England	9,500	2,750	3,607	6,147	15,575	7,516
Middle Atlantic	5,410	7,479	4,780	5,963	5,420	5,810
East North Central	9,400	6,726	7,734	6,622	6,083	7,313
West North Central	7,315	3,493	8,871	7,006	7,006	6,594
South Atlantic	7,115	6,331	7,054	5,842	5,729	6,239
East South Central	8,491	6,506	4,521	11,400	5,555	7,492
West South Central	6,701	5,963	1,892	9,954	6,632	6,295
Mountain	6,406	1,966	9,637	8,525	6,043	6,515
Pacific	10,894	10,800	7,274	8,443	6,751	8,832
Average	8,115	5,649	6,152	7,767	7,199	6,956

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

The differences in earnings across regions result from the demographics of reserve physicians within the regions. The pay schedule for reserve physicians is the same across regions, but differences in rank, years of service, and time spent in paid drills and on active duty produce variations in average earnings across the regions. The average civilian income of reserve physicians, on the other hand, varies significantly by specialty. For instance, general surgeons and anesthesiologists earn significantly more than nonsurgical, or "other physicians". In addition, there is a marked difference across the regions in terms of the civilian income earned by physicians in the reserve. The distribution of civilian income is shown in Table 5-9, and the distribution of reserve income as a percentage of civilian income is shown in Table 5-10.

The supply of physicians to the reserve is a very small percentage of the total physicians in the civilian economy. The National Guard and Reserve attract physicians for a number of reasons: ability to vest earned retirement benefits from active duty for physicians who leave active duty for the civilian economy, patriotism and the chance to perform a service for one's country, and supplemental income.

Table 5-9. Civilian Income ($000) of Reserve Medical Officers, by Specialty and Region

Region	Anesthesiology $	Orthopedic Surgery $	General Surgery $	Other Surgery $	Other Physicians $	Avg $
New England	100.0	129.9	109.6	93.0	165.7	119.6
Middle Atlantic	156.0	129.4	69.0	112.0	86.9	110.7
East North Central	143.0	100.0	130.0	113.0	67.1	110.6
West North Central	100.6	100.0	86.3	76.9	60.9	81.0
South Atlantic	115.2	152.4	108.7	78.7	85.2	106.3
East South Central	156.0	110.2	57.9	140.4	77.6	108.0
West South Central	139.5	107.3	115.4	81.0	74.0	102.5
Mountain	110.0	75.0	154.4	99.3	86.0	104.9
Pacific	69.6	100.0	106.8	75.7	83.5	87.1
Average	124.9	112.4	104.2	96.7	87.4	105.1

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 5-10. Average Reserve Income of Medical Officers as a Percentage of Average Civilian Physician Income, by Specialty and Region

Region	Anesthesiology %	Orthopedic Surgery %	General Surgery %	Other Surgery %	Other Physicians %	Avg %
New England	9.50	2.12	3.29	6.61	9.40	6.28
Middle Atlantic	3.47	5.78	6.93	5.32	6.24	5.25
East North Central	6.57	6.73	5.95	5.86	9.07	6.61
West North Central	7.27	3.49	10.28	9.11	11.50	8.14
South Atlantic	6.18	4.15	6.49	7.42	6.72	5.87
East South Central	5.44	5.91	7.81	8.12	7.16	6.94
West South Central	4.80	5.56	1.64	12.29	8.96	6.14
Mountain	5.82	2.62	6.24	8.59	7.03	6.21
Pacific	15.65	10.80	6.81	11.15	8.09	10.14
Average	6.50	5.03	5.90	8.03	8.23	6.62

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 5-11 shows the average length of Selected Reserve service by specialty and geographic region. Table 5-12 shows average years of prior active duty service by specialty and region. In aggregate, reserve medical officers had less Selected Reserve service (9.2 years versus 10.5 years) and more active duty service (6.2 years versus 5.0 years) than did other Selected Reserve officers. This data is based on the 1986 Reserve Components Surveys and was used in part to estimate retention probabilities. Pay and other pecuniary benefits can be used to attract physicians into the reserve for either a short period of time or, if desired, until retirement. The ability to attract substantial numbers of physicians, however, especially those who earn significant annual pay, will be very difficult on the margin.

Table 5-11. Average Years in the Reserve for Medical Officers, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Avg
New England	27.0	2.5	5.6	6.9	10.8	10.5
Middle Atlantic	6.0	15.6	7.2	7.0	6.1	8.4
East North Central	10.0	6.0	5.0	8.5	7.4	7.4
West North Central	10.7	9.5	13.0	12.1	9.5	11.5
South Atlantic	9.0	6.9	6.9	9.7	9.4	8.2
East South Central	7.0	9.0	11.0	17.0	7.2	10.6
West South Central	5.4	9.0	2.8	24.9	8.3	10.3
Mountain	3.5	7.4	6.5	11.3	7.3	7.2
Pacific	10.5	8.3	7.0	10.6	7.1	8.8
Average	9.9	7.7	7.2	12.0	8.1	9.2

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 5-13 shows the number of hours that reserve physicians work each week in the civilian economy: a substantial amount of time. Having to spend additional hours in the reserve consumes some of a physician's leisure time--typically time that is valued highly by those working a significant number of hours per week. Even so, medical officers in the reserve contribute hours to the reserve that are uncompensated, as indicated in Table 5-14. Reserve medical officers also work additional hours in the reserve which are compensated. Table 5-15 shows the number of additional paid mandays performed by reserve medical officers.

Table 5-12. Distribution of Years of Active Duty of Reserve Medical Officers, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Avg
New England	6.4	6.4	3.0	4.0	8.0	5.4
Middle Atlantic	6.4	5.0	6.0	5.0	5.4	5.3
East North Central	15.0	2.0	11.0	3.0	6.0	5.9
West North Central	6.9	6.9	2.0	3.5	7.2	6.1
South Atlantic	7.2	12.0	11.4	3.5	5.6	6.8
East South Central	8.4	8.4	7.9	7.1	9.1	9.1
West South Central	8.0	7.0	2.0	7.0	6.6	6.4
Mountain	10.0	6.5	6.5	7.7	3.9	5.5
Pacific	3.0	6.8	5.3	8.0	5.7	6.0
Average	7.7	7.7	6.9	5.6	6.0	6.2

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 5-13. Average Hours Worked per Week in the Civilian Job by Reserve Medical Officers, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Avg
New England	60.0	57.4	63.2	49.2	47.3	55.4
Middle Atlantic	50.0	60.8	55.5	66.0	55.4	57.6
East North Central	60.0	60.0	58.0	65.3	53.1	59.3
West North Central	56.9	56.8	57.9	51.2	59.5	56.2
South Atlantic	58.8	51.7	58.9	73.0	56.3	60.0
East South Central	58.0	59.4	67.8	60.0	60.0	61.4
West South Central	54.8	56.7	62.2	50.3	56.0	55.8
Mountain	60.0	56.9	60.0	53.9	51.8	56.4
Pacific	60.0	55.7	57.4	48.7	49.9	54.0
Average	57.5	57.5	60.1	57.5	54.4	57.4

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 5-14. Distribution of Monthly Unpaid Hours Worked in the Reserve by Medical Officers, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Avg
New England	8.0	5.4	3.5	10.0	5.6	7.0
Middle Atlantic	9.8	7.7	3.6	18.5	8.8	10.5
East North Central	7.9	10.0	2.0	4.0	7.9	6.9
West North Central	5.6	3.8	3.0	2.2	3.9	3.5
South Atlantic	8.8	5.9	9.0	8.0	3.6	8.6
East South Central	8.0	4.0	1.0	16.0	3.7	4.0
West South Central	4.0	3.3	5.0	4.0	2.5	2.6
Mountain	1.0	3.7	5.6	17.7	1.4	3.3
Pacific	6.0	3.2	3.8	2.5	2.1	2.5
Average	9.1	4.1	9.5	9.0	4.5	5.7

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 5-15. Distribution of Additional Paid Mandays (Annual) Worked in the Reserve by Medical Officers, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Avg
New England	5.1	2.1	4.0	4.5	2.4	5.5
Middle Atlantic	10.0	2.0	2.4	0.8	0.4	0.9
East North Central	5.0	1.2	2.7	2.5	1.9	1.9
West North Central	5.5	2.3	8.6	2.5	6.6	6.4
South Atlantic	2.7	1.1	4.8	2.2	1.4	1.6
East South Central	10.0	2.1	4.5	22.0	5.2	5.4
West South Central	3.4	1.4	3.0	8.0	2.9	2.4
Mountain	7.0	1.9	24.0	8.7	1.2	4.5
Pacific	3.0	1.5	2.5	0.9	3.3	2.7
Average	4.7	0.8	3.8	3.1	2.4	2.8

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

National Guard and Reserve Physician Requirements

The reserve components require a substantial number of physicians and have consistently had problems in attracting and retaining physicians. As previously noted, the needs of the reserve components differ from those of the active duty force. The active duty requirements are for specialties that serve the medical needs of members and their families: these include specialties such as pediatrics, internal medicine, gynecology/obstetrics, surgery and the full range of specialties found in the civilian sector. The reserve force requires physicians who can deal with trauma, injury, and disease resulting from wartime activities. Reserve requirements, therefore, focus on surgeons, especially general surgeons and orthopedic surgeons, as well as anesthesiologists. The total wartime requirements, as stated by the Office of the Assistant Secretary of Defense for Health Affairs, are shown in Table 5-16. Reserve component requirements and shortfalls focus on general surgeons, orthopedic surgeons, and anesthesiologists which are designated as critically short wartime medical specialties by the Assistant Secretary of Defense for Health Affairs.

Table 5-16. Total Wartime Shortfall

Specialty	Total Wartime Requirement	Total Wartime Shortfall
General Surgery	3,420	1,920
Orthopedic Surgery	2,820	2,030
Other Surgery	2,970	240
Anesthesiology	1,960	1,315
Other Physicians	20,430	1,595
Total	31,600	7,100

Source: Office of the Assistant Secretary of Defense for Health Affairs

The reserve requirements for physicians are primarily derived from the MPM-generated peak mobilization workload manpower needs to which are added the Service-unique requirements. One of the primary objectives of the 6th QRMC study is to identify compensation alternatives that would help achieve the DoD goal to reduce the total projected shortfall of physicians classified as critically short for wartime by 20 percent per year, and to completely eliminate the shortage in those specialties over a five-year period. This requirement can be partially met by

physicians in the IRR, as well as by those in the Standby and Retired Reserve, and need not be totally filled from the Selected Reserve. This is particularly true for the Army Reserve where many additional personnel will be assigned to the IRR. Navy growth will be largely in the Selected Reserve and the Air Force will rely on increases in both the Selected Reserve and the IRR.

Selected Reserve authorizations and assigned strength, by specialty, are shown for FY 1986 in Table 5-17:[1] there were 8,384 authorized positions (including IMAs), with an assigned strength of 5,346.[2] The numbers shown here indicate a Selected Reserve shortfall of physicians of 3,038. Primary shortages are in general surgery (795), orthopedic surgery (400), anesthesiology (189) and the "other" physician category (1657). The total wartime shortfall is larger than Selected Reserve shortages, however, because total wartime requirements are based on peak workload projections for mobilization. The total wartime shortfall of physicians is 7,100. The primary shortfalls are in the same specialties that are short in the Selected Reserve: the general surgery category (1,920), orthopedic surgery (2,030), and anesthesiology (1,315).

Table 5-17. Peacetime Shortfall in the Selected Reserve - FY 1986

	Selected Reserve		
	Authorized	Assigned	Shortfalls
General Surgery	1,444	649	795
Orthopedic Surgery	593	193	400
Other Surgery	580	583	(3)
Anesthesiology	359	170	189
Other Physicians	5,408	3,751	1,657
Total	8,384	5,346	3,038

Source: Figures for the Army and Air Force are from REMMIS database. Army figures as of September 30, 1986. Air Force authorizations as of September 30, 1986; assigned as of June 30, 1986. Navy figures from Medical Manpower Trends Data Report as of September 30, 1986. Figures displayed in the aggregate.

The policies and compensation alternatives addressed in this report focus on increasing accessions of physicians into the reserve components and producing higher continuation rates for reserve physicians. Achievement of these goals requires a set

of policies (for compensation, training, administration, and personnel management) that focus on attracting physicians to the reserve and a set of policies to keep them in the reserve. This latter policy probably entails, in part, more effective use of physicians' skills in the reserve setting.

Compensation for Physicians

Physicians typically have high opportunity costs with respect to additional activities that are time-consuming. Physicians in specialties identified by the reserve components as qualified in the critically short wartime skills, namely general surgeons, orthopedic surgeons, and anesthesiologists, have very high annual incomes; they also work very long hours. Reserve obligations can impose substantial time requirements for drills and annual training: 48 drills and two weeks of annual training cost physicians (particularly surgeons and anesthesiologists) significant leisure time, because they are already working long hours. If training conflicts with their practices, the dollar costs to physicians are very high. On the other hand, to substitute directly for physicians' income at their civilian rate of earnings would be fairly expensive. For example, a weekend drill (16 hours) would cost approximately $1,400 on the margin. The cost of 48 drills and annual training would be approximately $25,000. Even then, physicians might experience some opportunity costs if time away from their civilian practice hampered the retention of patients or interfered with normal operations.

The QRMC considered several alternative compensation schemes as possible ways to alleviate the problem of medical specialty imbalance in the reserve. Imbalance refers both to the lack of sufficient physicians in specific units and to an incorrect mix across specialties throughout the entire reserve medical force. There is significant excess demand (based on total wartime requirements) for physicians. The QRMC analysis supports the general view in the literature and in prior studies that physicians tend to be relatively nonresponsive to reserve pay increases in the ranges that have historically obtained. The increases required to induce an adequate number of physicians to participate in the reserve in an undifferentiated or untargeted incentive program are most likely not feasible, given budget constraints. The challenge, then, is to devise compensation alternatives that focus on subgroups of the physician population that may be relatively more responsive to reserve pay. Also, physicians in specialties for which there is an excess supply will be more responsive than those in specialties with excess demand. These specialties may not be those critically short for the reserve combat medical mission, however; hence these physicians should be recruited only if there is an identified need or they can be trained for the required specialties.

Younger physicians, with large school debt and significant costs for establishing a practice, may be more readily attracted to the reserve. To study the responsiveness of physicians to compensation in the reserve, all physicians were categorized into subgroups. The level of responsiveness to a common compensation incentive should differ among subgroups. The goal is to tailor the compensation plan for the subgroups and, at the same time, to alter the compensation among the subgroups to remedy the physician shortfall as much as possible.

As reflected in the 1986 Reserve Components Surveys, medical officers are, in general, less satisfied with pay and allowances in the reserve than are nonmedical officers. This is shown in Table 5-18, which indicates that the overall average level of satisfaction with pay and allowances is 2.5 (on a scale from 1 to 5 where 1 represents very satisfied and 5 represents very dissatisfied). The average response of 2.5 falls between satisfied (2) and neither satisfied nor dissatisfied (3). This level of satisfaction is lower than the level of satisfaction with pay and allowances for all reserve officers, which is 2.0 (satisfied) on the same scale.

Table 5-18. Average Level of Satisfaction of Reserve Medical Officers with Reserve Pay and Allowances, by Specialty and Region

Region	Anesthesiology	Orthopedic Surgery	General Surgery	Other Surgery	Other Physicians	Avg
New England	2.3	2.9	2.5	1.5	2.7	2.5
Middle Atlantic	5.0	3.5	2.6	2.3	2.7	2.7
East North Central	2.0	4.0	4.0	2.0	2.5	2.6
West North Central	2.3	2.9	2.4	1.5	2.6	2.4
South Atlantic	2.4	3.5	2.6	1.7	2.6	2.6
East South Central	2.0	2.8	3.3	1.0	2.2	2.3
West South Central	1.5	3.0	4.0	2.5	2.5	2.6
Mountain	3.0	2.8	3.0	2.3	2.1	2.3
Pacific	2.0	2.9	2.0	2.0	2.7	2.4
Average	2.2	3.4	2.7	2.0	2.5	2.5

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Compensation alternatives were identified for the Selected Reserve and the IRR. Expanded use of the IRR, which does not have a substantial training requirement, can help to satisfy the need for flexibility in training schedules and for participation levels that conflict less with the stringent time demands that physicians experience in their civilian profession, and which

may keep them out of the reserve. Increased use of the IRR may reduce shortfalls at relatively low cost to the reserve; in which case, because training opportunities are limited, the reserve should be "buying" only the critically short wartime specialties required. In addition, service in the IRR generally does not have the geographical constraints of the Selected Reserve, where members are attached to units in specific geographical locations.

Compensation alternatives fall into two broad categories: accession alternatives and retention alternatives. Accession alternatives are those designed to induce physicians to choose National Guard and Reserve service in either the Selected Reserve or the IRR. Accession compensation alternatives considered by the 6th QRMC are those expected to provide physicians who would not have joined otherwise with an additional impetus to join the reserve. The compensation alternatives considered are specific to reserve service and, for the most part, are not identical to and do not reflect the active force situation. The costs of these alternatives are important. Clearly, on the margin, additional compensation alternatives will bring new physicians into the reserve; however, in so doing, additional costs will be incurred in terms of providing that increased compensation to physicians who already have joined the reserve and would have entered the reserve regardless.

Retention alternatives would be expected to encourage physicians to remain in the reserve after an initial term. Retention tends to require different compensation than accession, and these alternatives may work over a longer term. To a large extent, alternatives likely to keep physicians in the service are less oriented toward "out-of-pocket" costs and pay than are accession alternatives. Retention alternatives are relatively intangible and may include appropriate use of physician skills, specific training, and reduction of time away from practice and family.

For the options evaluated, the amounts are not offered as definitive, optimal values for inclusion in an incentive program. Instead, the values for the programs analyzed were selected from the range of reserve income observed in the database. The average reserve income observed for physicians by region and specialty ranged from $2,000 to $15,575. The use of values that fall too far outside the range decreases the reliability of the projected estimates. Experimentation with various programs and additional data collection may show that there are other program values which have more optimal effect. The values and responses are offered as baseline estimates for use by planners in developing experimental test designs.

The 6th QRMC does not recommend the payment of all alternatives to all reserve medical officers. In an environment where the specialties in critically short supply are those where the practitioners have the highest average civilian income, the impact of incentive programs can best be maximized through effective targeting of incentives. The QRMC has, however, evaluated the effect of incentives for broad categories of reserve physicians, including those qualified in specialties not currently classified as critically short wartime specialties. This data is provided to show relative responsiveness of different groups to economic incentives and the impact on the total supply of physicians and on budget resources.

Within this context, the QRMC also assessed the potential of the compensation alternatives evaluated to achieve the DoD objective of eliminating shortfalls in critical wartime specialties over a five-year period. The objective of this assessment is to provide a rough estimate of whether or not compensation alternatives at the levels evaluated appear to be generally in the range likely to be required to eliminate the shortfalls. Based on the projections of an econometric model and given the specific alternatives and values analyzed, implementation would result in elimination of shortages for the Selected Reserve at the FY 1986 level over a five-year period both in the aggregate and for critically short wartime specialties for reserve physicians. In the aggregate, the total numbers of medical officers for the options evaluated and the incentives in place are projected to exceed shortages for the Selected Reserve. Based on model projections, it appears that additional incentives would be required to eliminate the entire wartime shortage for the Ready Reserve in a five-year period. The model projects that, at the program levels analyzed, a shortfall of anesthesiologists and orthopedic surgeons would remain. It is emphasized, however, that empirical evidence on the effect of compensation initiatives is lacking. Therefore, it is far from certain that the effects of specific initiatives as projected in the model would be adequate to significantly reduce or eliminate the shortfall, even in the Selected Reserve. For this reason, the QRMC recommends a test program of incentives for medical officers in combination with a test for incentives for nurses and careful evaluation of the effects of the stipend and loan repayment programs. It is also emphasized that the results of the econometric model were not incorporated into a general manpower model. Rather, values from the econometric model were used in combination with known rates and trends and applied against the existing reserve medical officer population to estimate effects over a five-year period.

The lower participation requirement of the IRR was projected to be of high value for many potential reserve physicians, even though fewer benefits accrue to the member and it is more difficult to earn a creditable year for retirement. As the QRMC

was not able to analyze the relationship between the relative value of time and compensation, the decision was made to analyze a program for the IRR based on lower levels of compensation than those selected for evaluation for the Selected Reserve. In the absence of survey data for medical officers in the IRR, the same or similar elasticities as those developed for Selected Reserve members were used to project responsiveness of IRR members to compensation options.

Accession Alternatives

The accession alternatives described in this chapter provide an indication of possible changes that can be made and the effect of these changes on the supply of reserve physicians by specialty. The costs of each alternative are also provided; these are important because the cost of each alternative will provide new reservists, on the margin, but the same incentive will generally have to be provided to all reservists in the Selected Reserve or the IRR. Reservists already on board will receive the same increases and compensation, even though the increases were not needed to induce them to join the reserve. This fact, known as economic rent, increases the costs of the compensation alternatives.

Special Pay

This alternative represents special monthly pay for annual training and periods of inactive duty training for all physicians in the reserve components. The amount analyzed is at a monthly rate of $450 which equates to $225 for 15 days of annual training and $60 for four drills periods. This represents an increase of $100 in the monthly rate currently authorized for medical officers with two or more years of active duty. On the margin, it will increase reserve pay by $945 per year for all physicians without prior service in the Selected Reserve.

A strong rationale exists for removing the current requirement for prior active duty service, thereby entitling all reserve medical officers to this special pay. When the current special pay for reserve medical officers on active duty for training was first paid in 1974, it was paid in the same amount and with the same qualifying conditions as that in effect for active duty medical officers ($150 per month with one but less that two years of active duty and $350 per month with two or more years of active duty). At that time, active duty medical officers who signed service agreements to remain on active duty for periods of from one to four years were also entitled to an annual variable incentive pay bonus. No comparable annual bonus entitlement was legislated for reserve component medical officers. Thus, although authority for direct payment in return for an additional service commitment was not applied to the

medical reserve force, there was a clear connection between the active and reserve special pay authorized for basic qualification and service as a medical officer.

On meeting the same qualifying criteria, the reserve medical officer was paid special pay in an amount equivalent to that of the active duty medical officer. The reserve medical officer was paid only when on active duty, however, and the basis for the entitlement to the pay, at either the $150 or $350 level, was largely unrelated to the reserve situation; it was based on active duty service. The Uniformed Services Health Professionals Special Pay Act of 1980, which revised the active duty special pay program, made special pay entitlement for basic qualification and service as a medical officer even less comparable between active and reserve medical forces. The Act entirely revised and significantly improved the special incentive program for active duty medical officers. As previously discussed, such an adjustment was not made for reserve medical officers.

The element of the revised active duty special pay package that most nearly parallels the former monthly special pay for active duty medical officers (and that still authorized for reserve medical officers) is variable special pay (VSP). Criteria for entitlement are a commission as a medical officer and status on active duty under a call or order to active duty for a period of not less than one year; the status is stipulated simply to differentiate an officer on extended active duty from a reservist on order or call to active duty (or full-time National Guard duty) for less than one year. Entitlement, like that for the former special pay, is based on qualification and service as a medical officer and is not related to specialty, professional certification, or level of manning. All other active duty incentive pays legislated as part of the revised active duty program in 1980 are paid selectively, based on special criteria such as professional certification, execution of agreements for active duty service, or qualification in a limited number of specialties that are designated as critically short for the combat mission or manning level.

As shown in Appendix A, the annual rate of VSP (excluding medical officers in internship training) ranges from a low of $5,000 ($416.66 per month) to a high of $10,000 ($833.33 per month) for officers with six to eight years of service that is creditable for special pay purposes. From the $10,000 level, the rate of pay decreases after eight years of service, returning to an annual rate of $5,000 for medical officers with 22 or more years of service that is creditable for special pay purposes.

To reestablish the original relationship between active and reserve special pay would require an increase in the amount of entitlement to special pay for reserve medical officers. Establishment of a single rate of entitlement for all recipients at the annual rate of $5,400 (a monthly rate of $450 or $225 for 15 days of active duty for training and $60 for 4 drill periods) would approximate the lowest range of the comparable active duty pay (VSP) discussed above. An increased rate of reserve special pay would also serve the secondary function of reducing the loss in special pay sustained by active duty medical officers who enter the reserve.

The requirement that a reserve medical officer have previous active duty in order to qualify for the special pay is anachronistic. It appears that the original standard stemmed from the singular focus on active component requirements rather than a conscious expansion of a policy objective. Today the reserve medical force is clearly identified as an integral component of the defense medical department and plays a major role in the primary mission of combat medical readiness. To meet the manpower requirements necessary to sustain medical readiness, the reserve components must attract personnel who have never served on active duty. The pool of personnel with prior active duty is by itself inadequate. A full 20-year career in the reserve must become much more commonplace if the Services are to meet their readiness goals. Further, officers with prior active duty service are more likely to enter the reserve than are individuals with no prior active duty. Personnel with prior service may join the reserve based on remaining obligation or due to vested retirement interest they established while on active duty; or they may join because they enjoyed military duty and want continued military experience. These very powerful motivating factors do not function in the population without prior service; thus, incentives to attract individuals with no prior service must be at least as attractive as those for personnel who have prior service. Unless an incentive is designed specifically to attract the prior active duty officer, special incentives developed for reserve health professionals should apply equally to personnel without regard to prior active duty service.

The raise in special pay will bring an estimated 54 more physicians into the reserve. The incremental cost associated with this program is $5 million. Table 5-19 compares the current and the alternative programs.

The special pay alternative recognizes the value of the active force VSP and the generally very high civilian income of physicians. Thus, the alternative is set at a single rate applicable to all reserve medical officers. Compensation incentives do not elicit the same response in all specialties. Physicians in the nonsurgical specialties, for instance, respond

Table 5-19. Current and Alternative Special Pay Programs for Reserve Medical Officers

Prior Active Service	Current System	Alternative
Less than 1 year	None	$450/month for annual training ($225 for 15 days) ($60 for 4 drills)
1 year but less than 2 years	$100/month for annual training ($50 for 15 days)	$450/month for annual training ($225 for 15 days) ($60 for 4 drills)
2 years or more	$350/month for annual training ($175 for 15 days)	$450/month for annual training ($225 for 15 days) ($60 for 4 drills)

most favorably to monetary incentives because their average civilian income is substantially lower than that of physicians in the specialties that have been designated as critically short wartime specialties. Even more significant, the analysis indicates that the response differs among physicians in the critically short wartime specialties. Physicians in the general surgery specialty respond more favorably to compensation incentives than do those in orthopedic surgery and anesthesiology specialties. Those in the "other" surgeon category respond at an intermediate level (between those in the medical specialties and those in orthopedic surgery and anesthesiology). Development of a multiple-tier system, applying incentives at differing levels, is suggested. This would be appropriate in order to obtain the desired result at each level. Table 5-20 shows the categories used in analysis of the alternatives and their estimated effects.

Stipend for Training in Very Critically or Critically Short Wartime Specialties

One alternative is to provide a stipend for qualified physicians who are participating in graduate medical education to become qualified in a critically or very critically short specialty. The income of residents in training is generally low, and frequently a physician has large debts remaining from educational loans. A stipend program was authorized in the Fiscal Year 1986 Department of Defense Authorization Act and modified and expanded for Fiscal Year 1988. The stipend can

Table 5-20. Categories Used in Analysis of Reserve Medical Officer Compensation Alternatives

Category	Specialties
Very critically short specialties	Anesthesiology Orthopedic Surgery
Critically short specialties	General Surgery
Other	Other Surgery Medical (nonsurgical)

reduce the burden of the cost of living during a period of low income for the resident. The rate in effect on July 1, 1987, was $664 per month. Implementation was initially delayed, but Service programs are now in place. Because of the delayed implementation, effects of this program could not be evaluated.

While it is too soon to judge the actual effect, the QRMC estimates that, on the margin, this alternative will attract about 148 additional medical officers per year in the combined very critically and critically short specialty groups. The annual cost associated with this program for the Selected Reserve for one year based on 148 participants is approximately 1.2 million. The National Defense Authorization Act for Fiscal Years 1988 and 1989 also authorized a stipend of $332 per month for physicians who agree to participate in the IRR. The increase to the IRR is anticipated at 143 physicians for the first year, with a projected cost of $0.6 million. The current and alternative stipend systems are shown in Table 5-21.

Loan Repayment (For Very Critically and Critically Short Specialties)

Physicians completing medical school, internship, and residency frequently have high debt, as indicated earlier. The Fiscal Year 1986 Department of Defense Authorization Act authorized a loan repayment program for medical officers qualified in specialties designated by the DoD as critically short for wartime. As the program has only been recently implemented, evaluation of its impact from actual data was not possible.

The alternative evaluated by the QRMC would increase the current statutory annual loan repayment from a maximum of $3,000 for qualifying medical officers serving in the Selected Reserve to a maximum of $8,000 annually for very critically short

Table 5-21. Current and Alternative Stipend Programs for Residents in Very Critically and Critically Short Wartime Specialties

Parameters	Current System	Alternative System
Eligibility	Residents in training in anesthesiology, orthopedic surgery or general surgery	No change evaluated
Entitlement	$664 per month for service in the Selected Reserve $332 per month for service in the IRR	
Obligation	Two for one contractual obligation following completion of residency training	No change

Note: The stipend increases at the same rate as basic pay.

specialists and to $4,000 annually for critically short specialists. This amount increases the total remuneration of anesthesiologists by about 100 percent and of orthopedic surgeons by approximately 142 percent. On the margin, the option increases the combined number of specialists in the very critically short wartime skills in the Selected Reserve by approximately 110 in the first year. The $4,000 annual loan repayment for critically short wartime specialists is projected to increase the number of physicians in that category in the Selected Reserve by 62 physicians for the first year. The projected additional cost for both levels of loan repayment is $1.1 million.

A loan repayment program for the IRR has also been evaluated, at the annual repayment rate of $4,000 for the very critically short specialties only. The projected impact is an additional 56 medical officers, with an associated cost of $0.2 million.

The loan repayment program is detailed in Table 5-22.[3]

Table 5-22. Current and Alternative Reserve Medical Officer Educational Loan Repayment Programs

Parameters	Current System	Alternative System
Eligibility	All critically short specialties	Apply at differing levels to very critically short and critically short specialties
Entitlement	$3,000 per year, to a maximum total of $20,000	Selected Reserve: Increase the payments for the very critically short specialties to 15% of outstanding debt per year or $8,000, whichever is lower, up to a cumulative maximum of $50,000; and, for the critically short specialties, increase to 15% per year or $4,000 per year, whichever is lower, to a cumulative maximum of $25,000. IRR: Add payments for very critically short specialties. At rate of 15% per year or $4,000 per year, whichever is lower, to a cumulative maximum of $25,000.
Membership requirement	Must be a member of the Selected Reserve. Receive payment upon completion of each year of service	Add program for IRR

Note: The current authority extends through FY 1990.

Incentive Bonus (For Very Critically and Critically Short Specialties)

Bonuses are intended to help attract and retain physicians for the reserve who are qualified in specialties in critically short supply for wartime. The approach is to compensate these physicians, who earn very high civilian incomes, for choosing to

spend time in the reserve rather than in practice or leisure activity. Under the option evaluated, an incentive bonus would be paid on accession into the reserve or in return for a commitment to remain in the reserve. Because estimates indicated that anesthesiologists and orthopedic surgeons would respond less readily than would general surgeons, a two-tier bonus program was analyzed. Members in the very critically short category, which includes anesthesiologists and orthopedic surgeons, would receive a $10,000 annual bonus whereas the critically short tier (general surgeons) would receive a $6,000 annual bonus. On the margin, the bonus alternative would increase annual reserve compensation to anesthesiologists by 123 percent and to orthopedic surgeons by 177 percent. The effect of a bonus of $6,000 increases the annual reserve compensation of general surgeons, on average, by 100 percent. The supply effect of these bonuses on the Selected Reserve for the first year is an additional 168 anesthesiologists and orthopedic surgeons combined and 110 general surgeons. In order to provide comparative data, a $3,000 bonus was also analyzed for specialties which have not been classified as critically short for wartime. The $3,000 bonus for other physicians is projected to increase the supply to the Selected Reserve by 837 physicians during the first year. The costs associated with the bonus option for the first year are $10.3 million for the very critically and critically short specialties combined and $15.8 million for other physicians. Data on the effects of a bonus are provided in subsequent tables.

Reduced bonus levels for medical officers in the IRR were evaluated at an annual rate of $4,000 for very critically short wartime specialists and $3,000 for critically short specialists. The incentive bonus program is described below in table 5-23.

Health Education Courses and Experiences

It is DoD policy that reserve health care personnel shall be afforded the opportunity to attend at least one health education course or experience annually. Funding constraints, however, have been a limiting factor in enabling health care personnel to participate in continuing health education on an annual basis. Generally, the Services have problems in funding all officers who would like to attend such courses annually. The QRMC recommends a review of current funding procedures to ensure that the intent of DoD Directive 1215.4, "Medical Training in the Reserve Components," which states that "reserve health care officers shall be afforded an annual opportunity to attend at least one health education course in reserve status" is achieved. The QRMC concludes that it is important for the Services to provide funding for all physicians to attend one health education course or experience annually within existing budget authority and priorities. Continuing education is generally a professional requirement and, in addition, most

Table 5-23. Current and Alternative Incentive Bonus Programs for Reserve Medical Officers

Eligibility	Current System	Alternative System
Selected Reserve:		
Very critically short specialties	None	$10,000 per year lump sum payment
Critically short specialties	None	$ 6,000 per year lump sum payment
Other specialties	None	$ 3,000 per year lump sum payment
IRR:		
Very critically short specialties	None	$4,000 per year lump sum payment
Critically short specialties	None	$3,000 per year lump sum payment

physicians feel that it is in their interest to attend professional meetings to remain current in studies and developments in their respective fields. They consider it as part of the expense of doing business and maintaining state-of-the-art knowledge of medical developments. Physicians appear to value such participation at or above the opportunity cost of absence from professional practice. Such opportunity cost is the forgone professional income for the period of their absence, less taxes and associated professional expenses. This benefit can be provided to the reserve physician at a value far outweighing the cost of the meetings to the reserve components. Based on a marginal tax rate of 32 percent, the average annual increase in pretax reserve income that this benefit would provide physicians is about $1950, or about a 28 percent increase, not including saved opportunity cost.

The program has multiple benefits that extend beyond the immediate enhancement of individual and unit mobilization readiness. There is a very low level of awareness of reserve opportunities among the civilian health care community. A strong additional impact may be made in the area of direct advertising. When a health professional attends a civilian training experience, the reserve medical department obtains direct exposure to the very populations from which it seeks to recruit potential members. Further, there are strong

indications that health professionals respond much more favorably to recruiting efforts by professionals in the same field than they do to laymen.

The effect on supply of reserve medical officers were all medical officers entitled to one health course or experience annually is projected to be approximately 111 physicians during the first year. The total costs associated with this benefit will reflect not only the incremental costs associated with new physicians joining the reserve but also the costs of all physicians currently in the reserve components. This opportunity was evaluated for all health professionals in the Selected Reserve as well; the analysis was not restricted to medical officers. The estimated annual incremental cost of this program for Selected Reserve medical officers is approximately $1.8 million, based on an increase in attendance of approximately two-thirds during the first year. The 6th QRMC concluded that this program was valuable, that the existing direction was appropriate. Requirement for mandatory fencing of program funds for this purpose was unnecessarily cumbersome and restricted management flexibility.[4] However, a review of current procedures for funding and for ensuring compliance with DoD Directive 1215.4 is recommended.

In summary, the preceding group of major compensation alternatives includes the following options:

- For fully qualified physicians
  - Special pay for periods of active duty for training and inactive duty training
  - Loan repayment (very critically and critically short wartime specialties only)
  - Annual incentive bonus
  - Attendance at health education courses/experiences
- For qualified physicians in training in the very critically and critically short wartime specialties
  - Student stipend

Summary of Accession Alternatives

Accession alternatives for the Selected Reserve and the IRR require modifying current compensation practices and enacting proposals for additional compensation. Compensation alternatives focus on three groups of physicians: (1) the very critically short specialties - orthopedic surgeons and anesthesiologists, (2) the critically short specialties - general surgeons, and (3) all other physicians.

In addition to giving direct compensation for the Selected Reserve and the IRR, developing a system similar to the Army National Augmentation Detachment (discussed in Chapter 3) would allow recruiting of physicians and nurses in areas where there are no units or positions available. Such recruitment provides flexibility for the system even without additional incentives. Recruitment in areas without units essentially increases the pool from which physicians could be drawn and hence would increase the number of physicians joining the reserve (assuming that physicians in those areas behave similarly to physicians in other areas).

The tables that follow show the impact of each pay alternative on supply and on cost, as well as its effect on the needed physician specialties. Impacts on supply and cost are shown separately for the Selected Reserve and the IRR. The first year impact for the Selected Reserve and the IRR are summarized in Tables 5-24 and 5-26 respectively. The total increase in physicians due to the pay alternatives is 1,600 for the Selected Reserve for the first year and 478 for the IRR. Projected costs for the first year for the compensation options evaluated are shown in Tables 5-25 and 5-27 for the Selected Reserve and the IRR. Over a five year period, the increases in the number of physicians is 6,106 for the Selected Reserve as indicated in Table 5-28. The increase is slightly less each year over the five year period as the options progressively lose relative value due to increases in civilian income. The five-year increase in anesthesiologists and orthopedic surgeons combined is 1,341 physicians. The increase for a 5-year period for the general surgery group is 1,150 physicians.

The shortage of very critically and critically short wartime specialties, as well as the shortage for all physicians in the aggregate in the Selected Reserve is projected to be met during a five-year period. Based on the FY 1986 continuation rate of 85.6 percent for medical officers in the Selected Reserve, the net gain projected to the Selected Reserve over a five-year period is 6,677 physicians which is in excess of the FY 1986 shortfall of 3,038. Some losses to the Selected Reserve will be gains to the IRR as medical officers move into the IRR to fulfill a remaining military service obligation or for other reasons. Based on the specific alternatives evaluated in this report, it is projected that additional incentives would be required to meet the entire wartime shortfall during a five-year period. As indicated above however, the five year estimates are not precise and are only intended to provide a general indication of the feasibility of compensation alternatives in the range evaluated with respect to the achievement of DoD objectives. Five-year projections are outlined in Tables 5-29 through 5-31.

Table 5-24. First-Year Impact of Pay Alternatives on the Supply of Physicians (Selected Reserve)

Alternative	Additional Members in Specialty Categories: Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Special Pay $450/mo	-	-	-	54	54
Incentive Bonus $ 10K/yr (very crit short)	168	-	-	-	168
Incentive Bonus $ 6K/yr (crit short)	-	110	-	-	110
Incentive Bonus $ 3K/yr (other spec)	-	-	837	-	837
Loan Repayment $ 8K/yr (very crit short)	110	-	-	-	110
Loan Repayment $ 4K/yr (crit short)	-	62	-	-	62
Resident Student Stipend $664/mo	50	98	-	-	148
Health Education Courses/Experiences	-	-	-	111	111
Total	328	270	837	165	1,600

Table 5-25. Total First-Year Cost ($000) of Pay Alternatives for Physicians (Selected Reserve)

Alternative	Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Special Pay $450/mo	-	-	-	$6,657*	$6,657
Incentive Bonus $ 10K/yr (very crit short)	$5,390	-	-	-	5,390
Incentive Bonus $ 6K/yr (crit short)	-	$4,944	-	-	4,944
Incentive Bonus $ 3K/yr (other spec)	-	-	$15,809	-	15,809
Loan Repayment $ 8K/yr (very crit short)	880	-	-	-	880
Loan Repayment $ 4K/yr (crit short)	-	248	-	-	248
Resident Student Stipend $664/mo	398	781	-	-	1,179
Health Education Courses/Experiences	-	-	-	4,504**	4,504
Total	$6,668	$5,973	$15,809	$11,161	$39,611

*Incremental cost-$5.0 million
**Incremental cost-$1.8 million

Note: Except as shown immediately above, including where an incentive currently exists, costs shown are total program costs and not additive costs.

Table 5-26. Impact of Pay Alternatives on the Supply of Physicians (IRR)

Alternative	Additional Members in Specialty Categories: Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Special Pay $450/mo	-	-	-	-	-
Incentive Bonus $ 4K/yr (very crit short)	152	-	-	-	152
Incentive Bonus $ 3K/yr (crit short)	-	127	-	-	127
Loan Repayment $ 4K/yr (very crit short)	56	-	-	-	56
Resident Student Stipend $332/mo	68	75	-	-	143
Health Education Courses/Experiences	-	-	-	-	-
Total	276	202			478

Table 5-27. Total First-Year Cost ($000) of Pay Alternatives for Physicians (IRR)

Alternative	Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Special Pay $450/mo	-	-	-	-	-
Incentive Bonus $ 4K/yr (very crit short)	$2,008	-	-	-	$2,008
Incentive Bonus $ 3K/yr (crit short)	-	$1,971	-	-	1,971
Loan Repayment $ 4K/yr (very crit short)	224	-	-	-	224
Resident Student Stipend $332/mo	271	299	-	-	570
Health Education Courses/Experiences	-	-	-	-	-
Total	$2,503	$2,270			$4,773

Note: Costs shown are total program costs rather than additive costs, including where an incentive currently exists.

Table 5-28. Five-Year Impact of Pay Alternatives on the Supply of Physicians (Selected Reserve)

Alternative	Additional Members In Specialty Categories: Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Special Pay $450/mo	-	-	-	194	194
Incentive Bonus $ 10K/yr (very crit short)	606	-	-	-	606
Incentive Bonus $ 6K/yr (crit short)	-	396	-	-	396
Incentive Bonus $ 3K/yr (other spec)	-	-	3,019	-	3,019
Loan Repayment $ 8K/yr (very crit short)	485	-	-	-	485
Loan Repayment $ 4K/yr (crit short)	-	264	-	-	264
Resident Student Stipend $664/mo	250	490	-	-	740
Health Education Courses/Experiences	-	-	-	402	402
Total	1,341	1,150	3,019	596	6,106

Summary of Retention Alternatives

The 6th QRMC considered retention alternatives to keep reserve physicians in the reserve medical force after they have joined. Retention alternatives may focus on the hard-to-recruit skills, namely orthopedic surgeons, anesthesiologists, and general surgeons, but are generally applicable to all medical officers. If retention is increased, fewer physicians will be required to enter initially. Although the analysis focused mainly on accession alternatives, an improvement in the annual continuation rates for critically short wartime specialties, (which have averaged at the mid-to-upper 80 percent level since 1981), would be advantageous to the reserve. Retirement incentives, special training, professional education, and other incentives can be provided to help keep the physician in the reserve. In addition, one of the primary causes of attrition from the reserve appears to relate to satisfaction of reserve medical officers with activities during reserve training. No analysis was made of the costs or benefits of alternatives designed to increase continuation rates and no recommendations are made.

The following retention alternatives are, however, suggested for further consideration:

Special training would cross train in critically short wartime specialties or skills those individuals with a civilian specialty that is not critically short for wartime.

Table 5-29. Net Gain in Supply of Physicians and Impact on Shortfall in Selected Reserve over a Five-Year Period, by Specialty.

Source of Gain	Additions to Specialties: Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Compensation Alternatives					
Special Pay $450/mo	-	-	-	194	194
Incentive Pay Bonus $ 10K/yr (very critically short)	606	-	-	-	606
Incentive Pay Bonus $ 6K/yr (critically short)	-	396	-	-	396
Incentive Pay Bonus $ 3K/yr (other specialties)	-	-	3019	-	3019
Loan Repayment $ 8K/yr (very critically short)	485	-	-	-	485
Loan Repayment $ [illegible]/yr (critically short)	-	264	-	-	264
Resident Student Stipend $664/mo	250	490	-	-	740
Health Education Courses/Experiences	-	-	-	402	402
Subtotal	1,341	1,150	3,019	596	6,106
Standard Growth	160	276	1,849	-	2,285
Total Gain	1,501	1,426	4,868	596	8,391
Losses	(359)	(295)	(901)	(159)	(1,714)
Net Gain	1,142	1,131	3,967	437	6,677
Status of Selected Reserve					
(Selected Reserve shortfall-FY 1986)	(589)	(795)	(1,654)	-	(3,038)
Selected Reserve surplus (after 5 years)	553	336	2,313	437	3,639

Table 5-30. Impact on Supply of Physicians to the IRR Over a Five-Year Period

Source of Gain	Additions to Specialties: Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Compensation Alternatives	1,251	919	-	-	2,170
Standard Growth *	152	197	1,040	-	1,389
Total Gain *	1,403	1,116	1,040	-	3,559

* The growth in the supply to the IRR does not include attrition.

Table 5-31. Net Gain in Supply of Physicians and Impact on Total Wartime Shortfalls Over a Five-Year Period

Source of Gain	Additions to Specialties: Very Critically Short	Critically Short	Not Critically Short	Any Specialty	Total
Selected Reserve	1,142	1,131	3,967	437	6,677
IRR	1,403	1,116	1,040	-	3,559
Total Gain	2,545	2,247	5,007	437	10,236
Status of Wartime Shortfall					
(Total wartime shortfall-FY 1986)	(3,345)	(1,920)	(1,835)	-	(7,100)
Total Wartime status (after 5 years)	(800)	327	3,172	437	3,136

Low interest loans for initiating a medical practice would reduce costs of civilian practice for reserve medical officers.

Continuing education in the physician's specialty is valued highly by physicians and is therefore considered to be a strong retention as well as accession incentive.

Subsidization of liability insurance rates would provide insurance as a cosponsor, thereby reducing rates for the reserve member.

Demobilization assistance would guarantee pay after mobilization for the period required to re-establish practice.

Summary and Recommendations

In summary, the QRMC analyzed several compensation alternatives, projecting the impact on supply and cost for each option evaluated. The QRMC evaluated a modification of the current authority that provides special pay to reserve physicians on active duty for training. The program evaluated included payment to all medical officers irrespective of prior service, payment at a flat rate of $450 per month, and expansion of entitlement to periods of inactive duty training. The stipend program for reserve physicians in training in the critically short wartime specialties was evaluated at the current rate. A modification of the current loan repayment program that authorizes annual payments in the amount of $3,000 was analyzed for increased annual payment levels ranging from $4,000 to $8,000. Incentive bonuses were evaluated in amounts ranging from $3,000 to $10,000. The impact of attendance at one health education conference or experience annually was also analyzed for medical officers as well as other health care professionals in the Selected Reserve.

The 6th QRMC analysis of alternative pay compensation options for physicians in the reserve indicates that additional compensation incentives are necessary to eliminate the shortfall of physicians to the reserve. The total physician shortfall is approximately 7,100, of which 5,265 positions are in specialties designated as critically short for combat. The reserve components are committed to reducing the latter shortfall by 20 percent per year.

For physicians, the combination of pay alternatives discussed above produces increases in the supply of physicians as previously detailed in this chapter. Pay alternatives are presented independently because the interactive effects of the alternatives were not analyzed. The development of a national administrative headquarters for the management of health care personnel who are not able to be assigned to local units is

suggested for consideration by all Services. A program similar to that discussed in Chapter 3 should have a beneficial impact on recruiting into the reserve.

The 6th QRMC recommends that the bonus alternative be evaluated in a provisional program for the Selected Reserve that includes analysis of impact for specific geographical subgroups. The provisional program should be monitored closely, in the context of an experiment, to identify the separate and interactive effects of the bonus with existing Selected Reserve incentives. This provisional program would operate over a two- to four-year cycle, with an evaluation at the end of the first year to identify needed program adjustments and endorse, modify, or cancel the program at the end of the cycle. The experimental program is recommended for the Selected Reserve only at this time, as the current administrative resources and training programs in the IRR are viewed as inadequate to support a full scale experiment. The projected cost of such an experiment, conducted in conjunction with nursing specialties, is projected to cost $8.25 million over a four-year period and $3.8 million for the first year.

In addition, the compensation package should be evaluated not only in the context of past and present shortfalls, but also in the context of potential diminished future shortfalls. The American Medical Association indicates that the supply of physicians will increase relative to demand over the next ten years. In fact, it is anticipated that an excess supply will exist in the early to mid-1990s. With an excess supply, the potential pool of reservists will effectively increase, thereby providing a positive effect relative to the achievement of manpower goals. This positive effect should be greater than would have occurred with an excess demand or equilibrium in the market for physicians. Over a period of perhaps six to eight years, the supply of physicians should adjust, and the number of students coming out of medical school may decrease, or at least not increase as rapidly as has recently been the case. In fact, enrollments in medical schools are already starting to decline. Possible explanations are that medical schools themselves are rationing physicians by limiting the supply of graduates, or that students are viewing their future opportunities and, perceiving that those opportunities may be decreasing, choosing other occupations.

Findings indicate that the reserve, given the pay alternatives evaluated, in concert with other administrative actions and policy changes, could be sufficient to eliminate the shortfall in five years for all but anesthesiologists and orthopedic surgeons. However, the uncertainty in programs like these and the "thinness" of the data, require that the programs be monitored very closely. The variance in both accession to the reserve and continuation in the reserve can be large. Many

factors operate to influence reserve supply, including such factors as general public awareness and attitudes, perceived international unrest, likelihood of armed conflict, and general economic conditions. The program must be evaluated periodically and adjusted to deal with the nonquantifiable factors.

Finally, an increase in accessions to the reserve (members with no prior service as well as those with prior service) will increase the pool of initial reservists and hence the number continuing on will increase. All new accessions without prior service incur an eight-year military service obligation. A medical officer is a deployable asset whether a member of the Selected Reserve or the IRR. Therefore, as accessions come increasingly from the portion of the civilian population with no prior service, the number of accessions continuing in the reserve for at least eight years will increase. That increase in the number who are obligated to continue in the reserve for an extended period of time, in combination with a projected increase in the continuation rate based on implementation of new compensation programs, will reduce the demand for new reservists. Should a high percentage of medical officers with no prior service choose to leave the reserve after eight years, that length of service is sufficient to stabilize the demand for new reservists.

Notes

1. The analysis incorporated FY 1986 data as shown in Table 5-17. However, as discussed in Chapter 1, the Health Manpower Information System (HMIS), the official database for the Office of the Assistant Secretary of Defense for Health Affairs, recently incorporated reserve component data. The FY 1987 shortfall for the Selected Reserve as indicated by HMIS is a total of 2,487 of which 1,212 are in the critically short physician wartime specialties.

2. The data from RCCPDS indicates 20 more physicians than the data from the REMMIS database combined with the Medical Trends Data Report, the basis for the number of assigned medical officers in the Selected Reserve. This represents a difference of 0.37 percent that was not definitively reconciled.

3. The loan repayment program would potentially be more attractive to health professionals if the payments were nontaxable. In 1983, the Internal Revenue Service concluded that loan repayment by the DoD under the Fiscal Year 1981 Defense Authorization Act (section 902 of P. L. 96-342) on behalf of certain enlisted members was taxable income. Since that time, however, changes have occurred in the tax laws regarding the taxable status of educational loan forgiveness programs. The Tax Reform Act of 1984 (P. L. 98-369) excludes from gross income certain discharges of student loans.

4. A minority view in favor of fenced funding to ensure attendance was made available to all health professionals was expressed by the Reserve Components Medical Council (RCMC) representative on the 6th QRMC Steering Committee.

Chapter 6. ATTACKING SHORTAGES OF NURSES IN THE RESERVE COMPONENTS

In FY 1986, the total wartime shortfall of nurses was 31,000 and the shortfall of nurses in the Selected Reserve was approximately 3,381. The shortfall in the Selected Reserve represented about 25 percent of the FY 1986 authorization. One of the primary reasons for the difficulty in achieving manpower objectives for nurses appears to be the fact that working qualified nurses are currently in short supply in the civilian economy. This shortage portends civilian wages being bid up for nurses, as they were subsequent to the 1979 nurse shortage, making it more difficult to attract nurses to the reserve.

Surveys over the past several years have indicated that reserve pay is an important factor in attracting and retaining nurses. Other factors are important, such as working conditions and the appropriate application of skills, but compensation is a primary motivating factor. Yet, compensation for reserve nurses has not been augmented in order to help meet targeted strengths.

Can nurses be attracted in larger numbers to the military through increased pay and benefits? The answer is that more nurses can be recruited into the reserve components, but the magnitude of the increase depends upon the compensation and the resulting responsiveness of nurses to additional compensation.

Civilian Supply

There were about 1.9 million nurses in the United States in 1984. Of these, about 1.5 million were employed in nursing. Nurses are qualified in several different specialties in the civilian sector. For the reserve components, nurses qualified as nurse anesthetists and operating room nurses, as well as all other nurses have been designated by the Office of the Assistant Secretary of Defense for Health Affairs as specialties critically short for wartime. Many of the nursing specialties that the reserve requires tend also to be in short supply in the civilian economy. Of the total registered nurses, only 17,300 are nurse anesthetists and an estimated 83,100 are operating room nurses. Nurses are distributed throughout the United States much as the population is distributed across the United States: the majority of nurses are in the Middle Atlantic region (including New York), East North Central region (including Chicago), South Atlantic region (including Miami and Atlanta), and the Pacific (including Los Angeles and San

Francisco) regions. Table 6-1 shows the distribution of nurses across the United States in 1984. The key concern in the civilian sector is whether there will be sufficient supply in the future to preclude a nursing shortage. A large shortage would tend to reduce recruiting opportunities of the reserve vis-a-vis no shortage.

Table 6-1. Regional Distribution of Nurses in the United States

Region	Total	Employed in Nursing	Not Employed in Nursing	Nurse Anesthetist	Other Nurse
New England	158,044	119,914	38,130	909	157,135
Middle Atlantic	367,147	277,040	90,107	2,490	364,657
East North Central	345,202	277,280	67,922	2,763	342,439
West North Central	149,298	125,639	23,659	2,131	147,167
South Atlantic	289,857	227,724	62,133	3,275	286,582
East South Central	85,526	72,429	13,096	1,546	83,980
West South Central	145,661	113,518	32,143	2,270	143,391
Mountain	95,264	72,448	22,817	623	94,641
Pacific	251,697	199,734	51,964	1,292	250,405
All Regions	1,887,697	1,485,725	401,971	17,299	1,870,398

Note: The number of nurse anesthetists is the number of registered nurses certified by the Councils on Certification and Recertification of Nurse Anesthetists as of January 1985.

Other nurses are derived by subtracting nurse anesthetists from the total registered nurses from the National Sample Survey of Registered Nurses as of November 1984.

Source: U.S. Department of Health and Human Services, The Registered Nurse Population: Findings from the National Sample Survey of Registered Nurses November 1984
American Nursing Association, Facts About Nursing 84-85

In terms of demographics, considerable numbers of nurses are employed part-time, which has a downward affect on total nurse compensation in the civilian sector. The salaries of nurses vary significantly across the country. The starting rates for staff nurses are highest in San Francisco and lowest in Seattle, as shown in Table 6-2. However, the top rates for nurses are highest in Boston and Chicago. Table 6-3 compares monthly salaries for several nursing specialties/positions. Nurse anesthetists earn significantly more than do staff nurses, with the income of head nurses and nurse practitioners falling in between.

Table 6-2. Staff RN Earnings in 19 Major Cities in 1986

City	Start Rates Low $	Start Rates High $	Top Rates Low $	Top Rates High $	Increase in CPI %
Boston	21,736	23,608	31,283	48,381	2.1
NYC					
Manhattan	22,500	26,257	24,784	35,010	3.1
NYC-Metro Area	19,100	25,975	20,410	33,251	3.1
Newark	19,240	23,713	21,320	32,198	3.1
Baltimore	16,848	21,002	21,133	39,832	2.0
Miami	17,576	22,298	22,152	31,200	5.0
Atlanta	17,056	20,592	20,862	34,320	2.3
Houston	16,164	24,384	18,720	40,668	1.6
Dallas/					
Fort Worth	14,772	22,068	15,108	32,928	8.0
Cleveland	19,448	24,960	23,254	31,658	1.3
Chicago	16,120	23,712	21,736	48,880	2.3
Minneapolis	21,798	26,395	28,912	30,202	4.0
Milwaukee	17,680	21,382	22,526	31,304	2.0
Detroit	19,240	24,336	21,632	28,475	0.2
Denver	20,010	22,110	26,250	34,029	1.4
Seattle	19,698	19,906	27,664	28,933	1.4
Portland, Ore.	21,299	23,544	25,813	32,344	1.0
San Francisco	27,955	32,885	36,421	37,357	2.9
Los Angeles	22,090	25,834	28,787	34,341	3.3
San Diego	20,155	25,522	21,757	37,066	2.3

Source: American Journal of Nursing, January 1987

Nurses in the Reserve Components

Reserve Nurses in Relation to Nurses in the Civilian Economy

In FY 1986, the total number of nurses in the continental United States who served in the Selected Reserve was approximately 10,150. This number represents 0.5 percent of the total number of nurses in the civilian economy. Of the total reserve nurses, 439 are nurse anesthetists; another 781 are operating room nurses. The nurse anesthetists in the Selected Reserve represent approximately 2.5 percent of all nurse anesthetists, and operating room nurses in the Selected Reserve represent approximately 0.9 percent of all operating room nurses. Reserve nurses as a percent of regional nurse populations ranges from a low of 0.4 percent in the East North Central region to a high of 0.8 percent in the East South Central region.

Table 6-3. Monthly Salaries of Civilian Nurses (August 1986)

Rates	Head Nurse $	Nurse Anesthetist $	Nurse Practitioner $	Staff Nurse* $
HOSPITALS				
Starting Rates				
Lowest	1,680	1,817	1,661	1,417
Highest	3,305	3,528	2,485	2,314
Mean	2,144	2,583	2,045	1,696
1st Quartile	1,973	2,243	1,845	1,560
Midpoint	2,074	2,603	2,059	1,659
3rd Quartile	2,228	2,704	2,198	1,823
Maximum Rates				
Lowest	2,306	2,661	1,829	1,757
Highest	4,047	4,501	3,940	3,437
Mean	2,919	3,517	2,664	2,316
1st Quartile	2,591	2,972	2,446	2,054
Midpoint	2,912	3,528	2,583	2,279
3rd Quartile	3,140	3,859	2,865	2,458
INSTITUTIONS COMBINED **				
Starting Rates				
Lowest	1,416	1,715	1,574	1,350
Highest	3,305	3,664	2,698	2,415
Mean	2,122	2,596	2,060	1,695
1st Quartile	1,946	2,281	1,792	1,559
Midpoint	2,074	2,535	2,058	1,650
3rd Quartile	2,305	2,817	2,227	1,822
Maximum Rates				
Lowest	1,702	2,661	1,694	1,595
Highest	4,047	4,501	3,940	3,437
Mean	2,857	3,490	2,618	2,312
1st Quartile	2,544	3,125	2,432	2,054
Midpoint	2,857	3,520	2,659	2,337
3rd Quartile	3,132	3,777	2,867	2,466

*Staff nurse category includes medical-surgical and operating room nurses as well as other staff nurses.

**Institutions combined includes hospitals, medical schools and medical centers.

Source: 1986 National Survey of Hospital and Medical School Salaries, The University of Texas Medical Branch at Galveston

The number and characteristics of nurses serving in the Selected Reserve vary from region to region. The distribution of nurses in the Selected Reserve across regions and specialties is shown in Table 6-4. The age distribution across regions by specialty is shown in the Table 6-5. It is clear that specialties with higher incomes, discussed earlier, are also the specialties with an older age distribution. This age-income linkage occurs in part because it takes longer to train the specialist. Generally, advanced skill levels resulting from longer training and increased time in a specialty field result in higher income.

Table 6-4. Nurses in the Reserve FY 1986, by Specialty and Region

Region	Nurse Admin	Other General Nurse	Operating Room Nurse	Nurse Anesthetist	Other Specialist Nurse	Total
New England	7	204	55	32	361	659
Middle Atlantic	16	610	142	78	1,060	1,906
East North Central	22	422	95	53	631	1,223
West North Central	7	246	76	62	424	815
South Atlantic	43	743	120	66	822	1,794
East South Central	14	219	65	37	370	706
West South Central	21	347	80	54	422	925
Mountain	14	257	48	23	322	665
Pacific	42	716	100	34	566	1,458
Total	187	3,764	781	439	4,978	10,149

Note: The "other general nurse" category includes all nurses, except nurse administrators and directors of nursing services, listed under General Nurses in DoD 1312.1-M, Sept 1984.

The "other specialist nurse" category includes all nurses, except nurse anesthetists and operating room nurses, listed under Nursing Specialists in DoD 1312.1-M, Sept 1984.

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-5. Average Age of Nurses in the Reserve, by Specialty and Region

Region	Operating Room Nurse	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	37.3	39.1	53.0	38.5	42.0
Middle Atlantic	36.1	39.8	38.0	36.5	37.6
East North Central	36.3	43.3	38.5	34.3	38.0
West North Central	41.0	42.8	41.0	34.5	39.8
South Atlantic	39.7	47.8	38.9	36.0	40.6
East South Central	40.2	39.9	37.5	35.6	37.8
West South Central	38.9	40.7	39.1	37.6	39.1
Mountain	39.3	38.5	30.2	36.0	35.2
Pacific	38.5	41.0	35.0	36.6	37.8
Average	38.6	42.1	39.1	36.2	39.0

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Reserve income of affiliated nurses, by specialty, is shown in Table 6-6. The average reserve income of operating room nurses is approximately $5,000, and the average reserve earnings of nurse anesthetists is approximately $6,700. Other nurses earn about $5,000 per year in the reserve, with the exception of flight nurses who earn an average of $7,400 per year, bringing the average reserve income for all nurses to approximately $6,000. The distribution of the average reserve income of nurses is similar from region to region. However, there is a marked difference by region in terms of civilian income. The average civilian income of nurses who serve in the Selected Reserve varies significantly by specialty. Nurse anesthetists, for instance, earn significantly more than other nurses, as shown in Table 6-7. The ratio of reserve income to civilian income correlates by specialty and by region with the supply rates of nurses to the reserve. Clearly, the nurses with the highest ratio of reserve income to civilian income enter the reserve in higher numbers, and those with the low relative incomes are less likely to enter the reserve. Similarly, in regions where the reserve income is high relative to civilian income, the number of nurses in the reserve is also high. Table 6-8 provides an indication of reserve income relative to civilian income for nursing specialties and regions.

Table 6-6. Average Reserve Income of Nurses, by Specialty and Region

Region	Operating Room Nurse $	Nurse Anesthetist $	Flight Nurse $	Other Nurse $	Average $
New England	5,020	5,983	4,399	4,748	5,038
Middle Atlantic	4,609	5,564	11,000	4,392	6,391
East North Central	4,522	8,444	6,586	4,670	5,879
West North Central	5,110	5,374	11,250	4,315	6,512
South Atlantic	4,777	10,622	8,005	5,071	7,119
East South Central	4,896	6,016	6,539	4,623	5,353
West South Central	4,907	5,844	6,288	5,325	5,359
Mountain	3,873	5,297	4,293	4,283	4,150
Pacific					
Average	4,892	6,762	7,378	4,794	5,956

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-7. Civilian Income of Nurses in the Reserve, by Specialty and Region

Region	Operating Room Nurse $	Nurse Anesthetist $	Flight Nurse $	Other Nurse $	Average $
New England	21,829	43,294	33,723	26,322	31,292
Middle Atlantic	26,414	32,759	19,000	26,634	26,202
East North Central	35,489	43,681	30,699	28,486	35,885
West North Central	24,094	45,000	30,000	22,501	30,399
South Atlantic	17,968	49,337	30,865	24,962	30,783
East South Central	26,859	35,482	26,210	28,887	27,319
West South Central	24,827	63,513	31,499	25,002	37,781
Mountain	28,377	34,853	25,035	25,666	26,359
Pacific	26,167	45,000	19,000	28,877	29,761
Average	25,780	46,083	26,262	26,371	31,124

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-8. Average Reserve Nurse Income as a Percentage of Average Civilian Income of Reserve Nurses, by Specialty and Region

Region	Operating Room Nurse %	Nurse Anesthetist %	Flight Nurse %	Other Nurse %	Average %
New England	23.0	13.8	13.0	18.0	17.0
Middle Atlantic	17.4	17.0	57.9	16.5	27.2
East North Central	12.7	19.3	21.5	16.4	16.2
West North Central	21.2	11.9	37.5	19.2	22.5
South Atlantic	26.6	21.5	25.9	20.3	23.6
East South Central	18.2	17.0	24.9	16.0	19.7
West South Central	19.8	09.2	20.0	21.3	16.8
Mountain	13.6	15.2	17.1	16.7	15.8
Pacific	24.1	12.2	32.4	19.8	22.1
Average	19.0	14.7	28.1	18.2	19.1

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Supply of Nurses to the Reserve Components

As discussed previously, only a small percentage of the total nurses in the civilian economy are reserve component members. Attraction for nurses varies, but can be attributed, to several factors. One of the strongest incentives for reserve service is the interest active duty nurses have in preserving their investment in military retirement benefits, after deciding to leave active duty for the civilian economy. Other factors include continued interest in service to the country, training opportunities, and the need for supplemental income.

The reserve income of nurses averages 19 percent of their civilian income. Tables 6-9 and 6-10 show years of service in the reserve and years of prior active service. Reserve nurses average 0.9 years less reserve service and 0.4 years less active service than reserve officers as a group. Table 6-11 shows that reserve nurses generally work full-time in their civilian jobs, with some working more than 40 hours per week. Having to spend additional hours in the reserve reduces a nurse's leisure time--typically a time of high opportunity costs for those working full-time or irregular shifts. Tables 6-12 through 6-14 display training time and pay factors as they relate to participation of nurses in the reserve.

Table 6-9. Average Years of Reserve Service, by Specialty and Region

Region	Operating Room Nurse	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	8.6	10.9	24.0	8.5	13.0
Middle Atlantic	8.5	10.5	17.0	6.6	10.6
East North Central	6.3	14.2	10.2	5.8	8.8
West North Central	7.8	10.2	12.5	6.2	9.2
South Atlantic	6.8	14.0	11.8	6.6	9.8
East South Central	7.4	9.7	8.2	7.1	7.6
West South Central	8.8	19.8	11.8	6.7	11.8
Mountain	3.1	7.3	3.0	6.6	4.2
Pacific	8.4	8.0	7.0	6.8	7.6
Average	7.3	12.5	11.9	6.8	9.6

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-10. Average Years of Prior Active Duty Service, by Specialty and Region

Region	Operating Room Nurse	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	4.5	5.5	3.9	3.8	3.9
Middle Atlantic	2.8	3.0	3.8	3.8	3.7
East North Central	7.0	2.5	4.4	4.7	4.8
West North Central	2.0	6.8	3.0	4.4	4.6
South Atlantic	4.2	8.7	4.5	4.9	5.0
East South Central	4.4	4.6	3.8	3.7	3.7
West South Central	6.0	4.0	4.3	4.5	4.7
Mountain	3.7	5.0	4.2	4.6	4.5
Pacific	7.1	4.0	3.0	4.8	4.9
Average	5.3	5.8	4.0	4.6	4.6

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-11. Average Number of Hours Worked per Week in Civilian Jobs by Reserve Nurses, by Specialty and Region

Region	Operating Room Nurse	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	40.8	48.0	40.0	38.4	41.8
Middle Atlantic	42.6	45.9	40.0	38.3	41.7
East North Central	42.2	53.7	44.0	39.3	45.0
West North Central	39.7	46.2	40.0	38.7	41.1
South Atlantic	33.9	49.4	46.7	38.8	42.2
East South Central	41.9	44.4	41.4	39.6	40.8
West South Central	42.4	45.9	42.9	39.7	42.7
Mountain	39.5	44.7	45.2	38.8	41.2
Pacific	32.7	50.0	48.0	37.0	41.9
Average	39.5	48.4	43.1	38.7	42.4

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-12. Average Days of Annual Training, by Specialty and Region

Region	Operating Room Nurse	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	10.3	8.8	13.1	12.3	12.0
Middle Atlantic	13.1	16.2	15.0	12.4	12.6
East North Central	12.1	14.3	13.7	12.3	13.2
West North Central	14.8	11.5	22.5	13.5	13.8
South Atlantic	13.3	14.7	15.7	14.2	14.1
East South Central	12.6	13.2	15.0	13.8	13.8
West South Central	11.0	14.0	15.0	12.9	12.8
Mountain	13.6	15.0	15.0	12.8	13.0
Pacific	15.6	15.0	15.0	13.8	13.9
Average	12.3	12.7	14.3	12.7	12.7

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-13. Average Number of Unpaid Reserve Hours, by Specialty and Region

Region	Operating Room Nurse	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	0.7	2.0	6.3	5.6	5.1
Middle Atlantic	1.6	25.8	8.3	8.8	8.7
East North Central	2.8	6.7	7.9	8.4	8.0
West North Central	7.1	6.5	24.0	3.9	7.6
South Atlantic	3.3	19.3	2.7	6.2	6.2
East South Central	0.6	8.2	10.5	6.3	6.3
West South Central	3.0	16.0	8.0	4.6	4.8
Mountain	2.8	7.2	6.2	5.3	4.9
Pacific	4.6	9.4	7.9	7.2	7.2
Average	6.6	10.7	7.9	7.2	7.2

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Table 6-14. Average Annual Additional Paid Mandays Worked, by Specialty and Region

Region	Operating Room	Nurse Anesthetist	Flight Nurse	Other Nurse	Average
New England	5.8	7.5	0.0	4.3	4.4
Middle Atlantic	1.0	2.8	31.0	2.8	9.4
East North Central	1.2	14.0	9.5	5.2	6.8
West North Central	1.6	0.5	34.5	3.2	9.9
South Atlantic	0.2	36.6	10.9	4.1	13.0
East South Central	2.3	6.1	7.0	2.6	4.0
West South Central	0.9	3.2	8.0	10.1	4.7
Mountain	0.0	5.0	6.2	1.9	2.7
Pacific	5.1	0.0	4.0	6.4	3.9
Average	2.0	9.2	13.4	4.5	7.3

Source: 1986 Reserve Components Surveys
RCCPDS FY 1986

Reserve Demand for Nurses

The reserve medical forces require large numbers of nurses, and have perennially not met their total requirement. Table 6-15 shows the shortfall as measured against total wartime requirements and the peacetime shortfall for the Selected Reserve.[1] Relative to the total wartime requirements, the supply is dramatically short.

Table 6-15. Total Wartime and Selected Reserve Nurse Shortfalls, FY 1986

	Total Wartime Requirements	Total Wartime Shortfall	Selected Reserve Authorized	Selected Reserve Fill	Selected Reserve Shortfall
OR Nurse	*	*	1,372	771	601
Nurse Anesthetist	3,015	1,715	1,104	446	658
Other Nurse	55,985	29,285	11,146	9,024	2,122
Total	59,000	31,000	13,622	10,241	3,381

*The MPM does not project specific requirements for operating room nurses. Requirements for this specialty are included in the "other nurse" category. An estimated wartime shortfall of approximately 2,200 exists.

Source: *Wartime requirements from the Office* of the Assistant Secretary of Defense for Health Affairs. Selected Reserve figures for Army and Air Force from REMMIS. Army figures as of September 30, 1986. Air Force authorizations as of September 30, 1986; assigned as of June 30, 1986. Navy figures from Medical Manpower Trends Data Report as of September 30, 1986. Figures displayed in the aggregate.

Total wartime requirements for nurses reflect military needs at peak mobilization. One of the primary objectives of the 6th QRMC study was to identify compensation alternatives in support of the DoD goal to reduce the shortage of all nurses by 20 percent per year, completely eliminating the shortage over a five-year period. In FY 1986, the Selected Reserve authorization for nurses was 13,622, with 10,241 assigned. This left a Selected Reserve shortfall of 3,381 nurses. The nurse anesthetist shortage was 658 and the operating room nurse shortfall was 601, while the shortage of all other nurses was 2,122. The total wartime shortfall of nurses is much larger. Based on total wartime requirements, the total nurse shortfall was 31,000, with a shortage of nurse anesthetists of 1,715 and approximately 2,200 operating room nurses. This requirement can be filled in part from the IRR, the Standby Reserve and Retired

Reserve. As discussed in Chapter 5, reliance on the Selected Reserve and the IRR to accommodate additional personnel to meet wartime requirements varies between the Services.

Policies and compensation alternatives addressed in this report are intended to increase the accession rate of nurses to the reserve components and also to achieve a greater continuation rate among nurses. These goals require a set of policies that focus on attracting nurses to the reserve (primarily compensation policies) and policies to keep them in the reserve. Compensation is also important for retention, but such nonmonetary factors as appropriate use of nurses' skills, and rewarding and meaningful training are also extremely important.

Compensation for Nurses

Nurses do not make as much money in their civilian jobs as do physicians. Thus their opportunity costs with respect to additional activities are considerably lower. Two of the reserve nurse specialties deemed critically short for wartime, namely, nurse anesthetists and operating room nurses, exhibit characteristics which make them less responsive to service in the reserve. Nurse anesthetists have higher annual incomes than do staff nurses, work longer hours, and represent a very small segment of the total registered nurse population in the United States. The reserve requirement for operating room nurses is a much higher percentage of the total reserve nurse requirement than the civilian population of operating room nurses is a percentage of the total registered nurse population.

The 6th QRMC analyzed several compensation plans for attracting the significant numbers of nurses required to meet the total wartime shortfall. There is significant excess demand (given total wartime requirements) for nurses. The QRMC analysis concludes that nurses are likely to be relatively responsive to pay increases in the ranges that have historically been paid for reserve service. However, shortages in nurses are occurring in the civilian economy; this may bid up salaries and tend to reduce the responsiveness of nurses to increases in reserve income.

The QRMC only identified compensation alternatives for nurses in the Selected Reserve. Although no alternatives were evaluated for the IRR, it is anticipated that similar options would have a beneficial impact on IRR accessions and retention. Options for the IRR, without substantial drill requirement, may be appealing to many nurses and therefore relatively effective in meeting the very large shortfall. Data pertaining to the response to the two new stipend programs authorized in the National Defense Authorization Act for Fiscal Years 1988 and

1989 for graduate and undergraduate nurses in the IRR should be monitored and the information obtained used as a basis for program modification or further program development.

As was the case for physicians, the 6th QRMC analyzed compensation alternatives in two broad categories: accession alternatives and retention alternatives. Accession alternatives induce nurses to choose participation in the reserve. The accession compensation alternatives considered are those that should provide an additional impetus to nurses who would not have joined the reserve otherwise. The compensation alternatives under consideration are specific to the reserve.

Retention alternatives are compensation alternatives that encourage nurses to remain once they have completed a number of years within the reserve. Retention alternatives tend to differ from accession alternatives and work over a longer term; to a large extent, the alternatives that keep nurses in the National Guard and Reserve must combine fair compensation with less tangible incentives such as appropriate use of a nurse's skills, training opportunities, and professional and military development.

Accession Alternatives

The accession alternatives are discussed below in terms of their estimated effect on the supply of nurses by specialty to the reserve. The costs of each alternative are also provided. Costs are important because the cost of each alternative provides new reservists, on the margin, but the same incentive will apply to reservists who are already in the reserve. Reservists already on board will receive the same increased compensation, even though the increases were not needed for them to join.

As in the case of compensation alternatives for reserve medical officers, the dollar value of the options that were evaluated are not recommended as optimal amounts for incorporation in compensation incentive program design. The amounts analyzed were chosen in part because they fall within the range of reserve income observed for nurses in the database, thereby increasing the reliability of the model projections. The average reserve income for nurses observed by region and specialty ranged from $3,800 to $11,500. The results of the analysis are submitted as a benchmark for future experimentation.

Although targeting of incentives is recommended, the 6th QRMC included all nurses in the analysis in order to display comparative data relative to responsiveness of different

categories of nurses and the impact on supply and budget resources were all nurses to be paid at the incentive levels evaluated.

Stipend for Trainees in the Critically Short Wartime Specialties

The amount of the stipend in effect in FY 1987 for fully qualified nurses in training in operating room nursing or as nurse anesthetists was $664 per month for service in the Selected Reserve. The rate for the stipend authorized in FY 1988 for service in the IRR was one-half of that, or $332 per month. The amount of the stipend increases annually at the same rate as any increase in base pay. The FY 1987 rate was used for the 6th QRMC analysis. The National Defense Authorization Act for Fiscal Years 1988 and 1989 also authorized a $100 per month stipend for nursing students in the third and fourth years of undergraduate baccalaureate nursing programs. As both programs are new, no data was available for analysis by the 6th QRMC. Based on implementation of the stipend program for the Selected Reserve only, the projected increase of nurses qualified as nurse anesthetists or operating room nurses during the first year is 627, with an associated cost of $5 million.

The greatest numerical shortage of reserve nurses is in medical-surgical nurses. No formal training beyond the level of the basic nursing degree is required for this category. A large potential source of nurses for whom there is no specialty training requirement is the new baccalaureate nurse graduate. This population was targeted in the 1987 Act with the authorization of the $100 per month stipend for undergraduate nurses. Should additional incentives prove to be required, the option of a full scholarship might be evaluated by the reserve. The Services have previously used nursing training programs to obtain officers to staff active component nurse requirements. Similar programs might be designed to attract nurses to the reserve components. The active component programs called nursing students to active duty in pay grade E3 for the period of time in which they participated in the program. Participants received pay and allowances and scholarship assistance. A reserve scholarship program which would not call participants to active duty, but would provide full scholarship assistance could be effective in view of the rising costs of education and increasing levels of student indebtedness. A similar Navy program for enlisted health care personnel enrolled in civilian schools in the various enlisted health care specialties is discussed in Chapter 7. That program has been successful in drawing applicants. The success of civilian hospitals in recruiting participants into tuition assistance programs in return for a commitment to work for the sponsoring hospital upon completion of training is discussed in Chapter 4.

Both the Army and the Air Force have offered ROTC scholarships to undergraduate nurses for many years. The rate of application for the scholarships has varied over the years, but the ROTC nursing scholarship program has been a significant source of nurses for the active components, particularly for the Army. A direct correlation cannot be drawn between the ROTC program and a non-ROTC scholarship program as the ROTC graduate, in the majority of cases, has been guaranteed entry on active duty. As long as the guarantee of a full-time job upon graduation is viewed as a benefit, the ROTC program will differ appreciably in its value from a reserve program which offers only part-time employment in the reserve upon graduation. The reserve program is likely to appeal to a different subset of the undergraduate nursing population which does not desire to serve on active duty. The acceptance of ROTC scholarships by nursing students over the years, and particularly in the current academic and social environment, provides some precedence for anticipating the acceptance of a reserve scholarship by undergraduate nursing students. While in training, participating undergraduate students would, as in the case of current undergraduate nurse stipend recipients, serve in an enlisted reserve status until eligible for commissioning upon completion of the baccalaureate degree.

Loan Repayment Program

Nurses completing professional training frequently have significant debt. The loan repayment program authorized in Fiscal Year 1986 for nurses in the Selected Reserve who are qualified in the critically short wartime specialties was expanded in 1987 to include nursing loans made under part B of Title VIII of the Public Health Service Act. The alternative analyzed would increase the maximum annual loan repayment from the $3,000 rate currently authorized to $4,000 and would pay all eligible nurses, in an attempt to attract large numbers of medical-surgical nurses as well as operating room nurses and nurse anesthetists. On the margin, a loan repayment program at the $4,000 rate is projected to attract 2,420 nurses to the Selected Reserve during the first year. Of that number, 292 are projected to be qualified as nurse anesthetists and operating room nurses. As the current program at the $3,000 annual rate was only recently implemented, the program at that level has not been evaluated and estimates of the costs and additional accessions generated are compared to a "zero-program" base. A loan repayment program has particular advantage as an accession alternative because the number of loan repayments for which those already in the military would qualify is fairly low. The total cost of the program for the first year, at a $4,000 annual repayment rate, is projected to be $1.2 million for nurse anesthetists and operating room nurses and $9.7 million for all nursing specialties combined.

Incentive Bonus

In looking at the impact of differing levels of pay and types of compensation incentives, it is clear that all nurses may not respond to the incentives in like fashion. Nurse anesthetists could be expected to respond less favorably to compensation alternatives than staff nurses because their average pay is higher than that earned by staff nurses. Operating room nurses are responsive to reserve compensation, but the available population from which the reserve must recruit is relatively small. The bonuses evaluated by the QRMC would compensate nurses with relatively high civilian wages, or other characteristics that make them difficult-to-man, for their time in the reserve. As in the case of physicians, a bonus would be authorized for accession and/or for a commitment to remain in the reserve for a given period of time.

A $4,000 bonus was evaluated for nurse anesthetists and operating room nurses. Based on reserve income data from the FY 1986 Reserve Components Surveys, a bonus of $4,000 increases average reserve compensation to nurse anesthetists by 59 percent and to operating room nurses by 82 percent. Because other nurses are more readily obtained for the reserve than are nurse anesthetists and operating room nurses, the 6th QRMC evaluated a two-tier bonus program. The first tier includes nurse anesthetists and operating room nurses; the second tier includes medical-surgical nurses along with other staff nurses. An annual bonus of $2,000 was evaluated for the second tier. The effect of the two-tier bonus program is projected to induce accessions of 315 nurse anesthetists and operating room nurses combined, and 1,069 other nurses to the Selected Reserve during the first year. The projected cost for the first year of the bonus program is projected at $6.4 million for nurse anesthetists and operating room nurses and at a total of $28.4 million if all nursing specialties were included.

Health Education Courses and Experiences

This alternative would provide new accessions into the Selected Reserve based on assured attendance at professional meetings or continuing health education experiences at the rate of one per year for each nurse in the Selected Reserve. Most nurses feel that it is in their interest to attend professional meetings to remain current with developments in their respective fields. Based on this high valuation of continuing education opportunities, many nurses perceive the opportunity to attend through the military as a benefit of reserve service. It may be of high value to those who could not otherwise attend such a course, as well as to those who would otherwise have attended, but whose opportunity cost has been reduced by attending through military sponsorship. Payment of expenses for these meetings is evaluated against the nurses' opportunity costs and will have a

greater value than is initially seen by the reserve. Additionally, professional development may be a motivating factor for reserve membership for many nurses. As a high percentage of a reserve nurse's time may be spent in administrative duties, attendance at a health education course may be one of few opportunities for pursuing professional enhancement through the reserve.

The positive impact on recruiting additional health professionals discussed in Chapter 5 is equally applicable to nurses. Attendance by reserve nurses at civilian meetings provides direct exposure for civilian nurses regarding reserve opportunities, and civilian nurses are generally more responsive to members of their profession than to full-time recruiters in another discipline.

At a marginal tax rate of 25 percent, the average value of the program would be equivalent to an increase in reserve nurse income in pretax dollars of approximately $1750 per year, an increase of 29 percent. It is projected that 152 nurses would be attracted to the reserve components if annual attendance at one health education course or experience were guaranteed. The entire input projected from the health education alternative is shown under the "any specialty" category in Tables 6-16 and 6-17, as some impact could be anticipated on all of the nursing specialties.

The costs associated with this alternative will reflect not only the incremental costs associated with new nurses joining the reserve components but also the costs of all nurses currently in the reserve. The projected incremental cost of the program for the first year, based on an increased attendance of approximately two-thirds, is $3.4 million. Due to the value of the program, the QRMC recommends a review of current procedures for ensuring compliance with DoD Directive 1215.4 that governs the continuing education program for nurses as well as other health professional disciplines.

Summary of Accession Alternatives

The major compensation alternatives evaluated for the Selected Reserve are summarized below:

- For fully qualified nurses
  - Annual incentive bonus
  - Loan repayment
  - Attendance at health education courses/experiences

- For nurses in training as nurse anesthetists or operating room nurses
  - Student stipend

The estimated first-year supply impacts of the evaluated alternatives for the Selected Reserve, without consideration of attrition, are shown in Table 6-16. The first-year cost is shown in Table 6-17. A detailed estimate of the five-year supply impact was not deemed feasible, in part because of the very large IRR shortfall which dominates the total shortfall and the limited experience with IRR training options and compensation incentives. In general terms, however, it appears that the alternatives evaluated, if implemented, would be likely to be sufficient to eliminate aggregate and specialty shortfalls in the Selected Reserve over a five-year period. No projections were made for the IRR, but even with the transfer of some individuals from the Selected Reserve to the IRR and the impact of the stipends currently authorized for IRR participation, it appears likely that even with implementation of the alternatives, at the values evaluated in this report, additional incentives would be required to entirely eliminate the shortfall of nurses over a five-year period.

Table 6-16. First-Year Impact of Pay Alternatives on the Supply of Nurses (Selected Reserve)

	Additional Members in Specialty Categories			
Alternative	Nurse Anesthetist/ OR Nurse	Other Nurse	Any Specialty	Total
Incentive Bonus $4K/yr (OR Nurses and Nurse Anesthetists)	315	-	-	315
Incentive Bonus $2K/yr (all others)	-	1,069	-	1,069
Loan Repayment $4K/yr	292	2,128	-	2,420
Graduate Nurse Stipend $664/mo (OR Nurses and Nurse Anesthetists)	627	-	-	627
Health Education Courses/Experiences	-	-	152	152
Total	1,234	3,197	152	4,583

Retention Alternatives

Retention alternatives keep nurses in the reserve after they have already joined. Unlike accession alternatives, which are best targeted at specific populations, retention alternatives should focus on all categories of nurses. If retention is increased in all specialties, then fewer nurses in these specialties will be required to enter initially.

Table 6-17. First-Year Cost ($000) of Pay Alternatives for Nurses (Selected Reserve)

Alternative	Nurse Anesthetist/ OR Nurse	Other Nurse	Any Specialty	Total
Incentive Bonus $4K/yr (OR Nurses and Nurse Anesthetists)	$6,376	-	-	$6,376
Incentive Bonus $2K/yr (all others)	-	$21,988	-	21,988
Loan Repayment $4K/yr	1,168	8,512	-	9,680
Graduate Nurse Stipend $664/mo (OR Nurses and Nurse Anesthetists)	4,996	-	-	4,996
Health Education Courses/Experiences	-	-	$8,400*	8,400
Total	$12,540	$30,500	$8,400	$51,440

* Incremental cost-$3.4 million

Note: Except as shown immediately above, including where an incentive currently exists, costs shown are total program costs and not additive costs.

Given the high value nurses place on training in the reserve, the QRMC concludes that providing quality training to nurses is a strong retention as well as accession tool. Two types of training are particularly valuable: continuing health education in the individual's specialty area, as discussed under accession alternatives, and special cross training into specialties or skills which the nurse does not currently possess and which contribute to the medical readiness of the reserve. Cross training should include training into the critically short wartime specialties or specific skills which enhance the medical readiness of the reserve. Cross training is then valuable not only to the recipient nurse, but to the reserve components whose source of manpower qualified in critically short wartime medical skills is increased.

Findings and Recommendations

The 6th QRMC study of compensation in support of requirements for nurses in the reserve suggests alternative compensation initiatives that promise to assist in meeting the DoD goals to eliminate nurse shortfalls in the reserve components. The DoD is committed to reducing the shortfall of approximately 31,000 nurses by 20 percent per year by the end of Fiscal Year 1992. A related initiative is the establishment of a national augmentation detachment for all reserve components similar to that discussed in Chapter 3. The impact of such a centralized personnel management system for those unable to participate in local units should have a positive impact throughout the Ready Reserve.

The combination of pay alternatives analyzed is projected to produce increases in the supply of nurses as explained earlier. The pay alternatives are presented independently; interactive effects of multiple initiatives were not analyzed. The 6th QRMC proposes the establishment of an experimental program for the Selected Reserve that includes a bonus alternative for nurses, in combination with that for physicians, for specific geographical subgroups. As discussed in Chapter 5, this combined program for physicians and nurses would be monitored closely, in the context of an experiment, to identify the separate and interactive effects of the alternative compensation programs and to analyze the impact of different approaches to administration of the programs. Administrative support and training programs appear inadequate to support the inclusion of the IRR in an experiment at this time.

Notes

1. The analysis incorporated FY 1986 data as shown in Table 6-15. However, as discussed in Chapter 1, the Health Manpower Information System (HMIS), the official database for the Office of the Assistant Secretary of Defense for Health Affairs, recently incorporated reserve component data. The FY 1987 shortfall for the Selected Reserve as indicated by HMIS is a total of 2,660 of which 1,114 are nurse anesthetists or operating room nurses.

Chapter 7. ENLISTED HEALTH CARE PERSONNEL IN THE NATIONAL GUARD AND RESERVE

Although primary attention is currently focused on the shortfall of health care officers in the reserve components, there are also deficiencies in the numbers and qualifications of enlisted health care personnel, deficiencies that affect readiness. There is a significant shortfall in the total numbers of enlisted health care personnel required for wartime and there are personnel readiness problems relating to the skill qualification level of those who are assigned. In the Selected Reserve, the shortfall is primarily the result of lack of skill qualification.

Background

An adequate supply of qualified health care specialists is necessary to the success of battlefield medicine. Even if all requirements for physicians, nurses, and other health care professionals were satisfied, the medical combat mission would not succeed without the technical support of enlisted health care personnel. The total requirement for enlisted health care specialists in time of war is nearly 250,000, with an estimated shortfall of over 73,000 for the Total Force. As indicated in Chapter 1, there are authorizations for over 70,000 enlisted health care specialists in the Selected Reserve alone. The shortfall for the Selected Reserve, as of September 30, 1986, was approximately 26,200 based on calculations that incorporate training and skill qualification factors. The shortfall in the Selected Reserve is 36 percent of the total shortfall, with the remaining deficiencies occurring in the IRR. The magnitude of the shortfall varies significantly by Service, with the total Air Force shortfall only 2,700. The Army shortfall of approximately 58,100 is much larger. The shortfall in the Navy is 12,200.

Although the shortfall is large, the enlisted health care specialties in the aggregate have not been designated as critically short for wartime. This is due to several factors. The Services have indicated that, given existing programs, and with enhanced recruiting support, deficiencies in the health care specialties could be largely corrected by Fiscal Year 1992. The Selective Service System should also be more efficient in supplying the Services with enlisted health care personnel than with health care professionals. Although enlisted health care personnel must have training in a medical skill, dependent upon

the skill required, the training is relatively short compared with training required for health care professionals such as physicians and nurses. There is, however, significant variance in the technical medical skills needed for combat support and qualification in many of the more complex skills requires lengthy training.

A more discrete analysis by specialty and specialty qualification is necessary to fully assess the state of readiness in the enlisted health care specialties. Such an analysis only became available at the DoD level with the recent development of the REMMIS database, described in Chapter 1. The shortfalls tend to be the largest for specialties that require higher levels of formal specialty training, such as operating room technicians, pharmacy technicians, respiratory therapists, X-ray specialists, laboratory specialists, biomedical equipment repairmen, licensed practical nurses, and dental laboratory technicians. Shortages of personnel trained in these skills would be particularly critical in time of war. Due to the specificity and length of training required, these skills are also in short supply in the civilian population. In the enlisted health care specialties, the armed forces benefit in many ways from recruiting individuals already trained in the skill that they will use in the Services. However, it is not clear that health care specialists who are already qualified and employed in the civilian community have been recruited for employment in like skills in the reserve as effectively as possible.

Survey data indicates that there are about 41,000 civilian health technologists and technicians who serve in the Selected Reserve. Of these, about 7,800, or 19 percent, serve in military health care specialties. Conversely, of those whose military specialty is health care, only about 13 percent work as civilian health technologists or technicians (about 15 percent of those who are employed).[1]

Comparison of the reserve enlisted health care population with the numbers of individuals employed in 1986 in specific technical health occupational groups, as reported by the Bureau of Labor Statistics, indicates that only a small percentage of the qualified civilians were serving in the reserve. As an example, the number of individuals i[illegible]e Ready Reserve identified in the radiology specialties represents only 2 percent of radiologic technologists a[illegible]echnicians and nuclear medicine technologists nationwide; similarly, the number of reservists identified in the various military laboratory skills in the Ready Reserve represents only 2 percent of medical and clinical laboratory technologists and technicians nationwide. It is possible that more of these qualified individuals who are not now in the reserve would be responsive to appropriately designed reserve compensation and benefit packages. On the

other hand, in terms of absolute numbers, the number employed in the civilian sector in the health care skills that the reserve requires is relatively small. Using the previously mentioned specialties as examples again, Bureau of Labor Statistics data shows that there were 36,906 employed surgical technicians and 125,106 radiologic technicians and technologists and nuclear medicine technologists nationwide in 1986. If accession of skill-qualified enlisted health care personnel is a desirable goal, it is probable, due to the limited size of the civilian population possessing the desired skills, that many of the enlisted medical skills will fall into the hard-to-man category and therefore require additional compensation in order to man those specialties during peacetime.

There are significant advantages to the recruitment of individuals already trained for the specialties that require initial training ranging from six months to two years in order to meet civilian certification criteria. Not all enlisted health care skills require the level of training dictated by civilian certification requirements, but the fact remains that many of these specialties require lengthy periods of training, and lengthy training can pose problems for reservists.

The major factor reducing personnel readiness in the Selected Reserve is lack of skill qualification. A unit position may be filled by a reserve member who is in training but is not yet qualified for the skill required in the position. In other cases, the position may be filled with a member who is qualified in a skill other than that required by that duty position.

Table 1-10 (Chapter 1) shows the percent fill and percent of skill-qualified enlisted health care personnel for the Army's reserve components as of June 1987. Table 7-1 contrasts skill qualification levels for health care specialists and nonmedical Army Selected Reserve enlisted personnel.[2] The level of skill qualification is lower for enlisted health care specialists than for nonmedical personnel in both the Army National Guard and the Army Reserve. Comparable data contrasting skill qualification levels of health care and nonmedical personnel was not available for the Air Force or the Navy.[3]

Another factor affecting the manning of enlisted health care specialists in the Selected Reserve may be the relatively large size of many medical units. In a RAND Corporation analysis of the determinants of unit manning for a large sampling of Army National Guard and Army Reserve units, unit size emerged as an important factor, with larger units evidencing more difficulty in meeting authorized manning levels than units of similar mission, but lesser size.[4] This is significant in the medical arena as many medical units are large. The Army has 132 hospital units, the largest of which is authorized over 700 personnel. The REMMIS database allows a comparison of unit fill

Table 7-1. Duty Qualification as a Percent of Peacetime and Wartime Authorizations for Army Selected Reserve Units, as of September 1986

	ARNG		USAR	
	Peace %	War %	Peace %	War %
Medical	66	61	51	47
Nonmedical	74	70	61	57

Source: REMMIS Database
"Logistics Management Institute Technical Information Paper #3 - Army Guard and Reserve Skill Match," June 19, 1987

based on unit type and size, and medical units do tend to reflect lower fill for larger units. Although there is a range in size among units of a similar type, there is also relative consistency by unit type. The pattern of higher fill rates for smaller units is evident in both Army and Air Force medical units. Although some of the lower fill rates in Army units are found in relatively small units, they are in units that rely heavily on specialties that require the more complex skills and lengthy periods of training. The QRMC also found that smaller units tend to have higher rates of duty-qualified personnel than do the larger units.

In summary, personnel readiness among enlisted health care specialists in the reserve components is deficient due to overall personnel shortfalls and low levels of skill qualification. The latter is the most important factor limiting personnel readiness in the Selected Reserve.

Study Approach

The basic approach to the study of compensation for enlisted health care personnel was to determine manpower requirements and shortfalls and to compare recruiting, retention, and skill qualification success with that achieved in other military skills and units in the reserve components. The approach was to determine whether the enlisted health care population differed from the nonmedical population and, if so, in what ways. When differences were identified, they were examined to determine whether compensation initiatives might produce a beneficial effect.

In the process of comparing enlisted health care specialists with nonmedical enlisted personnel, the extent of congruence between the skills required for a member's civilian job and those required for the member's military duties was also examined. Job congruence is of particular value to the reserve in the case of health care specialists. The nature of the enlisted health care specialist's work demands relatively high levels of skill qualification. Yet there is some indication that practical experience in the military specialty may be more difficult to achieve in the health care area. This is important because skill decay rates may be high unless the skill is constantly used. Civilian/military job congruence can generally be expected to produce an enlisted health care specialist who is more highly qualified in technical health care duties in the event of mobilization than is the member whose civilian job does not increase qualification in the health care skill. Therefore, the 6th QRMC analysis attempted to determine whether there were systemic differences between enlisted health care personnel with high military/civilian job congruence as compared with those with entirely dissimilar military and civilian jobs.

Data Sources

Three primary data sources were used in the analysis of the enlisted health care population: the 1986 Reserve Components Surveys, the REMMIS database, and the Reserve Components Common Personnel Data System (RCCPDS). The RCCPDS data used was as of September 30, 1986.

1986 Reserve Components Surveys

The population of concern in the QRMC's analysis included part-time Selected Reserve unit members and Individual Mobilization Augmentees (IMAs). Active Guard and Reserve (AGR) members and military technicians were excluded. Also excluded from the analysis were the Marine Corps Reserve and Coast Guard Reserve, because no health care providers are authorized in those components. The adjusted survey response rates for enlisted part-time unit members and IMAs were 58.4 percent and 55.6 percent, respectively. The rate for enlisted health care specialists was about 6.5 percent lower.

Out of the base population of respondents, 2,334 members were identified as health care personnel, using QRMC criteria. These respondents represented a weighted population estimated at 42,596. Eight percent of the enlisted health care respondents were IMAs. The basic stratification variable for the surveys was reserve component; within each component, stratification was by reserve category, officer or enlisted status, and sex. There was no stratification introduced for specialties such as health care enlisted skills.

In establishing the population of survey respondents defined as health care specialists for purposes of the QRMC analysis, the following categories of specialties were used (as published in DoD's Occupational Conversion Manual, September 1984):[5]

- Medical Care and Treatment, General
- Operating Room
- Mental Care
- Therapy
- Orthopedic
- Laboratory
- Pharmacy
- Radiology
- Food Inspection and Veterinary Services
- Preventive Medical Services
- Dental Care, General
- Dental Laboratory

Medical administration and logistics specialists, biomedical equipment repairmen, diet therapy specialists, and several low density health care-related skills are not included in the medical chapter in the 1984 edition. These skills were therefore excluded from the population of survey respondents defined by the 6th QRMC as the enlisted health care population. The Office of the Assistant Secretary of Defense for Health Affairs, however, does include the omitted categories in reports of enlisted health care manpower statistics, and the DoD conversion manual has since been revised to incorporate those specialties into the medical chapter. For purposes of the QRMC analysis, enlisted health care manpower requirements and shortfalls include all specialties currently defined as health care specialties by the Office of the Assistant Secretary of Defense for Health Affairs. The 1986 Reserve Components Surveys data used, however, is based on the responses of enlisted personnel in the occupational categories as defined in the 1984 DoD conversion manual and listed above.

The civilian jobs of survey respondents were also classified according to the 1980 Census of Population Alphabetical Index of Industries and Occupations of the U.S. Department of Commerce.[6] In selecting records for the enlisted health care database, the civilian job of survey respondents was also used as a determinant of status. Survey respondents were identified as members of the enlisted health care population if they met any of the following criteria:

- Primary and duty specialty codes were medical
- Primary and civilian specialty codes were medical
- Duty and civilian specialty codes were medical
- Primary specialty code was medical

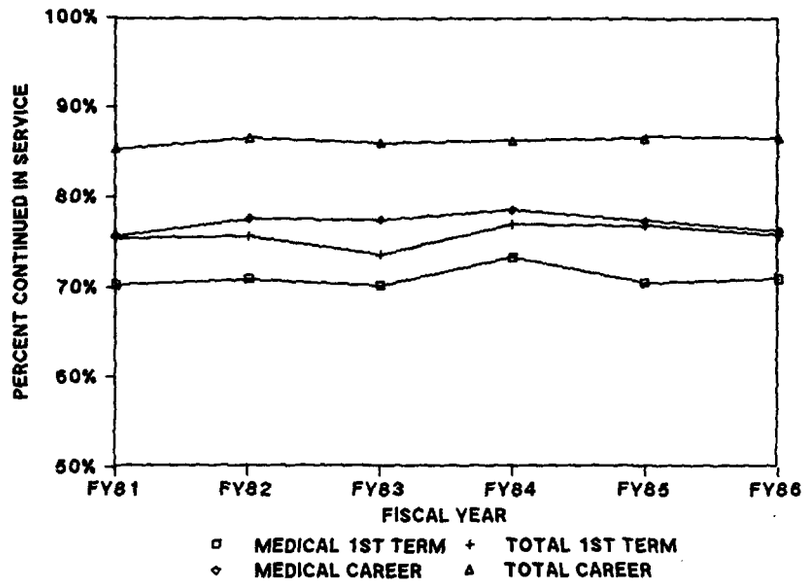


FIGURE 7-1. COMPARATIVE ENLISTED CONTINUATION RATES, BY YEAR, LENGTH OF SERVICE, AND SPECIALTY (ALL COMPONENTS)

SOURCE: RCCPDS

Attrition and Continuation Rates

QRMC analysis of reserve continuation rates found that, at the aggregate DoD level, continuation rates for enlisted health care specialists are consistently lower than continuation rates for total DoD reserve enlisted personnel. This is the case for first-term personnel (members with less than 6 years of service), as well as for career personnel (members with 6 or more years of service). As seen in Figure 7-1, this pattern of lower continuation rates for reserve health care specialists has been consistent between FY 1981 (which is the earliest RCCPDS data generally considered sufficiently reliable for analytical purposes) and FY 1986. Figures 7-2 through 7-6 show this data by reserve component. The same general pattern exists for all components.

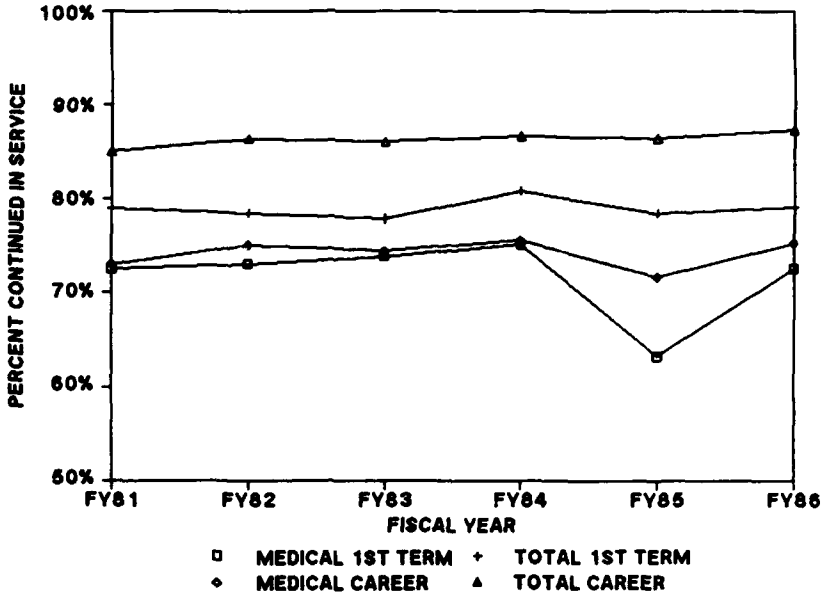


FIGURE 7-2. COMPARATIVE ENLISTED CONTINUATION RATES, BY YEAR, LENGTH OF SERVICE, AND SPECIALTY (ARMY NATIONAL GUARD)

SOURCE: RCCPDS

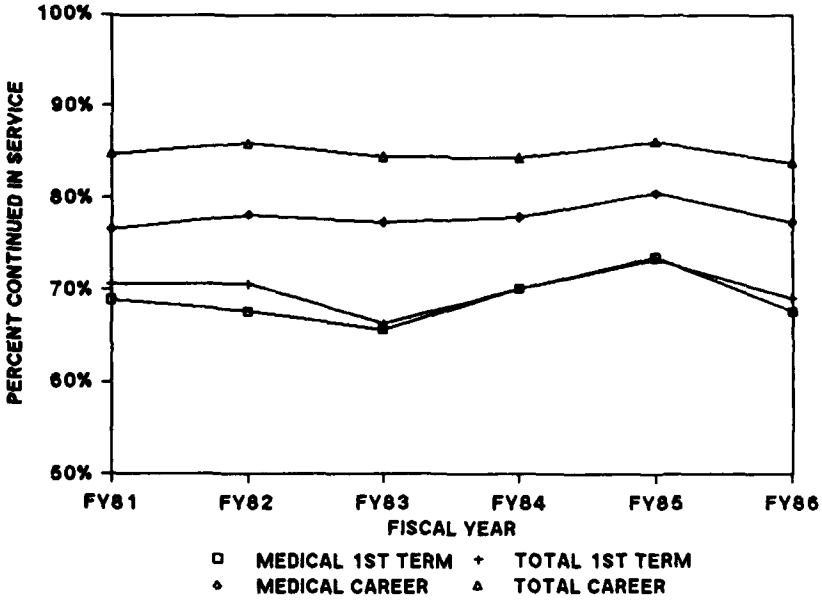


FIGURE 7-3. COMPARATIVE ENLISTED CONTINUATION RATES, BY YEAR, LENGTH OF SERVICE, AND SPECIALTY (ARMY RESERVE)

SOURCE: RCCPDS

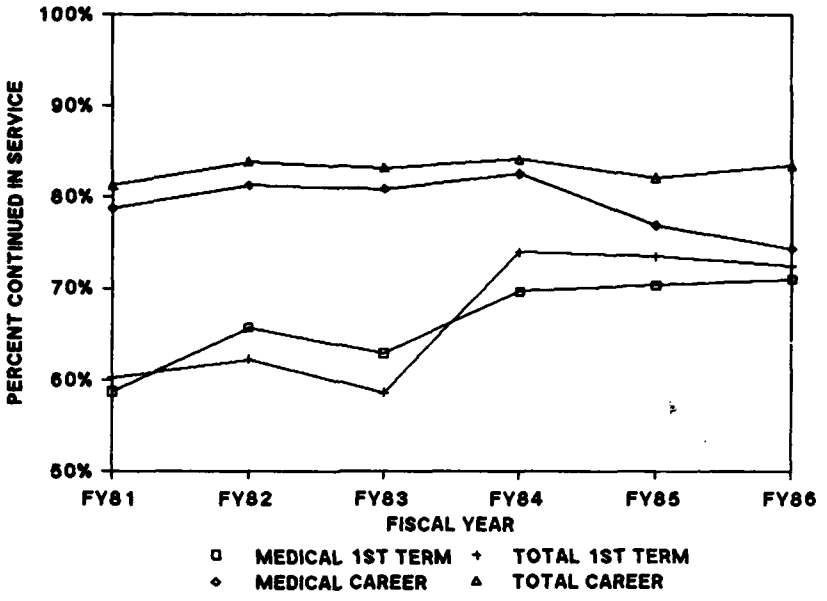


FIGURE 7-4. COMPARATIVE ENLISTED CONTINUATION RATES, BY YEAR, LENGTH OF SERVICE, AND SPECIALTY (NAVAL RESERVE)

SOURCE: RCCPDS

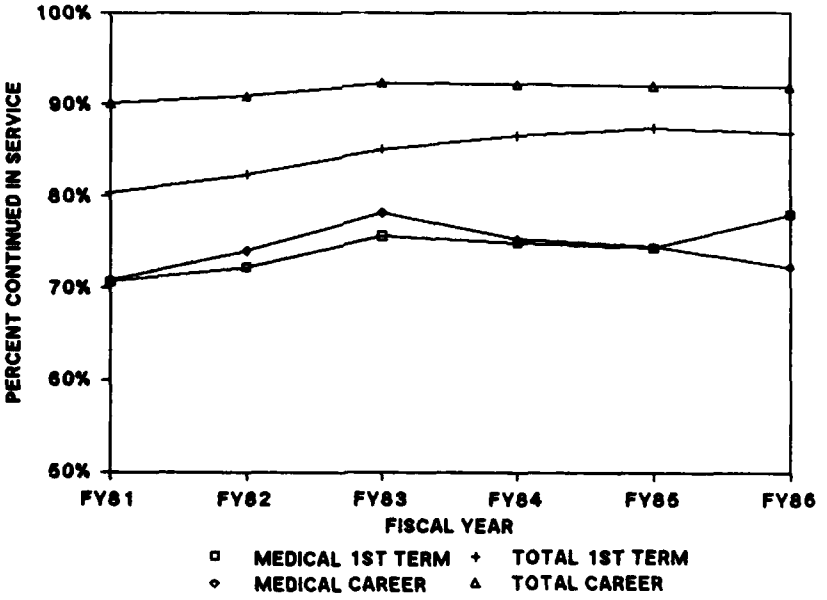


FIGURE 7-5. COMPARATIVE ENLISTED CONTINUATION RATES, BY YEAR, LENGTH OF SERVICE, AND SPECIALTY (AIR NATIONAL GUARD)

SOURCE: RCCPDS

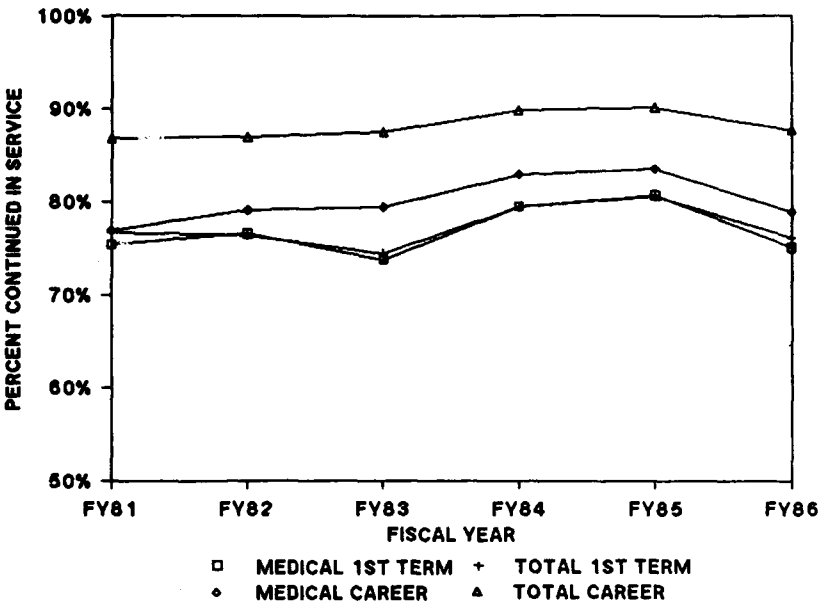


FIGURE 7-8. COMPARATIVE ENLISTED CONTINUATION RATES, BY YEAR, LENGTH OF SERVICE, AND SPECIALTY (AIR FORCE RESERVE)

SOURCE: RCCPDS

The higher continuation rates for women in enlisted health care specialties, shown in Figure 7-7, contrasts with studies conducted by the RAND Corporation on personnel attrition in the reserve components. These studies indicate that, holding other factors constant, the attrition of women is generally higher than the attrition of men for all categories of reserve personnel.[7] Because about one-third of enlisted health care specialists in the reserve are female, compared with less than one in ten in nonmedical specialties, this initially appeared to be a possible explanation of the lower continuation rates for enlisted health care specialists. In the case of enlisted personnel in the health care specialties, however, the QRMC found that the continuation rate for women was slightly higher than for males in FY 1986. Overall, continuation rates for members in the health care specialties were lower than rates for all enlisted reservists for both first-term and career members, as shown in Figure 7-8. As shown in Figure 7-9, this difference is primarily due to much lower continuation rates for men in the health care specialties than for male reservists in other skills.

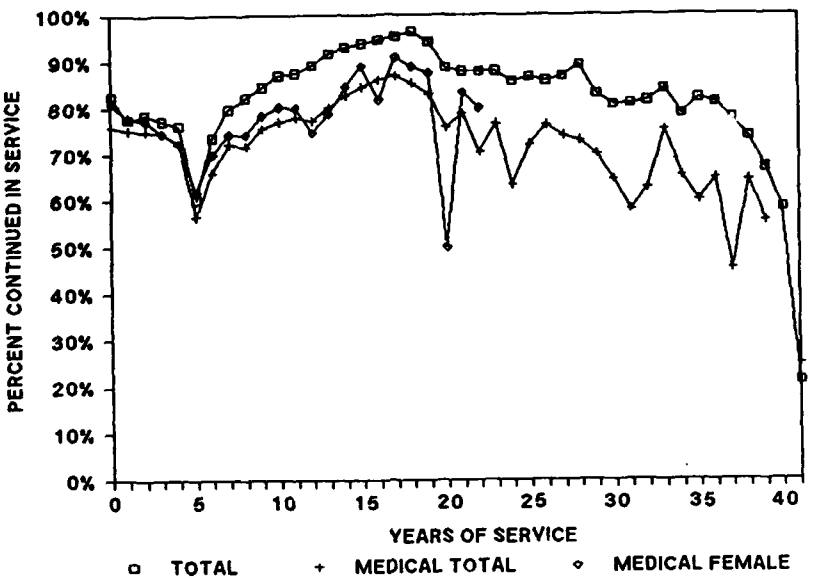


FIGURE 7-7. FY 1986 ENLISTED CONTINUATION RATES, BY YEARS OF SERVICE, SPECIALTY, AND SEX (ALL COMPONENTS)

SOURCE: RCCPDS

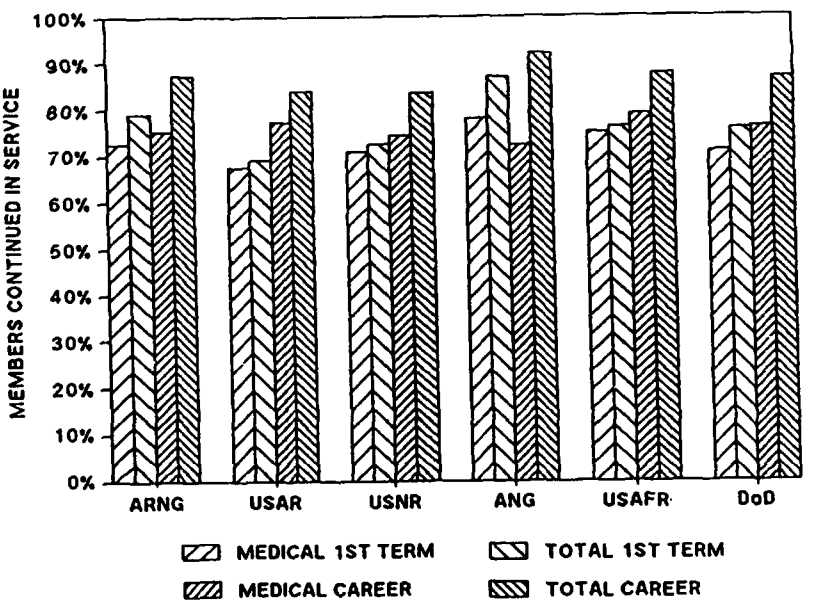


FIGURE 7-8. FY 1986 ENLISTED CONTINUATION RATES, BY COMPONENT, SPECIALTY, AND LENGTH OF SERVICE

SOURCE: RCCPDS

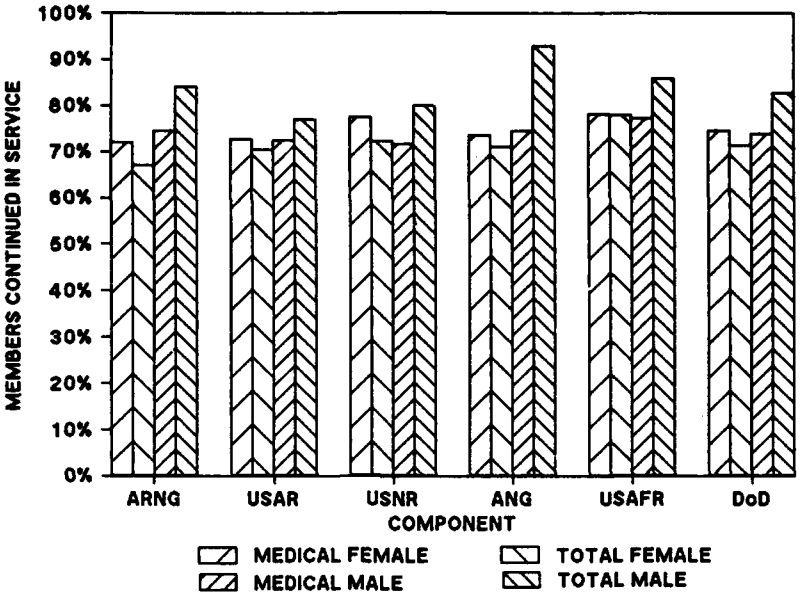


FIGURE 7-9. FY 1986 TOTAL ENLISTED CONTINUATION RATES, BY COMPONENT, SPECIALTY, AND SEX

SOURCE: RCCPDS

The following sections compare demographic characteristics of enlisted health care specialists with their reserve counterparts in other skills, review differences in attitudes toward reserve service and in expressed intent to stay, and discuss the relevance of compensation initiatives in relation to personnel readiness in the enlisted health care specialties.

Characteristics of the Enlisted Health Care Population

Distribution by Pay Grade and Gender

The distribution of reservists in the health care specialties by pay grade is very similar to that of the nonmedical enlisted population, as shown in Figure 7-10. The most striking difference between the health care specialists and the nonmedical enlisted population is in the percentage of members who are female. Women constitute 31 percent of the total enlisted population in the health care specialties compared with 9 percent of the nonmedical population. Figure 7-11 shows the percentage of females in the health care skills compared with the percent in nonmedical skills by component. The percentage

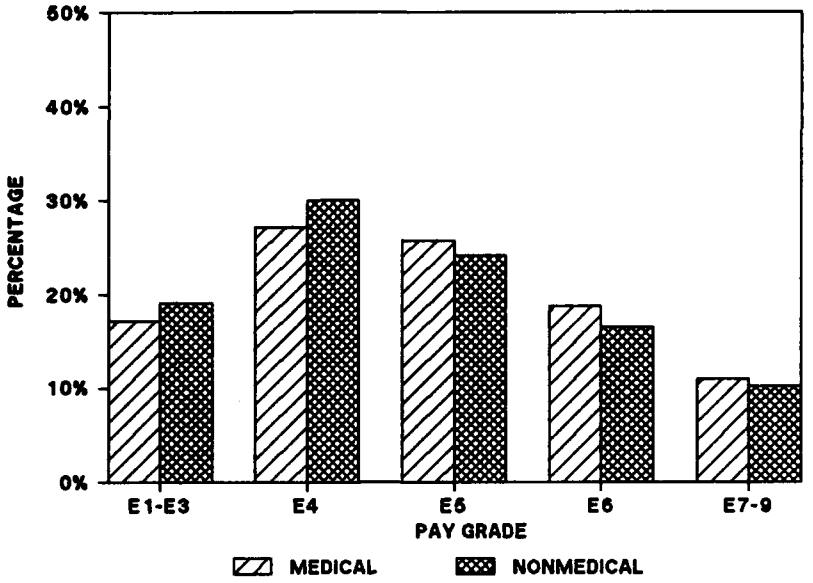


FIGURE 7-10. MEDICAL AND NONMEDICAL ENLISTED POPULATION, BY PAY GRADE (ALL COMPONENTS)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

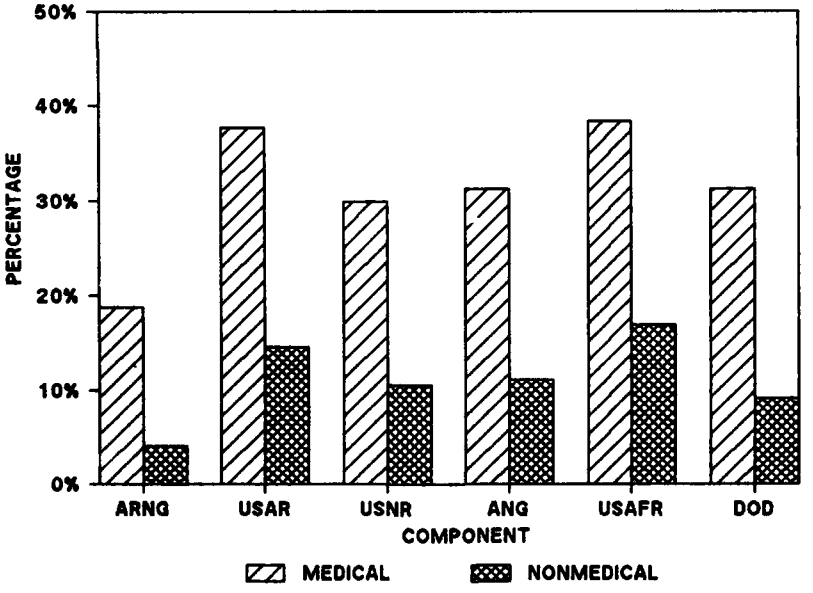


FIGURE 7-11. PERCENTAGE OF ENLISTED FEMALES, BY COMPONENT AND SKILL CATEGORY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

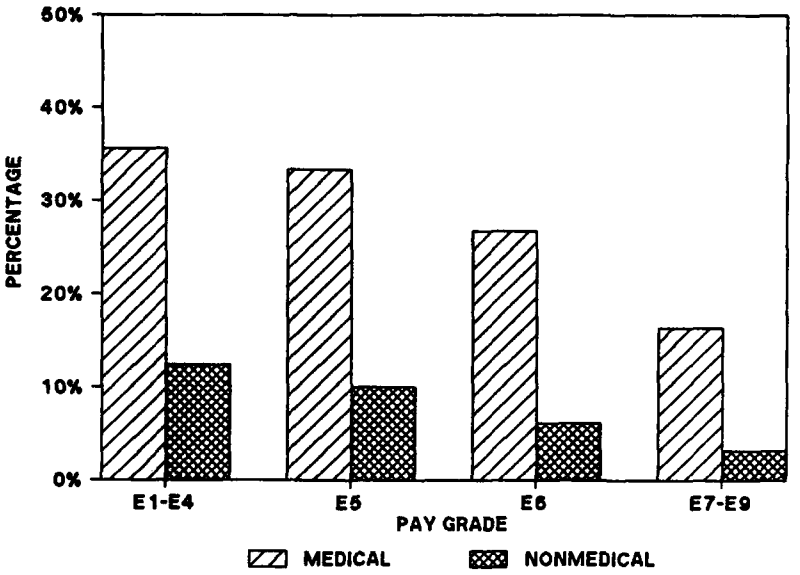


FIGURE 7-12. ENLISTED FEMALES AS A PERCENTAGE OF THE TOTAL ENLISTED POPULATION, BY PAY GRADE AND SKILL CATEGORY (ALL COMPONENTS)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

of enlisted women in the health care skills ranges from a high of 38 percent in the Air Force Reserve to a low of 19 percent in the Army National Guard. Women as a percent of the total enlisted population by pay grade is shown for health care and other skills in Figure 7-12.

Distribution by Prior Service Status and Total Years of Service

At the aggregate DoD level, enlisted health care personnel are about as likely to have prior active duty service as are members in other skills. Prior active service was defined as two or more years of active duty service. Figure 7-13 shows the percentage of health care specialists and nonmedical personnel with prior service by reserve component. There is noticeable variance by component, with the Army National Guard and the Naval Reserve representing the extremes. Generally, the prior service/no prior service mix is about the same for enlisted members in the health care skills as it is for members in nonmedical skills. In the Army Reserve and the Air Force Reserve, however, members in the health care skills are less likely to have prior service. Enlisted men in the health care skills are much more likely to have had prior active service

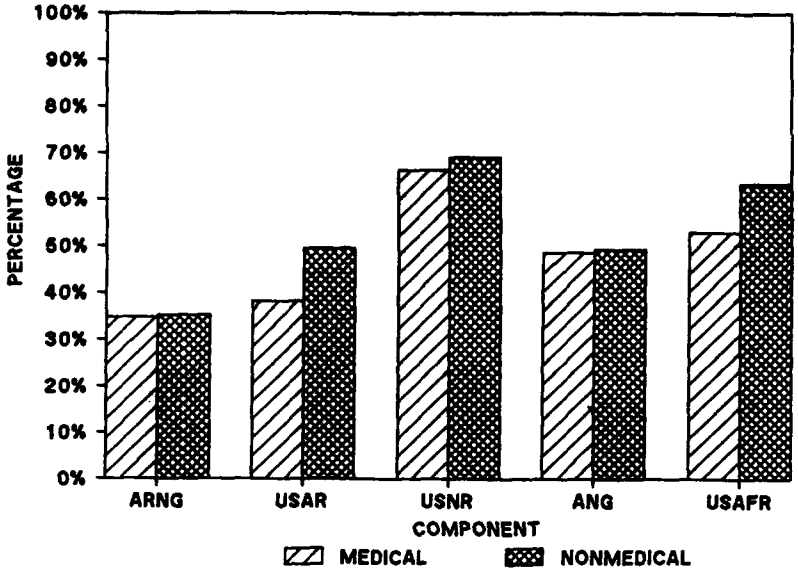


FIGURE 7-13. PERCENTAGE OF ENLISTED MEMBERS WITH PRIOR ACTIVE SERVICE, BY COMPONENT AND SKILL CATEGORY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

than are enlisted women. Figure 7-14 shows the percentage of enlisted reservists in the health care skills with prior service, by reserve component and sex.

As discussed previously, low levels of skill qualification are a problem in the reserve enlisted health care force. One method for increasing skill qualification levels is to use members with prior service in the health care skills in which they worked while on active duty. It appears that the process of matching active duty skills with the reserve duty assignment is somewhat better for reservists in the health care skills than it is for those with nonmedical skills. Figure 7-15 shows the percent of enlisted reservists in the health care skills as compared to other skills, by component, who say that their reserve duty is in the same skill as that in which they performed on active duty.

Total Years of Service and Age by Pay Grade

Enlisted health care specialists in the reserve appear to be promoted with about the same number of years of service as their nonmedical counterparts. The slightly lower average years of

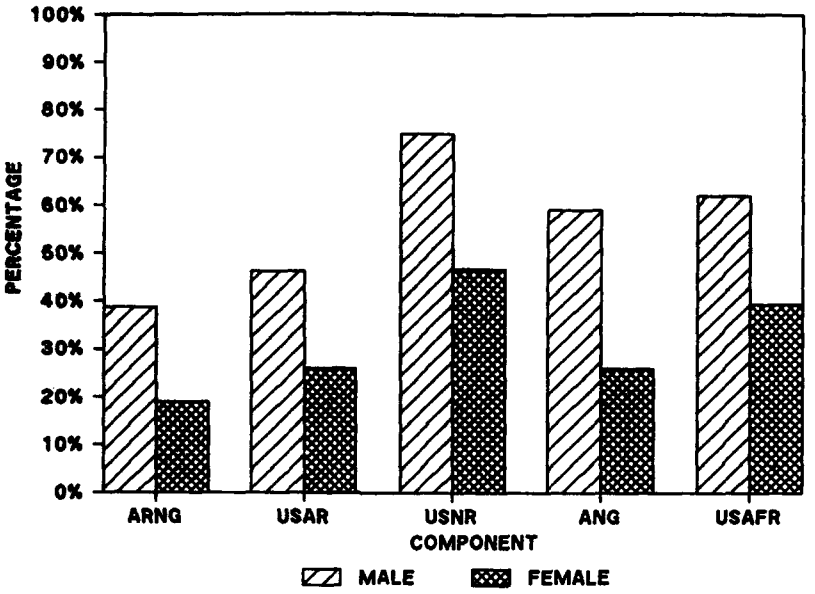


FIGURE 7-14. PERCENTAGE OF ENLISTED MEDICAL PERSONNEL WITH PRIOR ACTIVE SERVICE, BY COMPONENT AND SEX

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

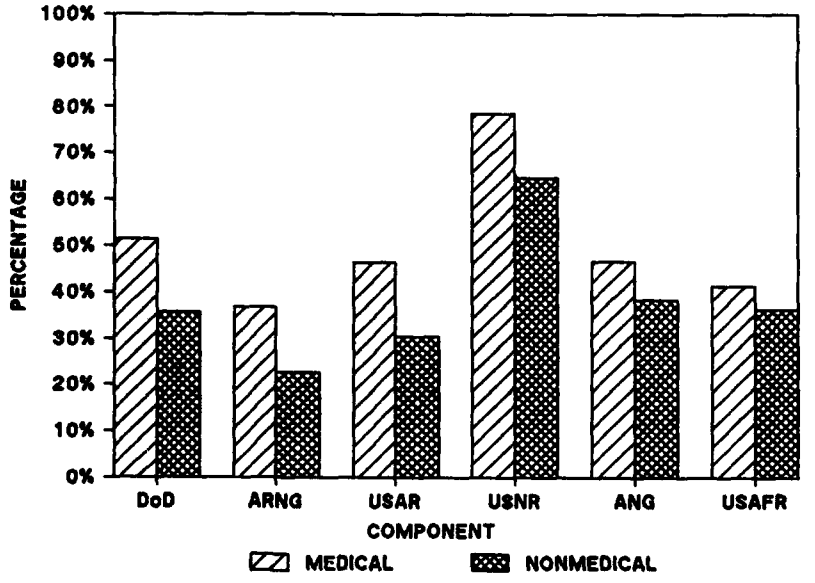


FIGURE 7-15. PERCENTAGE OF PRIOR SERVICE ENLISTED MEMBERS SERVING IN THE SAME SKILL IN THE RESERVE AS ON ACTIVE DUTY, BY COMPONENT AND SKILL CATEGORY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

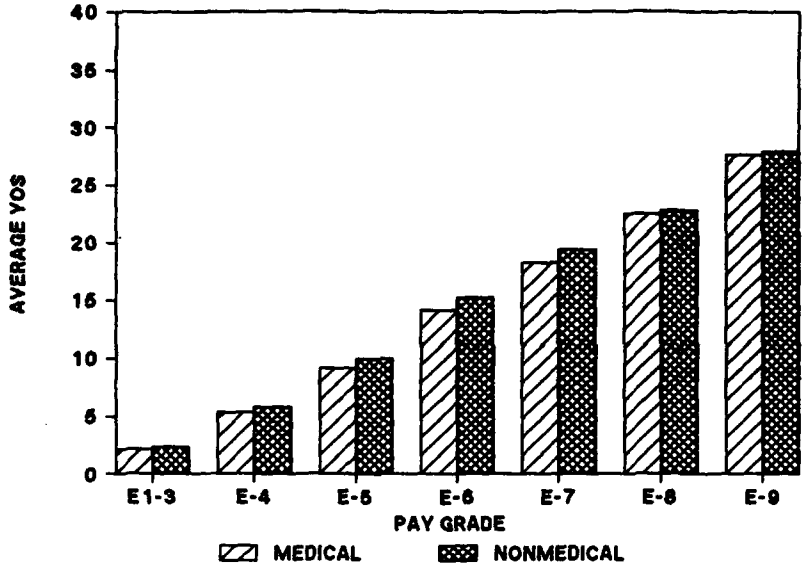


FIGURE 7-16. AVERAGE YEARS OF SERVICE, BY PAY GRADE AND SPECIALTY

SOURCE: SERVICE FORCE PROFILES

service for health care personnel than for nonmedical enlisted members, shown in Figure 7-16, may be due to a combination of accessions of health care personnel with previously acquired civilian skills in advanced pay grades and the lower continuation rates of health care personnel. Comparing the average age of health care personnel by pay grade with the average age by pay grade for the total reserve enlisted force, only slight differences are found. Health care specialists tend to enter at an older age than the average for all enlisted personnel, which may be due in part to increased levels of training obtained prior to entry into the reserve.

Education

One area showing clear differences between enlisted health care personnel and nonmedical populations is that of educational level and educational aspirations. Members of the health care population are better educated and have much higher levels of academic aspiration than do other enlisted members. Sixty-seven percent of enlisted health care personnel have completed some college. By contrast, 41 percent of nonmedical enlisted personnel have completed some college. A comparison of the highest educational level completed is shown in Table 7-2. Table 7-3 shows a similar pattern in aspirations for future

Table 7-2. Highest Grade or Year of Education

Highest Completed Education Level	Specialty Medical %	Nonmedical %
Less than high school	-	7
High school	33	53
1-3 years of college	44	29
4 years of college	13	7
More than 4 years of of college	10	5

Source: 1986 Reserve Components Survey of Enlisted Members, Question 69

Table 7-3. Educational Aspirations

Current Educational Level	Highest Projected Educational Level	Specialty Medical %	Nonmedical %
Less than 12 years of high school	Less than 12 years of high school	*	14
	High school	71	72
	College	29	14
High school graduate	High school	17	33
	College	83	67

* No respondents

Source: 1986 Reserve Components Survey of Enlisted Members, Questions 69 and 72

education. Based on survey data, health care specialists expect to complete much higher levels of training than do nonmedical personnel.

Higher aspiration translates into higher current school attendance; 48 percent of enlisted health care specialists were attending school in 1986, compared with only 36 percent of those in other skills. Also, a higher percentage of health care specialists were attending two-year and four-year colleges.

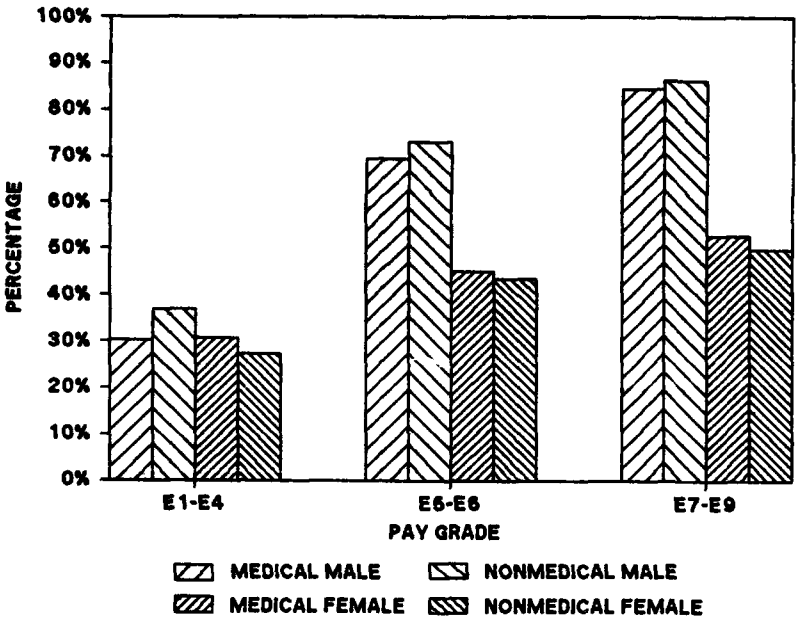


FIGURE 7-17. PERCENTAGE OF ENLISTED MEMBERS MARRIED, BY PAY GRADE, SPECIALTY, AND SEX

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Family Characteristics

Marital and dependent status and spousal attitudes toward reserve membership were reviewed because earlier reserve studies have found a relationship between these factors and retention. Overall the health care specialists and nonmedical populations are similar with respect to marital status. This is depicted in Figure 7-17. With higher pay grade, the likelihood of marriage and parenthood increases for male members. For enlisted men in the health care skills, the differential in the percentage who are married increases with pay grade compared with women, but the pattern is the same as that for members in nonmedical skills.

Of married reservists, enlisted women in health care skills were slightly more likely to say that their spouse had an unfavorable attitude toward their reserve participation than were enlisted men. Seventeen percent of enlisted women in health care specialties in pay grades E1 through E4 indicated an unfavorable spousal attitude as compared with 14 percent of their male counterparts. For higher pay grades there was little difference.

Enlisted women, in both the health care and nonmedical skills, reported fewer problems for their families as a result of their absences for drill, annual training, or extra time required by the reserve. A partial explanation might be found in the fact that a significantly higher percent of enlisted females than males are married to spouses currently on active duty or in the reserve. Forty-three percent of married enlisted women in the health care specialties have a spouse currently in the military. This compares with only 2 percent for enlisted men. A similar relationship exists for the enlisted force as a whole. Familiarity with the military system may foster acceptance of absence or flexibility in dealing with family logistics during absence for military duties.

Occupation and Income

The QRMC compared civilian occupation (including school attendance) and income patterns for health care specialists and nonmedical personnel. An important variable was the degree of similarity between the member's military duties and civilian occupation. This similarity, or job congruency, is important because of its implications for meeting skill qualification objectives for health care specialists. The QRMC analysis found that it is also important with respect to employment and income patterns, which are potentially related to retention in the reserve.

Similarity of Military Duties and Civilian Occupation

Job congruency, or the similarity of military duties with those of the civilian job, is of interest to reserve leadership in the health care field. Particularly in the health care occupations, individuals whose military jobs require the same skills as their civilian jobs might reasonably be expected to perform with a higher level of expertise than their peers who train in and perform those skills infrequently throughout the year during reserve activities. Skill decay occurs over time for all unused skills, but it occurs at an even higher rate for complex skills and for skills dependent on lengthy periods of training such as those found in many of the health care specialty areas. For some of the enlisted health care skills, adequate results may be obtained through training of individuals within the military system following enlistment. Skill levels and desired levels of expertise may suffer minimally through infrequent application of those skills if the skills are relatively simple and do not require lengthy training to obtain or frequent repetition to develop or sustain the desired levels of expertise.

Enlisted health care specialists are potentially entrusted with tremendously high levels of responsibility. Even the entry level Army medical specialist, although employing the most basic

of health care skills, would be expected to administer emergency medical treatment to battlefield casualties. Successful performance requires rapid and accurate decision making which must be followed by skilled, rapid, and efficient procedures in order to save lives or reduce the sequelae of injury on the battlefield. Where jobs require even higher levels of expertise, lack of proficiency may literally cost lives. Proficiency that results in speed and accuracy of judgment and in technical manual skill is clearly best obtained, and in many cases can only be obtained and sustained, through constant practice. For many enlisted health care specialties, then, employment in a civilian job that fosters the required levels of expertise supports the necessary levels of qualification.

Survey respondents were requested to rate the similarity of their civilian job to their Guard/Reserve duty. Table 7-4 shows the degree of job congruency for specific enlisted health care occupations and in aggregate for both health care and nonmedical specialties. The percentage of respondents in the health care specialties who indicated a high level of job congruency is twice as high as for nonmedical occupations, yet nearly three of five indicated that their civilian job was not similar at all to their reserve duties. The higher rate of dissimilarity for nonmedical personnel can be anticipated because there are many military skills for which there is no civilian counterpart, whereas most military health care skills are also practiced in the civilian occupational setting.

Table 7-4. Military/Civilian Job Congruence of Health Care Specialists and Nonmedical Personnel

	Very Similar %	Similar/Somewhat Similar %	Not Similar %
General medical	17	24	59
Surgery	20	25	55
Lab, Pharmacy X-Ray	25	25	50
Dental	20	19	61
Prev Med/Vet	*	*	77
Other Medical	22	26	52
All Medical	18	24	58
Nonmedical	9	22	68

* *Cell size inadequate*

Source: 1986 Reserve Components Survey of Enlisted Members, Question 30

Civilian Employment Patterns and Conflicts

Table 7-5 shows that, for those who are employed full-time, the civilian employment pattern of health care specialists whose civilian job is dissimilar to their military duties is essentially the same as the pattern for members in nonmedical skills. Those whose civilian work is very similar to their military duties, however, are much more likely to be employed in government and less likely to be self employed.

Table 7-5. Type of Civilian Employer, by Job Congruence

Specialty	Job Congruence	Employer	Percent
Medical	Very similar jobs	Government	39
		Private	57
		Self	4
Medical	Dissimilar jobs	Government	28
		Private	63
		Self	8
Nonmedical	All jobs	Government	28
		Private	62
		Self	10

Source: 1986 Reserve Components Survey of Enlisted Members, Question 94

Health care personnel with high job congruence work fewer hours per week at their primary civilian job than do those with low job congruence and nonmedical personnel. Also, health care specialists whose civilian employment is similar to their reserve duty are less likely to work more than 40 hours per week than other enlisted members.

Overall, enlisted members' perceptions regarding the attitudes of their immediate or primary supervisors toward their participation in the reserve are very similar for health care specialists and nonmedical personnel. Those employed in government, however, perceive a somewhat lower level of favorable attitudes on the part of their supervisors than do nonmedical enlisted members (56 percent compared to 61 percent).

Survey respondents were asked to rank the degree to which reserve training activities were a problem for their main employer or for themselves if self-employed. Both health care

specialists and nonmedical groups perceive absence for weekend drills as the least burdensome for their main employer, followed by time spent at work on Guard/Reserve business. The two activities perceived to present the greatest problems for employers are absence for annual training and absence for extra time spent at reserve activities. While differences were not great, enlisted members in the health care occupations were more likely to rate each type of absence as being a serious or somewhat serious problem. This was also true of reserve enlisted health care personnel who are government employees.

Income and Debt

The QRMC contrasted civilian income levels for the enlisted health care specialists and nonmedical populations in the aggregate and by job congruency for health care personnel. (Analysis of income data by specialty was not feasible because of small population cell sizes.)

As shown in Figure 7-18, the civilian income of all full-time employed enlisted health care specialists tends to be less than that of nonmedical enlisted members of the same military pay grade. The differential is generally small, ranging from only $340 per year for members in pay grades E3 and E4 to about $1,500 for members in pay grade E6.

As shown in Figure 7-19, the income of health care specialists whose civilian jobs were similar to their military occupations was higher in the lower pay grades and lower in pay grades E8 and E9 when compared with those whose civilian jobs were not similar. This fits with a general pattern in subprofessional technical skills of higher entry level pay rates with relatively flatter slope of income progression over time. The civilian income differences found between enlisted reservists in health care occupations and other enlisted reservists would generally indicate a more favorable recruiting and retention environment in the medical area.

Impact of Guard/Reserve Participation on Income

Closely related, and of great importance for retention, is the effect of reserve participation on civilian income opportunities. There are two principal elements in the relationship between reserve participation and civilian income. The first has to do with what happens to the reservist's civilian income during military leave for annual training. Some employers, including the majority of government employers, continue full civilian pay for up to two weeks or more. Others make up any difference between the employee's civilian pay and the military pay received during training. Most employers simply provide the reservist time-off without charging it against vacation time. Some reservists find it more profitable

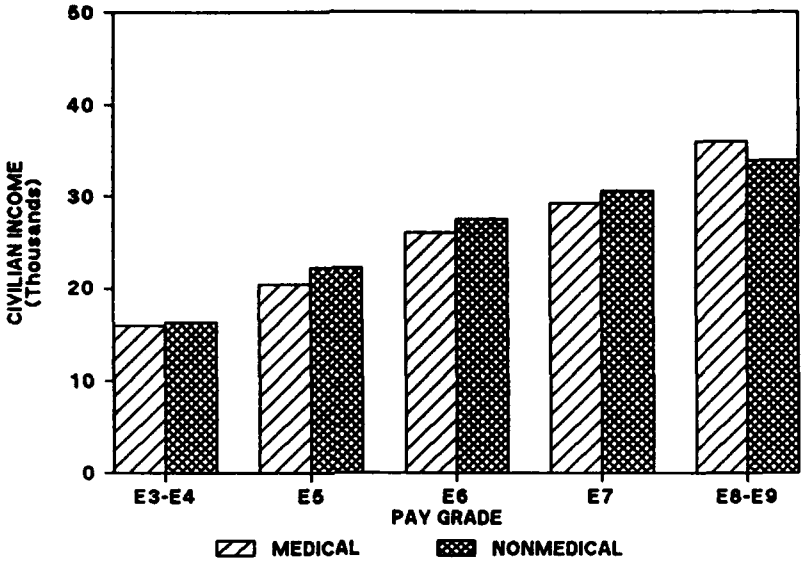


FIGURE 7-18. CIVILIAN INCOME OF ENLISTED MEMBERS, BY PAY GRADE AND SPECIALTY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

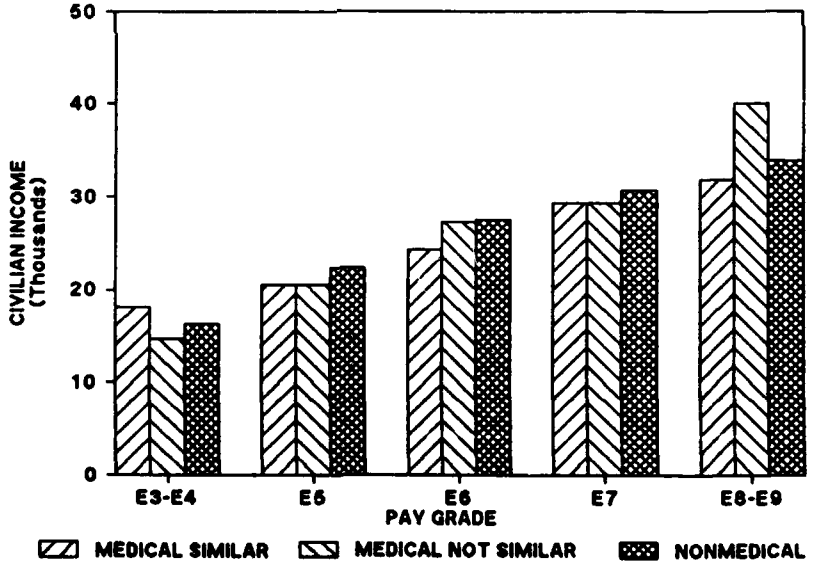


FIGURE 7-19. CIVILIAN INCOME OF ENLISTED MEMBERS, BY PAY GRADE, SPECIALTY, AND CIVILIAN/MILITARY JOB CONGRUENCE

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

to use their vacation time or other time off to meet their reserve obligations. This may result in reduced leisure time but does maximize income opportunity.

Survey respondents were asked how they were paid by their civilian employer when absent to meet their reserve obligations. Potential responses included receipt of both full civilian and military pay, partial civilian pay in combination with military pay, military pay only, and military pay only, due to participation occurring during nonwork days. Health care specialists with high job congruence indicated receipt of both full civilian and military pay at a higher rate than their counterparts with dissimilar civilian and military duties and the nonmedical population.

The second major element in the relationship between reserve participation and civilian income is the extent to which reservists lose opportunities for overtime or are otherwise precluded from civilian income opportunities as a result of reserve schedules. When asked how they are paid for work beyond 40 hours per week at their civilian job, health care personnel with highly congruent civilian jobs appear to be better paid for periods of overtime. Sixty-three percent of health care specialists are paid time-and-a-half or more compared with 58 percent of their health care counterparts with noncongruent civilian jobs and 61 percent of nonmedical personnel.

Both QRMC and RAND Corporation analysts found that lost opportunities for civilian income significantly reduce satisfaction with reserve compensation and with the reserve in general while increasing the likelihood of separation. Enlisted health care personnel with civilian jobs very similar to their military duty lose opportunities for overtime slightly more often than do health care personnel with noncongruent civilian jobs. Overall, however, nonmedical personnel lose overtime opportunities slightly more often than do the health care specialists.

Another factor that may influence an individual's satisfaction with reserve compensation is the perception of the relative value of the full-time military compensation associated with the individual's grade and specialty compared with the individual's civilian income. As shown in Table 7-6, members in the health care specialties with high job congruence are much more likely to say that their income would increase if mobilized for 30 days than medical members with no job similarity or nonmedical personnel.

In looking at family and occupational characteristics of enlisted health care specialists compared with other enlisted reservists, the general pattern that emerges is one of overall similarity. The major difference is the percentage of women in

Table 7-6. Effect of Mobilization on Income

Specialty	Job Congruence	Percent Responding Income Would Increase %	Decrease %
Medical	Very similar jobs	44	41
Medical	Dissimilar jobs	34	53
Nonmedical	All jobs	34	53

Source: 1986 Reserve Components Survey of Enlisted Members, Question 117

the health care specialties, which is over three times the percentage found in other skills. Other differences that do exist between the enlisted occupational groups and other skills would lead one to conclude that the compensation environment for enlisted health care specialists is, if anything, more favorable than for the nonmedical groups.

Attitudes Toward Participation in the Reserve

Survey respondents were asked to rate their relative level of satisfaction with several features of reserve service. The following discussion focuses on the negative end of the scale, or the relative levels of dissatisfaction.

Training

Respondents to the 1986 Reserve Components Surveys were asked a series of questions concerning their perceptions of military training. Table 7-7 compares the responses of enlisted health specialists and nonmedical groups concerning aspects of training. It shows that health care specialists are less likely to be satisfied with the training received during drills and with opportunities to use their skills during drill. Dissatisfaction with annual training was much less pronounced for all members and here there was no difference between the health care and nonmedical categories.

A series of questions asked Guardsmen and Reservists to rate the extent to which several factors were a problem for their unit in meeting its training objectives. Table 7-8 shows that enlisted health care personnel are more likely to see specific factors as impacting on training more than are nonmedical members.

Table 7-7. Percentage Dissatisfied with Training

Aspect of Training	Specialty: Medical %	Specialty: Nonmedical %
Training during unit drills	33	27
Unit activities at 1985 annual training	18	18
Opportunities to use specialty	42	33

Source: 1986 Reserve Components Survey of Enlisted Members, Questions 46, 47, and 52

Table 7-8. Percentage Indicating a Factor as a Serious or Moderately Serious Problem in Meeting Unit Training Objectives

Training Factor	Specialty: Medical %	Specialty: Nonmedical %
Out-of-date equipment/weapons	35	30
Poor condition of equipment/weapons	26	24
Ineffective training at annual training	21	17
Shortage of specialty qualified personnel	23	20
Not enough drill time to practice skills	27	24
Lack of good instruction manuals/materials	29	22

Source: 1986 Reserve Components Survey of Enlisted Members, Question 43

As might be expected, there were variances by reserve component. For example, 27 percent of enlisted health care specialists in the Air Force Reserve indicated that ineffective annual training was a serious or moderately serious problem. By contrast, only 15 percent of Air National Guard health care specialists and the same percentage of Air Force Reservists in nonmedical skills saw ineffective annual training as a problem. As perceived by health care specialists, lack of adequate drill time was the greatest problem in the Army Reserve and the Air National Guard, where 29 percent recorded this as a significant problem in achieving unit training objectives. Overall enlisted health care personnel expressed lower levels of satisfaction with all aspects of training than did nonmedical enlisted personnel.

Opportunities for Education and Training

Twenty-eight percent of health care specialists indicated dissatisfaction with opportunities for education and training in the reserve as compared with 20 percent of nonmedical personnel. As shown in Table 7-9, responses of health care personnel ranged from a high of 32 percent dissatisfied (Army Reserve and Naval Reserve) to a low of 15 percent (Air National Guard).

Table 7-9. Percentage Indicating Dissatisfaction with Opportunities for Education and Training, by Component

Component	Specialty	
	Medical %	Nonmedical %
ARNG	23	17
USAR	32	24
USNR	32	29
ANG	15	14
USAFR	29	20
All Components	28	20

Source: 1986 Reserve Components Survey of Enlisted Members, Question 123

Time

Reserve participation often competes with civilian job requirements and with leisure time activities, including time spent with the family. Survey responses indicate that the level

of dissatisfaction with this feature of reserve service among enlisted health care specialists and nonmedical enlisted personnel is virtually identical.

Respondents were asked to indicate their likelihood of extending or reenlisting under the current training schedule and under a hypothetical schedule with increased participation requirements. Table 7-10 shows the percentage who indicated "No chance" of reenlisting or extending a) under the current schedule, b) if required drills were increased by an additional two 4-hour drills per month, and c) if annual training was increased by an additional 5 days. Both groups indicated that increased training requirements would decrease their reenlistment probability within similar ranges.

Table 7-10. Percentage Indicating "No Chance" of Reenlisting or Extending in the Guard/Reserve if Training Requirements were Increased

	Specialty	
	Medical	Nonmedical
Training Requirements	%	%
Current schedule	8	9
Increased drills	20	22
Increased annual training	17	19

Source: 1986 Reserve Components Survey of Enlisted Members, Questions 18, 19, and 20

Unit Morale

Perception of the level of morale in the member's unit varied between the enlisted health care specialists and their nonmedical counterparts. Twenty-seven percent of enlisted health care specialists rated unit morale as very low or somewhat low, as compared with 21 percent of nonmedical personnel. Conversely, 56 percent of enlisted health care personnel rated unit morale as very or somewhat high as compared with 62 percent of nonmedical personnel.

Compensation

The satisfaction of enlisted health care specialists and their nonmedical counterparts with respect to military pay and allowances and retirement benefits were very similar (Table 7-11). The same was true with respect to military privileges.

Table 7-11. Satisfaction with Compensation and Privileges

Compensation/ Privileges	Medical Specialty		Nonmedical Specialty	
	Satisfied %	Dissatisfied %	Satisfied %	Dissatisfied %
Military pay and allowances	63	17	63	15
Military retirement benefits	44	16	46	17
Military privileges	43	26	41	26

Source: 1986 Reserve Components Survey of Enlisted Members, Question 123

Promotion

Survey respondents were asked how satisfied they were with promotion opportunities in the unit. Respondents marked one of seven blocks ranging from "very dissatisfied" (block one) to "very satisfied" (block seven). Table 7-12 shows those dissatisfied (marked blocks one, two, or three), by grade and component. Among enlisted health care personnel, the Army Reserve and the Army National Guard show the highest levels of dissatisfaction; with sizeable differences between the views of health care and nonmedical members.

Table 7-12. Percentage Dissatisfied with Promotion, by Pay Grade, Component, and Specialty

Component	E1-E4		E5-E6		E7-E9	
	Medical %	Nonmedical %	Medical %	Nonmedical %	Medical %	Nonmedical %
ARNG	60	51	63	50	45	27
USAR	64	56	65	49	51	30
USNR	16	35	28	46	28	34
ANG	36	39	45	60	52	34
USAFR	39	42	52	60	51	42

Source: 1986 Reserve Components Survey of Enlisted Members, Question 48

Overall Satisfaction with Reserve Participation and Compensation

Table 7-13 indicates levels of overall satisfaction with participation in the National Guard and Reserve. Again, levels of satisfaction are similar for health care specialists and nonmedical personnel.

Table 7-13. Satisfaction with Guard/Reserve Participation and Compensation

	Medical Specialty		Nonmedical Specialty	
	Satisfied %	Dissatisfied %	Satisfied %	Dissatisfied %
Overall participation in Guard/Reserve	67	17	70	15
Pay and benefits relative to the amount of time spent in Guard/ Reserve activities	54	26	56	25

Source: 1986 Reserve Components Survey of Enlisted Members, Questions 124 and 125

Reasons for Staying in the Reserve and Plans for Continuation

Contributions to Decisions to Stay in the Reserve

Survey respondents were asked how much each of several factors contributed to their most recent decision to stay with National Guard or Reserve. Table 7-14 shows the percentage rating factors as major contributors to their most recent decision to stay. For the most part the responses of health care specialists and their nonmedical counterparts were similar.

The two major areas of difference were the contribution of educational benefits, which was more important for health care specialists, and the opportunity to use military equipment, which was more important for those in the nonmedical skills.

Intent to Stay

Overall, the expressed intent to remain in the reserve is strikingly similar for health care specialists as compared with nonmedical personnel. This is true with respect to the stated intention to reenlist or extend at the end of the current term of service, and with respect to intent to remain in the reserve

Table 7-14. Percentage Indicating Specific Features as Major Contributing Factors in Their Most Recent Decision to Remain in the Guard/Reserve

Reserve Feature	Specialty: Medical %	Specialty: Nonmedical %
Serving the country	50	55
Using educational benefits	29	18
Obtaining skill to help get civilian job	23	18
Serving with people in the unit	30	34
Retirement credit	44	50
Promotion opportunities	29	31
Use of military equipment	10	19
Challenge of military training	28	31
Money for basic family expenses	33	33
Extra current income	34	35
Savings for the future	21	22
Travel opportunities	30	28
Enjoy the reserve	29	31
Pride in accomplishments	47	48

Source: 1986 Reserve Components Survey of Enlisted Members, Question 26

until qualified for retired pay. Figure 7-20 shows the likelihood of reenlistment by pay grade and specialty. Figure 7-21 shows the percentage of members indicating their intent to stay until qualified for retired pay by pay grade and specialty.

Impact of Variables on Intent to Stay

In view of the highly similar responses concerning likelihood of reenlisting/extending or retiring on the part of the aggregate health care and aggregate nonmedical groups, further analysis was conducted to determine whether there might be specific variables that had particular impact on the likelihood of remaining in the reserve and whether or not their impact was constant for the health care specialists and nonmedical populations. The variables of training and promotion were selected because these two areas showed the greatest differential between health care and nonmedical respondents. Although expressed levels of dissatisfaction with pay and allowances were similar for the two groups, that variable was also investigated to determine whether there was any inherent difference in impact.

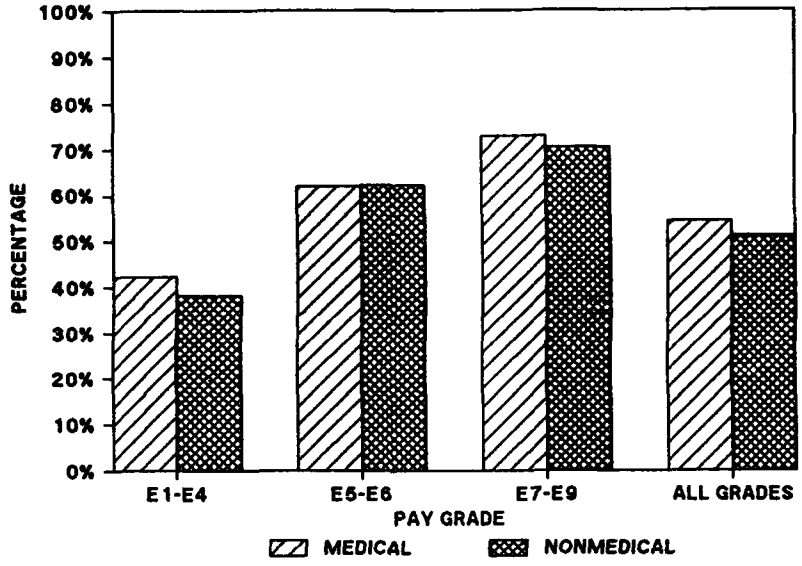


FIGURE 7-20. PERCENTAGE OF ENLISTED MEMBERS INDICATING THEY ARE VERY LIKELY TO REENLIST, BY PAY GRADE AND SPECIALTY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

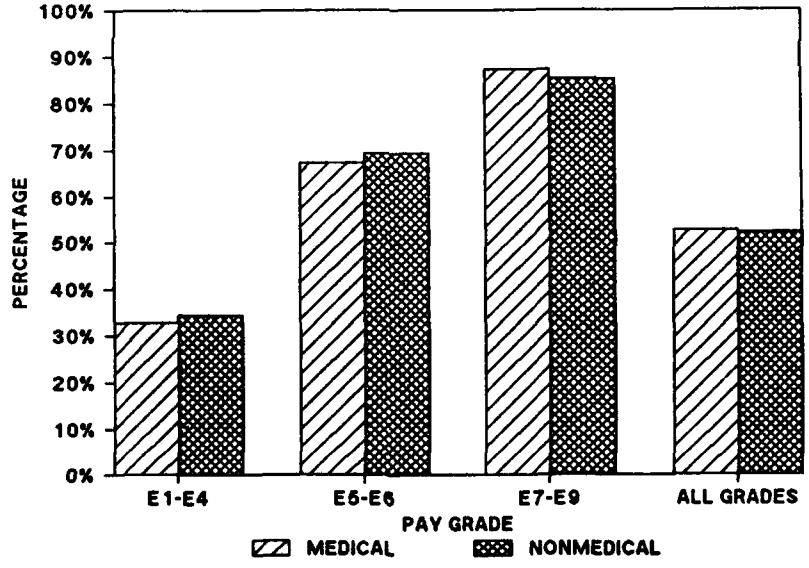


FIGURE 7-21. PERCENTAGE OF ENLISTED MEMBERS INDICATING THEY PLAN TO STAY IN THE RESERVE LONG ENOUGH TO QUALIFY FOR RETIRED PAY, BY PAY GRADE AND SPECIALTY

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

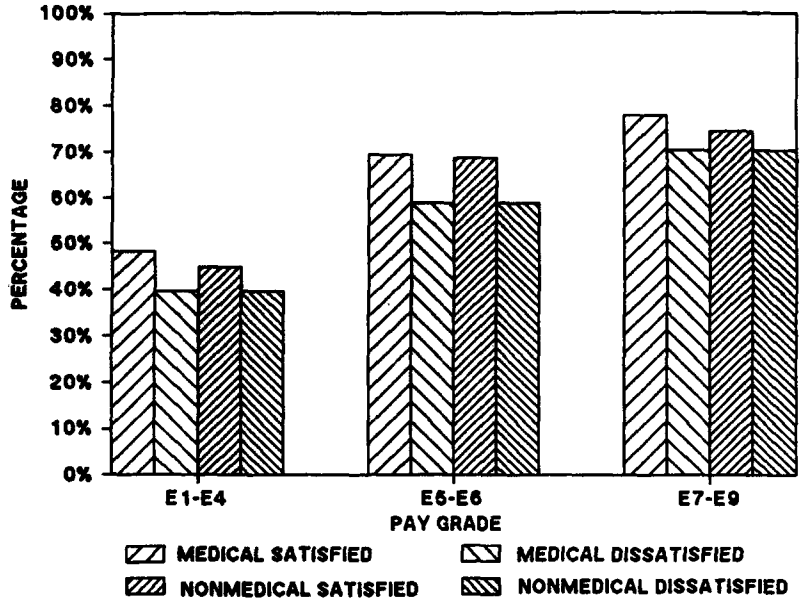


FIGURE 7-22. PERCENTAGE OF ENLISTED MEMBERS INDICATING THEY ARE LIKELY TO REENLIST, BY SATISFACTION WITH TRAINING

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

When comparing enlisted health care specialists with nonmedical populations, there is little difference in the impact of dissatisfaction with training on the propensity to reenlist or to stay until eligible to retire. This is shown in Figure 7-22.

A similar pattern was found with respect to the effect of dissatisfaction with promotion and pay and allowances, as shown in Figures 7-23 and 7-24. For all variables, the effect on the likelihood of staying to retirement (not shown) was very similar. Thus, for example, although greater dissatisfaction with training opportunities among reserve health care specialists may reduce retention, the relative impact of dissatisfaction appears to be about the same for reserve health care specialists as it is for other enlisted reservists.

Eligibility for and Impact of Bonus Programs

The 6th QRMC analysis of the effect of bonuses in the reserve components was hampered by a lack of reliable personnel and pay data. Despite these problems, the QRMC analysis found generally positive effects from bonuses, and they provide the major means

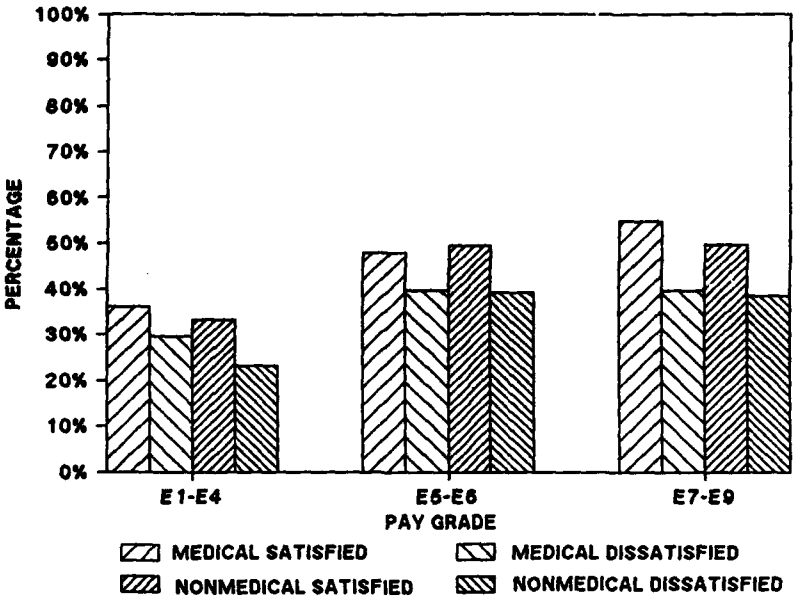


FIGURE 7-23. PERCENTAGE OF ENLISTED MEMBERS INDICATING THEY ARE LIKELY TO REENLIST, BY SATISFACTION WITH PROMOTION

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

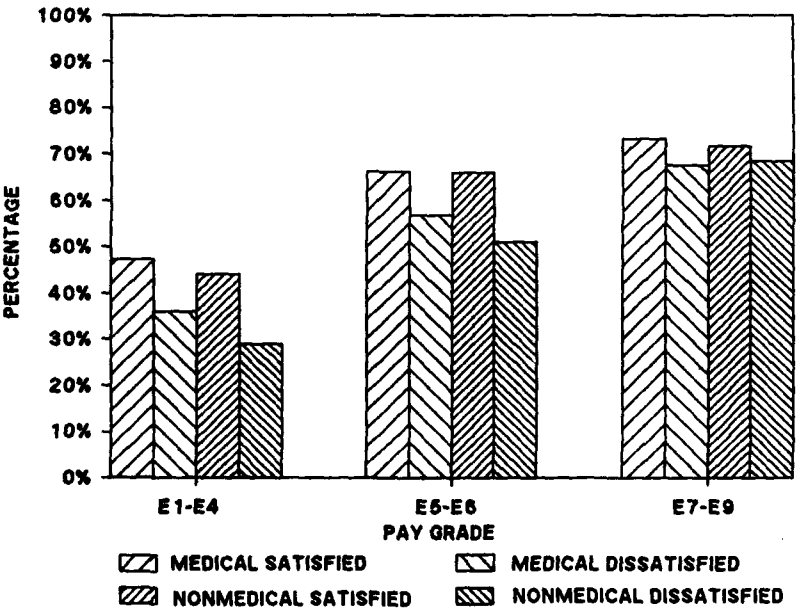


FIGURE 7-24. PERCENTAGE OF ENLISTED MEMBERS INDICATING THEY ARE LIKELY TO REENLIST, BY SATISFACTION WITH PAY AND ALLOWANCES

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

of targeting compensation toward hard-to-man units and skills. The QRMC used data from the 1986 Reserve Components Surveys to assess the extent to which enlisted health care specialists received enlistment, reenlistment, or affiliation bonuses as compared with their counterparts in other skills.

Based on the survey data, a higher percentage of enlisted health care specialists receive bonuses than do nonmedical enlisted personnel. Fifty-nine percent of health care enlisted respondents with less than 10 years of service (the maximum for receipt of a bonus) and 47 percent of nonmedical personnel indicated receipt of a bonus at their most recent enlistment. Comparative data for the reserve components with health care specialists is shown in Table 7-15.

Table 7-15. Percentage of Enlisted Members with Less Than 10 Years of Service Who Received a Bonus at Last Enlistment, by Component and Specialty

	Specialty	
Component	Medica	Nonmedical
	%	%
ARNG	64	56
USAR	65	47
USNR	52	23
ANG	22	38
USAFR	47	25
All Components	59	47

Source: 1986 Reserve Components Survey of Enlisted Members, Question 15

Another way of looking at this issue is in terms of the member's expectation of receiving a future bonus and of the relation of this expectation to reenlistment intent. Table 7-16 shows the percentage of enlisted members with less than 10 years of service who say they will be eligible for a reenlistment bonus.

Although a slightly smaller percent of health care specialists say they would be eligible for a bonus, eligibility for a bonus appears to have a greater affect among health care specialists than in other communities. This is shown in Table 7-17.

Table 7-16. Percentage of Enlisted Members with Less Than 10 Years of Service Who Say They Will be Eligible for a Reenlistment Bonus, by Component and Specialty

Component	Specialty: Medical %	Specialty: Nonmedical %
ARNG	40	39
USAR	31	31
USNR	25	16
ANG	13	16
USAFR	14	12
All Components	29	31

Source: 1986 Reserve Components Survey of Enlisted Members, Questions 11, 12, and 16

Table 7-17. Percentage of Enlisted Members Very Likely to Reenlist, by Bonus Eligibility, Component, and Specialty

	Specialty: Medical		Specialty: Nonmedical	
Component	Eligible %	Not Eligible %	Eligible %	Not Eligible %
ARNG	49	43	44	45
USAR	56	47	51	51
USNR	61	52	43	49
ANG	50	49	54	55
USAFR	60	48	51	56
All Components	54	47	46	49

Source: 1986 Reserve Components Survey of Enlisted Members, Questions 16 and 18

Summary of Differences

In summary, the primary differences found between the enlisted health care specialists and the nonmedical population were in the following areas:

- Greater dissatisfaction with all aspects of training

- Greater dissatisfaction with opportunities for promotion in the Army National Guard and Army Reserve
- Lower perceived levels of unit morale
- Higher percentage of females
- Lower continuation rates, despite a slightly greater expressed likelihood of reenlisting or staying until qualified for retirement
- Higher education levels and educational aspirations
- Lower levels of duty qualified personnel

The differences outlined above suggest types of initiatives that may be particularly effective in the recruitment and retention of enlisted health care specialists in the reserve. Improved quality of inactive duty training and enhanced opportunities for education and training would appear to be areas where initiatives might be most beneficial. In general, however, the QRMC analysis indicates that the population of enlisted health care specialists does not differ significantly enough from other enlisted reservists to warrant special compensation programs or initiatives. Although no special compensation initiatives are recommended, there were some areas where it appeared that initiatives or further investigation and analysis might be indicated.

Possible Initiatives and Areas for Further Investigation

Promotion Opportunities

For many health specialties in the reserve, the highest grade authorized is lower than that authorized in the active component. Even where there is no cap on the highest pay grade authorized, there may be severe limitations on the number authorized in a given pay grade. Problems relative to low levels of grade authorizations at the higher pay grades are not unique to the health care occupations, but may be exacerbated for health care personnel due to the large number of relatively low density specialties. There is evidence that skill qualification problems are exacerbated when members switch career fields as the only means of obtaining promotion. Permitting the progression of more personnel through the higher pay grades might serve to keep personnel in the same skill and would enhance skill qualification levels, which is vitally important for achieving medical readiness. Also a factor here is the fact that reservists have more service within each pay grade than do their active component counterparts.

Bonus Payments

Bonuses are the primary means by which the reserve components are able to target enhanced levels of pay toward certain member populations without increasing pay uniformly for all military personnel categories. As such, the use of bonuses may be postulated to be particularly cost-effective. The enlisted health care specialties in particular might benefit from further refinement of the bonus system, because of the great diversity of types and levels of technical skills required, and the variance in the shortage levels experienced in different reserve components. Also, as previously discussed, unit size is an important factor in determining unit fill. Not only must units compete in varying local labor markets, but some are disadvantaged by their structural size as well as the nature of their mission, which dictates the primary skills required. Therefore, further differentiation of bonus levels may be an effective method for increasing the manning levels of undermanned units and specialties.

Bonus payments should be contingent on and tied to skill qualification and on remaining in the skill for which the bonus was initially paid. In the medical community, particularly within the Army components where there is a high level of skill turbulence as individuals are retrained from one skill to another in order to be promoted, such a policy may tend to reduce some of the personnel turbulence and need for retraining.

Recruitment of Skill-Qualified Personnel

Enhanced recruiting of skill-qualified personnel with no prior service may also be possible. Accession of increased numbers of qualified personnel reduces stress on the existing training base, which in many cases is incapable of providing enough training seats in service schools for reserve participants. A corollary advantage is an increased state of readiness because skill trained individuals are available sooner as trained manpower for the reserve. The time in the training pipeline is reduced to the minimum required for acquisition of the basic military skills. The element of risk in selecting an individual for skill training is also eliminated for the reserve, with the consequent reduction in lost training dollars due to failure in training.

The long training courses required for many health care skills are a particular burden for the medical community: a new reserve member may be disadvantaged by the requirement to leave home and job for a lengthy training period. The skill-qualified member does not need to sustain the same upheaval in his personal life and civilian employment to attend lengthy training away from home. The reduction in this potentially negative aspect of reserve affiliation may reduce the high rate of

attrition observed during the training period. The expense of training unqualified health care personnel is high for the military, due to the length of the training period and the fact that many individuals must be called to active duty for the period of training. Several programs exist for local skill training, but in order to obtain levels of training comparable to that obtained by full-time attendance, programs may last as long as two to three years.

One may assume that the individual who possesses a given complement of skills, particularly those obtained through formal training, also has a high likelihood of current employment in a civilian job using those skills. As previously discussed, reservists currently employed in civilian jobs similar to their military jobs are likely to have a higher level of expertise than those not currently practicing their skills on a sustained basis by using them in civilian jobs.

An additional benefit may accrue, unique to the health care field. Due to considerations of malpractice liability, civilian patient care facilities often resist allowing reserve medical units to train in their facilities. Enlisted reservists in health care specialties who are employed by a civilian facility, or who are licensed to practice their medical skill, are more readily accepted into civilian patient care environments for purposes of reserve training than are individuals who are not employed in their skill as civilians.

Scholarships for Enlisted Personnel Training in the Health Care Skills

A program with similar benefits for the reserve as well as great recruiting potential is the use of a scholarship program to train reserve members in the requisite military health care skills through enrollment in formal civilian training programs. The Naval Reserve Allied Medical Program (RAMP) was initiated in 1986 to assist in filling its critical need for certain medical and dental technicians in the Naval Reserve. Trained personnel with prior service did not provide an adequate supply of technicians, nor were there adequate service school training billets available to train the numbers required.

The Navy pays program participants a full scholarship, including tuition, books, and fees, during their period of technical training in qualifying medical or dental technician programs. These programs are typically conducted at accredited two-year civilian junior colleges, vocational schools, and trade schools. Scholarship recipients incur an obligation of eight years in the Selected Reserve. In FY 1987, the Navy reported the average annual cost of tuition per enrollee as $2,200. The program has been successful, with the Navy having reached its

recruiting goal for the program each year since its inception. Enrollment increased from 460 students in FY 1986 to 730 students in FY 1987.

Based on Navy experience, the program is attractive to individuals enrolled in or planning to enroll in the technical health care career fields. It may thus serve as an important recruiting tool for the reserve. It further provides an efficient mechanism for training personnel in skills for which the military has inadequate training resources; training is accomplished without the costs of expansion of the training base. The program also appears to be cost effective in comparison with other reserve health care training programs. The Army, as an example, uses several methods of training unskilled enlisted personnel in the required health care skills. One of the approaches is to call the reservist to active duty for purposes of training in a formal service school. In FY 1987, the Army estimated the approximate cost to train one licensed practical nurse for the requisite year-long course at $19,000. The pay and allowances received as an active duty member at pay grade E2 constitute the bulk of the cost. The cost per student is increased substantially, to an estimated $30,000 to $32,000, if one includes overhead costs for the Army school and instructor staff. By comparison, in FY 1987, the Army estimated that the total cost per trainee for a one-year course of instruction would average only about $4,000 using a scholarship program similar to that used by the Navy.

Additional values also derive from such a program. Enlisted members need not physically relocate to attend training and are more likely to seek civilian employment in the skill for which they have been trained, thus the positive benefits of job congruence may be obtained.

The Army plans a pilot program in FY 1988 to determine the efficacy of a scholarship program for its reserve components. A recruiting approach based on educational assistance may be a particularly effective choice given the high value placed on training by enlisted health care personnel.

Training and Administration

Training and administration initiatives are also necessary based on survey data, survey comments, unit visits, and interviews with enlisted personnel and personnel managers. It appears probable that no compensation initiatives are likely to fully solve the shortfall of enlisted health care personnel unless measures are taken to increase the opportunities for training and to improve the quality of that training for enlisted health care specialists.

The importance of capable, motivated, and concerned leadership in the reserve components is critical in this effort. The 6th QRMC saw some medical units that, against all odds and with no apparent advantage in location, size, or availability of personnel, were extremely successful in meeting manpower requirements. Such units, perhaps not coincidentally, reflected high levels of morale and enthusiasm for the reserve mission.

Special problems and challenges face reserve leadership in the health care field because the medical force represents only a relatively small part of the total reserve force. As discussed in Chapter 1, the reserve medical force has been disadvantaged by the lack of recognition, until recently, of the vital and essential nature of its role in providing wartime medical readiness. Reserve leaders have a particular responsibility to ensure that the requirements of the reserve medical force for wartime readiness are defined and met.

Summary

There exists a significant shortfall of enlisted manpower in the health care skills in the reserve components today. The impact of the shortfall on the failure to achieve medical readiness is compounded by a low level of skill qualification among health care specialists. Yet it is important to differentiate between the readiness problem as it pertains to enlisted health care personnel and the manpower shortage of physicians and nurses. The nature of the problem regarding enlisted health care specialists is not unique among the reserve enlisted population, whereas the shortfall of reserve medical officers and nurses is unparalleled in size and is exacerbated by the unique aspects of their civilian employment.

The 6th QRMC did find clear differences in training problems for reserve health care specialists that set them apart from their nonmedical counterparts. Conversely, the QRMC found striking similarities between the health care and nonmedical enlisted populations; particularly as reflected in their reasons for reserve participation, their levels of satisfaction with the reserve, and the factors influencing their behavior and retention. Whereas a compelling argument can be made for developing unique compensation and personnel policies for reserve medical officers and nurses, the data and information available does not indicate a need for special compensation initiatives for enlisted health care specialists. Initiatives are required to address the manpower shortages and skill qualification problems in the enlisted health care skills, but these initiatives do not appear to warrant special compensation programs.

The 6th QRMC concludes that initiatives with a positive impact on enlisted personnel readiness in general will have essentially similar beneficial effects on all enlisted health care specialists.

Notes

1. This is quite close to the subjective assessment of reserve health care specialists. As shown in Table 7-4, 18 percent of enlisted health care specialists reported that their civilian job and their military duties were very similar.

2. The duty qualification levels shown in Table 7-1 are somewhat lower than those extracted from the Army Functional Review (AFR) and shown in Table 1-9 as the AFR includes secondary skills in the assessment of duty qualification. The 1986 REMMIS database does not account for secondary or additional skills, substitutability of skills, or subjective judgment regarding qualification; but it provides a strict comparison between the primary skill of the member and the skill requirement of the job.

3. As part of DoD medical database improvements, the 1987 REMMIS database has been revised to include secondary and additional skills and a limited standard of skill substitutability to determine skill and duty match. Skill substitutions for this purpose were approved by The Surgeon General of the Army. The overall impact was to increase by 3,397 the level of personnel considered to be skill-qualified. The Office of the Army Surgeon General is currently developing a more extensive list of skills that may be substituted at both the officer and enlisted levels; this list will facilitate manpower planning and enhance training initiatives.

Appendix B provides extracts from the upgraded 1987 REMMIS database for the Army reserve components. Due to the broader definition of duty qualification, the overall levels of skill qualification in the revised 1987 REMMIS database more nearly approximate those of the 1987 Army Functional Review. The tables included provide detailed information by specialty showing Army fill and skill qualification levels for the health care specialties as of September 30, 1987, as measured against wartime requirements.

4. David W. Grissmer, Richard Buddin, Sheila Nataraj Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, R-3669-FM&P/RA, The RAND Corporation, forthcoming.

5. Department of Defense, Office of the Assistant Secretary of Defense for Manpower, Installations, and Logistics, DoD 1312.1-M, Occupational Conversion Manual: Enlisted/Officer/Civilian, September 1984.

6. U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population Alphabetical Index of Industries and Occupations, (PHC80-R3 Final Edition), November 1982.

7. The difference is more striking for members without prior service than for those with prior service. See David W. Grissmer and Sheila Nataraj Kirby, Attrition of Nonprior-Service Reservists in the Army National Guard and Army Reserve, The RAND Corporation, R-3267-RA, October 1985; David W. Grissmer and Sheila Nataraj Kirby with the assistance of Priscilla M. Schlegel, Changing Patterns of Nonprior Service Attrition in the Army National Guard and Army Reserve, The RAND Corporation, R-3623-RA, June 1988; and M. Susan Marquis and Shiela Nataraj Kirby, Economic Factors in Reserve Attrition: Prior Service Individuals in the Army National Guard and Army Reserve, The RAND Corporation, forthcoming. The continuation rates for women are shown only through 22 years of service. Subsequent to that point there are few women due to the fact that, prior to the mid-1960s, the number of enlisted women authorized to serve in the armed forces was restricted.

Chapter 8. SUMMARY AND RECOMMENDATIONS

As a group, health professionals in the National Guard and Reserve have received comparatively little attention until recently. The QRMC study of compensation in support of reserve medical manpower requirements clearly indicates that planning and resources have been directed primarily at active component issues. Over the past 40 years, the immediate demands of maintaining an active duty medical force of the necessary size, quality, and experience have served to divert attention from reserve issues. Although active component issues remain immensely important, the focus on wartime medical readiness as the primary mission of medicine in the military has served to highlight both the critical role of reserve medical manpower and the significant shortfalls that exist.

The history of both personnel and compensation initiatives for reserve health care professionals is abbreviated. It has been recognized since World War II that health professionals as a group, and physicians and dentists in particular, could not be retained in military service in sufficient numbers without additional pay incentives. Personnel and compensation initiatives have served to make military service in the active components more attractive to the health professional. Until very recently, there were no comparable incentives for reserve health professionals.

The analysis and recommendations of the QRMC were conducted and developed during a period of intense concern with wartime medical readiness and reserve medical manpower. There were two new compensation initiatives which had been developed specifically as a first attempt to reduce identified wartime shortfalls of health professionals essential to the provision of combat-related medical care. These initiatives were 1) a program to repay educational loans for health professionals qualified in the critically short wartime skills and 2) a stipend for specialty training in the critically short wartime skills. These programs, included in the Department of Defense Authorization Act, 1986, were offered in return for Selected Reserve service.

As part of the DoD legislative contingency, the President's Budget for Fiscal Years 1988 and 1989 included a proposal to revise and expand the stipend program. The program includes these features: 1) addition of a reduced stipend in return for service in the IRR and 2) provision of a monthly stipend for undergraduate baccalaureate nursing students in the third and

fourth years of training. This proposal was one of several legislative items referred to the 6th QRMC for evaluation before submission of a legislative recommendation to the Congress. The QRMC reviewed this proposal as part of the initial review of their study of compensation in support of reserve medical manpower. The QRMC developed alternatives to modify the proposed program. It was emphasized, however, that these alternatives were not based on analysis of the costs and benefits of the proposal, relative to other forms of compensation initiatives designed for reducing shortfalls in critical health specialties in the reserve components. The QRMC Coordination Council subsequently agreed that the legislative proposal should be forwarded for clearance as part of the Administrations's legislative program. They also agreed that work on other alternatives should continue, because the revised stipend program would not be sufficient to solve the reserve medical manpower problem.

The essence of this proposal was enacted as part of the National Defense Authorization Act for Fiscal Years 1988 and 1989. The new law also extends the loan repayment authority until October 1, 1990, and corrected a technical deficiency by permitting repayment of nursing loans provided under Section B of title VII of the Public Health Service Act.

The Act contains three other measures designed to reduce shortfalls in reserve medical manpower: it authorizes extension of the retirement age to 67 years for health care personnel in the reserve; it prohibits setting the maximum age for appointment in the reserve at less than 47 years for health professionals in a critically short wartime specialty; and it authorizes the granting of service credit to all health professionals for their health professions experience, if the experience can be directly used by the armed force concerned. The principal effect of this expanded authority was to authorize credit for experience for nurses who have not completed post-graduate training.

The existing combination of compensation and personnel initiatives has an impact on the supply of health professionals to the reserve components. However, the QRMC analysis indicates that, in combination, these initiatives are inadequate to reduce existing shortfalls at the rate specified in DoD program guidance. This analysis is based on estimated effects on supply. These estimations necessarily have used secondary measures rather than measures derived from actual compensation changes. It was not possible to work with actual compensation changes because the first significant changes were so recent that there is as yet insufficient data with respect to their actual separate or interactive effects.

- **The 6th QRMC recommends continuation of the stipend and loan repayment programs; analysis indicates that these programs will help to reduce shortfalls in critically short wartime skills. It further recommends that accessions gained through these programs be carefully tracked with respect to their continuation and use in the reserve.**

The 6th QRMC also estimated the effects on supply of a range of compensation initiatives and of modifications to existing programs targeted at meeting Selected Reserve and IRR requirements for health professionals. It was not judged feasible to recommend a complete program of incentives until more empirical evidence concerning actual program effects was available.

- **The 6th QRMC recommends three initiatives:**
  - **A geographically limited experimental test program of an annual bonus for critically short wartime physician and nursing specialties. Since full implementation would require substantial outlays, assessment through a test is warranted.**
  - **Revision of section 302(h) of title 37, United States Code, to increase special pay for reserve medical officers when on active duty for training, increasing pay from the current rate ($100 a month for those who have completed at least one but less than two years of active duty and $350 a month for those who have completed two or more years) to $450 a month without respect to previous active duty as a medical officer and to extend this pay to periods of inactive duty training (IDT).**
  - **A review of current procedures for funding and ensuring compliance with DoD Directive 1215.4, which stipulates that health care officers shall be afforded an opportunity to attend one health education conference or experience on an annual basis. QRMC analysis indicates that this is a cost-effective incentive that can assist in both attracting and retaining reserve health professionals.**

The 6th QRMC also found that the provisions of current statutes for appointment and promotion of reserve health professionals were inadequate for the most effective personnel management of the numerous categories of health professionals. The statutes also result in unwarranted differences among the Services, differences that directly affect the compensation of reserve members.

- **The 6th QRMC recommends early consideration and enactment of the Reserve Officer Personnel Management Act (ROPMA), which includes provisions that will materially improve the management of reserve health professionals and provide the capability to treat reserve health professionals in all reserve components in a uniform and equitable manner.**

The 6th QRMC also evaluated the enlisted health care population, especially manpower requirements and shortfalls, success in recruiting and retention, levels of skill qualification, demographic characteristics, and attitudes of this group toward the reserve, and compared these findings with those of nonmedical enlisted reservists. Although some differences were found, similarities in the two enlisted populations predominated. The QRMC acknowledges the need for revised personnel and compensation policies to improve overall enlisted personnel readiness, but found no unique aspects of the enlisted health care population that would indicate need for special compensation policies unlike those available for other enlisted personnel. The areas where compensation initiatives are projected to have favorable impact appear to be the same for both health care specialists and nonmedical enlisted populations. These initiatives appear to be manageable under the broad terms of existing and recommended special pay and bonuses as discussed in Volume I of the 6th QRMC report.

Appendix A. SPECIAL PAYS FOR ACTIVE DUTY MEDICAL AND DENTAL OFFICERS

Entitlement to all active duty special pays for medical and dental officers requires that an officer be on active duty under a call or order to active duty for a period at least one year.

Creditable Service for Special Pay Purposes

The rate of entitlement to the current medical and dental special pays (with the exception of the incentive special pay bonus for selected medical officers) is based on years of creditable service. Years of creditable service are determined by adding all years of formal internship or residency training in a recognized graduate medical or dental education program during which the officer was not on active duty and all periods of active service as a medical or dental officer in the armed services or Public Health Service.

Special Pay for Medical Officers of the Armed Forces

The current framework for special pay for medical officers of the Armed Forces was set out in the Uniformed Services Health Professionals Special Pay Act of 1980:

Variable Special Pay: Variable special pay is a monthly entitlement based on the number of creditable years for special pay purposes and the status of the member.

Variable Special Pay

Years/Status	Annual Rate
Interns	$ 1,200
Less than 6	5,000
6 but less than 8	10,000
8 but less than 10	9,500
10 but less than 12	9,000
12 but less than 14	8,000
14 but less than 18	7,000
18 but less than 22	6,000
22 or more	5,000
Pay grade O7 and above	1,000

Board Certified Pay: Board certified pay is also paid monthly to medical officers who have obtained certification from an approved medical or osteopathic specialty board. The amount of entitlement is based on the number of creditable years for special pay purposes.

Board Certified Pay

Years/Status	Annual Rate
Less than 10	$ 2,000
10 but less than 12	2,500
12 but less than 14	3,000
14 but less than 18	4,000
18 or more	5,000

Additional Special Pay: Additional special pay is payable to all medical officers except those undergoing internship or initial residency training, in return for an agreement to remain on active duty for not less than one year. The bonus is payable as a lump sum at the beginning of the committed period.

Additional Special Pay

Years/Status	Annual Rate
Less than 10	$ 9,000
10 or more	10,000

Incentive Special Pay: Incentive special pay is also a lump sum bonus payable, upon execution of an agreement to remain on active duty for not less than one year, to selected medical officers who are not undergoing internship or initial residency training. Instructions from the Office of the Assistant Secretary of Defense for Health Affairs target this pay at medical officers in specialties designated as critical. When the pay was first authorized, the maximum bonus was $8,000 and the total incentive pay budget was limited by law to 6 percent of the entire outlay for all special pays. In 1987, however, shortages continued to persist in specialties with critical wartime skills. In order to provide the Services more flexibility in developing compensation programs to attract these hard-to-get medical officer specialties, Congress, in the FY 1988-1989 National Defense Authorization Act, removed the limitations on incentive special pay. Payments were authorized in excess of $8,000 to physicians in specialties designated as needed wartime skills, and the 6 percent limitation on the incentive special pay budget was eliminated beginning in FY 1989.

Special Pay for Dental Officers of the Armed Forces

The Defense Authorization Act for FY 1986 established a special pay system for dental officers, similar to that for medical officers. Variable special pay, board certified pay, and additional special pay were included, but authority for incentive special pay was not legislated. This bonus, targeted at critical specialties, was not included for dental officers because, at the time of passage of the legislation, no critical shortages existed comparable to those for medical officers. Although the types of pay parallel those of medical officers, the rates are not identical. A description of the current dental special pays follows:

Variable Special Pay: The rate of variable special pay is based on the years of creditable service for special pay purposes. It is paid as a monthly entitlement.

Variable Special Pay

Years/Status	Annual Rate
Interns	$ 1,200
less than 3	1,200
3 but less than 6	2,000
6 but less than 10	4,000
10 but less than 14	6,000
14 but less than 18	4,000
18 or more	3,000
Pay Grade 07 and above	1,000

Board Certified Pay: Board certified pay is paid monthly to dental officers certified by an approved dental specialty board. The amount of entitlement is based on the number of creditable years for special pay purposes.

Board Certified Pay

Years/Status	Annual Rate
Less than 12	$ 2,000
12 but less than 14	3,000
14 or more	4,000

Additional Special Pay: All dental officers not undergoing internship or initial residency training, who have at least three years of creditable service and who execute an agreement to remain on active duty for not less than one year, may receive

this lump sum bonus. The amount of the bonus is based on years of creditable service and is payable as a lump sum at the onset of the agreement period.

Additional Special Pay

Years/Status	Annual Rate
3 but less than 14	$ 6,000
14 but less than 18	8,000
18 or more	10,000

Appendix B. Sample Data from the Revised REMMIS 1987 Database for Army Selected Reserve Units

The REMMIS database for the Army Reserve Components for 1987 is representative of ongoing improvements in the ability of the DoD to monitor health care skills at the specialty level, both in terms of fill rates and skill qualification levels. The revised 1987 version incorporates two additional features that permit a more functional interpretation of the data and of personnel readiness. The original database identified as skill qualified only individuals who possessed a primary skill equivalent to that designated for the assigned billet. However, a substantial number of military personnel are qualified in more than one skill. Additionally, individuals with advanced skill levels in a given field would, in most cases, be able to fill the requirements of a duty position designated at a lower skill level. Finally, there are other skills, not in the same skill progression path, which are adequately similar in nature to permit substitution of personnel. Knowledge of such multiple skill capabilities and their logical substitution is necessary for a complete assessment of available personnel capability.

The 1987 REMMIS database has adopted an expanded definition of duty qualification that includes secondary and additional skills as well as limited skill substitutions. This expansion of the parameters for skill qualification provides a more accurate assessment of readiness, and in many skills, increases the number of personnel who are classified as skill-qualified.

Shown below are excerpts from the revised REMMIS database which display personnel data based on wartime requirements. The first column lists Army health care skills and the second column shows the wartime authorizations for those skills in Army Selected Reserve units. Data is shown for the Army National Guard and Army Reserve combined, as well as for each component. Column 3 indicates the number of personnel assigned to those units as of September 30, 1987. Column 4 (P=DY) represents the number of reservists who show a primary skill the same as that required by the duty position. The fifth column (MATCH) includes those members assigned to positions that match their primary skills, adds reservists whose secondary skill matches the duty specialty, and also adds those who meet the skill substitutability criteria. The "MATCH" column is therefore generally larger than the preceding column based on only a match of the primary skill and the duty skill requirement. The last four columns display the status of those individuals whose

skills are not classified as matching the requirement of the duty position. These assigned reservists may have other medical skills, nonmedical skills, be in training, or have an unknown status.

Appendix C. COMMENTS OF RESERVE MEDICAL PERSONNEL AND THEIR SPOUSES

All respondents to the 1986 Reserve Components Surveys were given the opportunity to comment at the end of the questionnaire, where the following prompt appeared:

> We're interested in any comments you'd like to make about Guard/Reserve personnel policies - whether or not the topic was covered in this survey. Do you have any comments?

Respondents also marked a coded response block indicating whether or not they had filled out a comment sheet. This enabled the QRMC to determine the percentage of respondents, in various categories and with varying attitudes on major issues, who filled out comment sheets. By comparing the characteristics and attitudes of those who provided comments with those who did not, it was then possible to judge the extent to which those who provided comments were representative of all respondents.

Overall, one of four officers and one of every five enlisted members provided written comments. Senior members in both officer and enlisted categories were somewhat more likely to have provided comments. There were only slight differences between those who commented and those who did not; differences related to the sex of the respondent, their intent to stay in the reserve, or their overall satisfaction. Those dissatisfied or very dissatisfied with pay and benefits or with leadership or training were more likely to comment than those who were satisfied with these aspects of their service.

About one of every five spouses who responded to the survey provided written comments. Unlike the members, the percent of spouses who provided comments did not vary by the member's pay grade. Whether or not the spouse had previously served in the military did not affect the percentage who provided comments. Neither the participation status of the member--part-time unit member, IMA, military technician or AGR/TAR--nor the likelihood of the member staying in the reserve for a full career affected the rate at which spouse comments were provided. Spouses who were dissatisfied with the member's pay and allowances or with the member's participation in the reserve were about twice as likely to have provided comments than those who were satisfied, favorable or indifferent on these matters. About one out of five spouse comments was written by an individual who was

dissatisfied with their spouse's reserve pay and allowances. In aggregate, it appears that those providing comments were representative of the population surveyed.

Although the National Guard and Reserve members and their spouses who provided additional written comments appear to be generally representative of the population surveyed, the comments included in this appendix cannot be said to be representative. The process of screening over 20,000 comment sheets was systematic, however, and does provide additional insight into the issues being considered. QRMC staff members who had participated in the unit visit program read through the comments and used predesignated codes to identify categories of comments for subsequent review. Most of these categories related to compensation or other personnel issues affecting overall satisfaction with the Guard and Reserve. The coded comments were then reviewed, and representative comments on each subject recorded. A brief sample of the comments provided by medical personnel and their spouses are presented below.

Army National Guard

Officers

"My official unit is a combat support hospital, but I am attached to an aviation unit as medical support. If I were not attached out, I doubt that I would still be a member of the National Guard. In my present assignment, I feel that I am making a significant contribution in many ways, I respect the leadership, the work is challenging and in a totally different environment than my civilian position although I use many of my professional skills. I learn something new each time I drill. Many of my associates are professionals in other specialties and have become valuable resources to me personally and professionally. Unfortunately, the leadership and challenge in my parent unit is sorely lacking. I see many talented people underutilized and discouraged. The situation has been allowed to continue for as long as I have been a member of the NG. Opportunities for change seem to be actively obstructed. I believe this to be a very serious problem which is why I have taken the time to respond."

"As Clinical Laboratory Officer for an Army National Guard evacuation hospital, my most difficult task is training. An insufficient amount of MOS training time and shortages or lack of vital equipment are the largest contributors to inadequate training. On a typical MUTA 4 weekend drill, only 6-7 hours is allotted for MOS specific training. The remainder of time is spend on basic soldier skills or miscellaneous details such as KP. These items are important, but I feel proficiency in your primary MOS is essential. Annual training provides a block of

time for concentrated instruction, however, its occurrence is only once a year. Even though there is the availability of time during annual training, effective learning is not always achieved due to a serious lack of equipment. I have attempted to obtain the reagents, instruments, and materials necessary to teach basic 92B skills. Due to MTOE non-authorization of certain equipment, more than 33% of the 92B MOS skill level I tasks can NOT be taught, practiced, or evaluated. How can partially trained soldiers be expected to proficiently perform unfamiliar tasks under the stressful conditions of war? They must be prepared to be good."

"My job as a Registered Nurse has involved 6 years as a full time hospital supervisor and 2 years as a part time supervisor of a 300 bed medical center. I believe in my service in the National Guard but I have seen very poor examples of personnel supervision and this includes officers as well as enlisted personnel. Ineffective communication and lack of the ability to delegate duties along with very poor follow up are glaring problems in my opinion. Since I have no prior military experience I realize that I don't understand many areas of military procedures. I received a direct commission, which I would not recommend to any one with no prior military experience. I have received very little orientation, and what little I have learned has been by trial and error. I am in a Medical Battalion which seems to have no use or any idea of what to do with me. For the year of 1985 I did essentially nothing except a few caliper measurements, some immunizations and my duties at Annual Training. I do want to serve my country, but my association with the Army National Guard is becoming frustrating and unfulfilling."

"Professional people do not need to have the same number of drills as other members who do not spend their civilian time in an identical occupation."

"I am fed up with the inequities in pay and promotions that affect Physician Assistants. I went to the USAF Physician Assistant program through the ARNG. My classmates that are in the Air Force are now captains (O3) and I am a CW2 and not even promotable for 2 more years. The Navy, even though they make Physician Assistants Warrant Officers, promotes much faster than the Army."

"I am a physician. One of the most attractive features of the guard for me is the opportunity to use some of my active duty time for continuing medical education. It is difficult for me to afford this education without the financial help. The education is helpful for me in both my civilian job and military job. I hope this opportunity continues."

Spouses of Officers

"Guard drills are too boring. His summer camp requires him to treat sunburn and poison ivy which is far away from his specialty field in medicine. He gets bored. There isn't a lot to lure him back to summer camp at the same place every year when his practice suffers & he makes less money."

"My husband has to use his own medical equipment when working at the Dispensary. No opportunities for Physician Assistant in rank advancements."

Enlisted Members

"There is no medical training for our Special Forces qualified medics. Nearest military post is 60 miles."

"I have extensive prior military training in the medical 91B series. I have found the training level of my piers and subordinates to be extremely low. Further the Guard does not even permit my men to use the limited skills the have at Annual Training or drill times."

"I feel that the National Guard should provide funds for additional training by members at civilian facilities on their own time. For example, many medical specialists find it necessary to go through Emergency Medical Technician training at their own expense. Many more individuals would like to do this, but financing is a major factor in preventing them from doing so. Also, I am dissatisfied with the opportunity for promotion in the medical MOS's. I've been a medic 91A for over 4 years. The Combat arms MOS's are full of NCO's who have less time in service and less training. Medical personnel are highly trained and skilled professionals. If there is no opportunity for promotion there is very little initiative to remain in the medical section or even in the Guard."

"I am a flight medic in an air ambulance company, and would like to comment on some problems we've had recently. For quite some time several of the medics and NCOs have been trying to convince our unit leaders that we do not have the proper training or equipment to provide adequate medical care to the sick and injured. Although several us work full time on ambulances and rescue units, and several were medics in Viet Nam, we were dismissed as not understanding 'our mission.' It seems this mission is to be a flying club for pilots and flight surgeons than to treat and evacuate injured troops."

"I am a flight medic. I will pick up E-6 (we are slotted E-5 flight medics) and can still fly but to pick up E-7 I would have to transfer to another unit. I enjoy my unit very much. I feel we are the best unit in the Guard system and as a M.A.S.T. unit.

I feel great satisfaction in our work with the civilian population. My question is why can't I look forward to E-7 possibly E-8 promotion, still fly & remain with my unit as a flight medic?"

"I am in a medical section and have attained the highest rank I can according to regulation. Why is it that we can have no enlisted men over the rank of E6? I feel I must leave my MOS to attain any more rank, and that is in my book contrary to the purpose of our MOS training, why should we have to transfer to an unknown MOS job just to get more rank. I don't understand."

"As a medical lab technologist I am assigned to a small medical unit. In the 2 years I've been in the unit we have never received any supplies except at annual training. The supplies we've received there have, for the most part, been appropriated through 'begging.' Lab wise, I can honestly say, that all of the supplies I've been able to get are a result of people I know on active duty being generous to me. Supply requisitions are filled out and turned in 3-4 times a year only to be disapproved by higher authorities. This same situation applies to medications and general medical supplies."

Army Reserve

Officers

"94F series MOS has no real future. AMMED policy administered in Reserve component MD's 'too special' for their contribution to Corps."

"Every time I put on a uniform I lose money in my office because of (1) lost revenue, (2) massive overhead, which totals approx 1000/day. The First Army Augmentation Detatchment (FAAD) allows me to serve and also to minimize personal economic loss by allowing flexibility with drill dates. Individual units though are sometimes apt to discriminate against FAAD physicians either actively or passively: of resentment of not being w/unit every weekend; of out of sight - out of mind. This is particularly reflected in promotion-related areas. It sometimes becomes difficult to become enthusiastic about - giving up valuable free time that could be spent personally/other educat. training - losing money - when the units you are assigned to forget about your (1) promotion, (2) mispay you for 2 years and send you a bill for $800, (3) lose your records, (4) continually made administrative errors."

"I am a physician making $100,000/yr. in an emergency room practice (I make $41/Hour). I lose money going to drills, etc. unless I go to Continuing Medical Education (CME's) (I'm in the FADD program). However, I still can't get a full weekend drill

credit for attending 3-4 days of civilian CME since a full day counts as only one drill period. (1) There needs to be greater credit given to doctors in the reserves, greater incentives, or they just won't stay in reserves. (2) The paperwork just to get paid and orders request, etc. is excessive. (3) The biggest problem is easy, concise, understandable information about pay, benefits, etc. is hard to come by in the USAR. (4) When I do support my unit I'm attached to I dont really understand my responsibilities. (5) The only reason I'm staying in USAR is because of the FADD program, but there is still not enough incentives. I would really like to see more benefits to family's out of USAR officers and enlisted. (6) The 5 day required - unit support - Active duty training/yr. is very hard on me - I lose $2,000 - (before my Army pay) and have to work hard before I go and when I come back at my job. Please don't just throw this in file #13. I took a lot of time and effort, trying to give you honest - straight forward comments."

"In the medical field the whole army is understaffed which would hurt the Army's preparedness in the case of even a small crisis."

"I am very dissatisfied with the 'Muta 5' overnite drills. I work full time and over nite drills are exhausting. When I return to work on Monday I am tired and the quality of my work suffers. I work in a critical care area in the health care field. My patients are ultimately the ones who suffer. My employers attitude is one of 'How much longer do you have to do this?' My fellow employees must pick up for my slack. When one is a reservist it is not just he who has made the commitment. His fellow employees, not to mention his family, are also hindered with extra work and responsibilities. For the part-time employee or the single person this may not present a problem. But for myself, I find myself depending on them to help me with things that are my responsibility and I can not take care of especially during weekends which are the overnite 'Muta 5'."

"The USAR program has improved since I joined. Retention remains a problem. Real training takes creative thinking. I do not have time to get my operating room section trained to the standards we need for war. I need two days before each drill and several days before annual training to be the Head Nurse of the Operating Room I want to be. NCO's need to be more skilled and smarter. Self esteem is a problem for NCO's. I appreciate USAR sending me to professional meetings. I could not afford to go otherwise."

"I am in a Medical Unit. The physicians in the unit have been given (by our higher headquarters) the flexibility to conduct their own training on an individual basis at a time and location of their own choice. Nearly all physicians have abused this

privilege and our commander (who is also an MD) is powerless to do anything. I am told that the problem identified above is a nation-wide policy (that is, all physicians in the Reserve are given the freedom to do what they like, when they like, and where they like). The rationale I am told is that 'higher ups look good' if their MD positions are filled. I am also told that if we did not have such a lenient policy, we would lose the physicians. As a soldier, I see morale in our unit suffer when some are required to be at training and others are not (especially when those who are not required to be at training mock the system and publicly acknowledge the fact that they are getting paid for doing nothing more than signing a pay slip. As a taxpayer, I see my own dollars going to waste."

"Resent the type of housing we are given at annual training - filthy, noisy, hot, long way from place of work, & totally substandard."

"I am in a MASH unit. When I joined the Army, I felt my pay to be good. Now, I find we are in the field more and more - spending long hours training - I am exhausted by Monday when I return to work. I have noticed that other units (Hospital-based) do not have such extensive training yet earn the same pay. I am now wondering why should I do all this physical work - getting 3-4 hours sleep in a cold tent (if I'm lucky) - when another unit makes the same money but does not set up 'bubbles' and work all night in rain and cold! Many of our officers have left our unit -there is little incentive t stay - and no 'pat on the back' either. For five years I have been very proud to be in a MASH unit and have served well. But I doubt now that I'll do five more."

"During weekend drill unable to work in critical care also unable (due to contract with hospital) to give meds, or do major procedures. Therefore, feel have regressed 14 years to nurse aide and/or student nurse."

"I think you need to remember most medical people work weekends & use their weekend for drill. The medical corps will suffer greatly if you extend the weekend drills. I sure would like to see us stay busy on drill weekends & learn something. The only ones who really know anything are your prior service. If we were to go to war tomorrow I know nursing skills but as far as military I know enough to get by. But we have Captains and Majors etc who have never served active and don't know much of military skills. As well we have members E1 to E5 who have never served active and they know nothing in military skills or medical. We would be in severe trouble, I feel and I dread the day I would have to go with our unit. I feel the CTT is helpful but I guess once a year exposure isnt enough. Doing 6 months

this year has helped because realistically how many people are going to study for their military job when you have a civilian one that keeps you busy."

"I think all military units should have complete up-to-date medical instruments to examine properly enlisted or any military personnel especially if they have to be assigned overseas. We don't have good (working well) instruments even to examine or do simple screening physicals (they are old & broken-down). We don't have enough supplies (some are expired) to use. Doctors have to use & bring their own medical or clinical instruments."

"There appears to be an over abundance of officers in the Nurse Corps because only a select few are allowed to do administrative duties. This is ineffective for other senior officers in the unit. After all it doesn't take a Registered Nurse to complete nursing tasks on the unit."

"My section (nursing) does not keep us informed as to schools available, military update, and is not supportive of personal needs & growth professionally."

"I am a nurse in a field hospital unit. I have spent 13 years of my reserve duty in field hospital or combat support hospital troop units. My MOS is 66H/66E. I gladly serve in these units. However, I spend a great deal of time and energy maintaining records, uniforms, field equipment (personal) physical fitness, teaching classes, and continuing education for secondary ASI66E. I spend about 48 hours a month per year for paperwork, uniform, and equipment (not including drill). I spend about $500.00/year total for continuing education for 66E. These demands are increasing almost yearly. I believe that Reserve benefits should be increased. More benefits to assist with continuing education should also be increased. The Army Medical Department is unique in that health care workers - doctors, nurses, etc. must maintain clinical as well as Army and field skills - especially if assigned to field units. Request increased compensation for additional time & sacrifices for those in field/CBT support and MASH units. Once again I gladly serve and am ready for deployment should this occur."

"I hold a critical MOS as an Operating Room Nurse. At my civilian job, I am an assistant head nurse in a very large and busy trauma facility. I am on call at the civilian hospital once every month, and attending drills once a month (quite a few of those being MUTA 5). As of May 24 thru June 29, because of annual training, MUTA 5, and my civilian job, I'll have had one day off."

"I find it very frustrating and disturbing that we are permitted to join the USAR, given an MOS then not permitted to function in that capacity. The only rational explanation is

that we're soldiers first and technical professionals second. I dislike all the administrative paperwork but realize that it's a necessity. I would like to be able to spend more of my time in my MOS (68F) because it is directly related to patient care."

"Training for medical units where actual local hospitals are utilized for training purposes should be much more coordinated. Instead of getting 6-7 hours of training per drill period we usually get only four or five due to various requirements from unit headquarters."

"As a professional person (dentist) I feel we should have the same privileges as MD's. That is, professional pay, and should have the privilege of fragmented active duty instead of 2 weeks AT."

"I am a MSC officer (O-2) with 12 years of service. I understand that of my 8 ADT periods left, 3 must be spent on Command & General Staff. That leaves only 5 ADT periods left to work & learn in my specialty (68H)."

"My reserve unit is a general hospital. One of its main problems is that it's so large (4 satellites and 2 other sections). Communications are difficult to coordinate. This means spending 6-8 hours per month on trying to stay informed on unit activities, attending staff meetings, developing training schedules, etc. Realistically I don't have time to accomplish administrative paperwork during my week-end drill. Sometimes it's a real hassle to try to get it done during the week. Also now that there is a local medical training facility, our AT's have been planned there in '85 & '86. I feel more valuable training should be arranged <u>to go as a unit</u> to a MEDDAC or MEDEEN to get realistic training in how to function as a G.H. or to be assigned in sections to attached to field or evac hospitals performing support missions."

"My unit is a 100-bed general hospital with 600 plus personnel. The shortage of authorized full time staff, especially in the training and operations area (only 1 technician authorized) is detrimental to training and mobilization readiness."

"I am a physician's assistant, CW2 attached to a general hospital and assigned to the physical examination section of the unit. My background consists of graduation from a civilian accredited physician's assistant program, eight years of teaching clinical medicine in a university program, and presently three years of clinical practice in an occupational setting. I have virtually no experience in internal medicine or emergency room medicine, very little experience with pharmacology. I have extensive training and experience in physical assessment, orthopedic assessment and treatment and

radiology. I have limited experience in suturing techniques, interpretation of laboratory tests, interpretation of radiographs other than orthopedic cases, etc. Given the above brief assessment of my strengths and weaknesses, I would think it more practical for me to be assigned to one or our hospital satellite settings where I could expand my knowledge and clinical skills rather than be assigned to the physical examination section of our hospital, since this only reinforces my civilian experiences. In our section, there are two nurse practitioners and myself. One nurse practitioner who has a civilian occupation as a clinical instructor and is not in any clinical practice setting, is assigned to the weight control program at our unit. Surely, this is another example of not utilizing proper resources for the training of individuals, nor is it a practical use of manpower for our unit."

"I do get a lot of reward from Association. of Military Surgeons yearly meetings and, as an AMEDD officer, can use the one active duty for training period per year for continuing health education. That is valuable!"

"Quality and quantity of medical equipment (MUST, instruments, etc.) available to reserve medical units is totally inadequate. More pay and more flexible training policies will be needed to attract sufficient physicians for the reserves. Lacking these this country needs a 'doctor' draft."

"I am a dentist. I feel that <u>two</u> straight weeks active duty training every year is actually a hardship for dentists in private practice. There has to be more <u>flexibility</u> in allowing dentists and physicians in private practice to <u>FRAGMENT</u> their AT's."

"Mine was a large medical unit. There was not adequate time to train <u>both</u> good soldiers and good medical personnel. In my new position, I have discovered a large medical unit which has had the same Chief Nurse for about 8 yrs, creating problems in subordinate units, promotion & leadership mobility problems. What about tenure policies? Look at 91C requirements. Reorganized MTOES created lots of 91C vacancies for the Reserves with no way to fill them. Civilian agencies are laying off LPN's & going to all RN staffs, so civilian employment is not sellable. Few Reservists can take off a year to attend AHS or civilian contract school. The 2076 program is good & now exportable, but takes a long time (2-2 1/2 years) & is not for everyone. I think the Reserves keeps shooting itself in the foot. I have the same problem with the work requirements for nurses to join the Reserves, especially in light of the fact that no professional nursing experience is required to stay in (I know there was talk of requiring a token 8 hours per month). Where is your mobilization asset then?"

"Walter Reed Army Institute of Nursing (WRAIN) was the best professional education I could have received both as a nurse and an officer. I have always appreciated that opportunity and would make that investment again as a taxpayer."

"Continuing medical/dental education opportunity is a major reason for my staying in the reserves. Do not remove or even temporarily discontinue."

"I am a Medical Service Corps. Professional, a Podiatrist. The greatest problem I have now is that I receive no help from RCPAC in making the required 50 points each year without great amounts of time spent going distances away from a busy private practice. I am in a rural area, and receive very little support from my contact officer."

"Why is it becoming mandatory that nurses should work so many hours a year in a civilian nursing job to remain in the reserves."

Spouses of Officers

"My wife is a member of the Army Nurse Medical Reserve unit. She is physically fit passing all the required PT tests. She is the person in the unit that when there's a difficult job that needs to be done--they come to her. However, because of the Army's - 'over lean & trim' weight program, she is constantly on or on the verge of being put on the weight program. This over emphasized program is distracting from her feelings towards the reserves, performance, & desire to remain in the Reserves."

"Planning of drills seems to be erratic in the field hospital unit to which my wife belongs. Also, she has 5 drills per weekend at times and I don't understand why 5 some weekends and 4 other weekends."

"They seem to be trying to make people miserable so they will leave. My wife is a nurse on a surgical floor and has ten years experience. She does not need the hassle."

"Our only problem with Reserve duty is that as a dentist, when my husband is out of the officer for 2 weeks annual training <u>all</u> our income stops, but our bills and overhead do not. The pay he receives for this training <u>doesnt come close</u> to what he would make working in his office. This creates quite a great financial strain. It would be much easier for us if this training could be broken up into shorter time increments and spread throughout the year."

"My wife is a nurse who is constantly frustrated with 2 policies:
(1) The large amount of time spent in non-medical (fighting) activities
(2) The projected requirement to work in nursing beyond the reserve time. This, even though she is a full-time graduate student in nursing getting a Ph.D. Isn't schooling directly related to her reserve duties enough to keep her current? These factors will probably cause her to leave the reserves this fall."

Enlisted Members

"Generakl hospital enlisted personnel have been trying to get to NCO school for years, ie: 80-150 sign up to go & 2 people are scheduled. This is discouraging."

"We could do much better with more up to date equipment. Many in our unit are RN's, LPN's, EMT's etc. I'm merely a combat medic and feel a bit out of place. I'd much rather train and practice in my own MOS than study advanced nursing skills."

"I am currently an E4 with a 92B MOS. Since I have returned from Med Lab Specialist school in Aug '83, I have had only one opportunity to work in our unit's lab, and that was during Annual Training in 1984. I feel my MOS skills have suffered greatly due to my lack of OJT."

"I am currently serving in a field hospital, and while my tent erecting skills are fantastic, my MOS skills (91D) suffer greatly. I feel that the emphasis on common tasks for enlisted is wrong."

"I am a certified medical technologist in civilian life, certification requires a college degree with a 1 year hospital internship. I am an E-4, 92310 (medical lab specialist) in my reserve unit. I feel I am qualified for more rank due to my civilian education and work experience. Also, most of the enlisted members who outrank me, have little or no experience in laboratory medicine & would require a great deal of supervision to function in a military hospital."

Spouses of Enlisted Members

"Why should my husband be penalized and be 'frozen in rank' (E-5) for the past 3 years because the General Hospital is top heavy in E-6s? He has gone to many Army schools and is currently an instructor for training 91D."

"Having been an active duty dependent, I have found the reserves to be an example of the Army at its worst. The non-prior service NCOs and officers frequently have no idea what

they are doing. The ineptitude and lack of military bearing are appalling. The general hospital may be even the worst of the Reserves!!"

Naval Reserve

Officer

"I would like to see more offered to the nurses in the line of Combat Casualty Training. ACDUTRA in the Naval Hospitals that I've attended has not increased my skills, nor is it challenging. I receive adequate training in my Civilian Occupation."

"I am very frustrated with the continual reorganization of Naval Reserve Medical units. Retention is very difficult with the constant turmoil, morale drops and it is a real struggle to put the pieces back together & continue good effective consolidated training"

"I am dissatisfied with the military pay for physicians; especially because there is no bonus allowance. Because of this I find it near impossible to recruit physicians into the active reserve. They can usually make twice the amount moonlighting, elsewhere, with far less demands on their time from administration including training), paperwork, etc."

"As C.O. of a medical unit, I am dissatisfied with the training facilities available to the unit. With no military medical facilities within 100 miles, all local training must be didactic. WET's help, but are too infrequent and require inordinate amounts of paperwork to accomplish. WET's also require an extra non-pay drill since travel to the WET site must occur on the day prior to the scheduled drills. Additionally, use of unit medical officers to perform RESCEN physicals prevents them from taking part in unit training."

"Please remember that osteopathic medical doctors comprise a sizable number of the Navy's medical professionals."

"Mobilization would devastate me financially. I suggest that the reserves establish an income replacement program in the form of an insurance policy not unlike a disability insurance program to go into effect during mobilization (e.g., with Lloyds of London, etc.) the policy costs could be deducted from military reserve pay if necessary. This could apply, for example, to all professional people or self employed people or others with high income. Also ACDUTRA pay for doctors should be the same as for active duty doctors including ALL incentive bonuses, etc."

"I came in to obtain degree. I was already a diploma nurse with a RN license. Nice program! I went to school (university) then 'paid back' 3 yrs active duty.

"Nurse Corps Officers in the Naval Reserves are often abused when on their 12 days ACDUTRA. Frequently, they are made to work 12 days straight without any days off - because they are short or to let an active duty nurse have the weekend off. No other disciplines are made to do this (ie doctors, medical service corps). Frequently, they are made to work off shifts (PMs) where there are less active duty personnel available to train the Naval Reserve Nurse. With the above problem, it is extremely difficult to recruit and retain Nurse Corps Officers in the Naval Reserves. No one wants to be abused no matter how much money you pay them or how many benefits you offer them. No one would want three or more weeks active duty if you are not allowed any days off to rest. If a nurse is mentally and physically exhausted, they are more likely to make mistakes that could hurt someone."

"There is a serious problem with a lack of support from the active duty people in areas of training, e.g. no instructors, training aids, movies, etc., as scheduled and promised; and in administrative support such as typing, etc. In 14 years of association with the supporting active duty naval base the reserve medical unit has yet to have a stable office space with any type of secure spaces, e.g. lockable file cabinets."

"Navy people are the finest, most professional, dedicated, and nicest I've ever associated with. Their technical expertise & 'can-do' spirit are incomparable. My husband, who has never been in the military, not only agrees, but recruits for the military in general & the Navy in specific."

Air National Guard

Officer

"I currently live in Michigan and must drive to Pennsylvania for my drills, because this is the closest ANG location that has an authorization for my AFSC (9125A). The round trip drive exceeds 600 miles, which requires me to leave work several hours early the Friday before the drill and means I don't arrive back home until very late Sunday nights. I want to continue in my current unit in my present position, but the extra time and driving is a substantial drain on both myself and my family; also it is quite expensive. To ease this burden, I would suggest that the applicable ANG regulations concerning training be revised to permit more liberal allowances in the area of EQTs and SUTAs. This might permit me to 'double up' on UTAs saving

both time and money. I recognize that it is important to train with my unit, but its also important for the unit to recognize my situation and have the discretion to assist me."

"The ANG Nurse Corps requires 90 continuing education credits per 3 years but yet offers little in the way of military courses &/or reimbursement for civilian professional courses that we attend."

"As a civilian plastic surgeon it costs me money to go to annual training, etc. I feel that all professional Guards-Persons should get similar extra pay as our AD counterparts do. Commissary, travel and retirement benefits should also be equal. Flight surgeons should have more flying equipment access and more AFTP's and should be given occasions to go active duty through Guard but for 4-5 yrs."

"Prefer more opportunities to attend military or civilian schools appropriate for Reserve job responsibilities, e.g., aircraft accident investigation for flight surgeon, Air War College, Red Flag. Prefer more flexible ACDUTRA assignments, e.g. 2 weeks as a flight surgeon rather than 2 weeks with the Reserve unit. Need more training at active bases appropriate to unit's responsibility if mobilized. Why not overseas duty?"

Enlisted Members

"In our unit, a medical group, we have approximately 98% of the physicians who do not attend regularly. It is a source of bad feelings among the enlisted and 2 physicians and nurses who put in their time on the weekend. We understand that emergencies arise and there are occasions that Doctors may have to be called away, however when all 5 (perhaps more, I am not certain to the total assigned) have never been in attendance at the scheduled time, it is difficult to follow their leadership. There are days when they will put in 1/2 an hour (at their discretion) and be paid for the entire day. Those who faithfully attend are becoming increasingly dissatisfied and several have refused to reenlist. Our First Sergeant is visibly intimidated by the Physician's rank and position and will not express dissatisfaction in their actions. The entire base is aware of our situation as during physical training time there have been units that have had to wait hours until we were able to contact a Doctor and ask that he show up to monitor the walk/run."

Air Force Reserve

Officer

"There is only one Lt Col slot for nurses in my unit. I think there should be opportunity to advance to Col - just like the physicians. Also, because our unit manning changed, after 14 years in the same unit, I'm in an overage position - not that I'll be kicked out - but you never know what the next move in the military will be."

"When on Reserve duty - if I use vacation time I keep military pay. If I receive military leave from the clinic my civilian pay continues and I return military pay to the clinic. In general I have been very satisfied in my reserve participation - mostly because of the amount of latitude given to allow me to participate even though I have a busy practice. I wish there were more local benefits i.e. commissary - Exchange - space available for self and spouse. The pay is not a primary factor in participation although I would be in big trouble if I had to be mobilized because of fixed debts."

"I am a surgeon with a busy practice . 2 weeks annual tour interferes with my work and family life. It cuts into the vacation time for family. I would like to make followup suggestions.
(1) Physician be allowed to take specialty training courses at reputed military or civilian hospitals in place of annual tour.
(2) More family participation in the unit activities and the opportunity to join the annual tour."

"It is somewhat disconcerting to practice as a dentist in the reserve and not receive professional pay during my active duty training. In the past I was paid professional pay, but now the reserve dentists are not. I have to credential, keep current with my continuing health education, and yet I do not receive professional pay. I am doing the same things as my active duty counterpart and am held to the same stands. Why the discrimination if I'm suppose to part of the team?"

"Not enough time on weekend to effectively train medtechs and perform extra assigned duties that must be performed on weekend, but which take you away from the duty area where tech training occurs. Also physical exams, mobility classes and training interrupts the needed time on the medical floors for tech training - this is important if techs are to learn & give high quality medical care to patients."

"This is an Aeromedical Evacuation Squadron. The training demands are high due to our medical mission. The chemical warfare, small arms etc., etc. training is making it difficult to keep medical training objectives in sight!"

Spouses of Officers

"I feel it is unfair for my wife to be expected to work extra days for Reserves without being paid when others (i.e. Chief Nurse and Asst. Chief Nurse) get all the mandays they want. But since the chief nurse signs her OER, she can't gripe too much without it affecting her later."

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VOLUME II

COMPENSATION AND PERSONNEL READINESS

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6th QRMC Report

Executive Summary

Volume I: National Guard and Reserve Compensation

Volume IA: Compensation of Full-Time Support Personnel

Volume IB: National Guard and Reserve Retirement

Volume IC: Compensation in Support of Reserve Medical Manpower

Volume II: Compensation and Personnel Readiness

Volume III: 6th QRMC Supporting Studies

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PREFACE

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This volume is part of the report of the 6th Quadrennial Review of Military Compensation. Unlike other volumes, where the focus is on specific structural and technical issues, this volume reports the results of a comprehensive review of the entire compensation system for the part-time membership of the Selected Reserves. The system is examined in its functional context; that is, it is reviewed as it serves in the social and economic environment to produce the forces and levels of readiness required by the demands of modern war for a Nation with global alliances and commitments and a policy of volunteer service.

In reporting results, this volume first examines the requirements of war and the social and economic environment in which the system functions. Next, it analyzes the compensation system and the structure and readiness of the forces. Finally, this Volume II describes the role of compensation initiatives in alleviating readiness shortfalls.

Volume II describes the critical role of Selected Reserve forces in the Total Force, providing the context for evaluating the importance of meeting the readiness requirements and other personnel objectives of the reserves. This role, much increased in recent years, is shown as far more integral and far more important in the opening days of overseas deployment than was the case when the present compensation concept was adopted.

The compensation environment for the part-time reservist, and particularly the way that competing demands of school, family, and civilian employment interact and compete, is analyzed and elaborated. The income from civilian work and military activity is measured and described. Composition of the components changes as members grow older and rise in rank; these changes are determined and are associated with the factors of both environment and compensation. The volume examines the relationship between retention and the interaction of the elements of compensation and environment, especially as they act to increase or decrease the net amount a member actually receives from the pay tendered.

Also included is an analysis of the linkage of pay elements with the active duty system and the way in which reserve pay policies combine with these elements. Relative differences between the active and reserve compensation systems are described and related to observed personnel behavior.

This volume goes on to examine force structures and the attainment of readiness, actual and desired, for the seven Guard and Reserve components. It then relates observed readiness and training experience to the persistent personnel problems examined earlier and discusses the extent to which compensation elements can serve to meet readiness requirements more effectively in the modern era. Finally it offers examples and guidance for the further development of reserve compensation initiatives.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs, of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services, were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988) and the Reserve Center Commanders Conference (1987) were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard Association of the United States, National Military Family Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis, and advice at every stage of the review.

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Chapter 1. RESERVES IN THE TOTAL FORCE: AN OVERVIEW

In this volume and chapter, the 6th QRMC examines the expanded role of reserve forces in national defense strategy and their evolution under the influence of the numerous forces that shape them. The pay system itself is considered, and the way in which it encourages or discourages certain types of people or certain types of behavior in those who participate part-time in the Selected Reserve. The volume discusses the socioeconomic environment in which the pay system must operate; it discusses the trends in personnel readiness as well as current levels; and it presents some conclusions about the ability of the present pay system to support modifications that this review indicates as required for part-time Selected Reserve members.

The 1970 report of the President's Commission on an All-Volunteer Armed Force (Gates Commission) in its discussion of the reserves, recognized that removing the supply of draft-induced volunteers from the reserve components would create severe challenges. The Commission had estimated that 75 percent of the enlisted reservists fulfilling their initial obligation were there only because of the draft. "If conscription is eliminated, how are these forces to be manned?" they asked.[1] The report went on to forecast a reserve force level under all-volunteer pay policies.

In 1983, reviewing the first 10 years of the All-Volunteer Force (AVF), Brinkerhoff and Grissmer reported that the forecast estimates of the Gates Commission had come very close to the future mark but did so through a combination of large compensating errors rather than by applying a clear vision of attendant economic factors.[2] Moreover, successfully attaining the required numbers of personnel is only a part (and not the most important part) of reaching the level of readiness needed, readiness that makes U.S. forces fully capable to deploy and fight anywhere in the world.

Nearly 20 years have passed since the analysis supporting the Gates Commission. These years have allowed significant advances in data and in manpower modeling. In this volume, manpower force structures are examined, not only in size but also in "shape"; that is, in component, status, numerical distribution by year of service, and flow rates. Insights are reported from other studies since the beginning of the AVF era and from the vast data resources of the 1986 Reserve Components Surveys, comparing, where appropriate, with the active force survey of 1985. The growth of reserve missions is reviewed, both in size,

in share, and in complexity: examining the impact of the AVF Era changes on the demand for the necessary levels of qualification as well as the difficulty of achieving these levels.

Reserve Missions

In the four decades since the lessons of World War II were incorporated into reserve personnel policies, there has been a continuous evolution of concepts for the maintenance, development, and use, in peace or in war, of the reserve components. In the late 1940s, which may be usefully taken as the beginning of the modern period, the supply of trained individuals with wartime active duty experience far exceeded any conceivable requirement short of total war and full mobilization. Such a mobilization would have required retrieval of familiar types of equipment from the vast stores left over from World War II, a brief period of organization and refresher training in familiar skills, and then deployment of reserve forces to supplement the efforts of the actives holding the line in the opening days. These active formations were fully equipped and were furnished combat support and combat service support by other active units; they required reserves only for campaigns too large for their numbers or as replacements as the campaign went on. Indeed, the Korean police action displayed, in miniature, exactly this concept and function of reserve forces as a supplemental manpower pool.

In subsequent years, the huge supply of World War II experienced veterans aged and faded away. Presently, the confluence of the realities of the all-volunteer policy and the continuous pressure of fiscal constraint resulted in an unprecedented dependence upon reserve forces for missions and functions. This process accelerated with the announcement in 1973 of the "Total Force Policy," which specifically recognized and encouraged the trend. As a result, by the mid-1980s, no mission of any size could be executed by the active forces without participation of reserves, who were called, involuntarily, for their contributions.

In the Congress, support strengthened for sustained growth in the reserve. In the Department of Defense Authorization Act of 1983, the House Armed Services Committee proposed reliance on reserves as an alternative to increases in the active force:

> Reserve personnel should be seriously considered as a means of manning any force structure increases proposed for Fiscal Year 1984 and beyond. In fact it is the committee's position that the Department of Defense should program the use of reserve personnel for the new force structure initiatives, unless some

> persuasive evidence exists, developed on a case-by-case basis, that active personnel must be used.[3]

The Senate Appropriations Committee went an extra step during the same year, stressing that it was better and less expensive to rely on reserve forces, stating that "the committee is convinced that by augmenting the strength and capabilities of the Guard and Reserve forces, the military readiness of the Armed Forces can be maintained at a lower cost with no degradation to combat effectiveness." Although not supporting the claim with illustrations or evidence, the Committee also claimed that "for less cost the Reserve Components can perform certain missions as well as, or better than Active Force counterparts."

This strategy, although attractive in a time of fierce competition for public resources, contains considerable risk. Modern war is increasingly complex. For a nation supporting a worldwide network of defensive alliances, the requirements for military forces, operations, and logistics are imposing. They are unique in application, and they are different in kind, as well as degree, from the traditional reserve defense requirements. No nation has ever relied so heavily on part-time forces, mobilizing out of a peacetime posture, to accomplish overseas deployments directly into combat. In many cases, the forces transporting and protecting the movements are reserve forces as well.

This strategy of reserve mobilization and movement, partly by air and partly by sea, with air and sea protection furnished by other reserve component forces, creates "event chains" in which a series of complex operations must all be successfully concluded to bring critical elements of force to bear in support of the Nation's alliances. The absolute number of such operations grows with the complexity of modern war as well as the nature and location of the conflict at hand, none of which can be predicted with precision. Since the active forces are increasingly dependent on the successful deployment of reserve combat support and combat service support, failure of individual event chains has an impact out of proportion to the number of failed events. For example, if the personnel and the vehicles of a fuel service unit reach their planned place but the fuel is lost through failure of, say, a reserve mine sweeping unit, not only is the fuel operation at risk, but also the battlefield survival of the active formation needing the fuel.

Figure 1-1 diagrams the interdependency of these "event chains" as they might take place in a transoceanic movement of forces. The functions of individual units are not statistically independent; a unit failing in its function in one chain is likely to fail its role in other event chains of which it is

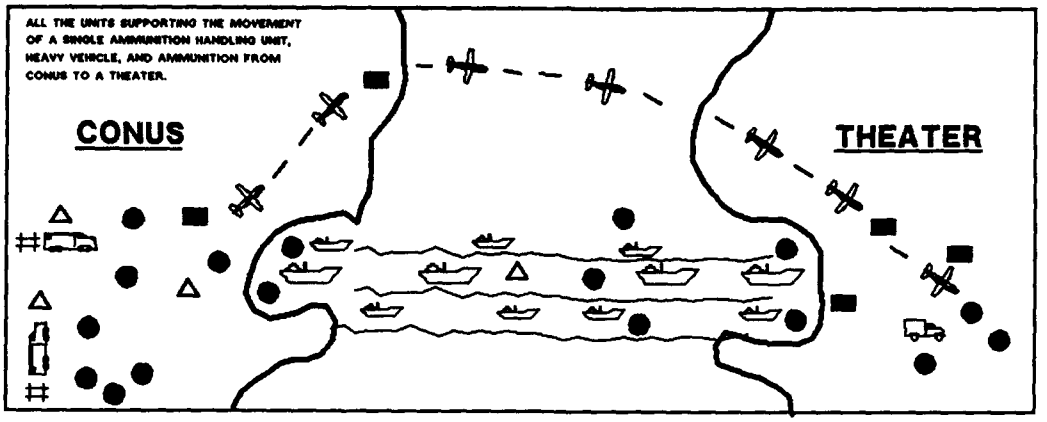


FIGURE 1-1. "EVENT CHAINS" IN OVERSEAS DEPLOYMENT

also a link--and may cause the failure of another unit in the chain. A unit performance failure does not necessarily mean defeat for the whole chain: the opposing forces will have readiness and performance problems of their own and may fail to take advantage of opportunities. It must be noted however, that all the elements of the operation must succeed to create a success, whereas only one of many interdiction efforts to defeat it would be sufficient to ensure its failure.

Figure 1-2 shows the relative reserve dependency of a sample portion of the forces (in this case airlift) whose performance contributes to the event chains described above.

This phenomenon of increasing interdependence of operations and of reliance on reserves for immediate deployment to integrated missions is concentrated most heavily on a modest number of reserve units. There are over 4,600 Army National Guard and Reserve units, but less than 300 are required for the first 30 days of deployment of the Rapid Deployment Force, and only about 200 for the early deploying portion of the NATO reenforcement. The others have similar but later roles. The

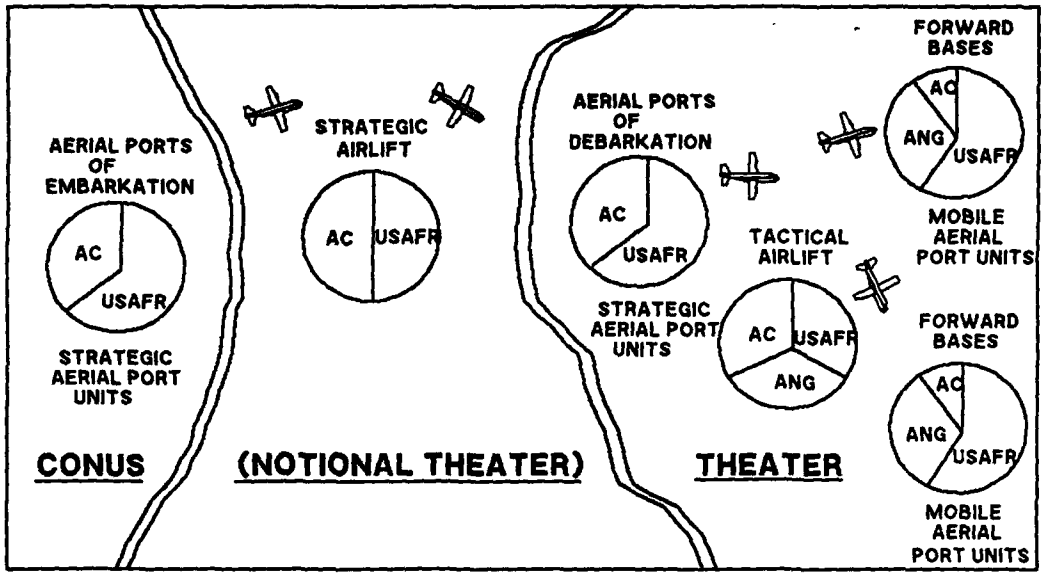


FIGURE 1-2. RESERVE COMPONENT CONTRIBUTION TO AIR LINES OF COMMUNICATION

airlift and protection forces, and similarly the sealift and sea protection forces, number only a few hundred, and even less in some scenarios.

For these immediate deploying units with a place in the Nation's strategy that allows no time to fill out or "train up" before moving out, the urgency of providing the highest level of readiness is apparent. With the advent of the Total Force policy in the 1970s, the situation began to change, and in the 1980s a policy was adopted to give equipment priority to units that would be "first to fight," whether Active, Guard, or Reserve. This policy furthered the trend and continues to produce significant increases in modern equipment for the reserve forces. Equivalent progress in personnel readiness has been more difficult to achieve. Figure 1-3 shows the readiness situation of the early deploying units compared with the Guard and Army Reserve as a whole. Readiness, as measured by the UNITREP system (currently the SORTS system), has defied efforts for improvement or concentration.

No administrative reporting system can capture all the elements of combat success. The intangibles of war defy such analysis; having reached a technical qualification does not alone make an effective warrior; failing to achieve a qualification does not preclude a member from useful contribution in battle. Under the stimulus of combat,

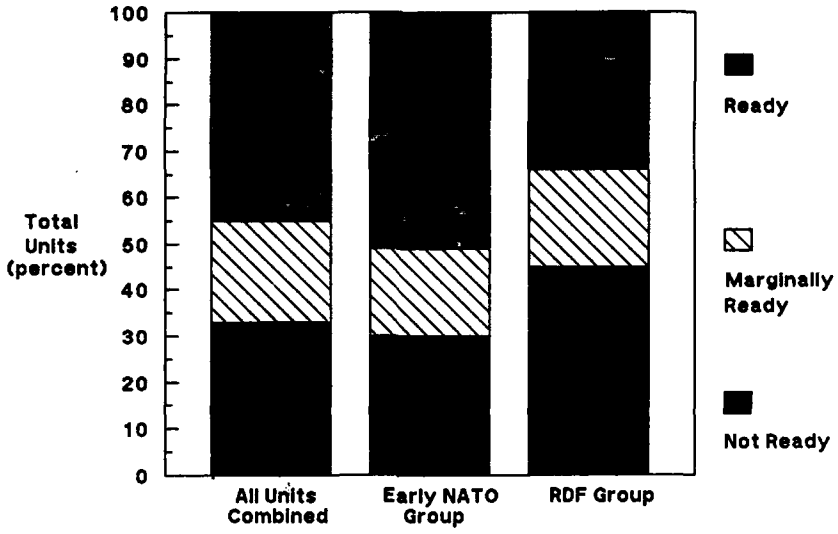


FIGURE 1-3. ARMY GUARD/RESERVE UNIT PERSONNEL READINESS BY GROUPS OF UNITS

SOURCE: UNITREP, April 1987

individuals often perform with tireless inspiration, and learning is accelerated. Finally, the enemy might be maintained at an even lower state of readiness, and it is the relative performance, not any absolute measure, that prevails.

Persistent indicators of low reserve personnel readiness are a concern, however. In any case, achieving higher levels of personnel readiness can only improve the chances of success, which, as shown previously, must be very high for each unit in the chain in order to be acceptable at all for the operation as a whole.

In deployment and in battle, the key to success (insofar as planning and preparation can provide for success) is in having the needed numbers of trained and qualified people in the Nation's units. As part of its study plan, the 6th QRMC reviewed patterns of reserve personnel readiness. The report describes the function of the compensation system in addressing personnel readiness deficiencies.

The Reserve Environment, Recruiting and Retention in the 1980s

Like the active force, the reserve force in the AVF Era consists of officers and enlisted members serving their years of part-time service as a result of free choice made in a setting with both social and economic influences. Unlike active members, however, reserve members remain under the continuing daily influence of these factors for the majority of their life decisions. Also unlike their active duty counterparts, reserve members can (and all too often do) leave without notice or completion of their enlistments when their circumstances or their tastes change. This unprogrammed attrition, as this section shows, is a prime contributor to the process that erodes efforts to reach readiness objectives.

The requirements of modern war demand high levels of training. They thus require that reserve participation be of an intensity sufficient to achieve this training. However, the socioeconomic climate of the United States in the last decades of the twentieth century is progressively less conducive to reserve participation when considering the increasing intensity required. A number of factors are influencing this trend, and they are examined in this volume; they have in common the phenomenon that they bear most heavily on participation by the younger members.

To begin with, there are fewer young people in the United States than in recent years. Figure 1-4 shows the trend of the Nation's manpower in the age groups of interest to the recruiter. The decline in these age cohorts, although modest in view of the very small fraction that will satisfy the demand for active and reserve forces, is nevertheless adverse. The challenge might be met by more efficient recruiting (for example, covering areas or groups not before reached), by assigning more recruiters, or by lowering accession needs through better retention.

Although the demography affects prospects with prior service as well as those without, members leaving active service offer advantage in most cases, because of the training investment and active duty experience and because they are known performers. Table 1-1 shows the distribution experience of recent years between affiliates with and without prior service. This proportion reflects the particular needs of the several components.

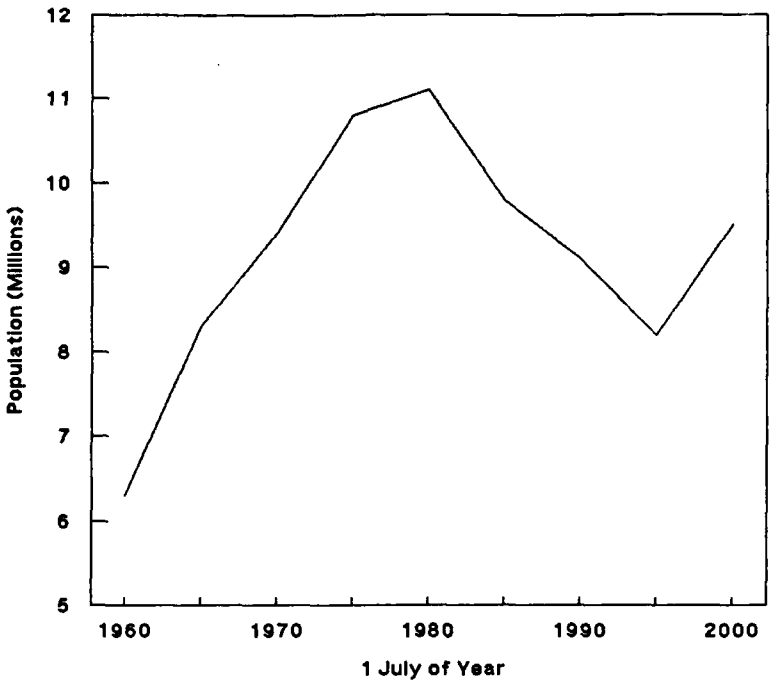


FIGURE 1-4. POPULATION OF 17 - 20 YEAR OLDS, 1960 - 2000

SOURCE: The numbers are calculated from the United States Bureau of Census, Current Population Report Series P-25, Report Numbers 917, 952, and 965.

Table 1-1. 1986 Prior-Service Flow into the Reserve Components (Enlisted)

Component	Veterans Recruited	Percent of Total Gains
Army National Guard	38,492	46.5
Army Reserve	54,293	61.6
Naval Reserve	29,397	81.5
Marine Corps Reserve	5,836	39.8
Air National Guard	8,938	61.4
Air Force Reserve	10,965	76.3
Total	147,921	59.0

Source: Reserve Component Common Personnel Data System (RCCPDS)

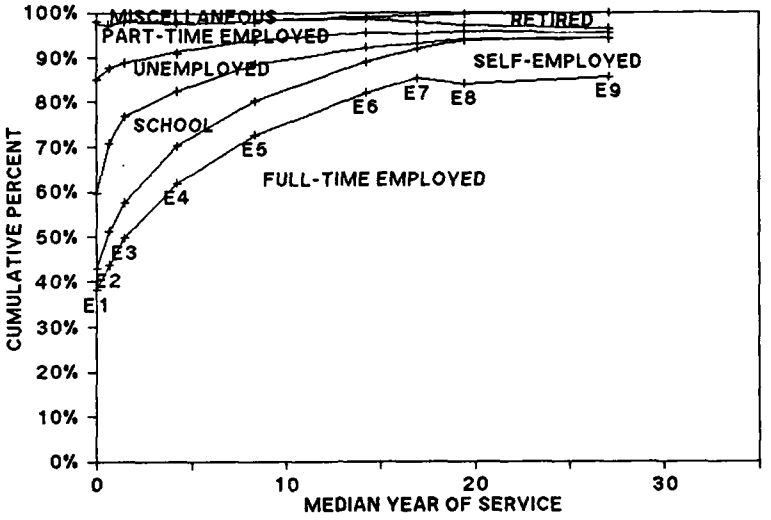


FIGURE 1-5. CIVILIAN EMPLOYMENT OF ENLISTED RESERVISTS ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Members entering reserve service from active duty are generally also entering full-time civilian employment with a new employer under unfamiliar circumstances. Members entering the reserve components without prior service, however, are generally (62 percent) not employed full time. Figure 1-5 shows this state to be temporary, however; within a few years most, like their counterparts with prior service, have full-time employers.

This juxtaposition of important life events is likely to be compounded by marriage, household formation, additional education, and considerable career choice turbulence. Moreover, young people often find conflicts between alternative demands more frustrating personally than do more mature members who have some experience in resolving such matters. Reserve research indicates that the less-experienced members are more likely to resolve the tension by dropping out without notice.

Are these difficulties universal? And are they tractable through compensation policy? To the extent that they are, one would expect to find differential trends among members, depending on the degree to which their employment situations were favorable or unfavorable. Such trends are apparent in the progressively greater percentage of public employment reported by more senior members. Although public employment accounts for

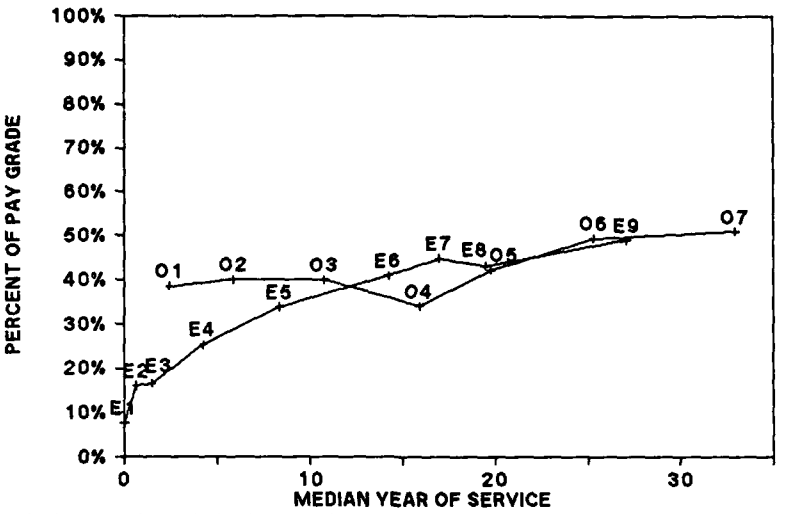


FIGURE 1-6. GOVERNMENT CIVILIAN EMPLOYER (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

about 15 percent of U.S. employment, only about 6 percent of enlisted reserve members without prior service who have full-time jobs are employed by governments (whether federal, state, or local) at the time of their entry into reserve service. The strong increasing association of public employment and reserve affiliation as service increases is shown in Figure 1-6.

Public employment is characterized by such supportive policies as guaranteed military leave at full pay (a policy followed by a small minority of the private sector employers). This information, drawn from the 1986 Reserve Components Surveys, may reflect a tendency for career-motivated reservists to shift their employment to a more supportive situation. Alternatively, it may reflect the differential survival of would-be career reservists in more suitable environments. Either way, or in combination, the result is a force increasingly made up of those who have reached accommodation of civilian and military demands, and who actually receive more total income for the same reserve service.

To the extent that this perception is valid, there should also be found a trend among members employed in the private sector toward employers with relatively favorable reserve military leave policies. Such a trend exists: Figure 1-7 displays the evidence. Only a small number of employers (10 percent of the

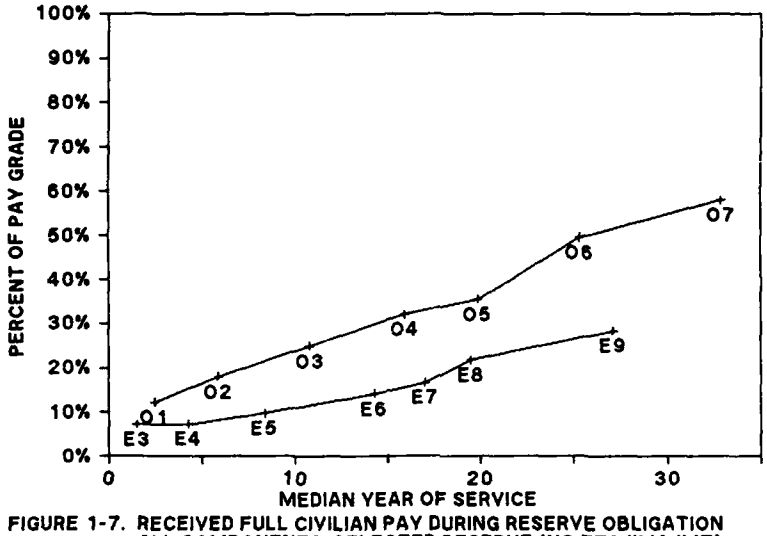


FIGURE 1-7. RECEIVED FULL CIVILIAN PAY DURING RESERVE OBLIGATION ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

employers of enlisted, and 27 percent of the employers of officers) furnish full pay during military leave. The survey found that a progressively larger share of seniors, and of officers compared with enlisted, enjoy such supportive policies. Full civilian pay during military leave is available for only 5 percent of beginning enlisted but to about half of officers in pay grade O-6.

The economic effect of pay, of course, is determined by the total amount received net of any costs understood to be incurred in earning it, rather than by the amount paid or any costs incurred by the employer. If the individual loses overtime pay or normal pay for weekend work because of reserve service conflict, this will undermine the effect of compensation policy, and, indeed, the effect of other policy. The data shown in Figure 1-8 reveals a heavy proportion of such loss, distributed disproportionately upon the enlisted and the junior members.

Another barrier to participation by reserve members is the actual direct cost of drill attendance. This is largely a matter of travel cost, including out-of-pocket expenses for personal vehicles or, less often, public transportation and other costs relating to the procurement and maintenance of uniforms and so forth. This "overhead" cost varies in

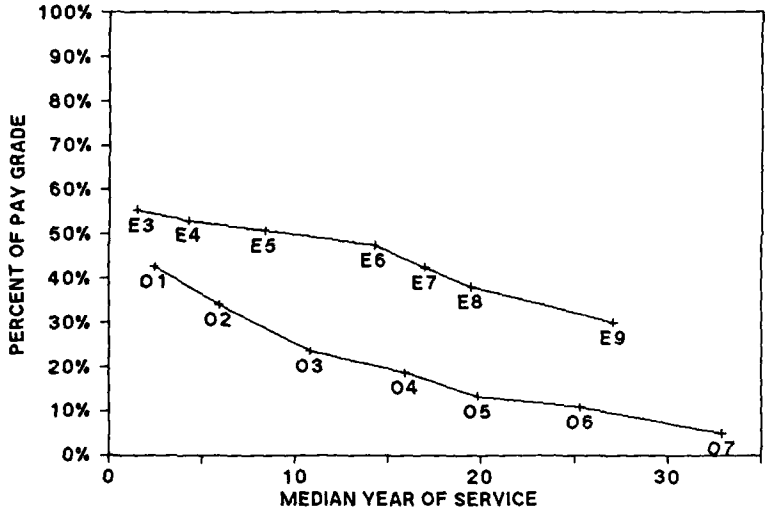


FIGURE 1-8. LOST OVERTIME/EXTRA PAY OPPORTUNITIES
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

proportion to the intensity of participation, rather than to income received; that is, it is roughly constant regardless of rank or seniority, but varies by distance traveled, drills attended, and so forth. The survey revealed that in fact officers travel considerably greater distances, on average, than enlisted members and participate in more extra assemblies and training duty. The proportion of reserve pay lost to this overhead cost, however, (shown in figure 1-9) is still found to be much greater for junior and enlisted members. There are many other ways in which the socioeconomic environment makes reserve participation difficult, and more difficult for those in the early years of their career and in enlisted status. These elements will be examined in greater scope and detail in Chapter 2.

The Reserve Pay System

The reserve pay system is generally said to parallel the active system. Many people recognize the differences introduced by paying for drill periods with one-thirtieth of a month's base pay for the appropriate grade and longevity; however, even these people may be unaware of the overall compensation effects of this practice. There are two fundamental effects: the member usually completes two periods of drill in a single weekend day,

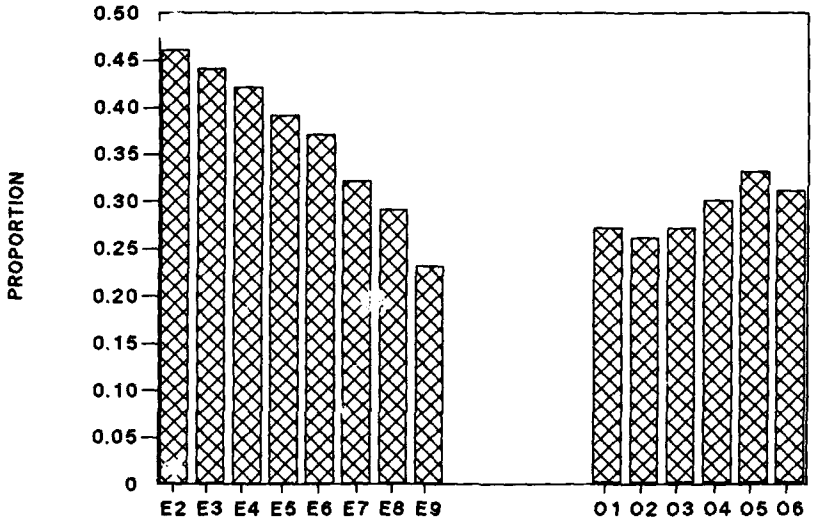


FIGURE 1-9. PARTICIPATION COSTS AS PROPORTION OF AFTER TAX PAY DIRECT TRANSPORTATION COST + TRAVEL TIME AT 1/4 CIVILIAN WAGE

SOURCE: GRISSMER, BUDDIN, AND KIRBY. CHANGING RESERVE COMPENSATION: A REVIEW OF COMPENSATION RELATED PERSONNEL AND TRAINING READINESS ISSUES, N-3669 FM&P/RA. THE RAND CORPORATION.

and he or she receives only the base pay portion of the current pay and allowances table (about 66 percent of the Regular Military Compensation (RMC)).

The first effect, often reported by prior studies, results in rewarding the member with a total of 1/15th of a month's basic pay for the two drills during a single full day worked. It is important to note that, on average, this amounts to only 1/23 of a month's RMC. This is often carelessly called "two days' pay for one day's work," notwithstanding that the normal civilian and military practice is 1/20 of a month's full pay and benefits (and leave or vacation credit) for each full day actually worked. Familiar with both military and civilian practice, drilling reservists are usually aware that in fact they receive less total compensation for a full day's service than they would for a full time active duty working day or for comparable civilian work. This difference alone, however, has not been identified as a retention problem.

The second effect is more subtle. As the military system has evolved, the basic pay portion of total direct compensation differs more by pay grade than the allowance portions, for reasons pertaining to the intent of the allowances. As a result, the relative pay progression from the entry level to the

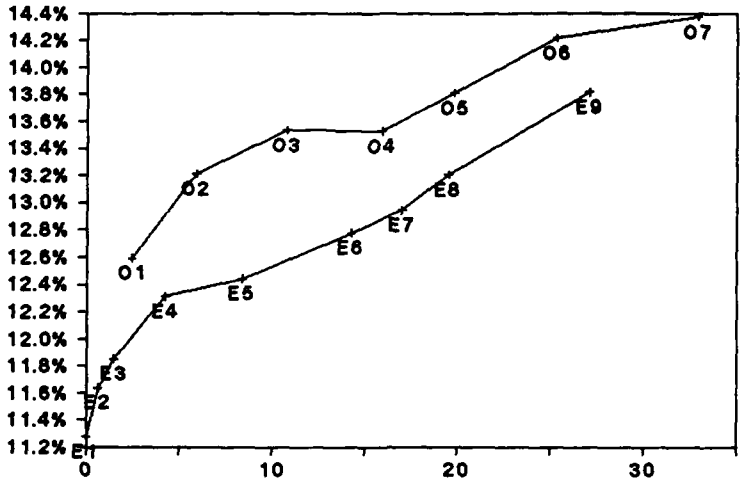


FIGURE 1-10. 14 AT & 48 IDT AS A PERCENT OF ACTIVE DUTY ANNUAL RMC (WITH DEPENDENT)

SOURCE: 1986 PAY TABLE

upper levels (the "tilt" of the system) differs by a relatively greater amount when allowances are not paid.

The effect of a pay system in shaping a force structure is dependent upon, among other things, the tilt of the system. High tilt systems that are otherwise generally competitive tend to have poor attraction and retention at the early low end of the scale where the pay is relatively low, but better retention at upper levels where it is relatively high. Similarly, organizations with small tilts generally find recruiting easier than later retention, and not infrequently these organizations find themselves training beginning personnel only to see the best of them lured away later during their career. Such organizations may find persistent shortages of very senior people, if they need large numbers of them, unless their retirement plan is constructed to offset the effect, as is often the case.

Recognition of this tilt is important in creating and maintaining a structure appropriate to the functions to be performed and the needed age and experience distribution. The observation that the reserve pay system is tilted significantly more than the active system is not new. The first QRMC reported this in 1967, and the Reserve Compensation System Study of 1978 reported it again. Figure 1-10 shows the amount of the tilt

relative to the active duty pay system. If the tilt of both systems were the same, both officer and enlisted lines would be horizontal and coincidental.

This observation does not mean that reserve seniors are overpaid, either for their time or their value: significant extra hours of unpaid time are required, and, as noted previously, paid time is rewarded at a lower total compensation level than the equivalent active duty service.

A similar phenomenon was evident when the QRMC examined civilian income of reservists by grades. Such data has value to the degree that one believes that civilian income level sets the degree of an individual's expectations and estimates of the value of time. In the case of the lost pay and overtime premium frequently reported among younger members, it sets the actual amount of the loss. Figure 1-11 illustrates the degree by which enlisted reserve pay, as a proportion of members' average total pay, is lower. In fact, reserve pay is a significantly smaller portion of the total income of enlisted members than it is for officers, as Figure 1-12 shows, and therefore is less important in their economic lives.

Is pay satisfaction affected? The 1986 Reserve Components Surveys showed that reservists' satisfaction with pay is greater overall than pay satisfaction in the active forces. The data presented in Figure 1-13 reflects the survey sample bias in this volunteer force in which individuals can and do leave before enlistment expiration if not satisfied. Satisfaction, however, rises sharply with seniority among reservists, while it is roughly constant with pay grade among actives. But does pay dissatisfaction lead to departure? The survey could not poll those who departed, but did measure reenlistment intention, proven in past work to accurately predict actual behavior. Table 1-2 displays the data. Early in career, where satisfaction is lowest, it is very closely tied to reenlistment intention. Later, when the level of satisfaction is higher and when other factors such as retirement tend to dominate decisions, it appears to make little difference.

Table 1-2. Percent Intending to Reenlist, in Pay Satisfaction Categories

	E3	E4	E5	E6	E7
Satisfied/ Very satisfied	39%	47%	63%	69%	73%
Dissatisfied/ Very dissatisfied	22%	33%	48%	57%	69%

Source: 1986 Reserve Components Survey

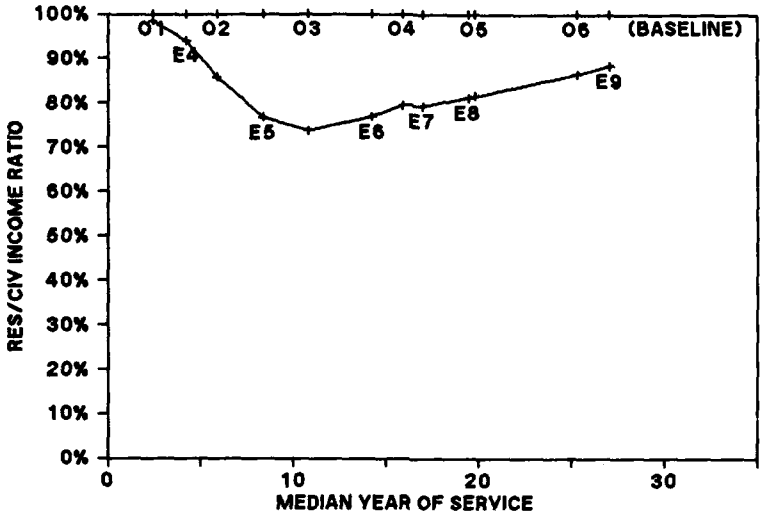


FIGURE 1-11. OFFICER & ENLISTED RESERVE/CIVILIAN INCOME RATIOS
RESERVE INCOME: 14 ADT & 48 IDT (WITH DEPENDENT)
CIVILIAN INCOME: FULL TIME EMPLOYED (WITH DEPENDENT)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)
SOURCE: 1986 PAY TABLE & 1986 RESERVE COMPONENTS SURVEYS

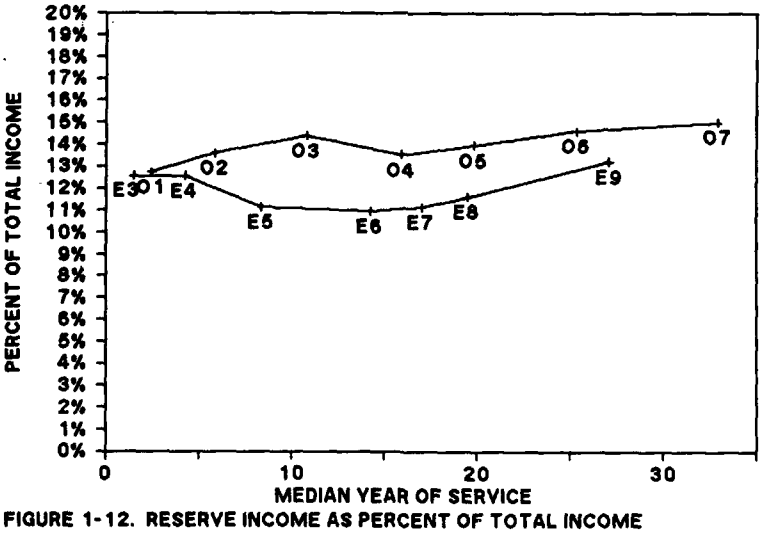


FIGURE 1-12. RESERVE INCOME AS PERCENT OF TOTAL INCOME
RESERVE INCOME: 14 ADT & 48 IDT (WITH DEPENDENT)
CIVILIAN INCOME: FULL TIME EMPLOYED (WITH DEPENDENT)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)
SOURCE: 1986 PAY TABLE & 1986 RESERVE COMPONENTS SURVEYS

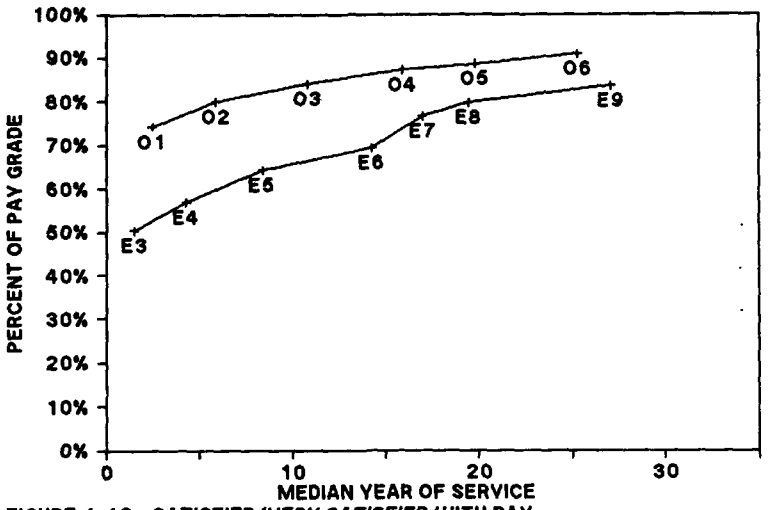


FIGURE 1-13. SATISFIED/VERY SATISFIED WITH PAY ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

We have seen, then, that the pay system is not well adapted to overcome the elements of the environment that make reserve participation hardest for junior and enlisted members. In fact, the tilt is away from them, and may exacerbate the tendency to leave. Figure 1-14 displays the 1986 experience with attrition in the enlistment cohorts of the previous eight years.

How is this experience related to readiness? Table 1-3 shows results estimated by RAND from their 1979 Reserve Forces Studies Survey of the Army National Guard and Reserve that associates MOS qualification rate with years of service in the same unit.[4] Note that considerable time is required, under normal training time and intensity, to reach the levels of MOS qualification required for modern military operations. The turbulence introduced by unprogrammed attrition and failure to reenlist, coming as it does on top of the necessary turbulence from civilian job and home changes, is the deadly enemy of training. If the high rate of attrition remains and the length of time to qualification remains, units cannot, even with the best of intentions, reach required levels.

The rate of qualification could be accelerated if more training time were available, but only if the losses (and therefore the turbulence) were not increased in proportion. The

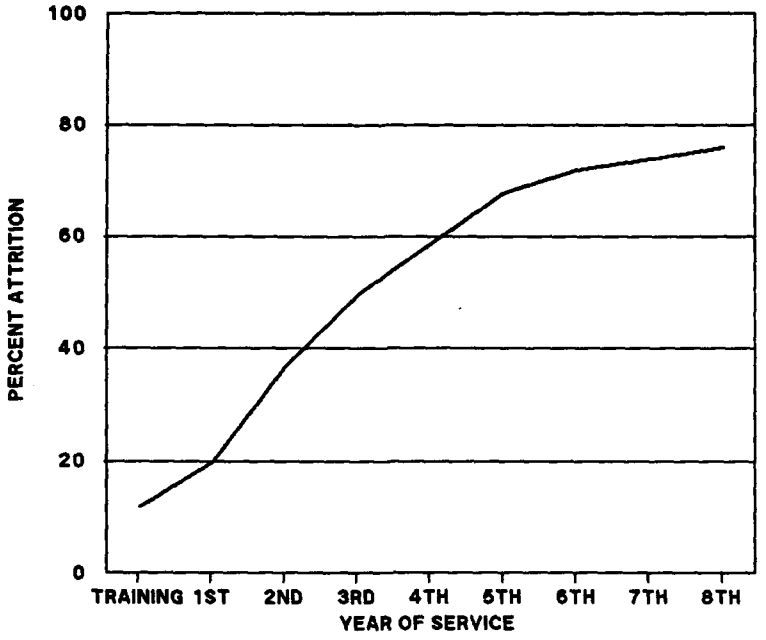


FIGURE 1-14. AVERAGE CUMULATIVE ATTRITION BY 1986 (NON-PRIOR SERVICE ENLISTMENTS PREVIOUS EIGHT YEARS)

SOURCE: OASD RESERVE AFFAIRS

Table 1-3. Predicted MOS Qualification Rate for Pay Grade E1-E4, by Years of Service, Component, and Prior Service Status

Years of Reserve Service	Army National Guard NPS %	Army National Guard PS %	Army Reserve NPS %	Army Reserve PS %
0.5	.589	.584	.608	.443
1.0	.598	.611	.617	.462
2.0	.803	.761	.758	.634
3.0	.813	.793	.771	.660
4.0	.822	.818	.784	.681
5.0	.829	.839	.796	.697
6.0	.836	.855	.808	.708

Note: Results estimated by RAND from the 1979 Reserve Force Studies Surveys

Table 1-4. Effect of Extended Time Options on the Reenlistment Intentions of Junior Personnel by Component and Prior Service Status

	Proportion planning to reenlist		
	Current Policy %	2 Extra Drills per month %	Extra 5 days of Annual Training %
Army National Guard			
NPS	.498	.370 (12.8)	.396 (10.2)
PS	.558	.443 (11.5)	.462 (9.6)
Army Reserve			
NPS	.517	.392 (12.2)	.443 (7.4)
PS	.589	.482 (10.7)	.517 (7.2)

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel. The difference between the proportion reenlisting under current policy and under each option is reported in parenthesis.

1986 Reserve Components Surveys support no optimism for the success of such a policy. Table 1-4 displays the reported effect on reenlistment intention of hypothetical increases in drill time or, alternatively, increases in annual active duty for training. The table shows that significant losses may be expected from attempts to "train harder" in the absence of additional offsetting incentives to stay. Among more senior personnel (Table 1-5), the predicted losses were even higher, leading to the danger that such policy changes for drill and active duty for training could simultaneously bring an immediate loss of qualified persons and a coincidental reduction in the rate of training their replacements.

We have shown earlier that the readiness of units with early deployment plans, and therefore priority qualification and training requirements, was not better than the force readiness as a whole. Solving this problem would be relatively easy in active units, which could be brought up through transfer of the needed skills from units with lower priority. The geographical scatter and the nature of reserve participation makes this solution unavailable.

The number of people required, shown in Table 1-6, is relatively small. The NATO units could be brought to 100 percent of allowed level of organization (ALO) at C1 or C2 readiness in personnel with only 1,729 additions. Alternatively, 5,615 people of exactly the right skill would be required to

Table 1-5. Effect of Extended Time Options on the Reenlistment Intentions of Senior Personnel by Component and Prior Service Status

	Proportion planning to reenlist		
	Current Policy %	2 Extra Drills per month %	Extra 5 days of Annual Training %
Army National Guard			
NPS	.658	.486 (17.2)	.494 (16.4)
PS	.691	.536 (15.5)	.558 (13.3)
Army Reserve			
NPS	.677	.522 (15.5)	.562 (11.5)
PS	.722	.585 (13.7)	.623 (9.9)

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel. The difference between the proportion reenlisting under current policy and under each option is reported in parenthesis.

bring all skills in each of the 268 early deploying units to 100 percent manning. The 208 RDF units would require 4,681 and 8,799 people, respectively. This relatively small number of shortages in critical places suggests the use of specifically targeted compensation initiatives.

The objective of any pay system is, of course, to fill the billets through the desired affiliation and retention behavior. The system also must support the other nonmonetary personnel policies, especially those dealing with training and readiness. It should provide this support by attracting and retaining individuals early in career, until the retirement "pull" and other nonpecuniary appeals of reserve service take effect.

Table 1-6. Number of People with Correct MOS Required to Fill to Allowed Level of Organization (ALO)

Organization	# of Units	100% ALO Units	100% ALO Skill
RDF	208	4,681	8,799
NATO	268	1,729	5,615

In the following chapters the QRMC examines the phenomena reported in this chapter in considerably greater detail, and suggests the kind of pay changes that would allow management of the geographical and economic differences, the skill shortages, and the manning priorities characteristic of reserve forces in the All-Volunteer era.

Notes

1. The President's Commission on an All-Volunteer Armed Forces, Government Printing Office, Washington, D.C., February 1970, p.97.

2. See John R. Brinkeroff and David W. Grissmer, The Reserve Forces in an All Volunteer Environment, P-6934, The Rand Corporation, January 1984, p. 34.

3. U.S., Congress. House, Committee on Armed Services, An Overview of U.S. Commitments and the Forces Available to Meet Them. Hearings before the Military Personnel and Compensation Subcommittee of the Committee on Armed Services, House of Representatives, H. Rept. No. 97-482, p. 315.

4. David Grissmer, Richard Buddin and Sheila Nataraj Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, R-3669-FMP/RA, The RAND Corporation, Forthcoming, pp. 115-123.

Chapter 2. THE ENVIRONMENT FOR RESERVE RECRUITING AND RETENTION

This chapter discusses the environment in which the part-time Selected Reserve member serves, from the perspective of recruiting and retention.[1] Following a discussion of force size and motivation for reserve service, the chapter focuses on two aspects of this environment. First, the initial entry of individuals into the reserves is examined in terms of the characteristics of those who join. Second, the civilian environment of the drilling reserve member is described, including a variety of aspects of civilian employment, spousal influence, and unpaid hours spent at the reserve site.

Some environmental factors that relate to reserve compensation are revisited in Chapter 3.

Force Size

The size of the Selected Reserve, after falling precipitously in the 1970s, is now at an all-time high, exceeding even the paid strength achieved in 1959 when reserve service was strongly supported by the draft. Figure 2-1 shows Selected Reserve endstrengths through 1987.

Motivation for Reserve Service

Reserve component service differs in very significant ways from employment in the civilian sector secondary labor market. Nevertheless, the reserve components compete in this market for an important percentage of their junior enlisted members. The commissioned and noncommissioned officer corps, rather than resembling the secondary labor market, more closely resembles the professional, career-oriented primary labor market and is motivated by incentives such as retirement, more characteristic of the primary labor market and with salaried employees.

In the civilian sector, secondary labor or part-time employment is typically used in the following circumstances:

- As a supplement to the full-time force during seasonal periods of peak activity (e.g. additional retail sales clerks during the Christmas shopping season).

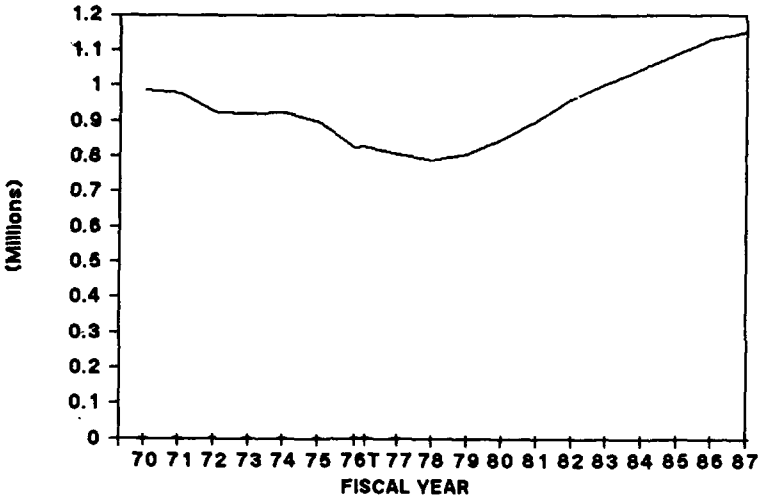


FIGURE 2-1. SELECTED RESERVE END STRENGTH
ALL DOD COMPONENTS

SOURCE: RCCPDS

- When operating hours or peak demands make the use of part-time employees cost-effective. This implies a short learning curve for the tasks to be performed; such that the savings incurred by using skilled labor with full-time on-the-job experience is offset by the additional costs associated with overtime.

- As a temporary replacement for a full-time employee whose tasks are routine and must be accomplished on a daily basis. An example is the use of temporary secretarial services.

- When the nature and structure of the employment lends itself to the secondary labor market. Examples are the part-time employment practices of fast food chains, telephone solicitation firms, and recreational facilities.

In the United States, the primary incentive for workers in the secondary labor market is supplemental current income. The secondary market is, for the most part, composed of individuals seeking to supplement the income derived from their primary employment, individuals who cannot devote the time required for full-time employment (students, homemakers, etc.), individuals

between full-time employment (actively seeking full-time employment), and individuals without the prerequisite skills to enter the full-time market.

A review of the civilian sector secondary labor market produces the following conclusions:

- Under most circumstances, secondary labor may be obtained for direct current compensation at levels equivalent to or below those required for full-time employees.
- Additional benefits beyond those required by law are not generally necessary to attract secondary labor.
- Secondary employment seldom requires the exercise of managerial or supervisory authority and never requires executive level authority.
- Secondary employment does not include long-term contracting of individuals for part-time employment.
- A career orientation is not desired or required for the vast majority of those in the secondary labor market.

Organizations that recruit entry-level employees from the secondary market provide career paths for a percentage of these individuals, but acceptance of a career path typically results in a primary full-time position with the organization. The nature of military service in the reserve components does not fit the pattern of civilian sector secondary labor markets. Following are the major characteristics of service in the reserve components that make it differ from the secondary labor market in the civilian sector:

- Long-term obligation to serve. The initial obligation, including active drill and annual training participation for reserve duty, is typically four or six years for new entrants. A total military service obligation of eight years is a condition for all new entrants.
- Requirement for intensive and lengthy initial training. All new entrants without prior service must serve a minimum period of active duty for training, a period ranging from 12 weeks to two years and necessitating a leave of absence for new members who are employed full-time in the civilian sector.
- Service in the Selected Reserve requires an annual leave of absence from primary civilian employment for a minimum of two weeks for annual training.

- An employee's conflicts between primary civilian employment and reserve service must, by law, be resolved in favor of reserve service.

- Long-term career orientations are not only encouraged, but are required for the proper maintenance of reserve component force structures.

- The requirement to attract individuals with leadership, managerial, and supervisory level talents is extensive. The required levels of employment-related experience are most often not compatible with civilian sector experience.

- Unlike supplemental employment in the secondary market of the civilian sector, reserve service carries the potential for mobilization, which places the reserve component member at risk.

In the early 1970s, the Air Force initiated a series of reserve personnel studies that developed a theory of secondary labor market participation in relation to the behavior of Air Force reservists. Subsequent studies, most particularly the 1978 Selected Reserve Bonus Test, found that reservists did not behave like typical employees in the secondary labor market and had much lower pay elasticities than those employees.[2]

For these and similar reasons, reserve component service differs from employment in the civilian sector secondary labor market. The reserve components compete in this market for a significant percentage of their junior enlisted members and the compensation system incorporates appropriate monetary incentives to attract these individuals (bonuses and educational benefits). The officer corps and the noncommissioned officer corps more closely resemble the professional, career-oriented, primary labor market and require appropriate compensation incentives to retain these members (deferred income, etc.).[3]

Accessions

There are two very different sources of supply for the reserves: young civilians and somewhat older individuals who have had previous military service. Members without prior service are recruited directly from the civilian population. Members with prior service are individuals who have served in the active or reserve components; they join the reserve as a part of their initial commitment upon entering active service, as a personal decision upon leaving active duty, or are rejoining the reserves after an absence.

Members Without Prior Service

Accessions without prior service have no previous experience or training in the military: therefore, before they can become productive members of a unit, they must complete full-time training, from several months to as much as over a year, in basic military skills and in the specific military skill required by the individual's unit.

There are several advantages to recruiting members without previous military experience. A primary advantage is that they can be recruited and trained into specific skills required by the unit they have joined. Also, these recruits are required to man entry level positions and they provide the youth input necessary for a viable force. Components with a need for the youth and vigor required for skills such as those in the combat arms have a greater need for members without prior service, who tend to be younger than members with previous military experience. The Army National Guard and Marine Corps Reserve have, proportional to their total manpower requirements, the highest requirement for these members.

The disadvantages of recruiting inexperienced members involve the time and expense of training and the attrition of members before completion of their service commitments. There is a substantial lead time from recruitment through completion of training, even for skills requiring the shortest period of formal training. For more technical skills, the time and expense become a major factor. The high attrition rate during and subsequent to training is another important consideration. For example, in the Army National Guard and Reserve in fiscal year 1985, more than a third of enlisted members left the reserve by the end of the second year. In fiscal year 1986, 25 percent left by the end of the second year. When these members are lost during or soon after completion of training, there is little, if any, return on the training investment.

In a period of mixed trends in the youth population, most reserve components have met their recruiting goals in recent years (See Table 2-1). In 1987, the required accession for individuals without prior service was over 100,000 men and women. In the same year, the U.S. population of 17- to 21-year-old males was 9.5 million. Although the number of youths has declined in the 1980s (and will decline further until 1993), the period saw a 32.6 percent increase in positive preference for military service, as reported in the Youth Attitude Tracking Survey (YATS) of 1986, more than enough to offset the decline in numbers.[4] Including active force requirements, recruiters will need to enlist about 10 percent of the qualified males who have expressed a positive preference for military service.

Table 2-1. Fiscal Year 1987 Reserve Component Personnel Accessions

	Officer			Enlisted				
	PS	NPS	Total	PS	NPS	Total	Enlistment Objective	% of Obj
ARNG	5516	280	5796	41837	43753	85590	81000	106
USAR	8726	332	9058	42742	31847	74589	77100	97
USNR	5695	24	5719	21533	16204	37737	33800	112
USMCR	959	0	959	5836	8375	14211	13500	105
ANG	1244	105	1349	8157	4812	12969	13300	98
USAFR	1901	255	2156	10475	3395	13870	13900	100
DoD	24041	996	25037	130580	108386	238966	232600	103
USCGR	76	0	76	739	1225	1964	2100	94

Source: Office of the Assistant Secretary of Defense (Reserve Affairs)
Data as of September 30, 1987

Members With Prior Service

The reserve components can also recruit from among individuals who have decided to leave or have left the active components. These members may join the reserves either to complete a service obligation incurred upon entering the armed forces or simply because they are not ready to sever their affiliation with the military. Recruits with prior service provide reserve units with enlisted members who possess, typically, two to four years of active duty military experience and have a continued interest in the military.

The major advantage of recruiting these members is that, if appropriately matched to a required skill, they are immediately a productive asset to the unit. This is an especially important advantage in skills requiring extensive training and experience. Even if these members leave after a short period (as many do), relatively little has been wasted in additional reserve training expense.

Weighing against the advantage of recruiting members with prior service are several potentially significant disadvantages. In order to reap the benefits of their prior military experience and skills, there must be a match between the acquired skills of a member and the openings available in a local unit. If not, then there is little advantage to recruiting a member with prior service over a member without prior service. If retraining is required, the member most often must be retrained through time consuming on-the-job training. Resultant skill mismatch problems are discussed extensively in Chapter 4. Members with

prior service are not appropriate for filling entry level positions--in fact, their higher rank may exacerbate local promotion progression problems. Finally, should a member serve until retirement, the retirement liability associated with the active duty is substantial--for example, the cost of retirement for a member with six years of active duty time will be approximately double that of a member who joins and serves a career without serving on extended active duty other than for initial training.

Mix of Members With and Without Prior Service

The proportion of affiliates required to be pretrained and experienced in modern military skills depends upon the needs of the component. By virtue of their mission, certain reserve components require, for the most part, experienced technicians. The Naval Reserve, Coast Guard Reserve, Air Force Reserve, and Air National Guard fall into this category. The Army and especially the Marine Corps require higher numbers of recruits without prior service, finding relatively smaller numbers of noncommissioned officers to be sufficient. Table 2-1 shows, for each component, the number of accessions of members in each category for fiscal year 1987.

Retention

There are over one million individuals in the Selected Reserve, and for most of them, a minimum of 48 periods of inactive duty training and two weeks of active duty training per year are the major departures from a predominantly civilian lifestyle. Elements in both the civilian and reserve environments affect the ability of the reserve components to recruit and retain members.

In many respects, the environment of the reserve compensation system is far more demanding than that of the active duty compensation system. For the active duty member, the competition is employment in the civilian economy. For the reservist, the competition includes not only income supplement alternatives in the civilian economy, but also includes no replacement at all (i.e. more leisure time for the member). Furthermore, because of its part-time nature, the reserve system must be attractive to members with a wide variety of primary civilian employment situations: full-time employed, part-time employed, self-employed, unemployed, and in school. Furthermore, a member in one primary employment situation may change to another. Even within an employment category, members in same reserve pay grade will receive different civilian salaries and thus may view their reserve wages differently.

The pattern that emerges from the statistical data is an environment that is both demanding and diverse. It is apparent that the most severe demands are on junior members, particularly junior enlisted members. The diversity is universal for officers and enlisted members as well as for junior and senior members.

Civilian Employment

Civilian employment has an important influence on the reservist. Analysis of data from the 1986 Reserve Components Surveys provides extensive information on the civilian employment patterns of reserve members. This information includes such details of reserve members' civilian work experience as the type of occupation, income, and characteristics of the employing firm or government. In addition, there is extensive data on how and whether civilian employers compensate reservists when they are on military leave from their civilian job to perform their reserve obligation. See Appendix B for additional technical details.

Type of Civilian Employment

The vast majority of experienced reserve members are employed full-time in their civilian employment. Approximately half of junior members (pay grades E1-E3 and O1) are employed full-time, with many of the remainder in school.

Figures 2-2 and 2-3 show, for each pay grade, the proportion of members in each of the following categories: full-time employed, self-employed, in school, unemployed, part-time employed, retired, and miscellaneous.[5] A substantial percentage of the more senior officers are self-employed. Figure 2-4 combines the full-time employed and self-employed categories. Note the similarity in the percentages for officers and enlisted members at similar times in their careers. Additional figures, including figures for each reserve component, are in Appendix B.

Type of Civilian Employer

Figures 2-5 and 2-6 show, for each pay grade, the percent of members employed by government and by private employers, respectively. Forty percent of full-time employed reserve officers are employed by federal, state, or local government. The percentage is relatively constant regardless of pay grade, although slightly higher for pay grade O5 and above (44 percent). Thirty-two percent of full-time employed reserve enlisted members are employed by federal, state, or local government. The percentage is lower for junior members and increases steadily by pay grade. Forty-five percent of members in pay grade E7 and above are employed by government. Figures

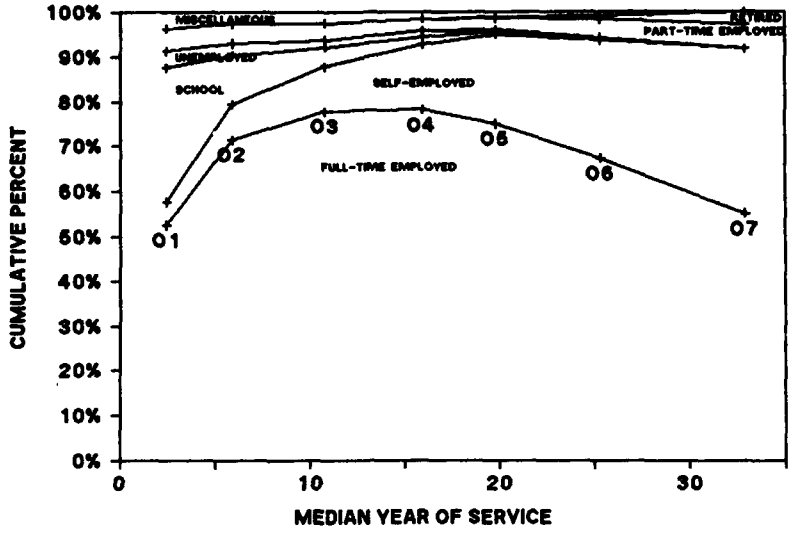


FIGURE 2-2. OFFICER CIVILIAN EMPLOYMENT
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

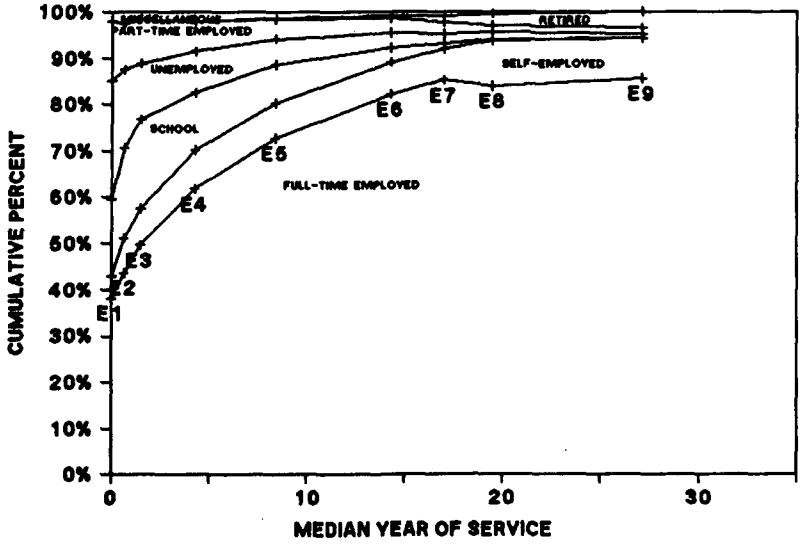


FIGURE 2-3. ENLISTED CIVILIAN EMPLOYMENT
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

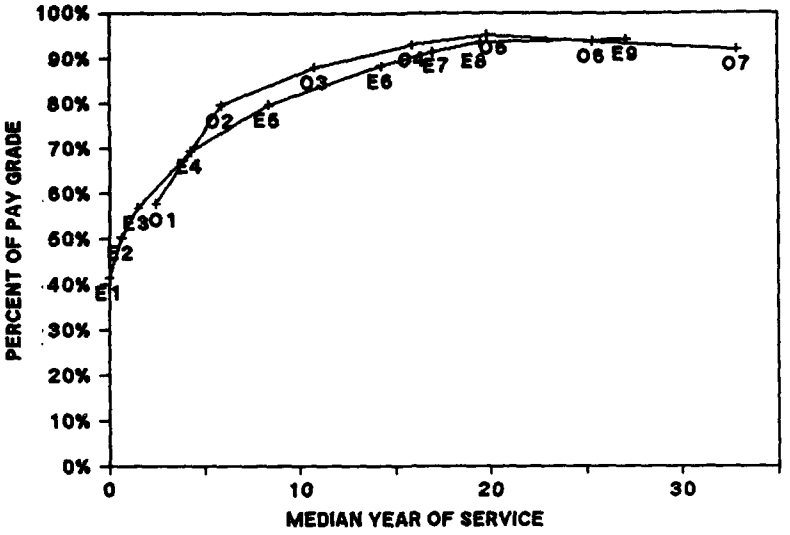


FIGURE 2-4. CIVILIAN EMPLOYMENT: FULL-TIME OR SELF-EMPLOYED ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

B-30 through B-35 in Appendix B show, for each pay grade, the percentage of members employed by each of the following categories of employer: private firms with less than 100 employees, 100 to 499 employees, and 500 or more employees and local, state, and federal governments.

Trends in Type of Civilian Employer

Statistics available from a 1969 survey of the Ready Reserve can be used for comparison purposes with the 1986 Reserve Components Surveys.

Figure 2-7 and 2-8 show how data from the 1969 survey[6] (1968 data) compares with data in similar categories from the 1986 Reserve Components Surveys (1985 data).[7] The percentages and percentage change are shown in Table 2-2. The largest change is the approximate doubling of the percentage of junior members in school (student). In recent years, the reserve components have placed more emphasis on recruiting and retaining members who are interested in continuing their education through programs such as the Montgomery GI Bill Act of 1984.

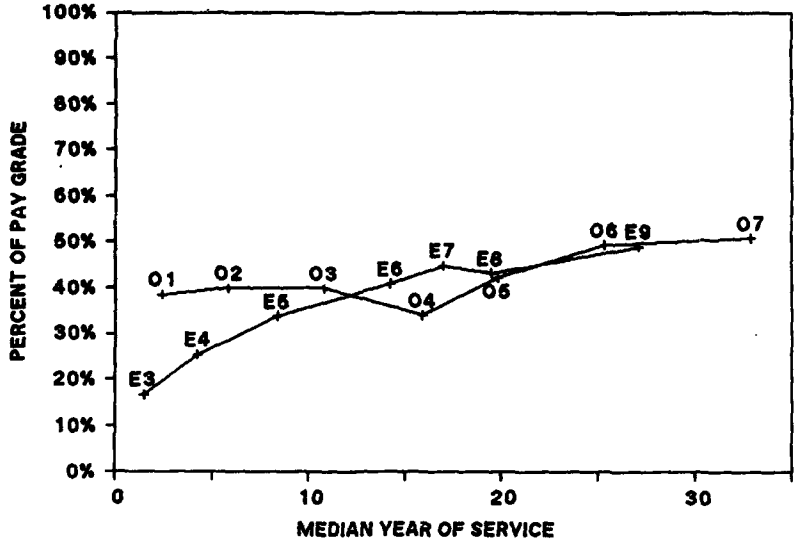


FIGURE 2-5. CIVILIAN EMPLOYER: GOVERNMENT FULL-TIME EMPLOYED ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

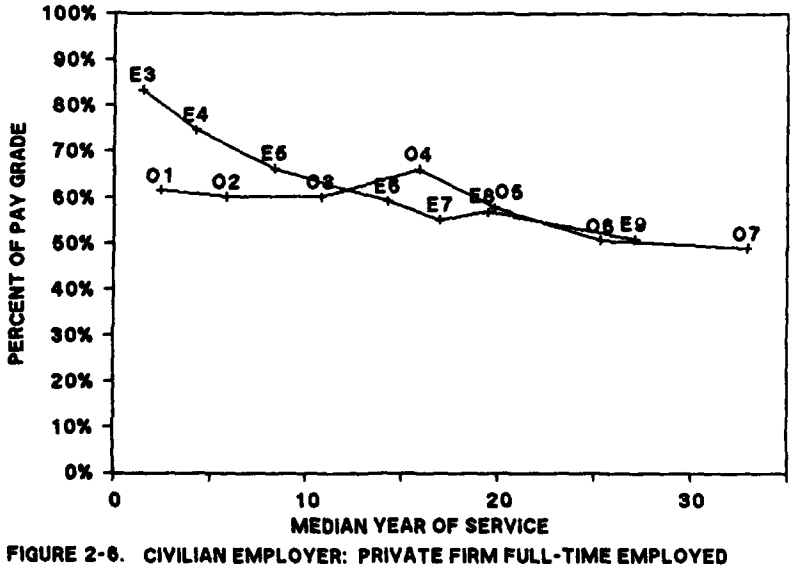


FIGURE 2-6. CIVILIAN EMPLOYER: PRIVATE FIRM FULL-TIME EMPLOYED ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

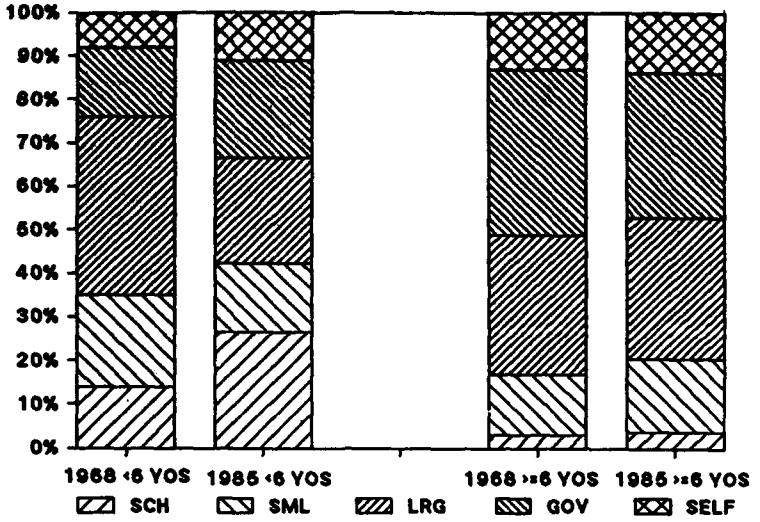


FIGURE 2-7. CIVILIAN EMPLOYERS OF OFFICERS (FULL-TIME EMPLOYED, SELF-EMPLOYED, OR FULL-TIME STUDENT) SELECTED RESERVE

SOURCE: CAREER MOTIVATION IN THE READY RESERVE & 1986 RESERVE COMPONENTS SURVEYS

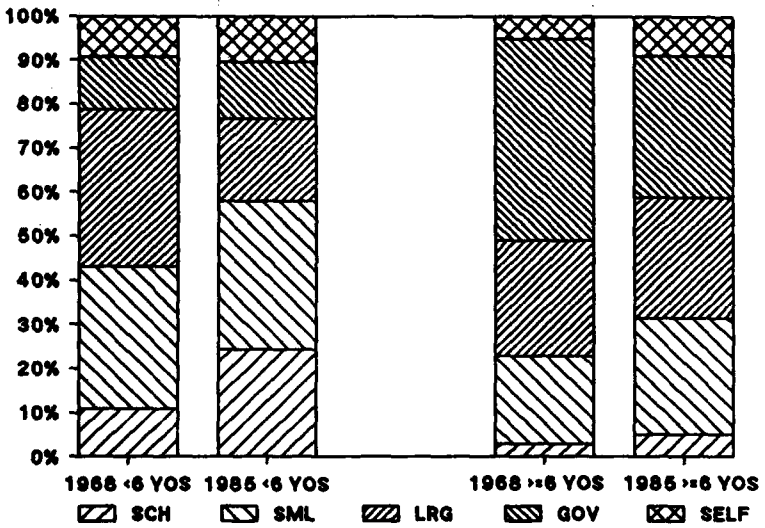


FIGURE 2-8. CIVILIAN EMPLOYERS OF ENLISTED MEMBERS (FULL-TIME EMPLOYED, SELF-EMPLOYED, OR FULL-TIME STUDENT) SELECTED RESERVE

SOURCE: CAREER MOTIVATION IN THE READY RESERVE & 1986 RESERVE COMPONENTS SURVEYS

Table 2-2. Primary Employment of Reserve Members Self-Employed, Full-Time Employed, or in School

Career Members (Six or More Years of Service)

	% Self-Employed	% Gov't	% Large Private	% Small Private	% School
Officers					
1968	13	38	32	14	3
1985	14	33	33	16	4
% Change	6	-13	2	18	32
Enlisted					
1968	5	46	26	20	3
1985	9	32	27	27	5
% Change	77	-30	5	33	68

Junior Members (Less Than Six Years of Service)

	% Self-Employed	% Gov't	% Large Private	% Small Private	% School
Officers					
1968	8	16	41	21	14
1985	11	22	24	16	27
% Change	38	41	-41	-25	90
Enlisted					
1968	9	12	36	32	11
1985	10	13	19	33	24
% Change	15	7	-48	5	122

Source: 1968 data: Career Motivation in the Ready Reserve, Special Assistant for Policy Studies, ODASD (MPP) Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs), June 1969, pp. 38-39.

1985 data: Statistics were selected from the 1986 Reserve Components Surveys in categories as closely as possible to the 1969 report.

While the amount of detail available from the earlier survey is quite limited and the results are more likely to be contaminated by sample and response error than the 1986 Reserve Components Surveys, we believe margin trends identified to be valid.

Table 2-3. Primary Employment of Reserve Members
Full-Time Employed

Career Members (Six or More Years of Service)

	% Gov't	% Large Private	% Small Private
Officers			
1968	45	38	17
1985	40	40	20
% Change	-11	4	20
Enlisted			
1968	50	28	22
1985	37	32	31
% Change	-25	12	42

Junior Members (Less Than Six Years of Service)

	% Gov't	% Large Private	% Small Private
Officers			
1968	21	53	27
1985	36	39	25
% Change	76	-27	-6
Enlisted			
1968	15	45	40
1985	20	29	51
% Change	32	-36	28

Source: 1968 data: Career Motivation in the Ready Reserve, Special Assistant for Policy Studies, ODASD (MPP) Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs), June 1969, pp.38-39.

1985 data: Statistics were selected from the 1986 Reserve Components Surveys in categories as closely as possible to the 1969 report.

While the amount of detail available from the earlier survey is quite limited and the results are more likely to be contaminated by sample and response error than the 1986 Reserve Components Surveys, we believe margin trends identified to be valid.

For career members who are employed full-time (Table 2-3), there has been a decrease in the percentage who are employed by federal, state, or local governments. In 1968, 45 percent of officers with six or more years of service, who were employed full-time, listed government as their primary employer. In 1985, the percentage had decreased 11 percent, to 40 percent. In 1968, the comparable percentage was 50 percent for enlisted members; this decreased 25 percent, to 37 percent in 1985. Over the same time period, employees of federal, state, and local governments as a percentage of all U.S. civilian workers remained at 15 percent (See Table 2-4). Although reserve service still is more attractive to government employees than it is to many private sector employees, from the previous discussion we can conclude that the magnitude of the difference has decreased since the draft-motivated era.

Table 2-4. United States Civilian Employment

	All Civilian (Thousands)	Government (Federal, State, Local) (Thousands)	Percent Gov't
1968	79,066	11,839	15
1985	109,524	16,394	15

Source: Government employment figures for 1968 are from Bulletin Number 1312-11, "File of Employment and Earnings Table B2," May 1987; U.S. total employment figures are from unpublished papers, Office of Economic Growth and Employment Projections, Bureau of Labor Statistics, Department of Labor.

For junior members who are employed full-time (shown in Table 2-3), there has been an increase in the percentage who are employed by federal, state, or local governments. In 1968, 21 percent of officers with less than six years of service, who were employed full-time, listed government as their primary employer. In 1985, the percentage had increased 76 percent, to 36 percent. In 1968, the percentage was 15 percent for enlisted members; this increased 32 percent, to 20 percent in 1985. It is likely that, during the draft-motivated era, reserve recruits were proportionately drawn from private and public sector alike. In today's environment, the reserve components have greater success recruiting and retaining government employees because of relatively more supportive policies. The rising proportion by pay grade of reserve members who are employed by governments, noted earlier, would further support this hypothesis.

Income and Type of Civilian Employment

The civilian income of members of the National Guard and Reserve varies across a wide range.[8] This is important because higher civilian income appears to increase attrition[9] and can otherwise be relevant to reserve compensation levels. There is a substantial difference in income between full-time or self-employment and the other categories of employment. Figures 2-9 and 2-10 show annual median income received by officers and enlisted members in their civilian employment.[10] There are substantial differences in income even among members who are employed full-time. Figures 2-11 and 2-12 show the 25th, 50th, and 75th percentile income for members who are employed full-time in civilian jobs. For members in pay grade E3, the 75th percentile of civilian income is 140 percent of 25th percentile of civilian income. For members in pay grade E6, the corresponding percentage is 70 percent. For members in pay grades O1 and O6, the corresponding percentages are 100 and 76 percent.

Reserve Income as a Proportion of Total Income

The proportion of total personal income of reservists represented by military income varies greatly, dependent upon the employment status of the member. Figures 2-13 and 2-14 show reserve pay as a percentage of total income for the employment categories.[11] There is substantial variance even for reservists with full-time civilian employment. Figures 2-15 and 2-16 show reserve pay as a percentage of total income for the 25th, 50th, and 75th civilian income percentiles of members who are employed full-time.[12] For officers at the 75th percentile of civilian income (high income), reserve pay constitutes roughly 11 percent of total income. It is 19 percent of total income for members at the 25th percentile (low income). For officers, the percentiles are relatively constant regardless of pay grade. For enlisted members at the 75th percentile of civilian income, reserve pay constitutes roughly 10 percent of total income, but ranges from less than 15 to more than 20 percent, depending on pay grade, for members at the 25th percentile.

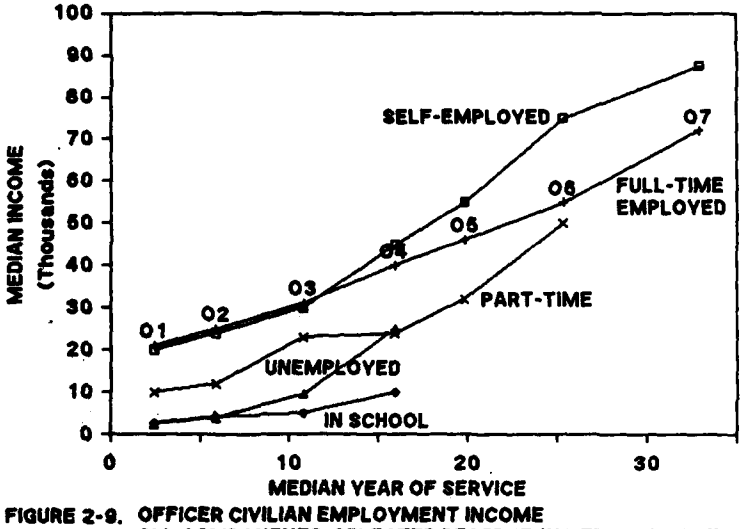


FIGURE 2-9. OFFICER CIVILIAN EMPLOYMENT INCOME
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

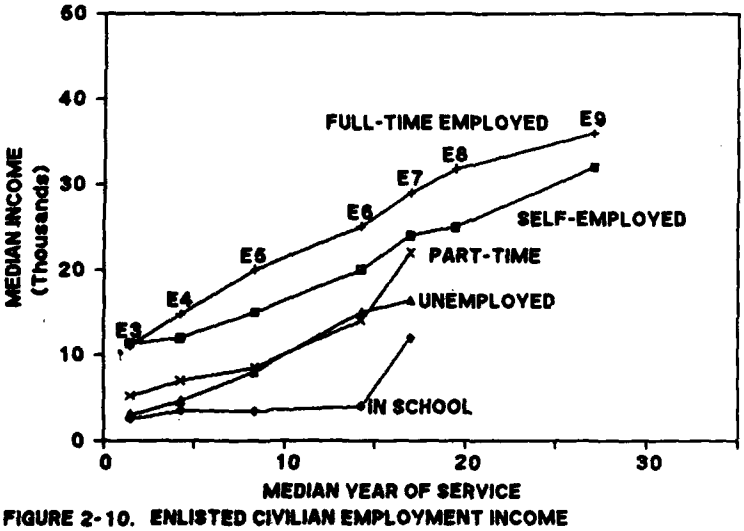


FIGURE 2-10. ENLISTED CIVILIAN EMPLOYMENT INCOME
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

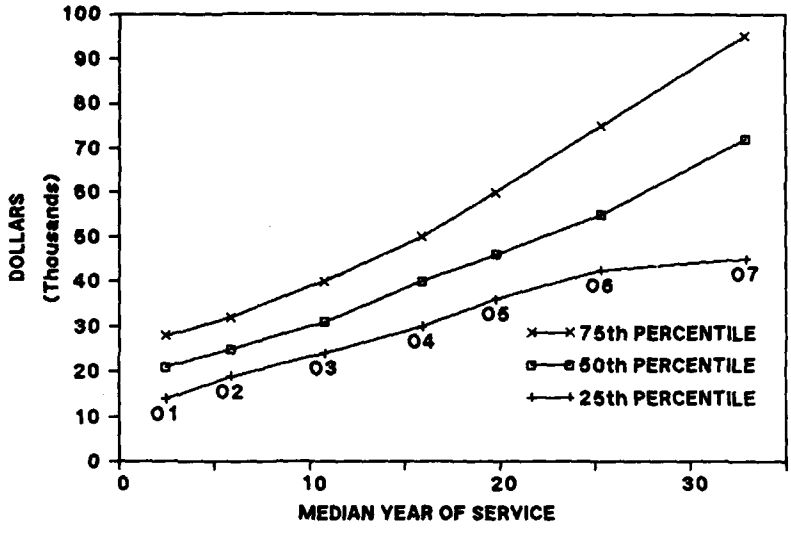


FIGURE 2-11. OFFICER ANNUAL CIVILIAN INCOME (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

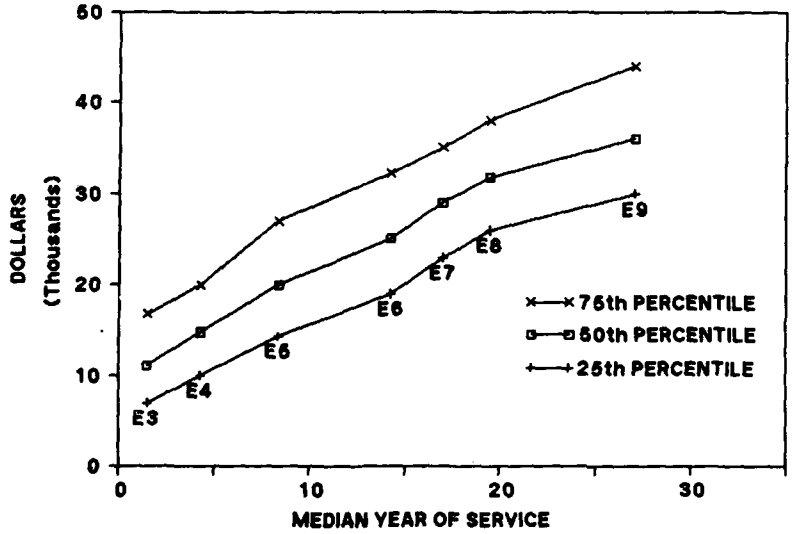


FIGURE 2-12. ENLISTED ANNUAL CIVILIAN INCOME (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

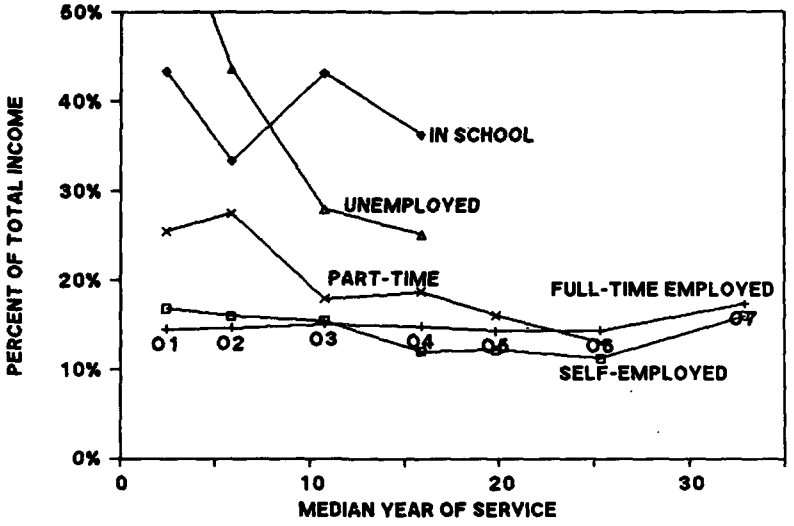


FIGURE 2-13. OFFICER RESERVE INCOME AS % OF TOTAL INCOME ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

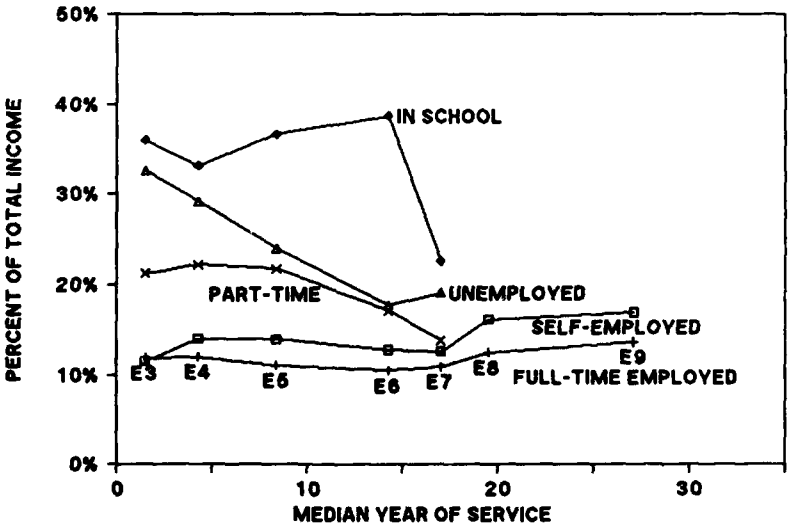


FIGURE 2-14. ENLISTED RESERVE INCOME AS % OF TOTAL INCOME ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

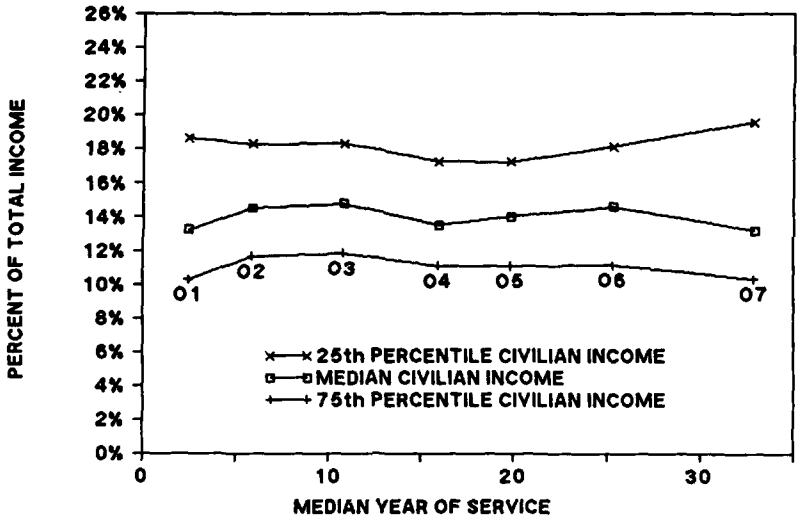


FIGURE 2-15. OFFICER 14 ADT & 48 IDT AS % TOTAL INCOME
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

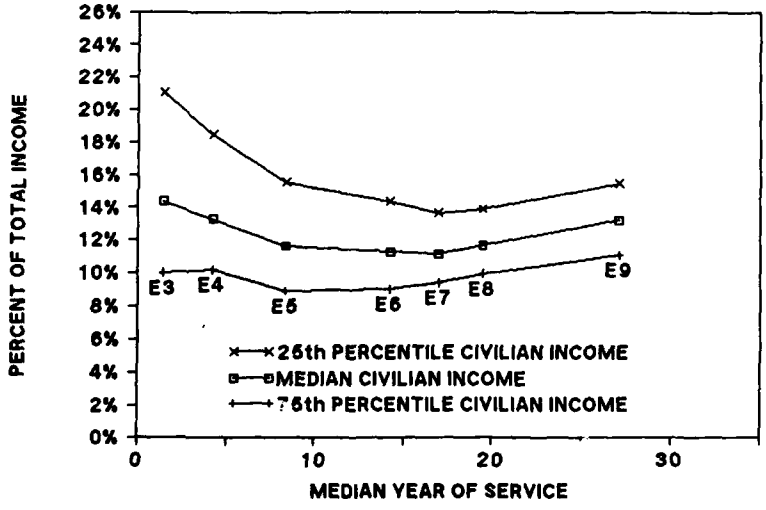


FIGURE 2-16. ENLISTED 14 ADT & 48 IDT AS % TOTAL INCOME
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Civilian Income and Retention

Data from the 1969 and 1986 surveys can be used to illustrate the importance of civilian income and the decision of the reserve member to continue participation in the reserve components.

Figure 2-17 shows the median 1968 gross civilian income for officers and enlisted reservists who are employed full-time.[13] The civilian income of enlisted members is relatively higher than expected during the initial six-year commitment; the report attributes this to their higher educational level. The midcareer dip in income is due to the "exodus of many well-educated reservists."[14]

Empirical evidence from the 1986 Reserve Components Surveys tends to confirm the observations made from the 1968 data. Median civilian income for 1985 can be adjusted to 1968 levels using the change in the Consumer Price Index - All Urban Consumers (CPI-U)[15]. For officers, the adjusted 1985 income is not substantially different from the 1968 income. Figure 2-18 shows, for enlisted members, the 1968 income and the adjusted 1985 income. The income levels subsequent to the initial six-year commitment are strikingly similar whereas, in the earlier years, the higher civilian income of the more highly educated (presumably draft-motivated) first-term enlisted members is readily apparent. The pay and other attractions of the reserve were able to retain enlisted members whose civilian income was comparable to that of the adjusted 1985 levels, but not those who had better civilian opportunities.

Reserve Participation and Taxes

Reserve pay, unlike the pay of active component members, is paid in addition to a main source of income for the majority of reservists. Reserve participation is incremental "work" in incremental "time." For all but reservists whose primary income is from reserve service, reserve pay is taxed at the margin, i.e. at a higher <u>average</u> rate than the earnings from their primary job and at a higher average rate than the pay of an active duty counterpart with the same pay grade and years of service. This situation has two effects: a reservist typically receives less for the same compensation dollar, and tax-free benefits and nontaxed allowances become more desirable to reservists than to their active duty counterparts.

A recent change to the Social Security laws increased taxes and reduced current reserve income for a greater percentage of enlisted and junior members than for officers and senior members. Full Social Security coverage was extended to reservists while on inactive duty training (IDT) effective January 1, 1988. Figure 2-19 shows the percentage of members

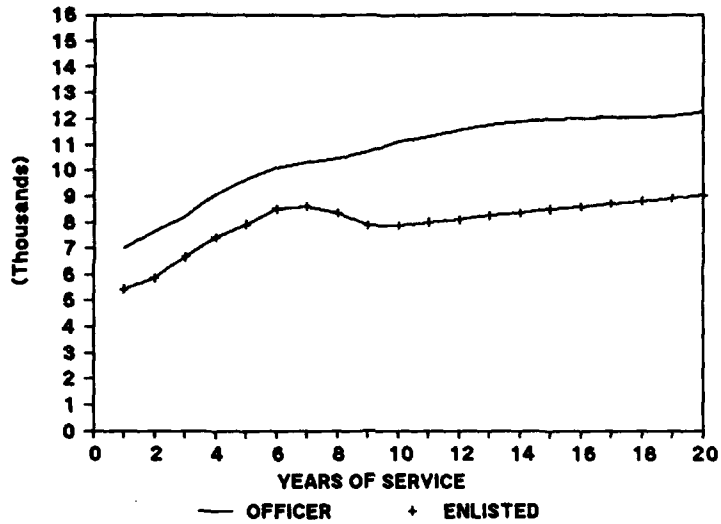


FIGURE 2-17. 1968 REPORTED CIVILIAN MEDIAN INCOME (FULL-TIME EMPLOYED)
SOURCE: CAREER MOTIVATION IN THE READY RESERVE

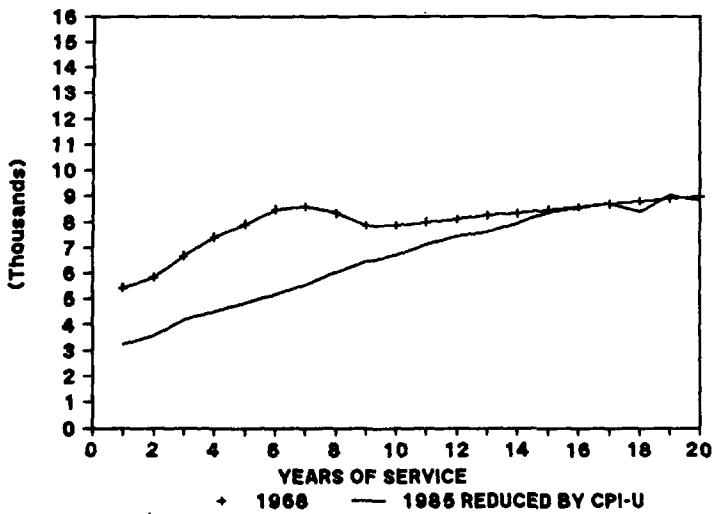


FIGURE 2-18. ENLISTED CIVILIAN MEDIAN INCOME (FULL-TIME EMPLOYED)

SOURCE: CAREER MOTIVATION IN THE READY RESERVE &
1986 RESERVE COMPONENTS SURVEYS

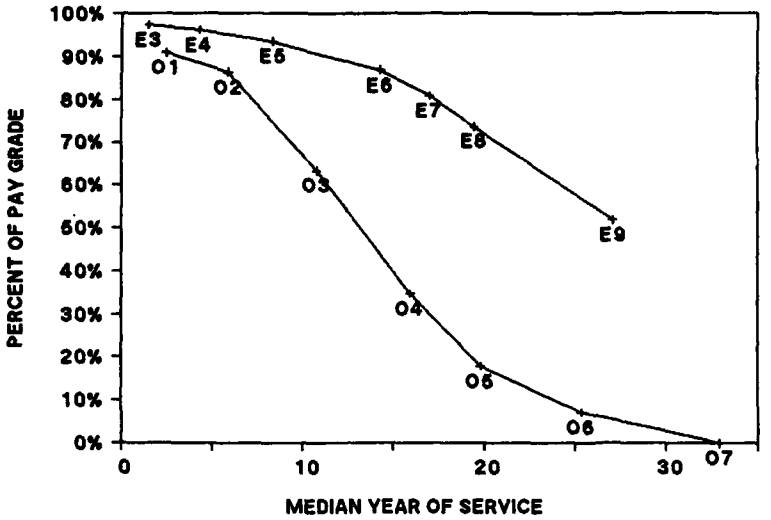


FIGURE 2-19. FICA RETAINED BY GOVERNMENT ON ALL RESERVE WAGES (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

with full-time civilian employment[16] for whom the federal government will retain all FICA taxes from their reserve income.[17] Obviously, the same members may receive increased Social Security coverage in their retirement years and death and disability coverage they otherwise may not have had, but these are also the members showing greater interest in current income.[18]

Reserve Participation and Primary Employment

In this study, the relation between civilian earnings and Reserve participation was statistically analyzed, controlling for the effects of other factors such as years of work experience and education. Overall, there is an average civilian earnings advantage of about $2,191 per year for officers, but a negligible difference for enlisted members. Both occupation and years of experience affect the advantage or disadvantage. Figures 2-20 and 2-21 graphically illustrate the comparative incomes of officer and enlisted reservists compared with their counterparts in the civilian economy.[19]

After accounting for wide variations from occupation, the civilian income of reservists is lower than that of their civilian counterparts during the early years of reserve

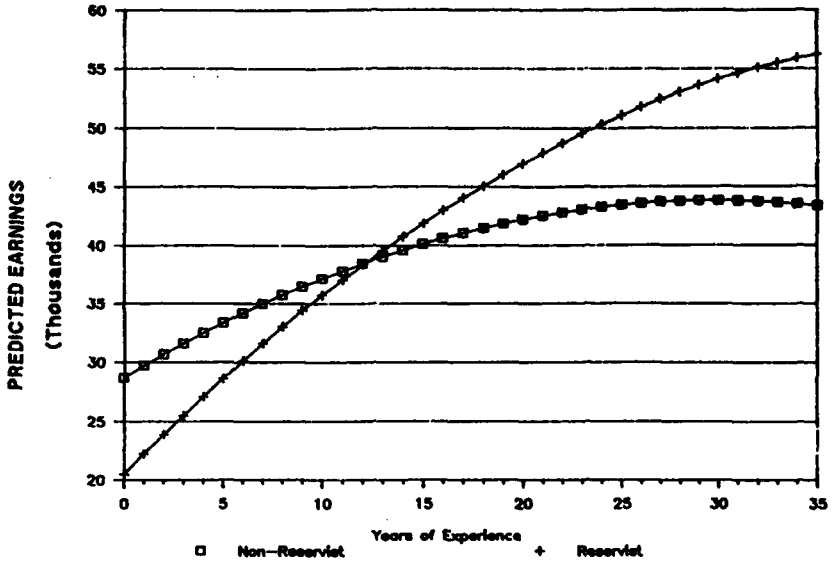


FIGURE 2-20. CIVILIAN EARNINGS PROFILE: OFFICERS
SOURCE: SYLLOGISTICS

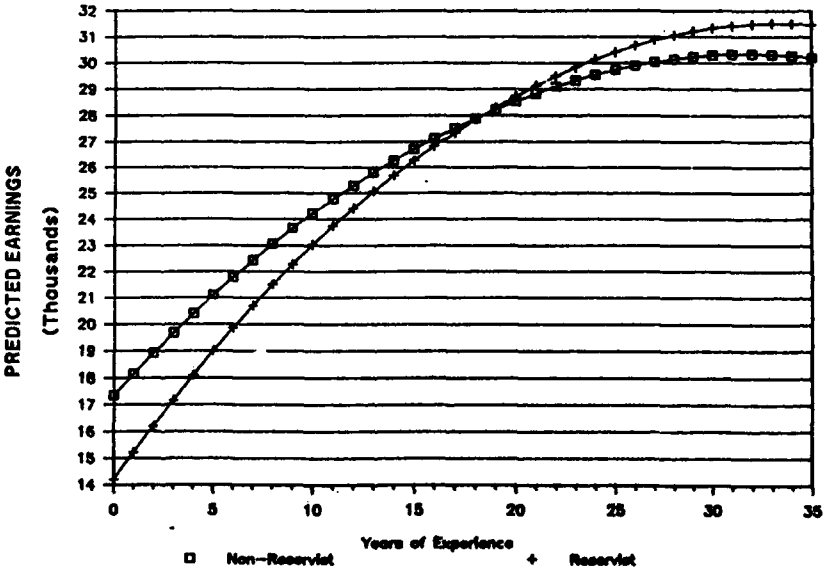


FIGURE 2-21. CIVILIAN EARNINGS PROFILE: ENLISTED
SOURCE: SYLLOGISTICS

participation and higher than that of civilian counterparts in the later years. The crossover point for enlisted members occurs at 18 years of service. For officers, the crossover point occurs after 12 years of military service. No cause and effect relation between earnings and Reserve participation necessarily affect these patterns. Instead, results could be largely attributable to sorting or selection patterns related to military affiliation and retention.

There is a well-documented income disadvantage for military veterans during their early years in the civilian labor force, with a similar crossover. The generally accepted reason for the crossover is that military service acts as a screening device that selects more capable individuals. Over the long run, veterans are able to overcome the disadvantages initially caused by delayed entry into the civilian labor market. Another reason relating to prior service may be the general transferability of both the work skills and the leadership skills acquired while in military service.

In addition to income disadvantages that reservists with prior service may suffer due to the later entry of many into the civilian labor market, they may also have their income reduced as a result of lost time from civilian employment and lost overtime opportunities. The income reduction suffered by reservists is strongly dependent upon the paid leave policy of reservists' employers.

Employer Support and Conflicts

Employer support for reserve participation plays a significant role in reserve retention. Employer support includes a number of items, such as whether the reservist is provided military leave (as the law requires) or uses vacation time for reserve obligations and whether the employer provides full or part pay for the reservist during military leave. The employer's and supervisor's attitude toward reserve participation are also important. The minimum standard required by federal law for all employees is an unpaid leave of absence for reserve training obligations. Data from the 1986 Reserve Components Survey is limited to the reservist's perceptions concerning the employer and is not necessarily an accurate reflection of employer policies and attitudes. However, a limited employer survey to discover benefits (Hay Huggins), an informal survey of personnel managers of selected large companies (Syllogistics), and data from the Bureau of Labor Statistics, all tend to confirm reservists' observations in general.

Some kinds of civilian occupations are more likely than others to give rise to work-schedule conflict, as are some kinds of reserve duty. Reservists employed in industries with around-the-clock coverage may have rotating or changing work schedules;

these schedules are more likely to conflict with regularly scheduled reserve training than is the traditional nine-to-five, Monday-through-Friday work week. Reservists with irregular schedules include health care workers and public safety workers (police, security guard, fire). Other occupations in businesses that operate outside the traditional work week present the same potential for conflict. Retail sales, food service, transportation (airline, trucking) are among these occupations.

Employment in seasonal industries and industries with variations in workload can present direct schedule conflicts or indirect conflicts (lost-overtime opportunities), especially if the two-week annual training obligation occurs during the peak season or load. Conversely, occupations in some seasonal industries may be less likely than others to present conflicts so long as lengthy training periods occur during the off season. This category of employment would include teachers, students, agricultural laborers, and tax accountants. Table 2-5 shows the percentage distribution of reservists by civilian occupation group.

Reserve duties that take more than 14 days of annual training and 48 drills are increasingly prevalent. These duties may cause conflicts with types of civilian employment that ordinarily would not be expected to conflict with reserve obligations. When a reservist works a traditional work week and uses vacation time to perform annual active duty for training, the employer may not be aware of a conventional reserve obligation. The reservist's difficulty in getting time off, and the employer's difficulty in allowing this time off, increases with the length and amount of duty required, as Table 2-6 shows.

Civilian Pay During Annual Training

An indication of the amount of employer support can be measured by the percentage of employers who pay full wages during the two weeks of annual training. Most government employers have this policy and the policy is encouraged by the DoD. Federal employees with reserve affiliations are entitled to 15 days paid leave per year to perform military duty. Many states also provide for paid leaves of absence of varying lengths for state, local, and municipal employees with reserve obligations.

Among private employers, the likelihood of the employer having a paid leave-of-absence policy is directly related to employer size. Even among large- and medium-size companies that do have a paid leave-of-absence policy, executive and professional employees are more likely to receive paid leave than are production employees, and leave is typically for longer periods of time.[20]

Table 2-5. Civilian Occupation, 1985: Enlisted Personnel

Civilian Occupation, 1985	Reserve Component						Total DoD	USCGR	Total Selected Reserve
	ARNG	USAR	USNR	USMCR	ANG	USAFR			
Administrative & managerial	5.2%	6.9%	7.8%	8.0%	8.2%	8.3%	6.5%	10.8%	6.5%
Management related occs	1.3	2.7	2.9	1.3	3.3	4.4	2.3	4.5	2.3
Prof., sci. & specialty	3.5	4.3	8.1	3.1	6.4	6.3	4.7	8.4	4.7
Teachers & ed. admin	1.6	2.3	2.1	1.2	2.7	2.1	2.0	2.5	2.0
Health tech. & technicians	4.5	5.7	8.5	4.9	10.6	10.5	6.3	7.5	6.3
Sales	6.4	7.6	7.6	10.7	8.4	6.7	7.2	7.6	7.2
Admin. supp. cler. (ex. postal)	5.9	10.1	10.0	7.1	9.4	13.3	8.3	8.4	8.3
Protective service	6.6	7.4	5.2	10.6	8.9	7.8	7.1	22.0	7.3
Postal	0.9	1.5	1.3	0.8	1.6	2.5	1.3	1.4	1.3
Food services	3.4	4.0	2.0	5.5	1.8	1.4	3.2	1.8	3.2
Service occs. (ex. protective)	5.2	5.8	4.1	3.9	2.6	3.5	4.8	1.9	4.7
Farm & mine workers	3.5	1.6	1.0	2.6	1.5	0.6	2.3	1.3	2.3
Mechanics & repairers	9.0	7.5	9.2	6.4	9.4	9.5	8.6	6.0	8.6
Construction workers	9.5	6.6	8.1	9.7	6.5	5.1	8.1	4.6	8.0
Precision production workers	4.0	3.3	4.7	3.8	3.5	4.0	3.9	3.1	3.9
Machine ops., assemb. & inspec.	12.0	8.9	7.8	8.0	6.0	6.1	9.6	3.4	9.5
Motor vehicle operators	5.2	4.8	2.7	4.3	3.5	2.6	4.4	1.4	4.4
Oth. transp. & material moving ops.	2.4	1.8	1.9	1.4	1.4	1.1	1.9	1.3	1.9
Oth. handlers, helpers & labor.	9.9	7.2	5.0	8.7	4.4	4.2	7.7	2.2	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Cases	16315	7961	4004	2792	4555	2492	38119	1838	39957
Total Personnel (in 1000's)	278	168	83	27	64	42	662	10	672

Source: Description of Officers and Enlisted Personnel in the U.S. Selected Reserve: 1986
Research Triangle Institute

Table 2-6. Paid military leave: Percent of full-time employees by number of paid military leave days available per year, medium and large firms, 1986

	All Employees	Professional Administrative Employees	Technical and Clerical Employees	Production Employees
	%	%	%	%
5 days	1	1	2	*
6-9 days	*	-	*	-
10 day	39	42	40	37
11-14 days	4	4	5	3
15 days	3	3	3	2
16-29 days	2	2	3	2
30 days	1	2	2	1
More than 30 days	*	*	*	*
No maximum specified **	16	19	17	14
Number of days not available	*	*	*	*
Provided Paid Military Leave	66	74	72	58
Not Provided Paid Military Leave	34	26	28	42
Total	100	100	100	100

* Less than 0.5 percent.
** Military leave is provided as needed.

NOTE: Because of rounding, sum of individual items may not equal totals. Dash indicates no employees in this category.

Source: Employee Benefits in Medium and Large Firms, 1986, BLS.

Syllogistics' informal survey of personnel managers of large, well-known corporations indicates a trend, among employers considered to be supportive of reserve participation, to cut back on paid leave policies. The reasons given for planning to cut back were not directly related to reserve affiliation, but were due to a desire to scale back benefits generally under the business conditions of the 1980s and to have more uniform benefit practices within the company.[21]

A higher percentage of officers who are employed full-time receive full civilian pay during annual training than do enlisted members. For both officers and enlisted members who are employed full-time, the percentage who receive full pay during annual training increases as pay grade increases. Figure 2-22 shows the percentage of members employed full-time who reported receiving full civilian pay as well as military pay

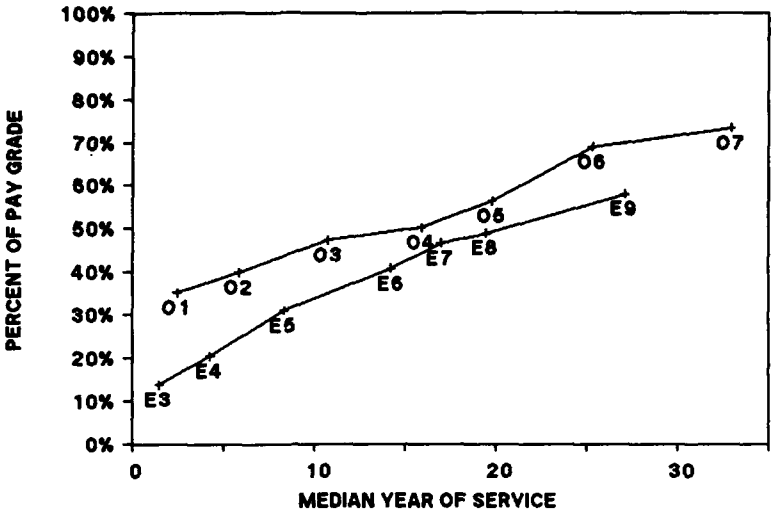


FIGURE 2-22. RECEIVED FULL CIVILIAN PAY DURING RESERVE OBLIGATION (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

during time taken from their civilian job for reserve obligations.[22] For enlisted members, the percentage is 20 percent or less for members in pay grade E4 and lower, and increases to approximately 50 percent for members in the senior enlisted pay grades. For officers, the percentage is approximately 40 percent for members in pay grades O1 and O2, and increases to 70 percent for the senior pay grades.

Figure 2-23 shows the percentage of reservists who received full civilian pay from their nongovernment full-time employers during annual training. Figure 2-24 shows a similar percentage for reservists whose full-time civilian employment is with the government.

Paid leave is a major indicator of employer support. Although not the only factor, it may reflect an employer's overall attitude toward reserve participation. There are several possible interpretations of the data from the 1986 Reserve Components Surveys: highly motivated reservists may seek out supportive employers as their careers progress, reservists employed by supportive employers may continue to participate, and other reservists with less supportive employers may tend to leave the reserve.

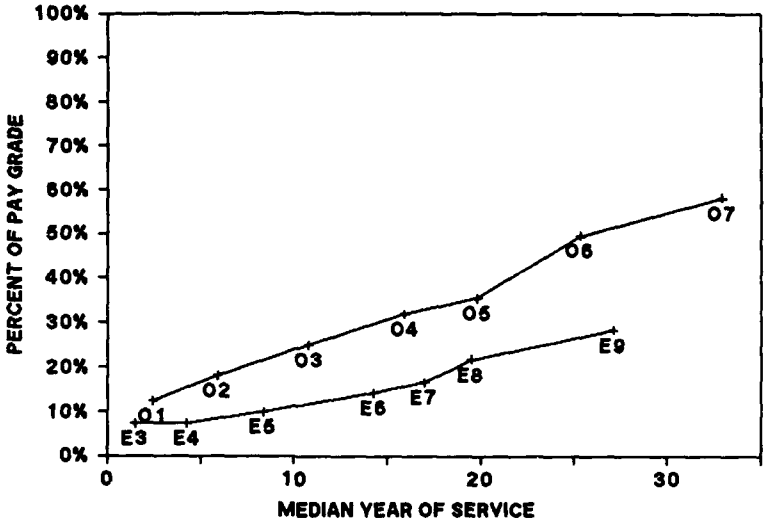


FIGURE 2-23. RECEIVED FULL CIVILIAN PAY DURING RESERVE OBLIGATION (FULL-TIME EMPLOYED WITH PRIVATE FIRM) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

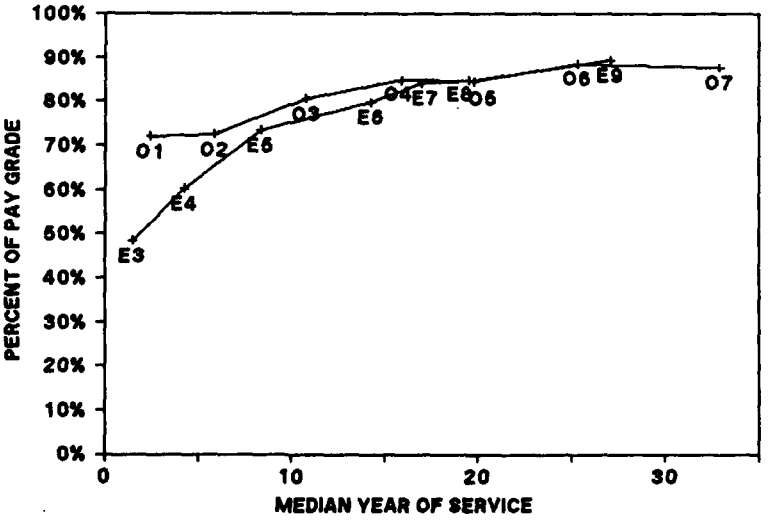


FIGURE 2-24. RECEIVED FULL CIVILIAN PAY DURING RESERVE OBLIGATION (FULL-TIME EMPLOYED WITH GOVERNMENT EMPLOYER) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

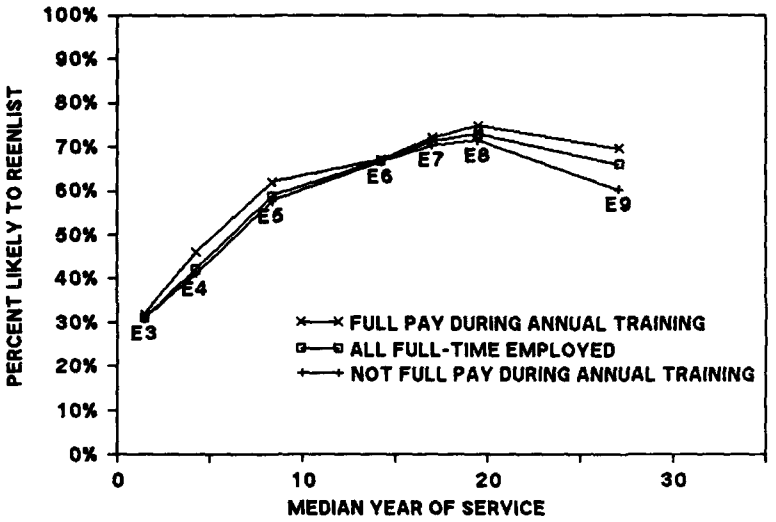


FIGURE 2-25. INTENT TO REENLIST (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Data from the 1986 Reserve Components Surveys indicates that reservists with full-time employment who receive full civilian pay during annual training will be 6 percent more likely to reenlist than reservists who do not receive it. Figure 2-25 shows the intent to reenlist for each enlisted pay grade for 1) reservists who are employed full-time and receive full civilian pay during annual training, 2) all reservists who are employed full-time, and 3) reservists who are employed full-time but do not receive full civilian pay during annual training.[23]

Enlisted and junior members will, holding all other factors constant, be more difficult to retain due to the comparatively low percentage who receive full pay during annual training, as compared to the percentage of officers and senior members who receive full pay during annual training.

Lost Overtime/Extra Pay Opportunities

Reserve members who lose opportunities for overtime pay or lose other extra pay opportunities because of reserve obligations have a lower level of satisfaction with reserve pay, are less satisfied with the Guard and Reserve overall, and have a lower likelihood of reenlisting than do members who

occasionally or never lose extra pay opportunities. For members with equivalent years of service, twice the percentage of enlisted members lose opportunities for extra pay as do officers. For both officers and enlisted members, a higher percentage of junior members lose opportunities for extra pay than do senior members. The percentage of members who lose extra pay opportunities also varies among the components.

Members who frequently lose civilian pay opportunities are less satisfied with reserve pay and allowances and are less satisfied overall with their participation in the Guard and Reserve. The left half of Figure 2-26 shows the level of satisfaction with reserve pay and allowances for all enlisted reserve members, grouped by the frequency (frequently, occasionally, never) of their lost extra pay opportunities. The left bar in each group shows the percent who are satisfied with reserve pay and allowances. The bar on the right shows the percent who are dissatisfied.[24] Members who frequently lost extra pay opportunities reported the lowest satisfaction with reserve pay and the highest dissatisfaction with reserve pay. The opposite is true for members who never lost extra pay opportunities. The right half of the figure shows an almost identical pattern for members' overall satisfaction/dissatisfaction with the Guard and Reserve. The same pattern is repeated in Figure 2-27 for members in pay grades E1 through E4; however, members in these pay grades showed less satisfaction and more dissatisfaction than those in the other figures.

Members who frequently lose extra pay opportunities also are less likely to reenlist or extend at the end of their current enlistment than are other members. Figure 2-28 shows a member's likelihood of reenlistment, grouped by the frequency of lost extra pay opportunities. There are relatively small differences in the intent to reenlist when comparing the groups with occasional or no lost extra pay opportunities (the middle and right groups). However, a much higher percentage of members with frequent lost opportunities (the left group) reported their intent to reenlist as slight to none and a lower percentage reported their intent as high to certain.

Over 50,000 members in pay grades E1 through E4 reported frequent lost extra pay opportunities. Figure 2-29 shows the number of members, in three pay grade groupings, who reported lost extra pay opportunities as frequent, occasional, and never. Moreover, twice the percentage of enlisted members reported frequent lost pay opportunities compared with the percentage of officers. Of members who are employed full-time, approximately 20 percent of enlisted members in pay grades below E5, and 10 percent of officers in pay grades below O3, reported frequent lost extra pay opportunities. For senior members these percentages are about half as large.

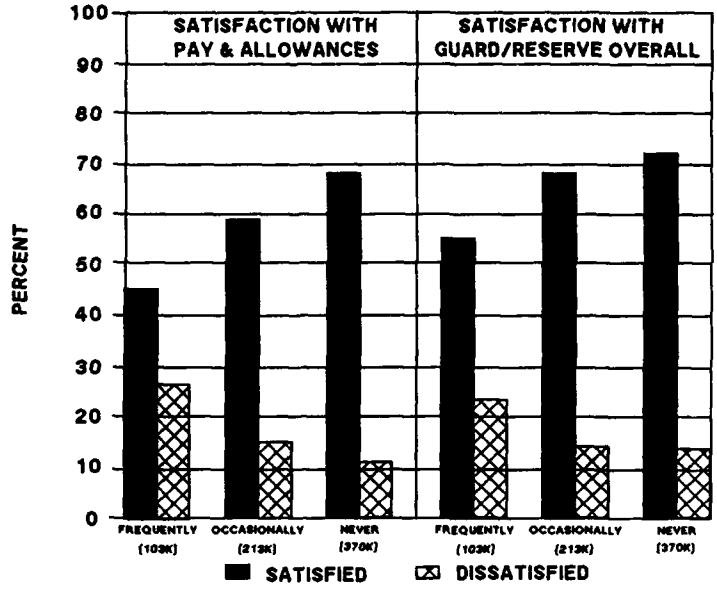


FIGURE 2-26. LOST PAY OPPORTUNITIES - ENLISTED RESERVISTS
SOURCE: 1986 RESERVE COMPONENTS SURVEYS

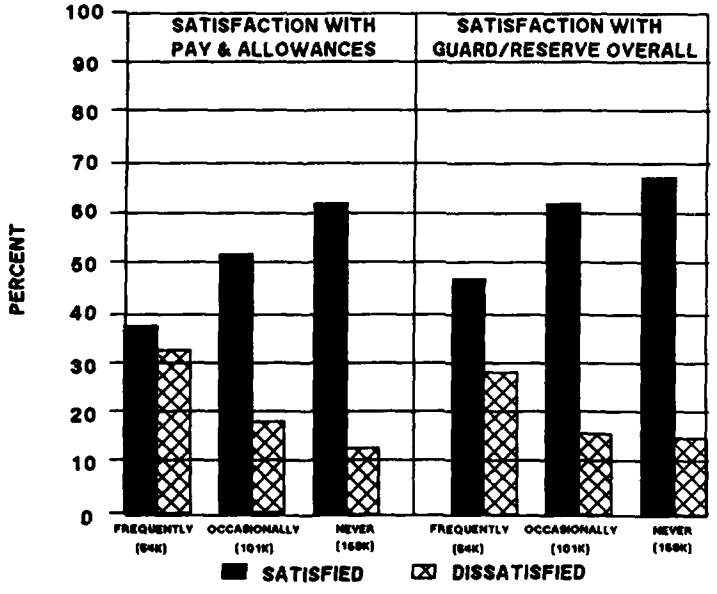


FIGURE 2-27. LOST CIVILIAN PAY OPPORTUNITIES - PAY GRADES E1-E4
SCURCE: 1986 RESERVE COMPONENTS SURVEYS

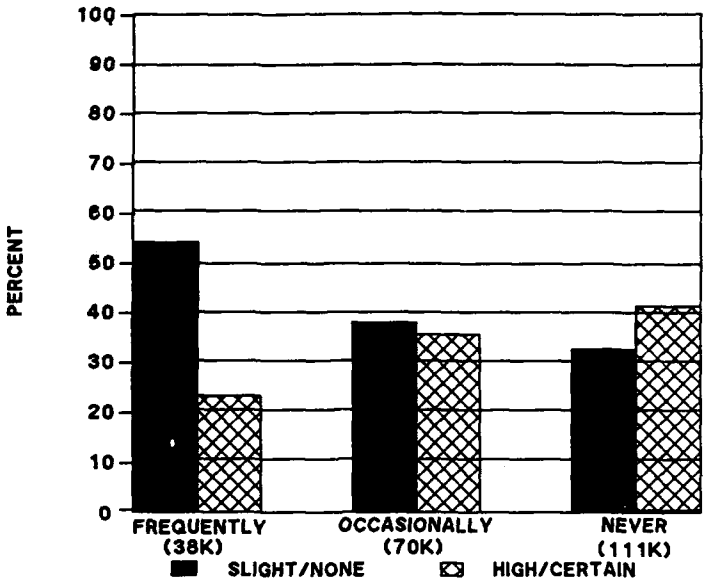


FIGURE 2-28. PROBABILITY OF REENLISTMENT BY EXTENT LOST CIVILIAN PAY OPPORTUNITIES

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

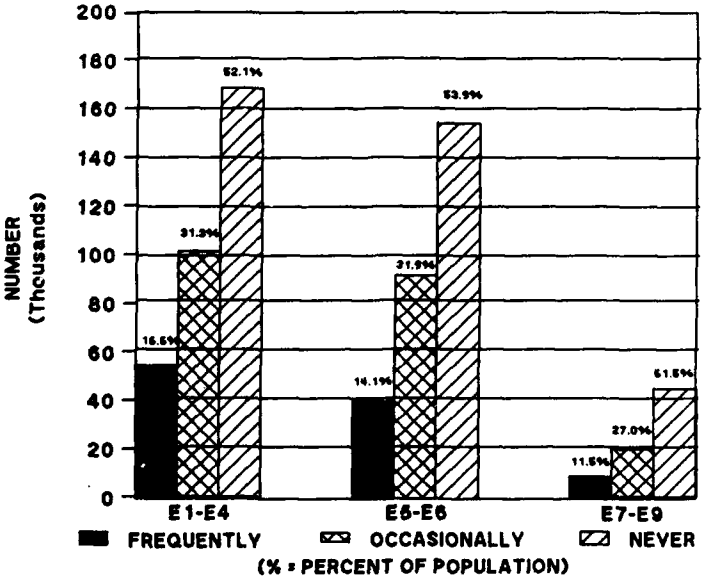


FIGURE 2-29. LOST CIVILIAN PAY OPPORTUNITIES - ENLISTED RESERVISTS

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

As shown in Table 2-7 for members in pay grades E5 and E6, the percentage of members losing extra pay opportunities varies substantially among the components. The Marine Corps and Army National Guard have the highest percentage of members with frequent loses; the Coast Guard Reserve and Air National Guard have the lowest percentage.

Table 2-7. Lost Pay Opportunities (%) - Pay Grades E5-E6.

COMPONENT	FREQUENTLY	OCCASIONALLY	NEVER
Army National Guard	16.3	33.3	50.4
Army Reserve	13.3	32.3	54.5
Naval Reserve	12.7	32.6	54.6
Marine Corps	18.3	35.0	46.6
Air National Guard	11.5	30.8	57.6
Air Force Reserve	13.1	30.4	56.5
Coast Guard Reserve	7.9	28.9	63.3

Source: 1986 Reserve Component Surveys

It is apparent from the survey information that members who frequently lose extra pay opportunities, mostly enlisted or junior members, are more difficult to retain. This is not necessarily reflective of the level of employer support. It may be more reflective of the nature of the civilian employment and work schedule. Whatever the cause, it dramatically illustrates the effect of civilian employment variables on reserve retention.

Unpaid Hours

A considerable number of unpaid hours are spent by reserve members at their drill location or place of regular duty. According to the information reported in the 1986 Reserve Components Surveys, the amount of time varies significantly by component, by pay grade, and by individuals within a pay grade.

Figure 2-30 shows, for each pay grade, the median number of unpaid hours per month as reported in the survey. The amount of time increases with pay grade and, except for the more senior pay grades, officers report more unpaid hours than enlisted members (this exception occurs only in the Army components).

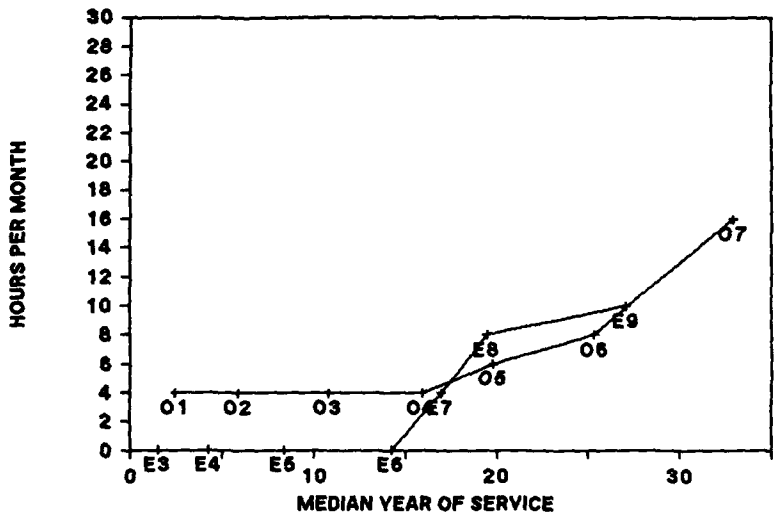


FIGURE 2-30. MEDIAN UNPAID HOURS (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

The variability of the number of unpaid hours for members within a pay grade is shown in Figures 2-31 and 2-32. These figures show the number of unpaid hours performed by members at the 25th, 50th, and 75th percentiles. For example, although the typical officer in pay grade O4 or below spends four hours a month in unpaid time, at least 25 percent spend no extra time and 25 percent spend 12 or more hours each month.

Figures showing the variability in the number of unpaid hours for members in each of the components are in Appendix D. For comparison, each figure also includes the all-components 50th percentile from the Figure 2-30. Army officers and senior enlisted members report more unpaid hours than is typical for all components together, as do Marine Corps officers and senior Coast Guard members. Officers and enlisted members of all other components report fewer unpaid hours than typical.

The effect of unpaid hours can be estimated with some simple assumptions. Assuming a 40-hour paid work week during annual training and four hours per drill, the effect of four hours of unpaid time per month (typical for officers in pay grade O4 and below) is a 15 percent decrease in pay. At eight hours of

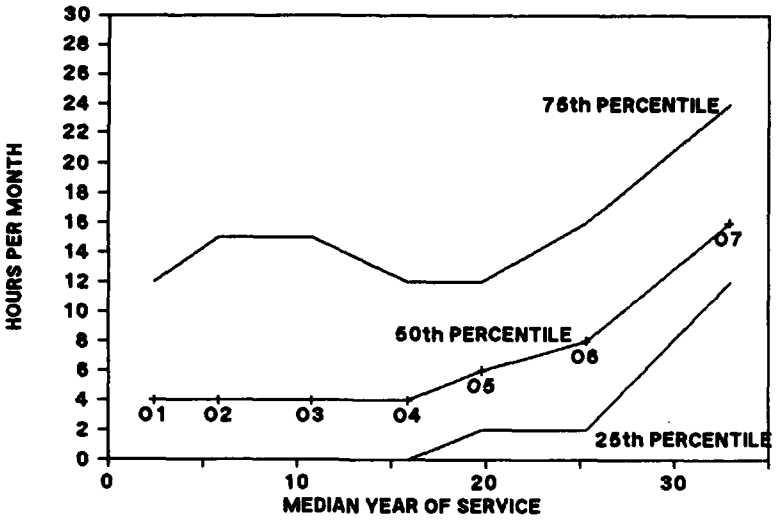


FIGURE 2-31. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

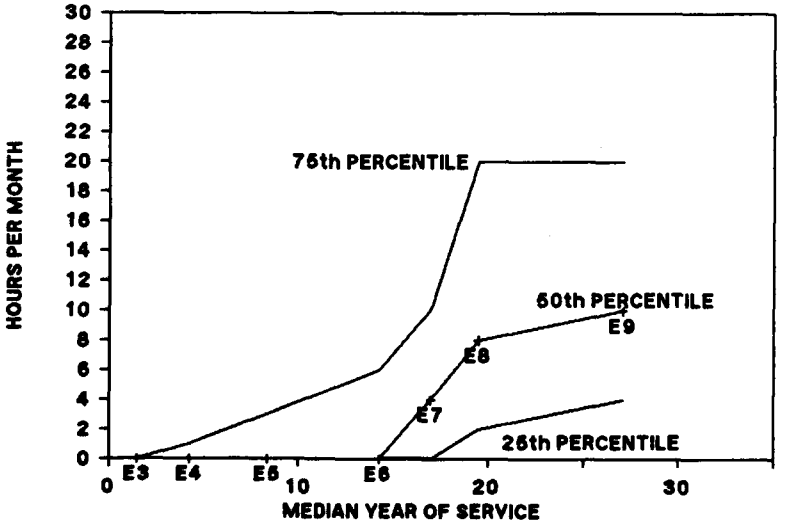


FIGURE 2-32. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

unpaid time per month, which is typical for senior officers and enlisted members, the effect is the same as a 30 percent decrease in hourly pay.

The Conflicts of Two Jobs

The conflicts civilians have when they hold down two jobs exist for reservists too, but reservists do not have the same choices civilians typically make. If civilian part-time employment conflicts with the primary job, most people will either take a different part-time job or work only at the primary job, rather than jeopardize the primary job and source of income. Similarly, unless the income from part-time employment is necessary to meet current obligations, most people would change or terminate their part-time employment rather than sacrifice time with their family. By contrast, reservists are frequently required to take a leave of absence from their primary employment or to leave their families in order to meet their reserve obligation.[25] If faced with an ultimatum from the employer (as many reservists are), reservists must choose between their primary employment and, for example, a training period that was inconveniently rescheduled at the last minute. The reservist is required to choose the reserve obligation; however, when the military obligation expires, the reservist may choose to leave the reserve component to avoid future conflict with the primary employer.

Spousal Support

The significance of the spouse's attitude toward continued reserve participation is an important issue. The data from the 1986 Reserve Components Surveys show that one-half to three-quarters of reservists feel that insufficient time is spent on family activities and leisure time.[26] The 1978 RAND Exit Survey indicated that family matters are as significant a factor as employer attitude in the matter of member continuation. Evaluation of data from the 1986 Reserve Components Surveys shows that the attitude of the spouse is second only to retirement as a predictor of enlisted reserve participation.

There is a definite relationship (not necessarily causal) between a member's intent to reenlist and the spouse's attitude. Roughly, 75 percent of all spouses have a favorable attitude toward the member's participation in the reserves, the proportion is somewhat lower for junior members and somewhat higher for senior members. Figure 2-33 shows, for each pay grade, the spouse's overall attitude toward the member's participation in the reserve.[27]

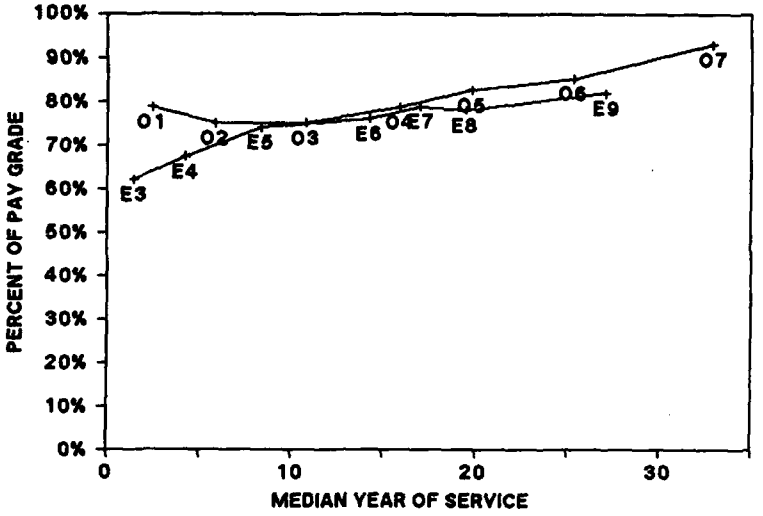


FIGURE 2-33. SPOUSE WITH FAVORABLE ATTITUDE (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

The member's intent to reenlist is substantially lower for members with a spouse whose attitude is unfavorable toward participation. In Figure 2-34, for each enlisted pay grade, the member's intent to reenlist is shown for members with spouses who have a favorable attitude, for all members with spouses, and for members with spouses who have an unfavorable attitude.[28]

Few members are married when they join the reserves; however, most of the more senior members are married. Figure 2-35, shows for each pay grade, the percentage of reserve members who have dependents.[29]

Although it is not clear whether unfavorable spousal attitude is the cause of low intent to reenlist, or whether the spouse's attitude is a result of the member's dissatisfaction, it is clear that the spouse is an important factor in the reservist's participation decision.

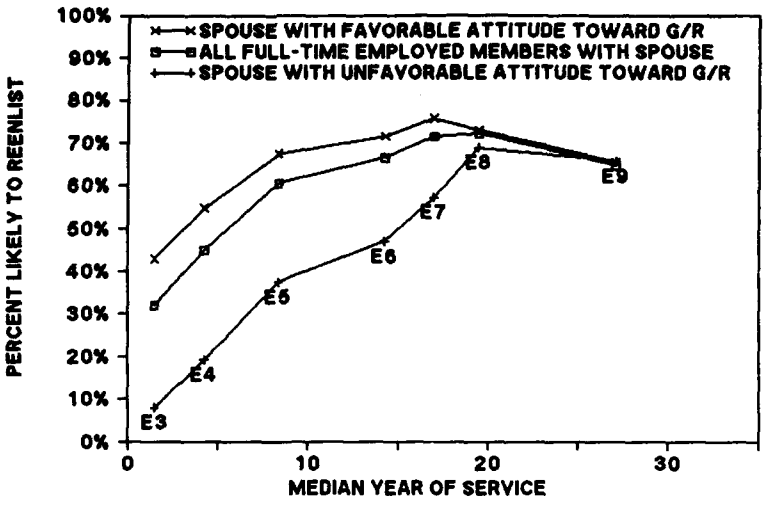


FIGURE 2-34. INTENT TO REENLIST (FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

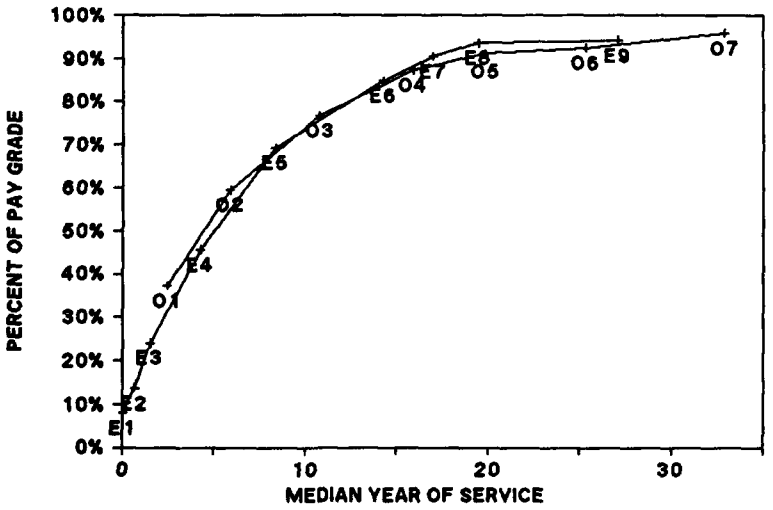


FIGURE 2-35. MEMBERS WITH DEPENDENTS
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

Members in Transition

Junior members are in a transition period of their lives. This fact has considerable impact on the ability of the reserve components to retain trained members, particularly since conflicts with civilian employers and spouses have been shown to be the two leading reasons for reservists leaving at their end of term.[30]

There is transition occurring in members' primary employment status. As shown in Figure 2-4, half the members with one or two years of service are employed full-time or are self-employed;[31] however, the percentage increases to 70 percent for members with five years of service and to 80 percent for members with 10 years of service. Approximately 90 percent of all reservists with more than 10 years of service have full-time employment outside the reserves. Furthermore, a 1979 study by the RAND Corporation found that, of members who were employed when they joined the reserves, 50 percent did not return to the same employer upon completion of initial training.[32] Finally, data shows that annual turnover rates for full-time jobs are 36.4 percent for the 18-24 year old group.[33]

New employers may have differing policies and attitudes toward reserve participation. New employment may alter members' need for supplemental income and their availability for reserve participation. Finally, new primary employment may require a geographical move to a location less convenient to reserve participation.

A similar transition is taking place in their personal lives. As shown in Figure 2-35, fewer than half the junior members have dependents; however, the percentage increases to over 70 percent at 10 years of service and to 90 percent for members with more than 20 years of service. As was noted in the previous section, the attitude of the spouse is an important factor in reserve participation. Also, the reservist's attitude toward the time requirements of reserve participation may change after marriage.

Recruiting from the population that is in transition leaves the reserves vulnerable to high attrition of newly trained members, because either a new civilian career or new dependents may result in situations less conducive to reserve participation.

Impact of the Environment

The compensation system for the reserve components must be effective in an environment that is for more heterogeneous than the environment of the active component system. The environment is more hostile for enlisted and junior members than for

officers and senior members. The situation is further compounded for junior members because most are in a transition period of their lives.

The environment for reserve members is more varied than it is for active component members because much of an individual's lifestyle is driven by that individual's primary employment. The primary employment of all active component members is, of course, active duty service. Primary employment for reservists varies among individuals and, over time, may vary for a specific individual. The need for supplemental benefits from reserve service varies, depending on the benefits of a member's primary employment. Furthermore, sacrifices due to a reserve service commitment vary with the individual's situation and change as the individual's situation changes.

Elements of the civilian environment are less conducive to the retention of enlisted and/or junior members. Employer attitude is less supportive of reserve participation for enlisted and junior members. Civilian income supplemental opportunities occur more frequently for enlisted and junior members. There is evidence that reserve service is detrimental to the primary employment income opportunities of enlisted members, whereas it may be beneficial to officers.

The lives of junior members are changing in many ways, and these changes have an influence on members' inclination toward reserve service. The majority of junior reserve members have a change in primary employment immediately or within a few years of joining their component. Similarly, the majority of junior members marry within a few years of joining the reserves. Members' inclination toward reserve service may change as a result of either or both of these factors.

In the next chapter we review the effectiveness of the reserve compensation system in confronting the challenge of attracting and retaining reserve component members.

Notes

1. The emphasis of the analysis is on part-time Selected Reserve members; therefore, unless otherwise specified, the data excludes AGR/TARs and military technicians. IMAs are also excluded since their training schedule often differs from that of other members. Most figures present information in graphic form and show the median for each pay grade. Appendix A contains a discussion of the median year of service for each pay grade. For convenience, only data for officers in pay grades O1-O7 and enlisted members in pay grades E1-E9 is shown on graphs tables and cited in the discussion in Chapters 2 and 3 and Appendices B through D. Appendix E includes figures for warrant officers (pay grades W1-W4).

2. See John W. Brinkerhoff and David W. Grissmer, "The Reserve Forces in an All-Volunteer Environment," in William Bowman, Roger Little, and G. Thomas Sicilia, eds., The All-Volunteer Force After a Decade (McLean, Virginia: Pergamon-Brassey's 1986), pp. 206-229. This article contains citations for the Air Force-sponsored studies and a summary of the features of reserve participation that distinguish it from other secondary labor market participation.

3. The discussion on motivation for reserve service is from 6th QRMC Report, Volume IB, Chapter 5.

4. Local Area Supply of Non-prior Service Reserve and Active Duty Enlistments, RAND Corporation, October 1986.

5. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Questions 93 and 97.

6. Department of Defense, Special Assistant for Policy Studies, ODASD (MPP) Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs), Career Motivation in the Ready Reserve, June 1969, pp. 38-39.

7. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Questions 93 and 97. Also see appendix B. While the amount of detail available from the earlier survey is quite limited and the results are more likely to be contaminated by sample and response error than the 1986 Reserve Components Surveys, we believe margin trends identified to be valid.

8. A set of rules for editing, correcting, and imputing civilian income variables reported in the 1986 Reserve Components Surveys was developed by the RAND Corporation for the 6th QRMC. RAND created civilian income and related variables which were incorporated in the 1986 Reserve Components Surveys database by the Defense Manpower Data Center. A RAND note

documenting the variables and presenting income characteristics of reserve officers and enlisted members and their households is included in Volume III of the QRMC report.

9. Susan Marquis and Sheila Nataraj Kirby, Economic Factors in Reserve Attrition: Prior Service Individuals in the Army National Guard and Reserve, RAND Corporation WD-3795-RA, forthcoming.

10. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Questions 93, 97, and 108. Pay grades not shown have insufficient data.

11. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Questions 93, 97, and 108. Pay grades not shown have insufficient data.

12. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Questions 93, 97, and 108. Reserve pay computed as RMC (See Appendix C for details of RMC computations) for 14 days of ADT and 48 periods of IDT. Pay grades not shown have insufficient data.

13. Department of Defense, Special Assistant for Policy Studies, ODASD (MPP) Office of the Assistant Secretary of Defense (Manpower and Reserve Affairs), Career Motivation in the Ready Reserve, June 1969, pp. 28, 29.

14. Ibid. p. 7.

15. The average CPI-U was 34.8 for 1968 and 107.6 for 1985, Bureau of Labor Statistics.

16. Only members who are employed in full-time civilian jobs have been included. In many of the discussions in this chapter, data from the 1986 Reserve Components Survey is restricted to evaluation of these members. These members have the greatest potential for conflict with their civilian employment and, therefore, should bear the most scrutiny. Since the great majority of members fall into this category, the figures would change little if all members were included.

17. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Respondents with full-time civilian employment were considered as having the federal government retain all FICA taxes from their reserve income if their total income was less than the 1986 FICA ceiling of $42,000.

18. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Question 26j asked respondents to estimate the contribution that extra money to use now had in

their most recent decision to stay in the Guard/Reserve. Of members in pay grades E5-E7 with income less than the FICA maximum, 62 percent said it was a "moderate" or "major" contribution, whereas only 47 percent of members in the same pay grades with income over the FICA maximum responded in that manner.

19. Analysis of Selected Reserve Compensation and Retention, Syllogistics, Inc., MDA 903-87-C-0647, Jan 26, 1988, pp. 2-17, reprinted in Volume III of the 6th QRMC report.

20. Bureau of Labor Statistics, Department of Labor.

21. Analysis of Selected Reserve Compensation and Retention, Syllogistics, Inc., MDA 903-87-C-0647, Jan 26, 1988, p. 3-13, reprinted in Volume III of the 6th QRMC report.

22. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Question 107.

23. 1986 Reserve Components Surveys: Selected Reserve Enlisted Personnel. A member was considered as intending to reenlist or extend if question 18 was marked as 70 percent or above.

24. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. A member was considered to be satisfied with pay if question 123a was marked "Satisfied" or "Very satisfied." The member was considered dissatisfied if the question was marked "Very dissatisfied" or "Dissatisfied."

25. Federal law forbids employers from penalizing reservist employees because of such absences from employment. Many states afford similar protection.

26. David W. Grissmer, Richard Buddin, Sheila Nataraj Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Issues, The RAND Corporation., R-3669-FM&P/RA, forthcoming, p. 57.

27. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. The spouse's attitude was considered as favorable if question 88 was marked "Very favorable" or "Somewhat favorable."

28. 1986 Reserve Components Surveys: Selected Reserve Enlisted Personnel. A member was considered as intending to reenlist or extend if question 18 on the was marked 70 percent or above. Similar data is not available for officers.

29. 1986 RCCPDS.

30. B. K. Burright, D. W. Grissmer, and Z. D. Doering, A Model of Reenlistment Decisions of Army National Guardsmen, R-2866-MRAL, The RAND Corporation., October 1982.

31. Junior pay grade survey data, especially for pay grade E1, is limited because members in training or awaiting initial training were not included in the survey; therefore, the relatively few members who were included may not be representative. The reported data does seem consistent with the trends established in adjacent pay grades, although a slight change in the trend could change the junior pay grade statistics substantially.

32. Statement of Principal Director, Office of Deputy Assistant Secretary of Defense for Guard and Reserve Manpower and Personnel, Hearings on H.R. 2798, Committee on Veterans' Affairs, Serial No. 99-49, 1986, p. 44.

33. S. E. Haber, E. L. Lamas, and G. Green, "A New Method for Estimating Job Separations by Sex and Race," Monthly Labor Review, Vol. 106, No. 6, Bureau of the Census, June 1983.

Chapter 3. THE RESERVE COMPENSATION SYSTEM IN OPERATION

As discussed in the previous chapter, factors in the civilian environment, such as loss of pay and lost opportunities for overtime pay from the member's civilian employment as a result of reserve training obligations, tend to be greater negative factors for enlisted members than for officers. They also tend to be greater negative factors for junior members than for senior members in both enlisted and officer categories. This chapter looks at the compensation system itself.

The Reserve Compensation System

Compensation for the reserve components is an adaptation of the active duty system. In order to allow movement of reservists to and from active duty without disruption it must be compatible with the active duty system. While the appropriate level of military compensation for members on active duty may be debated, comparison with compensation in related systems such as private civilian employment, civil service, etc., does help to establish the military pay levels necessary to be competitive. However, unlike reserve membership, part-time employment in the civilian environment typically makes no long-term demands on individuals and does not require individuals with lengthy training and long experience. In this respect, the reserve compensation environment is unique; compensation for part-time jobs in the civilian environment does not provide a realistic comparison to reserve membership. Active duty comparability studies, together with active duty manning requirements, manpower shortages, and retention indices frequently provide the basis for adjustments to active duty compensation, and the affected elements of reserve compensation automatically change in tandem. Thus additional incentives may be required to ensure reserve manpower needs are met.

In understanding the linkage between the active duty and reserve systems that has been in effect for over 70 years,[1] it is worthwhile to evaluate the parallel characteristics of the two systems and discover where there are unintended differences and effects in the application of active duty system elements to reserve members.

Regular Military Compensation

Regular Military Compensation (RMC) is the measure most frequently used to compare the basic elements of military compensation with other forms of compensation. RMC consists of basic pay, basic allowance for quarters (BAQ), basic allowance for subsistence (BAS), variable housing allowance (VHA), and an imputed tax advantage of the fact that the allowances are not taxable. RMC is the best basis for comparing active duty and reserve compensation because it includes the elements and advantages that are present in both systems but in varying degrees.

RMC for reserve members on active duty for training (ADT) is composed of basic pay, BAQ (paid to members with dependents only), BAS, and the imputed tax advantage of BAQ and BAS. There is no RMC for inactive duty training (IDT) compensation. An equivalent was constructed for the purpose of analysis from compensation for IDT, which is 1/30th of a month's basic pay, subsistence in kind (for some enlisted members, some of the time), and the imputed tax advantage of enlisted subsistence in kind. See Appendix C for additional details of the RMC and RMC equivalent computations and figures showing the elements of RMC for each dependency status and pay grade.

For most reservists, the minimum required annual training consists of approximately 14 days of ADT and 48 periods of IDT. This forms a reasonable benchmark for comparison; however, annual compensation for a specific reservist can vary significantly, depending on additional days of ADT or IDT performed. Unless stated otherwise, 14 ADT days and 48 IDT periods are used in comparisons. Figure 3-1 shows the comparison between median annual reserve income (as reported on the 1986 Reserve Component Surveys) and RMC for 14 days of ADT and 48 periods of IDT. Although many members perform additional paid duty, participation levels of members in pay grade O7 were substantially higher than for other pay grades.

Retirement

To qualify for reserve retirement, an individual must complete 20 years of satisfactory federal service as a member of the uniformed services, the last eight of which must be in a reserve component. For retirement purposes, a satisfactory year is one in which at least 50 retirement points were earned. Reserve retired pay is computed from the total point accumulation.

There are two classes of retirement points: active duty points and inactive duty points. An active duty point is awarded for each day of active duty. An inactive duty point is awarded for each period of IDT. Fifteen additional inactive duty points are awarded annually for reserve membership. There

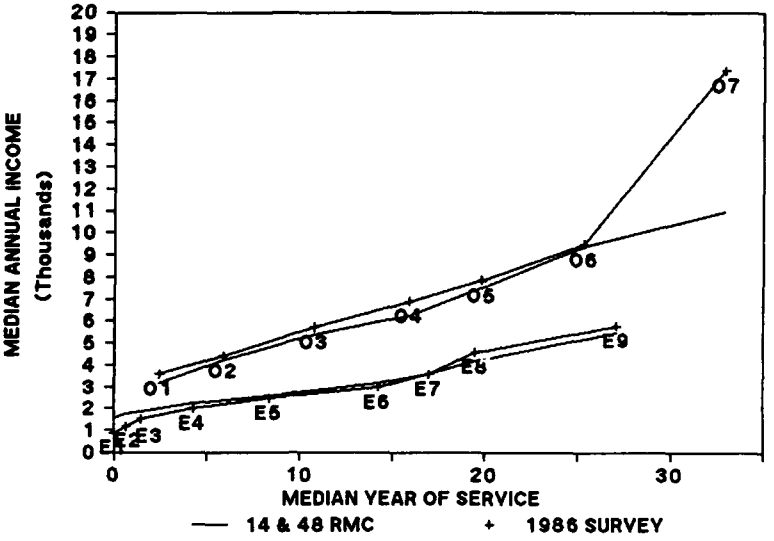


FIGURE 3-1. RESERVE INCOME
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 PAY TABLE & 1986 RESERVE COMPONENTS SURVEYS

are a number of other ways to accumulate inactive duty points; for example, by participating in approved periods of equivalent instruction or by completing accredited correspondence courses. Only 60 inactive duty points may be credited toward retirement each year, but there is no limit to the number of active duty points other than that set by a maximum annual point cap of 365 points.

Entitlement to reserve retired pay begins at age 60. Retired pay is computed as follows:

1. Total the active and inactive points.
2. Divide the points by 360 to determine computed years (and fractions thereof) of service.
3. Multiply computed years of service by 2.5 percent to get pay multiplier (maximum of 75 percent).
4. Establish the pay as the monthly basic pay for the member's grade and years of service at the time of entitlement.
5. Multiply pay by multiplier.[2]

Regular Military Compensation Comparison

Implicit in the tie to the active duty system is the assumption that compensation differentials for grade and length of service are essentially parallel. Although it is generally assumed that the two systems are parallel with respect to the level of compensation paid to a given pay grade, two earlier studies showed this was not the case: a follow-up to the 1st QRMC in 1969 and the Reserve Compensation System Study (RCSS) in 1978. The studies found that the reserve pay system, relative to the active component system, was less advantageous for members in lower pay grades than for members in higher pay grades. The 6th QRMC found essentially the same patterns. In addition, the 6th QRMC found that the environmental factors affecting reservists generally reenforced the comparative differences rather than offsetting them. An analysis performed by the RAND Corporation in support of the 6th QRMC arrived at a similar position. There is no evidence to suggest that the two systems were not intended to be parallel.

Relative Compensation Differences

The relative value of the compensation system, when comparing two pay grades, can be expressed as a ratio. For example, if the RMC of an active duty member in pay grade O6 is twice the RMC for an active member in pay grade O2, then the compensation ratio is 2:1 when using pay grade O2 as a base. Using the active duty compensation system as a standard, the QRMC compared the compensation ratios for reserve compensation with those of active duty compensation, pay grade by pay grade. For example, if the compensation of a reservist in pay grade O6 is twice that of a reservist in pay grade O2, then the reserve system is parallel to the active duty system example shown above. If, however, the compensation of the O6 reservist is 2.2 times that of the O2 reservist, then the system is not parallel; it is "tilted" toward the higher pay grade. In this example, using pay grade O2 as the baseline, the relative value of pay for grade O6 would be 10 percent greater (2 subtracted from 2.2, then divided by 2), due to the tilt, than for pay grade O2.[3] It is important to note that these ratios do not imply overpayment or underpayment; they are merely a method of assessing relative compensation in the system with respect to senior and junior members in the system being compared. In this analysis, a tilt was discovered when comparing the relative value of reserve compensation by pay grade to that of active compensation.

Reserve officer IDT compensation is not parallel to active duty officer RMC; relative to active duty RMC, compensation for IDT is relatively less for officers in junior pay grades than for officers in senior pay grades. Figure 3-2 shows, for each officer pay grade, the percentage that reserve IDT compensation departs from being parallel to active duty RMC for members with

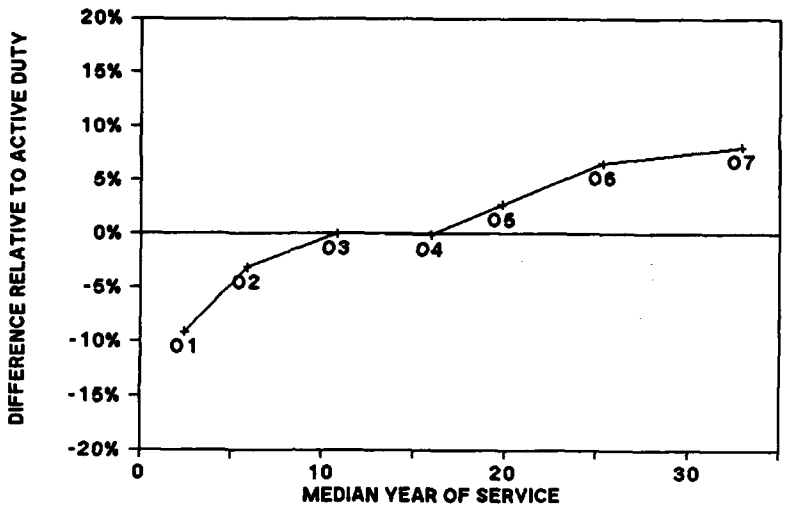


FIGURE 3-2. OFFICER RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITH DEPENDENT (BASELINE = W/DEP O3)

SOURCE: 1986 PAY TABLE

dependents. In this case, pay grade O3 is the baseline active duty pay grade; however, any grade could be used as the baseline to show the relative difference between the reserve and active systems.

Reserve enlisted IDT compensation is not parallel to active duty enlisted RMC; relative to active duty RMC, compensation for IDT is relatively less for enlisted members in junior pay grades than for enlisted members in senior pay grades. Figure 3-3 shows similar percentages for the enlisted pay grades for members with dependents. In this case, E6 is the baseline pay grade. Again, any grade could be used as the baseline to show the relative difference between the reserve and active systems.

Reserve IDT compensation is not parallel to active duty RMC; relative to active duty RMC, compensation for IDT is relatively less for enlisted members than for officers. Figure 3-4 combines the officer and enlisted pay grades for members with dependents and uses E6 as the baseline.

The observed tilt in the relative value of compensation of active duty and IDT occurs because compensation for IDT is directly tied to basic pay: there is a greater relative

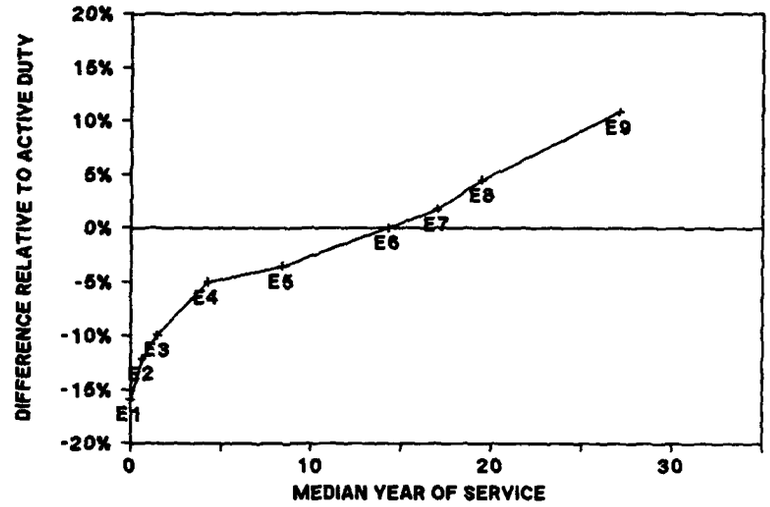


FIGURE 3-3. ENLISTED RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLE

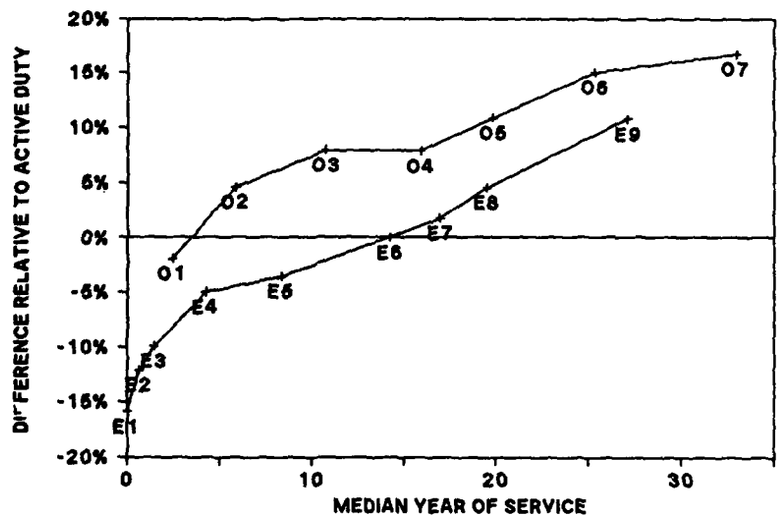


FIGURE 3-4. RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLE

differential in the basic pay of junior and senior grades than there is in the quarters and subsistence allowances. For example, the ratio for basic pay between pay grades O6 and O2 is 2.27:1, the ratio for BAQ is 1.66:1, and the ratio for BAS is 1:1. IDT pay is composed entirely of basic pay and therefore the O6 to O2 ratio for IDT is the same as for basic pay (2.27:1). Active duty RMC is a mix of all three compensation elements, resulting in an O6 to O2 ratio of 2.06:1.

For members without dependents, the quarters allowance structure differs slightly; however, the same pattern remains, as shown in Figure 3-5.

As shown in Figure 3-6, even in the case of reservists on annual ADT or other short periods of active duty there is a tilt, although it is much less pronounced than in the case of IDT. For members with dependents, the tilt results from the fact that reservists on active duty orders specifying periods of less than 140 days do not receive VHA; the tilt is very slight.

For reservists without dependents, the tilt during annual training or other periods of active duty of less than 140 days is greater because no quarters allowances are authorized. See Figure 3-7.

For the reservist who completes the minimum training requirement for training pay category A (about 97.5 percent of trained Selected Reservists are in training pay category A), the IDT/ADT combined pay is also tilted. Figures 3-8 and 3-9 show the tilt in annual income for members who are compensated for 14 ADT days and 48 IDT periods.

Previous Studies

Although few past studies have dealt with reserve compensation, there are two that are important: a follow-up to the 1st QRMC in 1969 (Reserve Forces Compensation for Inactive Duty Training), and the Reserve Compensation System Study completed in 1978. Each study had findings that are relevant to the 6th QRMC's evaluation of reserve compensation.

Reserve Forces Compensation for Inactive Duty Training

The 1st QRMC proposed a salary system for military pay to replace the system of pay and allowances. This proposal raised the question as to how the relationship between pay for inactive duty training and the proposed military salary system would be formed. The Compensation and Career Development Directorate in the Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs completed a comprehensive study of this

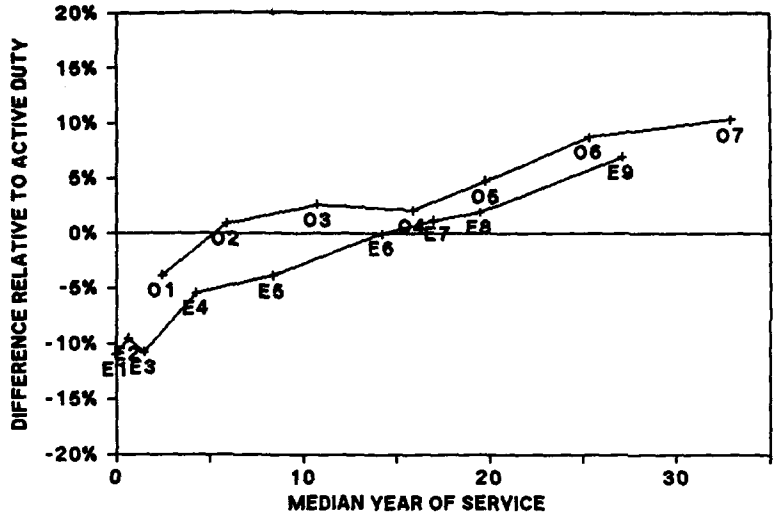


FIGURE 3-5. RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITHOUT DEPENDENT (BASELINE = WO/DEP E6)

SOURCE: 1986 PAY TABLE

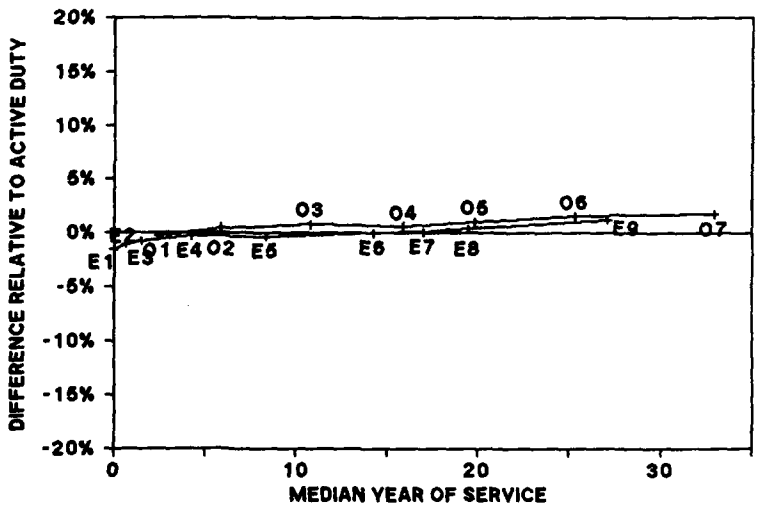


FIGURE 3-6. RELATIVE COMPENSATION: ANNUAL TRAINING WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLE

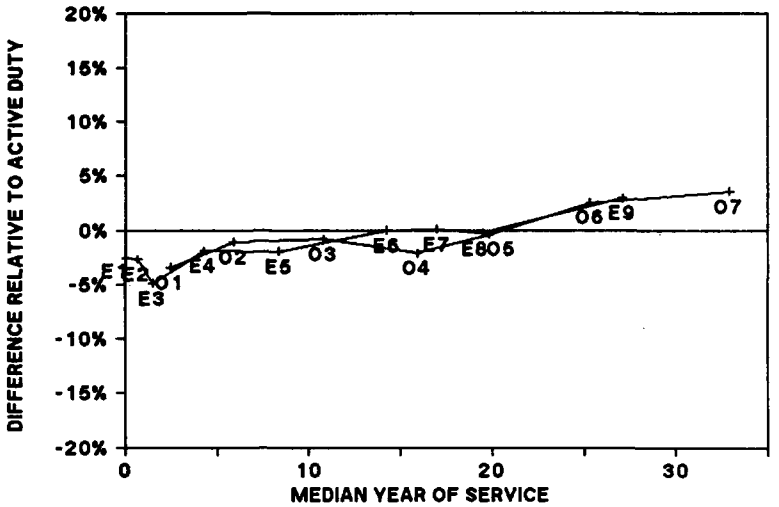


FIGURE 3-7. RELATIVE COMPENSATION: ANNUAL TRAINING WITHOUT DEPENDENT (BASELINE = WO/DEP E6)

SOURCE: 1986 PAY TABLE

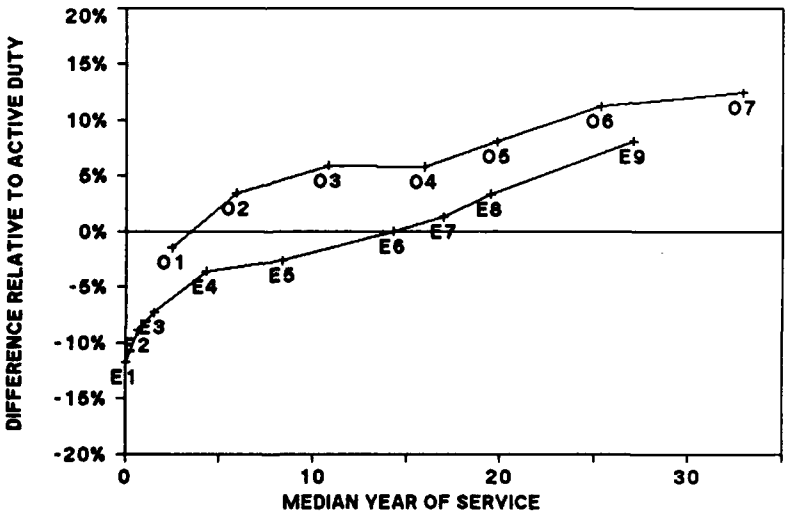


FIGURE 3-8. RELATIVE COMPENSATION: 14 AT & 48 IDT WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLE

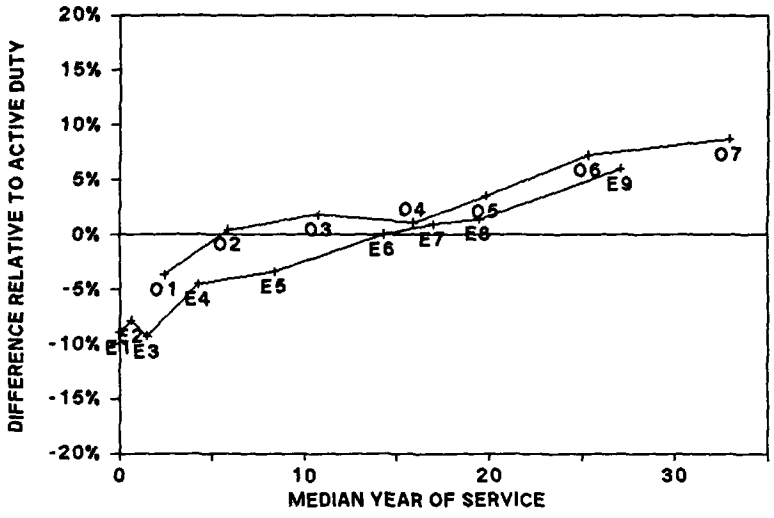


FIGURE 3-9. RELATIVE COMPENSATION: 14 AT & 48 IDT WITHOUT DEPENDENT (BASELINE = WO/DEP E6)

SOURCE: 1986 PAY TABLE

issue. The study was completed but not released since its recommendations were tied to the proposals of the 1st QRMC rather than directed at specific changes to reserve compensation per se.

Although it was primarily concerned with "developing a method of paying drill pay when the active duty forces convert to the salary system proposed in the active duty portion of the review,"[4] some of its findings are still relevant today. For example, the following is taken from "Findings with Respect to Drill Pay":

> Unintended distortion and inequities have crept into drill pay because basic pay--a part of active duty compensation--has been adjusted primarily in response to active needs, not drill pay needs. Distortion and inequities are evident in the different percentages of active duty regular military compensation received by reservists of different pay grades and longevity steps. We do not pay a "day's pay" for a drill period; we pay the reservist anywhere from 64 to 83 percent of the full day's pay of his active duty counterpart.[5]

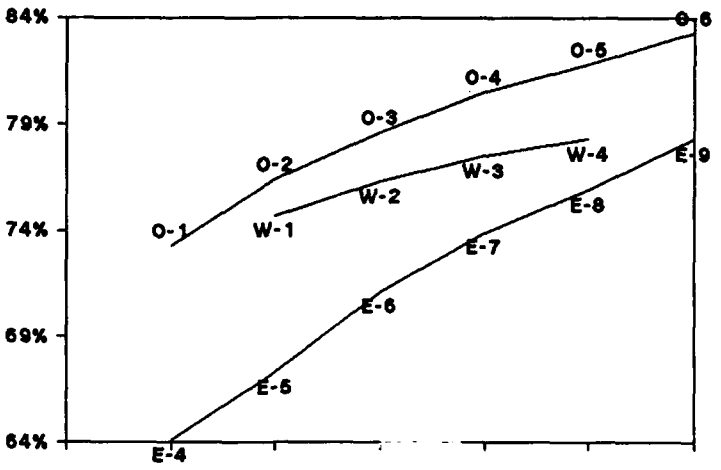


FIGURE 3-10. "INEQUITY"

SOURCE: RESERVE FORCES COMPENSATION FOR INACTIVE DUTY TRAINING

The study included a chart, recreated here as Figure 3-10, illustrating that each pay grade receives a different percentage of RMC and portraying the magnitude of the difference between officer and enlisted grades.[6] Also significant is the marked deviation from the horizontal. Instead of each reservist receiving approximately the same proportion of active duty RMC for participation in drill as his active duty contemporary of the same grade and with the same length of service, the percentages fluctuate from 64 percent to 83 percent. From this, the study concluded that "unintended distortion and inequities exist in the current drill pay system because basic pay, which is only one element of active duty regular military compensation, equals all of drill pay."[7]

After evaluating alternatives in the context of the primary report that had recommended a salary system for active duty, the review resulted in the following finding and recommendation:

FINDING 9. A percentage of the daily comparability salary per drill period for reservists designated and the daily rate of personal money pay for the remainder will best satisfy the criteria for reserve forces drill pay.

RECOMMENDATION 3. That a percentage of the daily comparability salary per drill period for reservists designated and the daily rate of personal money pay for the remainder be adopted for drill pay.[8]

Based on the desirability of maintaining the historical and traditional relationship between drill pay and active duty pay and avoiding unfavorable monetary impact, the study recommended that comparability pay be 75 percent of one day's comparability salary per drill period.[9] Because minor amounts of "save pay" might be required, the study also recommended that a "one time save pay provision be incorporated in the conversion to comparability drill pay to insure that all take home drill pay will be equal to or greater than that presently received by reservists."[10]

Reserve Compensation System Study

The Reserve Compensation System Study (RCSS) Final Report (dated June 30, 1978) also had findings that relate to the tilt in reserve compensation. The RCSS generally concluded that officer and enlisted pay at high YOS levels is probably higher than necessary and that pay is too low for junior enlisted personnel.[11] The RCSS recommended inclusion of "training pay" and "retainer pay," which together tended to flatten the slope of the pay lines for both officer and enlisted members and to reduce the difference between officer and enlisted pay. The resulting general increase for junior personnel was recommended "because all components are experiencing shortages of these personnel, even those that are meeting their aggregate manning goals." In general, under the RCSS proposal, pay would have been increased for junior personnel and decreased for senior personnel.[12]

Impact of Regular Military Compensation

Relative to the active duty compensation system from which it is adapted, reserve compensation is relatively less for junior members than for senior members, and relatively less for enlisted members than for officers. Previous studies have highlighted this fact, but no revisions to change the system have been seriously considered. As a result of this tilt, and in the absence of any other offsetting factors, one would expect to see somewhat better retention in senior and/or officer pay grades and somewhat poorer retention in the junior and/or enlisted pay grades, relative to a reserve compensation system without the tilt. This is in fact the case, as shown later in this chapter.

Retirement Comparison

Implicit in the tie to the active duty system is the assumption that the value of retirement is essentially parallel for the two systems. Just as in case of basic pay and allowances, the 6th QRMC has found that reserve retirement is not parallel in relative value to active duty retirement, it is relatively less valuable for enlisted members than for officers.

Relative Retirement Differences

The receipt of reserve retired pay is based on age, whereas receipt of active duty retired pay is based on years of service. In both systems, the enlisted member typically joins approximately four years younger than does the officer. As a result, active duty enlisted members are first eligible to receive retired pay when they are four years younger than officers, and in fact are four years younger when they do retire. In the reserve system, both officer and enlisted members must wait until age 60. An explanation of the impact of this four-year difference follows.

All members have a personal value that they place on time and money. This value varies from person to person and for individuals over time; it is termed the personal discount rate. The overriding theme of all personal discount rates is that a dollar today is worth more than a dollar tomorrow. At a conservative personal discount rate of 1.6 percent per year above inflation (1.6 percent above inflation is the interest rate used by the DoD to value the cost of military retirement; it is not, however, regarded as being a personal discount rate) for an enlisted reservist, the loss of waiting those four years would be perceived by the member to be 6 percent; at a personal discount rate of 5 percent per year over inflation, the loss would be 19 percent. The modeling of reserve retirement alternatives using the models developed by the RAND Corporation for the 6th QRMC used a 5 percent personal discount rate.

In addition, there are mortality related-differences that have a greater impact on reserve enlisted members than on reserve officers. Because retirement-eligible reserve enlisted members must typically wait four years longer than officers before they become age 60 and can draw retired pay, they experience additional mortality during the years after qualifying for retirement, but prior to receiving their retired pay. Depending on the discount rate, the reduction in value from mortality-related factors to enlisted reservists relative to officer reservists ranges from 16 percent at a 1.6 recent personal discount rate to 14 percent at a 5 percent personal discount rate.[13]

Thus, combining both influences (personal discount rate for four years and the impact of mortality related differences), the loss in the relative value of reserve retirement for enlisted members at a personal discount rate of 1.6 percent over inflation is 21 percent; at 5 percent, the loss is 30 percent.

From the preceding discussion, it is apparent that reserve retirement is *not* parallel to active duty retirement. Relative to active duty retirement, reserve retirement is relatively less valuable for enlisted members than for officers.[14]

Because reserve retirement is based on points, the preceding discussion applies equally to the value the member places on the awarding of retirement points (system cost and perceived value to the member), such as those associated with ADT, IDT, IDT without pay, membership points, points for correspondence courses, etc., as they are earned.

Impact of Retirement

Relative to the active duty retirement system, reserve retirement is less valuable to enlisted members than to officers. With other factors held constant, the reserve age-based retirement will be from 21 to 30 percent less attractive as a draw for enlisted members than for officers, relative to a system that is year-of-service based and awarded immediately upon retirement.

Environmental Comparisons

The Reservist's Reserve and Civilian Income

Pay from members' civilian employment is relevant to reserve compensation in that retention may be affected by the comparison of reserve pay to the member's civilian pay. Analysis of the 1986 Reserve Components Surveys revealed that, if reserve pay makes a poor comparison with the member's civilian employment income, the reservist will be less satisfied with reserve pay. The 6th QRMC determined from the survey data that the reserve pay for enlisted members, when compared with the pay they receive in their civilian employment, makes a less favorable comparison than does the parallel comparison for reserve officers. Said another way, reserve pay seems less attractive to enlisted members than to officers, relative to their civilian jobs.[15]

The relative attractiveness of pay can be evaluated through ratios of officer and enlisted pay. For example, while fulfilling Selected Reserve obligations, the reservist in pay grade E5 makes about 50 percent of the pay of a reservist in pay grade O3. The civilian pay of the average reservist in pay

grade E5, however, is about 65 percent of the civilian pay of the average reservist in pay grade O3. Median civilian pay for reservists in pay grade E8 is equal to the median civilian pay for reservists in pay grade O3, yet reserve pay for pay grade E8 is only 80 percent of reserve pay for pay grade O3. Thus reserve pay, compared with the civilian pay of the two groups, is relatively less for enlisted members than for officers.

When we plot the RMC ratios for members without dependents (derived from RMC numbers shown in Figure 3-1) against years of service, interpolating in the intervals, we find that the ratio remains fairly steady with enlisted RMC at 53 to 63 percent of officer RMC (Figure 3-11). In other words, at comparable years of service, the typical enlisted reserve wages are 53 to 63 percent of the typical officer reserve wages. When we compare civilian median income ratios for the same members (derived from civilian income numbers for members with dependents shown in Figure 3-12), we find civilian income of enlisted members to be 64 to 72 percent of civilian income of officers (Figure 3-13).

Comparing these ratios in Figure 3-14, it seems logical that enlisted members, particularly midcareer enlisted members, might perceive their reserve wages less favorably than will officers making similar comparisons at similar career points. As shown in the next section, satisfaction with reserve pay does vary systematically with civilian income.

Second Job Travel Expense

The 6th QRMC also used 1986 Reserve Components Survey data to show the travel time of officers and enlisted members from home to the unit/drill location. Although travel time is less for members in junior and enlisted pay grades, analysis shows that travel expenses are a relatively larger proportion of pay for the junior enlisted pay grades.

Enlisted members have shorter commuting times to unit/drill meeting location than do officers. Figure 3-15 shows the percentage of officers and enlisted members reporting commuting times of less than 20, 40, 120, 180, and 360 minutes.[16] For example, 81 percent of the enlisted members live within an hour's commute whereas only 63 percent of the officers do. For both officer and enlisted members, commuting time to unit/drill meetings increases as pay grade increases. This can be seen in Figure 3-16, which shows, for each pay grade, the percentage of officers or enlisted members commuting one hour or more. Additional commuting time figures are in Appendix D.

There are several reasons that senior members and officers will have greater commuting times. First, there is a self-selection process in which members are less likely to travel great distances for lower paying junior pay grades and enlisted

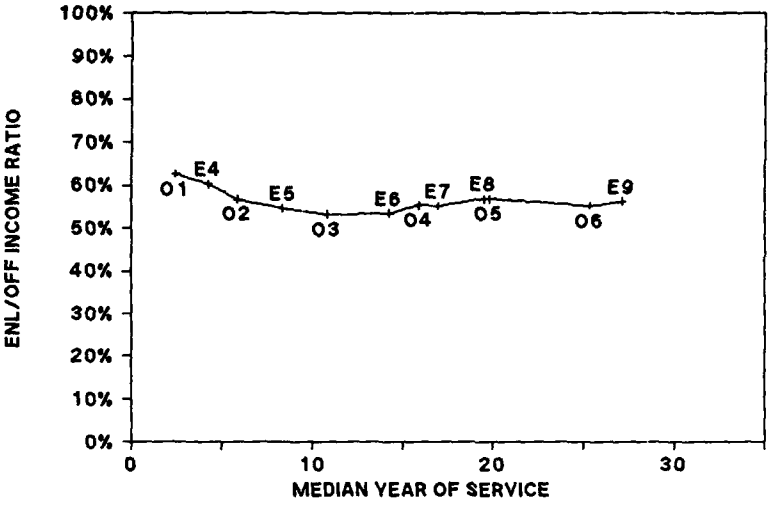


FIGURE 3-11. 14 ADT & 48 IDT COMPENSATION
WITH DEPENDENT (TAX=15% ENLISTED & 28% OFFICERS)

SOURCE: 1986 PAY TABLE

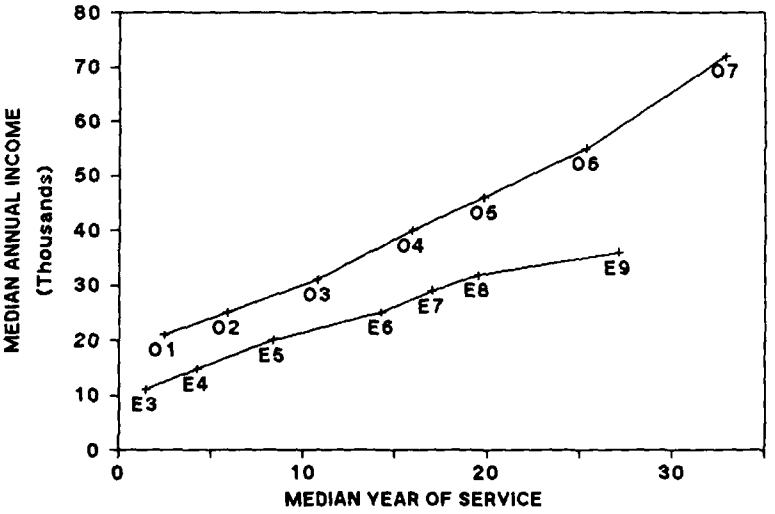


FIGURE 3-12. *CIVILIAN EMPLOYMENT*
(WITH DEPENDENT & FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

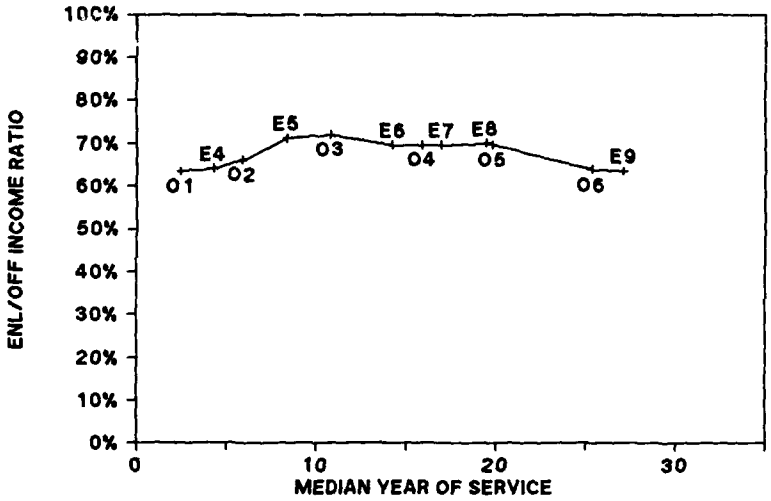


FIGURE 3-13. CIVILIAN EMPLOYMENT (WITH DEPENDENT & FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

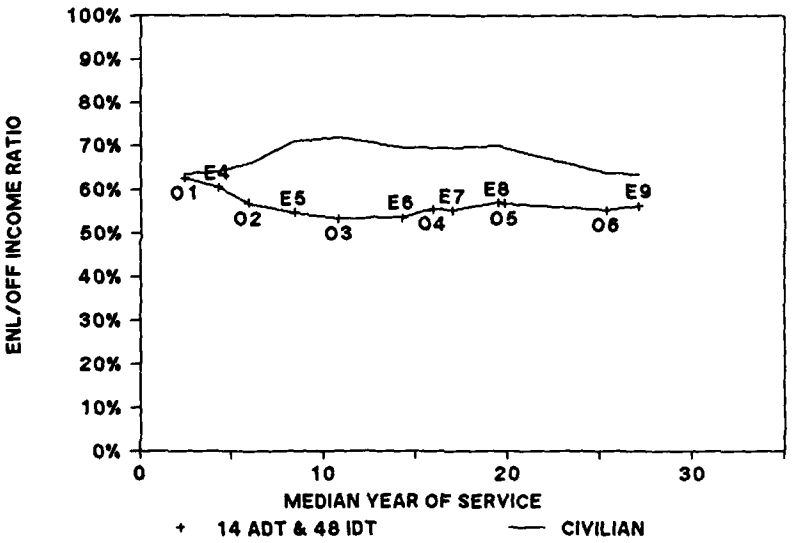


FIGURE 3-14. ENLISTED/OFFICER INCOME RATIO (WITH DEPENDENT & FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 PAY TABLE & 1986 RESERVE COMPONENTS SURVEYS

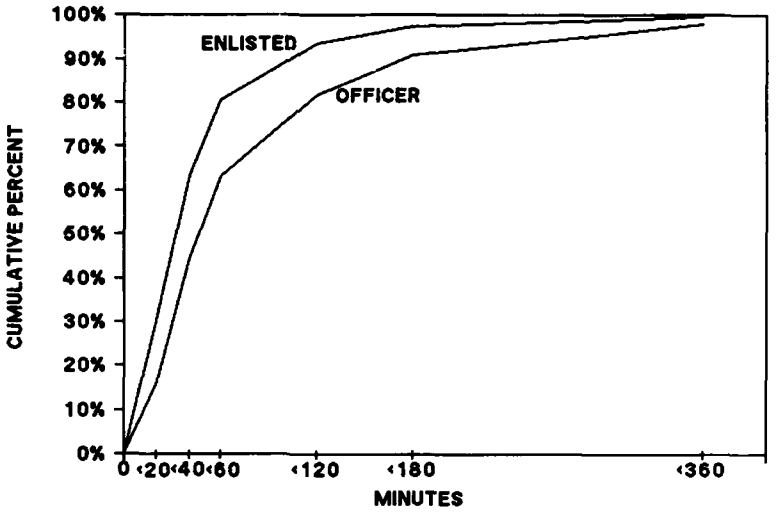


FIGURE 3-15. TIME FROM HOME TO DRILL (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

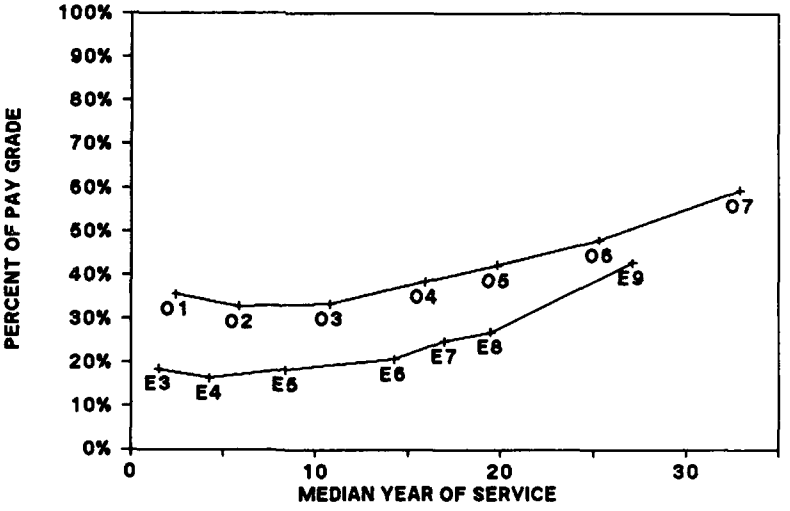


FIGURE 3-16. ONE HOUR OR MORE FROM HOME TO DRILL (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

jobs. Also, as pay grade gets higher, the number of reserve positions decreases; therefore, a more senior member is more likely to have to join a less convenient unit in order to find an appropriate reserve position.

Members' transportation costs may be regarded as having two components: actual "out-of-pocket" expenses and the opportunity costs (foregone income or value of alternative use) of transit time. Out-of-pocket costs were calculated using actual driving mileage and driving costs of 22 cents a mile. The calculations assume that reservists make two round trips for 11 drill weekends and one round trip for a combined annual training and drill weekend. The results, depicted in Figure 3-17, show that annual transportation costs range between $100 and $200 for reservists, with officers and senior enlisted personnel having greater transportation costs.

The second component of transportation costs is the value reservists place on their driving time. For most reservists, driving time does not substitute for income earning activity; it decreases leisure time. This valuation is implicit in many decisions individuals make concerning housing choices and distance to work. Empirical analysis of this data shows that leisure time is valued at some fraction of the civilian hourly rate. The assumption here is that driving time is valued at one-quarter of the civilian hourly wage. The results, depicted in Figure 3-18, show that time costs are between $40 and $140 for enlisted personnel and between $60 and $300 for officers. Time costs rise with rank because of the higher civilian income of more senior personnel.

As a proportion of pay, total cost associated with reserve participation is highest for members in the junior enlisted pay grades. Foregone income and transportation costs were combined to estimate a total cost associated with reserve participation as shown in Figure 3-19. These costs represent either real reductions in gross income, or alternatively, opportunity costs resulting from the reserve participation decision. These costs are shown in Figure 3-20 as a percentage of gross reserve pay and in Figure 3-21 for after-tax reserve pay. The results show that the costs of participation amount to 45 cents of each after-tax dollar for reservists in pay grade E2, but only 23 cents for reservists in pay grade E9. For officers, total costs are between 25 and 30 cents of each after-tax dollar.[17]

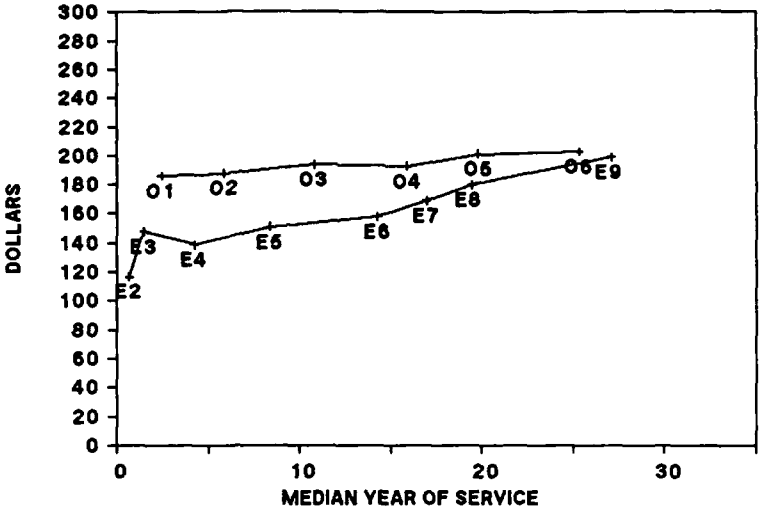


FIGURE 3-17. ANNUAL DRIVING COSTS
ALL COMPONENTS, SELECTED RESERVE

SOURCE: THE RAND CORPORATION

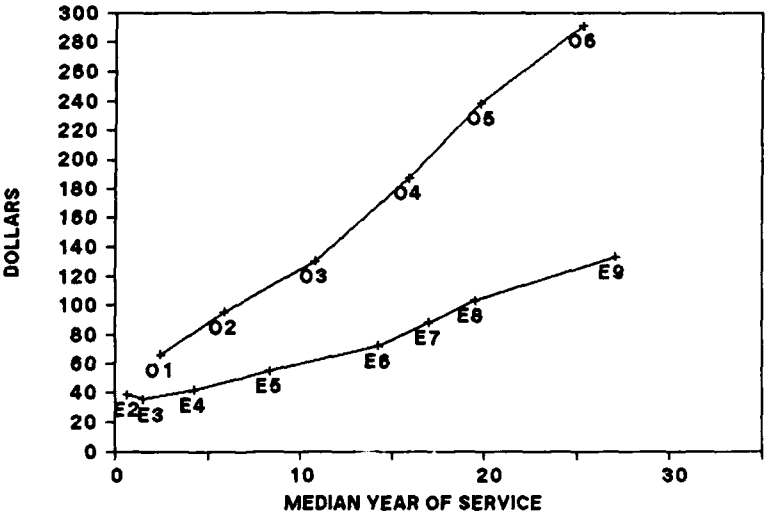


FIGURE 3-18. ANNUAL DRIVING TIME COSTS
ALL COMPONENTS, SELECTED RESERVE

SOURCE: THE RAND CORPORATION

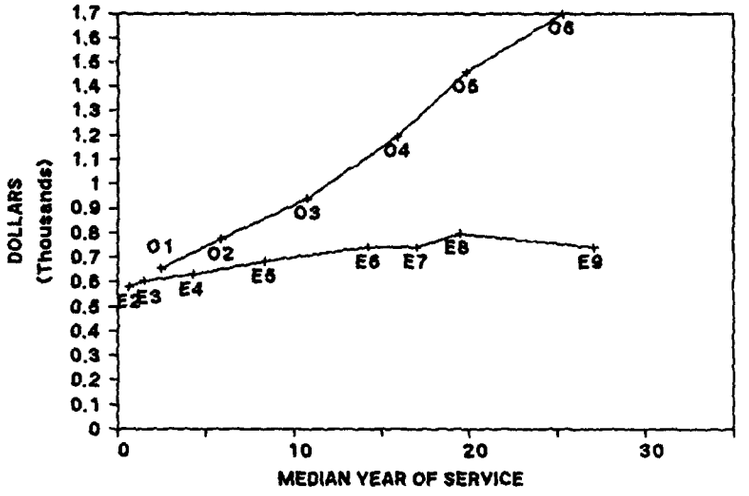


FIGURE 3-19. PARTICIPATION COSTS OF RESERVE PARTICIPATION TRANSPORTATION + FORGONE CIVILIAN INCOME

SOURCE: *THE RAND CORPORATION*

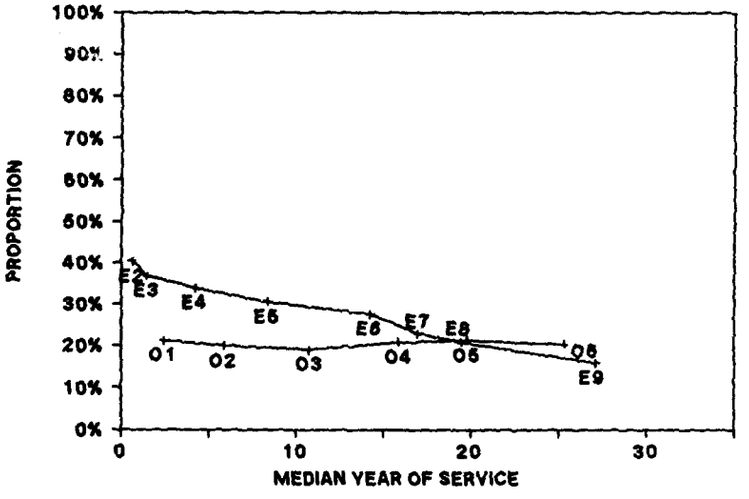


FIGURE 3-20. PARTICIPATION COSTS AS PROPORTION OF PAY TRANSPORTATION + FORGONE CIVILIAN INCOME

SOURCE: THE RAND CORPORATION

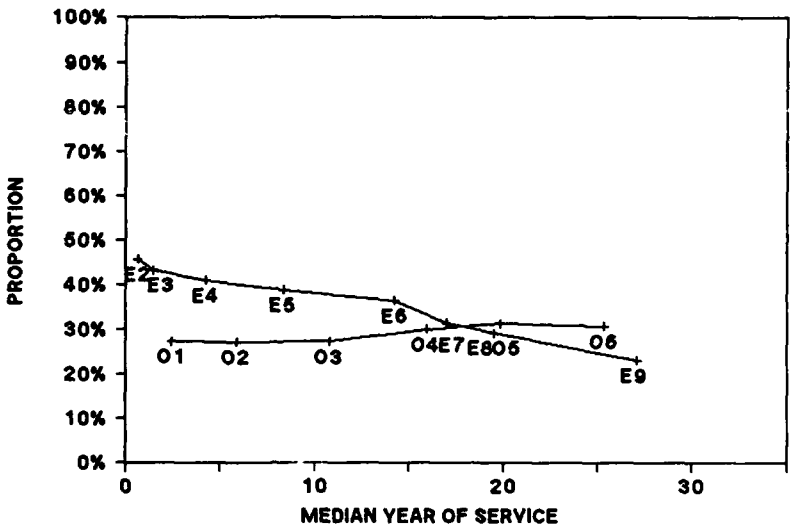


FIGURE 3-21. PARTICIPATION COSTS AS PROPORTION OF AFTER TAX INCOME TRANSPORTATION + FORGONE CIVILIAN INCOME

SOURCE: THE RAND CORPORATION

BAQ During Annual Training for Members Without-Dependents

During annual training, members without dependents are at a pay disadvantage relative to members with dependents and to active duty members without dependents. Only members with dependents receive BAQ during annual training. It is obvious, however, that housing costs do not cease during the two weeks of annual training for members without dependents. As shown in Figure 3-22, the highest percentage of members who have no dependents are in the junior pay grades, with officer and enlisted percentages relatively close to one another.[18] For example, over 60 percent of members in pay grade O1 and 50 percent of members in pay grade E4 are without dependents, whereas fewer than 10 percent of members in pay grades higher than O4 and E7 are without dependents. Therefore, pay during annual training is less advantageous for a higher percentage of junior members than for senior members.

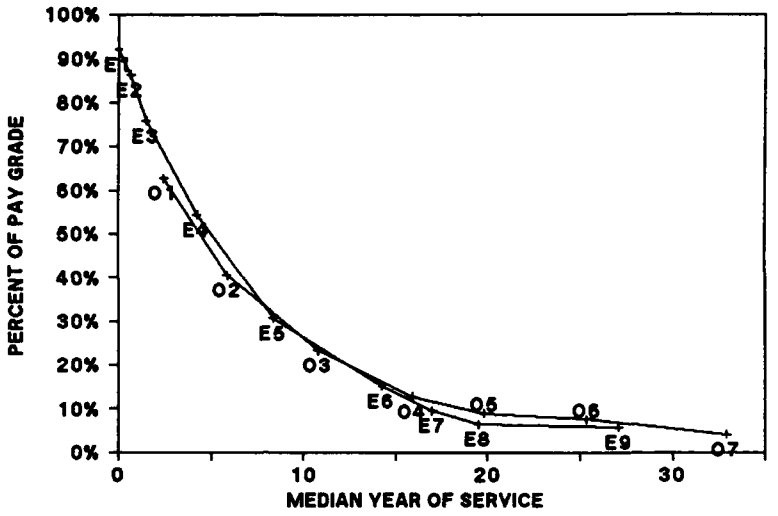


FIGURE 3-22. MEMBERS WITHOUT DEPENDENTS
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

Satisfaction with Pay and Allowances

Reserve and Active Component Pay Satisfaction

Reported levels of pay satisfaction reflect the tilt of the reserve compensation. Member satisfaction with pay and allowances was measured in both the 1986 Reserve Components Surveys and the 1985 DoD Survey of Officer and Enlisted Personnel (active duty). There are insights to be gained from review of this data; these tend to confirm the effect of pay system tilt and of the environmental factors.

Members in each active duty officer pay grade report about equal satisfaction with pay, as do members in each enlisted pay grade. Figure 3-23 shows, for each active duty pay grade, the percentage of members responding that they are satisfied with pay.[19] In fact, if one ignores members in the more senior pay grades (above E7 and O4), there is a slight decrease in satisfaction as pay grade increases.

Within both reserve officer and enlisted categories, however, satisfaction with pay increases steadily as the pay grade increases. Figure 3-24 shows the percentage, for each reserve pay grade, of members responding that they are satisfied with

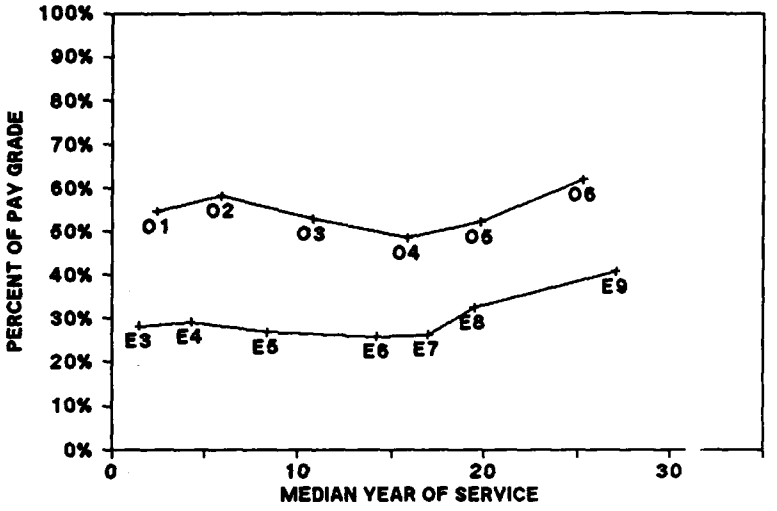


FIGURE 3-23. ACTIVE DUTY SATISFIED/VERY SATISFIED WITH PAY ALL COMPONENTS

SOURCE: 1985 DoD SURVEY

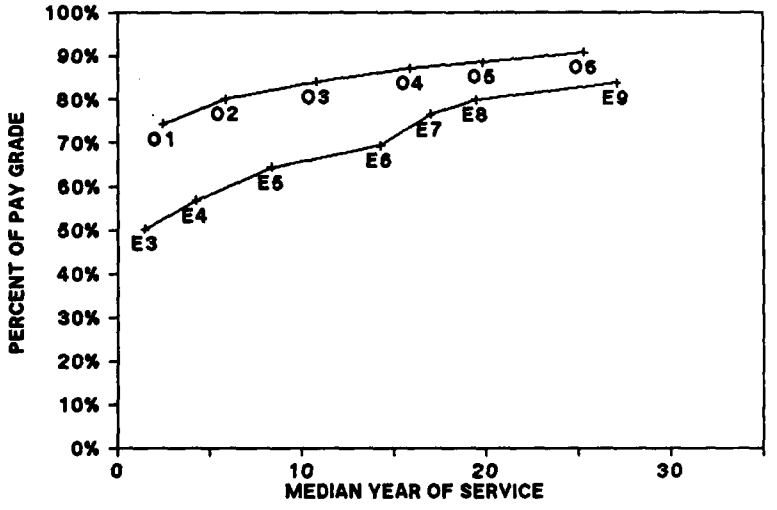


FIGURE 3-24. RESERVE SATISFIED/VERY SAT WITH PAY (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

pay.[20] Thus, both in an absolute sense and compared with the active components, the reported satisfaction level of the reserve members reflects the effect of the observed tilt against the lower pay grades.

Not surprisingly, both surveys show officers as more satisfied with pay than are enlisted members. Also, reserve members indicate a higher level of satisfaction with pay than do active duty members. There are obviously many reasons why the comparison of expressed satisfaction with pay of full-time members and part-time members are not directly comparable. It seems logical to expect that pay would be relatively less important overall for part-time members and that there would therefore be a tendency to express greater satisfaction. Also, reserve component members can more easily leave part-time reserve service than active duty members can leave their livelihood, and there is a higher level of unprogrammed reserve attrition. As a result, many dissatisfied members, having already left the reserve, are not included in the survey.

Retention and Satisfaction with Pay and Allowances

In the evaluation of the 1986 Reserve Components Surveys, we found that expressed intent of members to reenlist or extend at the end of the current term of service is related to the member's satisfaction with reserve pay and allowances.[21] Of members who are employed full-time in their civilian job, the reported propensity to reenlist[22] is 47 percent for members in pay grade E4 who are satisfied with reserve pay and allowances and 33 percent for those who are not.[23] The satisfied member is 42 percent more likely to reenlist. For members in pay grade E5, the percent reporting themselves likely to reenlist is 63 percent for those who are satisfied with pay but 48 percent for those who are not. In pay grade E6, the percentages are 69 and 57 percent. Figure 3-25 shows the results for all enlisted pay grades.

Retention

Reserve continuation rates (percentage of those in the reserve on a given date who are still in the reserve one year later) are typically lower than those for the active components. For example, in the 11th year of service, the Fiscal Year 1985 continuation rate for Army National Guard officers is found to be 83 percent, or 87 percent of the continuation rate for active component Army officers, which is 96 percent. The officer and enlisted continuation rates for the Army, Army National Guard, and Army Reserve are shown in Figures 3-26 and 3-27.[24] Figures showing continuation rates for all active and reserve components are in Appendix F.

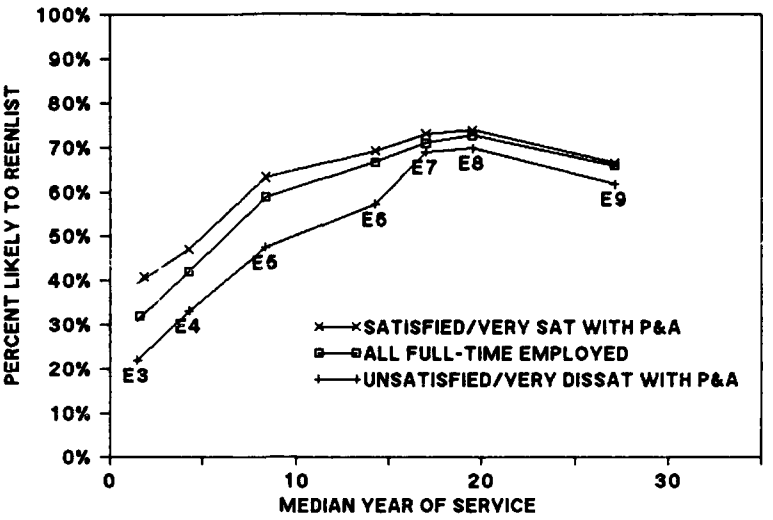


FIGURE 3-25. INTENT TO REENLIST (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

The spread between the active and reserve continuation rates is greatest in the lower pay grades, particularly in the case of enlisted members. The continuation rate for each Guard or Reserve component is shown as a percentage of the continuation rate for the respective active component in Figures 3-28 and 3-29. The tilt in the officer continuation rates is slight; however, the tilt in the enlisted continuation rates is quite pronounced. This relative tilt was also true of the pay itself and the satisfaction with pay, as discussed previously.

The significance of this difference between active component and reserve retention is seen in its cumulative effects (Figures 3-30 and 3-31).[25] In the active Army, when an officer reaches the 7th year of service, there is a 64 percent chance that the officer will complete the 19th year of service. In the Army Guard and Reserve, the probabilities are only 18 and 17 percent respectively, or about one-fourth as many.[26] For enlisted members, the active Army percentage is 45 percent, and for the Guard and Reserve the percentages are 15 percent and 12 percent. These retention differences have a substantial impact on training costs and turmoil within reserve units.

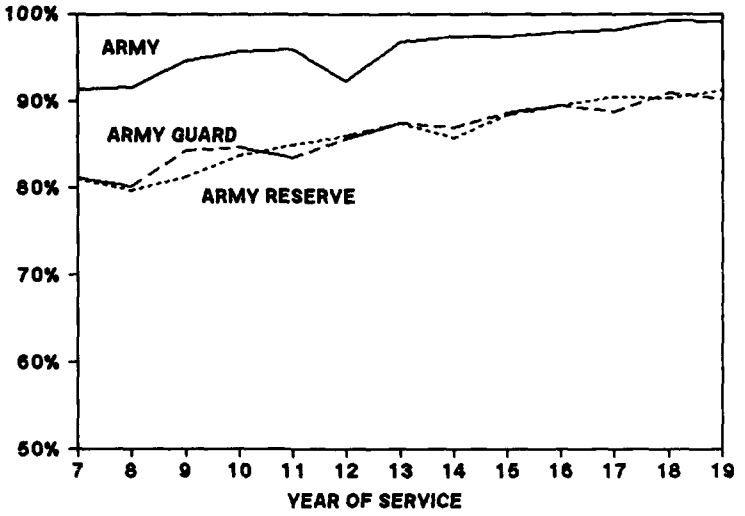


FIGURE 3-26. ARMY OFFICER CONTINUATION RATE
GUARD/RESERVE PART-TIME ONLY

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

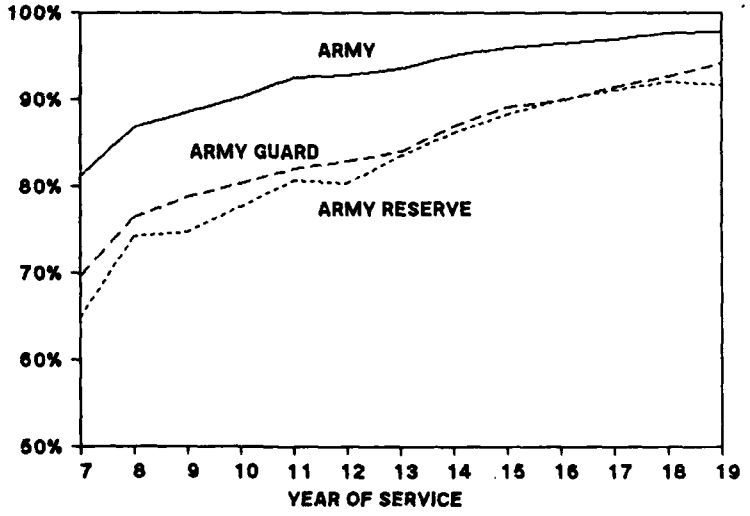


FIGURE 3-27. ARMY ENLISTED CONTINUATION RATE
GUARD/RESERVE PART-TIME ONLY

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

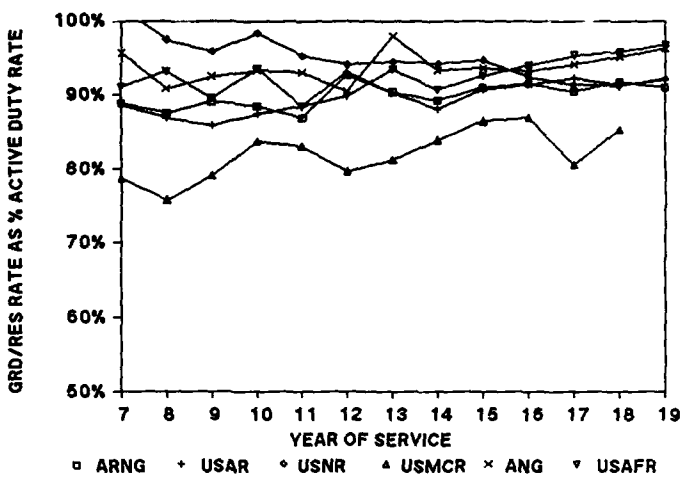


FIGURE 3-28. OFFICER CONTINUATION RATE RATIO
GUARD/RESERVE PART-TIME ONLY

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

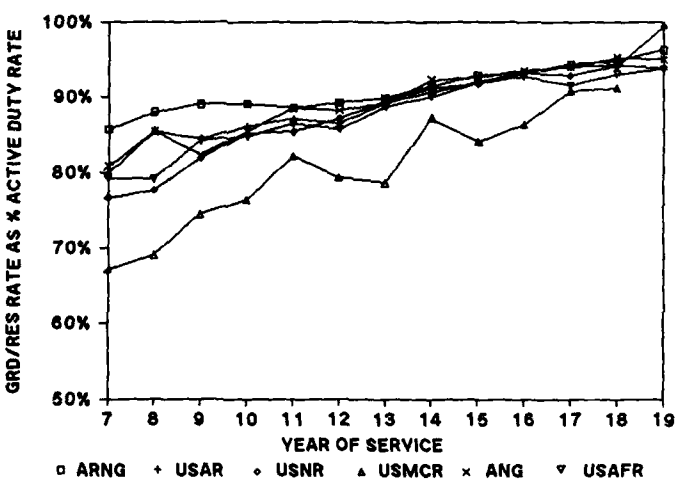


FIGURE 3-29. ENLISTED CONTINUATION RATE RATIO
GUARD/RESERVE PART-TIME ONLY

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

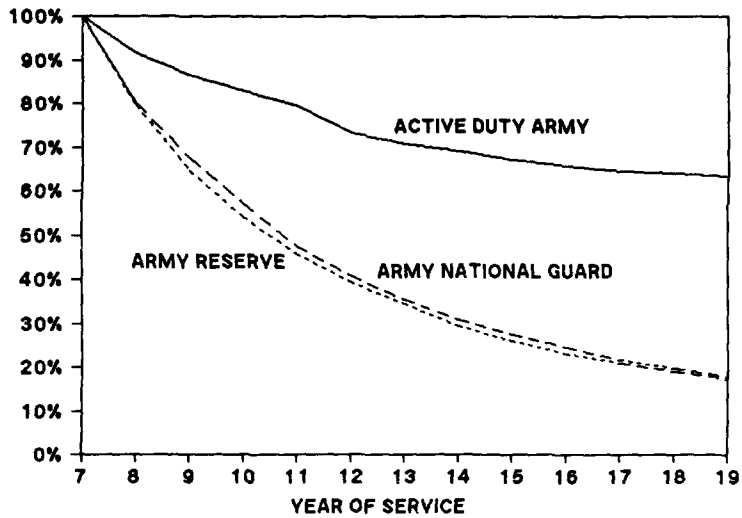


FIGURE 3-30. ARMY OFFICER CUMULATIVE CONTINUATION RATE GUARD/RESERVE PART-TIME ONLY

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

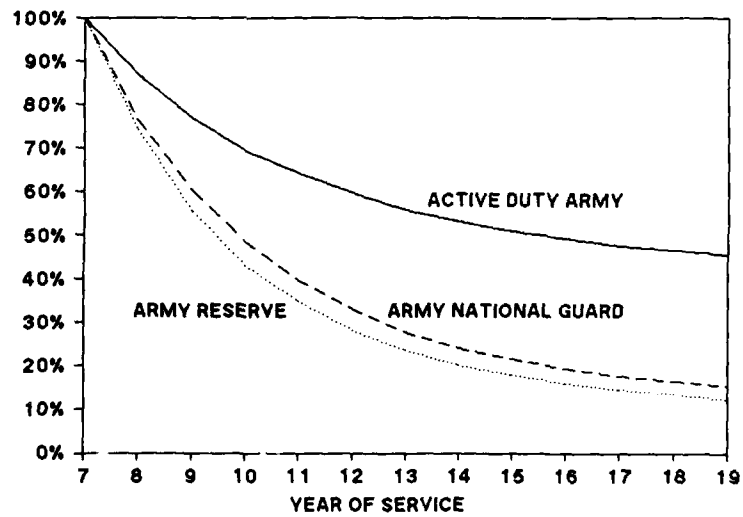


FIGURE 3-31. ARMY ENLISTED CUMULATIVE CONTINUATION RATE GUARD/RESERVE PART-TIME ONLY

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

Conclusion

Chapter 2 discussed the finding that negative influences in reservists' civilian environment tend to be most severe for junior and enlisted members. Chapter 3 showed that the compensation system, rather than being parallel to active component compensation, is less advantageous to junior and enlisted members, and that there are additional negative factors, especially travel costs, that further hinder junior and enlisted members. These factors are associated with retention and potentially other personnel readiness issues in the reserve components.

Notes

1. The National Defense Act of 1916 provided, for the first time in U.S. history, federal drill pay for the performance of inactive duty training. Although there were exceptions for some pay grades, this act and subsequent modifications to the act based drill pay on active duty base pay and, after 1948, basic pay.

2. Chapter 67 of title 10, United States Code.

3. The ratios used in the example approximate the actual circumstances. The actual ratio for active component pay grades O6 and O2 is 2.06:1, the ratio for reserve pay grades O6 and O2 is 2.27:1, and the relative value of the O6 reservist is 10 percent greater than for pay grade O2 (2.06 subtracted from 2.27 then divided by 2.06).

4. Reserve Forces Compensation for Inactive Duty Training, OASD(M&RA), 5 May 1969 (unpublished), p. ix.

5. Ibid. p. xi.

6. Ibid. p. 9.

7. Ibid. p. 7.

8. Ibid. p. 14.

9. Ibid. p. 27.

10. Ibid. p. 27.

11. Reserve Compensation System Study Final Report, 30 June 1978, p. V-2.

12. Ibid. p. xxiv.

13. The loss is greatest at the lowest discount rate, whereas previously the loss was greatest at the highest discount rate. The reason is that the higher discount rates place more emphasis on early years (before there are substantial differences in mortality rates) and, therefore, less emphasis on late years.

14. From the perspective of the cost of retirement to the DoD, the appropriate discount rate is 1.6 percent per year above inflation--meaning that, relative to active duty, 21 percent less is drawn by the reserve enlisted member than by the reserve officer for each retirement dollar promised to the member (based on 20 good years).

15. Only members who are employed in full-time civilian jobs have been included when computing median civilian income. In many of the discussions in this chapter, data from the 1986 Reserve Components Surveys will be restricted to evaluation of these members. These members have the greatest potential for conflict with their civilian employment, and therefore should bear the most scrutiny. Since the great majority of members fall into this category, the figures would change little if all members were included.

16. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. Question 45.

17. The discussion on transportation cost is based in major part on David W. Grissmer, Richard Buddin, Sheila Nataraj Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, The RAND Corporation, R-3669-FM&P/RA, forthcoming, pp. 29-44.

18. Selected Reserve (no full-time support, military technicians, or IMAs) from Reserve Components Common Personnel Data System (RCCPDS).

19. 1985 DoD Survey. A member was considered to be satisfied with pay if question 109 (officer) or 105 (enlisted) was marked "Satisfied" or "Very satisfied."

20. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. A member was considered to be satisfied with pay if question 123a was marked "Satisfied" or "Very satisfied."

21. 1986 Reserve Components Surveys: Selected Reserve Enlisted Personnel. Questions 18 (enlisted only) and 123a. Similar data is not available for officers.

22. 1986 Reserve Components Surveys: Selected Reserve Enlisted Personnel. A member was considered as intending to reenlist or extend if question 18 was marked as 70 percent or above.

23. 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel. A member was considered satisfied with pay if question 123a was marked "Satisfied" or "Very satisfied." A member was considered dissatisfied if the question was marked "Dissatisfied" or "Very dissatisfied."

24. Reserve Components Common Personnel Data System (RCCPDS) and Active Duty Personnel Database System.

25. The 7th year of service was chosen as the starting year; it is the first year subsequent to the initial reenlistment time for both active duty and reserve.

26. This is based upon cumulative continuation rates which do not fully account for the later reentry of reserve members. This will reduce the actual differences between the two rates, but they remain substantial.

Chapter 4. RESERVE FORCE MANPOWER FORCE STRUCTURES AND PERSONNEL READINESS

Since the advent of the All-Volunteer Force in 1973, defense policymakers have pursued a Total Force policy designed to integrate the Active, Guard, and Reserve forces into a coherent whole. In this process much greater reliance has been placed on reserve component units and members. Today many Reserve and National Guard units are scheduled to deploy before active force units. These units simply will not have time between mobilization and deployment to complete unit fill and training. Consequently, unit readiness is essential, and units of the Selected Reserve must be as close to their wartime requirement in peacetime as possible.

The ability of the reserve components to meet mission requirements depends heavily on their ability to man units with qualified personnel. Reserve component units must be manned with persons trained and qualified in military and technical skills, possessing the needed levels of experience, and with the proper mix of age and grade. Rapid advances in technology also demand better educated members in almost every skill area. The requirement for the geographical availability of these members makes the overall task of manning reserve units a complex and continuing challenge. As components with new, added missions strive to meet personnel requirements, the technology-driven force structures will continue to add new dimensions to personnel management, bringing additional pressures on an already challenged environment.

Overview

This chapter will focus on the subjects of manpower requirements, manpower force structures, and, most importantly, unit personnel readiness. First, benchmarks must be developed to evaluate compensation change initiatives. The benchmarks established for this study are Fiscal Year (FY) 1986 Assigned strength, FY 1986 Steady-State, and FY 1992 Steady-State force structures. Following the benchmarks, which represent a macro level view, attention is directed to a more micro level review of individual units. Specifically, selected high-priority units of the Army National Guard and Reserve are looked at from a perspective of unit personnel readiness. Army National Guard and Reserve units were selected for review because their units together comprise almost 70 percent of all reserve units that report readiness, and because of the very high dependence of the

Army on its reserve components (half of Army manpower is in its reserve components). For the reserve, an understanding of the dynamics of readiness must address the status of personnel resources at the unit level, since the environment for recruiting and retaining personnel for reserve units is geographically constrained. Consequently, the achievement of aggregate manpower objectives does not ensure the individual readiness of critical reserve units.

To further identify and document factors that impact personnel readiness, this section reviews and discusses personnel attrition and turnover within the Army reserve components. Personnel readiness is adversely affected, not only by the inability to recruit quality people in the required numbers and train them quickly in requisite skills, but also by the existence of significant personnel turbulence; i.e. attrition from the force (separation before completing the contracted term of service) and turnover (skill retraining in units or transfers of individuals between units, generating retraining requirements).

Reserve Force Manpower Requirements

Desired force structures and manpower end strengths in the reserve components are governed and affected by congressional and DoD policy on active/reserve mix. The current policy is to maintain as small an active peacetime force as permitted by global security requirements and overseas commitments. Within that framework, functions requiring potential participation in combat or the direct support of combat forces, but not requiring immediate or full-time availability or peacetime overseas deployment, are generally assigned to the reserve components.

Using one of several manpower requirement determination methodologies or combinations thereof, each Service develops manpower requirements to meet tasked war plan missions. The method used depends in part upon the nature of the mission. Methods include the use of computer simulations, the development of quantitatively based manpower standards, or validation through the use of manpower surveys and operational audits. Regardless of the technique employed, the result is a specification of the total number of persons needed, by skill and skill level, to accomplish a mission. As force mix decisions are made, certain missions, or a portion of the mission capability, may then be assigned to a reserve component.

Manpower requirements for reserve missions are translated into reserve unit structures, and ultimately a unit personnel document is achieved. When the unit personnel structures of a reserve component are combined (including individual mobilization augmentees), the beginnings of the component's

desired force structure are visible. Other factors also enter into the composition of the desired force structure. For instance, within the reserve components, the requirement for full-time support personnel further affects the desired force structures.

The members assigned to reserve units, when identified by the same factors (skills, skill levels, grade, etc.) represent the actual force structure. A primary goal of each reserve component is to have the actual force structure closely duplicate the desired force structure. Although this is a difficult task, the desired force structure originated from the manpower requirements for accomplishing a wartime mission and therefore is a reflection of the manpower needs for accomplishment of that mission. These desired force structures are displayed and discussed in this chapter.

Reserve Manpower Force Structures

Purpose and Definitions

Military compensation analysis depends in large measure on the ability to identify and understand manpower requirements. Within reasonable and practical constraints these requirements are best derived by the components charged with the military missions of the nation. To establish the benchmarks necessary for a proper examination of reserve compensation systems, each component was tasked by the Office of the Secretary of Defense to provide manpower force structures; that is, the personnel structure of the component expressed in numbers and years of service desired for officers, enlisted, warrant officers, and subgroups, such as medical or full-time support personnel that might usefully be considered separately. The preparation of these structures required establishing specific rates of accession, attrition, and continuation for the course of an individual hypothetical reserve career period in the particular reserve component.[1] The data provided describe three distinct structures. These are interrelated in that they describe where the component is, where it would prefer to be, and where it would prefer to find itself five years in the future.

The QRMC used the force structure data to compare how the current personnel inventory, derived by the policies of the past, matches up to today's need. After this comparison, the QRMC used force structures of the future requirement to help understand how the reserve pay system, with current and deferred reserve pay and benefits could be adapted to promote the evolution of the desired forces.

The three force structures requested were FY 1986 Actual, FY 1986 Steady-State, and FY 1992 Steady-State. They were described in the following manner:

- **FY 1986 Actual** - The actual force configuration, by number and year of service (YOS), as it existed on September 30, 1986.

- **FY 1986 Steady-State** - A conceptual force structure at the 1986 year-end actual level but reflecting desired numbers and years of service consistent with experience/vigor and stability/promotion opportunity tradeoffs. The continuation rates needed to sustain such a hypothetical force were to be made consistent with preferred force management practices. Unlike other planning and programming force structures,this steady-state force was not to be bound by factors such as cost (other than the general level implied by the 1986 number), external economic conditions, or historic continuation rates. This force structure was to reflect continuation rates, from year to year, required to fill each year's cohort with exactly the number required for the next year's cohort, and so on for 30 years' cohorts. In this way the force structure would remain in steady-state balance indefinitely. When defining these force structures, issues such as age of the force, realistic promotion flow relative to length of service, training requirements, and skill level compared with pay grade had to be carefully balanced.

  This methodology has often been used for analyzing active duty force structures and has proved effective in identifying compensation policy initiatives that will support efforts to develop the desired profile. Reserve components offer an additional challenge, however; unlike active components, reserve components can recruit personnel with prior service and do so in any year of service; their population is "open", unlike the active components' "closed" population, which is dependent on initial accessions throughout the period of the steady-state force. Thus reserve components can have, and in early years will often want, continuation rates higher than unity, reflecting year-to-year increases where active forces would always have declines.

- **FY 1992 Steady-State** - A conceptual force structure constructed in the same manner as the FY 1986 Steady-State force, with the exception that this steady-state force was built at the FY 1992 force strength as described in the Program Objective Memorandum (POM) FY 1988. It reflects, among other things, Service-desired changes in end-

strength, promotion, skill composition, and experience levels, compared with those characteristics of the FY 1986 Steady-State Force.

The steady-state force structures were also requested in a format of years of service by grade. The grade information provides links to specific unit manpower requirements. The years-of-service dimension allows personnel planners to balance the total requirement in a steady state. Such a force is a notional force, of course; even with perfect planning it would require 30 years to evolve. Thus to actually achieve this goal by 1992 would have required starting in 1962. And, of course, outside events (and the policy response to them) introduce peaks and valleys into a real force that an "ideal" force does not have.

The components were asked to provide separate breakouts of the three force structures for AGR/TAR personnel, military technicians, part-time members not employed as technicians, and medical personnel. Graphs displaying manpower force structures in these categories can be found in Appendix G. In addition to the categories requested, the Military Departments were invited to develop and submit force structures for any other categories that they desired. None, however, were submitted.

Using Steady-State Force Structures

In examining the steady-state force structures, the reader should remember that steady-state forces, by definition, do not change with time, whereas actual observed force structures are subject to variation over the years due to policy changes and changing outside factors. Thus steady-state force structures reflect constant conditions, with the same set of policies and external factors affecting all year-of-service cohorts simultaneously. This methodology allows examination of policy options in their full permanent effect. The structures will show "standing waves" as opposed to the "traveling waves" found in actual populations. Therefore, comparing actual rates and levels with steady-state rates and levels must be done with care. A major observation is the identification, in actual population, of "humps" and "valleys" that will pass through the system in time and do not require permanent policy treatment.

Major Observations from the Manpower Force Structures

There are significant differences among the force structures provided by the Military Departments and the Coast Guard. For most components, the desired FY 1986 Steady-State force structures differ from the FY 1986 Actual force structures.

As noted previously, the force structures used by the QRMC required the construction of desired accession patterns and promotion flows. In this regard the QRMC staff worked with the Services to the maximum extent practicable concerning the details for the steady-state submissions. However, neither the distribution and mix of accessions, nor the promotion flows showed consistent patterns among the components, even after allowing for differing mission requirements. Some force structures submitted were not sustainable in steady-state condition. Additional work would be required, in varying amounts depending on the component, to make the submitted accessions and promotion flows useful for more detailed analysis. Nevertheless, a number of important observations are made regarding the forces.

Actual FY 1986 force structures for most components, when compared with the appropriate steady-state force structure, show more members than desired in the later years of service. Conversely, a comparison of FY 1986 Actual accessions without prior service, versus steady-state accession patterns, shows fewer members than desired in the earliest years of service in the components with the greatest need for large numbers of personnel without prior service. The Navy and the Air National Guard, with somewhat smaller needs in the early years, and larger requirements for enlisted members in years of service 10 to 25, had excessive junior members and shortages in the years of service of greatest need. The Air Force Reserve indicated a desire for more officers and enlisted members in the later years of service, up to the 30th year of service. All components' FY 1986 Actual force structure showed that each currently has significant numbers with over 30 years of service, yet their FY 1986 and FY 1992 Steady-State force structures indicate that only a few members with over 30 years of service are desired. In fact, most components indicate a desire for fewer members in all pay grades beyond 30 years of service, and all components desire fewer members beyond 35 years of service. Moreover, the objective force structures anticipate a shorter span of years of service for each of the pay grades. This is true for both officers and enlisted members.

All components indicated a desire to retain a higher percentage of the force from 6 to 20 years of service, with an increase in the separations occurring after 25 to 30 years of service; that is, the Services want more sustainable force structures. They desire to recruit most members relatively early in terms of years of service and have gradual attrition in later years. This is generally preferable to adding members in later years of service to meet requirements, but patterns and requirements vary by component. This desired force structure shape means that the components would need to increase retention rates during the first 20 years of service and lower retention rates after the 20th year.

The steady-state force structures also vary significantly from current experience in the rate at which retention rates decrease after 18 to 20 years of service. This results from the Services' desire to decrease participation more rapidly than is currently happening for those later years (20 to 30 YOS). The desired force structures differ for different categories. Force structures of AGR/TAR personnel demonstrate a desire on the part of most components for AGR/TAR members to retire relatively earlier then part-time members not employed as technicians, and for longer service prior to retirement for military technicians. (This reflects the influence of the policy of federal civilian retirement which generally does not permit an unreduced annuity earlier than age 55 with 30 years of service.)

Reserve components with manpower force structures that require large numbers of relatively youthful personnel consider early entry important. Two components, the Army National Guard and Army Reserve, together representing almost 70 percent of the numerical strength of the Selected Reserve, desire that, at any given time, 55 percent of the enlisted force and 28 percent of the officer force be in junior grades with less than 6 years of service. The personnel flow rates required to maintain proper balance include a high rate of loss of junior members (although clearly not as great as the present high rate of unprogrammed early attrition).

The reserve components do not want to maintain all individuals on a career path. The majority of members are not expected to remain in service through eligibility for retirement, and the required force structures do not need the retention of all members for 20 or more years of service. Some force structures need more than they are now getting, however. Thus, a retention incentive for midcareer members is necessary to build and maintain the desired force structures as well as the required levels of management talent and technical experience. The QRMC also found need for an incentive for continuous performance of satisfactory years through 20 years of service and, for personnel without promotion potential or critical skills, an increasing incentive for self-selection out of active membership from 20 through 30 years.

Continuous satisfactory service has advantages for the reserve components as well as for their members. Breaks in service increase recruiting demands and costs; increase personnel turbulence, which impacts on readiness; reduce the experience level of members and increase training costs; and create problems with the implementation of selective retention policies.

For all components, the age distribution of part-time reservists is currently being affected by a sizeable hump of members who initially joined the armed forces during the Vietnam

War period. Individuals in the age cohort who represent the peak of this hump were 40 to 41 years old in 1987, depending on the component and on their status as officer or enlisted. It is clear that most components will have to implement personnel policies to provide effective management of this hump over the next 10 years in addition to policies for evolving the desired steady-state structures.

The QRMC believes that in order to achieve and maintain a high state of personnel readiness, the reserve components require a compensation system that is highly flexible and adaptable to each component's particular needs.

Reserve Component Personnel Readiness

Reserve Component Unit Readiness

In support of QRMC objectives, Logistics Management Institute (LMI) conducted research and analysis of the personnel readiness conditions existing within the reserve components. The objective of this analysis was to determine how compensation initiatives might be used to improve personnel readiness. As a result of this research, LMI's basic conclusion was that, although major improvements in reserve readiness have been made since 1980, reserve component units still lack readiness in some areas to fulfill their assigned wartime missions.[2] LMI analysts found that over 40 percent of Selected Reserve units (which report readiness) show a less-than-ready status, and that a major contributing factor was the personnel status of those units. Table 4-1 shows that almost half (46 percent) of the more than 4,800 National Guard and Reserve units reporting under the Unit Status and Identity Report (UNITREP)[3] system established by the Joint Chiefs of Staff are considered marginally ready or not ready for personnel. Twenty-six percent of the units report that they are not ready for personnel.

Use of Army Reserve Components as Examples

Tables and figures showing Army National Guard and Reserve data are used throughout this discussion for the following reasons: the relative size of the Army National Guard and Reserve compared with the size of the reserve components of the other armed forces; the very high dependence of the Army on its reserve components (half of Army manpower is in its reserve components); and the Army's straightforward approach to unit priority assignments.

For comparison purposes, a brief discussion on personnel readiness and skill shortages in selected unit groupings within the Air National Guard and Air Force Reserve follows this

Table 4-1. Units Reporting Marginally Ready or Not Ready In Personnel

Components (in descending order of number of reporting units)	Status of Reporting Units: Marginally Ready %	Not Ready %	Marginally or Not Ready %
Army Guard	24	23	47
Army Reserve	20	42	62
Air Guard	13	7	20
Air Force Reserve	18	17	35
Naval Reserve	12	9	21
Marine Corps Reserve	19	31	50
All Units (4,800 + units)	20	26	46

Source: UNITREP, April 1987.

section. Similar data for Naval Reserve and Marine Corps Reserve units had not been developed at the time of LMI's report.

Personnel Readiness in Context

UNITREP (now SORTS) is a system that provides, for a selected point in time, the status of a unit's resources and training measured against that required to undertake the mission for which the unit was organized or designed. UNITREP is primarily an internal management tool for use by the Services and the Joint Chiefs of Staff. Because personnel readiness is but one of four elements that contribute to unit overall readiness under UNITREP, it is necessary to understand these personnel ratings in the context of the other three resource areas:

- Equipment and supplies on hand
- Equipment readiness
- (Unit) training.[4]

Each unit has an overall rating based on the lowest rating of the unit in any of the resource categories. For illustrative purposes, Table 4-2 shows the aggregated readiness ratings of all reporting units of the Army National Guard and the Army Reserve. It is clear that, by a small margin, personnel deficiencies represent the most serious readiness problem, although significant equipment deficiencies also exist. As late as Fiscal Year 1986, the equipment-on-hand resource category was the factor imposing the greatest limitations on unit readiness

across all of DoD's Selected Reserve.[5] The equipment situation has been improving steadily, however, as a result of changes made to procurement and distribution policies,[6] and personnel readiness is now emerging as the primary limitation on Selected Reserve readiness.

Table 4-2. Readiness Status of All Army National Guard and Reserve Units Combined

	Readiness Ratings as Percent of Total Units		
Resource Category	Ready %	Marginally Ready %	Not Ready %
Overall	32	23	45
Personnel	45	22	33
Equipment Readiness	66	9	25
Equipment-On-Hand	57	13	30
Training	66	23	11

Source: UNITREP, 1987

Although the kinds of summary information contained in Tables 4-1 and 4-2 help to illustrate the extent to which a personnel readiness problem exists, aggregate data cannot show the specific nature of personnel readiness problems. To do so, data must be broken down into specific groups of units and into specific groups of skills.

Personnel Readiness of High-Priority Units

All Selected Reserve units are not of equal importance to the execution of a given war plan. Neither is it necessary that all reserve units be fully ready during peacetime, since some units that are not scheduled to perform important missions during the earliest stages of a conflict may not have to be fully resourced in peacetime. Therefore, the notion of "unit priority" is important - to help identify which of the units must be highly ready during peacetime as opposed to those that should be as ready as possible. A unit priority scheme can help determine all the following:

- The magnitude of any readiness problems
- The effectiveness of the use of available resources
- The extent to which focusing on priority units could result in the quickest, most cost-effective payoffs

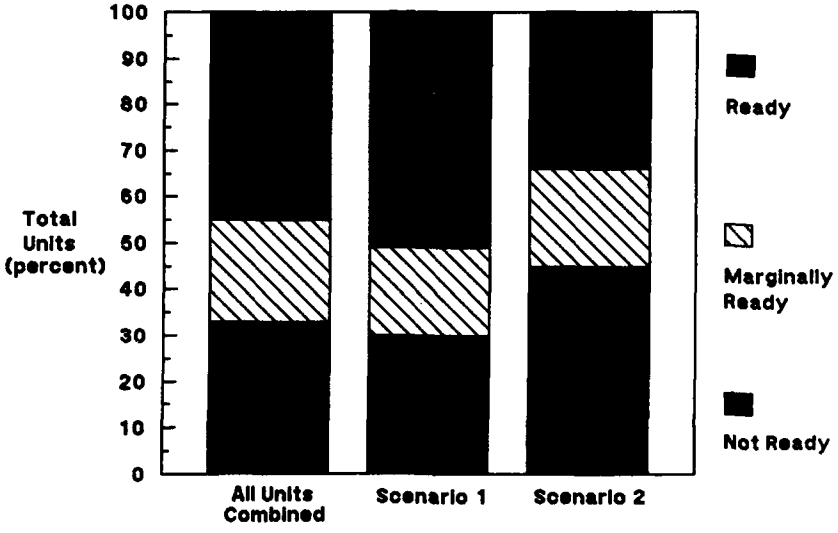


FIGURE 4-1. ARMY GUARD/RESERVE UNIT PERSONNEL READINESS BY GROUPS OF UNITS

SOURCE: UNITREP, April 1987

To illustrate this issue, two groups of Army National Guard and Army Reserve high-priority units have been selected:

- Scenario 1 - Army reserve component units scheduled for early deployment in a major scenario using primarily combat support and combat service support forces
- Scenario 2 - Army reserve component units scheduled for deployment in a major scenario using primarily combat forces

LMI's analysis of personnel readiness data shows that high-priority Army National Guard and Reserve units do not have noticeably higher personnel readiness than do <u>all</u> Army National Guard and Reserve units. Specifically, Figure 4-1 shows that, although the several hundred Army Reserve component units due for early deployment in Scenario 1 have slightly higher personnel readiness ratings than do all the units of the Army Guard and Army Reserve together, the units assigned to Scenario 2 are actually less ready.

Personnel Readiness on a Unit Basis

Aggregated unit data show the existence of widespread and serious personnel readiness shortcomings in Army National Guard and Reserve units, even in the case of units considered as having the highest priority. Because reserve component service members are not readily transferable among units (unlike members of the active forces), it is important that personnel status in the reserve components be looked at on a unit basis. Aggregate level inventory data, while adequate for evaluating active force personnel issues, is inadequate for analysis of most personnel issues within the Selected Reserve. In order to understand the problem of personnel readiness in individual units, the rules and structure of the personnel readiness ratings must be understood.

In reporting personnel readiness, the unit commander compares available personnel (often constrained by the Authorized Level of Organization (ALO)), against the unit strength required in wartime.[7] Three separate personnel factors are used to determine a unit's personnel rating:

- Available strength percentage
- Available individual skill qualification percentage
- Available senior grade (E5 and above) percentage

All percentages are calculated against the unit's full wartime required quantities. In other words, the commander asks, What percentage of required unit strength is now available to be deployed? Of the people available for deployment, what percentage are trained and qualified to meet unit requirements? Finally, what percentage of the unit's required leaders are available to provide adequate direction and management? Deficiencies or shortages within one or more of these areas lower the unit's personnel readiness rating.

Available Strength versus Assigned Strength

Not everyone assigned to a unit is available for deployment in the event of emergency. Under UNITREP, members are considered to be unavailable under the following circumstances:

- They have not yet completed initial training
- They are pregnant
- They are within 7 days of discharge
- They are sole-surviving family members
- They are not available for one of several additional reasons

Thus the assigned strength of a unit overstates the available strength in almost all units. Of particular concern to reserve component units are service members who are unavailable because they have not yet completed their initial training. On the average, these members account for 10 to 15 percent of a unit's assigned strength. These members are assigned to the unit and may be attending training assemblies with the unit, but they are not legally available for deployment in wartime.

Available Skill Qualifications

Not everyone available to a unit may have been awarded the specialty called for by the particular position to which they are assigned. To be considered qualified, a member must have been awarded the required specialty according to the rules of the military Service. The person-to-job match may include secondary specialties or additional specialties (including any that a Service authorizes for substitution). Under UNITREP, skill levels, such as numerical designations for apprentice, journeyman, and master, are not used to determine skill qualifications.

Available Senior Grade Members

The unit's personnel "health" in leaders is rated in a simple way: the ranks (pay grade E5 and above, including officers) of available personnel are compared with the rank structure contained in the unit's wartime manning document. Specialties are ignored for this rating.

Causes of Personnel Lack of Readiness

LMI's analysis reveals low skill qualification percentages as the personnel factor that most interferes with personnel readiness in Guard/Reserve units. Skill qualification problems are more serious than simple personnel shortages or insufficient numbers of personnel in senior grades, for all units, including high-priority units. This is shown in Figure 4-2. Some units may be deficient in more than one area.

Table 4-3 shows, for the same three groupings of units shown in Figure 4-2, the percentage of assigned, available and qualified members. From left to right, the table columns show the increasing reduction in available, qualified personnel when comparing wartime required strengths with assigned strengths, with available strengths, and finally with available skill-qualified strengths--all expressed as percentages of the wartime requirement. As seen earlier in the case of overall personnel readiness ratings, high-priority Army reserve units are not better off than all Guard and Reserve units combined.

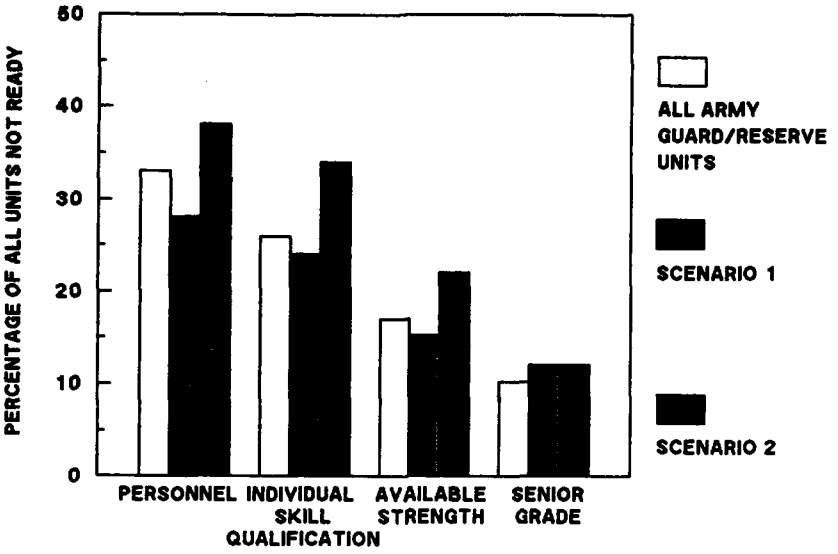


FIGURE 4-2. PERSONNEL READINESS IN ARMY GUARD/RESERVE UNITS BY PERSONNEL FACTOR AND GROUPS OF UNITS (AS PERCENTAGE OF ALL UNITS REPORTING "NOT READY")

SOURCE: APRIL 1987 UNITREP. PERCENTAGES REPORTED FOR EACH FACTOR DO NOT ADD TO PERCENTAGE REPORTED FOR PERSONNEL BECAUSE SOME UNITS ARE "NOT READY" BECAUSE OF MORE THAN ONE FACTOR

Table 4-3. Successively Restricted Personnel Strength Percentages (Selected groups of Army reserve component units)

Unit Group	Group Strengths as Percent of Group's Total Wartime Requirement		
	Assigned %	Available %	Available and Qualified* %
All Guard/Reserve Units	93	80	69
Scenario 1	99	87	72
Scenario 2	89	75	65

* Qualified for assigned position specialty

Source: UNITREP, April 1987

The Army National Guard and Reserve units assigned to Scenario 2, for example, report levels of available, qualified personnel equal to 65 percent of their wartime requirement. Obviously, not all these difficulties occur as a result of simple position vacancies. Many factors, including vacancies, positions filled with members having the wrong skills, members in training, and members unavailable for other reasons, contribute to the shortfalls.

Skill Shortages and Mismatches

Skill imbalances may be considered generally as belonging to one of four groups:

- **"Pure" or Inventory Shortages** - This kind of imbalance occurs when positions calling for certain qualifications simply cannot be filled. In unit after unit, recruiting efforts fail to attract service members to certain positions. These specialties may represent chronic shortages to the military service concerned; they may include unpopular specialties, or specialties with very high aptitude or difficult training requirements.

- **Training Pipeline** - Reserve component enlistees who require initial training are currently enrolled as unit members, but they cannot be counted as being available in readiness reporting until they complete that training. This can be true for individuals with prior military service as well as for new enlistees. Some specialties consistently have large groups of service members declared unavailable because they are awaiting training or undergoing training. It is likely that these specialties have high turnover rates in the units, and/or that they show high attrition rates during training.

- **Unit-by-unit Imbalances** - These groups of "shortages" in certain specialties are particularly troublesome because they are shortages only in some military units. Other units, in other locations, may actually show overstrength conditions in the same military jobs.

- **Skill Mismatches** - This kind of imbalance occurs when positions calling for certain qualifications are filled, but filled with people having the wrong qualifications. When these individuals do not undergo timely training in the proper skill, the skill mismatch persists.

Certain specialties may display more than one set of characteristics at any one time. That is, a specialty may represent a chronic "pure" shortage in a number of units and, at the same time, show consistently large populations undergoing training.

Army Specialties Adversely Affecting Personnel Readiness

Tables 4-4 and 4-5 are LMI-developed lists of Army specialties with shortfalls contributing heavily to personnel readiness problems. These listings are derived from two groups of high-priority units. Table 4-4 shows specialties related to early-deploying National Guard and Reserve units found in Scenario 1. Table 4-5 contains specialties related to National Guard and Reserve units in Scenario 2. These lists show the 20 specialties with the largest shortages of qualified personnel. Over 200 other specialties show smaller shortages. Note that officer, warrant officer, and enlisted specialties are included. Further detail on the procedures used to examine skill imbalances in relation to unit priority is provided in Appendix H.

The complete lists of specialties contain the numbers of additional qualified personnel needed to make up shortages in all specialties and for all units in each group. These numbers would raise a unit's percentage of fully-qualified personnel enough to attain a personnel readiness rating equal to the unit's ALO. In other words, if the numbers of qualified personnel identified were added to the appropriate units, the result would be that each high-priority unit would achieve the highest peacetime personnel readiness rating that is possible within existing personnel ceilings.

The determination of the quantities of Army specialties shown in Tables 4-4 and 4-5 began with the personnel readiness rating of each of the high-priority reserve units. If the rating of a unit was high (ready, or substantially ready), no further examination was made of that unit, even though a few specialties might be substantially short of qualified people. In units with unsatisfactory personnel readiness, however, the precise number of vacancies making up the shortage was then calculated and distributed among the specialties that were short. The objective was to identify the <u>minimum</u> number of soldiers, by specialty, who could be added to produce a satisfactory personnel readiness <u>rating</u>. The significance of the procedure, as it relates to reserve compensation, is that it implies the possibility that initiatives targeted at the most critical skills and units could potentially result in substantial readiness improvements within reasonable cost limits.

The next approach is to investigate the significance of doing more than just eliminating poor personnel readiness <u>ratings</u> of high-priority units. What would be required to raise every specialty in <u>all</u> high-priority units to a satisfactory level? Such a scheme (which would create much more capable reserve units, but which has higher cost implications than that used for Tables 4-4 and 4-5) was used to develop Tables 4-6 and 4-7.

Table 4-4. Twenty Army Specialties Contributing Most to Low Personnel Readiness Rating of Units (Specialty Qualification)

Scenario 1: 268 Early-deploying Guard/Reserve units
(Computations based on unit readiness ratings)

Specialty		Military Class	Wartime Required	Additional Qualified Personnel Needed	Shortage* as Percent of Wartime Requirement %
54B	Chemical Operations Specialist	E	644	123	19
95B	Military Police	E	880	106	12
12C	Bridge Crewman	E	188	80	43
52D	Power Generation Equipment Repairer	E	181	56	31
91A	Medical Specialist	E	524	55	10
180	Special Operations Technician	W	102	39	38
75B	Personnel Administration Specialist	E	173	30	17
62B	Construction Equipment Repairer	E	148	28	19
76V	Materiel Storage and Handling Specialist	E	191	26	14
63B	Light Wheel Vehicle Mechanic	E	383	25	7
55B	Ammunition Specialist	E	322	25	8
55R	Ammunition Stock Control and Accounting Specialist	E	59	25	42
76Y	Unit Supply Specialist	E	549	24	4
76C	Equipment Records and Parts Specialist	E	126	23	18
94B	Food Service Specialist	E	497	23	5
88N	Traffic Management Coordinator	E	256	22	9
95B	Traffic Management	O	69	20	29
75Z	Personnel Sergeant	E	83	19	23
00Z	Command Sergeant Major	E	89	17	19
97G	Counter Signal Intelligence Specialist	E	34	16	47

O = Officer W = Warrant Officer E = Enlisted

* "Shortage" represents additional MOS-qualified personnel needed in each specialty to ensure that all units have a personnel readiness rating (for available qualified personnel) equal to their Authorized Level of Organization (ALO).

Table 4-5. Twenty Army Specialties Contributing Most to Low Personnel Readiness Rating of Units (Specialty Qualification)

Scenario 2: 208 Guard/Reserve units
(Computations based on unit readiness ratings)

Specialty		Military Class	Wartime Required	Additional Qualified Personnel Needed	Shortage* as Percent of Wartime Requirement %
11B	Infantryman	E	6,508	766	12
11C	Indirect Fire Infantryman	E	1,469	169	12
31K	Combat Signaler	E	941	113	12
11H	Heavy Antiarmor Weapons Infantry	E	1,016	112	11
12B	Combat Engineer	E	860	97	11
52D	Power Generation Equipment Repairer	E	546	97	18
11B	Light Infantryman Officer	O	552	96	17
77F	Petroleum Supply Specialist	E	482	85	18
95B	Military Police	E	784	83	11
36M	Switching Systems Operator	E	185	77	42
31C	Single Channel Radio Operator	E	568	74	13
91A	Medical Specialist	E	885	70	8
31V	UL Communications Maintenance Repairer	E	428	69	16
76C	Equipment Records and Parts Specialist	E	433	64	15
13F	Fire Support Specialist	E	395	63	16
31M	Multichannel Communications Equipment Operator	E	806	57	7
71L	Administrative Specialist	E	1,242	50	4
54B	Chemical Operations Specialist	E	421	46	11
88M	Traffic Management Coordinator	E	170	43	25
11M	Fighting Vehicle Infantryman	E	345	43	12

O = Officer W = Warrant Officer E = Enlisted

* "Shortage" represents additional MOS-qualified personnel needed in each specialty to ensure that all units have a personnel readiness rating (for available qualified personnel) equal to their Authorized Level of Organization (ALO).

In this case, each unit on the list of priority units was examined by specialty. Within each unit, any specialty that did not have a satisfactory number of qualified soldiers available for deployment had its shortage identified, and that shortage was entered on the list of total shortages. Thus, even though a unit might be reporting a "ready" personnel readiness rating, any internal shortages were identified as requiring remedy. LMI analysts found that the number of soldiers listed by this method, in Tables 4-6 and 4-7, was larger (by about a factor of two) than the numbers of shortages identified by the more frugal readiness rating improvement method that produced Tables 4-4 and 4-5.

In summary, because of the nation's high dependence on units of the Army National Guard and Reserve early in any major conflict, the readiness of reserve units during peacetime is vital. However, as LMI analysis demonstrated, reserve component units are not as ready as they should be to fulfill their designated wartime missions. In terms of unit personnel readiness, approximately 55 percent of Army Selected Reserve units report a less-than-ready status. These deficiencies are found even in units identified by the Army as high priority. By identifying the specific skills most directly related to the readiness of high-priority units, compensation initiatives could produce substantive readiness gains.

Personnel Readiness and Skill Shortages in the Air National Guard and Air Force Reserve

Thus far, discussion has centered around the Army National Guard and Reserve at the unit and specialty levels. However, the issues discussed and the methods used to identify specialties that may become targets for compensation incentives are applicable to unit groupings of other reserve components as well.

The purpose of this section is to display comparable readiness and skill shortage information about the Air National Guard and Air Force Reserve. For illustration, three unit groupings have been chosen as notional high-priority Air National Guard and Air Force Reserve units based on mission area. Since the purpose of this discussion is general component comparability, the information presented here includes only three selected enlisted specialties and does not provide the same detail on specific specialties as those produced for the Army. LMI reviewed skill shortages in Air Force units by comparing the specialty required by each position with the primary specialty of the airman assigned in those units.

Table 4-6. Twenty Army Specialties Contributing Most to Low Unit Fill of Qualified Personnel (Specialty Qualification)

Scenario 1: 268 Early-deploying Guard/Reserve units
(Computed without regard to unit readiness ratings)

	Specialty	Military Class	Wartime Required	Additional Qualified Personnel Needed	Shortage* as Percent of Wartime Requirement %
71L	Administrative Specialist	E	1,351	225	17
54B	Chemical Operations Specialist	E	644	195	30
95B	Military Police	E	880	162	18
91C	Practical Nurse	E	249	124	50
38A	Civil Affairs, General (RS Comp)	O	192	123	64
18A	Special Operations Officer	O	220	120	55
91A	Medical Specialist	E	524	117	22
76Y	Unit Supply Specialist	E	549	117	21
84E	Special Operations Communications Sergeant	E	318	97	31
31C	Single Channel Radio Operator	E	456	95	21
18F	Special Operations Intelligence Sergeant	E	167	93	56
52D	Power Generation Equipment Repairer	E	181	93	51
88H	Traffic Management Coordinator	E	256	88	34
74B	Chemical Operations/ Training Officer	O	84	84	100
12C	Bridge Crewman	E	188	84	45
55B	Ammunition Specialist	E	322	83	26
31K	Combat Signaler	E	321	80	25
180	Special Operations Technician	W	102	80	78
94B	Food Service Specialist	E	497	78	16
75B	Personnel Administration Specialist	E	173	73	42

O = Officer W = Warrant Officer E = Enlisted

* "Shortage" represents additional MOS-qualified personnel needed in each specialty to ensure that all specialties in all units are filled with qualified people to a level equal to the unit's Authorized Level of Organization (ALO).

Table 4-7. Twenty Army Specialties Contributing Most to Low Unit Fill of Qualified Personnel (Specialty Qualification)

Scenario 2: 208 Guard/Reserve Units
(Computed without regard to unit readiness ratings)

	Specialty	Military Class	Wartime Required	Additional Qualified Personnel Needed	Shortage* as Percent of Wartime Requirement %
11B	Infantryman	E	6,508	985	15
11M	Fighting Vehicle Infantryman	E	345	224	65
71L	Administrative Specialist	E	1,242	200	16
52D	Power Generation Equipment Repairer	E	546	179	33
11C	Indirect Fire Infantryman	E	1,469	177	12
31K	Combat Signaler	E	941	176	19
77F	Petroleum Supply Specialist	E	482	147	30
13F	Fire Support Specialist	E	395	145	37
95B	Military Police	E	784	143	18
31M	Multichannel Communications Equipment Operator	E	806	138	17
12B	Combat Engineer	E	860	126	15
31C	Single Channel Radio Operator	E	568	124	22
11H	Heavy Antiarmor Weapons Infantry	E	1,016	122	12
91A	Medical Specialist	E	885	110	12
11B	Light Infantryman	O	552	104	19
72E	Telecommunications Center Operator	E	534	101	19
54B	Chemical Operations Specialist	E	421	94	22
76C	Equipment Records and Parts Specialist	E	433	93	21
36M	Switching Systems Operator	E	185	87	47
76Y	Unit Supply Specialist	E	1,032	86	8

O = Officer W = Warrant Officer E = Enlisted

* "Shortage" represents additional MOS-qualified personnel needed in each specialty to ensure that all specialties in all units are filled with qualified people to a level equal to the unit's Authorized Level of Organization (ALO).

General Comparison

The reserve components of the Air Force are substantially smaller than their Army counterparts, in total assigned personnel and in numbers of units. Table 4-8 shows those comparative figures.

Table 4-8. Selected Reserve Assigned Strength and Numbers of Units Reporting Readiness: Four Reserve Components

Component	Assigned Strength* (000)	Units Reporting Readiness**
ARNG	451.8	1,701
USAR	313.6	1,748
ANGUS	114.6	832
USAFR	80.4	411

*RCCPDS Fiscal Year 1987 Summary.
**Data from MULTICS files, October-November 1987.

The Air Force is, in some respects, less dependent on its reserve components for overall mission accomplishment than is the Army. Within some mission areas, however, the wartime effort of the Air National Guard and Air Force Reserve is extremely important. Table 4-9 shows the levels of reserve contribution to the total Air Force in selected mission areas. Three of these mission areas were chosen by LMI for further review as notional high-priority unit groupings. Table 4-10 summarizes the status of personnel readiness of these selected groups.

Aerial Port Operations

Aerial port units provide terminal services for both cargo and passengers. These units, which are organized in peacetime as squadrons or flights, are employed as teams upon mobilization to augment existing aerial port terminals or to provide similar services at unimproved air bases destined for wartime service. Aerial port units are required very early in any major conflict, during the initial surge in airborne shipments to (and within) the war theater. Those Air National Guard and Air Force Reserve units are therefore important to early accomplishment of the wartime mission of the Air Force. Over 10,000 enlisted positions exist in the Air Guard and in the Air Force Reserve for aerial port units.

Table 4-9. Air National Guard and Air Force Reserve Contributions to Total Air Force

Mission Area	Percentage Contribution
Air defense	78*
Tactical airlift	60*
Strategic airlift aircrews	50**
Tactical fighter capability	33*
Air refueling	22*
Tactical reconnaissance	54*
Aerial port	61***
Tactical control	55***
Combat communications	67***
Aeromedical evacuation crews	93****
Civil engineering personnel	44***

Note: All data except those for aeromedical evacuation crews from the Annual Report of the Reserve Forces Policy Board for FY1987, p.13.

*Percentage determined by counting primary authorization aircraft.
**Percentage determined by counting primary authorized aircrews.
***Percentage determined by counting primary authorized personnel.
****Data from Air Force Magazine, September 1987, p.107.

Table 4-10. Personnel Readiness of Notional High-Priority Air National Guard and Air Force Reserve Unit Groups*

	Personnel Readiness**		
Unit Group	Ready	Marginally Ready	Not Ready
Aerial Port	88%	10%	2%
Civil Engineering	70	18	12
Combat Communications	89	9	2

*LMI retained the older UNITREP category titles of "combat ratings" rather than "category levels" used under the new Status of Resources and Training Systems (SORTS), which was implemented during FY1987. All units in these unit group report readiness.
**Shown as a percentage of all units within each unit group.

Although the overall personnel readiness status of this group of units is generally good (see Table 4-10), a review of the individual specialties for aerial port units shows that three specialties are experiencing some level of skill imbalance in Air National Guard and Air Force Reserve units combined. The current situation for these specialties is shown in Table 4-11.

Table 4-11. Potential Problem Specialties in Aerial Port Units (ANG and USAFR Units Combined)

		Primary of Assigned as Percentage of Authorized				
Specialties		Percent fill	P = DY*	Same CF**	Other CF***	Initial Training ****
472X0	Vehicle Mechanic	103%	43%	49%	8%	3%*****
605X0	Passenger specialist	116%	51%	52%	5%	8%
605X1	Cargo specialist	99%*****	41%	42%	12%	4%*****

*Primary incumbent specialty is same as duty specialty.

**Primary incumbent specialty and duty specialty not the same, but are in same career field.

***Primary incumbent specialty and duty specialty are in different career fields.

****Undergoing initial skills training in duty specialty.

*****This percentage is an estimate due to the practice of the Air Guard of assigning new Service members to special, separate "training flights" so that these not-yet-qualified airmen are not counted against Selected Reserve unit strengths. It is assumed that the ANG and USAFR have equal percentages of their airmen undergoing initial skill training in this specialty.

Civil Engineering

Civil engineering units of the Air National Guard and Air Force Reserve are to deploy very early in any major conflict to provide engineering support for Air Force combat units at both unimproved locations and established air bases. Runway battle damage repair, construction of facilities, fire protection, crash rescue, and bare base maintenance and operations are representative wartime tasks for these important units. Air Force dependence upon the Air National Guard and Air Force Reserve for civil engineering work is also substantial. Of all Air Force people assigned to this mission area, the Air Guard and Air Force Reserve provide 44 percent.

Two of the 57 specialties required for the operation of these units show levels of skill imbalance which might merit special attention. Table 4-12 shows this data.

Table 4-12. Potential Problem Specialties in Civil Engineering Units (Air National Guard and Air Force Reserve Units Combined)

Specialties		Percent fill	Primary of Assigned as Percentage of Authorized: P = DY*	Same CF**	Other CF***	Initial Training****
552X0	Carpenter	105%*****	49%	29%	24%	3%*****
552X1	Mason	101%	42%	43%	15%	1%

*Primary incumbent specialty is same as duty specialty.
**Primary incumbent specialty and duty specialty not the same, but are in same career field.
***Primary incumbent specialty and duty specialty are in different career fields.
****Undergoing initial skills training in duty specialty.
*****This percentage is an estimate due to the practice of the Air Guard of assigning new Service members to special, separate "training flights" so that these not-yet-qualified airmen are not counted against Selected Reserve unit strengths. It is assumed that the Air National Guard and Air Force Reserve have equal percentages of their airmen undergoing initial skill training in this specialty.

Combat Communications

Combat communications flights are mobile units that are deployed promptly to the war theater in time of emergency to establish and to operate ground-to-ground communications and ground-to-air communications, including those communications required for command and control during combat. The bases to which these units deploy are both unimproved air bases or those which are operated jointly with units of allied nations.

Combat communications units in the Air National Guard and Air Force Reserve show generally satisfactory levels of personnel readiness (see Table 4-10). When a specialty-by-specialty review is made, however, a single military job shows a level of skill imbalance which may require special attention. Table 4-13 contains the specific information. No Air Force Reserve data are shown since all Air National Guard and Air Force Reserve combat communication units are assigned to the Air National Guard.

Observations

LMI research reveals that, when compared with the reserve components of the Army, the units of the Air National Guard and the Air Force Reserve show higher levels of personnel readiness.

Table 4-13. Potential Problem Specialty in Combat Communications Units (ANG Units Only)

Specialties	Percent fill	Primary of Assigned as Percentage of Authorized: P = DY*	Same CF**	Other CF***	Initial Training****
472X2 Vehicle Mechanic	100%	39%	50%	11%	0%*****

*Primary incumbent specialty is same as duty specialty.
**Primary incumbent specialty and duty specialty not the same, but are in same career field.
***Primary incumbent specialty and duty specialty are in different career fields.
****Undergoing initial skills training in duty specialty.
*****The number of airmen undergoing initial skills training is unknown, since the ANG enrolls all such people in training flights that are not associated with the unit to which each airmen will be assigned permanently.

At the same time, the number and magnitude of skill shortages and imbalances in the Air Guard and Air Force Reserve are lower than in the Army components.

A review of the types of troublesome Air Force specialties in these selected groups of units shows an interesting trend. For the most part, the military jobs for which trained and qualified airmen are sometimes unavailable are jobs that are by their very nature unpopular: they require hard work under sometimes arduous conditions. In flying units--none of which was reviewed here--the sortie-generating skills and others connected directly with the assigned aircraft consistently showed higher levels of specialty qualification than the jobs shown in these tables.

The data imply that carefully developed compensation initiatives could be used to address the perplexing problem of intrinsically unpopular skills that show persistent shortages over time.

Problems of Skill Qualification in Reserve Components

It is well recognized that high levels of unprogrammed attrition represents one of the most serious personnel problems in the reserve components. If personnel losses are severe, how can training efforts ever catch up to readiness requirements? Turbulence undermines training, and training difficulties result

in low levels of skill qualification and slow correction of skill mismatches.

Reserve training is difficult. Individual skill qualification training and matching of individual skills to unit billets are inherently more difficult in the reserve force than in the active force. Part-time reservists are available only on a limited basis, with training often separated by weeks of distraction by civilian job requirements. Many are far removed from training facilities. Particularly in the more technical specialties, unit capability to provide adequate skill training may be severely limited. Civilian job changes often requires relocation, resulting in transfer, retraining, broken service, or even total loss.

As part of their work in support of the QRMC, the RAND Corporation and the Logistics Management Institute (LMI) provided research and analysis of the process of individual skill training and the matching of individual skills to unit billet requirements. LMI analysts, expanding on the technology developed for the Reserve Medical Management Information System (REMMIS), produced tables depicting how well specialty requirements of Army Selected Reserve units match the primary skill qualifications of the enlisted personnel assigned to those units. Summary tables are shown in Appendix I. The tables reveal wide variances by MOS when matching the primary skill qualification of a member with duty qualification. LMI also, as reported in the preceding section, used personnel files and manpower authorization documents to analyze MOS qualification rates and levels and their effect on unit personnel readiness. RAND analysts used data from the 1979 Reserve Force Studies Surveys of the Army National Guard and Reserve which they conducted under contract to DoD and from the 1986 Reserve Components Surveys to analyze causes of low MOS qualification levels and suggest compensation related incentives that might improve skill qualification levels.[8]

With very limited exceptions for individuals with relevant civilian training or experience, nonprior service recruits receive basic military training and training in a military specialty during a period (sometimes split) of initial active duty for training (IADT). After trained members return to their units, however, they may change units or skills. In these cases, skill retraining is difficult because of limits on the member's time and the difficulty of scheduling additional formal school training. Table 4-14 shows that, one year after entry, only about 80 percent of Army reserve component nonprior service accessions have formal school training in the skill to which they are assigned. Table 4-15 shows that on-the-job training in the reserve unit is the most common alternative training method for nonprior service members who have not received formal training in the skill to which assigned.

Table 4-14. Percent of Nonprior Service Personnel With Active Duty Training in PMOS

Years of Reserve Service	Army National Guard %	Army Reserve %
1	76.5	82.9
2	74.6	81.5
3	74.0	80.0
4	67.3	77.5
5	63.7	71.9
6+	45.1	56.0

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel.

Table 4-15. Alternatives to Active Duty PMOS Training for Personnel without Prior Service

(percent trained in each alternative)

Alternative	Army National Guard %	Army Reserve %
OJT in civilian job	13.2	19.2
Formal civilian school	05.5	13.2
OJT in Reserve component	84.6	73.8
Correspondence course	23.6	27.8

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel. Percents do not sum to unity because individuals may be trained in more than one mode.

For the majority of nonprior service members, civilian experience or training does little to reduce military skill qualification problems. Table 4-16 shows that only about 11 percent of enlisted members of the Army National Guard and 17 percent of nonprior service Army Reservist's have civilian jobs similar or very similar to their military specialty. Not only is unit skill training limited by the relatively few days each year available for training, but there are many other demands besides working and training in the duties of the member's primary military occupation. For those without prior service, 46 percent of junior enlisted members of the Army National Guard and 31 percent of senior members report that they spend less than half of their time working in their primary specialty. In the Army Reserve the comparable figures are 53 and 36 percent.

Table 4-16. Similarity of Civilian and Reserve Jobs for Nonprior Service Personnel (percent in each alternative)

Similarity of Civilian and Reserve Jobs	Army National Guard %	Army Reserve %
Very similar	05.4	08.8
Similar	05.4	07.9
Somewhat similar	12.1	14.2
Not similar at all	65.7	58.2
No civilian job	11.3	10.8

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel. Percents may not sum to unity because of rounding.

Is the situation better for veterans? It is often argued that the affiliation of prior service members with the reserve components represents increased return on training investment and reduced requirements for initial military and skill training. At least with respect to qualification in the skill to which assigned, this is not the case. Table 4-17 shows that in the Army National Guard and Reserve, less than half of prior

service accessions are initially assigned against their active duty primary specialty. With promotion and reassignment, the proportion drops to one in four or less after seven years of reserve service. Similarity between military and civilian duties is slightly higher in the Army National Guard for prior service than nonprior service members, and in both components prior service members are more likely to spend a majority of their time performing in their primary specialty.

Table 4-17. Share of Prior Service Reservists With Same Active and Reserve PMOS

Years of Reserve Service	Army National Guard		Army Reserve	
	Junior %	Senior %	Junior %	Senior %
1	37.1	28.9	47.6	56.3
2	33.2	29.1	41.7	45.4
3	31.8	28.1	33.8	40.9
4	26.3	25.0	31.2	34.1
5	29.2	20.9	31.3	28.4
6	21.0	22.0	28.3	29.9
7+	25.8	18.9	27.1	22.7

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel.

RAND analysts estimated specialty qualification from the 1979 Reserve Force Studies Survey and predicted future duty specialty qualification rates by years of reserve service and prior service status from 1986 Reserve Components Surveys data. This work predicts that the qualification of members who join the reserve after a period of prior active duty service will continue to trail the rates for nonprior service members. A substantial percentage will remain unqualified even after years of reserve service. These forecasts are shown in Tables 4-18 and 4-19.

The research shows that a great deal of time is presently required to earn a new specialty. For this reason, reservists who change units are much less likely to be qualified in their duty specialty than those who do not. Table 4-20 shows how frequently members change units. Overall, those who remain are relatively stable, but unit change is generally more frequent for those with prior active duty service and is much more likely

Table 4-18. MOS Qualification Rate for Pay Grade E1-E4, by Years of Service, Component, and Prior Service Status

Years of Reserve Service	Army National Guard NPS %	Army National Guard PS %	Army Reserve NPS %	Army Reserve PS %
0.5	58.9	58.4	60.8	44.3
1.0	59.8	61.1	61.7	46.2
2.0	80.3	76.1	75.8	63.4
3.0	81.3	79.3	77.1	66.0
4.0	82.2	81.8	78.4	68.1
5.0	82.9	83.9	79.6	69.7
6.0	83.6	85.5	80.8	70.8

Note: Results estimated from the 1979 Reserve Force Studies Survey.

Table 4-19. MOS Qualification Rate for Pay Grade E5-E9, by Years of Service, Component, and Prior Service Status

Years of Reserve Service	Army National Guard NPS %	Army National Guard PS %	Army Reserve NPS %	Army Reserve PS %
1	--	73.6	--	69.1
2	--	75.9	--	71.8
4	85.3	79.5	82.4	76.5
6	86.9	82.3	83.0	80.2
8	88.2	84.5	84.0	83.0
10	89.2	86.1	85.5	85.2
15	91.0	88.7	90.1	88.4
20	91.8	89.5	94.6	89.4

Note: Results estimated from the 1979 Reserve Force Studies Survey. MOS qualification rates are not shown for NPS E5-E9 in years 1 and 2 because very few NPS recruits achieve these ranks with so few years of service.

Table 4-20. Unit Tenure of Reserve Personnel

Characteristic	Army National Guard NPS	Army National Guard PS	Army Reserve NPS	Army Reserve PS
Average Years in Reserve	11.75	7.48	9.28	7.29
Average Years in Current Unit if Changed	6.05	4.22	4.57	3.73
Number of Units of Assignment	%	%	%	%
1	59.76	60.27	53.45	56.07
2	21.44	21.90	23.19	24.70
3	8.76	8.58	14.16	8.88
4+	10.04	9.26	9.20	10.35

Note: Results estimated from the 1979 Reserve Force Studies Survey.

for members of the Army Reserve than for the Guardsmen. Tables 4-21 and 4-22 show the effect of unit change on the duty qualification rate. The RAND researchers conclude that low occupational qualification levels can be traced to low rates of occupational matching for prior service personnel, high turnover of personnel in units, the long process for occupational retraining, and promotion incentives which encourage occupational movement.

There are, however, other factors. RAND analysts compared the views of senior enlisted members in 45 units which had been surveyed with a 100 percent sample in 1979 with views expressed in a follow-up in 1986. They found a pattern of shifting perception of the nature of the most serious problems between the two periods. Table 4-23 shows the shifts and calculates the differences. The personnel related factors of quality of personnel, early pay grade strength, low attendance and, to some extent, MOS qualified shortage are believed to be improved. The respondents now consider them less severe.

Table 4-21. Unit Change and Duty Qualification for Personnel in Pay Grades E1-E4, by Component and Prior Service Status

	Army National Guard		Army Reserve	
Duty Qual. Rate	NPS %	PS %	NPS %	PS %
Before unit change	92.7	72.8	86.4	72.3
After unit change	77.7	55.3	58.2	56.4
Years in new unit				
1	80.5	61.5	61.8	57.2
2	82.5	67.5	65.1	60.7
3	84.1	72.6	69.0	64.2
4	85.3	76.9	73.3	67.8
5	86.3	80.5	77.8	71.3

Note: Results estimated from the 1986 Reserve Components Survey of Enlisted Personnel. Results are based on National Guard and Army Reserve member changing units after 3 years of reserve service.

Table 4-22. Unit Change and Duty Qualification for Personnel in Pay Grades E5-E9, by Component and Prior Service Status

	Army National Guard		Army Reserve	
Duty Qual. Rate	NPS %	PS %	NPS %	PS %
Before unit change	91.8	82.5	87.4	79.8
After unit change	74.3	62.8	58.8	51.2
Years in new unit				
1	75.6	66.9	62.4	57.0
2	76.8	70.6	65.6	62.2
3	78.0	73.7	68.5	66.9
4	79.0	76.4	71.1	71.0
5	80.0	78.7	73.3	74.6

Note: Results estimated from the 1986 Reserve Components Survey of Enlisted Personnel. Results are based on all members who changed units after 8 years (NPS) and 6 years (PS) of service.

Table 4.23 Comparing Perception Problems For 1979 AND 1986

% Responding "Serious" or "Somewhat" of a Problem

	Out of Date Equipment/ Weapons	Poor Mechanical Condition of Equipment/ Weapons	Being Below Strength in Grades E1-E4	Being Below Strength in Grades E5-E9	Not Enough Staff Residences to Plan Effective Training	Low Attendance at Unit Drills	Low Attendance at Annual Training
1979							
E5	13.7	11.9	30.2	7.8	12.6	18.0	6.9
E6	14.8	10.1	35.7	5.0	11.7	17.0	6.6
E7	10.4	9.3	37.5	5.6	12.1	15.5	5.6
E8	13.1	7.9	38.1	2.8	8.0	7.4	1.7
1986							
E5	21.6	14.9	16.8	7.3	13.7	12.8	8.3
E6	20.9	14.5	19.4	5.2	14.3	10.4	6.3
E7	19.9	14.6	15.1	6.1	15.3	9.0	6.8
E8	20.5	11.6	15.7	6.8	16.4	7.5	4.1
Differences 1986-1979							
E5	7.9	3.0	-13.4	-0.5	1.1	-5.2	+1.4
E6	6.1	4.4	-16.3	-0.2	2.6	-6.6	-0.3
E7	9.5	5.3	-22.4	-0.5	3.2	-6.5	1.2
E8	7.4	3.7	-22.4	+4.0	8.4	+0.1	2.4

Instead, the surveys reveal a much higher concern with access to facilities, time to train, poor equipment, and paperwork interference. The pattern of improved numbers of personnel, accompanied by increased problems of training time and access is an indicator of the increased intensity of reserve training and administration today.

Turbulence is the enemy of training, and training is the key to readiness. Training personnel to the levels required for MOS qualification takes a long time: losses and transfers cut the members' tenure short and hold down the level of personnel readiness. Could the components solve the problem by training harder and faster, either through additional training assemblies, or through longer active duty for training?

Table 4.23 (continued)

% Responding "Serious" or "Somewhat" of a Problem

	Ineffective Training During Annual Training	Shortage of MOS Qualified Personnel	Low Quality of Personnel in Low Grade Unit Positions	Not Enough Time to Practice Skills	Not Enough Time to Plan and Get All Paperwork Done	Lack of Access to Good Training Facilities	Lack of Good Instruction Manuals/ Materials
1979							
E5	9.2	15.5	15.6	12.0	14.7	17.2	12.1
E6	8.7	14.1	17.9	14.7	21.4	21.6	11.6
E7	7.3	13.7	18.8	26.9	29.4	19.1	9.2
E8	3.4	7.4	12.5	15.9	31.2	16.5	3.4
1986							
E5	12.6	12.7	11.0	19.7	23.8	22.7	14.1
E6	10.5	9.8	9.1	21.2	29.5	22.7	12.0
E7	9.5	10.2	10.2	29.2	42.8	28.0	10.5
E8	7.5	8.9	9.6	34.9	45.2	22.6	13.0
Difference 1979-1986							
E5	3.4	-2.8	-4.6	7.7	9.1	5.5	2.0
E6	1.8	-4.3	-8.8	6.5	8.1	1.1	0.4
E7	2.2	-3.5	-8.6	2.3	13.4	8.9	1.3
E8	4.1	1.5	-2.9	19.0	14.0	6.1	9.6

Previous research has established a strong association between employer or family conflict and reserve loss. Increased training time which exacerbates these tensions might produce more rapid MOS qualification in the individual, only to see the benefit lost through increased losses and the need to train more individuals.

This is indicated by an empirical study of retention in the first seven Army National Guard units to attend the National Training Center and RAND analysis of data from the 1986 Reserve Components Surveys for revealing intentions.[9] In the latter data, a clear pattern of change in reenlistment intention was found in answer to questions of the effect of extended training options. The options presented for consideration were two: two extra drills per month on the one hand or an extra five days of annual training duty on the other. Tables 4-24 and 4-25 present the results. While intention is not fait accompli, other work has shown reenlistment intention to be an excellent predictor of actual behavior. The analysts found a strong negative shift in intention to continue under the hypothetical conditions.

Table 4-24. Effect of Extended Time Options on the Reenlistment Intentions of Junior Personnel by Component and Prior Service Status

(percent planning to reenlist)

	Current Policy %	2 Extra Drills per month %	Extra 5 days of Annual Training %
Army National Guard			
NPS	49.8	37.0 (12.5)	39.6 (10.2)
PS	55.8	44.3 (11.5)	46.2 (9.6)
Army Reserve			
NPS	51.7	39.2 (12.2)	44.3 (7.4)
PS	58.9	48.2 (10.7)	51.7 (7.2)

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel. The difference between the proportion reenlisting under current policy and under each option is reported in parenthesis.

Table 4-25. Effect of Extended Time Options on the Reenlistment Intentions of Senior Personnel by Component and Prior Service Status

(percent planning to reenlist)

	Current Policy %	2 Extra Drills per month %	Extra 5 days of Annual Training %
Army National Guard			
NPS	65.8	48.6 (17.2)	49.4 (16.4)
PS	69.1	53.6 (15.5)	55.8 (13.3)
Army Reserve			
NPS	67.7	52.2 (15.5)	56.2 (11.5)
PS	72.2	58.5 (13.7)	62.3 (9.9)

Note: Results based on 1986 Reserve Components Survey of Enlisted Personnel. The difference between the proportion reenlisting under current policy and under each option is reported in parenthesis.

The results of the Army National Guard's use of the National Training Center in an expanded training program support the intentions reported by the surveys.[10] The National Training Center training increased the time required of the members in three ways; three weeks of duty were required in place of the usual two; the units involved undertook a more intensive

Table 4-26. Attrition/Transfers in NTC versus Comparison Units over the NTC period by State

	Separated from the Guard Unit %	Transferred to Another Guard Unit %	Overall Unit Attrition %	Still Remaining in Original Unit %	Numbers
Alabama					
NTC units	14.8	16.0	30.8	69.2	(533)
Comparison units	14.1	8.4	22.5	77.6	(491)
Georgia (1-108)					
NTC units	30.7	1.1	32.0	68.0	(547)
Comparison units	21.5	1.1	22.6	77.4	(1,552)
Georgia (1-121)					
NTC units	24.1	4.9	29.0	71.0	(801)
Comparison units	17.4	4.7	22.1	77.9	(1,531)
Georgia (2-121)					
NTC units	17.4	7.4	24.8	75.2	(771)
Comparison units	15.7	7.8	23.5	76.6	(1,561)
Louisiana					
NTC units	15.6	8.9	24.5	75.5	(649)
Comparison units	13.5	6.6	20.1	79.9	(1,075)
Minnesota					
NTC units	28.4	4.7	33.1	66.9	(821)
Comparison units	23.3	4.5	27.8	72.2	(2,036)
North Carolina					
NTC units	15.2	9.4	24.6	75.4	(792)
Comparison units	10.2	5.4	15.6	84.4	(2,523)

Source: Grissmer and Nogami, Retention Patterns for Army National Guard Units Attending the National Training Center, prepared for Battelle Columbus Laboratories under contract to U.S. Army Research Office, November 1986, draft.

training schedule in the year before their arrival; and officers and senior NCOs were required to participate in a large number of additional planning sessions during the preparation phase, which could have taken as much as two or three extra weekends each month.

The results show a significant difference in attrition between units participating in the program and equivalent non participating units.[11] Table 4-26 shows the data.

More than extra work was involved in the NTC program. Many reservists reported income loss from the extra time. Most young members received no civilian pay during their absence, and military pay suffered a troublesome delay. Some members lost pay during the preparation sessions, and others during the extra drills required.

Unit Personnel Shortages

The preceding section on reserve component personnel readiness provided insight into the extent to which available strength and skill qualification levels which affect unit readiness are being achieved. The section documented the magnitude of the personnel readiness problem and suggested that the systematic documentation of factors affecting personnel readiness in priority units may make the problem susceptible to improvement through the use of target incentives. To better understand the environment in which reserve compensation functions to attract and retain members with the desired qualities and needed skills, the pattern of personnel shortages across Army National Guard and Army Reserve units has been explored. This was accomplished as part of the research by the RAND Corporation in support of the 6th QRMC. The objective of this support was to determine the relative extent to which unit characteristics or local labor market characteristics influence manning and qualification levels.[12] The evidence of unit shortages is based on examination of the fill-rate (or percent fill) of reserve units as a function of unit-specific characteristics (unit size or authorized strength, unit mission, competition among units and so forth), and local and specific characteristics (size and nature of the recruiting pool, economic and demographic characteristics, region or state, and so forth).

There are over 6,000 distinct Army National Guard and Army Reserve units located throughout the United States. Each unit has a specified function (such as infantry, combat support, administration) and a mobilization mission. Reserve units have had different degrees of success in meeting manning goals. The research found that manning rates vary widely, from undermanning by more than 50 percent to overmanning by more than 25 percent.

An understanding of the reasons for the differential success in manning becomes important to the most efficient allocation of recruiting resources (broadly defined to include recruiters and bonuses for enlistment and reenlistment).

To analyze the determinants of unit manning among approximately 2,400 Army National Guard and 2,200 Army Reserve units, RAND analysts used data on operating and authorized strengths and functions of units from 1980, and matched this

with county-level census data from the 1980 Census for the locations of the units. Table 4-27 shows that the National Guard is more successful than the Army Reserve in meeting strength requirements and that larger units of either component have a significantly harder time in achieving strength levels than smaller units.

Table 4-27. Distribution of Units by Percent Fill Unit Size and Component, 1980

	Percent Fill (Operating strength/authorized strength)	
Authorized Strength	Army National Guard	Army Reserve
11-40 members	111	97
41-80 members	96	93
81-120 members	89	83
121-160 members	81	76
over 160 members	81	74

The empirical model was estimated using percent fill in 1980 as the dependent variable for the Army National Guard and the Army Reserve separately. Both unit size and unit mission emerge as important to fill rates. Size is directly related to percent fill, although the reasons for the relationship are not known. Unit mission was also related to fill rate. The RAND research found that differences of unit mission are even more significant among Guard units. Combat and combat-support units have considerably more trouble achieving their strength levels. Several locational characteristics also appear to have significant effects on unit manning levels. For example, the size of the recruiting pool (proportion of population age 16 to 34 years) and the proportion of veterans in this pool are both positively related to unit manning levels. Also, fast county growth rates are positively related to higher manning.

The effects of county economic characteristics (measured by unemployment rate, average household income, and percent of labor force with a high school education) were all in the expected direction and strongly significant for the Guard. Higher unemployment, as expected, is associated with higher manning levels, and RAND analysts found the effects to be significant for both components. Higher unemployment would tend to increase enlistments (as other job opportunities became curtailed) as well as retention. Counties with high income tended to have lower manning levels, as did counties with high average levels of education.

The research also found regional effects: the South tends to have relatively higher overall manning, although effects for the other regions are not consistent across components.

There are several caveats that must be mentioned with regard to these results. This analysis is based on cross-section data for a single year, 1980. Considerable changes in reserve policies have been implemented since then, and average unit manning levels have risen considerably. Significant variation still exists however, and the underlying structural reasons for these variations are probably best analyzed with full Census data and in poorer recruiting times. The RAND analysis has implications for reserve compensation: persistent personnel problems exist in certain types of units and in certain locations, even during periods where overall manpower goals are achieved. Again, this indicates flexible forms of compensation, which can be targeted against persistent problems, are likely to be most cost effective.

Attrition of Junior Enlisted Personnel

Junior personnel requirements are filled mainly by recruiting retaining and training individuals without prior service, but some requirements for pay grade E4 are also filled by new personnel with prior service. Shortages can result from high unprogrammed attrition rates early in careers as well as inability to recruit the required number and quality of personnel. The following section discusses attrition of personnel with and without prior service.

Early Attrition of Reservists

One measure of the stability of groups of reservists is the probability of attrition over a three-year period. Figure 4-3 shows, at each year of service, the probability of officer and enlisted reservists leaving the reserve within the following three years. The data shows that junior enlisted personnel have significantly higher three-year attrition rates than either junior or senior officers or senior enlisted personnel. If it is assumed that a reservist is fully trained after two years, the data shows that only about four in ten enlisted personnel will remain for an additional three years. This ratio declines to about 3 in 10 for personnel with four to six years of experience.

In contrast, junior reserve officers show significantly lower three-year turnover rates and correspondingly greater retention of experience in junior billets. For these members, the turnover rate after three years is only 4 in 10. For more

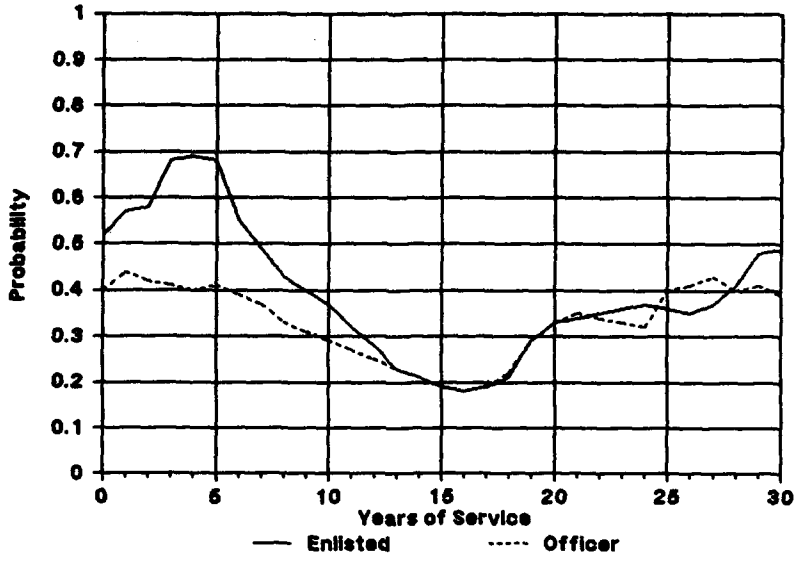


FIGURE 4-3. 3 YEAR ATTRITION PROBABILITY (SELECTED RESERVE)

Source: Grissmer, Buddin, and Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, R-3669 FM&P/RA. The RAND Corporation, Forthcoming.

senior officer and enlisted personnel, turnover rates after three years are significantly less--declining to under 2 in 10 for personnel close to retirement eligibility.

Attrition, particularly early attrition that is unrelated to Expiration of Term of Service (ETS), is generally regarded as one of the single most important issues facing the Selected Reserve today, particularly the two Army components. Most systematic research on attrition has focused on the Army Reserve and the Army National Guard, partly because these two components are by far the largest, and partly because the problem appears to be the most severe for these two components. In FY 1986, losses not related to ETS were 30 percent of average enlisted strength for the Army Reserve. An earlier RAND study analyzing the FY 1980 entrance cohort showed separation rates during the first two years of 30.6 percent for the National Guard and 39.5 percent for the Army Reserve.[13]

Initial active duty for training requires approximately eight weeks of basic military training plus advanced individual skill training, which can take from one month to over a year. There is further investment in the resources required to perform on-the-job training (OJT) at the unit level. The return on this investment occurs as individuals serve out their terms of reserve service.

The longer the individual stays, provided performance is satisfactory, the better the return on the training investment. Loss of these individuals before they complete their term can substantially reduce the return on this training investment, and introduce a permanent "float" of constantly rotating untrained persons.

RAND analysts have identified three types of Selected Reserve attrition, arguing that these must each be understood in order to evaluate the return on training investment.[14] A few reservists leave to enter the active force, more leave and return to the Selected Reserve at a later time, and others are lost permanently from the Selected Reserve. A greater return is realized on the training investment if individuals enter the active force, and some value is retained if an individual returns to the Selected Reserve. These two categories of reserve attrition, active duty transfers and returnees, accounted for 20 to 30 percent of the two-year attrition of the Army Reserve and for 10 to 15 percent of attrition in the Guard (Table 4-28). All attrition from reserve units affects unit personnel readiness, however, and the objective of the 6th QRMC is to identify compensation alternatives that can reduce that attrition.

The characteristics that are related to attrition were also studied. In the nonprior service cohorts of 1980, 1981, and 1982 gender was found the largest consistent attrition risk factor, followed by education experience and aptitude scores. Female members are at much higher risk of loss than similar males. High school graduates within a cohort show lower loss rates than members who did not graduate, and higher scorers on the Armed Forces Qualification Test show lower losses than lower scorers. This effect is not consistent between cohorts, however; later cohorts had higher averages in both these categories, but the about the same overall rate of loss.

As a quality objective, education is most desirable, and probably the best indicator of future performance. Compensation improvements, particularly the Selected Reserve incentive programs, have been one of the factors in improving the educational level of the Guard and Reserve components since 1980. However, while those with higher education levels are lost at lower rates, the RAND analysis suggests that improving

Table 4-28. TWO-YEAR ATTRITION RATES OF ARMY NATIONAL GUARD AND ARMY RESERVE FY 1980-82 NON-PRIOR SERVICE COHORTS, BY TIMING AND DESTINATION OF LOSS (in percentages)

Destination of Loss	FY80 Losses % Pretraining, Training	FY80 Losses % Post-Training	FY80 Losses Total	FY81 Losses % Pretraining, Training	FY81 Losses % Post-Training	FY81 Losses Total	FY82 Losses % Pretraining, Training	FY82 Losses % Post-Training	FY82 Losses Total
ARMY NATIONAL GUARD									
Civilian Life/IRR	17.8	7.8	25.4	22.9	8.2	31.1	24.1	7.5	31.6
Selected Reserves	0.3	0.8	1.1	0.3	0.7	1.0	0.4	0.6	1.0
Active Force	0.7	3.4	4.1	0.6	2.4	3.0	0.6	1.9	2.5
Total	18.8	11.8	30.6	23.8	11.3	35.1	25.1	10.0	35.1
ARMY RESERVE									
Civilian Life/IRR	7.4	20.9	28.3	11.1	22.1	33.2	11.4	26.3	37.7
Selected Reserves	0.7	2.9	3.6	1.1	2.5	3.6	0.7	2.6	3.3
Active Force	0.8	6.8	7.6	1.7	5.3	7.0	0.8	4.9	5.7
Total	8.9	30.6	39.5	13.9	29.9	43.8	12.9	33.8	46.7

Source: Grissmer and Kirby, Changing Patterns of Nonprior Service Attrition in the Army National Guard and Reserve, The Rand Corporation, R-3623-RA, June 1988.

the overall educational level without other policy changes may not reduce attrition, particularly during the initial training phase. "There is some strong evidence showing that a policy shift to a more lenient discharge policy for unit commanders in the Army Reserve, so called "wrench up", accounts for the sizeable increase in attrition in the FY82 cohort."[15]

Attrition of Members with Prior Service

A comparison analysis, currently underway at RAND, examines the attrition behavior of reservists with prior service who entered the two Army Reserve components during the period from FY 1980 through FY 1982. Personnel with prior service account for 56 percent of total accessions in the Army Reserve and about 45 percent in the Army National Guard; these proportions have remained relatively stable over the period from FY 1980 to FY 1986. As we have noted above, they are smaller than the other components, except for the Marine Corps Reserve.

For accessions with prior service who leave within the first two years and do not later return to the Selected Reserve, analysis reveals a significant difference in attrition rates between the two components: 36.4 percent for the Army Reserve and 24.7 percent for the National Guard. Attrition rates for individuals without prior service mirror this difference, although to a lesser degree, as shown in Table 4-29.

Table 4-29. Two Year Attrition Rate for FY 1980-1982 Accessions with Prior Service vs. Accession without Prior Service

Reserve Component	Accessions with Prior Service %	Accessions without Prior Service %
Army Reserve	36.4	37.7
Army National Guard	24.7	31.6

Source: Grissmer and Kirby, Changing Patterns of Nonprior Service Attrition in the Army National Guard and Army Reserve, The RAND Corporation, R-3623-RA, June 1988.

The researchers found significant differences in attrition among different demographic and quality groups. The following are among the more important findings:

- The higher the level of education, the lower the rate of civilian attrition.
- Both age and prior years of service, as expected, show an inverse relationship to attrition.

For prior service members remaining in the military, the analysts examined continued affiliation with the reserve component first joined. The results are shown in Table 4-30.

Table 4-30. Affiliation of Personnel with Prior Service who Remain in Military Service, by Time Since Entry

	Military Affiliation			
Time Since Entry	Army Reserve %	National Guard %	Other Reserve %	Active Force %
Army Reserve Accessions				
One year	92.5	3.6	0.7	3.2
Two years	87.2	6.2	1.3	5.3
Three years	83.5	7.8	2.2	6.5
Four years	80.0	9.5	3.0	7.5
Five years	75.4	11.3	4.0	9.3
National Guard Accessions				
One year	1.6	95.1	1.3	2.0
Two years	3.2	91.1	2.5	3.2
Three years	4.5	88.3	.3	.9
Four years	5.6	85.4	4.1	4.8
Five years	6.7	82.3	4.5	6.6

Losses from the Army Reserve to other active or reserve components tend to be greater than similar losses from the National Guard. Among those still in service after two years, 13 percent of the Army Reserve prior service accessions and 9 percent of prior service accessions to the Army National Guard will have transferred to another reserve component or to active duty. Among those remaining in service at five years, fully 25 percent of Army Reserve accessions will have transferred elsewhere, whereas the corresponding figure for the Army National Guard is 18 percent.

The conclusion of this research is that high attrition by initial accessions, whether with or without prior service, is affecting personnel readiness. Readiness problems also result from differences in geographic area and among types of units. Shortages and skill mismatches that arise as a result of these factors are largely the effect of differences in local labor markets. The research shows that larger units in the Army Guard and Reserve are more prone to shortages, that units with combat and combat support missions are harder to fill, and that there are local labor market differences that impact on unit manning success.

Conclusion

The fundamental objective of reserve force personnel management is accession and retention of the required number and quality of persons who possess the desired mix of age, experience and skills, and who are geographically distributed to meet unit manning requirements. When this objective is substantially achieved, personnel readiness will be maintained at a high level.

The 6th QRMC found serious shortfalls in reserve component personnel readiness. Over 40 percent of Selected Reserve units report a less-than-ready status, and a major contributing factor to shortcomings is personnel status. Moreover, the reserve component units upon which the Nation would most heavily rely early in any conflict, the Army National Guard and the Army Reserve, report some of the lowest personnel ratings.

Shortages of junior enlisted personnel represent a significant part of the numerical shortages in reserve manpower. Additionally, there are significant distributional skill mismatches existing across many enlisted occupations. These patterns characterize all components, but the magnitude of the problems vary by component. In general, the Air Force components have fewer manning problems, and the Army components the most severe. The 6th QRMC review finds that reserve manpower growth over the last several years has not been evenly distributed within the reserve components. It has resulted in overmanning certain skills while others go short.

High attrition of recruits, whether or not they have prior service, is affecting personnel readiness most seriously. This loss of junior personnel is directly related to the demographics and aptitude of recruits, the turbulence associated with the civilian lives of younger recruits, the level of net reserve pay for junior enlisted members, and lack of opportunity for promotion to higher grades. Changes are needed that produce longer service from initial recruits, with and without prior service.

Difficulties in matching the military specialties of personnel to the skill requirements of units are affecting personnel readiness. The deficiencies result from a low level of matching of prior service personnel skills with billet requirements, turnover of personnel among units, the length of the process of skill retraining, and promotion policies which motivate individuals to move to skills for which they are not trained. Initiatives are needed that can influence choice of initial skills and units, impede undesirable kinds of unit transfer, reduce unit turnover, and keep individuals in occupations longer.

Personnel readiness problems also result from differences of geographic area and among types of units. Shortages and skill mismatches that arise as a result of these factors are largely the result of differences in local labor markets and individual preferences for certain skills and certain units. The QRMC learned that larger units in the Army Guard and Army Reserve are more prone to shortage, that units with military missions requiring combat skills were harder to fill than those needing skills commonly found in civilian life, and that there are local labor market differences in unit manning success. Locations that have higher unemployment, lower per capita income, and more veterans have units with better manning.

New attrition problems are arising from initiatives to require longer and more intensive training time from certain reserve units. National Guard units attending the National Training Center (NTC) have encountered higher attrition rates than similar units undergoing normal training schedules. Increased training should improve overall readiness and mission capability by accelerating the rate of MOS qualification and team training, but only if retention does not suffer in inverse proportion.

These impediments to personnel readiness are hurting even the units identified by the Army as high priority. The Army Reserve and Guard units designated as high priority and early deploying do not have significantly higher personnel readiness ratings than the Army Reserve and Guard components as a whole.

Many previous studies, and organizations such as the Reserve Forces Policy Board, have revealed and documented problems associated with skill mismatches and reserve training. Few of the recommendations to address these problems have been oriented toward compensation. The 6th QRMC believes that changes to compensation are not a sufficient answer to solving reserve component problems, but are a necessary one. Compensation initiatives aimed at the general age distribution problems of the component profiles, and others targeted to the specific readiness problems of units critical to the Nation's military plans would produce improvement by themselves, and would support the non-compensation policy initiatives needed to get the rest of the way.

Notes

1. Appendix G contains instructions to the Military Departments for preparation of the manpower force structure data.

2. The material presented in this section of Chapter 4 is derived from a technical paper on reserve component personnel readiness prepared for the 6th QRMC by Logistics Management Institute (LMI).

3. UNITREP has undergone a change (in FY 1987) to "Status of Resources and Training Systems" (SORTS). However, no adjustments were made to criteria for reporting personnel readiness and, for purposes of this report, UNITREP data, classifications and rating definitions are used. Appendix H outlines the changes between UNITREP and SORTS.

4. The "training" resource area reflects only unit training status. Individual skills training is reflected in the ratings of the personnel resource category. See subsequent sections.

5. Department of Defense, Annual Report of Reserve Forces Policy Board, FY 1986, p.111.

6. A comparison of UNITREP data from October 1986 with data from April 1987 showed a 7 percent reduction in the number of Army units reporting "not ready" for equipment-on-hand.

7. The peacetime authorized strength level of a unit may be fixed at a level below the wartime requirement to save money and other resources. The most systematic approach to these peacetime reductions occurs in the Army, where each unit is assigned an "Authorized Level of Organization" (ALO). The ALO reflects the priority of the unit in a general way, with ALO 1 representing levels approaching 100 percent of wartime requirements, ALO 2 representing peacetime authorizations slightly below wartime levels, ALO 3 representing a deeper reduction, and so on. Appendix H discusses this system in detail.

8. The RAND data and analysis is set out in section V of David W. Grissmer, Richard Buddin, and Sheila Nataraj Kirby, Changing Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, R-3669-FM&P/RA, The RAND Corporation, forthcoming.

9. Ibid.

10. Ibid.

11. Ibid.

12. Ibid.

13. David W. Grissmer and Sheila Nataraj Kirby, Attrition of Nonprior-Service Reservists in the Army National Guard and Army Reserve, The RAND Corporation, R-3267-RA, October 1985.

14. David W. Grissmer and Sheila Nataraj Kirby, Changing Patterns of Nonprior Service Attrition in the Army National Guard and Army Reserve, The RAND Corporation, R-3623-RA, June 1988.

15. Grissmer, Buddin, Kirby, Changing Reserve Compensation.

Chapter 5. OBSERVATIONS AND CONCLUSIONS

This volume describes the pressures, tensions, and difficulties found in the social and economic environment in which members of the Selected Reserve serve. It portrays the complex interdependence of today's Total Force and its military missions in support of a complicated system of overseas alliances. It describes and analyzes persistent problems in the personnel readiness of reserve components and determines the negative mechanisms that are the main general sources of the problems. Finally, it addresses the role of compensation in support of increased personnel readiness.

The 6th QRMC has had the opportunity to examine the forces at work within the reserve components with new analytical tools, techniques, and technologies. The observations and recommendations contained in these volumes are intended to provide decision makers with the basis for sound policy decisions to improve the Nation's strength by improved management of reserve personnel.

General Observations

The 6th QRMC found that most factors in the civilian environment make reserve participation for junior members relatively more difficult than for senior members, and that generally these factors more adversely affect the participation of enlisted members than officers. Additionally, reservists, especially those without prior service, can be recruited most effectively during a transitional period in their civilian lives. Soon, however, the transition from school, unemployment, or active duty to full-time civilian employment brings new tensions to the life of the reservist.

The QRMC also found that reserve pay, compared with active duty pay, is relatively lower for enlisted members and members in junior pay grades than for more senior members and officers. A similar pattern was found when comparing reserve pay with the average civilian pay of reserve members. In addition, the reserve retirement system, compared with the active duty system, is relatively less favorable for enlisted members than for officers. Enlisted members enter and retire at earlier ages than officers (as do active component members), but in the reserve system, none receive retired pay before age 60. Therefore, a reserve enlisted retirement dollar is generally worth less than a reserve officer retirement dollar: it is paid

an average of four years later, it is paid for a shorter time, and it has a greater chance of never being paid at all. Finally, marginal tax rates, transportation expenses, and forgone civilian income result in junior enlisted members netting less than half their gross reserve income. Transportation and forgone civilian income are a much higher percent of reserve pay for reservists in pay grades E5 and below than for more senior members.

The combination of compensation system factors and a difficult civilian environment is reflected in the member dissatisfaction and attrition reported in Chapter 3. In conjunction with the increasing training challenge inherent in expanded missions and the complexity of modern war, and with the reported large increases in competition for the limited training time available, these factors result in lower personnel readiness than that which otherwise could be achieved. In the decade of the 1980s, the shortfall is less often numbers and more often skill mismatch and shortage. It is often localized, often concentrated in military-only skills, and often concentrated among younger members.

The 6th QRMC found that approximately 55 percent of Army Selected Reserve units report a less-than-ready condition for personnel. The turbulence of rapid turnover, especially that generated by unprogrammed attrition, and the long time required for skill training means that training never catches up. The difficulty of matching the right skill to the right billet (when reservists naturally want to join the unit they live near and usually cannot afford to travel very far) means that bringing in personnel with prior service often does not help very much.

Difficulties in matching the military specialties of members to the skill requirements of units affect personnel readiness. The deficiencies result from a low level of matching, for personnel with prior service, of skills with billet requirements; turnover of members among units; the lengthy process of retraining; and promotion policies that motivate members to move to positions for which they are not trained. The result is significant distributional skill mismatches across many enlisted occupations.

Reserve training is difficult. Part-time reservists are available on a limited basis only, and many don't live near training facilities. Frequent civilian job changes require relocation, too often resulting in transfer, retraining, broken service, or even total loss.

These impediments to personnel readiness affect even the units identified by the Army as high priority. The QRMC found that Army National Guard and Reserve units designated as high

priority, or early deploying, do not have significantly higher personnel readiness ratings than Army National Guard and Reserve units as a whole.

Many previous studies, and reports from groups like the Reserve Forces Policy Board, have revealed and documented problems associated with skill mismatches and reserve training. Few of the recommendations to address these problems have included compensation remedies. Changes to compensation are necessary, although they will not alone be sufficient, to solve embedded reserve component problems. These changes include initiatives aimed at the general problems of age distribution found in the reserve component personnel force structures, and initiatives targeted to the specific readiness problems of special skills and units. Such pay policies would, on the one hand, offset tensions with the environment, and, on the other, support noncompensatory policy initiatives needed to get the rest of the way.

Reserve compensation initiatives to assist in alleviating the deficiencies found by the 6th QRMC could, at one extreme, include major structural changes requiring redefinition of fundamental system elements like the "salary" system proposed by the 1st QRMC. Alternatively, such initiatives could be restricted to less revolutionary changes requiring no more than alteration of the relative emphasis of existing system elements. The latter would be consistent with the practice of this century, at least since 1947. The 6th QRMC has confined most of its consideration to evolutionary changes rather than radical alterations.

Diffidence about embarking on courses of major change is in part due to the lack of historical experience with change in reserve compensation, and in part to the shortage of reliable and complete reserve data, notwithstanding some recent improvements. This situation greatly favors improvements that can be carefully monitored and, most of all, those that can be tested by actual experiment before being generally applied.

A 1981 review of the compensation system for the Selected Reserve concluded that, given the relatively low pay elasticity for reserve members, there was no basis "to decouple reserve compensation from active duty to effect minor payline variations."[1] The report noted that reservists look to active duty pay levels as a reference point and that uncertainty and irritation in the minds of reservists with respect to alternative systems could offset any benefit. The 6th QRMC reached a similar conclusion. This does not imply that the existing payline and environmental factors documented in the preceding chapters should be ignored.

This conclusion also derives from the fact that aggregate force distribution patterns are relatively less important in the reserve setting than they are in the active components. Far more important are the specific critical skills in the early deploying units and other units furnishing essential support to combat formations. Because of geographical inflexibility, compared with the active components, and because of the limited travel expense and distance junior members can afford, the reserve components are less able to translate aggregate force structure solutions into local unit personnel readiness. Moreover, improvement efforts quite normal in the active forces, entailing extra training time, longer hours, or even more frequent inspections, may be counterproductive in the reserve components where time is a limited and precious resource. Thus, broadly applied compensation adjustments to meet the manpower force structure objectives will not be efficient for specific unit shortfalls and may not be effective at all unless combined with elements that can be focused on individual skills and units.

The most economically efficient way to change the effects of reserve compensation is to target through flexible bonuses; that is, to put the money where the problems are. Such changes can provide equity and would also tend to move the overall force structure in the right direction.

Because of the lack of consistent and reliable data, less is known currently about the effectiveness of incentive programs than is needed for well managed adjustment. It is possible, however, to target specific problems identified by analysis of the kind Logistics Management Institute has pioneered.[2] Then, as improved data becomes available, relating resources to readiness, programs can be structured for increased efficiency and effectiveness.

Some other examples of targeting compensation to meet broader problems, particularly higher than desired attrition of junior members, are the following:

- The payment of BAQ during ADT for members without dependents.

  Currently, members without dependents do not receive BAQ during ADT, despite the fact that their permanent housing expenses continue during that time, just as they do for members with dependents. This would eliminate a longstanding equity issue and have the greatest impact on junior pay grades since they have the highest percentage of members without dependents.

- The emphasis of programs such as the Montgomery G.I. Bill (MGIB), with its greater appeal to the young.

  The MGIB was found to be particularly valuable and important to the reserve components because it is selective in those it attracts as well as because of its other features. Educational assistance is an effective incentive to potential enlistees who have higher aptitudes and possess a high school diploma or equivalent. Thus, the program is targeted to the high quality individuals sought by the reserve components. In addition, there is a continued service requirement: a member must enlist, reenlist, or extend the service obligation for a period of six years. In fact, QRMC analysis indicates that participants in the MGIB are more likely to be retained than their nonparticipating counterparts. Moreover, the concern of active components that have midgrade shortages, i.e. that educational programs "pay the best ones to get out," is irrelevant to the reserve situation. A reserve component needing to retain experience and skill finds the MGIB especially attractive because the member can (indeed, must) continue military participation while in school. With a primary draw among younger members, the MGIB complements and balances the draw of the retirement system.

- The strengthening of flexible bonuses to meet specific local labor market factors for enlisted members with less than 14 years of service.

  Flexible bonuses tailored to meet local conditions offer the reserve components a means to solve local problems that have been exacerbated by reserve component inability to relocate people. Bonus programs that require achievement of skill qualification as a criterion of eligibility can also enhance readiness. Finally, more emphasis can be placed on bonuses that encourage completion of contractual obligations, such as bonuses that are paid largely during the later years of the obligation. (Whereas "front loading" of bonuses is desirable in the active components to solve accession problems and achieve maximum response per dollar expended, the opposite type of loading is likely to be desirable in the reserve components as one method of reducing severe unprogrammed attrition.)

- The revision of statutory employment protections for Guardsmen and Reservists in conjunction with a system of tax incentives to encourage employer support of participation in the reserve by their employers.

  As shown in Chapter 2, primary employment was one of the foremost concerns of many reserve members and was a greater problem area for junior and enlisted members than for

senior members and officers. Reduced employment opportunities and forgone civilian income due to reserve participation can potentially be affected by tax incentives targeted at smaller employers.

- As a general force structure remedy, the 6th QRMC recommends a Two-Tier Option to the current retirement system.[3]

  Retention of members with less than 20 years of service would be improved because an optional early annuity would be provided at any point after initial qualification for reserve retirement. Enlisted retention would be improved because tier one of the recommended system is based on years of service and, therefore, has no unintended bias against enlisted members, relative to the active system.

The most powerful element of compensation, for its effect in the aggregate and on the force structure, is a revised retirement system, but all pieces of compensation must work together for greatest efficiency. Thus, improving the early circumstances of junior members is important to reduce unprogrammed early attrition. Bonus and other targeted initiatives are important to retain the most difficult skills in the highest priority units, to keep the best men and women, and to treat local problems. Finally, as members mature, they will come under the growing attraction of the retirement features and share increasingly in the nonpecuniary satisfactions that traditionally become the highest motivation of mature and experienced military professionals.

Conclusions

It has long been apparent that the reserve components have had far more difficulty retaining junior enlisted members than have the active components. The unintentional biases found to exist in the reserve compensation system are subtle, however, and not well known. These system effects, combined with an environment that often results in reserve service being more difficult and economically less rewarding for the junior member, may be partially responsible for the observed readiness problems.

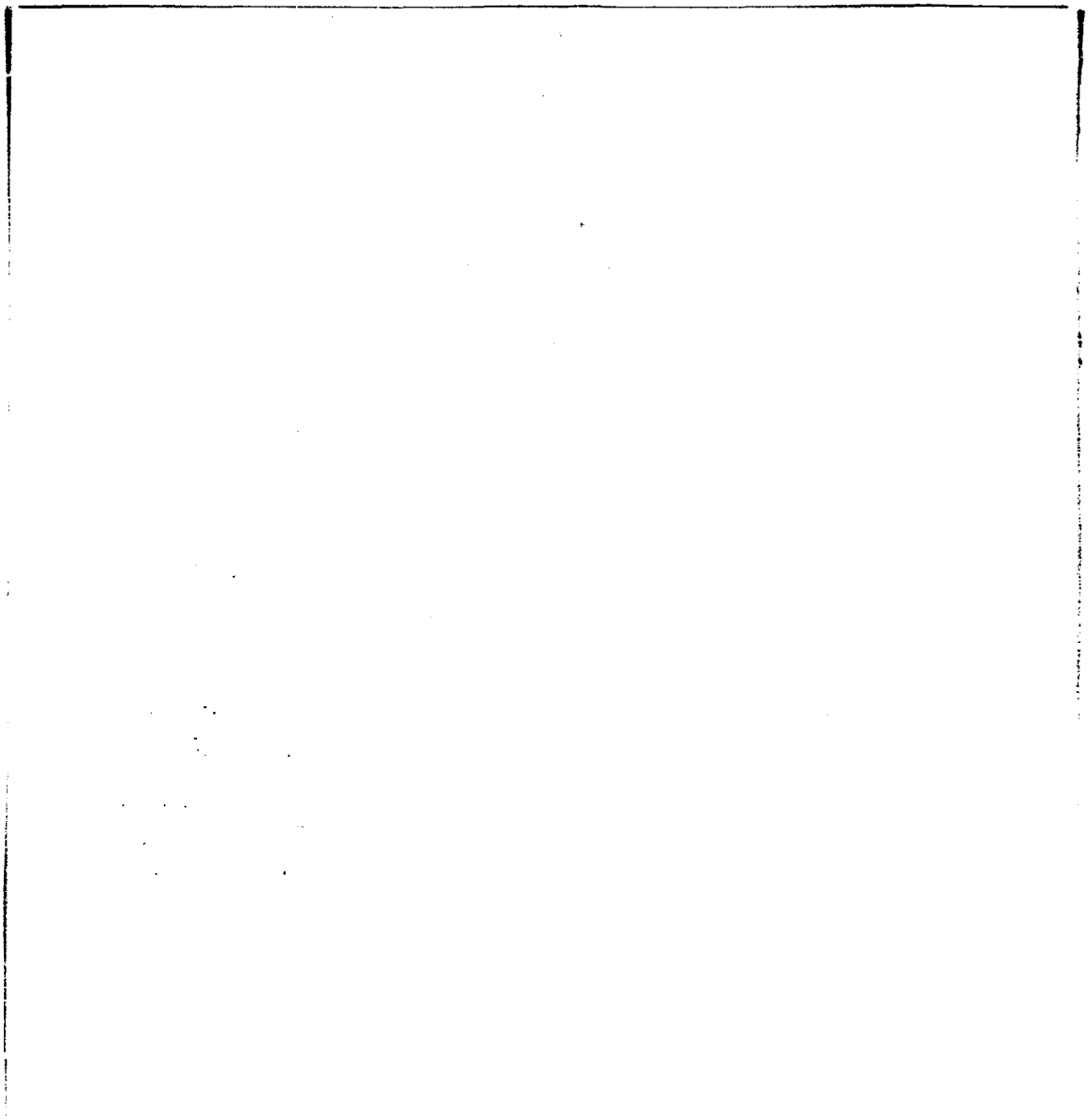
Readiness can be enhanced through improvements to the reserve compensation system. It is an accepted principle of military compensation that compensation policy should support general manpower policy. In the case of the National Guard and Reserve components, this should help to reduce turbulence and increase training effectiveness and skill qualification, thus improving personnel readiness, which is now emerging as the primary limitation on overall readiness.

Notes

1. Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), Review of the Compensation System for the Selected Reserve: Final Report, January 1981, p. iii.

2. See Appendix H, Logistics Management Institute, Analysis of Skill Imbalances.

3. In brief, the Two-Tier Years-of-Service-Based Early Annuity Option would provide an early annuity at any point after initial qualification for retirement. The first tier would be a flat percent of the retired pay base, calculated under the high-three averaging method. There would be a retirement point reduction for electing the option. The annuity would be adjusted for inflation from election until age 62, using the Consumer Price Index (CPI) minus 1 percent mechanism. The second tier would be at age 62, calculated from the remaining accumulated retirement points after subtraction of the retirement point reduction. The formula for calculating the second tier would be identical to the current formula, except that the retired pay base is established at the time of first-tier election and is adjusted by the full CPI to age 62; thus any loss in earning power of the first-tier annuity that resulted from the use of the CPI minus 1 percent adjustment mechanism would be caught up for the first-tier annuity before it was added to the second-tier annuity. This system is explained in detail in Volume IB of the QRMC report.



Appendix A. PAY GRADE MEDIAN YEAR OF SERVICE

Throughout Volume II, the median year of service for each pay grade appears on the x-axis of the graphs. The median and other percentiles were computed using fiscal year 1986 Reserve Components Common Personnel Data System (RCCPDS) data on Selected Reserve members (excluding full-time support, military technicians, and individual mobilization augmentees (IMAs)). Percentiles for the active components are also shown in this appendix. They were computed using the 1986 Active Duty Personnel Database System.

A comparison of the pay grade median year of service for officers, warrant officers, and enlisted members is shown in Figure A-1. A similar comparison for the active components is shown in Figure A-2.

The 25th, 50th, and 75th year of service percentiles for each reserve and active component officer pay grade are shown in Figures A-3 and A-4. The same percentiles are shown for warrant officers and enlisted members in Figures A-5 through A-8.

The median year of service for each officer pay grade is shown in Figure A-9 for each reserve component and in Figure A-10 for each active component. Similar medians are shown for warrant officers and enlisted members in Figures A-11 through A-14.

FIGURES

A-1. Pay Grade Median Year of Service: All Selected Reserve Components

A-2. Pay Grade Median Year of Service: All Active Components

A-3. Officer Pay Grade Year of Service Percentiles: All Selected Reserve Components

A-4. Officer Pay Grade Year of Service Percentiles: All Active Components

A-5. Warrant Officer Pay Grade Year of Service Percentiles: All Selected Reserve Components

A-6. Warrant Officer Pay Grade Year of Service Percentiles: All Active Components

A-7. Enlisted Pay Grade Year of Service Percentiles: All Selected Reserve Components

A-8. Enlisted Pay Grade Year of Service Percentiles: All Active Components

A-9. Officer Pay Grade Year of Service Percentiles: Each Selected Reserve Component

A-10. Officer Pay Grade Year of Service Percentiles: Each Active Component

A-11. Warrant Officer Pay Grade Year of Service Percentiles: Each Selected Reserve Component

A-12. Warrant Officer Pay Grade Year of Service Percentiles: Each Active Component

A-13. Enlisted Pay Grade Year of Service Percentiles: Each

A-13. Enlisted Pay Grade Year of Service Percentiles: Each Selected Reserve Component

A-14. Enlisted Pay Grade Year of Service Percentiles: Each Active Component

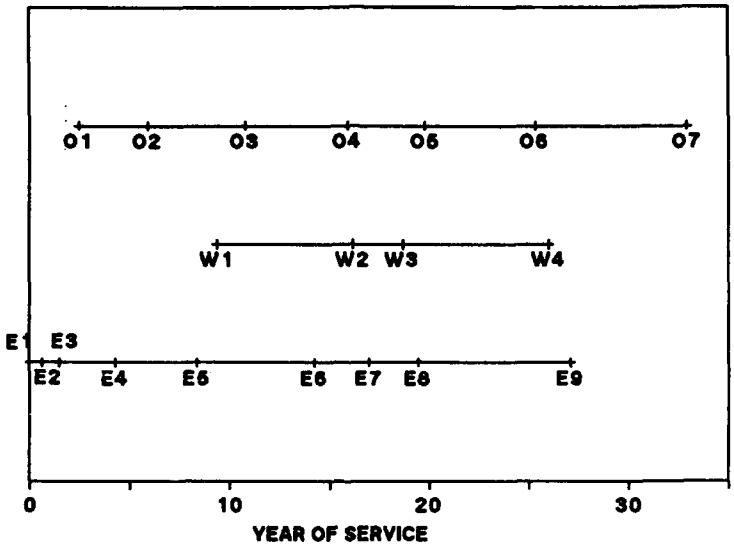


FIGURE A-1. PAY GRADE MEDIAN YEAR OF SERVICE ALL SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

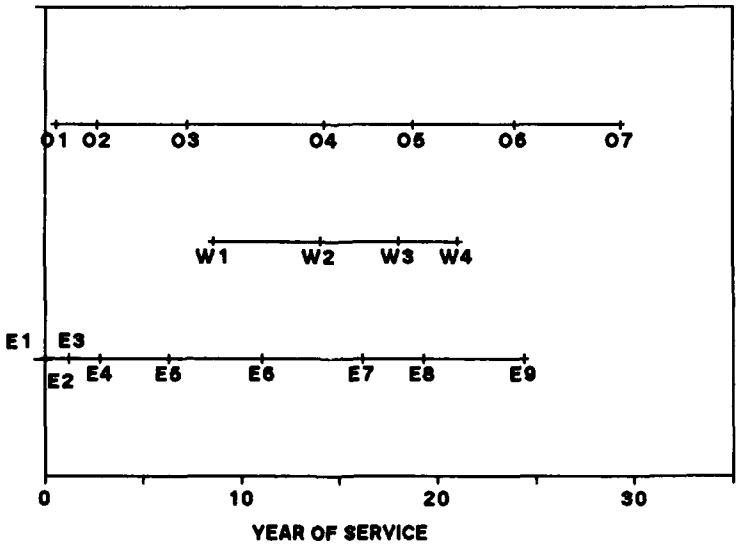


FIGURE A-2. PAY GRADE MEDIAN YEAR OF SERVICE ALL ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM

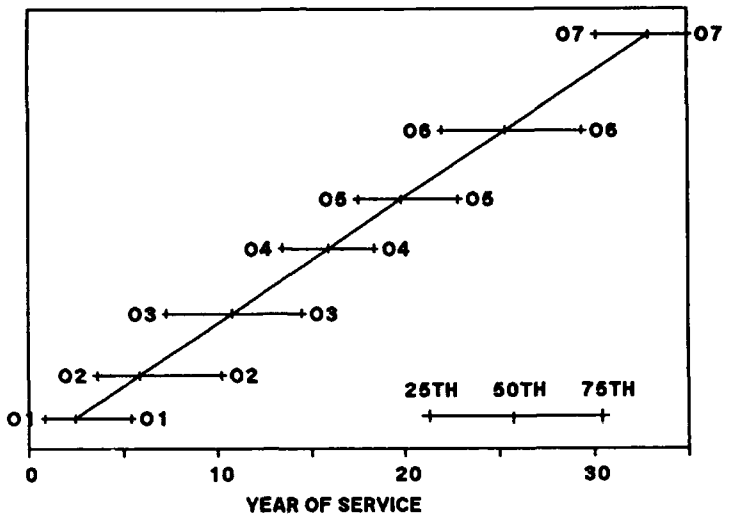


FIGURE A-3. OFFICER PAY GRADE YEAR OF SERVICE PERCENTILES ALL SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

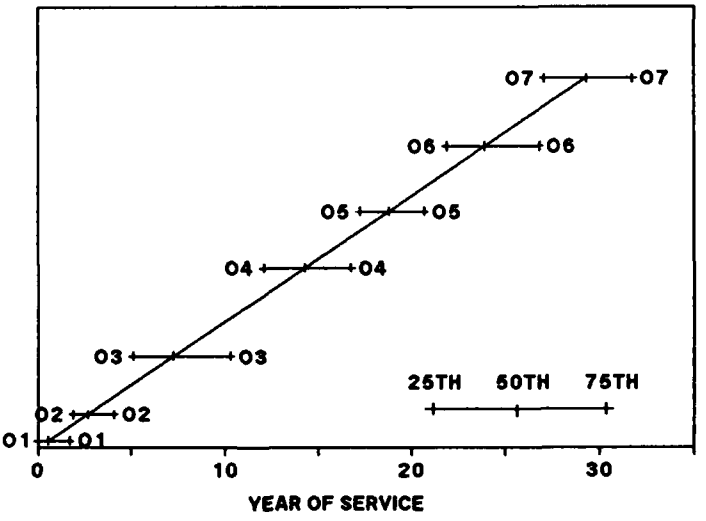


FIGURE A-4. OFFICER PAY GRADE YEAR OF SERVICE PERCENTILES ALL ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM

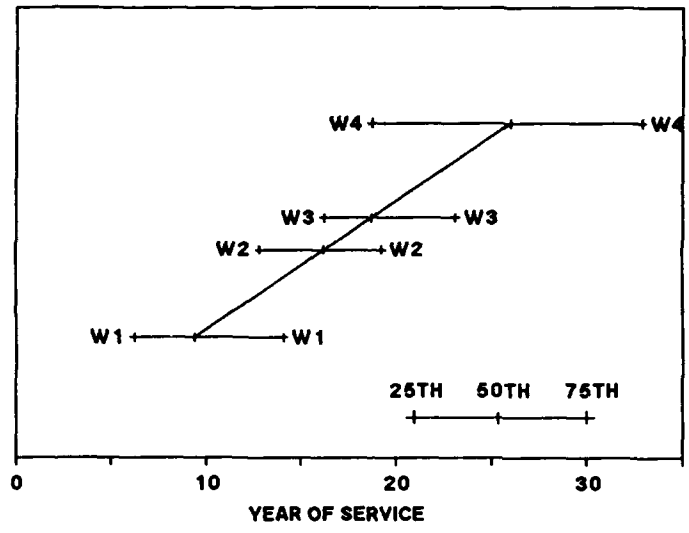


FIGURE A-6. WARRANT OFFICER PAY GRADE YEAR OF SERVICE PERCENTILES ALL SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

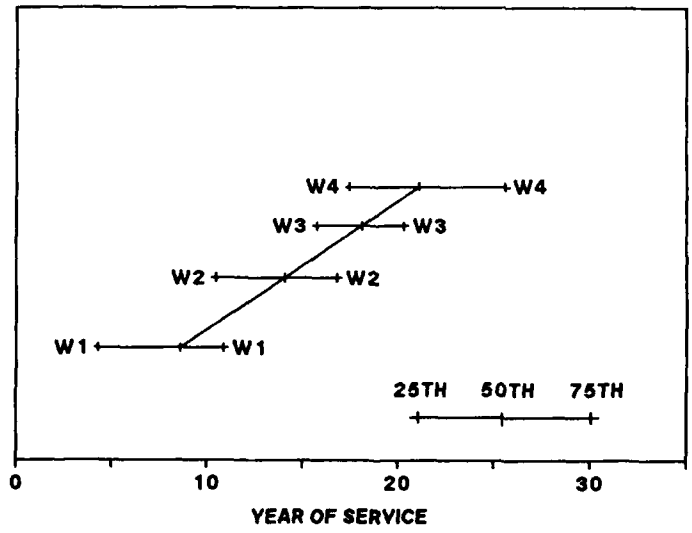


FIGURE A-6. WARRANT OFFICER PAY GRADE YEAR OF SERVICE PERCENTILES ALL ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM

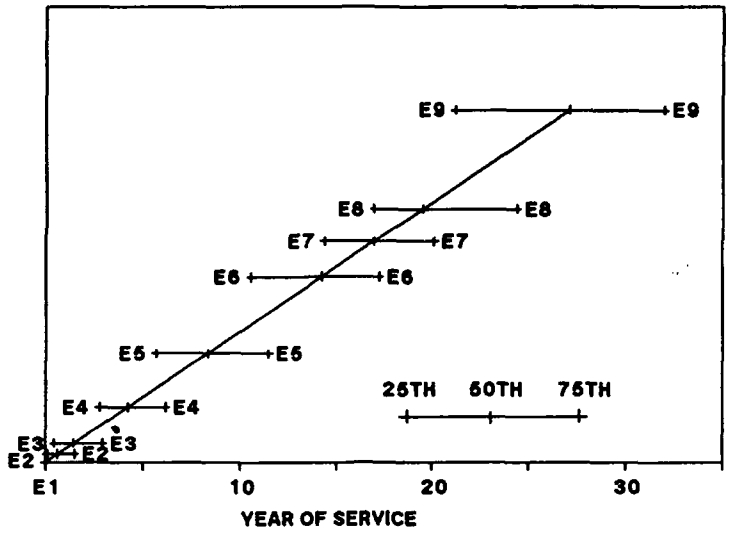


FIGURE A-7. OFFICER PAY GRADE YEAR OF SERVICE PERCENTILES ALL SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

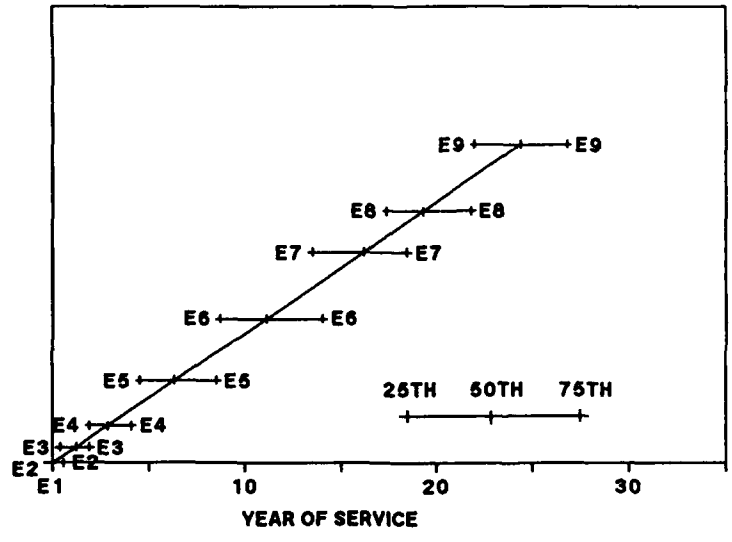


FIGURE A-8. ENLISTED PAY GRADE YEAR OF SERVICE PERCENTILES ALL ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM

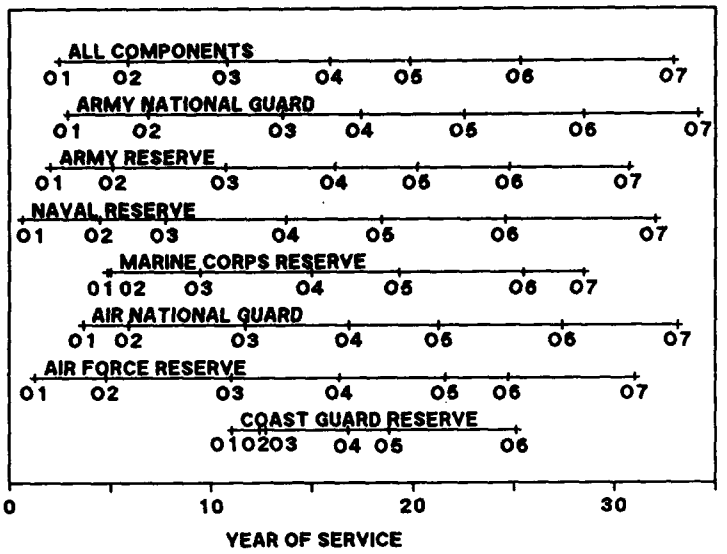


FIGURE A-9. OFFICER PAY GRADE MEDIAN YEAR OF SERVICE SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

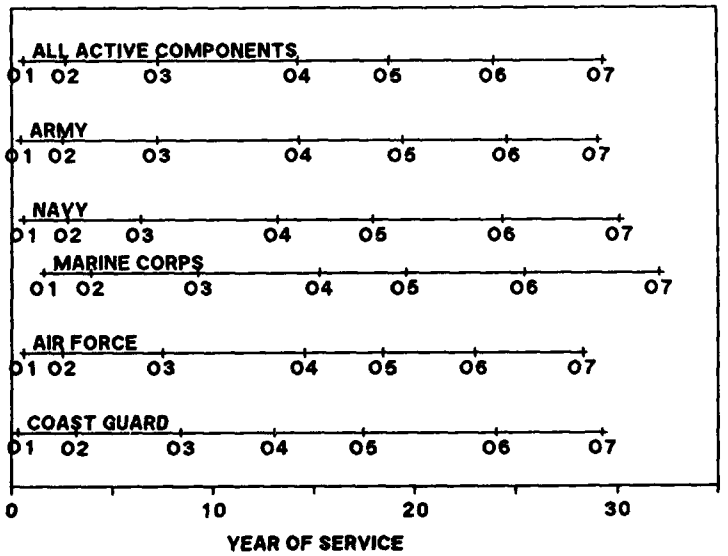


FIGURE A-10. OFFICER PAY GRADE MEDIAN YEAR OF SERVICE ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM & COMMANDANT USCG

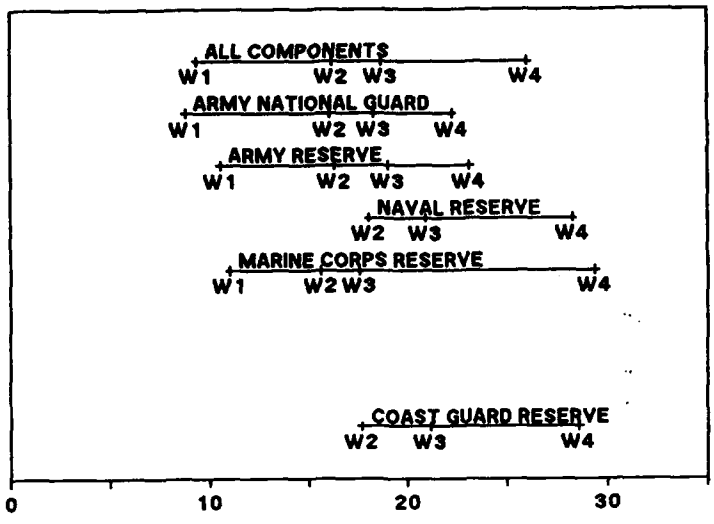


FIGURE A-11. WARRANT OFFICER PAY GRADE MEDIAN YEAR OF SERVICE SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

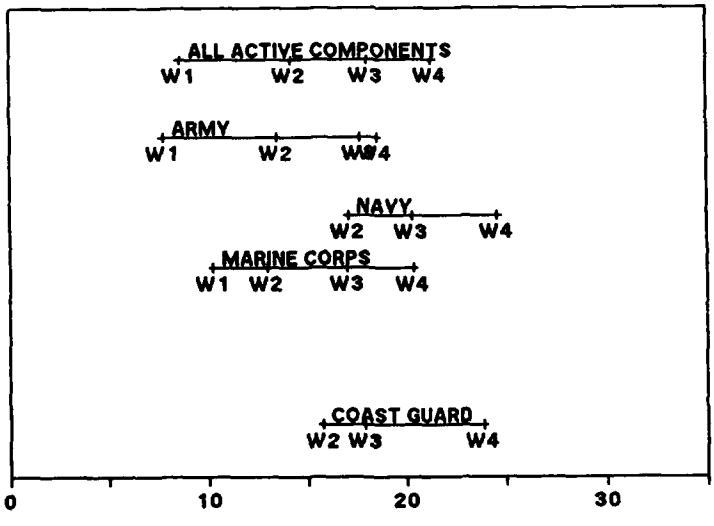


FIGURE A-12. WARRANT OFFICER PAY GRADE MEDIAN YEAR OF SERVICE ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM & COMMANDANT USCG

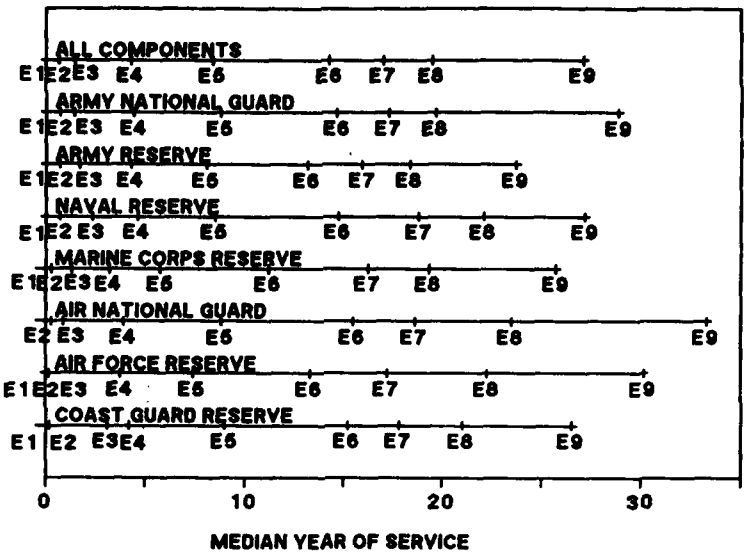


FIGURE A-13. ENLISTED PAY GRADE MEDIAN YEAR OF SERVICE SELECTED RESERVE COMPONENTS (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

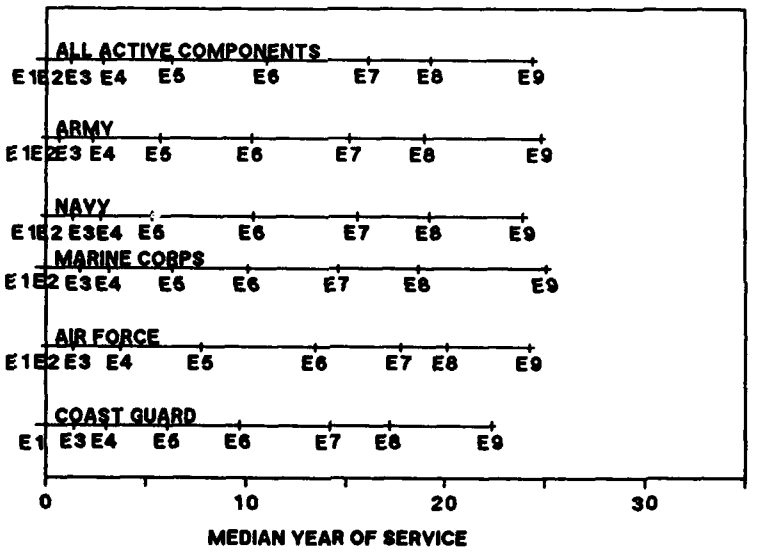


FIGURE A-14. ENLISTED PAY GRADE MEDIAN YEAR OF SERVICE ACTIVE COMPONENTS

SOURCE: 1986 ACTIVE DUTY PERSONNEL DATABASE SYSTEM & COMMANDANT USCG

Appendix B. PRIMARY CIVILIAN EMPLOYMENT OF RESERVE MEMBERS

To categorize reserve members by employment, questions 93 and 97 from the 1986 Reserve Components Surveys were used. Since question 93 included instructions to "Mark all that apply," judgement was necessary to select a single category for each member. The member was placed in the first applicable category from the following list. Shown with each category are the responses or combined responses that qualified a member for inclusion in the category:

1) Full-time employed: Q93 = "Working full-time in a civilian job" and did not mark Q97 = "Self-employed in own business" or Q97 = "Working without pay in family business or farm."

2) Self-employed: Q93 = "Working full-time in a civilian job" and (Q93 or Q97 = "Self-employed in own business").

3) School: Q93 = "In school."

4) Unemployed: Q93 = "Unemployed, laid off, looking for work."

5) Part-time employed: Q93 = "Working part-time in a civilian job."

6) Self-employed: Q93 or Q97 = "Self-employed in own business."

7) Homemaker (miscellaneous): Q93 = "A homemaker."

8) Temporary (miscellaneous): Q93 = "With a Civilian job, but not at work because of temporary illness, vacation, strike, etc."

9) Retired: Q93 = "Retired."

10) Unpaid (miscellaneous): Q93 = "Unpaid worker (volunteer in family business)" or Q97 = "Working without pay in family business or farm."

11) Other (miscellaneous): Q93 = "Other."

The sequence of selection is important. For example, if a member marked "Working full-time in a civilian job" and "In school" and "A homemaker" on question 93, the single category

chosen would be "full-time employed." If the member marked "Working part-time in a civilian job" and "In school" on question 93, the single category chosen would be "school."

Since most analysis was to be performed on the "full-time employed" employment category and would exclude the "self-employed," the categorization process included appropriate members in these categories while allowing for possible inconsistency in a member's responses. If a member marked "Working full-time in a civilian job" and "Self-employed in own business" on question 93, then question 97 was used to determine in which category the member belonged: 1) "full-time employed" because, in question 97, the member chose something other than "Self-employed in own business" as the best description of the civilian employer; or 2) "self-employed" because in question 97, the member choose "self-employed in own business" as the best description of the civilian employer. A member was also considered "self-employed" if "Working full-time in a civilian job" was marked on question 93 and "Self-employed in own business" was not marked on question 93 but was marked on question 97, under the assumption that the member had failed to notice the "Mark all that apply" instructions on question 93.

FIGURES

B-1. Civilian Employment: Full-Time Employed

B-2. Civilian Employment: Self-Employed

B-3. Civilian Employment: School

B-4. Civilian Employment: Unemployed

B-5. Civilian Employment: Part-Time Employed

B-6. Civilian Employment: Retired

B-7. Civilian Employment: Miscellaneous

B-8. Civilian Employment: Full-Time or Self-Employed

B-9. Officer Civilian Employment: Full-Time or Self-Employed, Each Component

B-10. Enlisted Civilian Employment: Full-Time or Self-Employed, Each Component

B-11. Officer Civilian Employment, Army National Guard

B-12. Enlisted Civilian Employment, Army National Guard

B-13. Officer Civilian Employment, Army Reserve

B-14. Enlisted Civilian Employment, Army Reserve

B-15. Officer Civilian Employment, Naval Reserve

B-16. Enlisted Civilian Employment, Naval Reserve

B-17. Officer Civilian Employment, Marine Corps Reserve

B-18. Enlisted Civilian Employment, Marine Corps Reserve

B-19. Officer Civilian Employment, Air National Guard

B-20. Enlisted Civilian Employment, Air National Guard

B-21. Officer Civilian Employment, Air Force Reserve

B-22. Enlisted Civilian Employment, Air Force Reserve

B-23. Officer Civilian Employment, Coast Guard Reserve

B-24. Enlisted Civilian Employment, Coast Guard Reserve

B-25. Similarity of Reserve and Civilian Jobs: Similar or Very Similar (Full-Time Employed)

B-26. Officer Civilian Employer (Full-Time Employed)

B-27. Enlisted Civilian Employer (Full-Time Employed)

B-28. Civilian Employer: Government (Full-Time Employed)

B-29. Civilian Employer: Nongovernment (Full-Time Employed)

B-30. Civilian Employer: Private Firm < 100 Employees (Full-Time Employed)

B-31. Civilian Employer: Private Firm 100-499 Employees (Full-Time Employed)

B-32. Civilian Employer: Private Firm >= 500 Employees (Full-Time Employed)

B-33. Civilian Employer: Local Government (Full-Time Employed)

B-34. Civilian Employer: State Government (Full-Time Employed)

B-35. Civilian Employer: Federal Government (Full-Time Employed)

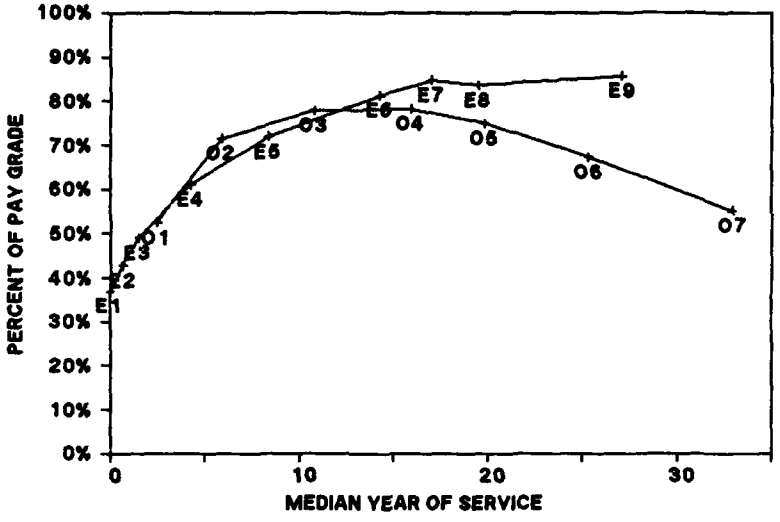


FIGURE B-1. CIVILIAN EMPLOYMENT: FULL-TIME EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RCS

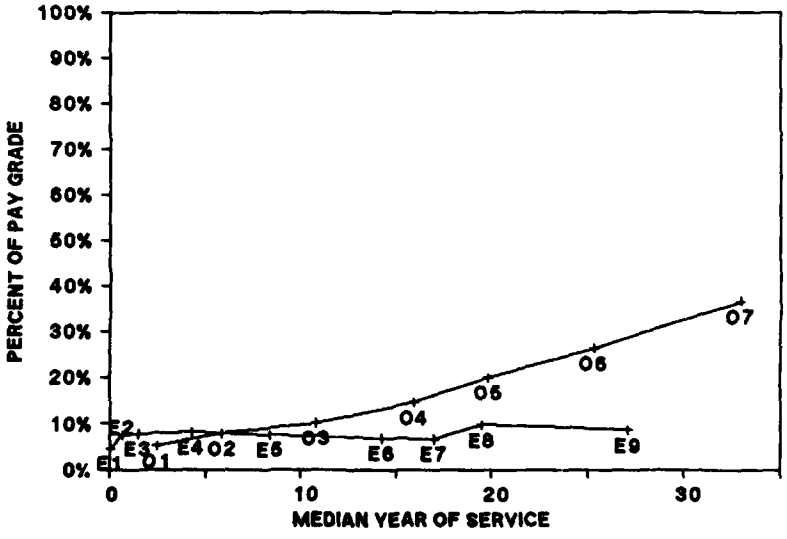


FIGURE B-2. CIVILIAN EMPLOYMENT: SELF-EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

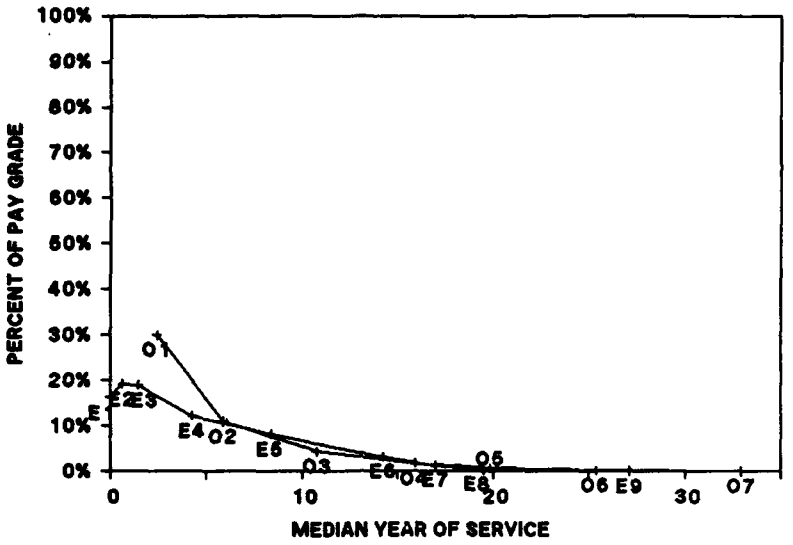


FIGURE B-3. CIVILIAN EMPLOYMENT: IN SCHOOL
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

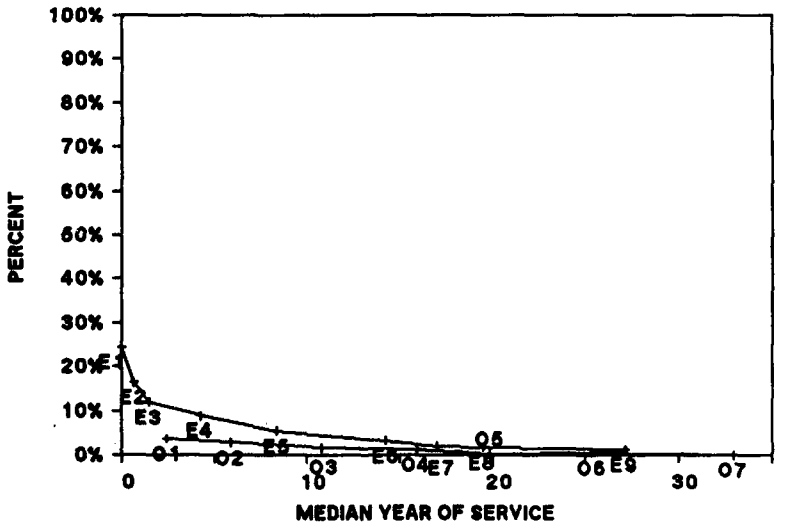


FIGURE B-4. CIVILIAN EMPLOYMENT: UNEMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

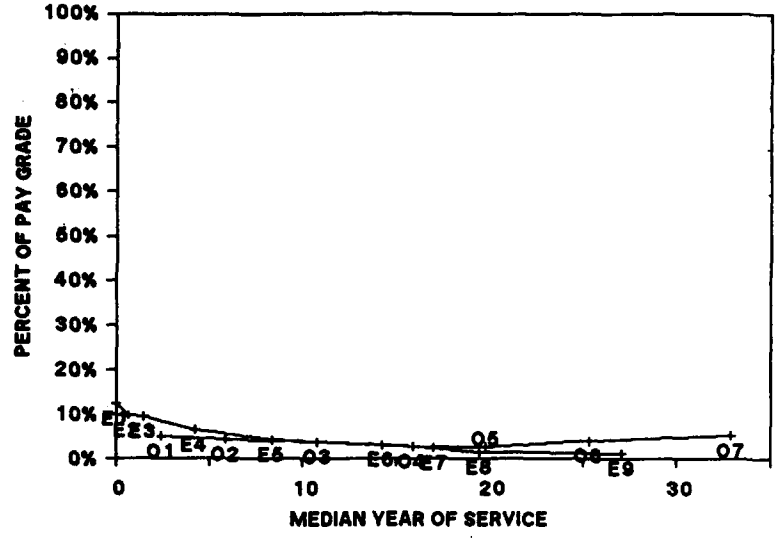


FIGURE B-5. CIVILIAN EMPLOYMENT: PART-TIME EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

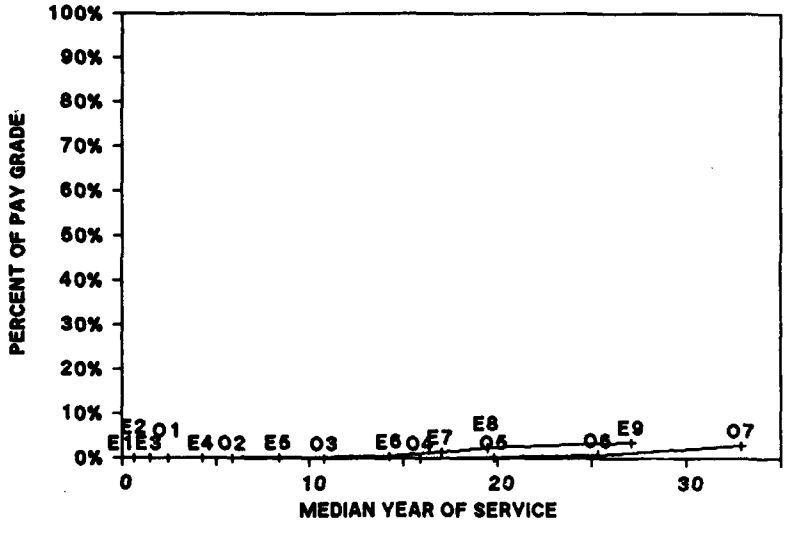


FIGURE B-6. CIVILIAN EMPLOYMENT: RETIRED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

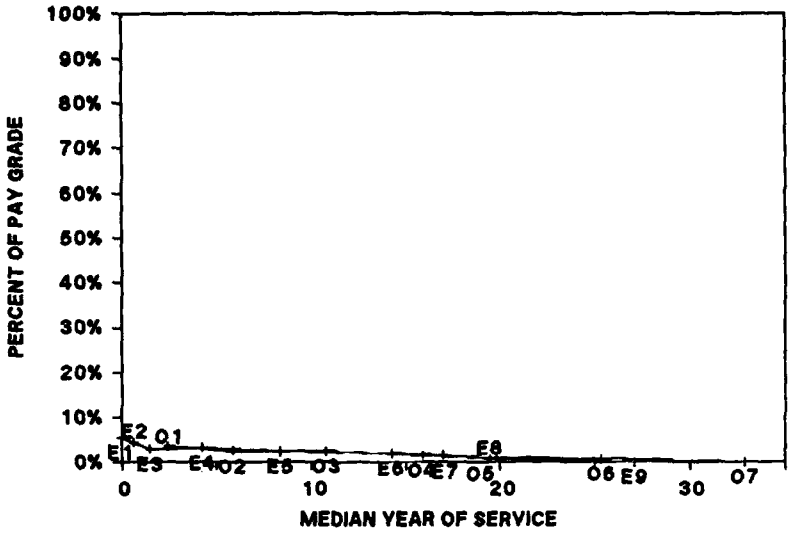


FIGURE B-7. CIVILIAN EMPLOYMENT: MISCELLANEOUS
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

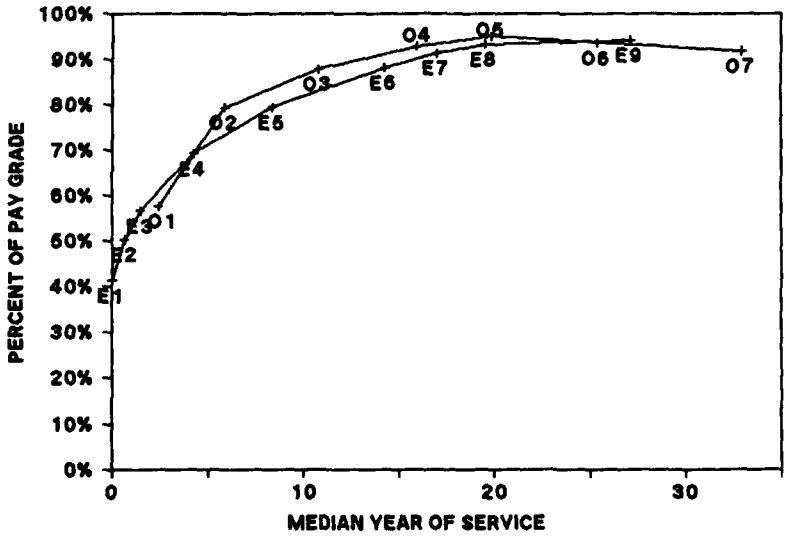


FIGURE B-8. CIVILIAN EMPLOYMENT: FULL-TIME OR SELF-EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

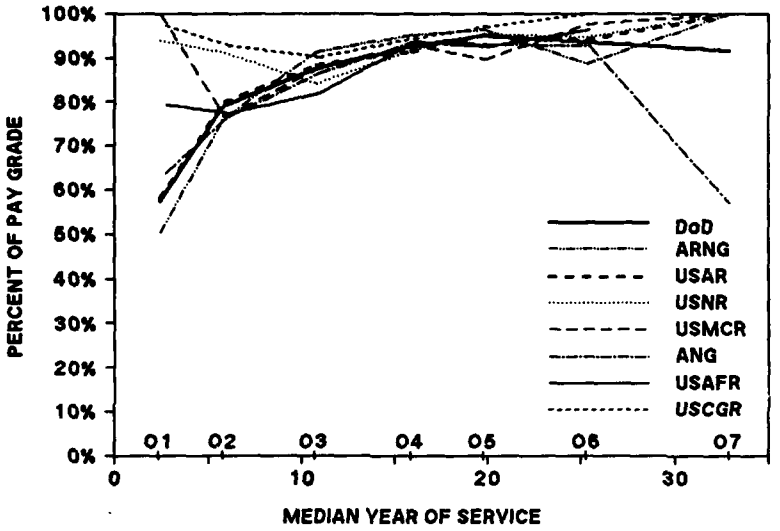


FIGURE B-9. OFFICER CIVILIAN EMPLOYMENT: FULL-TIME EMPLOYED OR SELF-EMPLOYED
EACH COMPONENT, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

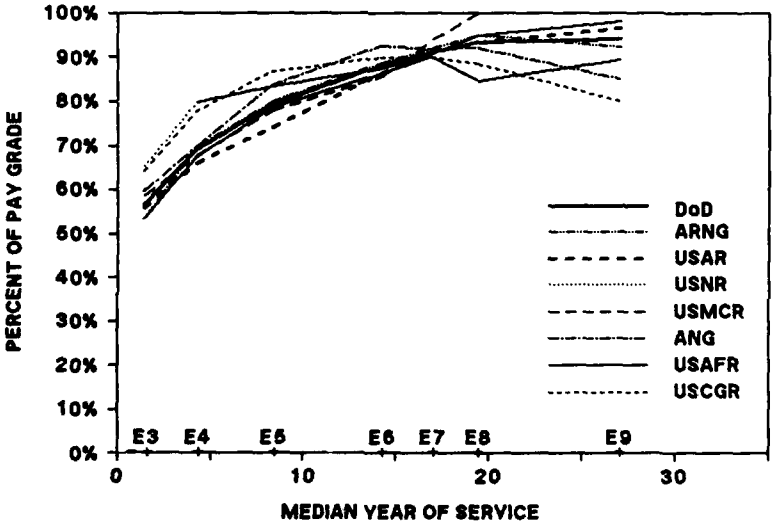


FIGURE B-10. ENLISTED CIVILIAN EMPLOYMENT: FULL-TIME EMPLOYED OR SELF-EMPLOYED
EACH COMPONENT, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

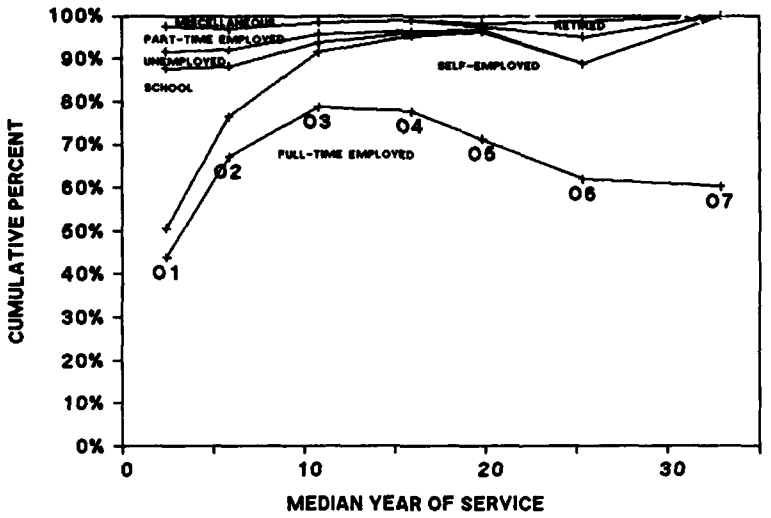


FIGURE B-11. OFFICER CIVILIAN EMPLOYMENT
ARMY NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

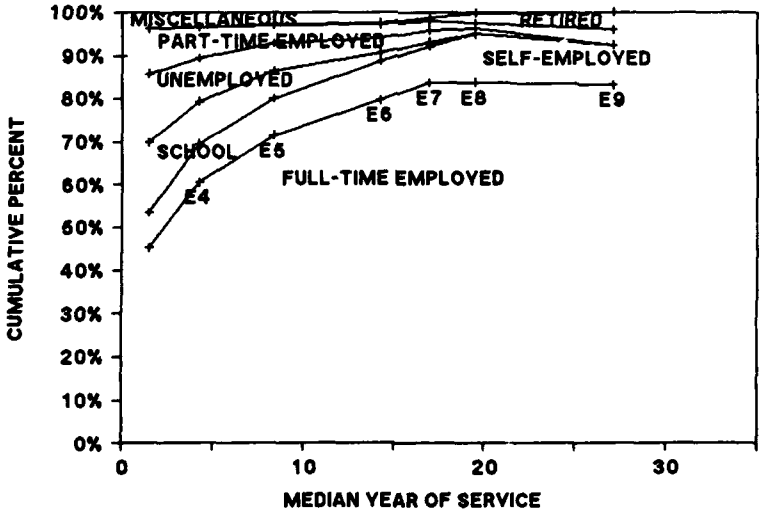


FIGURE B-12. ENLISTED CIVILIAN EMPLOYMENT
ARMY NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

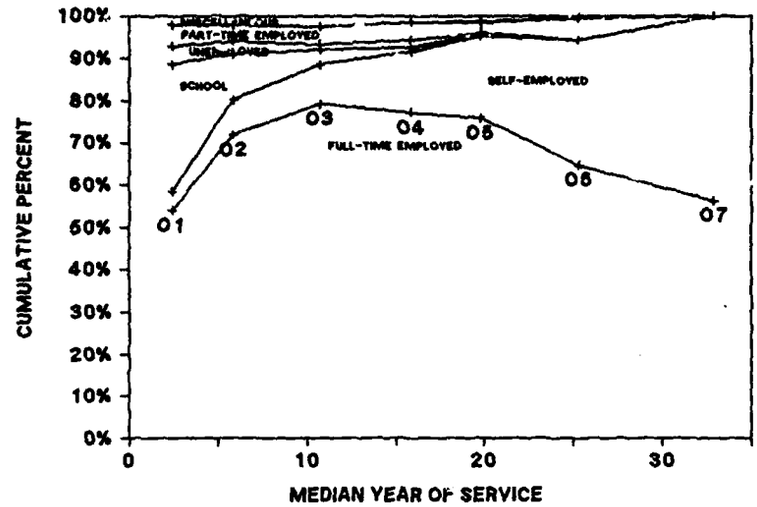


FIGURE B-13. OFFICER CIVILIAN EMPLOYMENT
ARMY RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

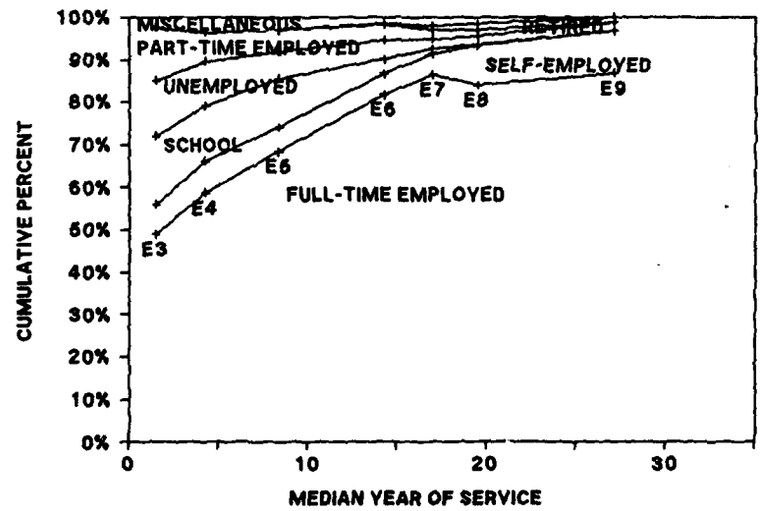


FIGURE B-14. ENLISTED CIVILIAN EMPLOYMENT
ARMY RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

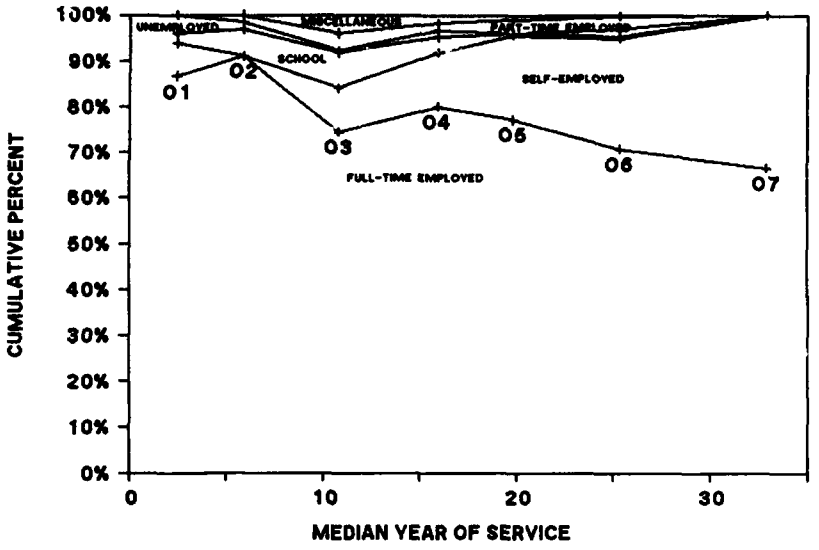


FIGURE B-15. OFFICER CIVILIAN EMPLOYMENT
NAVAL RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

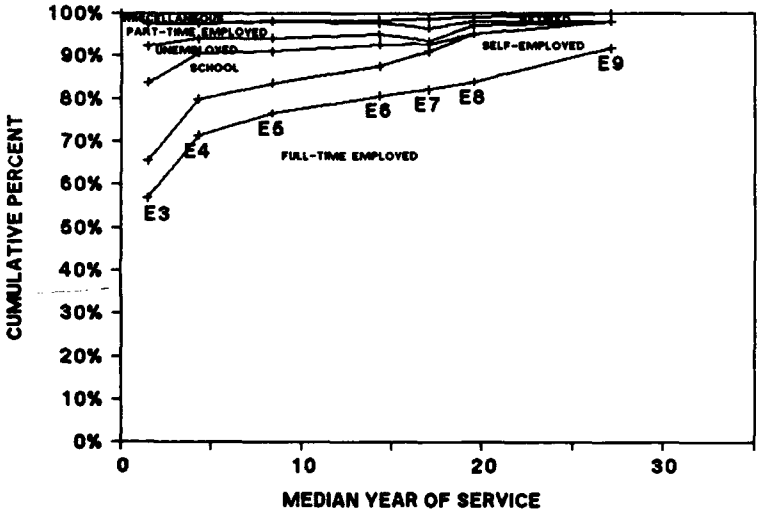


FIGURE B-16. ENLISTED CIVILIAN EMPLOYMENT
NAVAL RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

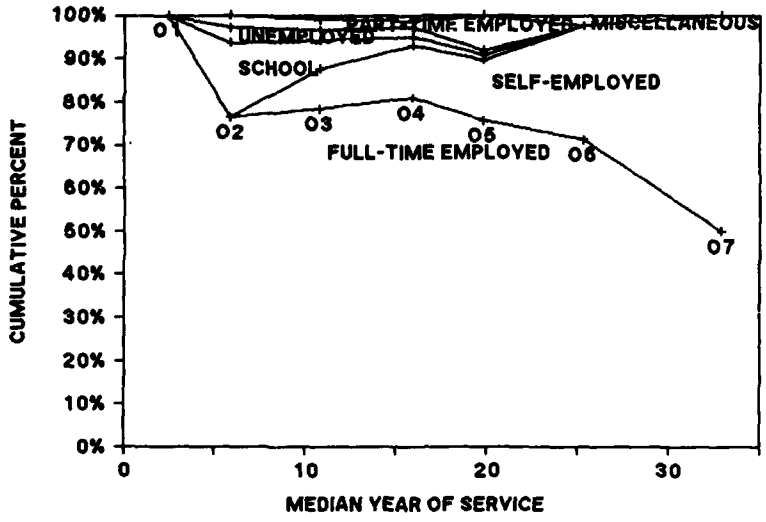


FIGURE B-17. OFFICER CIVILIAN EMPLOYMENT
MARINE CORPS RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

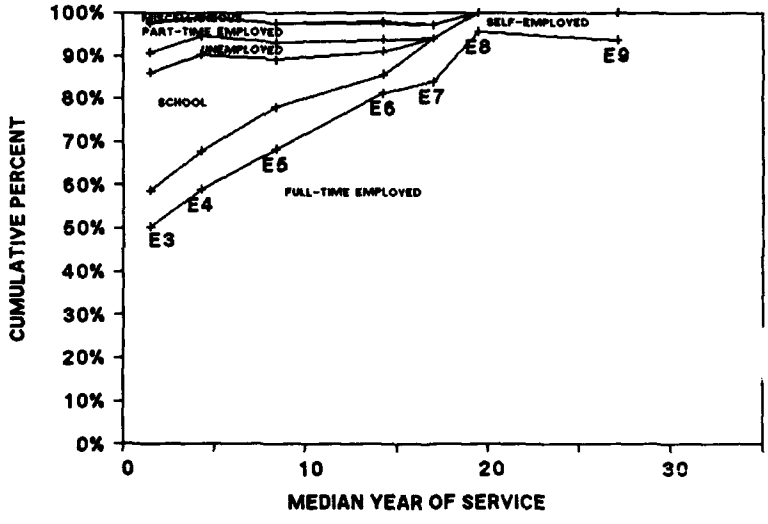


FIGURE B-18. ENLISTED CIVILIAN EMPLOYMENT
MARINE CORPS RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

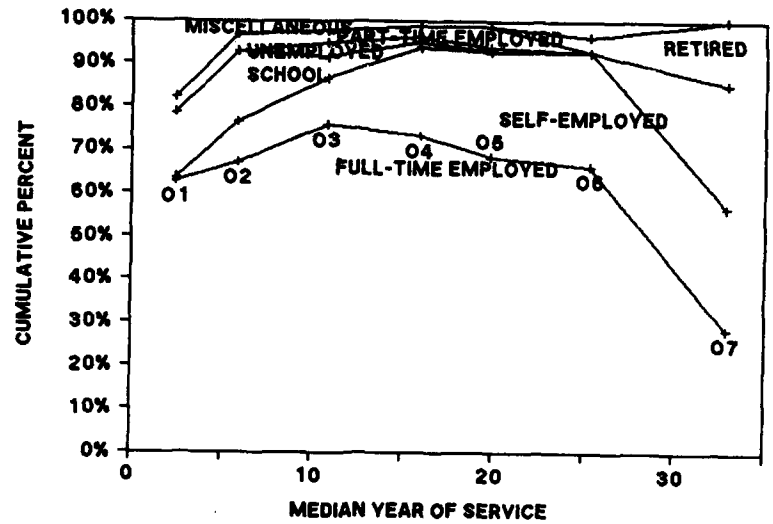


FIGURE B-19. OFFICER CIVILIAN EMPLOYMENT
AIR NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

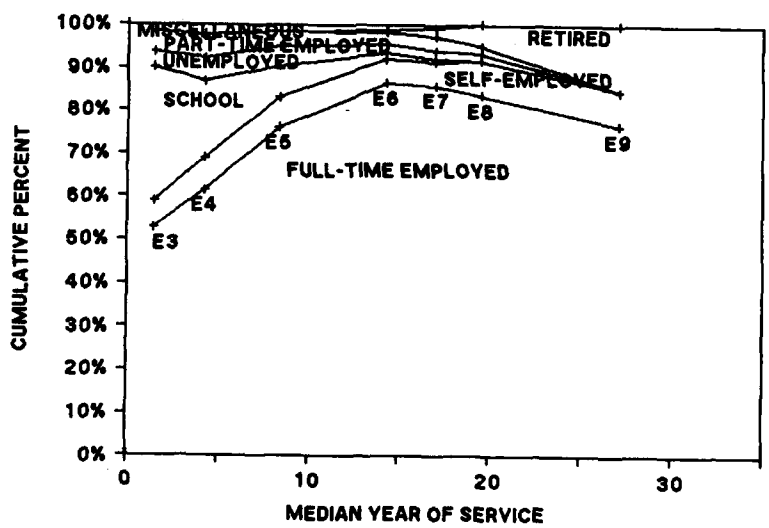


FIGURE B-20. ENLISTED CIVILIAN EMPLOYMENT
AIR NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

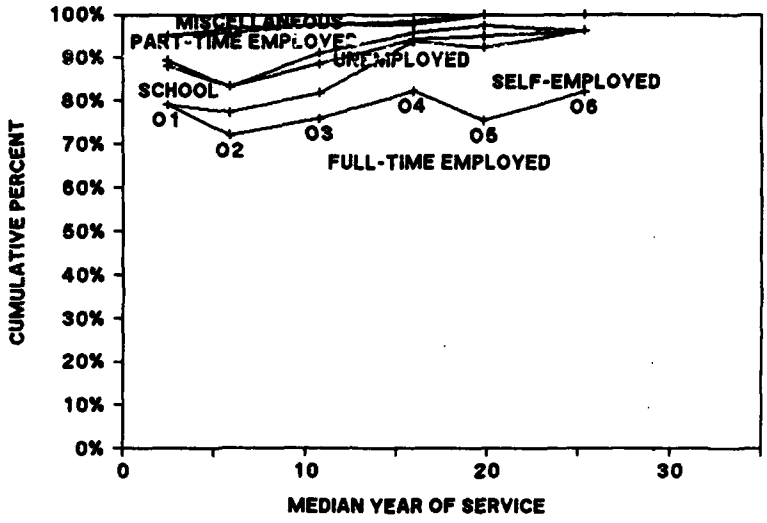


FIGURE B-21. OFFICER CIVILIAN EMPLOYMENT
AIR FORCE RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

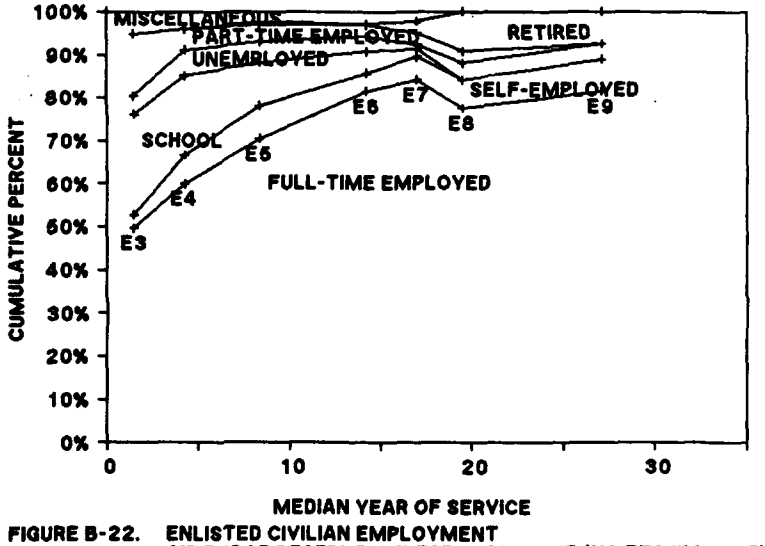


FIGURE B-22. ENLISTED CIVILIAN EMPLOYMENT
AIR FORCE RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

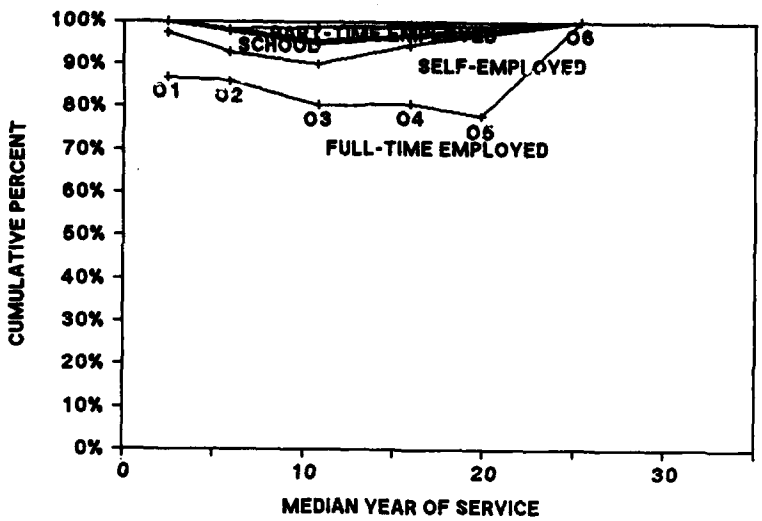


FIGURE B-23. OFFICER CIVILIAN EMPLOYMENT
COAST GUARD RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

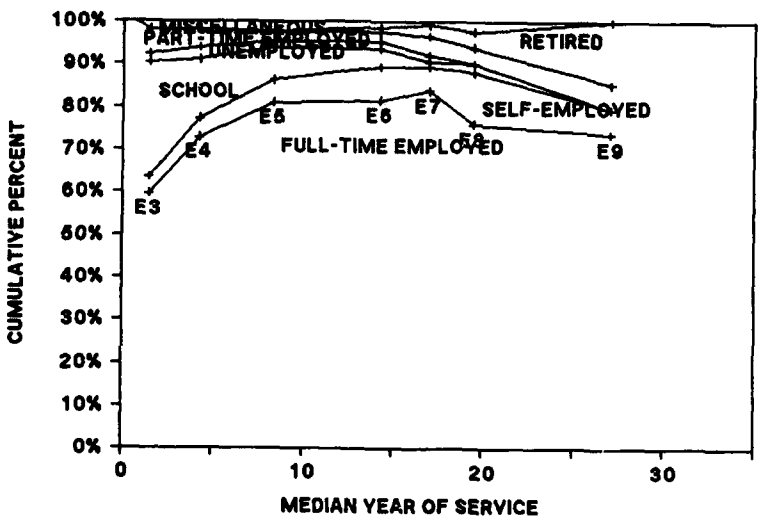


FIGURE B-24. ENLISTED CIVILIAN EMPLOYMENT
COAST GUARD RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

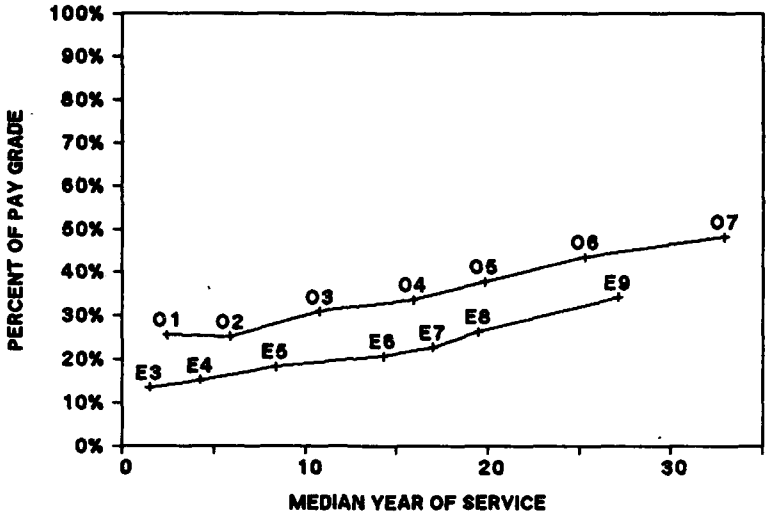


FIGURE B-25. SIMILARITY OF RESERVE AND CIVILIAN JOBS:
SIMILAR OR VERY SIMILAR (FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

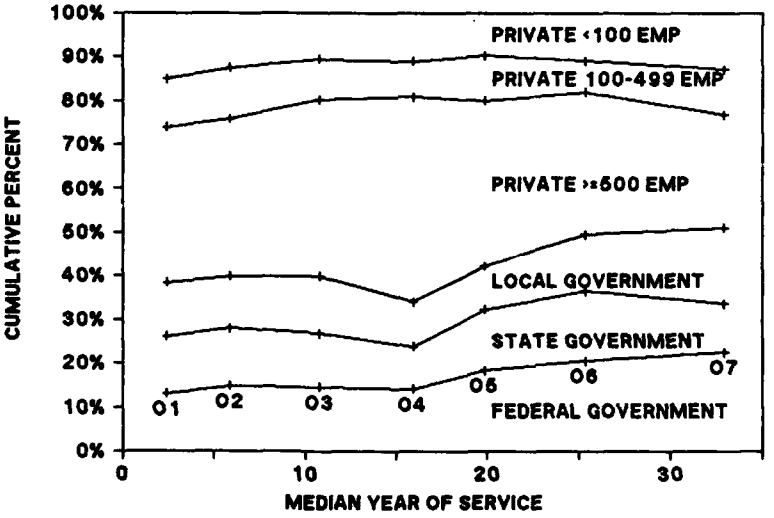


FIGURE B-26. OFFICER CIVILIAN EMPLOYER (FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

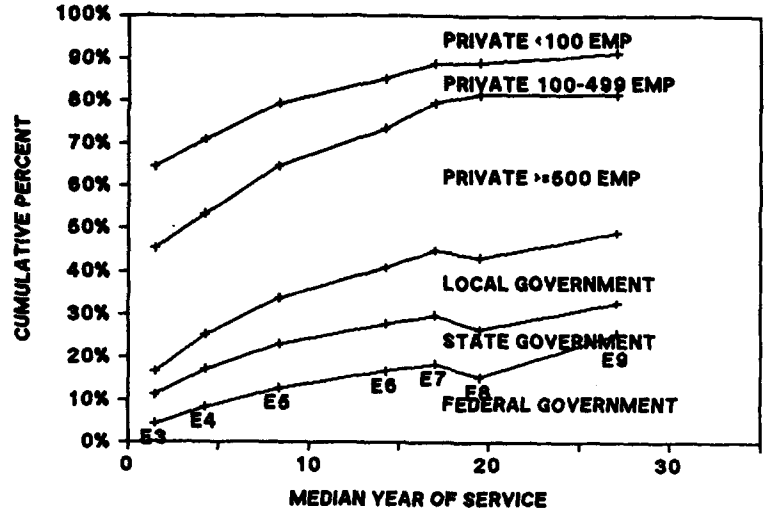


FIGURE B-27. ENLISTED CIVILIAN EMPLOYMENT (FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

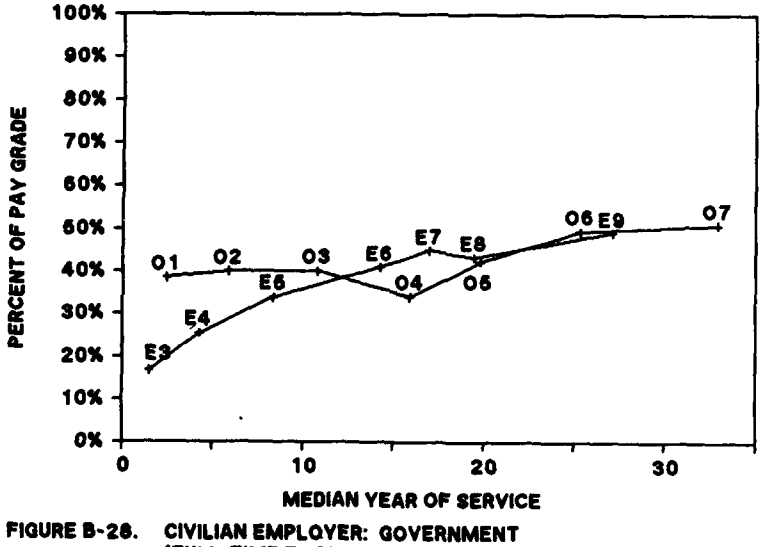


FIGURE B-28. CIVILIAN EMPLOYER: GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

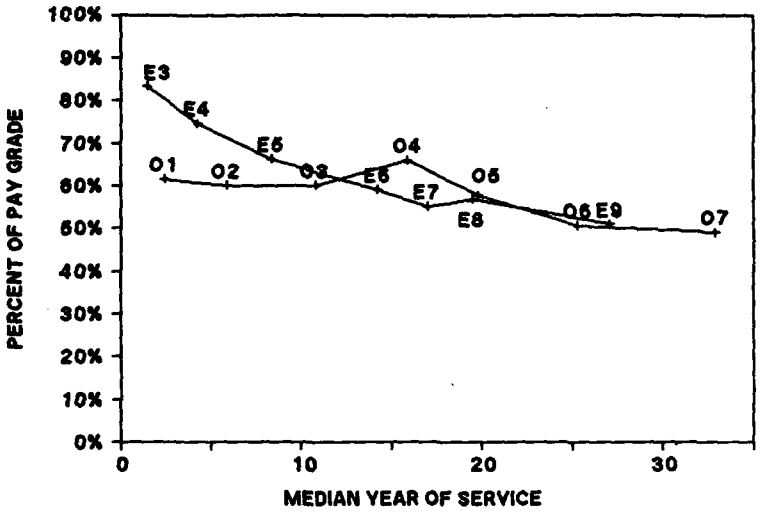


FIGURE B-29. *CIVILIAN EMPLOYED: PRIVATE FIRM*
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

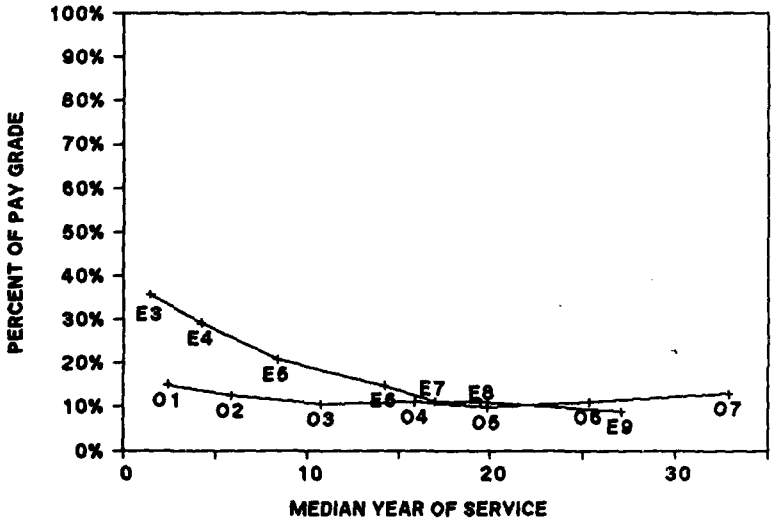


FIGURE B-30. CIVILIAN EMPLOYER: PRIVATE FIRM <100 EMP
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

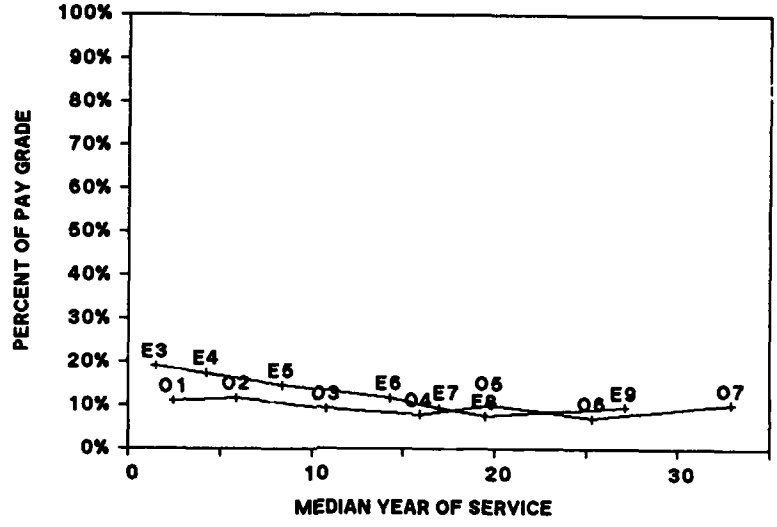


FIGURE B-31. CIVILIAN EMPLOYER: PRIVATE FIRM 100-499 EMPLOYEES (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

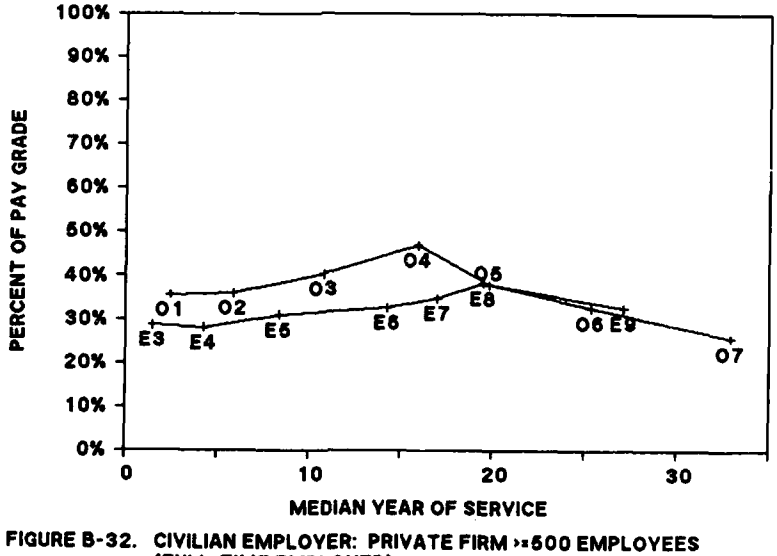


FIGURE B-32. CIVILIAN EMPLOYER: PRIVATE FIRM ≥500 EMPLOYEES (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

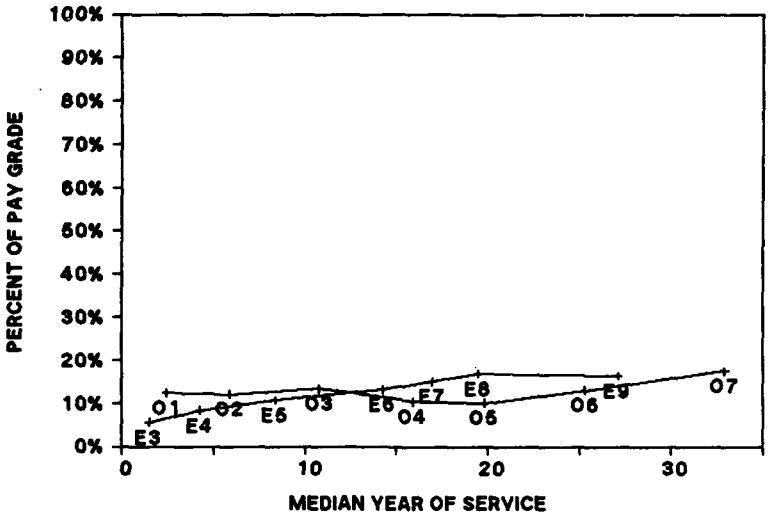


FIGURE B-33. CIVILIAN EMPLOYER: LOCAL GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

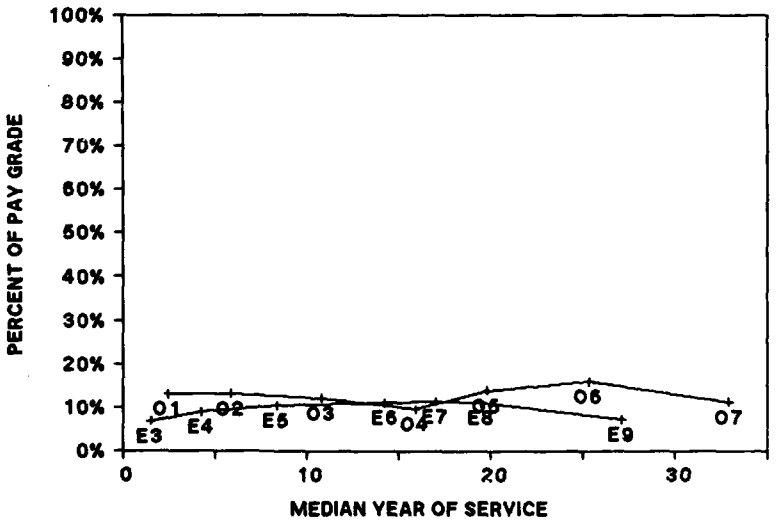


FIGURE B-34. CIVILIAN EMPLOYER: STATE GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

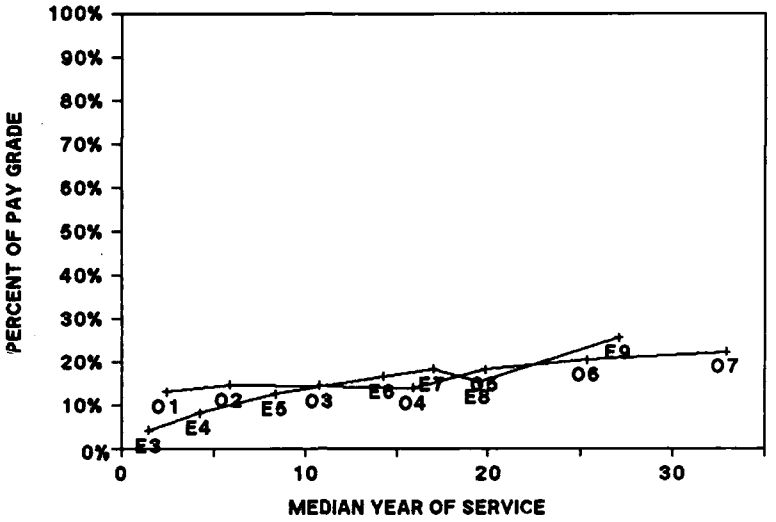


FIGURE B-35. CIVILIAN EMPLOYER: FEDERAL GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Appendix C. REGULAR MILITARY COMPENSATION

Regular Military Compensation (RMC) is defined for active duty members and, for convenience, an RMC Equivalent (RMC-E) is defined for reserve part-time members as follow:

Active Duty Members or Reserve Members on Full-time Duty for 140 Days or More

Basic pay appropriate for grade and longevity: For comparison purposes, the grade and longevity distribution of the reserve components was used. No provisions were made to use the separate pay table for officers with more than four years of enlisted service.

Basic allowance for subsistence (BAS) appropriate for officer or enlisted: All members are assumed to receive BAS. It is assumed that enlisted members receive the CONUS "authorized to mess separately" rate (or, equivalently, that furnished rations have the same value as BAS).

Basic allowance for quarters (BAQ) appropriate for grade and dependency status: For comparison purposes, the grade and dependency status distribution of the reserve components was used. It is assumed that all members receive BAQ (or, equivalently, that furnished quarters have the same value to the member as the housing allowances).

VHA appropriate for grade and dependency status: For comparison purposes, the grade and dependency status distribution of the reserve components was used. It is assumed that all members receive VHA (or, equivalently, that furnished quarters have the same value as BAQ and VHA) at the rate of .2 x BAQ .65, which is equivalent to the average amount envisioned by the VHA legislation.

Tax advantage associated with BAS, BAQ, and VHA: A marginal tax rate of 28 percent for officers and 15 percent for enlisted members was used to compute an imputed tax advantage of the tax free elements.

Summary:

$$RMC(officer) = BP(PG,YOS) + 1.28 \times [BAS(officer) + BAQ(PG,dep) + .2 \times BAQ(PG,dep)\ .65]$$

$$RMC(enlisted) = BP(PG,YOS) + 1.15 \times [BAS(enlisted) + BAQ(PG,dep) + .2 \times BAQ(PG,dep)\ .65]$$

where:
BP = basic pay
PG = pay grade
YOS = years of service
dep = quarters allowance dependency status

Figures C-1 through C-4 show, for each dependency status and pay grade, the elements of RMC. Figures C-5 and C-6 show, for each dependency status and pay grade, total RMC.

Active Duty for Training (ADT)

One day's basic pay, BAS, BAQ (members with dependents only), and tax advantage: Each is equal to one-thirtieth of the active component's monthly amount.

Summary:

$$ADT\ RMC\text{-}E(officer,w\ dep) = BP(PG,YOS) + 1.28 \times [BAS(officer) + BAQ(PG,w\ dep)]$$

$$ADT\ RMC\text{-}E(off,w/o\ dep) = BP(PG,YOS) + 1.28 \times BAS(officer)$$

$$ADT\ RMC\text{-}E(enlisted,w\ dep) = BP(PG,YOS) + 1.15 \times [BAS(enlisted) + BAQ(PG,w\ dep)]$$

$$ADT\ RMC\text{-}E(enl,w/o\ dep) = BP(PG,YOS) + 1.15 \times BAS(enlisted)$$

Figures C-7 through C-10 show, for each dependency status and pay grade, the elements of RMC-E for ADT. Figures C-11 and C-12 show, for each dependency status and pay grade, total RMC-E for ADT.

Inactive Duty Training (IDT)

Compensation appropriate for grade and longevity: The grade and longevity distribution of the reserve components was used. No provisions were made to use the separate pay table for officers with more than four years of enlisted service.

Subsistence for enlisted members: The receipt of furnished rations is dependent on the circumstances and can vary from none for an IDT period up to full rations for two IDT periods. For simplicity, it is assumed that enlisted members receive furnished rations half the time. It is further assumed that the value of these rations is equal to half the CONUS "authorized to mess separately" daily BAS rate for each period.

Tax advantage associated with subsistence: A marginal tax rate of 15 percent was used to compute an imputed tax advantage of subsistence.

Summary:

$$\text{IDT RMC-E(officer)} = \text{BP(PG,YOS)}$$

$$\text{IDT RMC-E(enlisted)} = .5 \times \text{BP(PG,YOS)} + 1.15 \times .5 \times \text{BAS(enlisted)}$$

Figures C-13 and C-14 show, for each pay grade, the elements of RMC-E for IDT. Figure C-15 shows, for each dependency status and pay grade, total RMC-E for IDT.

Part-time Reserve Total Annual Compensation

For most reservists, annual compensation consists of approximately 14 days of ADT (the actual situation varies from 12 to 15 days depending on the component) and 48 periods of IDT. Annual compensation for a specific reservist can vary significantly if the reservist works additional days, depending on the amount and type of added duty. For comparison purposes, 14 ADT days and 48 IDT periods are used.

Summary:

$$\text{Annual Reserve RMC-E} = 14 \times \text{ADT RMC-E} + 48 \times \text{IDT RMC-E}$$

Figures C-16 and C-17 show, for each dependency status and pay grade, annual RMC-E.

NOTE: RMC differs from Basic Military Compensation (BMC) only because RMC includes VHA and its tax advantage, whereas BMC does not. Generally, BMC and RMC are equivalent for the reservist, since the reservist does not receive VHA except when on active duty for time periods of 140 days or more.

FIGURES

C-1. Elements of Officer Active Duty RMC (With Dependent)

C-2. Elements of Officer Active Duty RMC (Without Dependent)

C-3. Elements of Enlisted Active Duty RMC (With Dependent)

C-4. Elements of Enlisted Active Duty RMC (Without Dependent)

C-5. Active Duty RMC Comparison (With Dependent)

C-6. Active Duty RMC Comparison (Without Dependent)

C-7. Elements of Officer RMC-E for ADT (With Dependent)

C-8. Elements of Officer RMC-E for ADT (Without Dependent)

C-9. Elements of Enlisted RMC-E for ADT (With Dependent)

C-10. Elements of Enlisted RMC-E for ADT (Without Dependent)

C-11. RMC-E for ADT Comparison (With Dependent)

C-12. RMC-E for ADT Comparison (Without Dependent)

C-13. Elements of Officer RMC-E for IDT

C-14. Elements of Enlisted RMC-E for IDT

C-15. RMC-E for IDT Comparison

C-16. RMC-E for 14 ADT and 48 IDT Comparison (With Dependent)

C-17. RMC-E for 14 ADT and 48 IDT Comparison (Without Dependent)

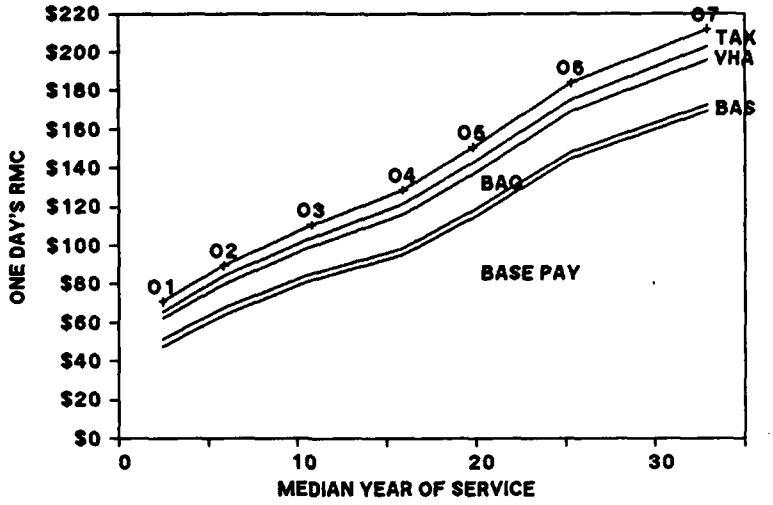


FIGURE C-1. ELEMENTS OF OFFICER ACTIVE DUTY RMC WITH DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

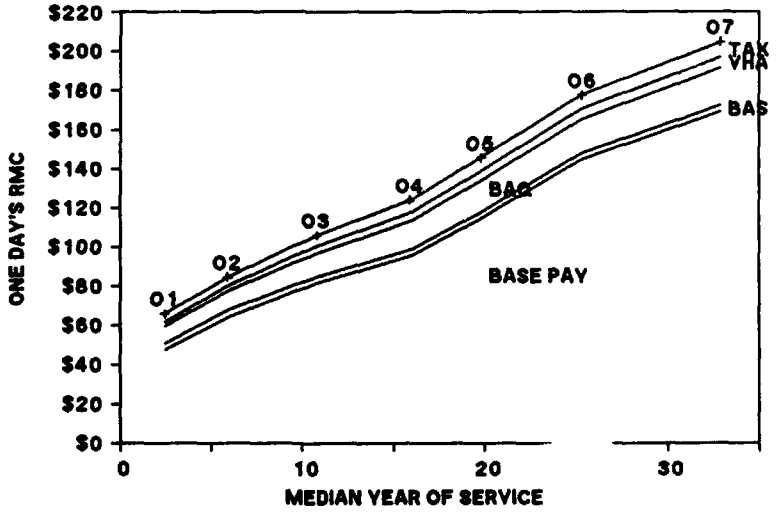


FIGURE C-2. ELEMENTS OF OFFICER ACTIVE DUTY RMC WITHOUT DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

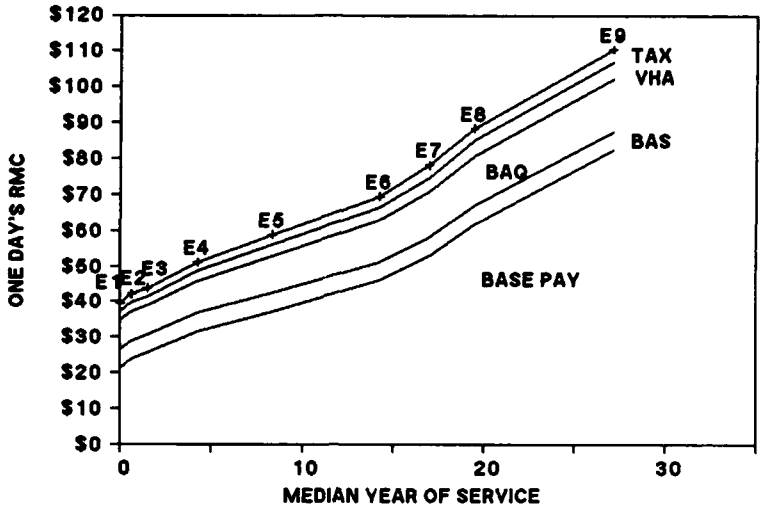


FIGURE C-3. ELEMENTS OF ENLISTED ACTICE DUTY RMC WITH DEPENDENT (TAX ADVANTAGE = 15%)

SOURCE: 1986 PAY TABLE

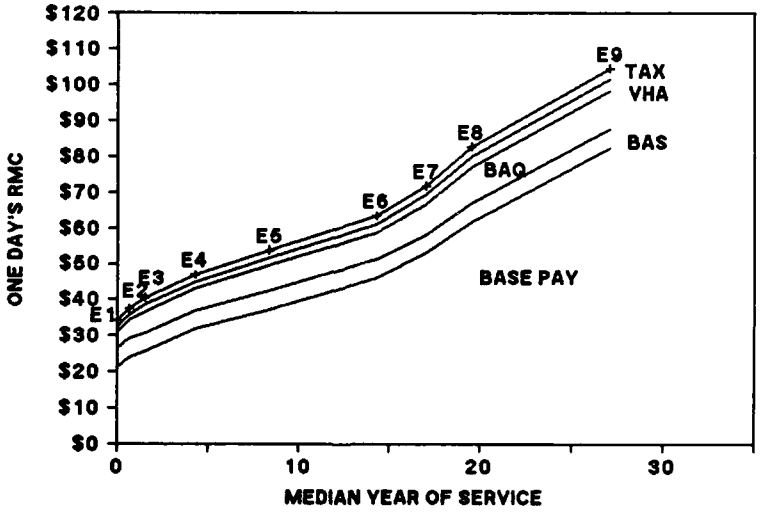


FIGURE C-4. ELEMENTS OF ENLISTED ACTIVE DUTY RMC WITHOUT DEPENDENT (TAX ADVANTAGE = 15%)

SOURCE: 1986 PAY TABLE

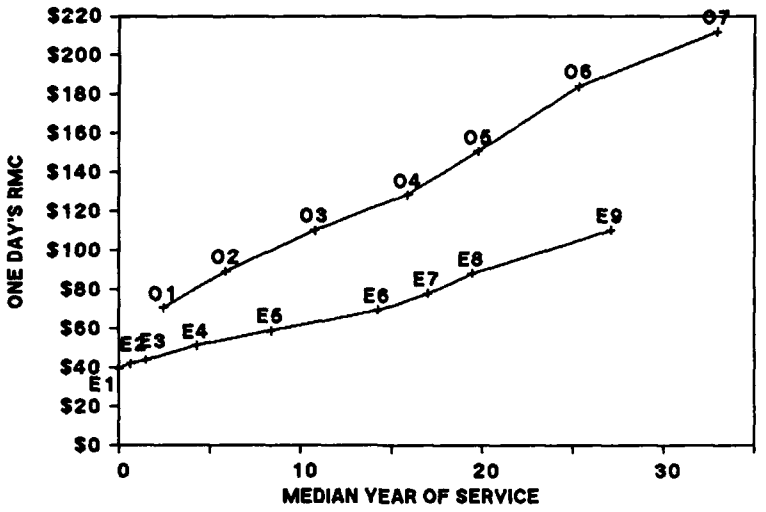


FIGURE C-5. ACTIVE DUTY RMC COMPARISON
WITH DEPENDENT
(TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

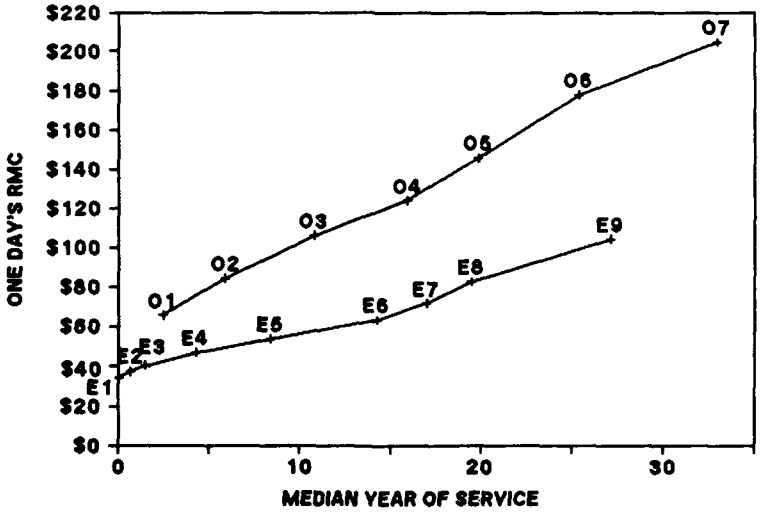


FIGURE C-6. ACTIVE DUTY RMC COMPARISON
WITHOUT DEPENDENT
(TAX ADVANTAGE = 28% OFFICERS & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

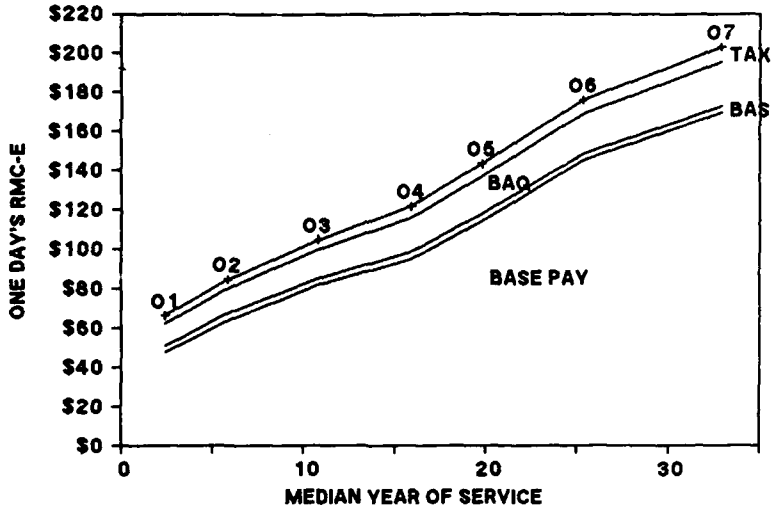


FIGURE C-7. ELEMENTS OF OFFICER RMC-E FOR ADT WITH DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

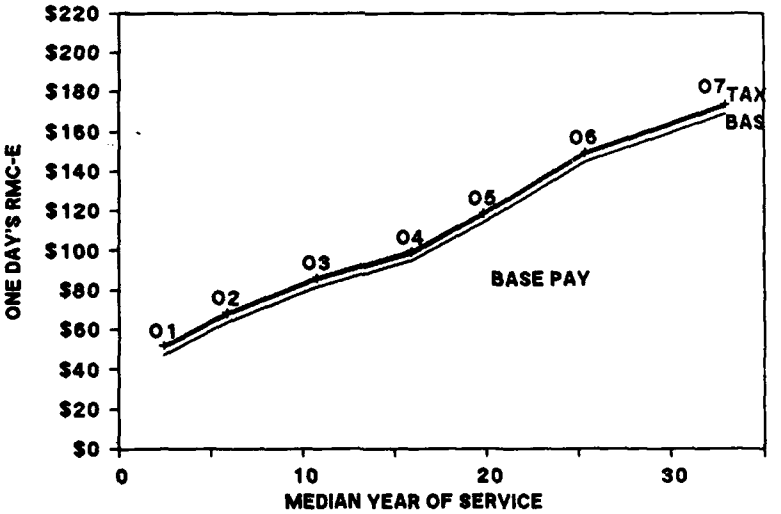


FIGURE C-8. ELEMENTS OF OFFICER RMC-E FOR ADT WITHOUT DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

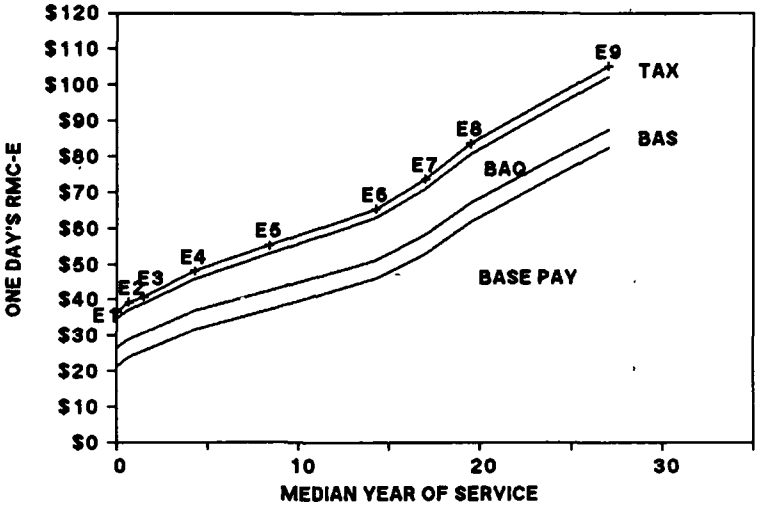


FIGURE C-9. ELEMENTS OF ENLISTED RMC-E FOR ADT WITH DEPENDENT (TAX ADVANTAGE = 15%)

SOURCE: 1986 PAY TABLE

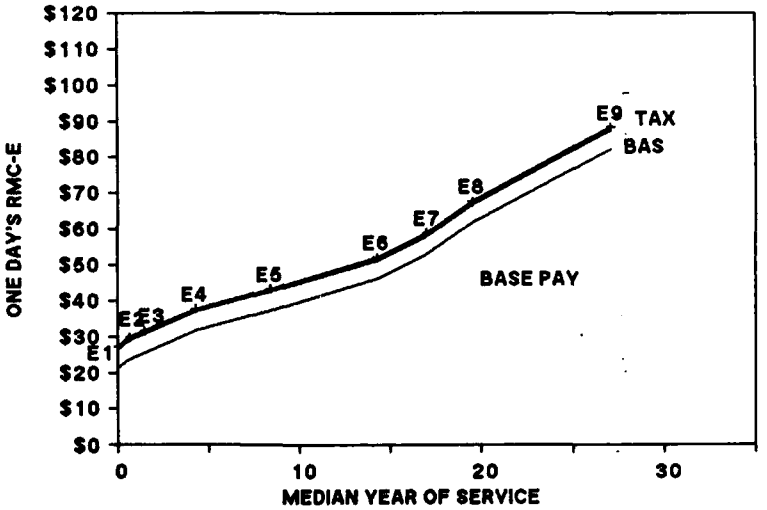


FIGURE C-10. ELEMENTS OF ENLISTED RMC-E FOR ADT WITHOUT DEPENDENT (TAX ADVANTAGE = 16%)

SOURCE: 1986 PAY TABLE

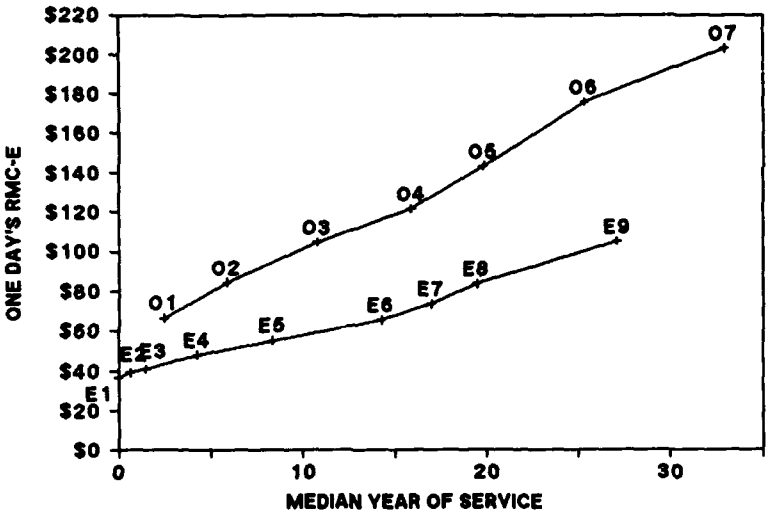


FIGURE C-11. RMC-E FOR ADT COMPARISON
WITH DEPENDENT
(TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

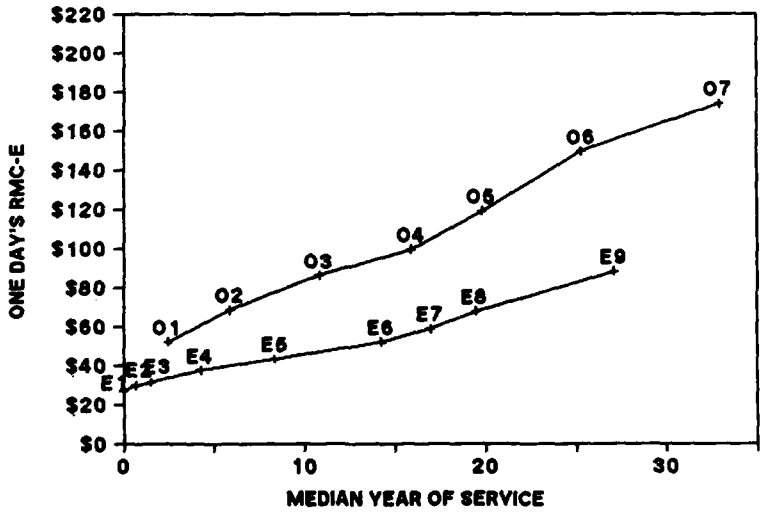


FIGURE C-12. RMC-E FOR ADT COMPARISON
WITHOUT DEPENDENT
(TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

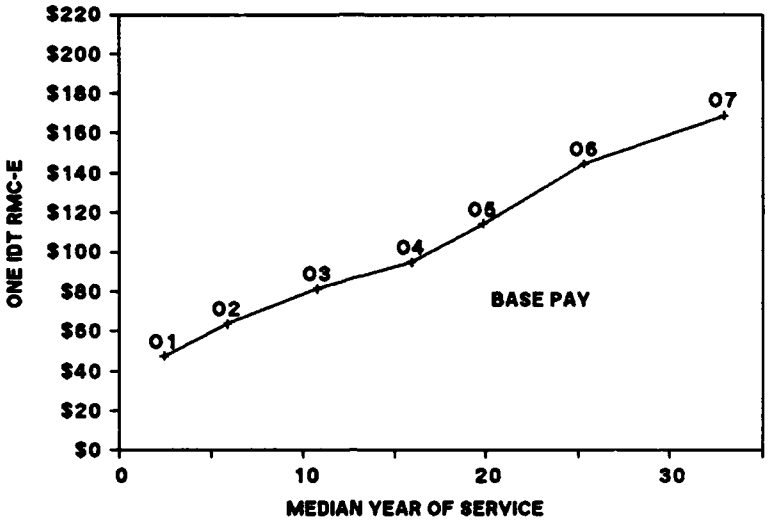


FIGURE C-13. ELEMENTS OF OFFICER RMC-E FOR IDT

SOURCE: 1986 PAY TABLE

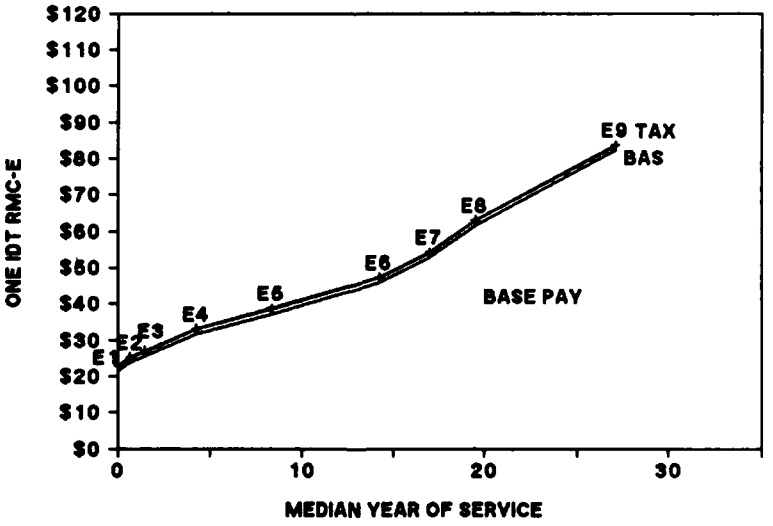


FIGURE C-14. ELEMENT OF ENLISTED RMC-E FOR IDT
(TAX ADVANTAGE = 15%)

SOURCE: 1986 PAY TABLE

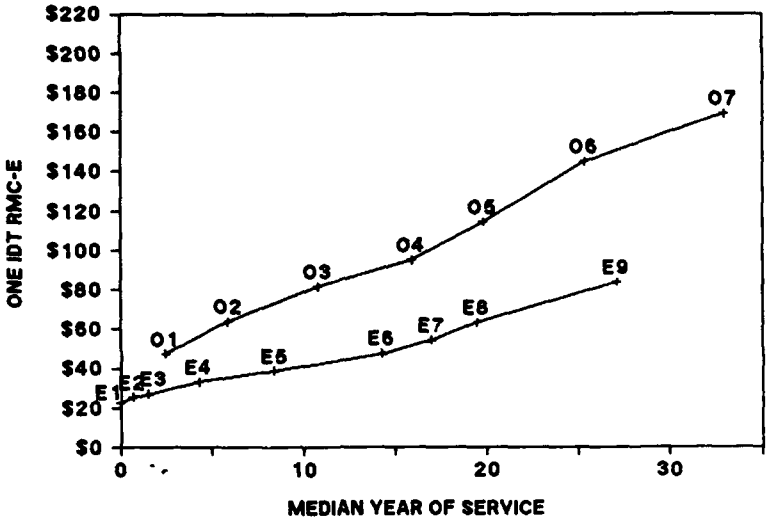


FIGURE C-15. RMC-E FOR IDT COMPARISON
(TAX ADVANTAGE = 15% ENLISTED)

SOURCE: 1986 PAY TABLE

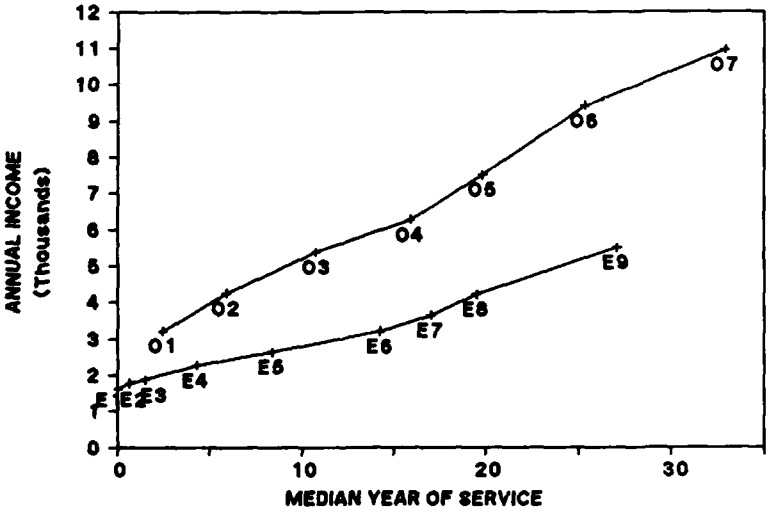


FIGURE C-16. RMC-E FOR 14 ADT AND 46 IDT
WITH DEPENDENT
(TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

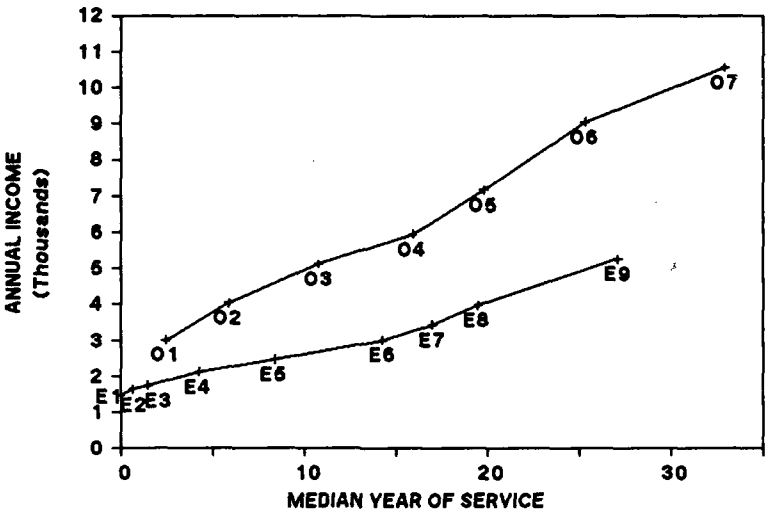


FIGURE C-17. RMC-E FOR 14 ADT AND 48 IDT WITHOUT DEPENDENT (TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

Appendix D. UNPAID HOURS AND TIME FROM HOME TO DRILL

FIGURES

D-1. Officer Unpaid Hours, Army National Guard (Full-Time Employed)

D-2. Enlisted Unpaid Hours, Army National Guard (Full-Time Employed)

D-3. Officer Unpaid Hours, Army Reserve (Full-Time Employed)

D-4. Enlisted Unpaid Hours, Army Reserve (Full-Time Employed)

D-5. Officer Unpaid Hours, Naval Reserve (Full-Time Employed)

D-6. Enlisted Unpaid Hours, Naval Reserve (Full-Time Employed)

D-7. Officer Unpaid Hours, Marine Corps Reserve (Full-Time Employed)

D-8. Enlisted Unpaid Hours, Marine Corps Reserve (Full-Time Employed)

D-9. Officer Unpaid Hours, Air National Guard (Full-Time Employed)

D-10. Enlisted Unpaid Hours, Air National Guard (Full-Time Employed)

D-11. Officer Unpaid Hours, Air Force Reserve (Full-Time Employed)

D-12. Enlisted Unpaid Hours, Air Force Reserve (Full-Time Employed)

D-13. Officer Unpaid Hours, Coast Guard Reserve (Full-Time Employed)

D-14. Enlisted Unpaid Hours, Coast Guard Reserve (Full-Time Employed)

D-15. Officer Time from Home to Drill (Full-Time Employed)

D-16. Enlisted Time from Home to Drill (Full-Time Employed)

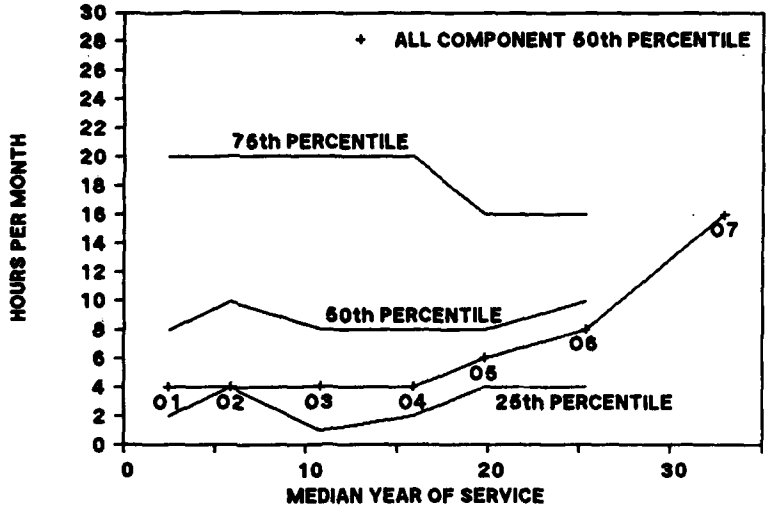


FIGURE D-1. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
ARMY NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

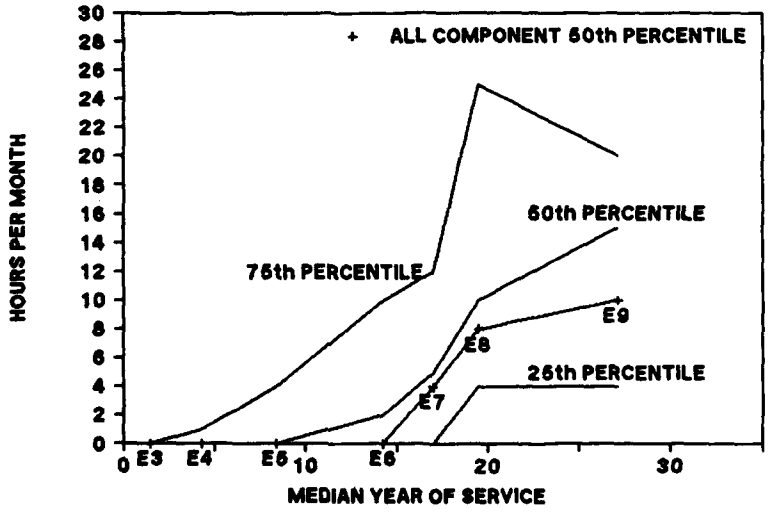


FIGURE D-2. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED)
ARMY NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

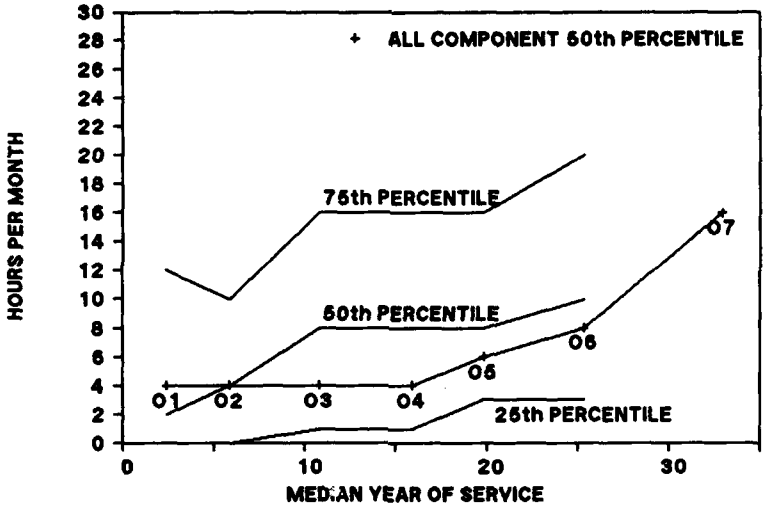


FIGURE D-3. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
ARMY RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

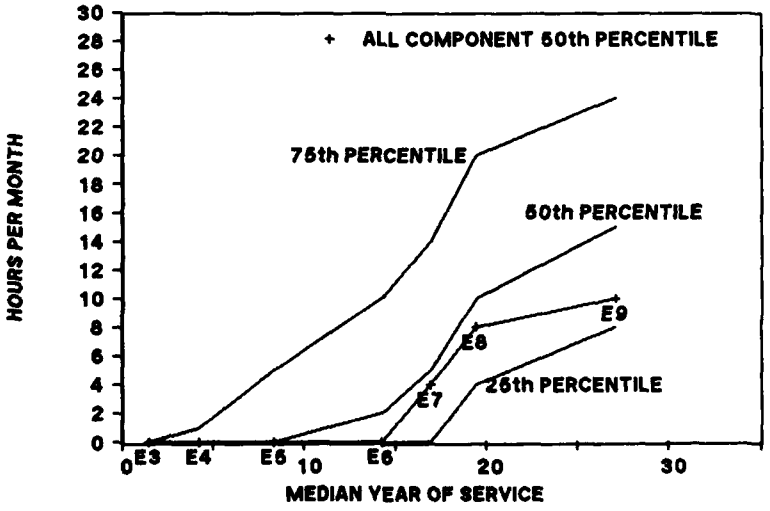


FIGURE D-4. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED)
ARMY RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

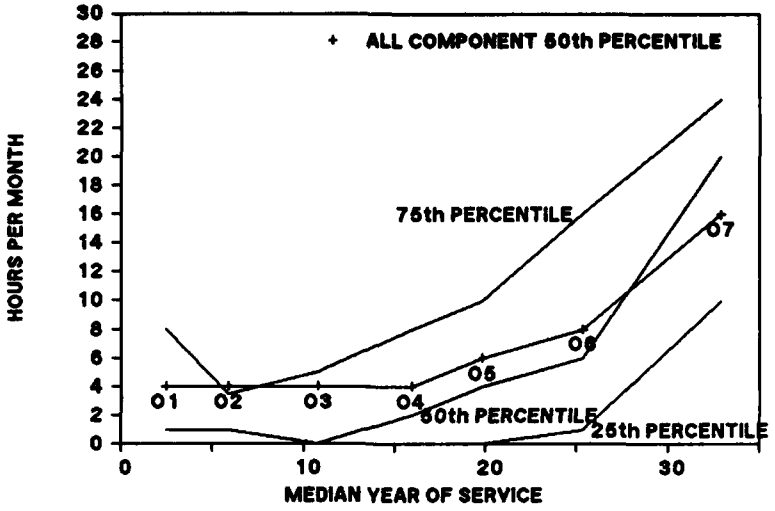


FIGURE D-5. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
NAVAL RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

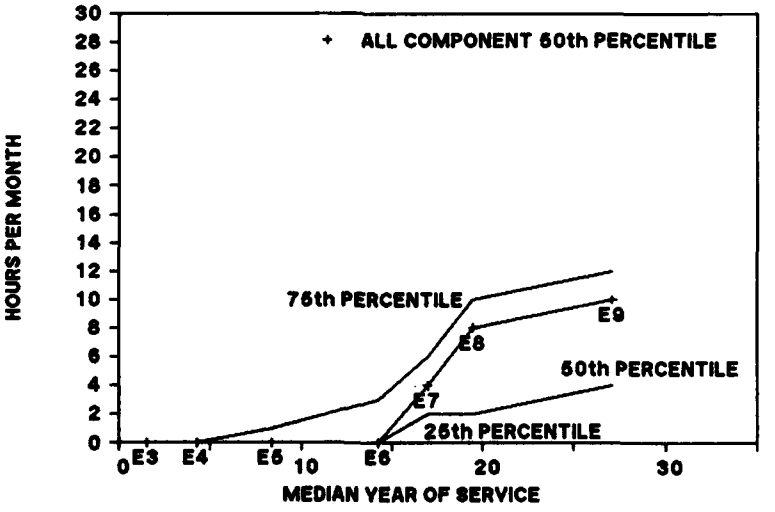


FIGURE D-6. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED)
NAVAL RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

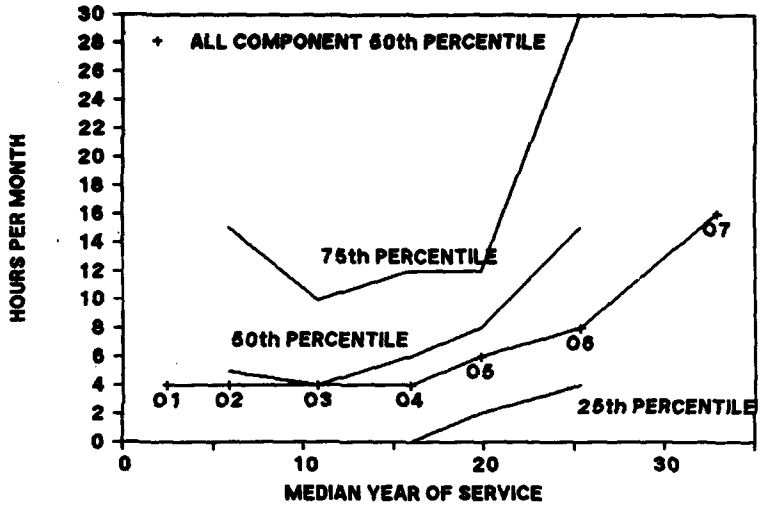


FIGURE D-7. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
MARINE CORPS RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

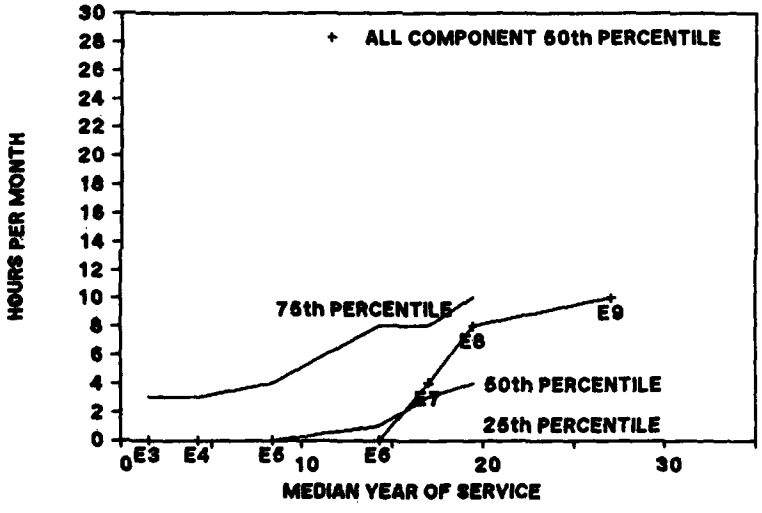


FIGURE D-8. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED)
MARINE CORPS RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

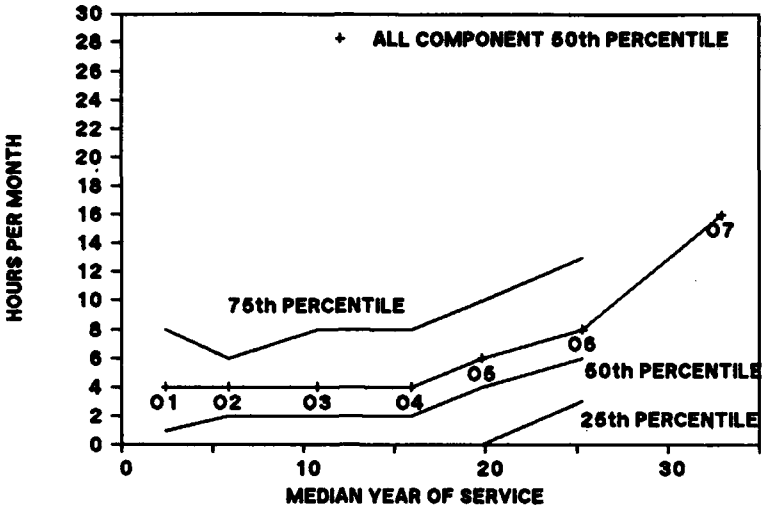


FIGURE V-9. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
AIR NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

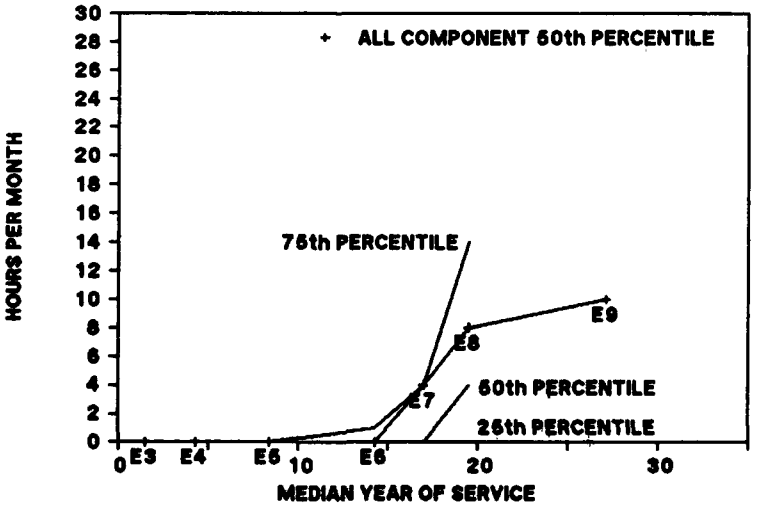


FIGURE D-10. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
AIR NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

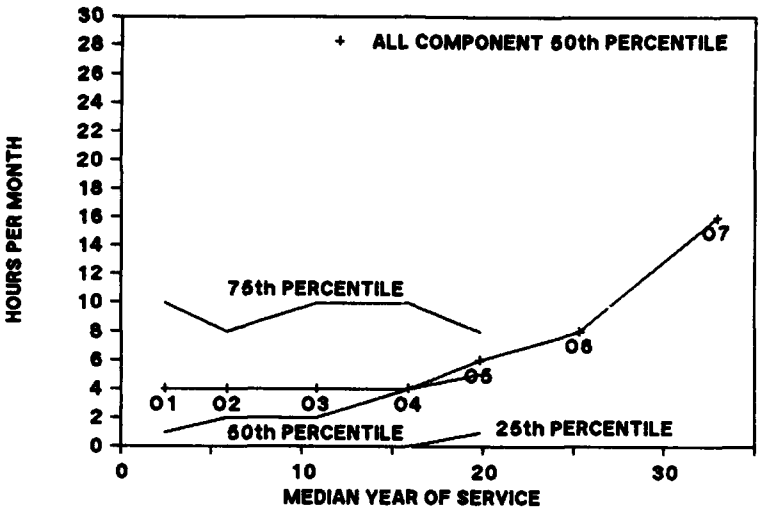


FIGURE D-11. OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)
AIR FORCE RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

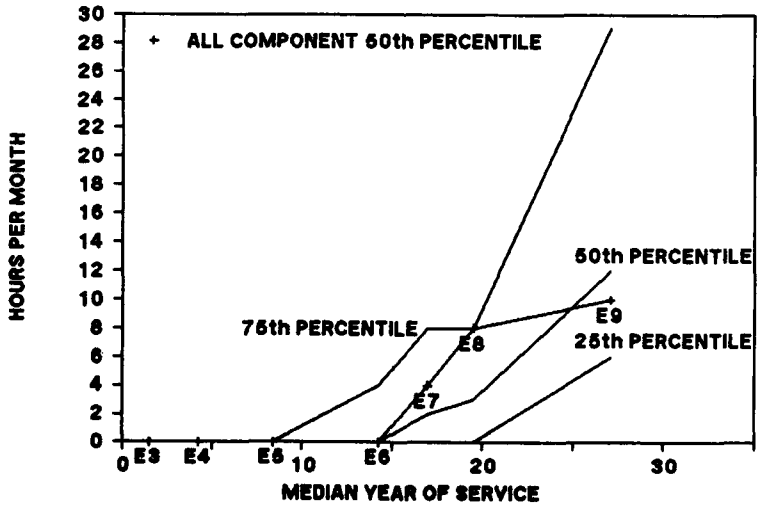


FIGURE D-12. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED)
AIR FORCE RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

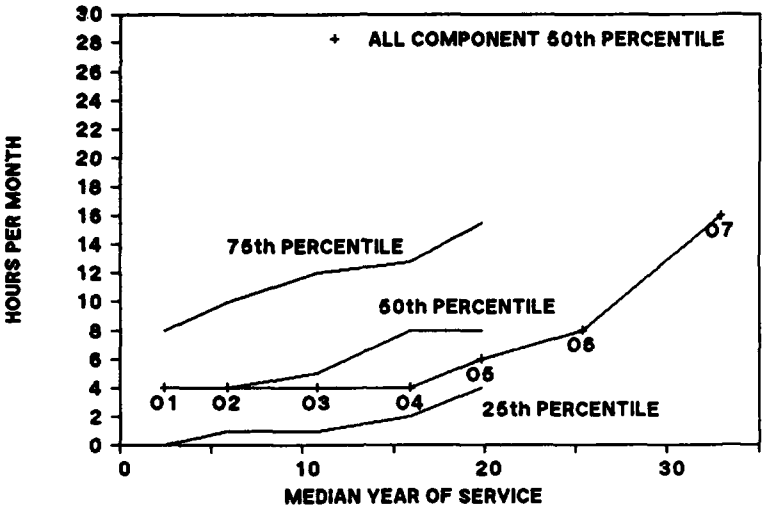


FIGURE D-13. *OFFICER UNPAID HOURS (FULL-TIME EMPLOYED)*
COAST GUARD RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

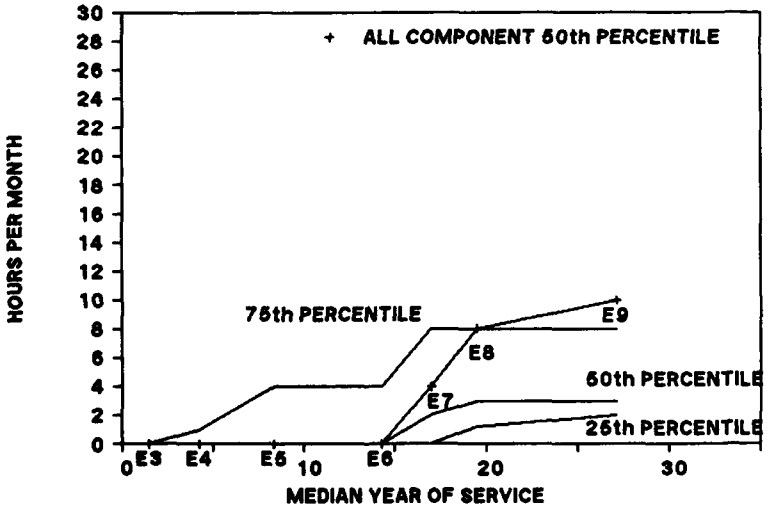


FIGURE D-14. ENLISTED UNPAID HOURS (FULL-TIME EMPLOYED)
COAST GUARD RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

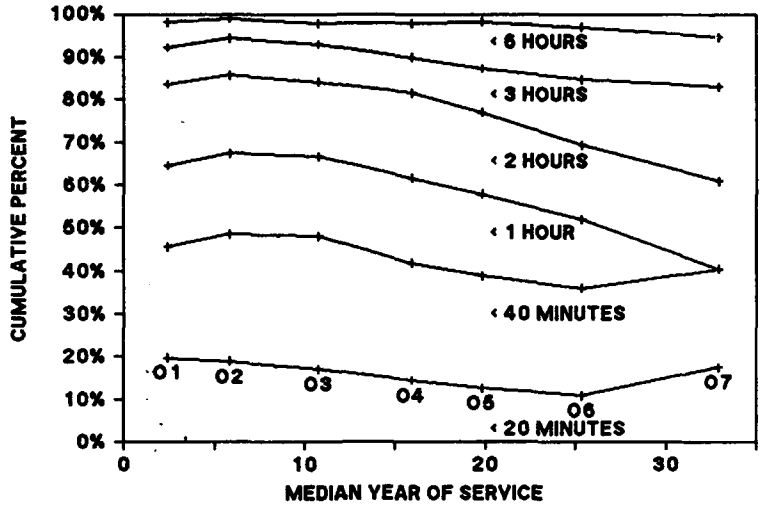


FIGURE D-15. OFFICER TIME FROM HOME TO DRILL (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

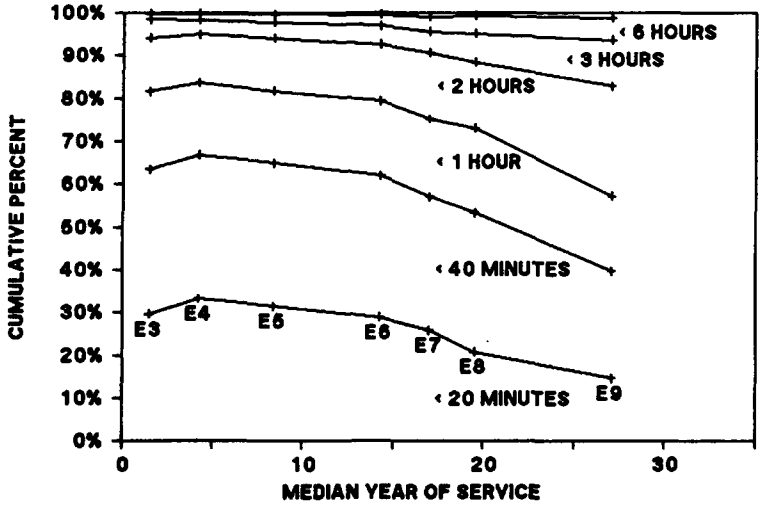


FIGURE D-16. ENLISTED TIME FROM HOME TO DRILL (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Appendix E. WARRANT OFFICER FIGURES

The figures in this appendix include warrant officers. The Air Force does not use warrant officers in either the active or reserve components. While the Navy and Marine Corps use warrant officers in the active components, they make limited use of them in the reserve components. Thus, the "all component" figures in this appendix are dominated by the Army components. In figures for individual components, the data is very limited except for the Army components.

The figures are organized by chapter and appendix in the following tables. If the figure in the original chapter or appendix included both officers and enlisted members, the figure in this appendix will include officers, enlisted members, and warrant officers (occasionally, officer or enlisted pay grade labels have been eliminated so the warrant officer labels can be seen). The figure number from the original figure in the chapter or appendix will be cited in the table. If there were separate figures in the original chapter or appendix for officers and enlisted members, then the figure in this appendix will include only warrant officers. The figure number from the original figure showing officers will be cited in the table.

WARRANT OFFICER FIGURES FOR CHAPTER 2

E-1. Figure 2-2 with warrant officers.

E-2. Figure 2-4 with warrant officers.

E-3. Figure 2-5 with warrant officers.

E-4. Figure 2-6 with warrant officers.

E-5. Figure 2-9 with warrant officers.

E-6. Figure 2-11 with warrant officers.

E-7. Figure 2-13 with warrant officers.

E-8. Figure 2-15 with warrant officers.

E-9. Figure 2-19 with warrant officers.

E-10. Figure 2-22 with warrant officers.

E-11. Figure 2-23 with warrant officers.

E-12. Figure 2-24 with warrant officers.

E-13. Figure 2-30 with warrant officers.

E-14. Figure 2-31 with warrant officers.

E-15. Figure 2-33 with warrant officers.

E-16. Figure 2-35 with warrant officers.

E-17. (not used.)

WARRANT OFFICER FIGURES FOR CHAPTER 3

E-18. Figure 3-1 with warrant officers.

E-19. Figure 3-2 with warrant officers.

E-20. Figure 3-4 with warrant officers.

E-21. Figure 3-5 with warrant officers.

E-22. Figure 3-6 with warrant officers.

E-23. Figure 3-7 with warrant officers.

E-24. Figure 3-8 with warrant officers.

E-25. Figure 3-9 with warrant officers.

E-26. Figure 3-12 with warrant officers.

E-27. Figure 3-15 with warrant officers.

E-28. Figure 3-16 with warrant officers.

E-29. Figure 3-22 with warrant officers.

E-30. Figure 3-23 with warrant officers.

E-31. Figure 3-24 with warrant officers.

E-32. (not used.)

WARRANT OFFICER FIGURES FOR APPENDIX B

E-33. Figure B-1 with warrant officers.

E-34. Figure B-2 with warrant officers.

E-35. Figure B-3 with warrant officers.

E-36. Figure B-4 with warrant officers.

E-37. Figure B-5 with warrant officers.

E-38. Figure B-6 with warrant officers.

E-39. Figure B-7 with warrant officers.

E-40. Figure B-8 with warrant officers.

E-41. Figure B-9 with warrant officers.

E-42. Figure B-11 with warrant officers.

E-43. Figure B-13 with warrant officers.

E-44. Figure B-15 with warrant officers.

E-45. Figure B-17 with warrant officers.

E-46. Figure B-23 with warrant officers.

E-47. Figure B-25 with warrant officers.

E-48. Figure B-26 with warrant officers.

E-49. Figure B-28 with warrant officers.

E-50. Figure B-29 with warrant officers.

E-51. Figure B-30 with warrant officers.

E-52. Figure B-31 with warrant officers.

E-53. Figure B-32 with warrant officers.

E-54. Figure B-33 with warrant officers.

E-55. Figure B-34 with warrant officers.

E-56. Figure B-35 with warrant officers.

E-57. (not used.)

WARRANT OFFICER FIGURES FOR APPENDIX C

E-58. Figure C-1 with warrant officers.

E-59. Figure C-2 with warrant officers.

E-60. Figure C-5 with warrant officers.

E-61. Figure C-6 with warrant officers.

E-62. Figure C-7 with warrant officers.

E-63. Figure C-8 with warrant officers.

E-64. Figure C-11 with warrant officers.

E-65. Figure C-12 with warrant officers.

E-66. Figure C-13 with warrant officers.

E-67. Figure C-15 with warrant officers.

E-68. Figure C-16 with warrant officers.

E-69. Figure C-17 with warrant officers.

E-70. (not used.)

WARRANT OFFICER FIGURES FOR APPENDIX D

E-71. Figure D-1 with warrant officers.

E-72. Figure D-3 with warrant officers.

E-73. Figure D-5 with warrant officers.

E-74. Figure D-7 with warrant officers.

E-75. Figure D-13 with warrant officers.

E-76. Figure D-15 with warrant officers.

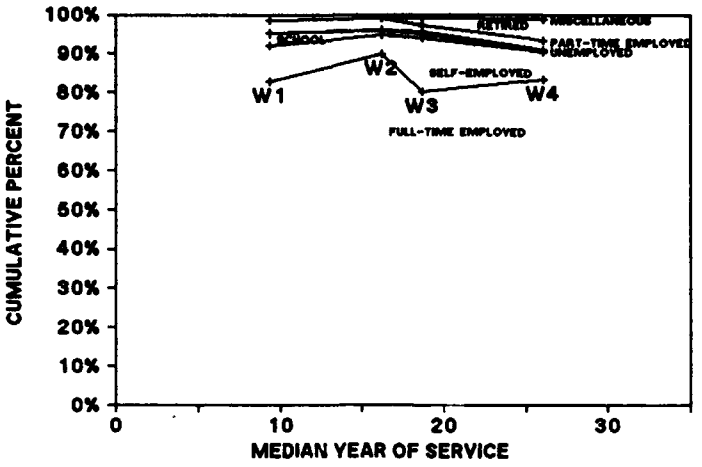


FIGURE E-1. WARRANT OFFICER CIVILIAN EMPLOYMENT
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

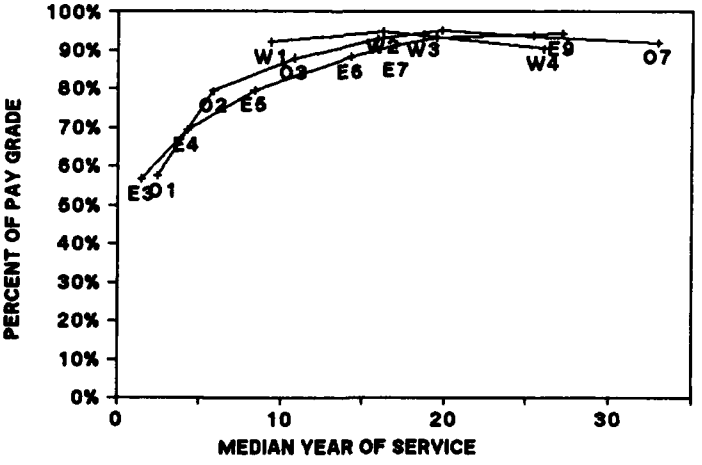


FIGURE E-2. CIVILIAN EMPLOYER: FULL-TIME OR SELF-EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

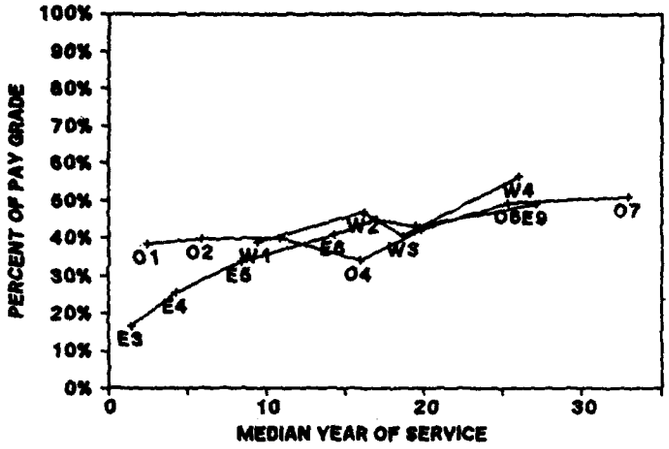


FIGURE E-3. CIVILIAN EMPLOYER: GOVERNMENT FULL-TIME EMPLOYED ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

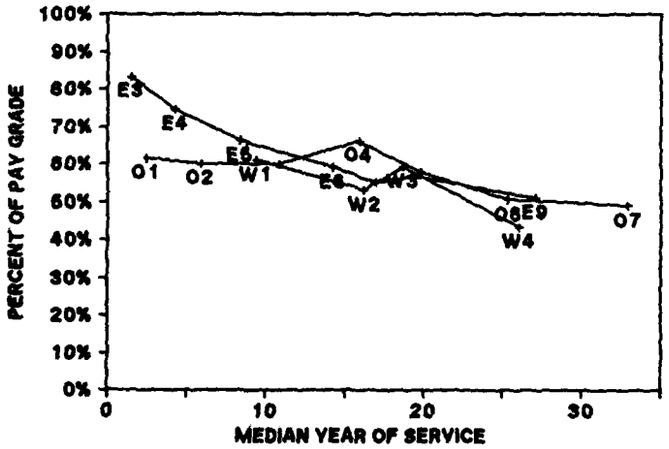


FIGURE E-4. CIVILIAN EMPLOYER: PRIVATE FIRM FULL-TIME EMPLOYED ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

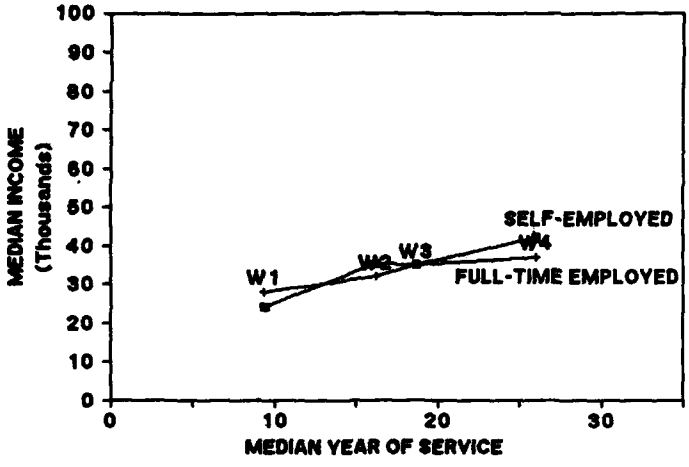


FIGURE E-5. WARRANT OFFICER EMPLOYMENT INCOME
ALL COMPOMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

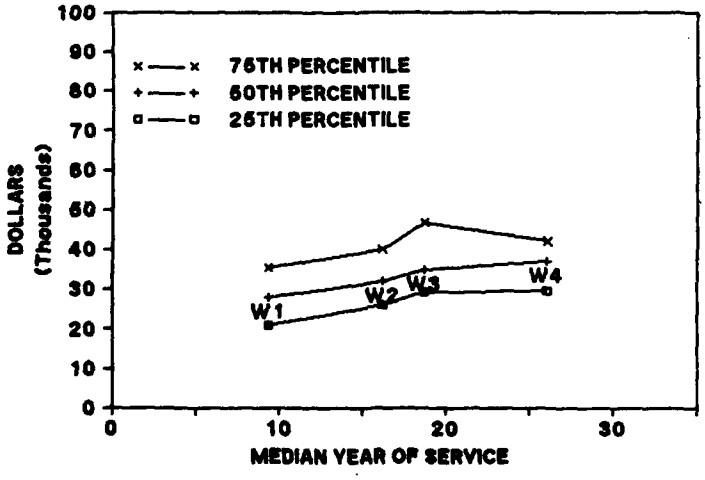


FIGURE E-6. WARRANT OFFICER ANNUAL CIVILIAN INCOME
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

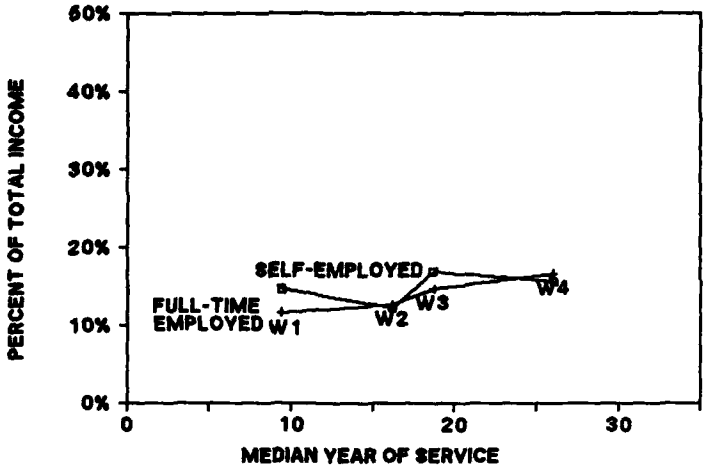


FIGURE E-7. WARRANT OFFICER RESERVE INCOME AS % OF TOTAL INCOME ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

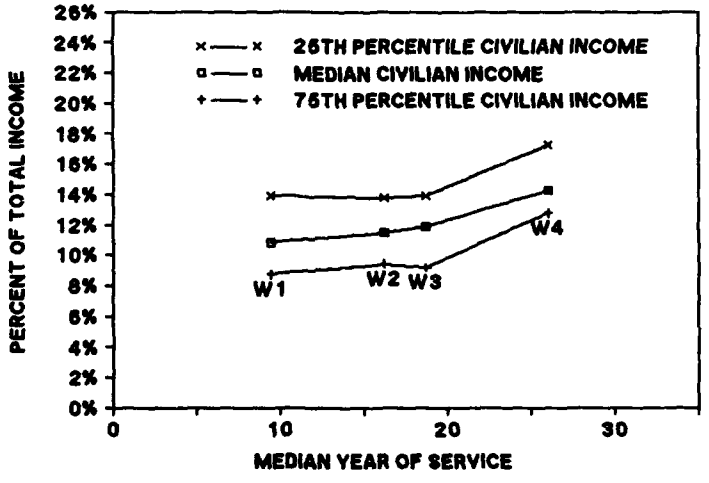


FIGURE E-8. WARRANT OFFICER 14 ADT & 48 IDT AS % TOTAL INCOME (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

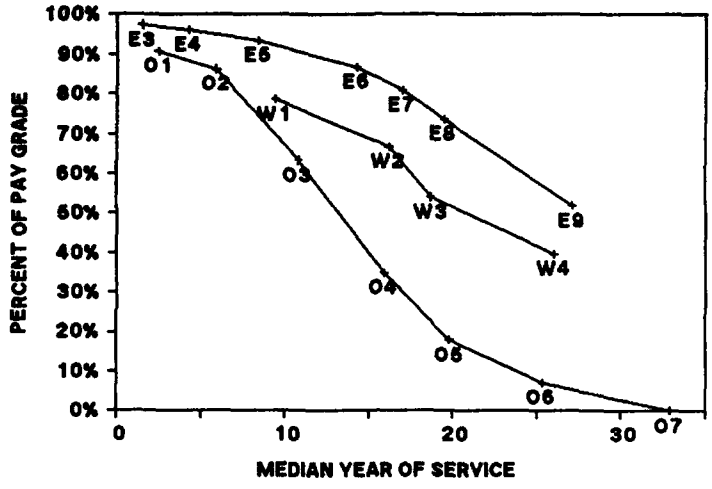


FIGURE E-9. FICA RETAINED BY GOVERNMENT ON ALL RESERVE WAGES
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

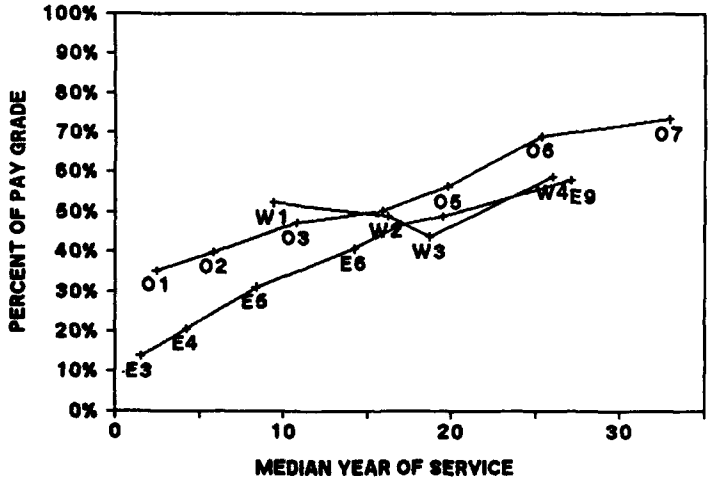


FIGURE E-10. RECEIVE FULL CIVILIAN PAY DURING RESERVE OBLIGATION
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

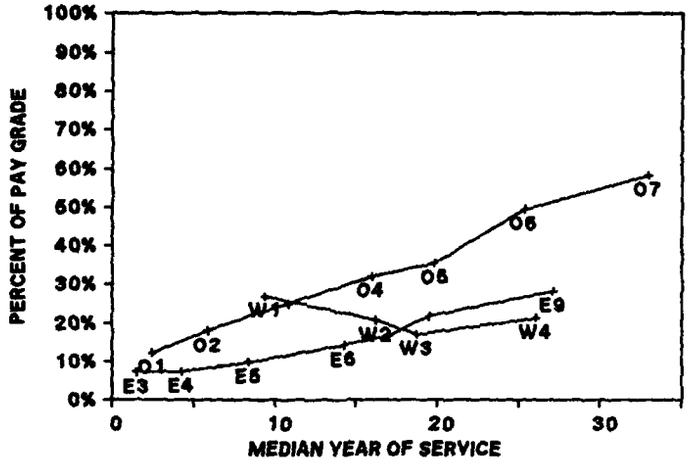


FIGURE E-11. RECEIVE FULL CIVILIAN PAY DURING RESERVE OBLIGATION
(FULL-TIME EMPLOYED WITH PRIVATE FIRM)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

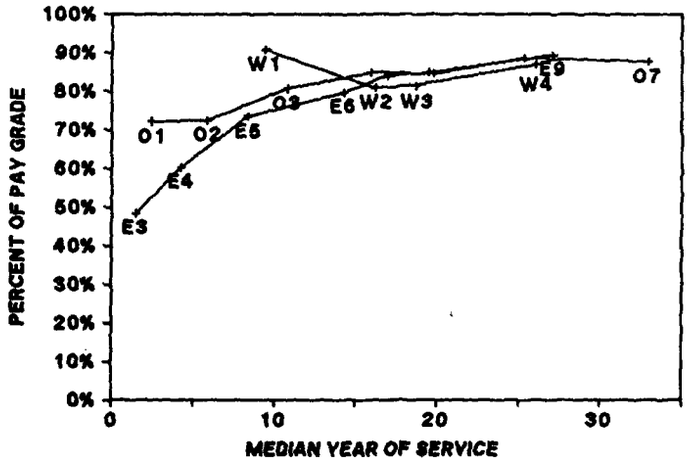


FIGURE E-12. RECEIVE FULL CIVILIAN PAY DURING RESERVE OBLIGATION
(FULL-TIME EMPLOYED WITH GOVERNMENT EMPLOYER)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

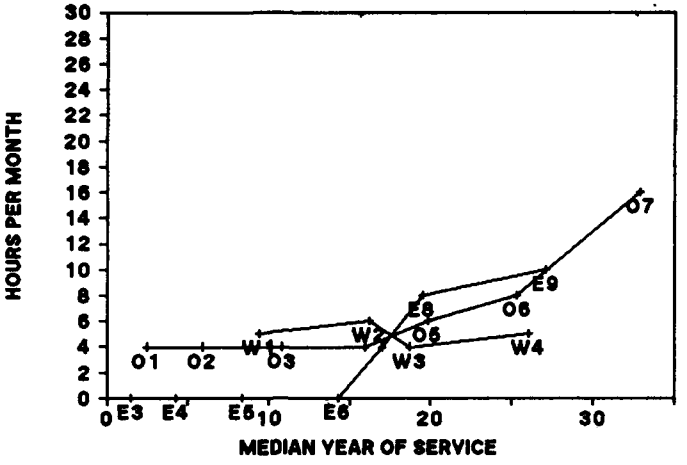


FIGURE E-13. MEDIAN UNPAID HOURS (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

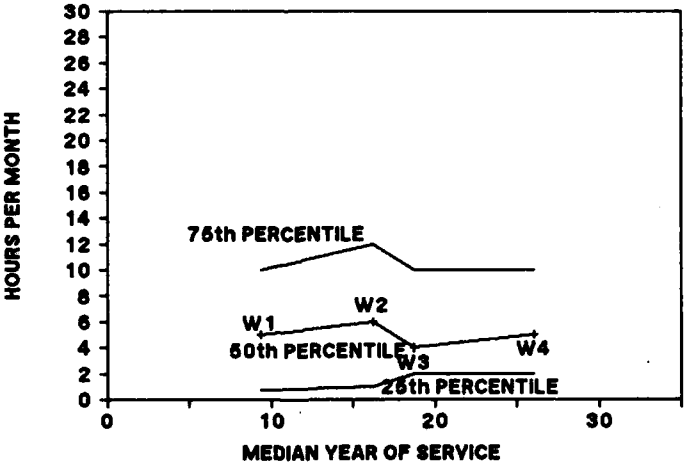


FIGURE E-14. WARRANT OFFICER UNPAID HOURS (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

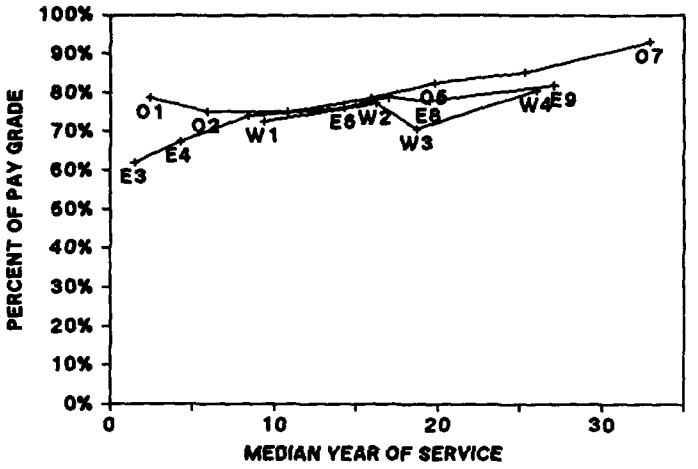


FIGURE E-15. SPOUSE WITH FAVORABLE ATTITUDE (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

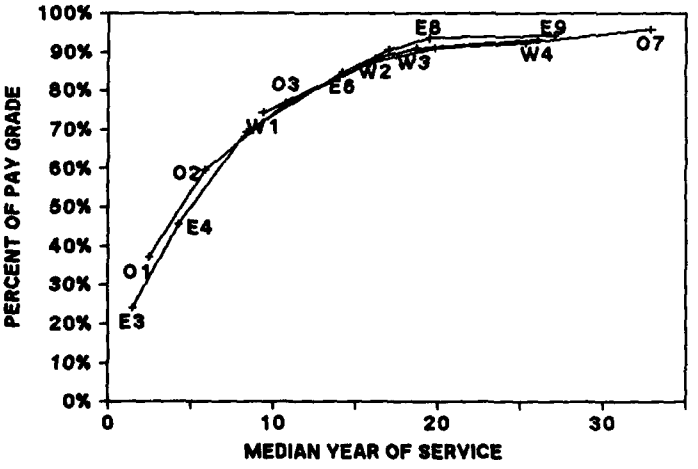


FIGURE E-16. MEMBERS WITH DEPENDENTS ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

FIGURE E-17. (not used)

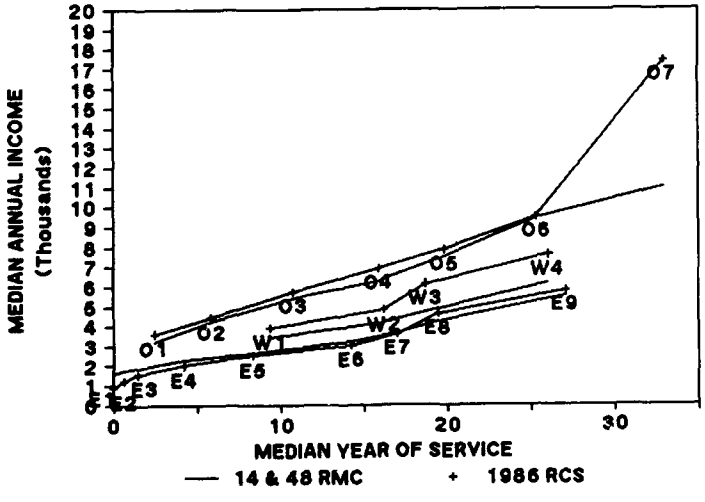


FIGURE E-18. RESERVE INCOME
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 PAY TABLES & 1986 RESERVE COMPONENTS SURVEYS

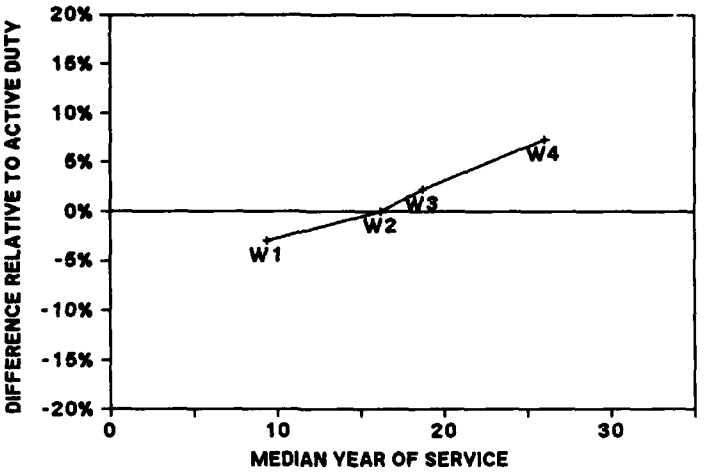


FIGURE E-19. WARRANT OFFICER RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITH DEPENDENT (BASELINE = W/DEP W2)

SOURCE: 1986 PAY TABLES

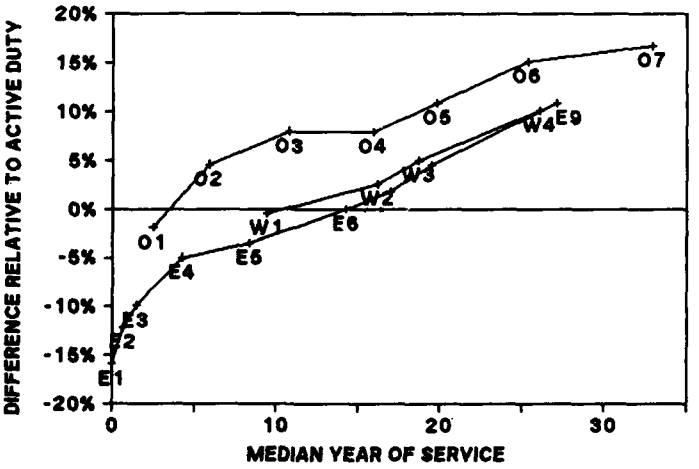


FIGURE E-20. RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLES

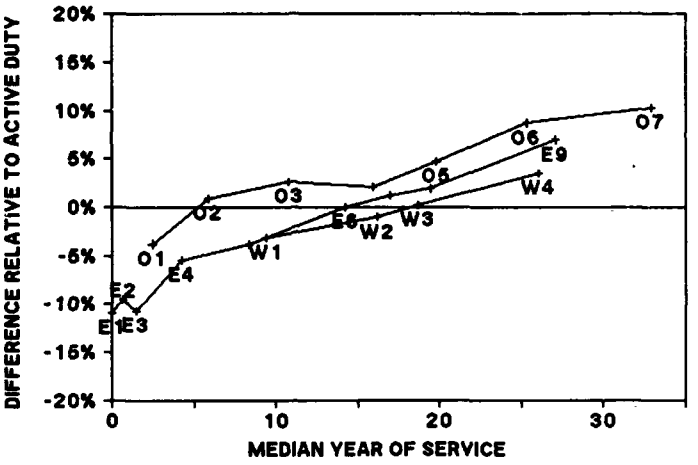


FIGURE E-21. RELATIVE COMPENSATION: INACTIVE DUTY TRAINING WITHOUT DEPENDENT (BASELINE = WO/DEP E6)

SOURCE: 1986 PAY TABLES

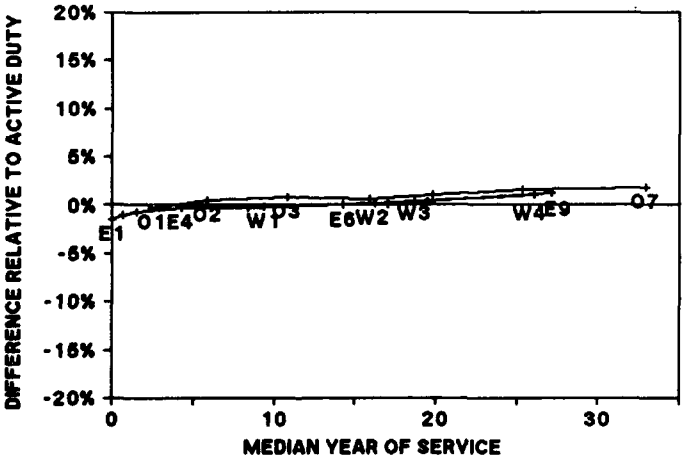


FIGURE E-22. RELATIVE COMPENSATION: ANNUAL TRAINING WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLES

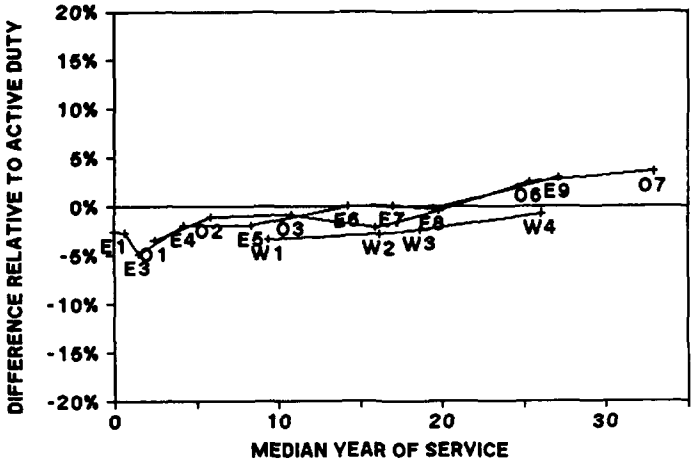


FIGURE E-23. RELATIVE COMPENSATION: ANNUAL TRAINING WITHOUT DEPENDENT (BASELINE = WO/DEP E6)

SOURCE: 1986 PAY TABLES

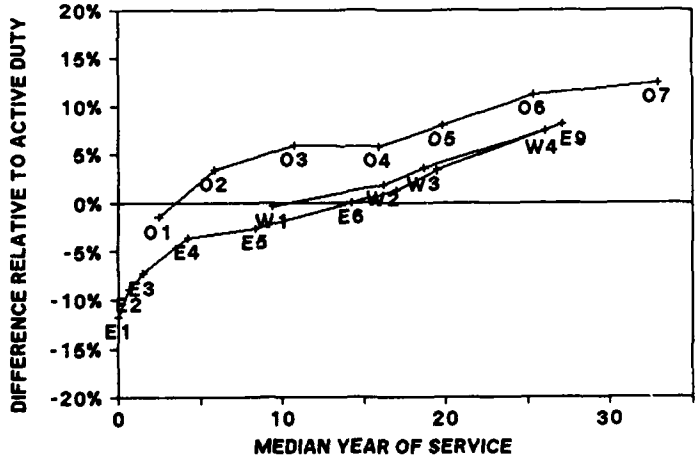


FIGURE E-24. RELATIVE COMPENSATION: 14 AT & 48 IDT WITH DEPENDENT (BASELINE = W/DEP E6)

SOURCE: 1986 PAY TABLES

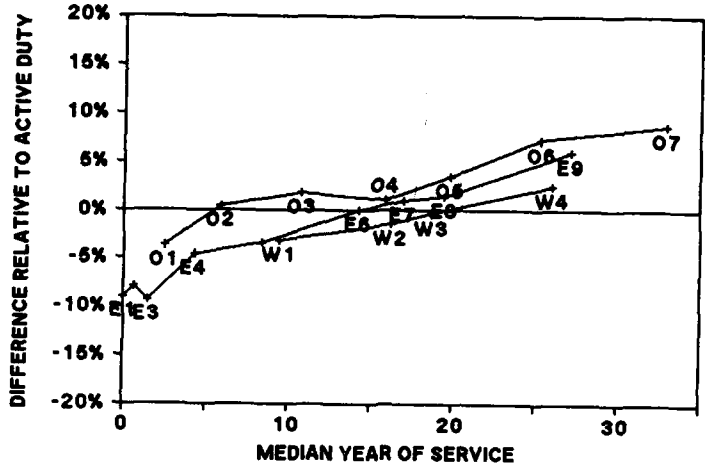


FIGURE E-25. RELATIVE COMPENSATION: 14 AT & 48 IDT
WITHOUT DEPENDENT (BASELINE = WO/DEP E6)

SOURCE: 1986 PAY TABLES

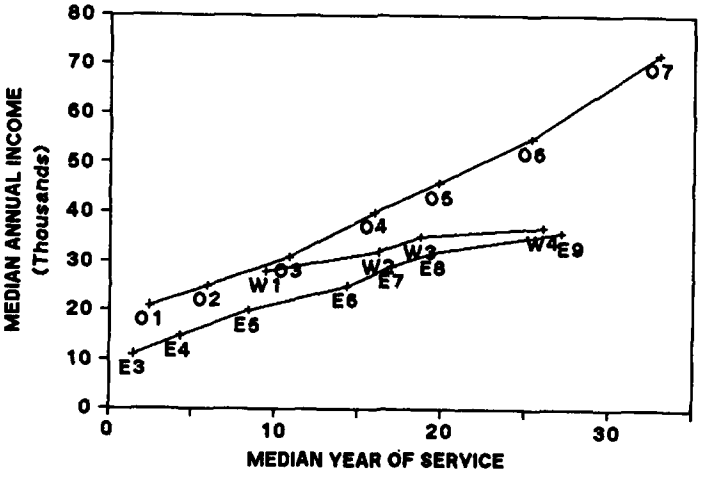


FIGURE E-26. CIVILIAN EMPLOYMENT
(WITH DEPENDENT & FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

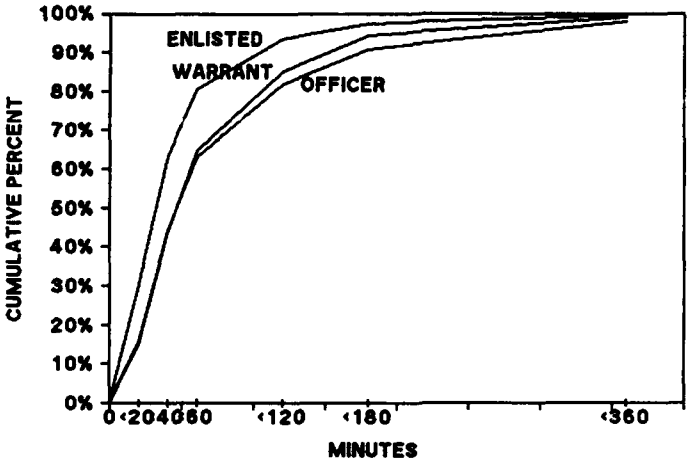


FIGURE E-27. TIME FROM HOME TO DRILL (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

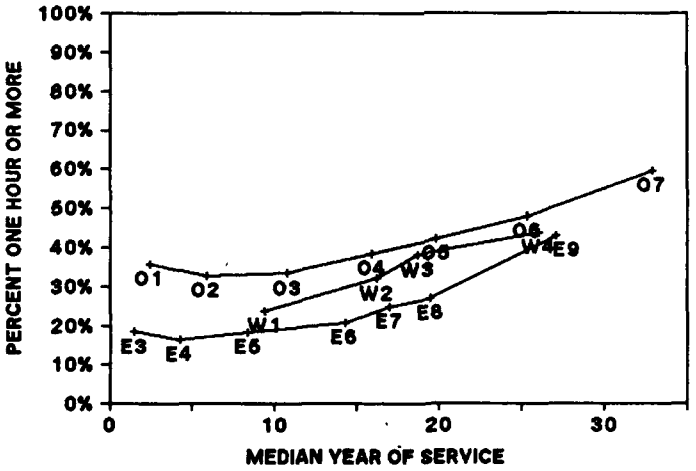


FIGURE E-28. ONE HOUR OR MORE FROM HOME TO DRILL (FULL-TIME EMPLOYED) ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

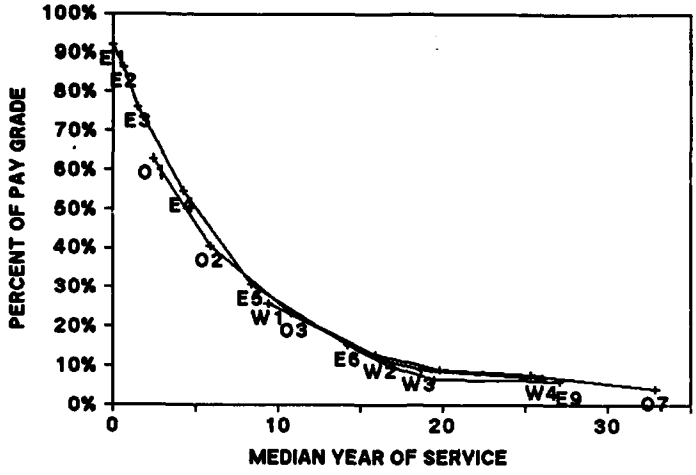


FIGURE E-29. MEMBERS WITHOUT DEPENDENTS
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RCCPDS

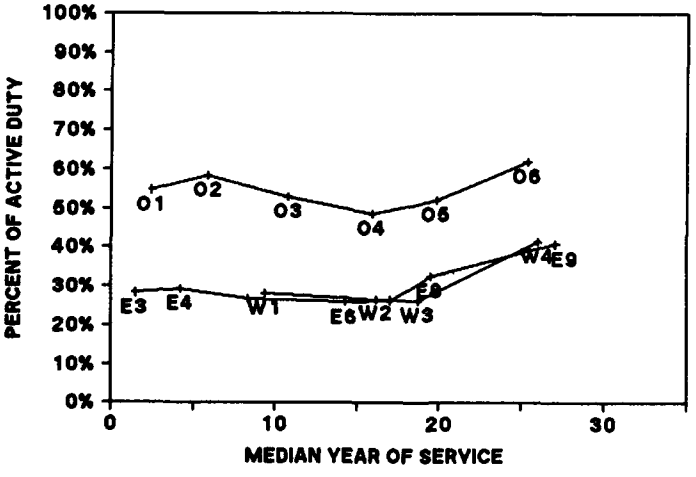


FIGURE E-30. ACTIVE DUTY SATISFIED/VERY SATISFIED WITH PAY
ALL ACTIVE COMPONENTS

SOURCE: 1986 DoD SURVEY

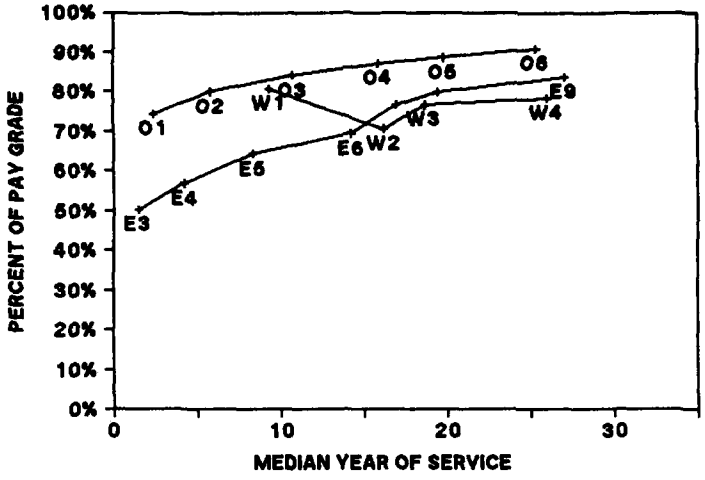


FIGURE E-31 RESERVE SATISFIED/VERY SATISFIED WITH PAY
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

FIGURE E-32. (not used)

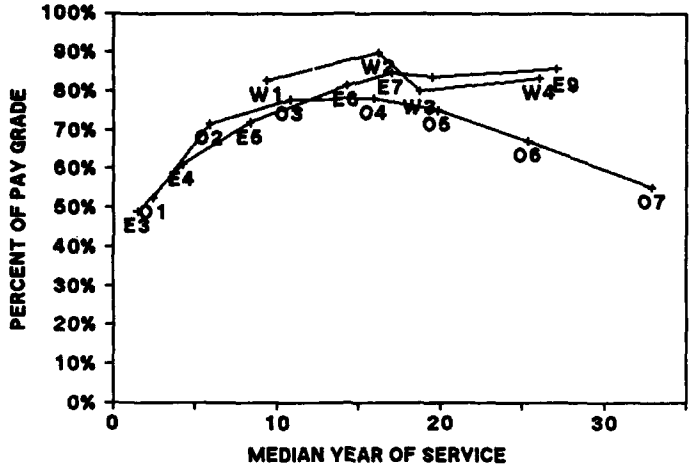


FIGURE E-33. CIVILIAN EMPLOYMENT: FULL-TIME EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

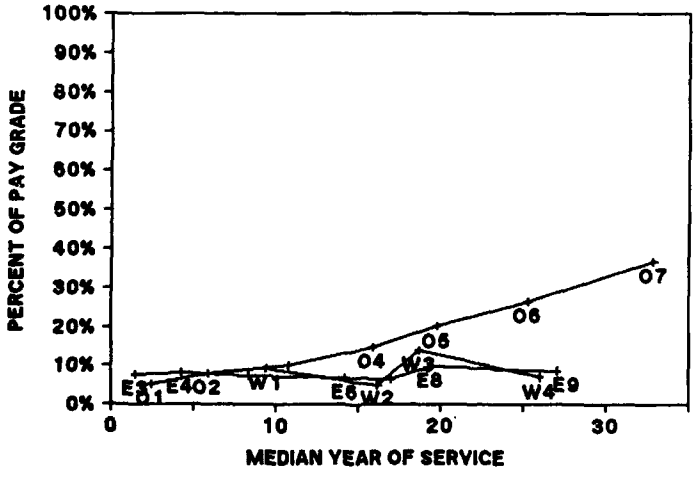


FIGURE E-34. CIVILIAN EMPLOYMENT: SELF-EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

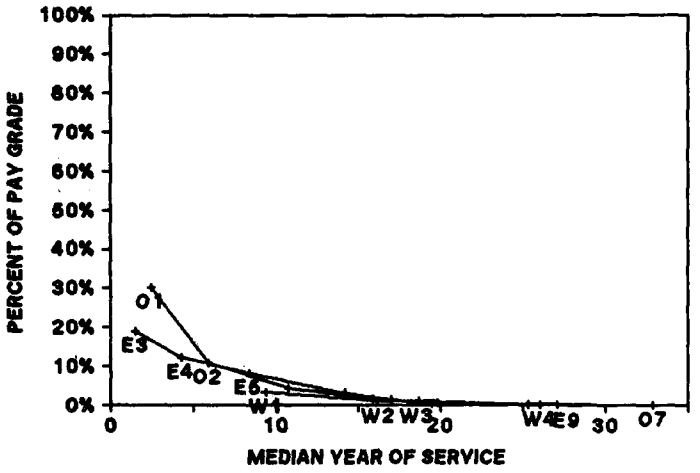


FIGURE E-35. CIVILIAN EMPLOYMENT: IN SCHOOL
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

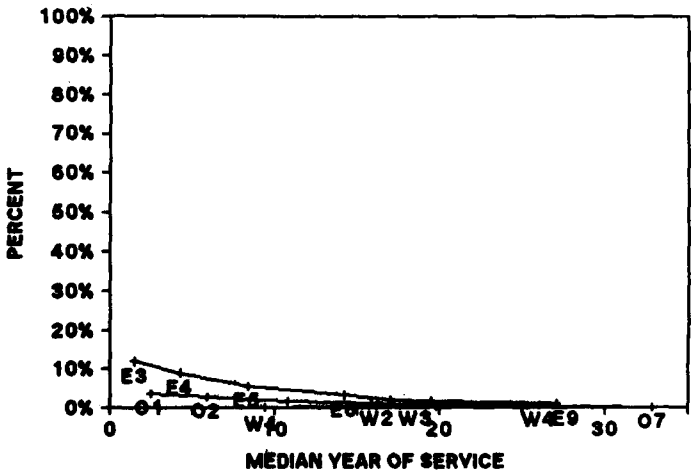


FIGURE E-36. CIVILIAN EMPLOYMENT: UNEMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

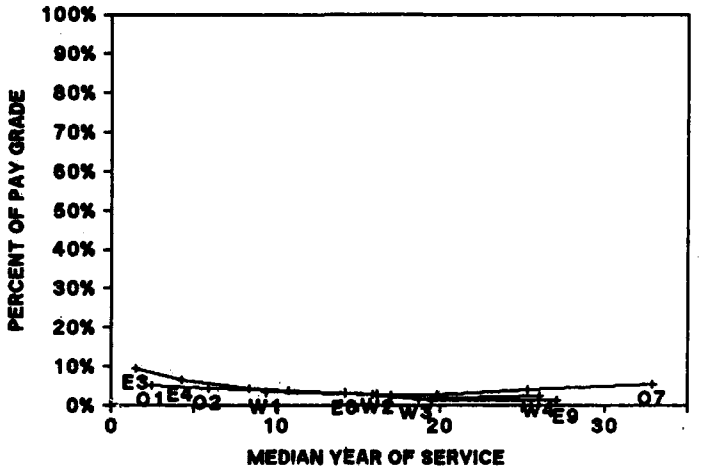


FIGURE E-37. CIVILIAN EMPLOYMENT: PART-TIME EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

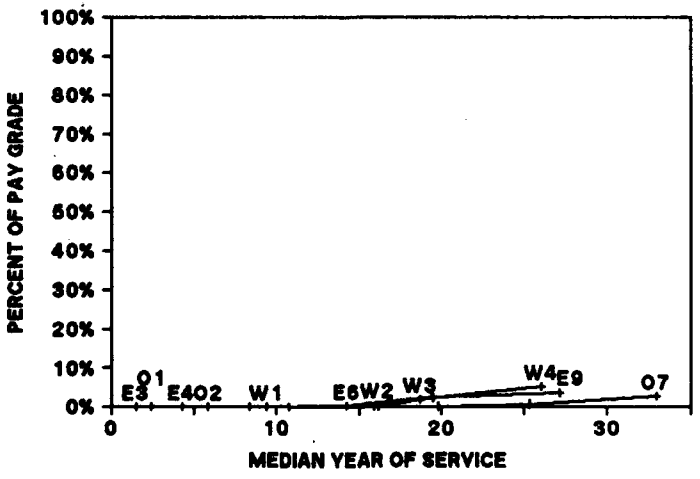


FIGURE E-38. CIVILIAN EMPLOYMENT: RETIRED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

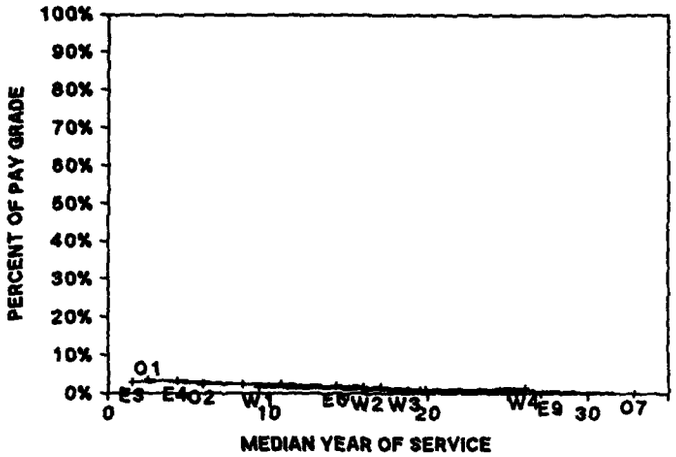


FIGURE E-39. CIVILIAN EMPLOYMENT: MISCELLANEOUS
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

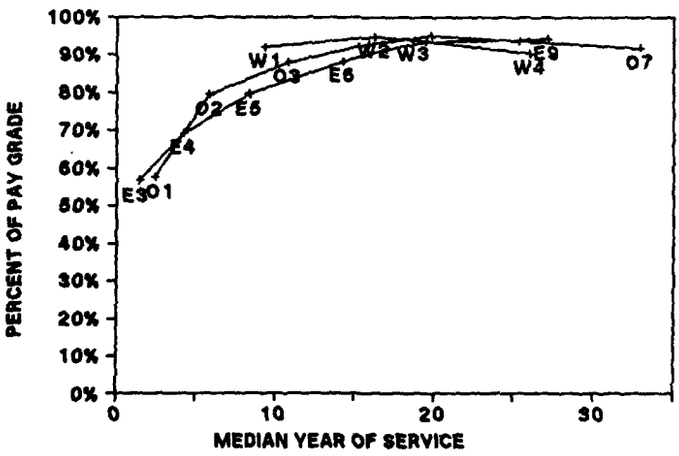


FIGURE E-40. CIVILIAN EMPLOYER: FULL-TIME OR SELF-EMPLOYED
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

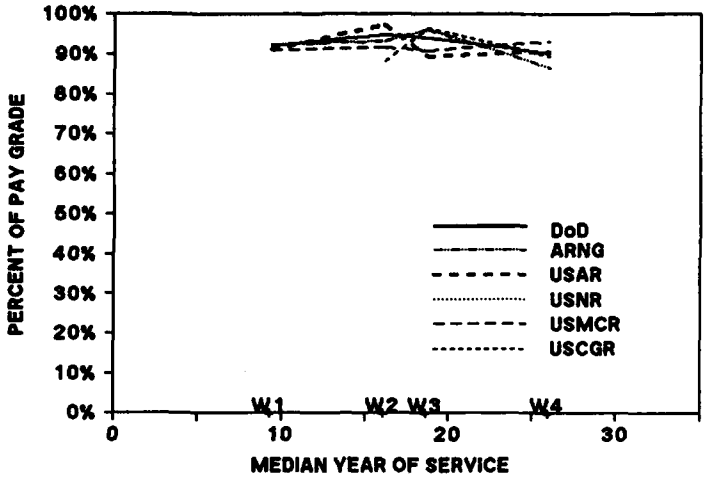


FIGURE E-41. WARRANT OFFICER CIVILIAN EMPLOYMENT:
FULL-TIME OR SELF EMPLOYED
EACH COMPONENT, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

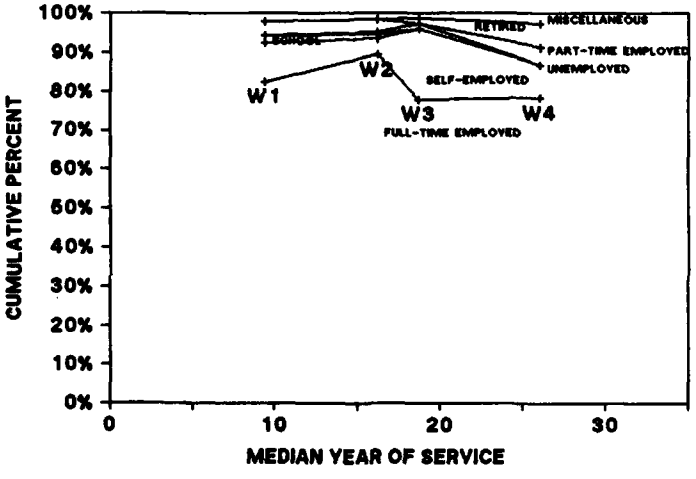


FIGURE E-42. WARRANT OFFICER CIVILIAN EMPLOYMENT
ARMY NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

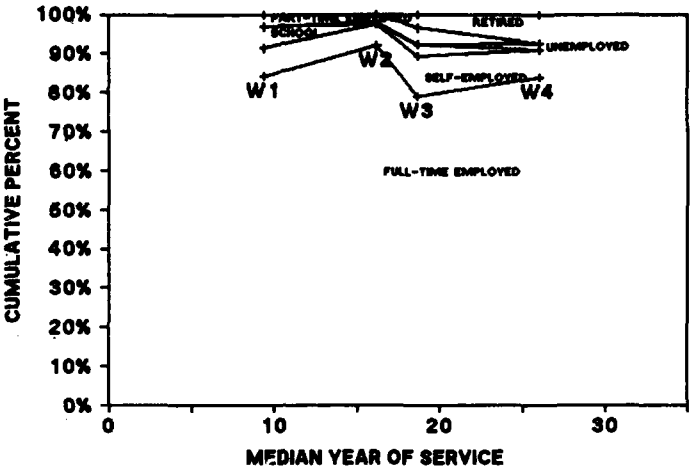


FIGURE E-43. WARRANT OFFICER CIVILIAN EMPLOYMENT
ARMY RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

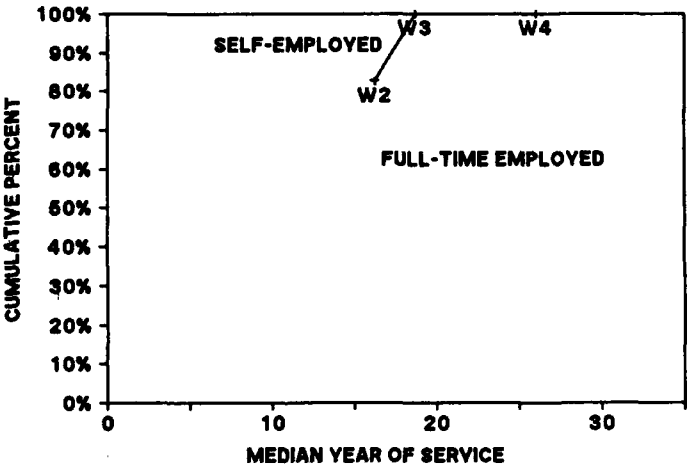


FIGURE E-44. WARRANT OFFICER CIVILIAN EMPLOYMENT
NAVAL RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

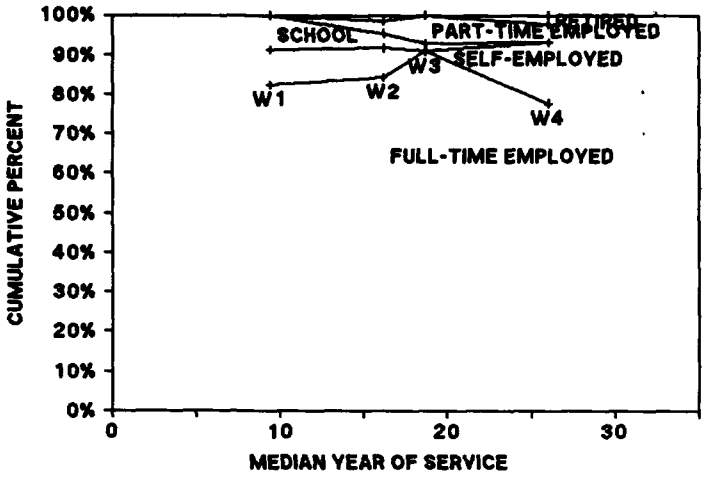


FIGURE E-45. WARRANT OFFICER CIVILIAN EMPLOYMENT
MARINE CORPS RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

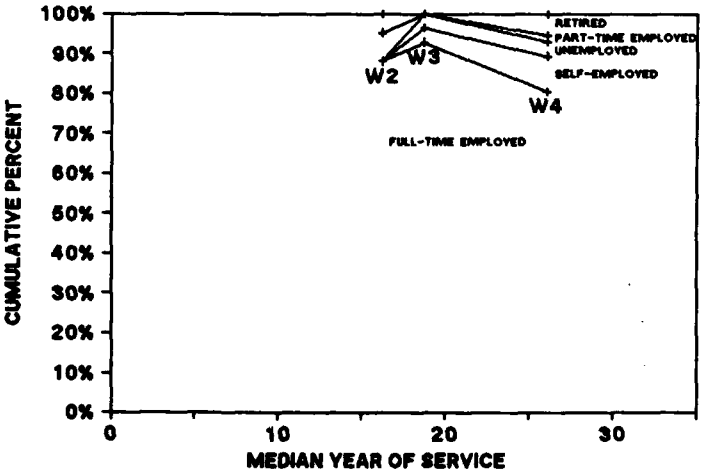


FIGURE E-46. WARRANT OFFICER CIVILIAN EMPLOYMENT
COAST GUARD RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

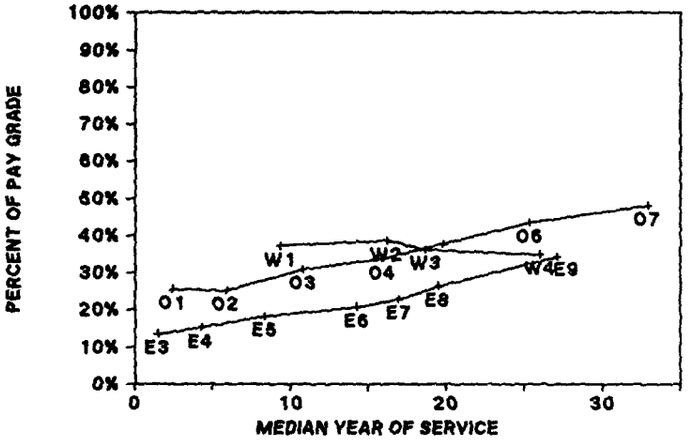


FIGURE E-47. SIMILARITY OF RESERVE AND CIVILIAN JOBS:
SIMILAR OR VERY SIMILAR (FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: *1986 RESERVE COMPONENTS SURVEYS*

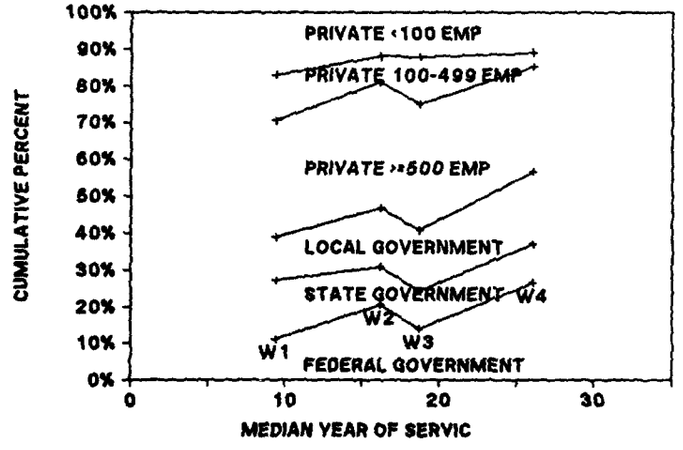


FIGURE E-48. WARRANT OFFICER CIVILIAN EMPLOYER
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: *1986 RESERVE COMPONENTS SURVEYS*

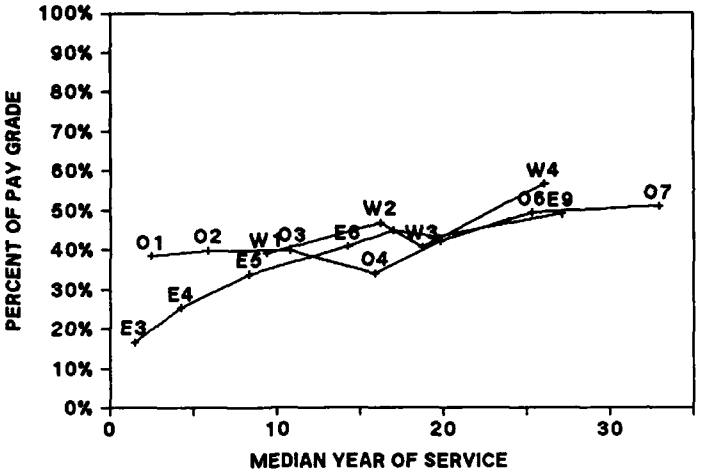


FIGURE E-49. CIVILIAN EMPLOYER: GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

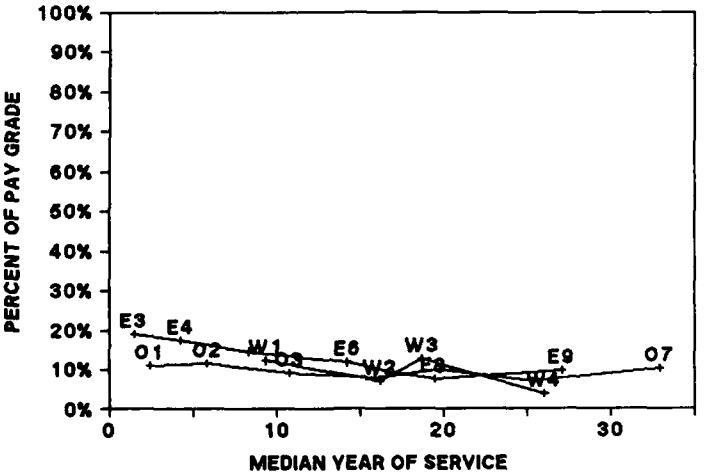


FIGURE E-50. CIVILIAN EMPLOYMENT: PRIVATE FIRM
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

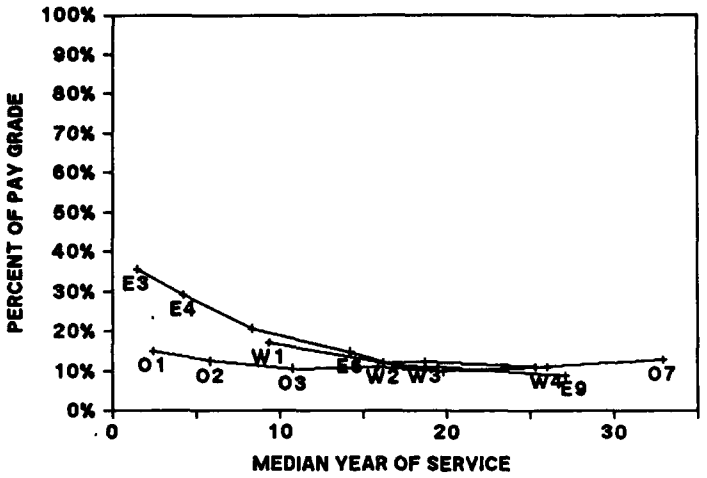


FIGURE E-51. CIVILIAN EMPLOYER: PRIVATE FIRM < 100 EMP
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

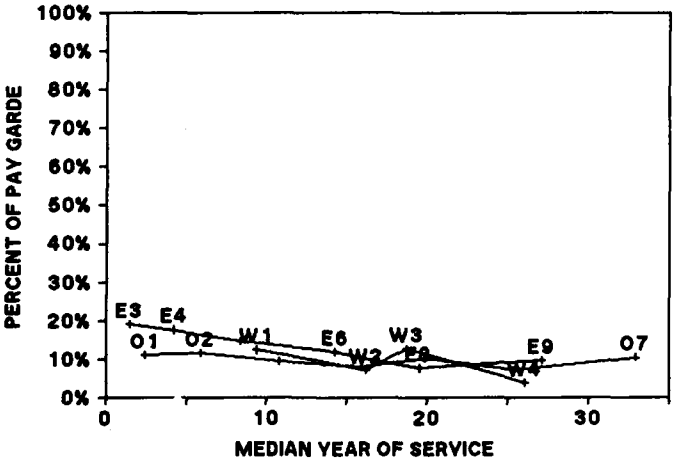


FIGURE E-52. CIVILIAN EMPLOYER: PRIVATE FIRM 100-499 EMP
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

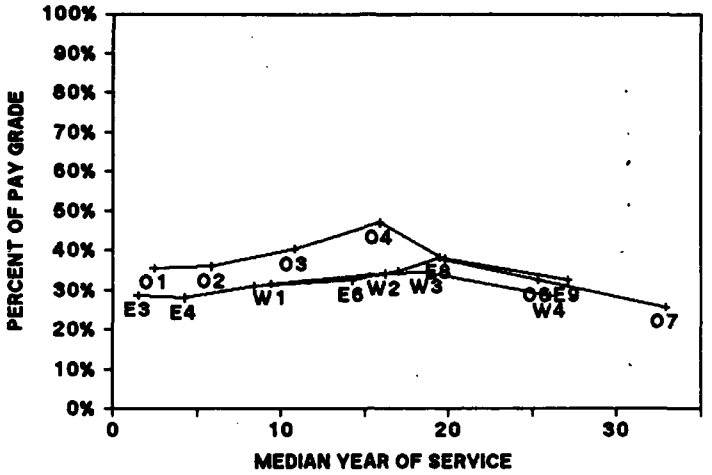


FIGURE E-63. CIVILIAN EMPLOYER: PRIVATE FIRM >=500 EMP
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

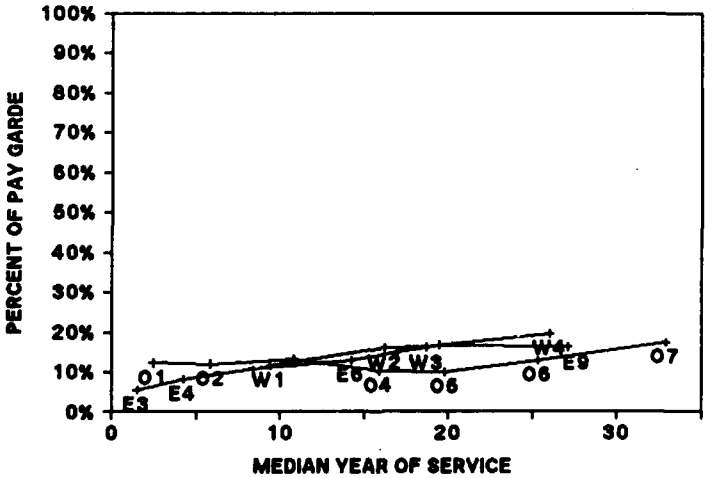


FIGURE E-64. CIVILIAN EMPLOYER: LOCAL GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

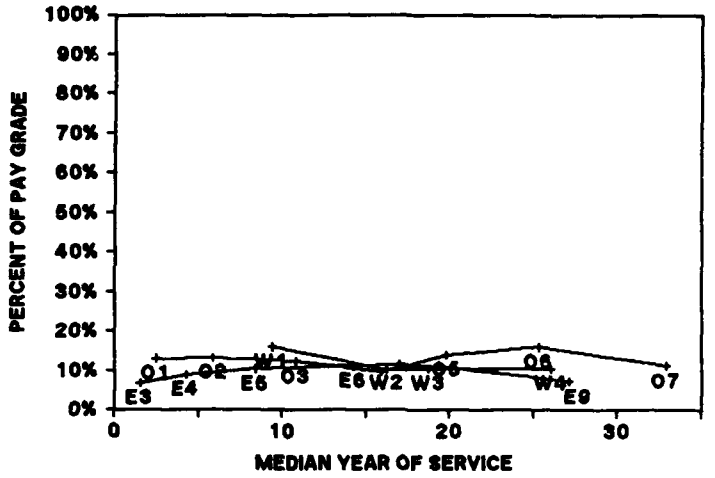


FIGURE E-55. CIVILIAN EMPLOYER: STATE GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

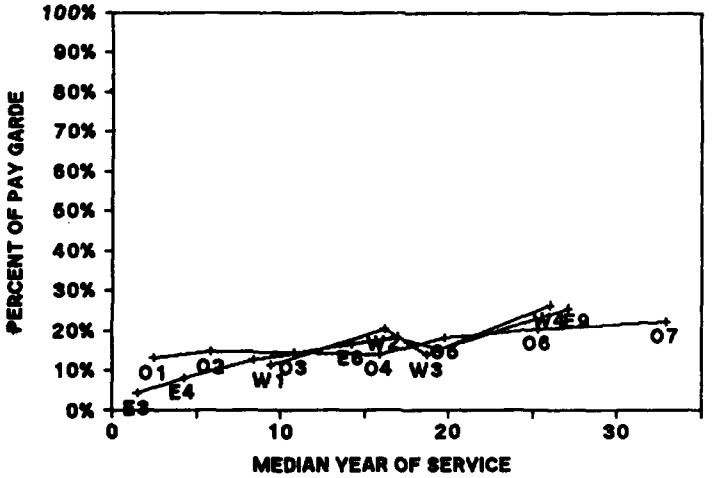


FIGURE E-56. CIVILIAN EMPLOYER: FEDERAL GOVERNMENT
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

FIGURE E-67. (not used)

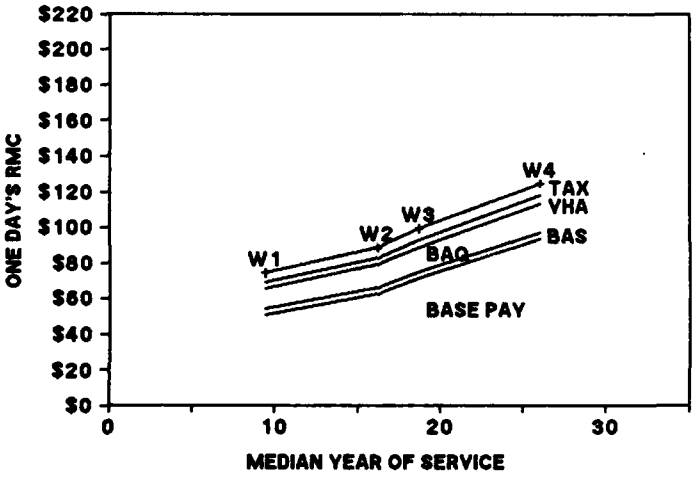


FIGURE E-68. ELEMENTS OF WARRANT OFFICER ACTIVE DUTY RMC WITH DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

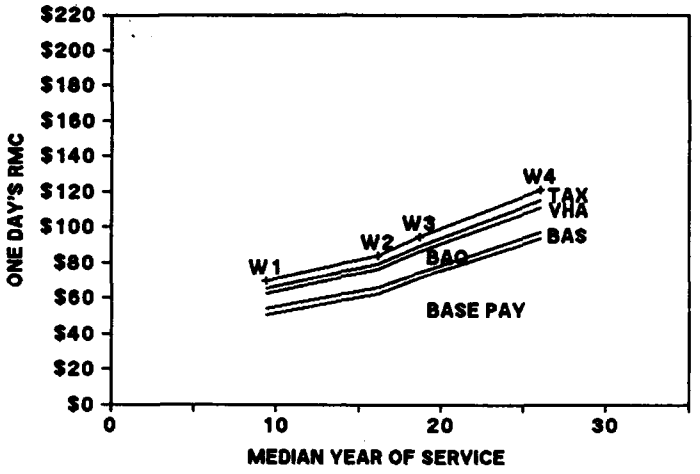


FIGURE E-59. ELEMENTS OF WARRANT OFFICER ACTIVE DUTY RMC WITHOUT DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

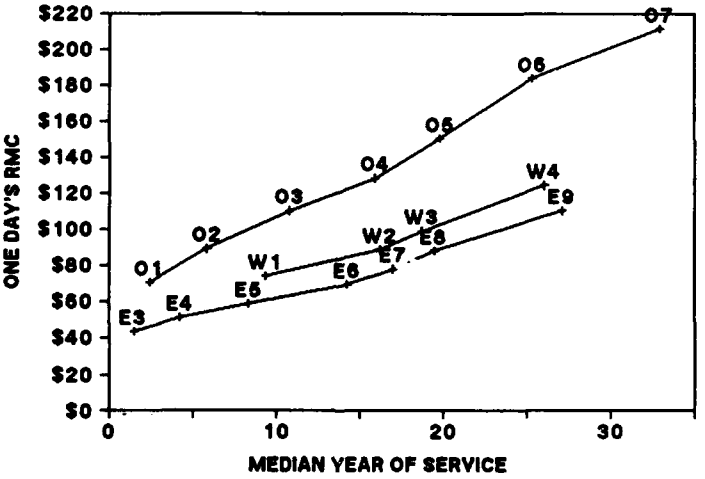


FIGURE E-60. ACTIVE DUTY RMC COMPENSATION WITH DEPENDENT (TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

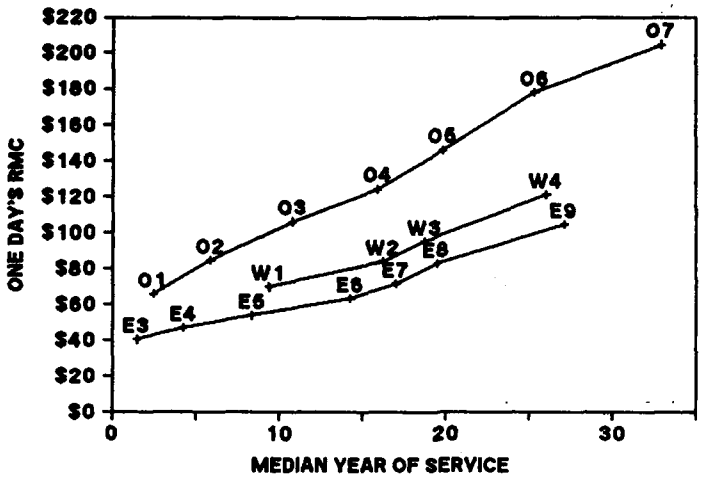


FIGURE E-61. ACTIVE DUTY RMC COMPARISON WITHOUT DEPENDENT (TAX ADVANTAGE = 28% OFFICERS & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

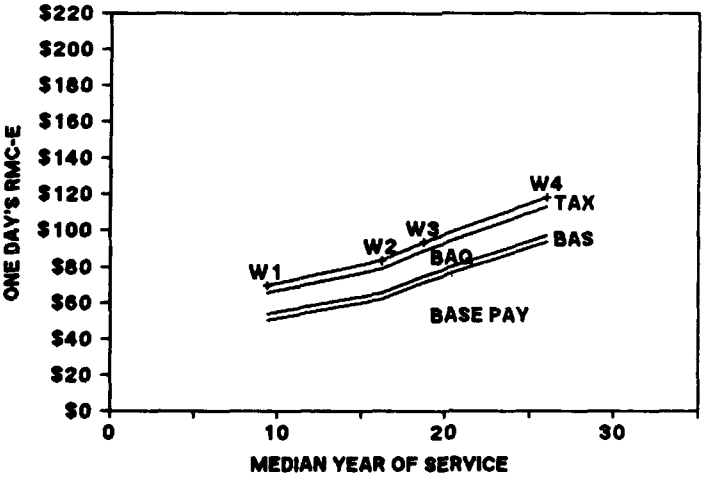


FIGURE E-62. ELEMENTS OF WARRANT OFFICER RMC-E FOR ADT WITH DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

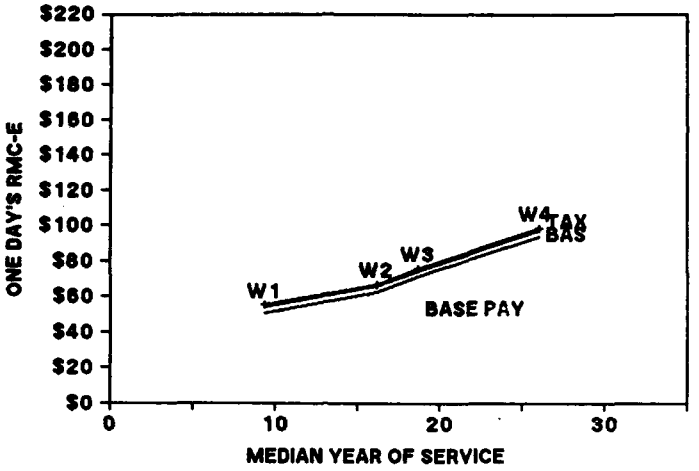


FIGURE E-63. ELEMENTS OF WARRANT OFFICER RMC-E FOR ADT WITHOUT DEPENDENT (TAX ADVANTAGE = 28%)

SOURCE: 1986 PAY TABLE

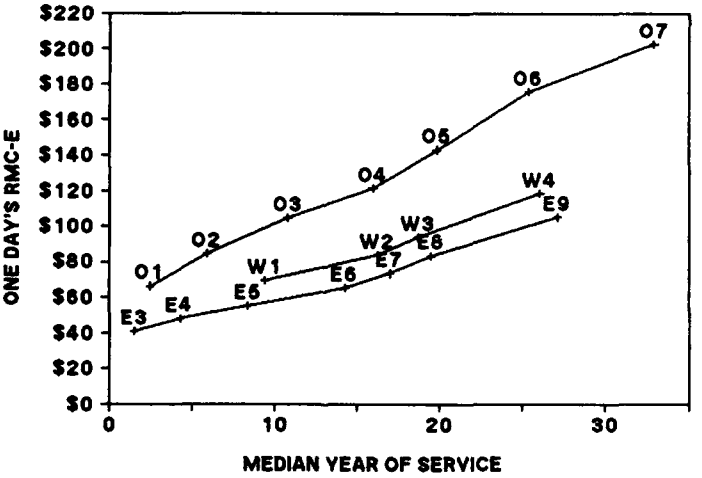


FIGURE E-64. RMC-E FOR ADT COMPARISON WITH DEPENDENT (TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

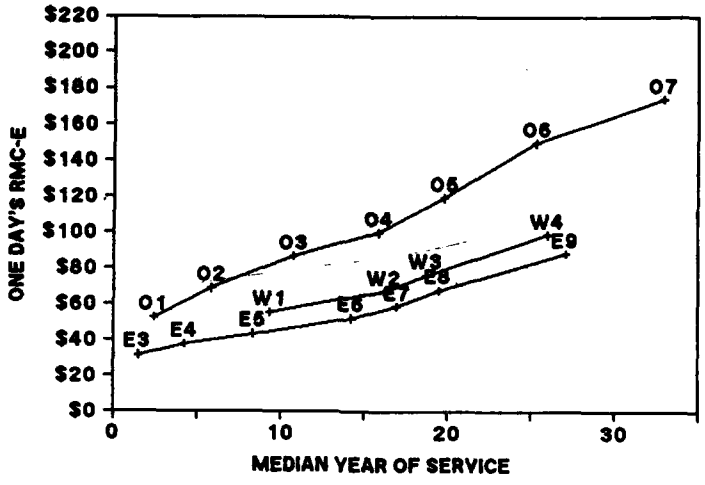


FIGURE E-65. RMC-E FOR ADT COMPARISON WITHOUT DEPENDENT (TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

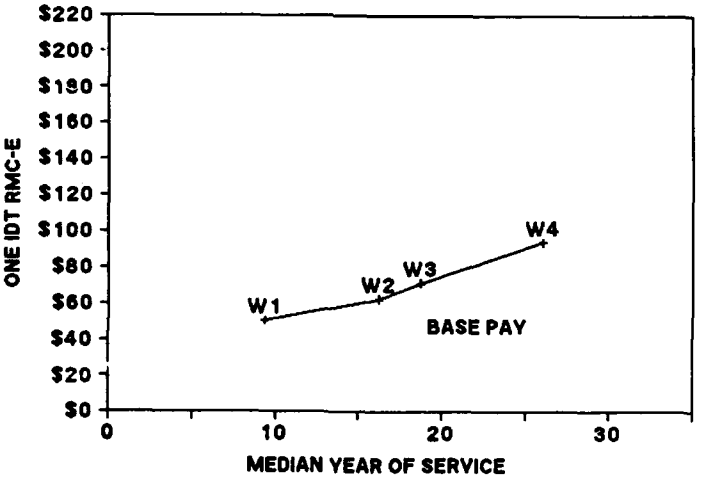


FIGURE E-66. ELEMENTS OF WARRANT OFFICER RMC-E FOR IDT

SOURCE: 1986 PAY TABLE

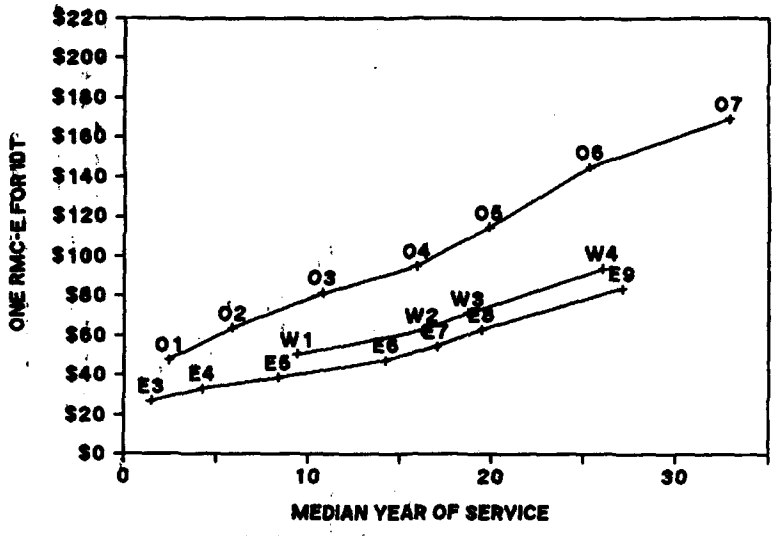


FIGURE E-67. RMC-E FOR IDT COMPARISON
(TAX ADVANTAGE = 15% ENLISTED)

SOURCE: 1986 PAY TABLE

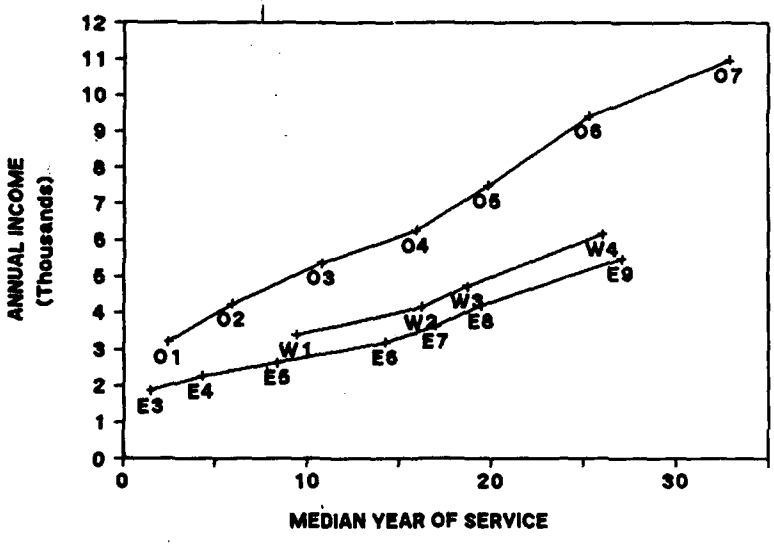


FIGURE E-68. RMC-E FOR 14 ADT AND 48 IDT
WITH DEPENDENT
(TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

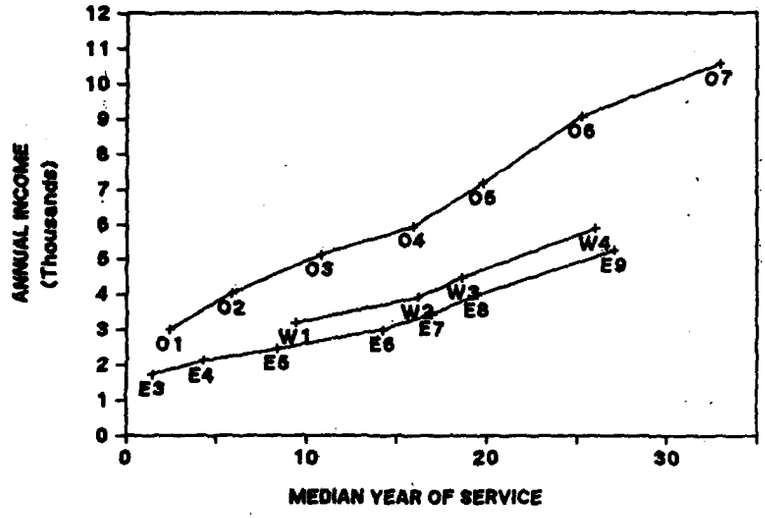


FIGURE E-69. RMC-E FOR 14 ADT AND 48 IDT
WITHOUT DEPENDENT
(TAX ADVANTAGE = 28% OFFICER & 15% ENLISTED)

SOURCE: 1986 PAY TABLE

FIGURE E-70. (not used)

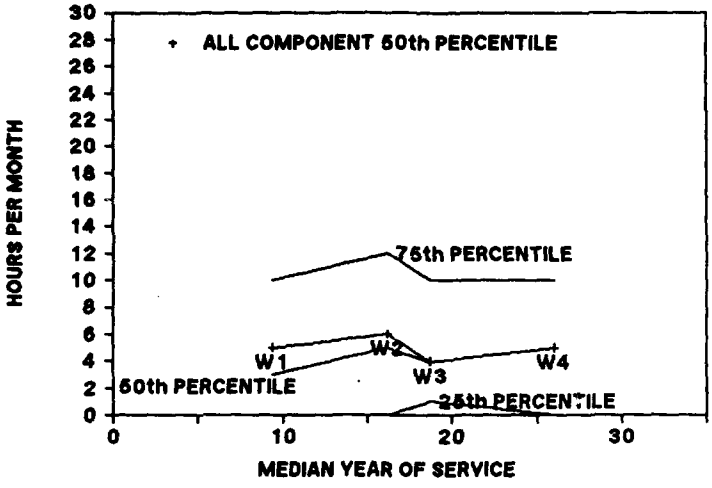


FIGURE E-71. WARRANT OFFICER UNPAID HOURS
(FULL-TIME EMPLOYED)
ARMY NATIONAL GUARD, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

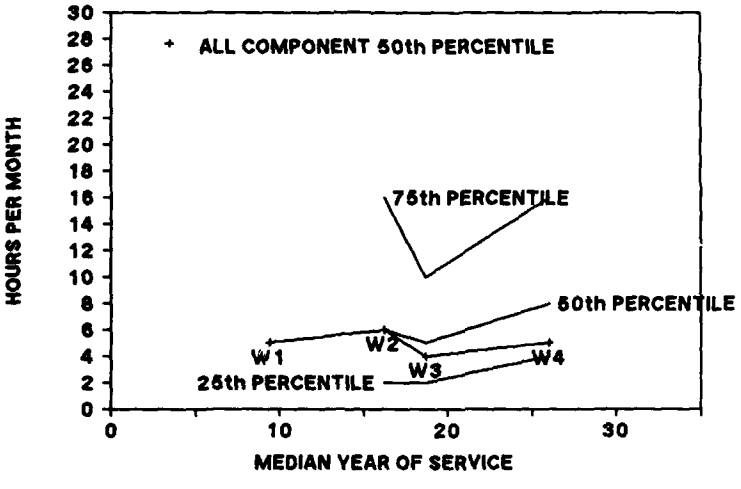


FIGURE E-72. WARRANT OFFICER UNPAID HOURS
(FULL-TIME EMPLOYED)
ARMY RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

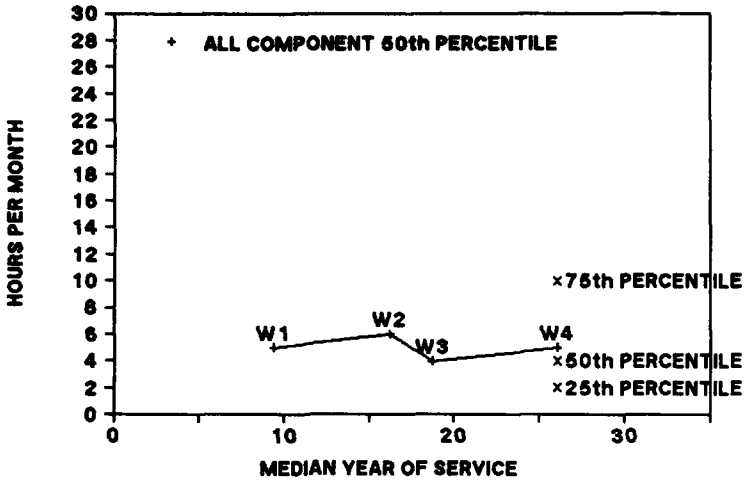


FIGURE E-73. WARRANT OFFICER UNPAID HOURS
(FULL-TIME EMPLOYED)
NAVAL RESERVE, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

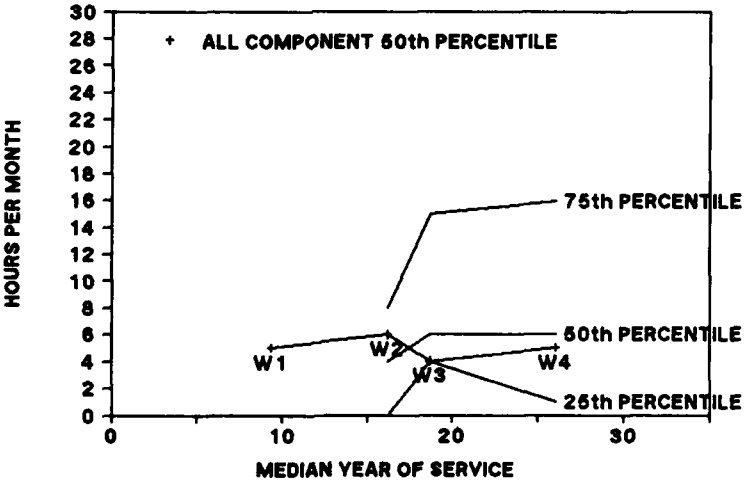


FIGURE E-74. WARRANT OFFICER UNPAID HOURS
(FULL-TIME EMPLOYED)
MARINE CORPS RESERVE, SELECTED RESERVE
(NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

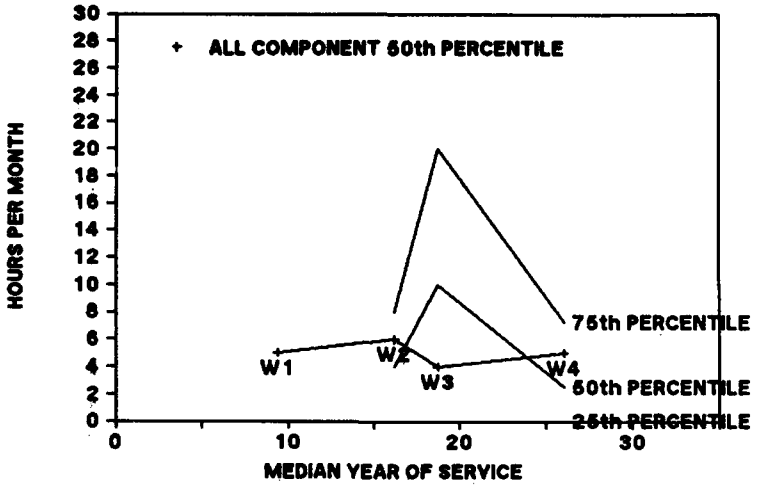


FIGURE E-75. WARRANT OFFICER UNPAID HOURS
(FULL-TIME EMPLOYED)
COAST GUARD RESERVE, SELECTED RESERVE
(NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

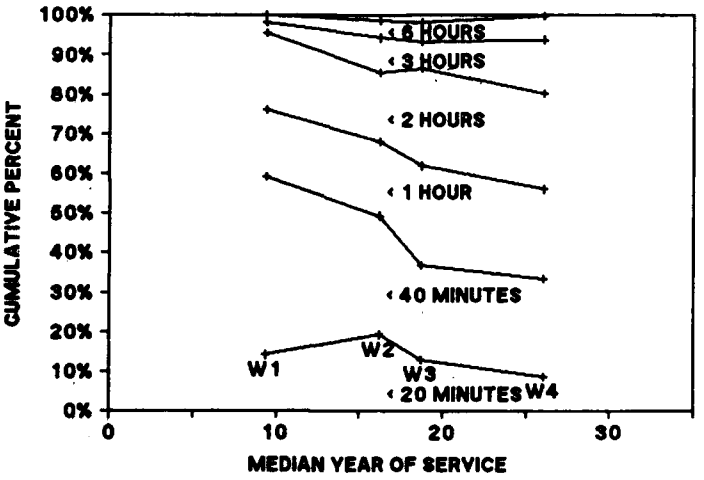


FIGURE E-76. WARRANT OFFICER TIME FROM HOME TO DRILL
(FULL-TIME EMPLOYED)
ALL COMPONENTS, SELECTED RESERVE (NO FTS/IMA/MT)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

Appendix F. CONTINUATION RATES

FIGURES

F-1 to F-4. Army Continuation Rates

F-5 to F-8. Navy Continuation Rates

F-9 to F-12. Marine Corps Continuation Rates

F-13 to F-16. Air Force Continuation Rates

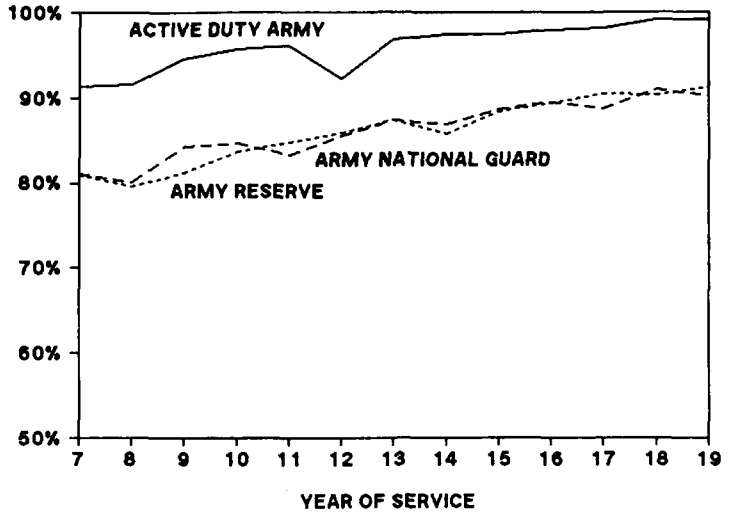


FIGURE F-1. OFFICER CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

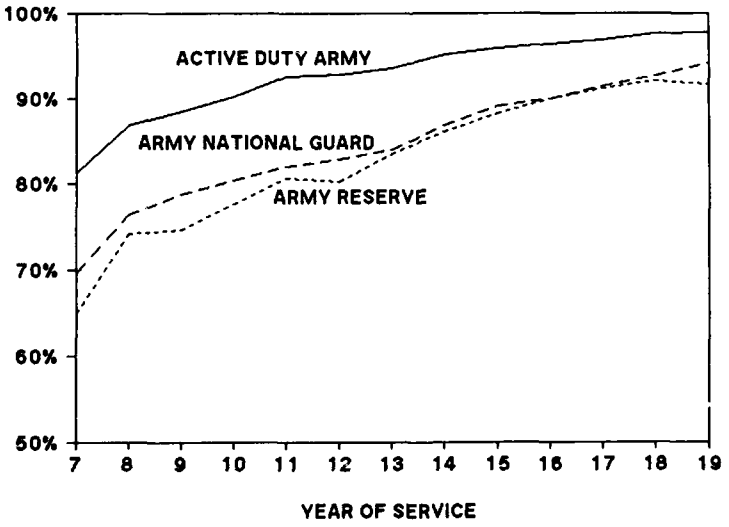


FIGURE F-2. ENLISTED CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

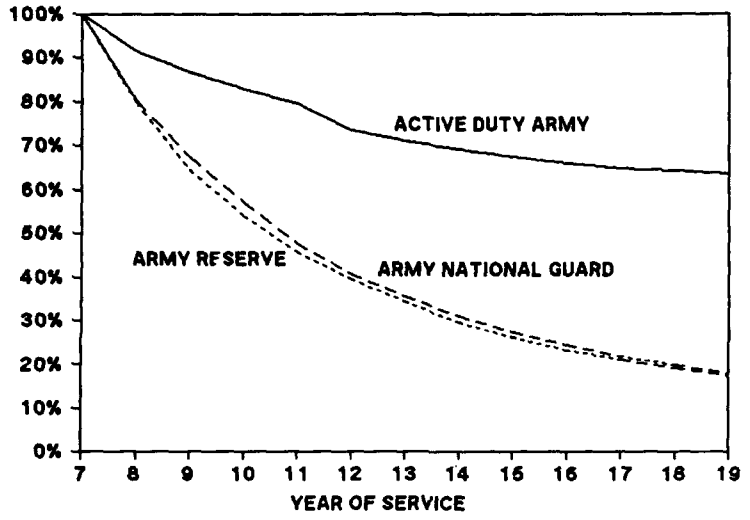


FIGURE F-3. OFFICER CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

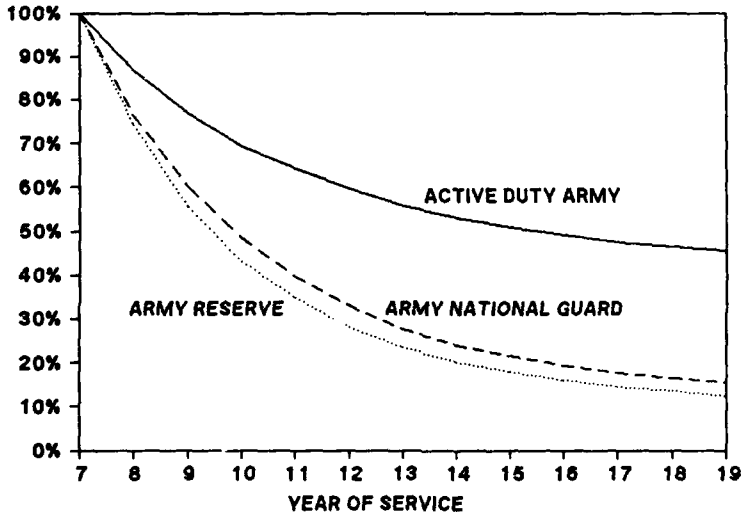


FIGURE F-4. ENLISTED CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

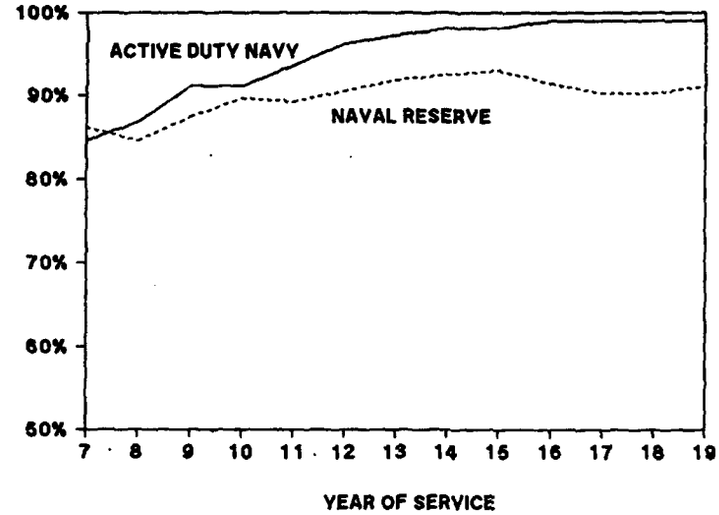


FIGURE F-5. *OFFICER CONTINUATION RATE*
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

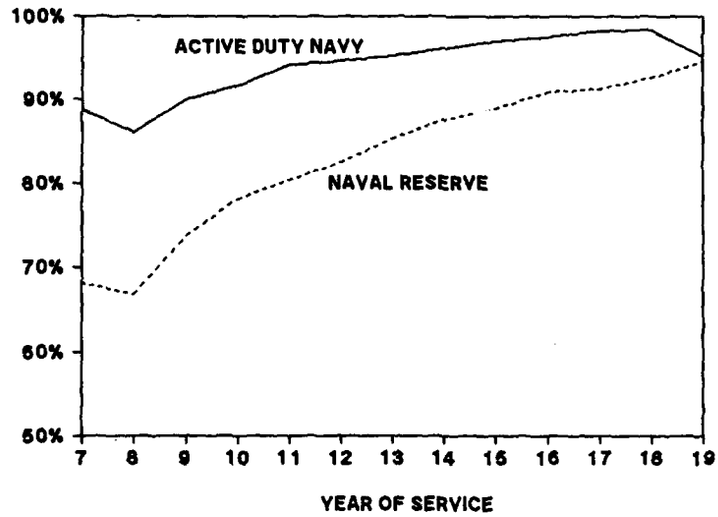


FIGURE F-6. ENLISTED CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

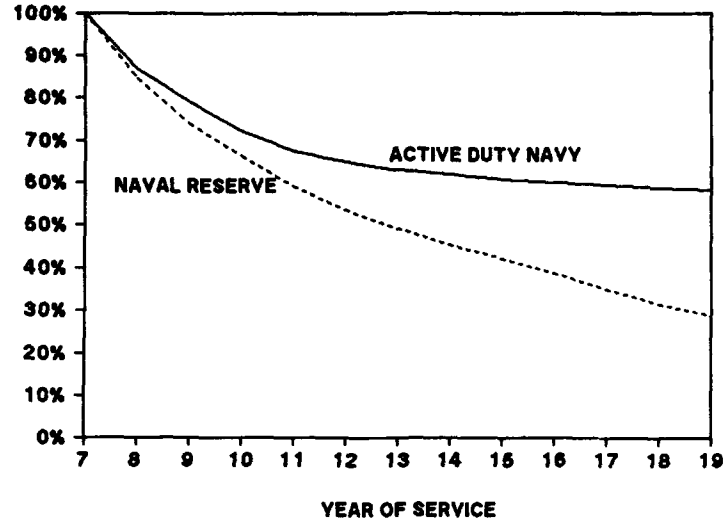


FIGURE F-7. OFFICER CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

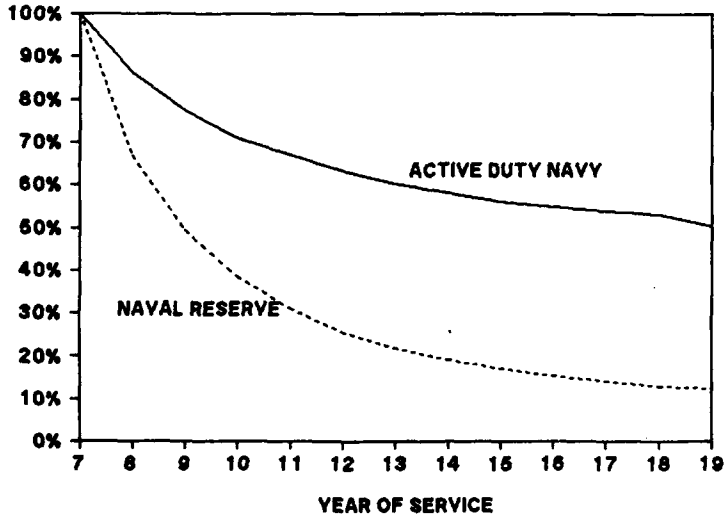


FIGURE F-8. ENLISTED CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

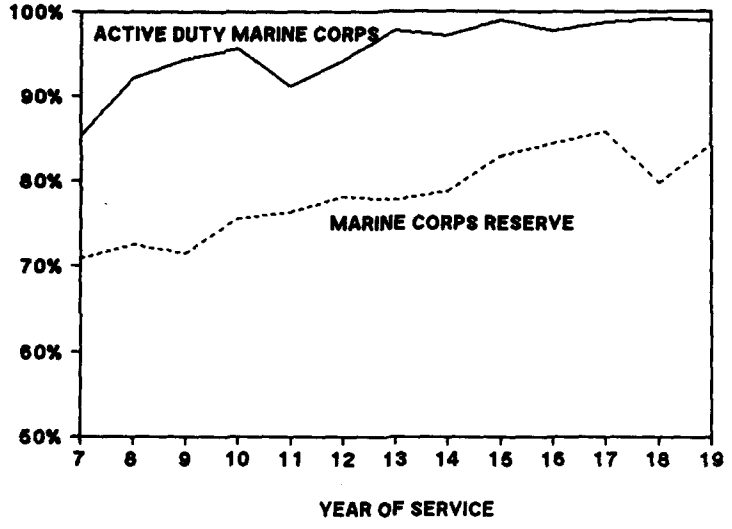


FIGURE F-9. OFFICER CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

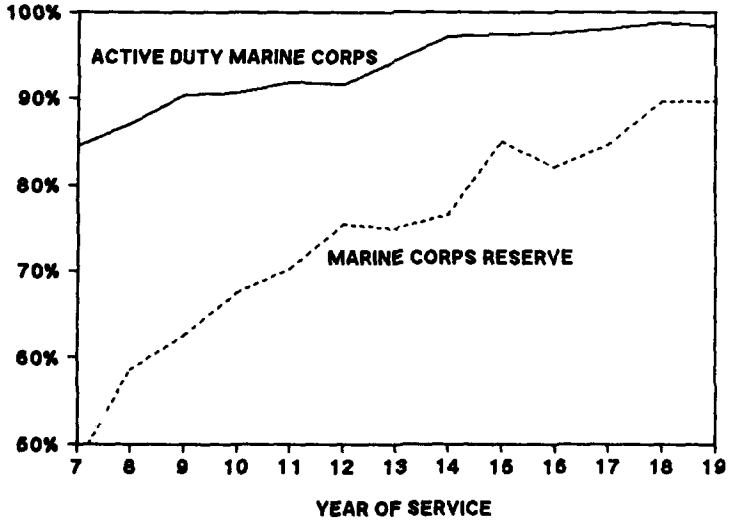


FIGURE F-10. ENLISTED CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

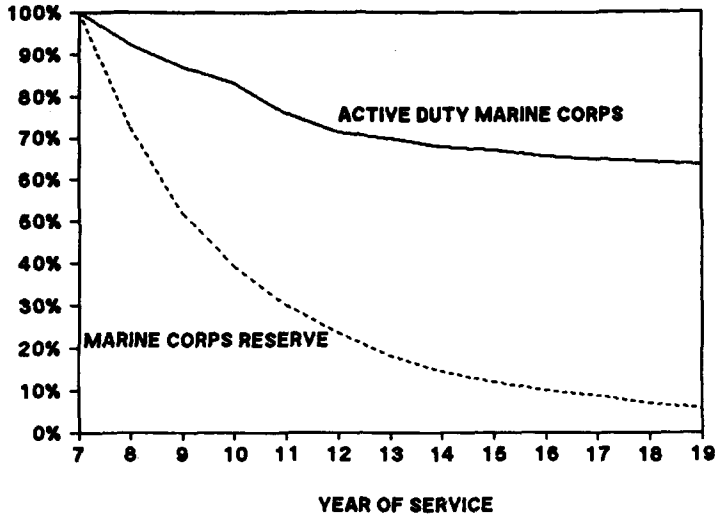


FIGURE F-11. OFFICER CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

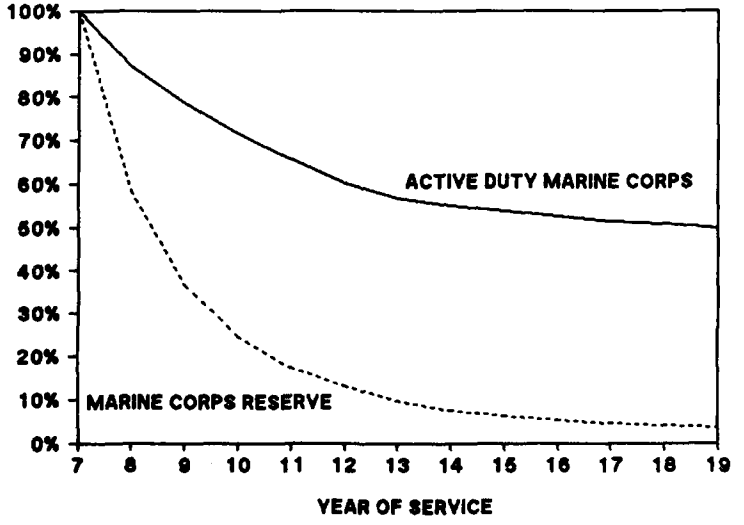


FIGURE F-12. ENLISTED CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

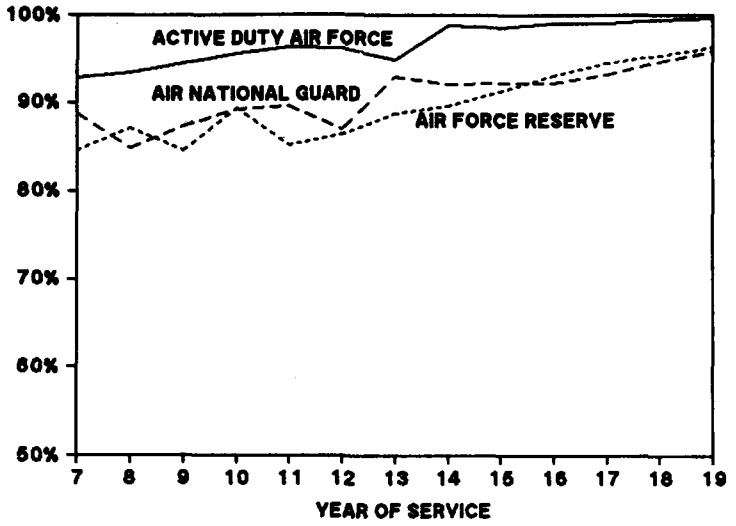


FIGURE F-13. OFFICER CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

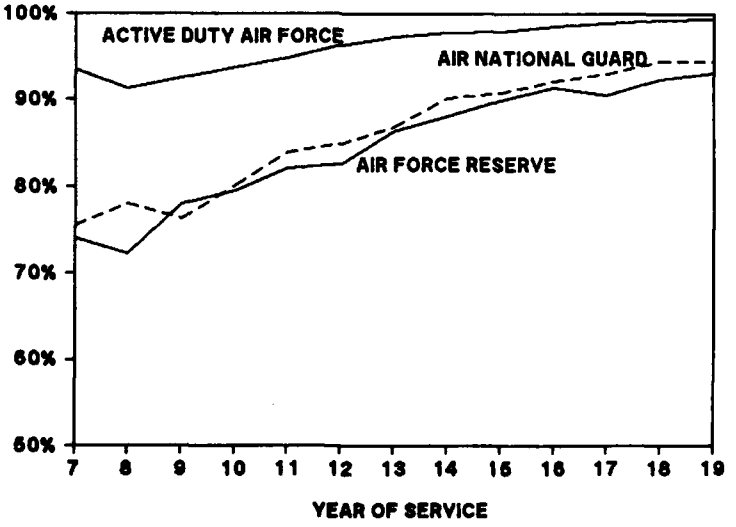


FIGURE F-14. ENLISTED CONTINUATION RATE
(GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1986 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

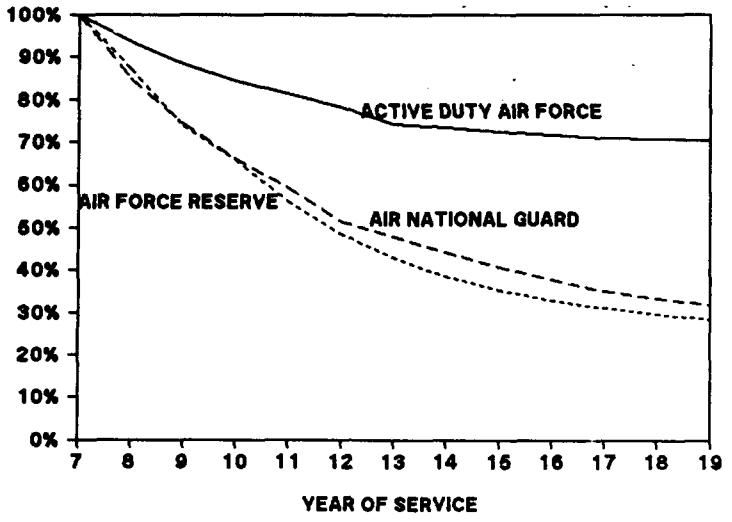


FIGURE F-15. OFFICER CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

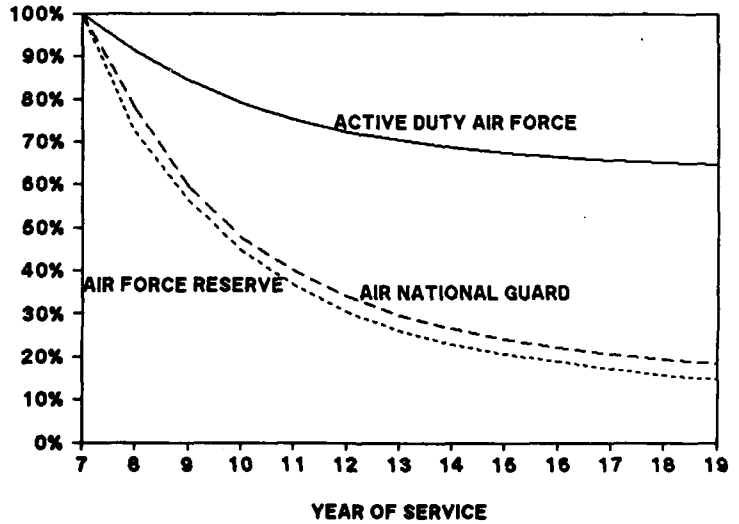


FIGURE F-16. ENLISTED CUMULATIVE CONTINUATION RATE (GUARD/RESERVE PART-TIME ONLY)

SOURCE: 1985 RCCPDS & ACTIVE DUTY PERSONNEL DATABASE SYSTEM

Appendix G. OBJECTIVE MANPOWER FORCE STRUCTURES

Source: Individual Services

This appendix contains graphs displaying objective manpower force structures of each reserve component with the exception of the Marine Corps Reserve. The data is portrayed in three separate and distinct force structures: FY 1986 Actual, FY 1986 Steady-State, and FY 1992 Steady-State. Definitions for these three force structures can be found in Chapter 4 of Volume II. The instructions to the Military Departments for preparation of the manpower force structure data are included in this appendix. The sequencing of the graphs by component is as follows:

- Army National Guard
- Army Reserve
- Naval Reserve
- Air National Guard
- Air Force Reserve
- Coast Guard Reserve

Separate breakouts of the three force structures are displayed for:

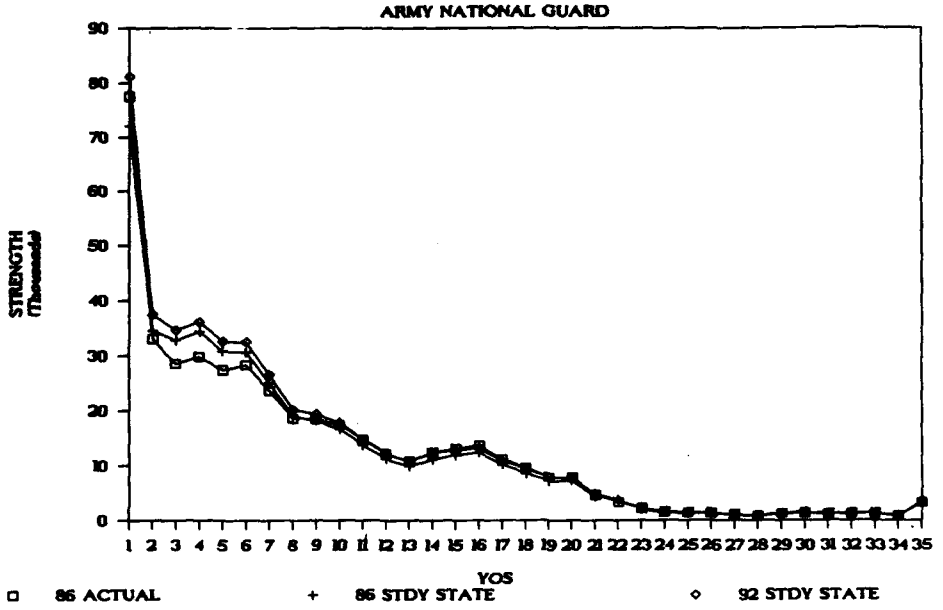
- Part-time members
- Military Technicians
- AGR/TAR
- Medical Personnel

These categories are further broken out by officer, warrant officer (where appropriate), and enlisted categories, by grade. The Marine Corps was unable to provide the force structures requested by the QRMC. In addition, the Army did not submit separate force structures for military technicians on the basis that, for the purpose of objective force designs, military technicians are managed as part-time members of the Selected Reserve. Also, there are no subpopulation break outs for the Coast Guard Reserve.

The information contained in this appendix will be retained for future use. The data will be maintained on disk and in hard copy and reside with the Directorate of Compensation, Office of the Assistant Secretary of Defense for Force Management and Personnel (FM&P).

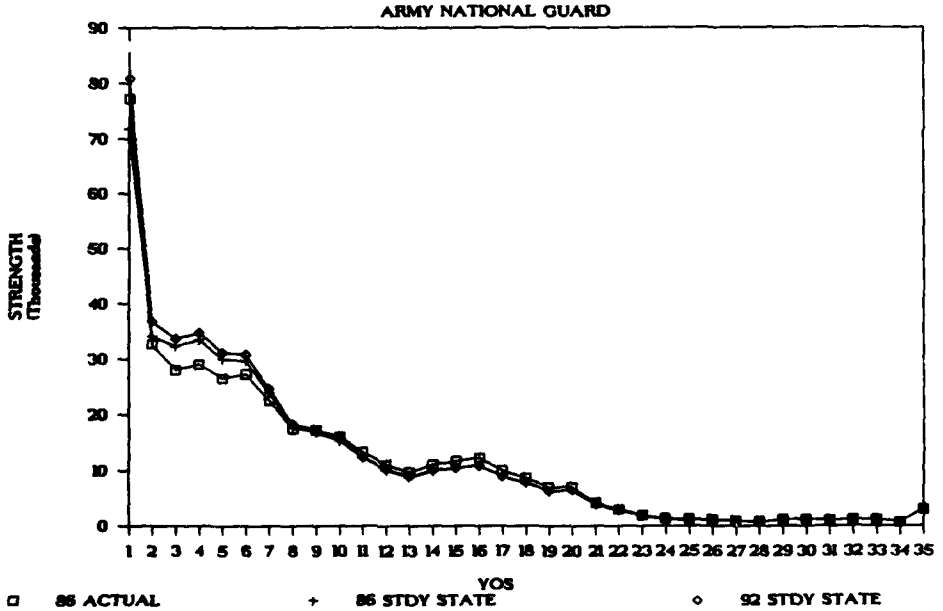
TOTAL SELRES BY YOS

ARMY NATIONAL GUARD



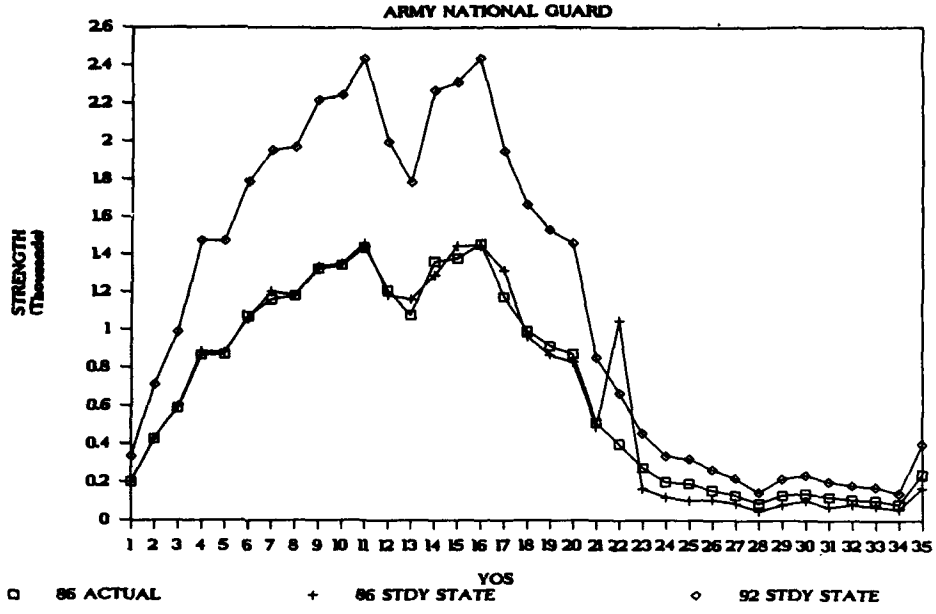
TOTAL PART-TIME BY YOS

ARMY NATIONAL GUARD



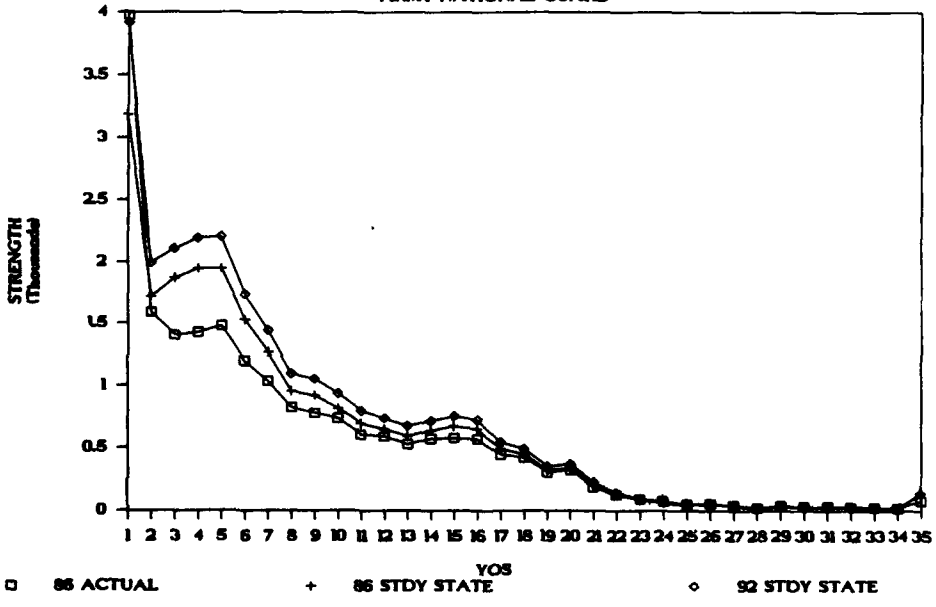
TOTAL AGRs BY YOS

ARMY NATIONAL GUARD



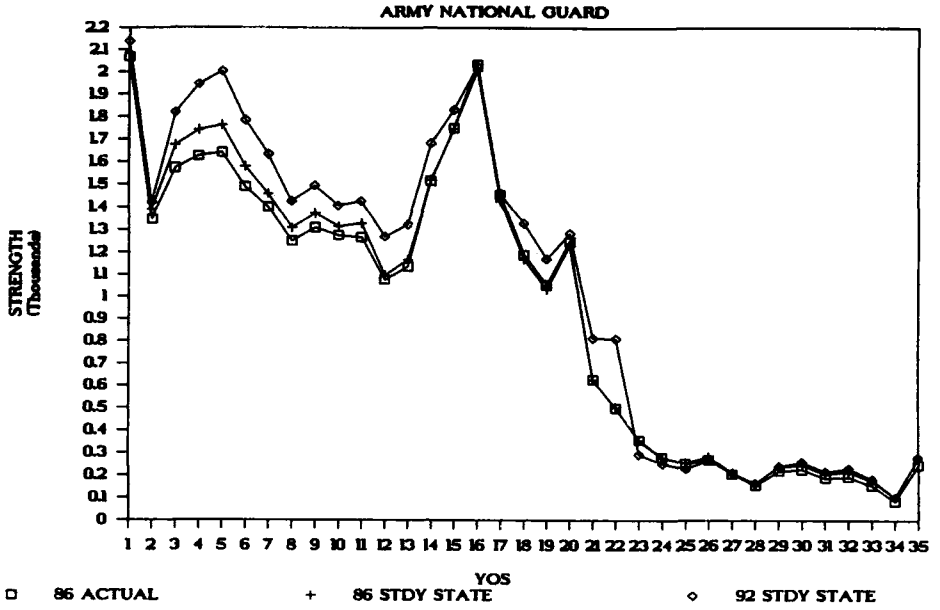
TOTAL MEDICAL BY YOS

ARMY NATIONAL GUARD



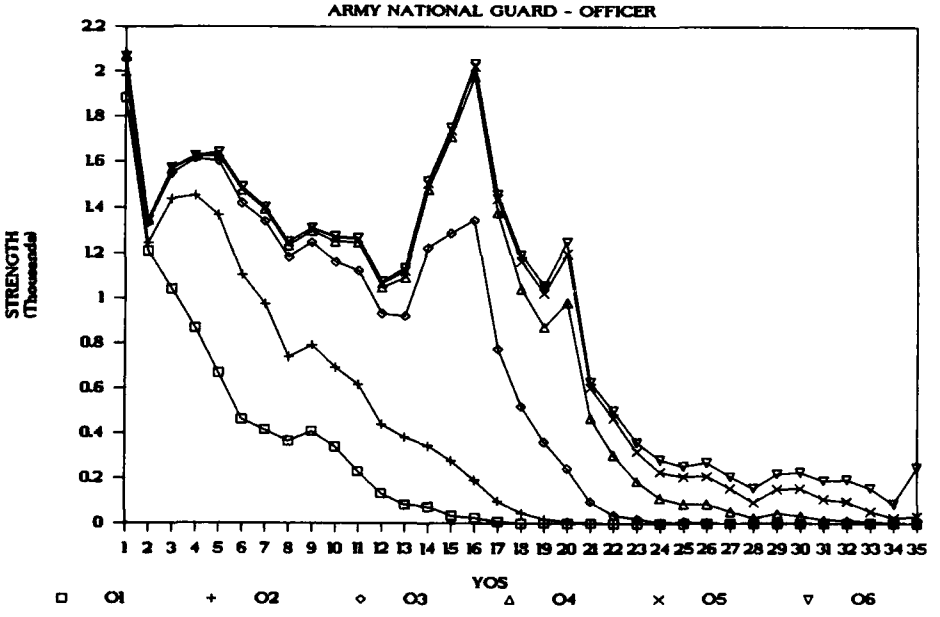
TOTAL SELRES OFFICERS BY YOS

ARMY NATIONAL GUARD



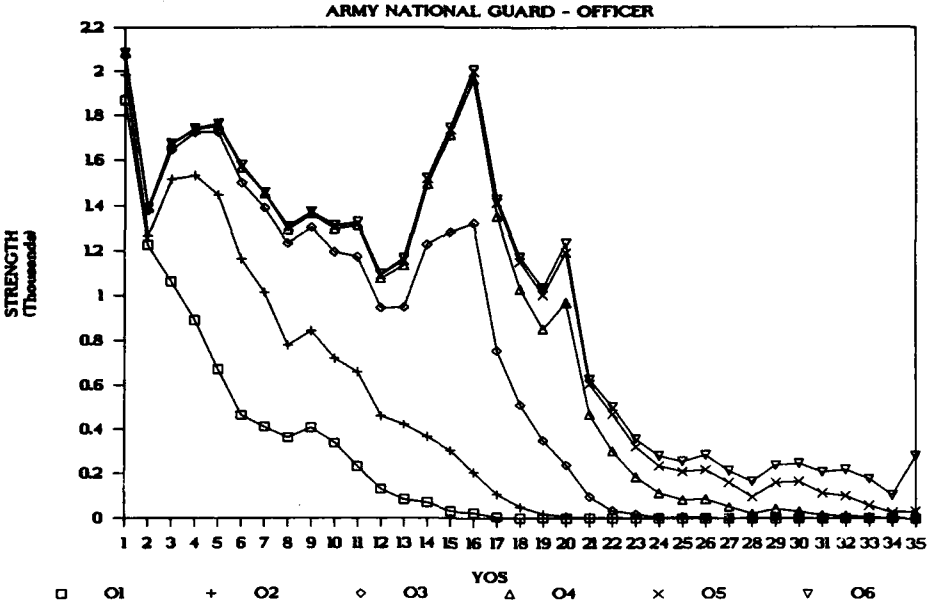
TOTAL SELRES BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - OFFICER



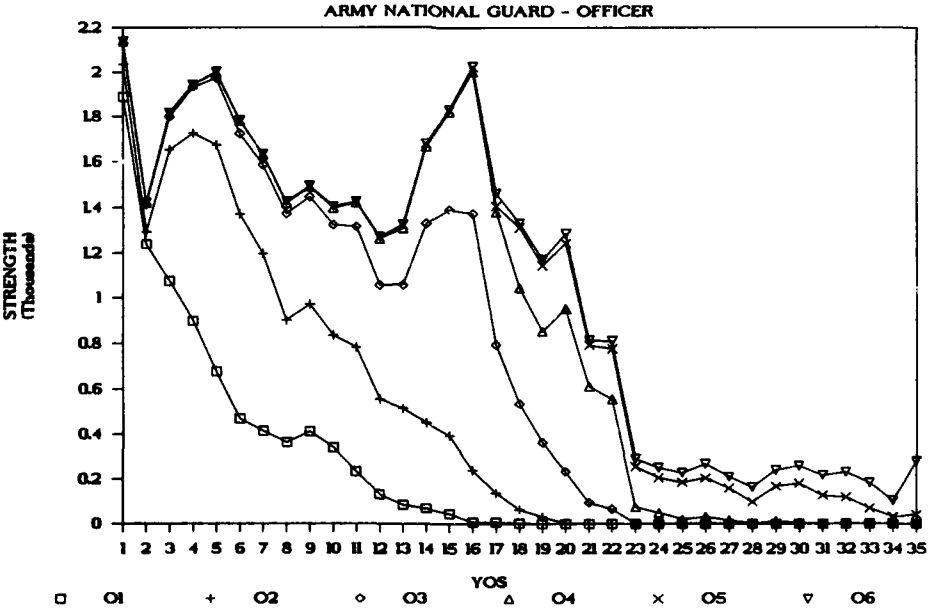
TOTAL SELRES BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - OFFICER

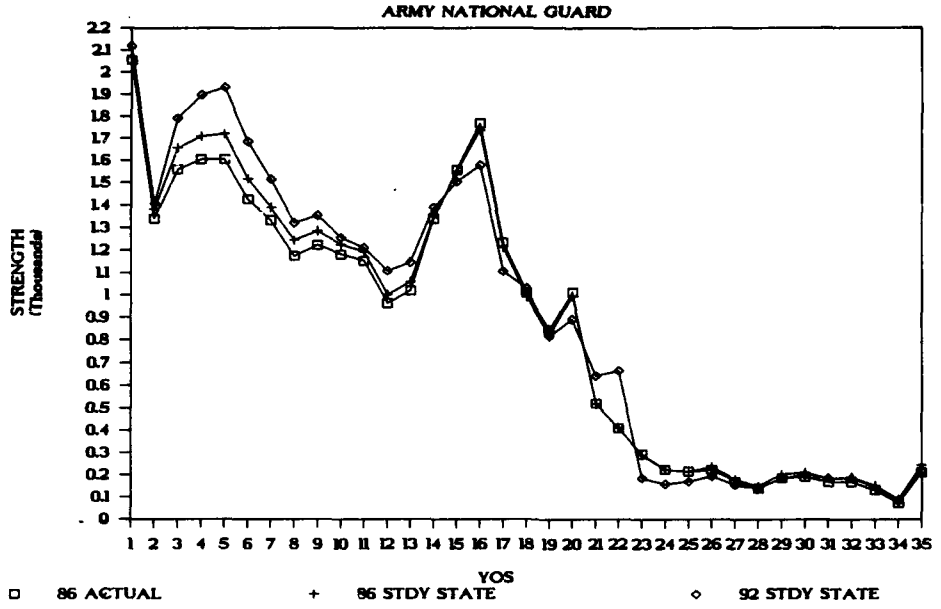


TOTAL SELRES BY YOS 92 STEADY STATE

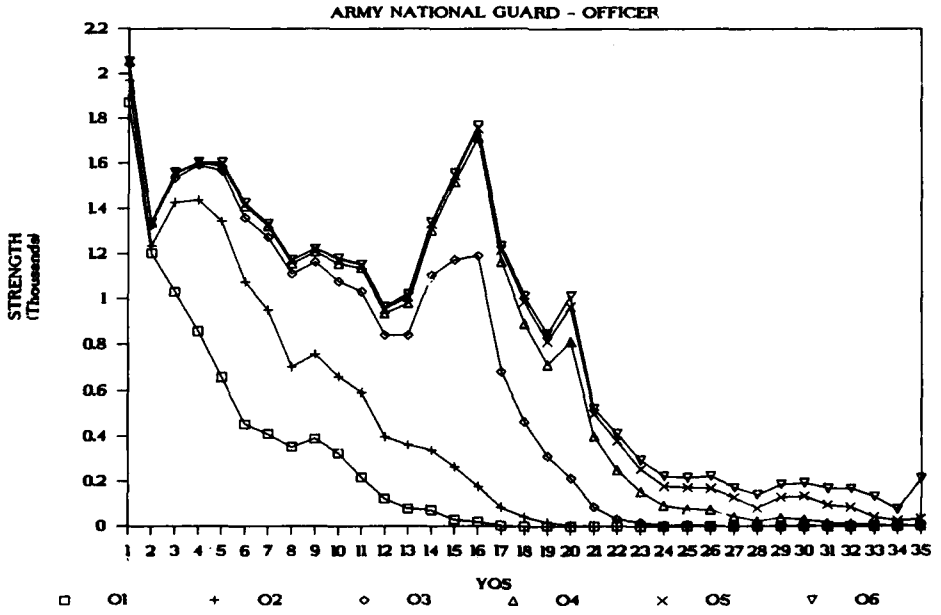
ARMY NATIONAL GUARD - OFFICER



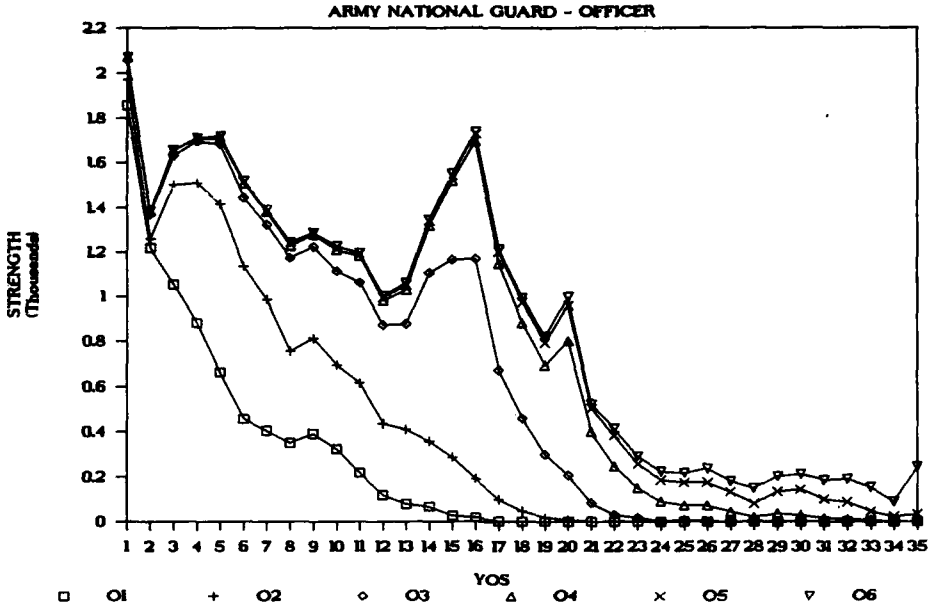
TOTAL PART-TIME OFFICERS BY YOS



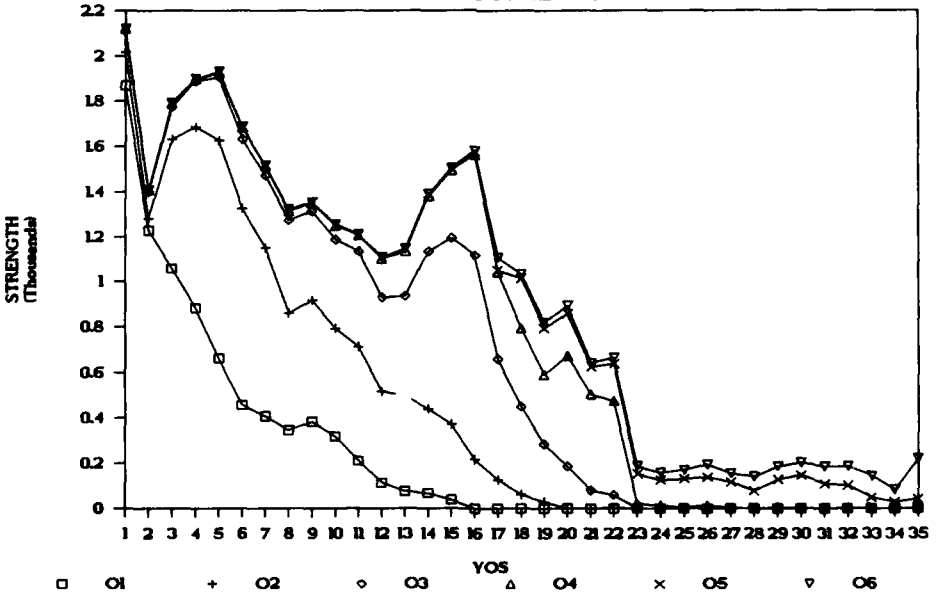
TOTAL PART-TIME BY YOS 86 ACTUAL



TOTAL PART-TIME BY YOS 86 STEADY STATE

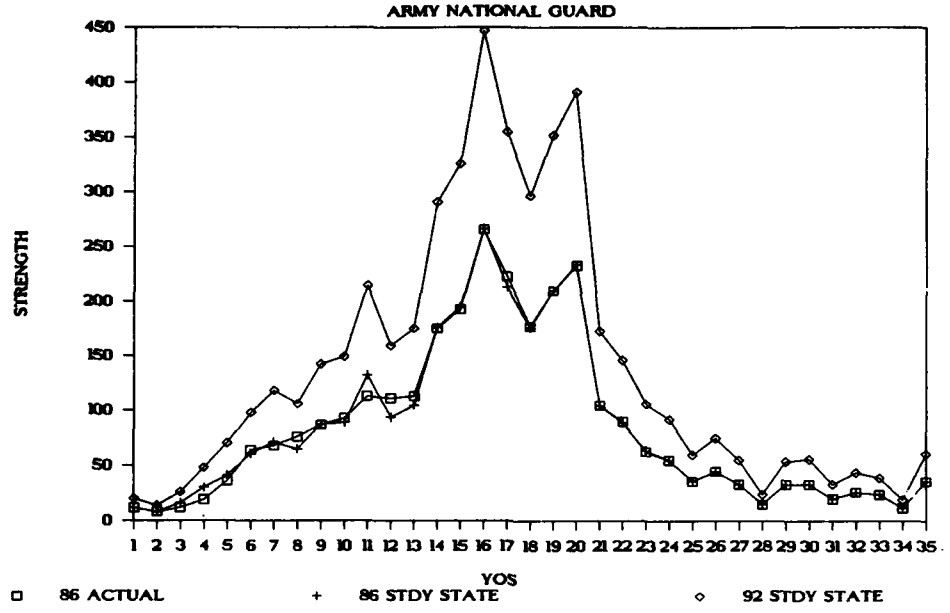


TOTAL PART-TIME BY YOS 92 STEADY STATE



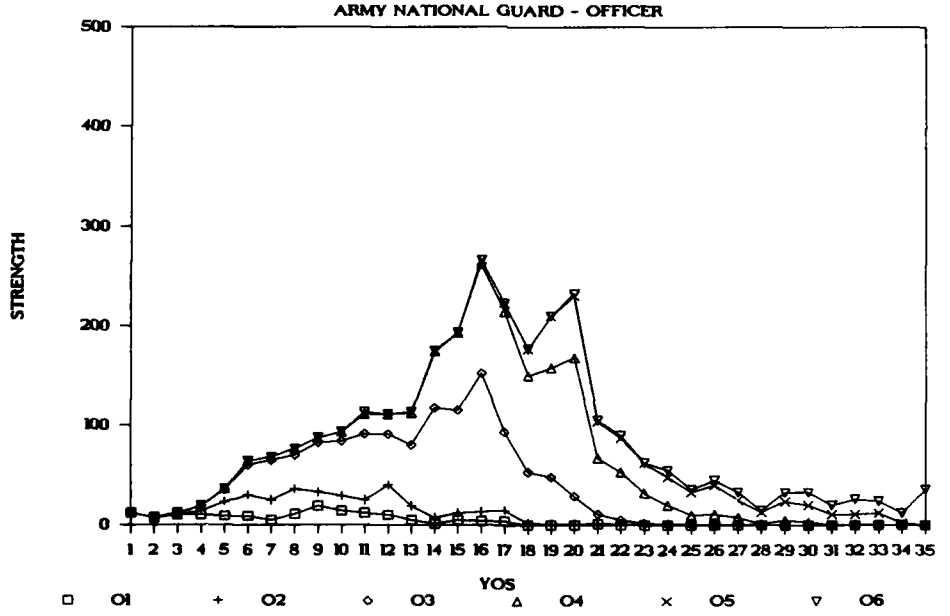
TOTAL AGR OFFICERS BY YOS

ARMY NATIONAL GUARD



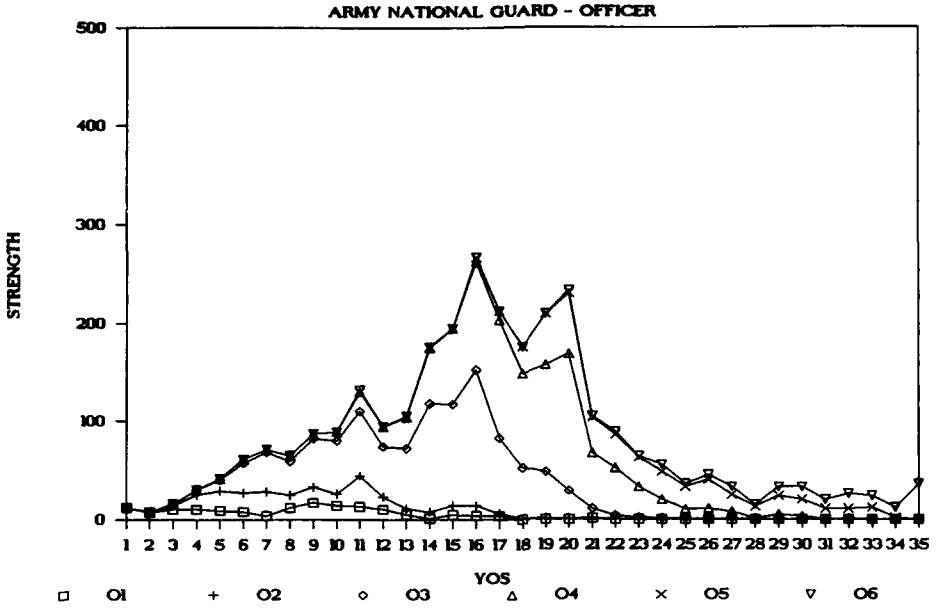
TOTAL AGRs BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - OFFICER



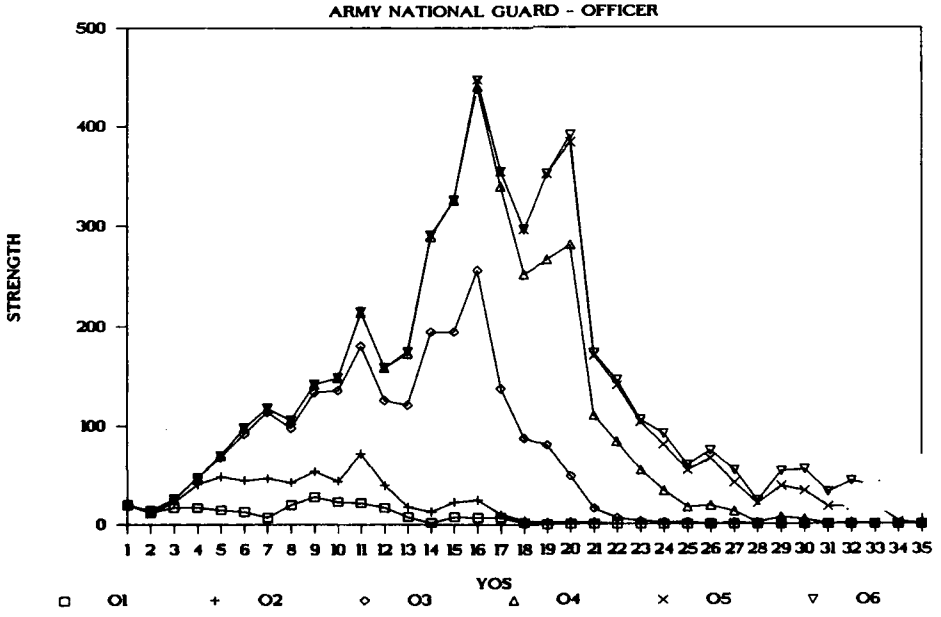
TOTAL AGRs BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - OFFICER



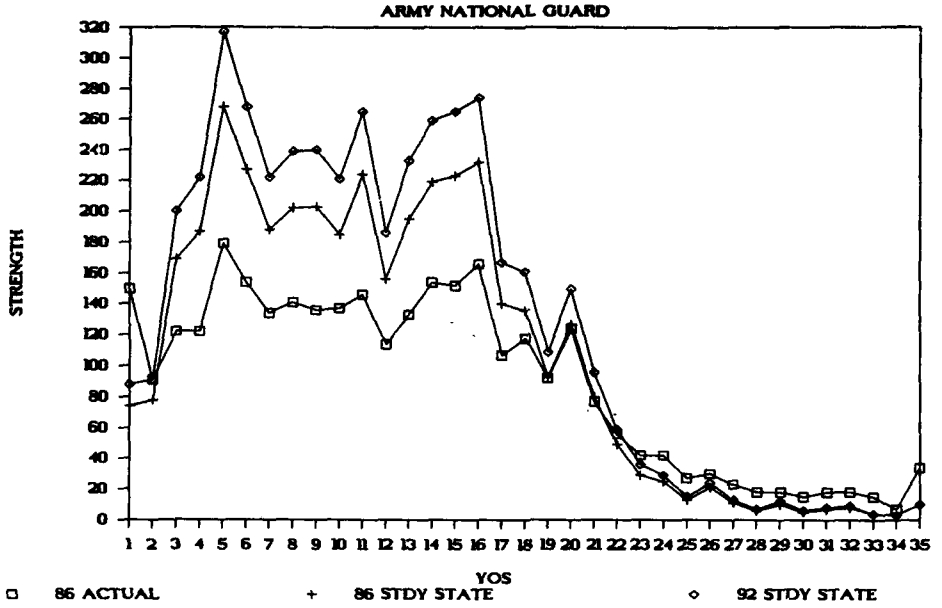
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ARMY NATIONAL GUARD - OFFICER



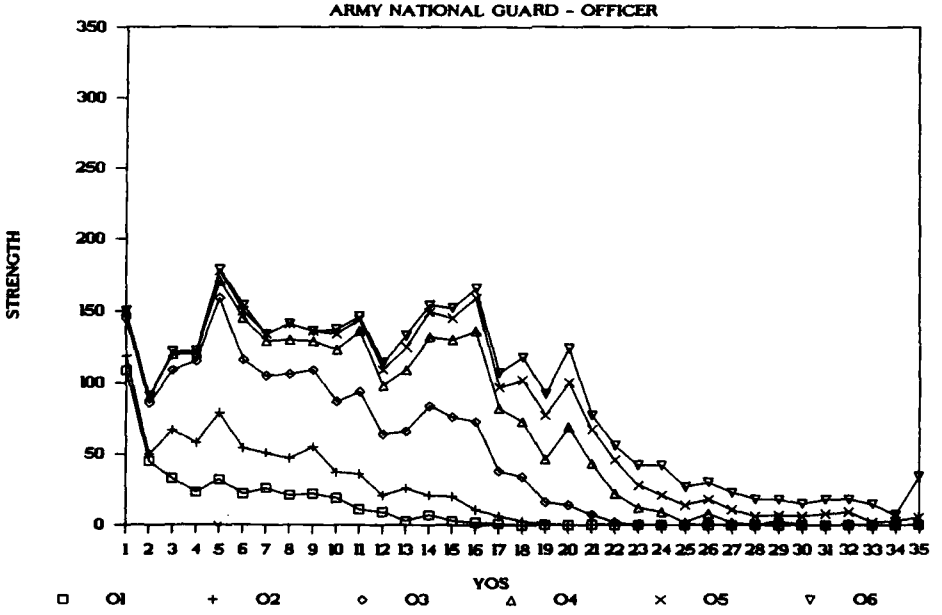
TOTAL MEDICAL OFFICERS BY YOS

ARMY NATIONAL GUARD



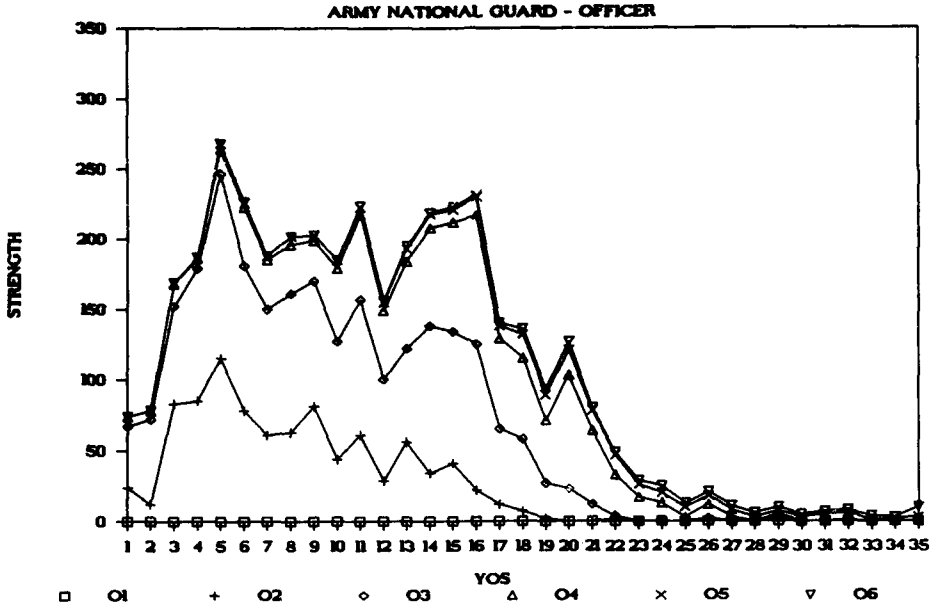
TOTAL MEDICAL BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - OFFICER



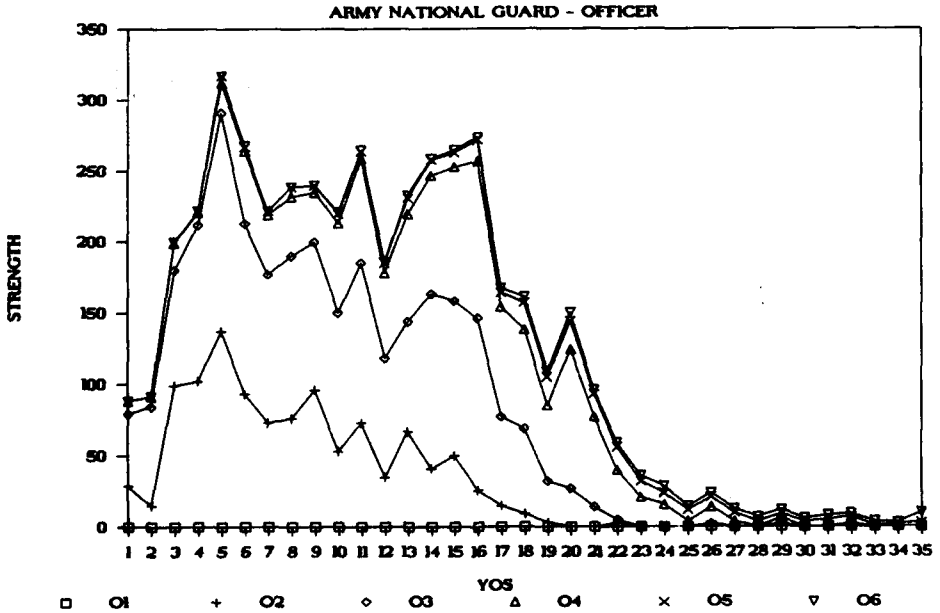
TOTAL MEDICAL BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - OFFICER



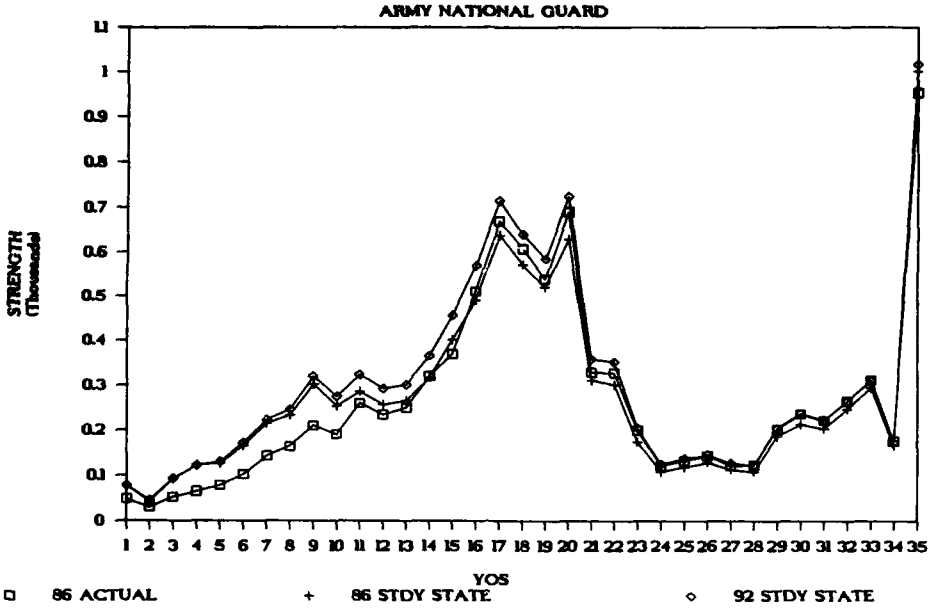
TOTAL MEDICAL BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - OFFICER



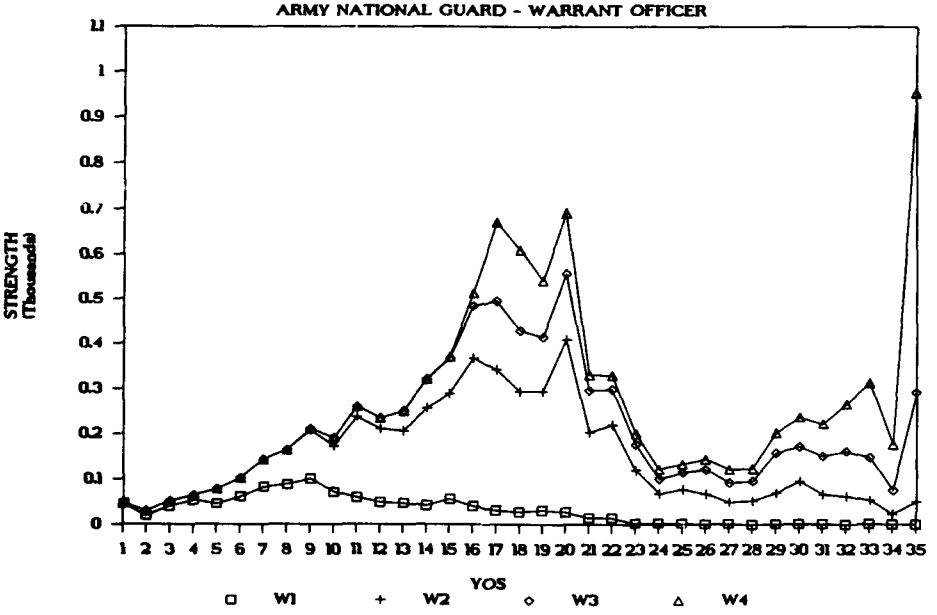
TOTAL SELRES WARRANTS BY YOS

ARMY NATIONAL GUARD



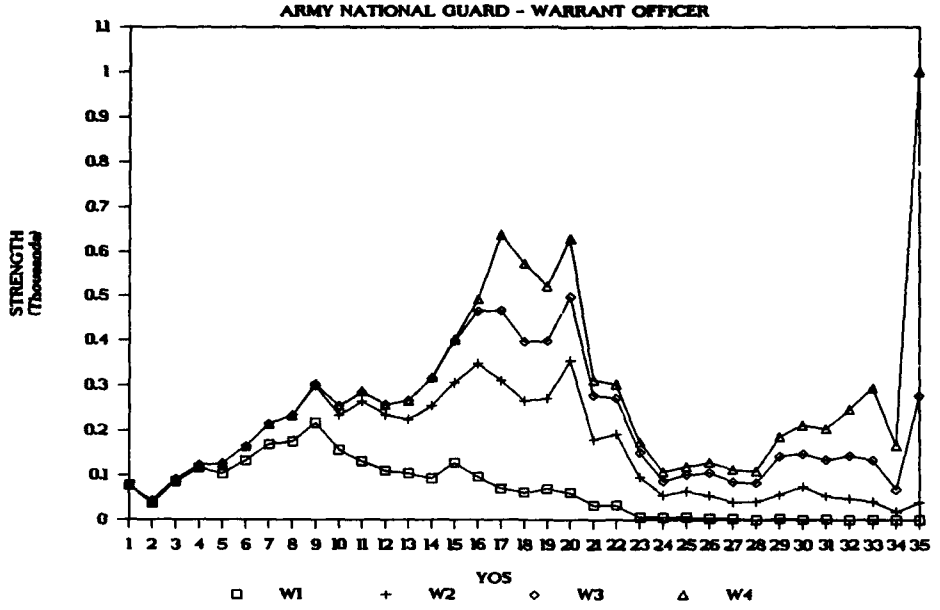
TOTAL SELRES BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - WARRANT OFFICER



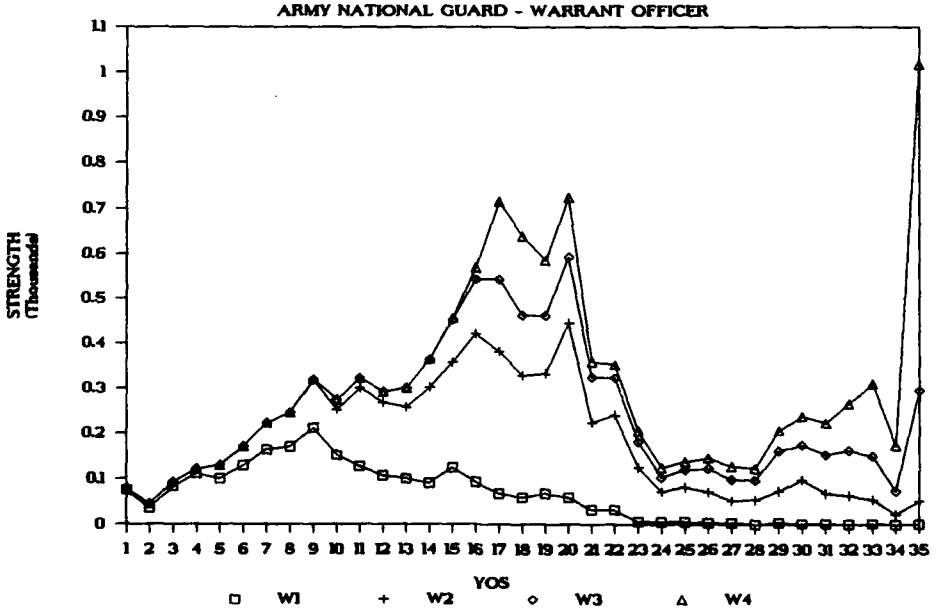
TOTAL SELRES BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



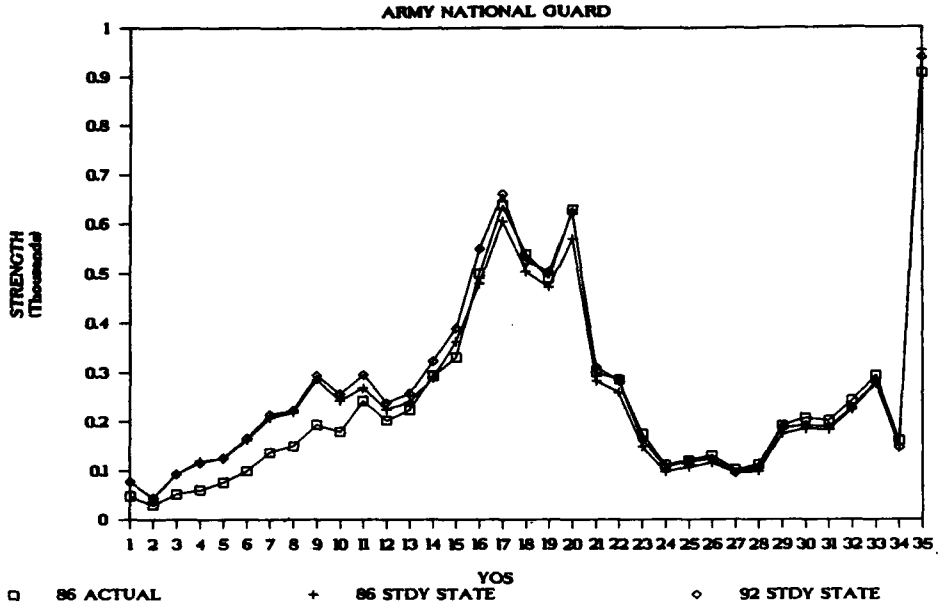
TOTAL SELRES BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



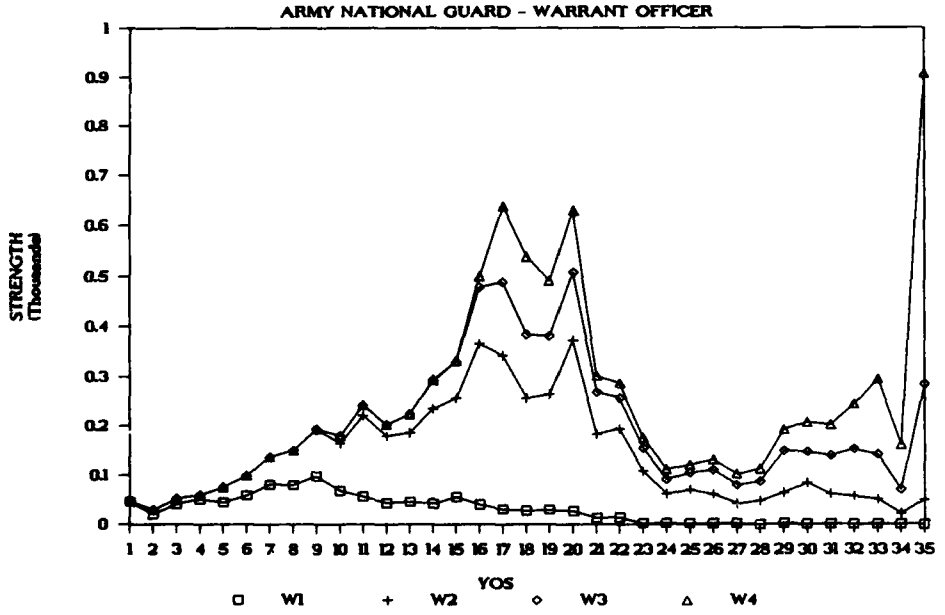
TOTAL PART-TIME WARRANTS BY YOS

ARMY NATIONAL GUARD



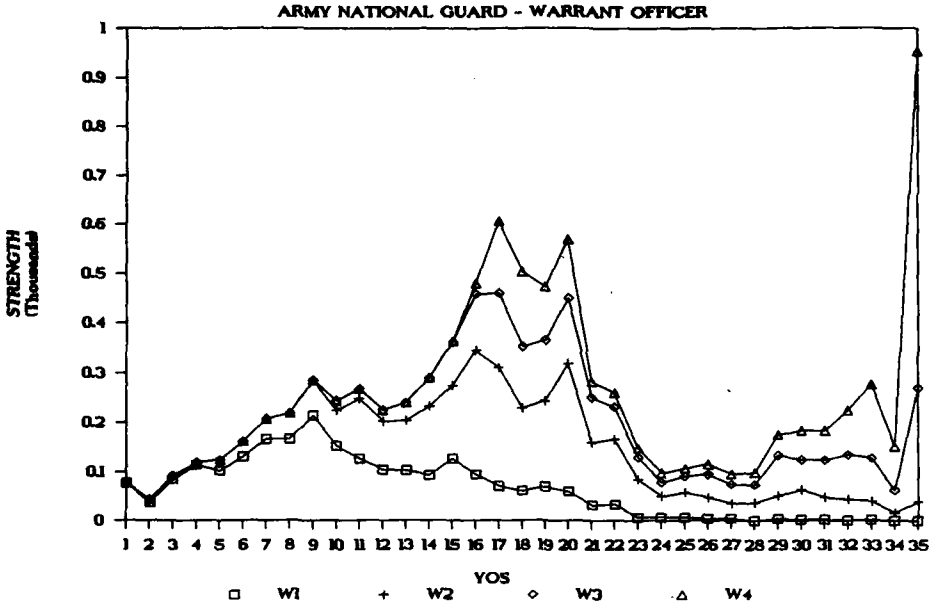
TOTAL PART-TIME BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - WARRANT OFFICER



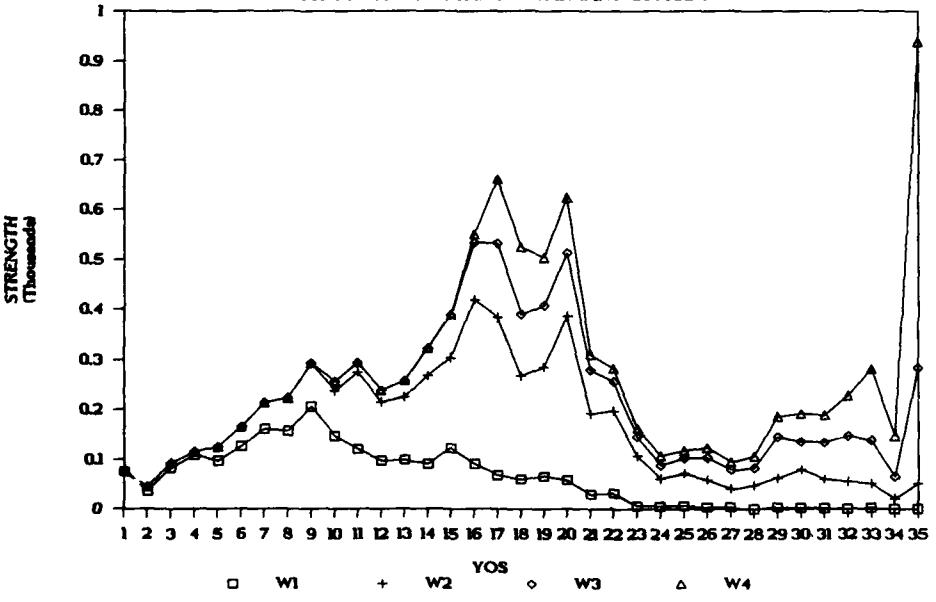
TOTAL PART-TIME BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



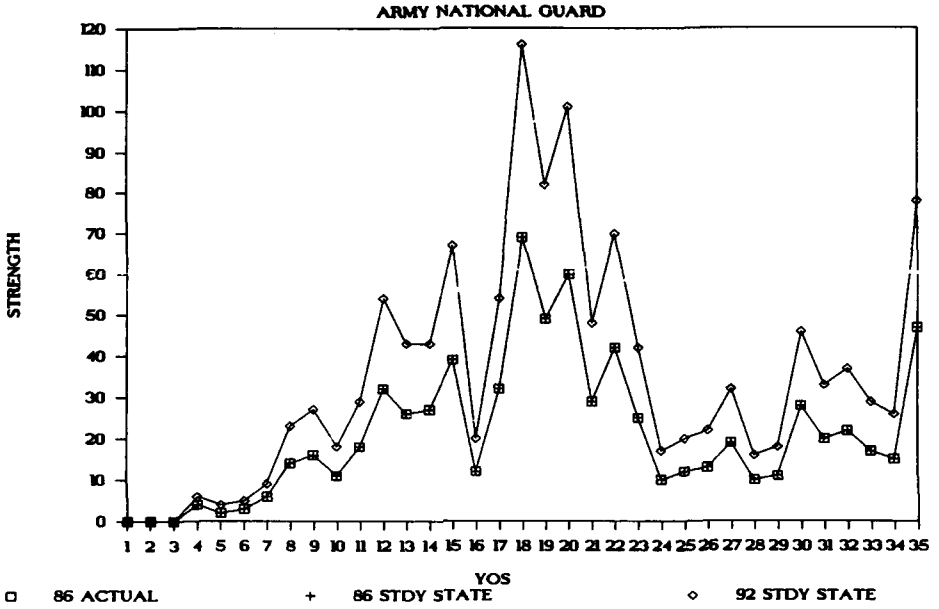
TOTAL PART-TIME BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



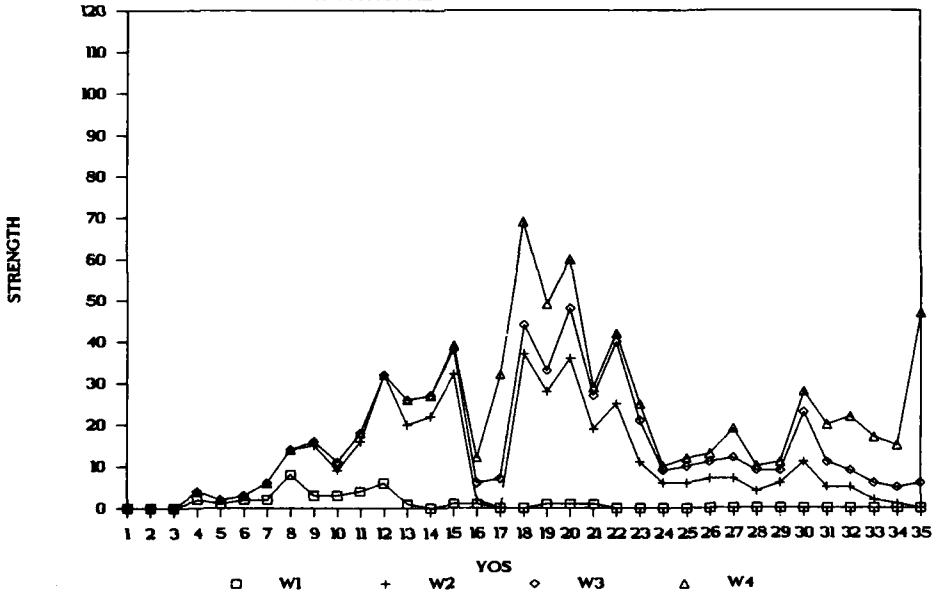
TOTAL AGR WARRANTS BY YOS

ARMY NATIONAL GUARD



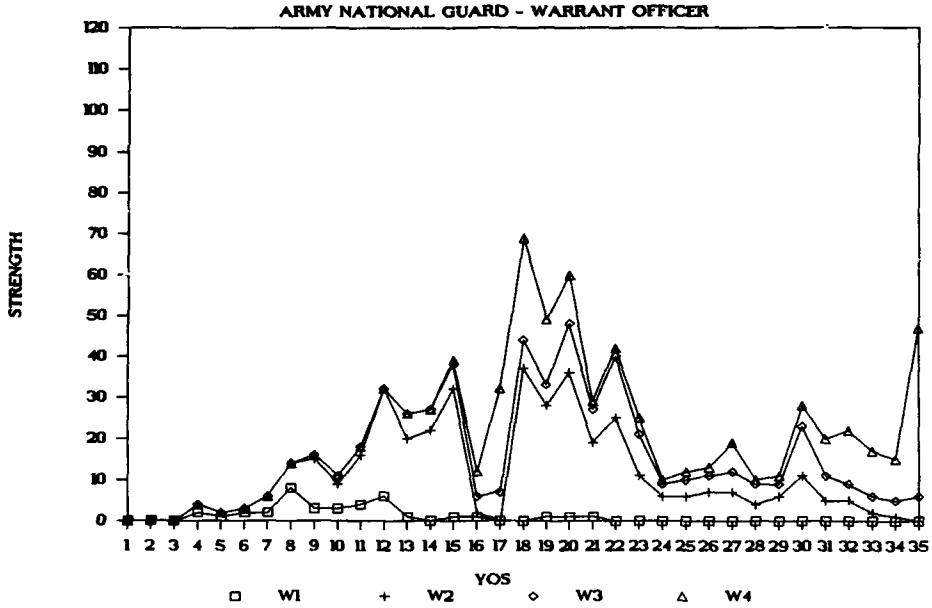
TOTAL AGRs BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - WARRANT OFFICER



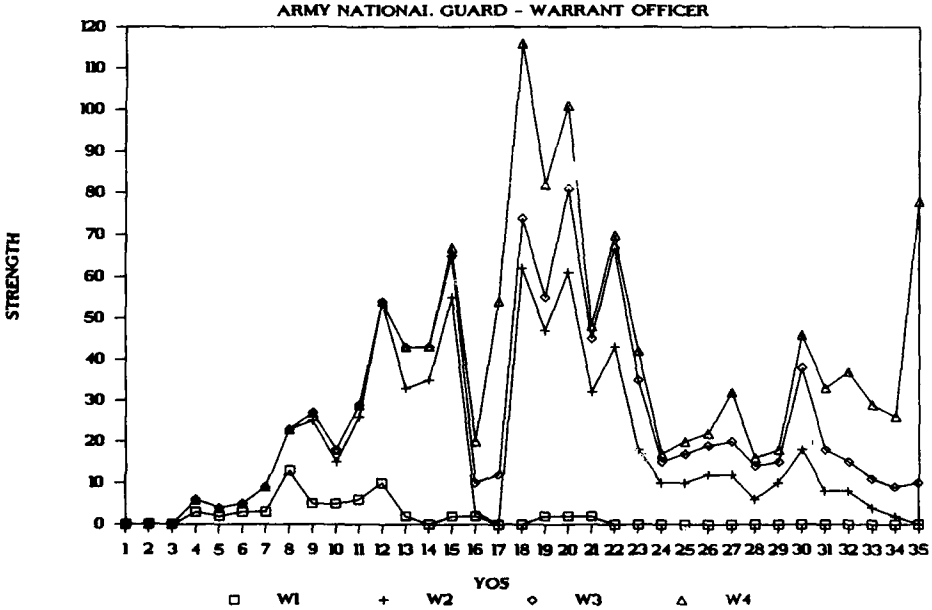
TOTAL AGRs BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



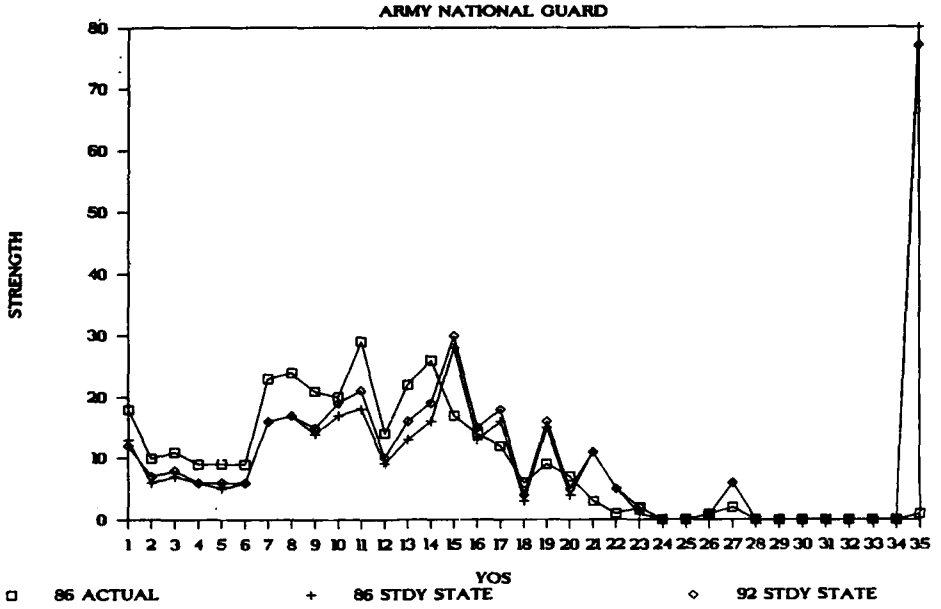
TOTAL AGRs BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



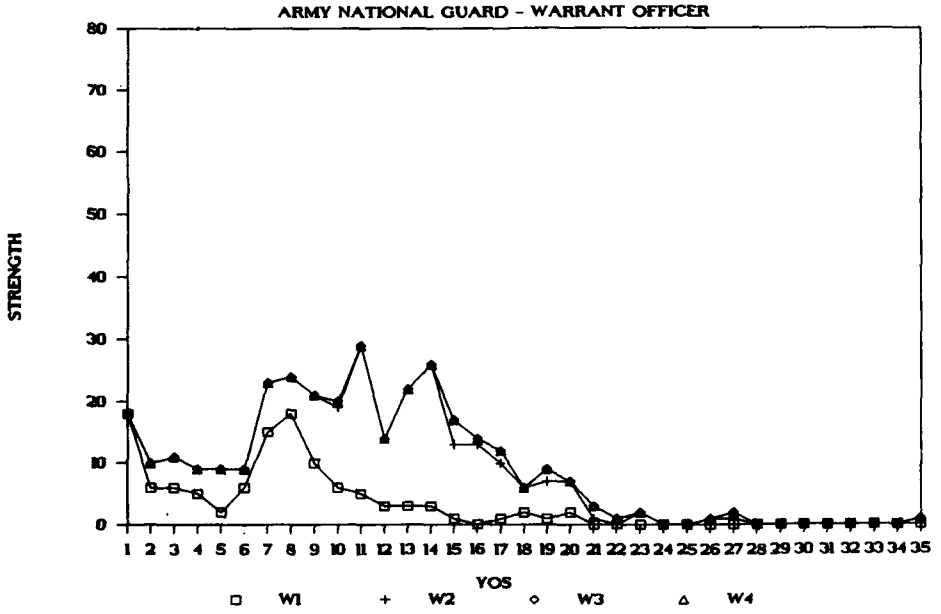
TOTAL MEDICAL WARRANTS BY YOS

ARMY NATIONAL GUARD



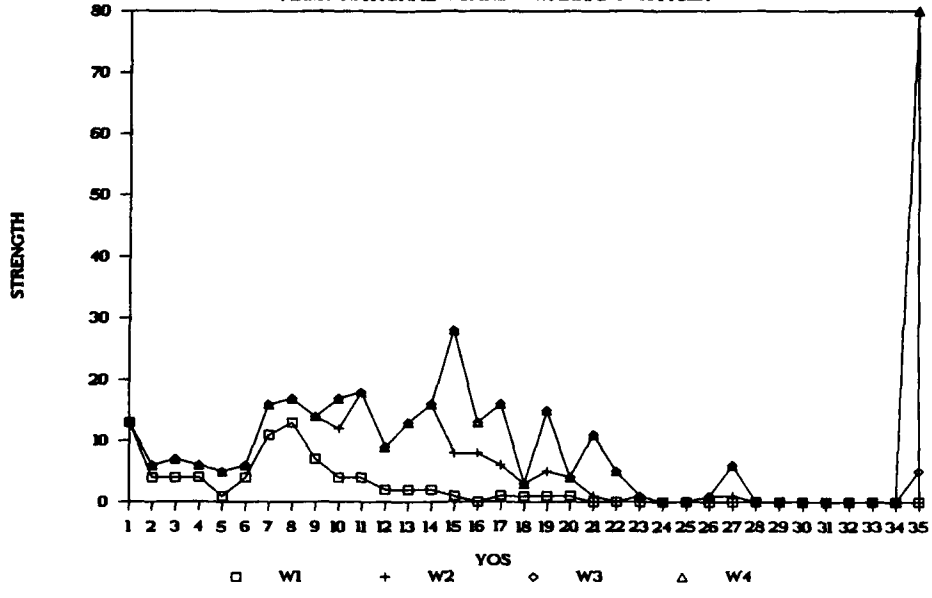
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ARMY NATIONAL GUARD - WARRANT OFFICER



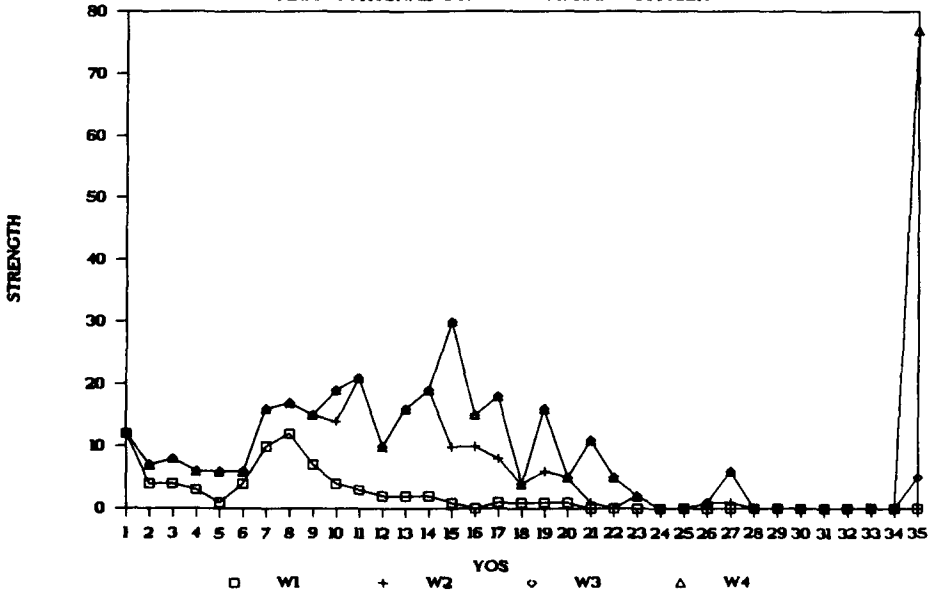
TOTAL MEDICAL BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



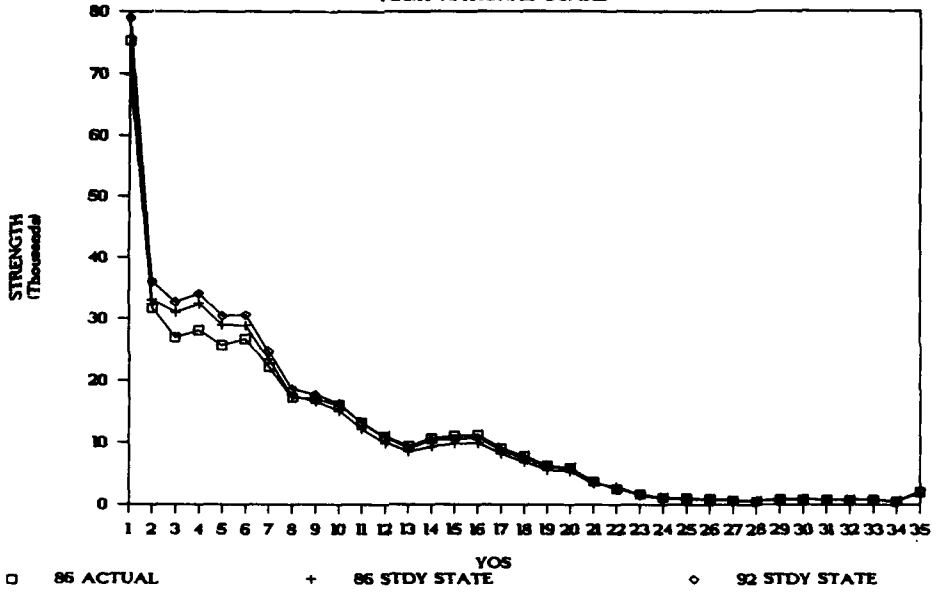
TOTAL MEDICAL BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - WARRANT OFFICER



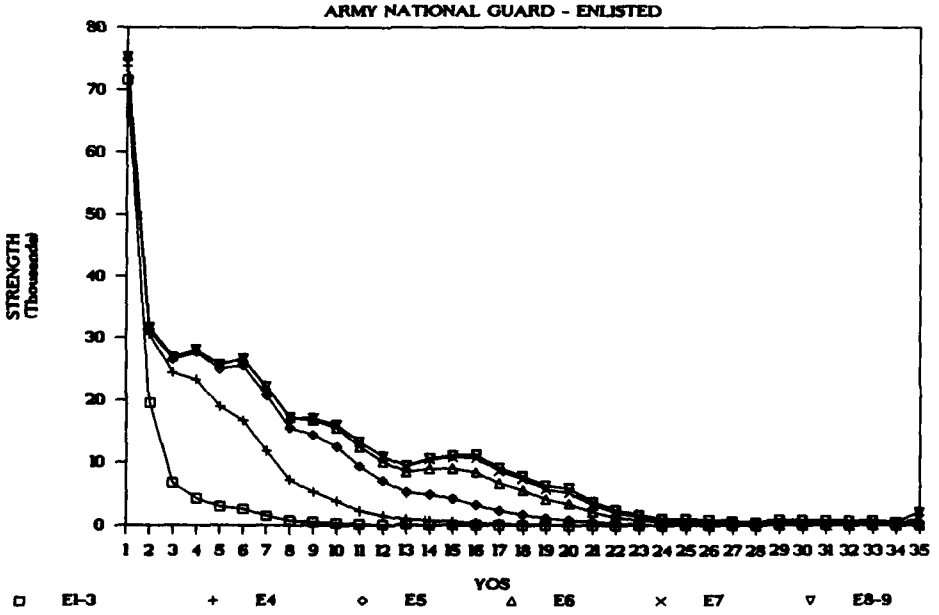
TOTAL SELRES ENLISTED BY YOS

ARMY NATIONAL GUARD



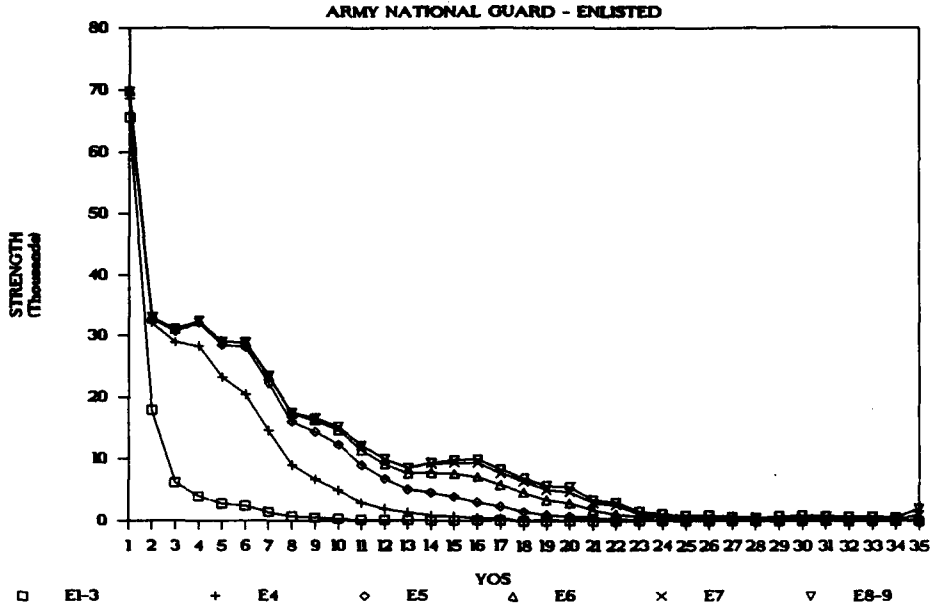
TOTAL SELRES BY YOS 86 ACTUAL

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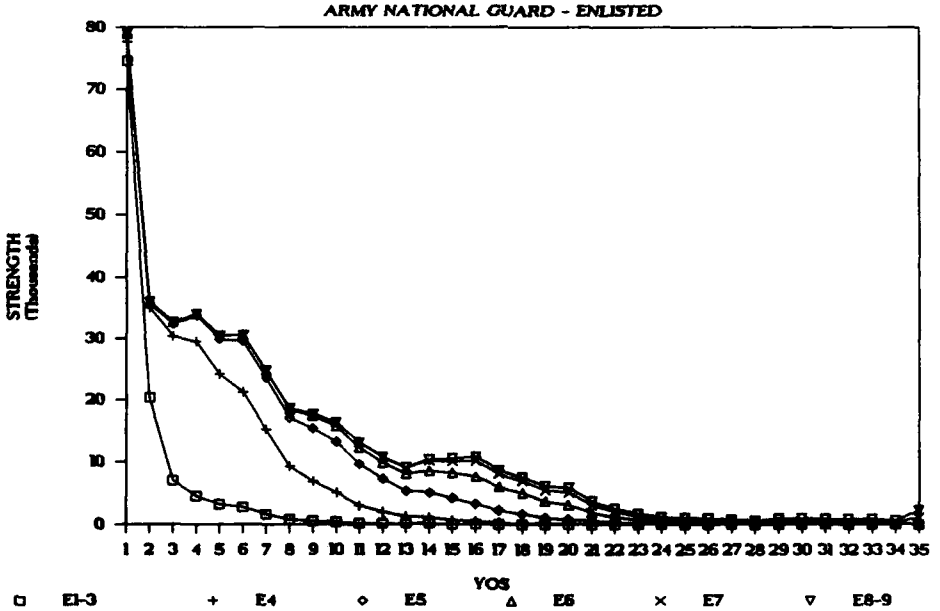
TOTAL SELRES BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - ENLISTED



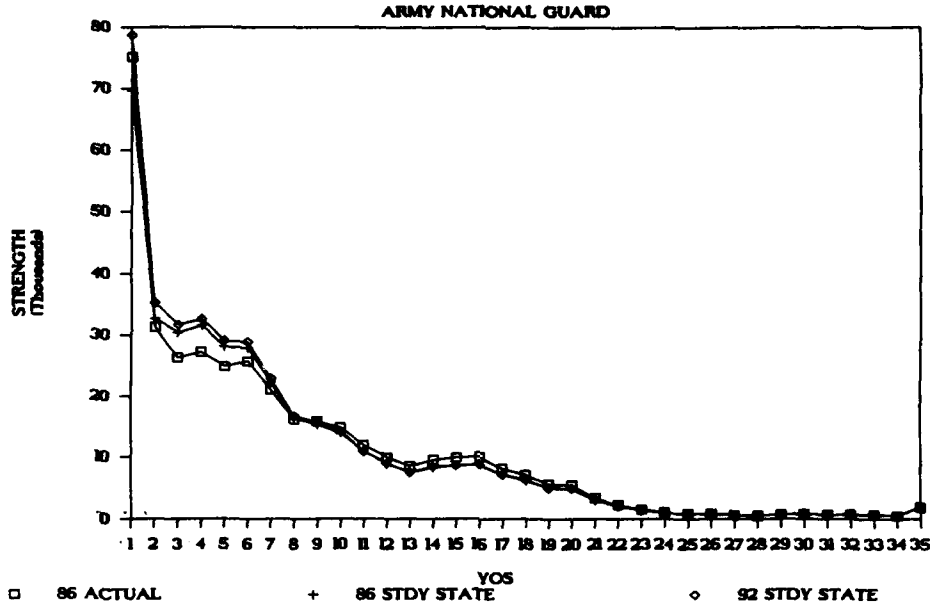
TOTAL SELRES BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - ENLISTED



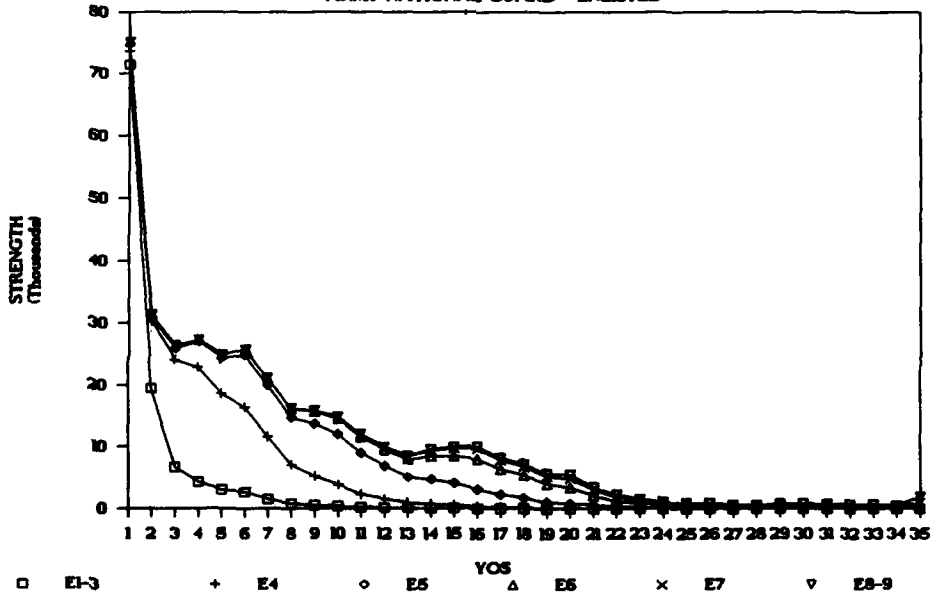
TOTAL PART-TIME ENLISTED BY YOS

ARMY NATIONAL GUARD



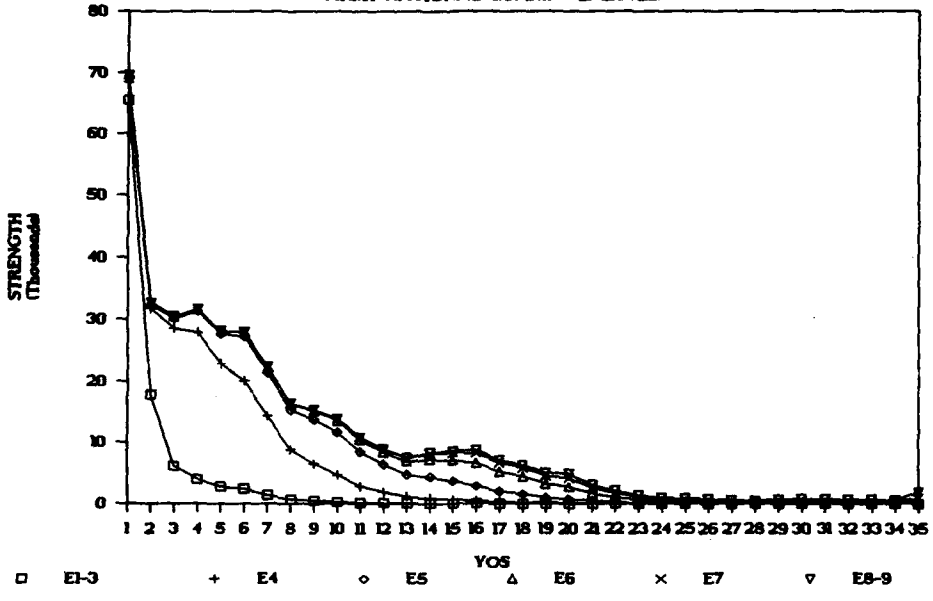
TOTAL PART-TIME BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - ENLISTED



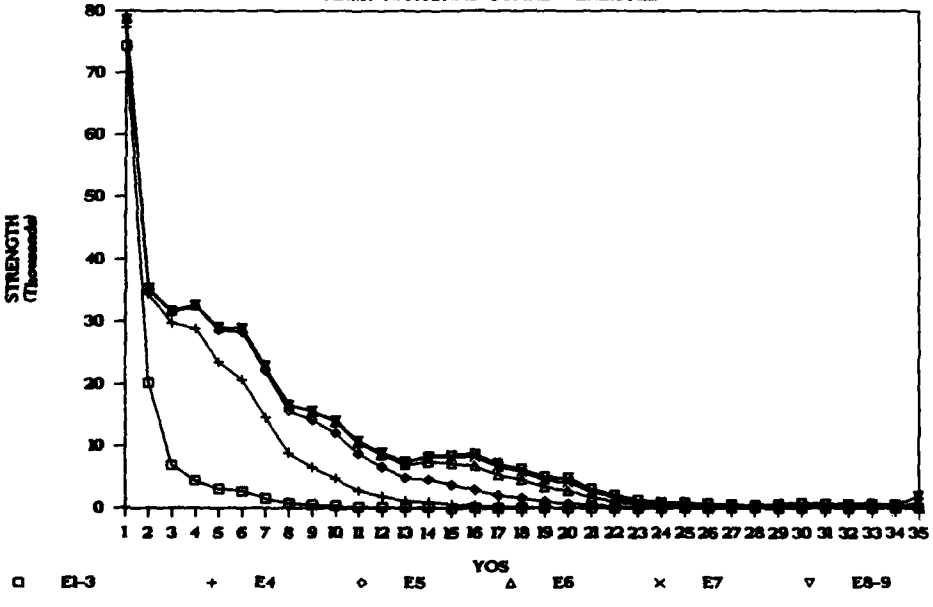
TOTAL PART-TIME BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - ENLISTED

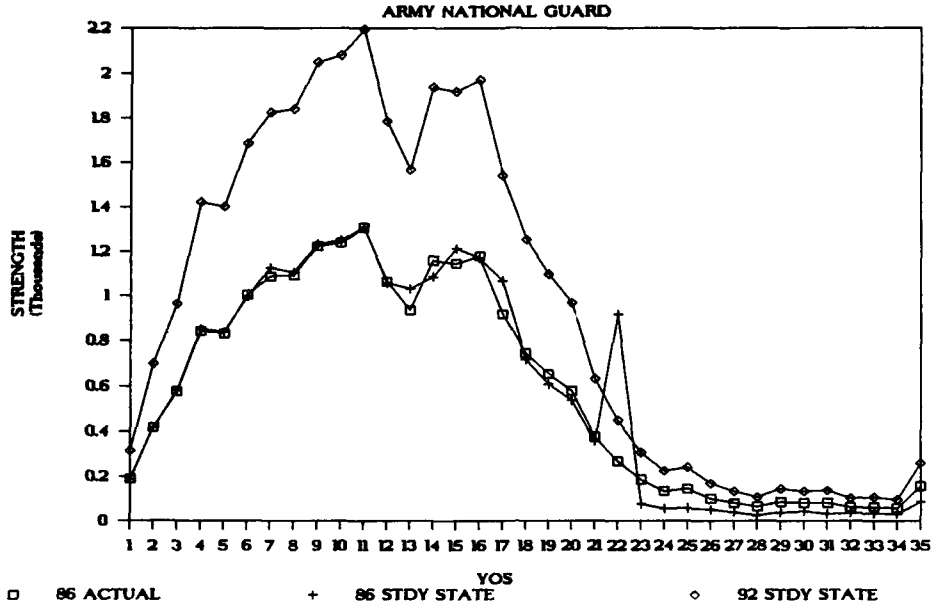


TOTAL PART-TIME BY YOS 92 STEADY STATE

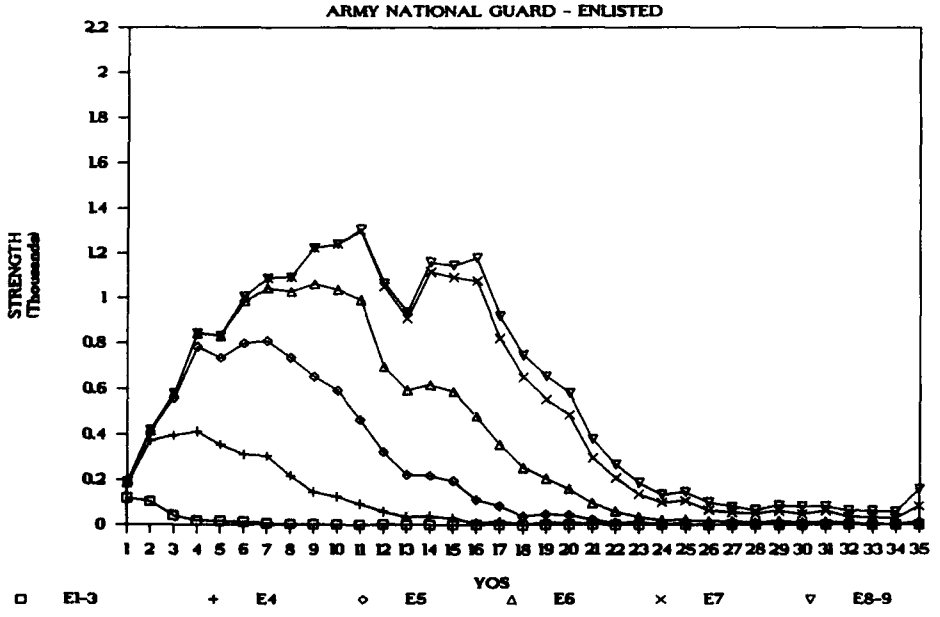
ARMY NATIONAL GUARD - ENLISTED



TOTAL AGR ENLISTED BY YOS

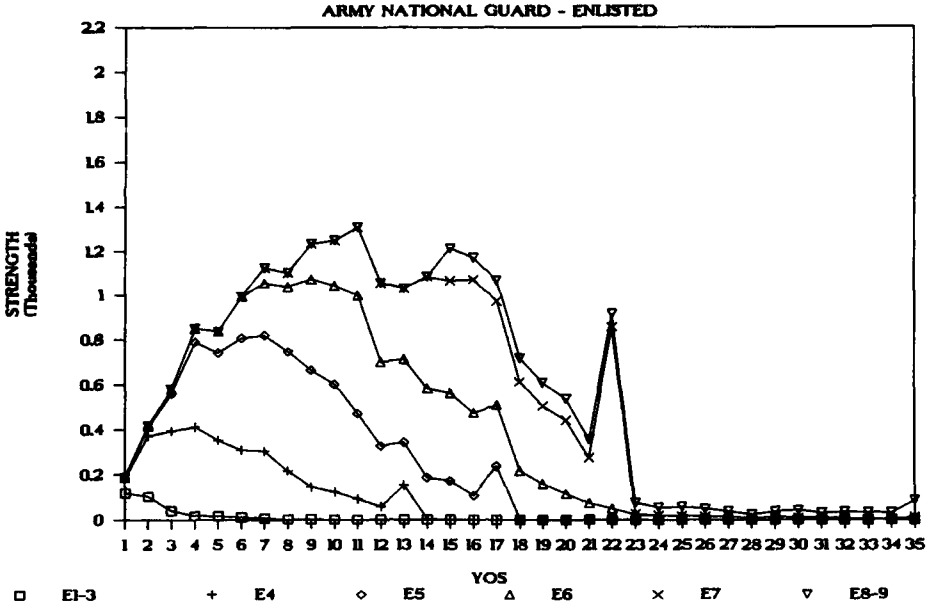


TOTAL AGRs BY YOS 86 ACTUAL



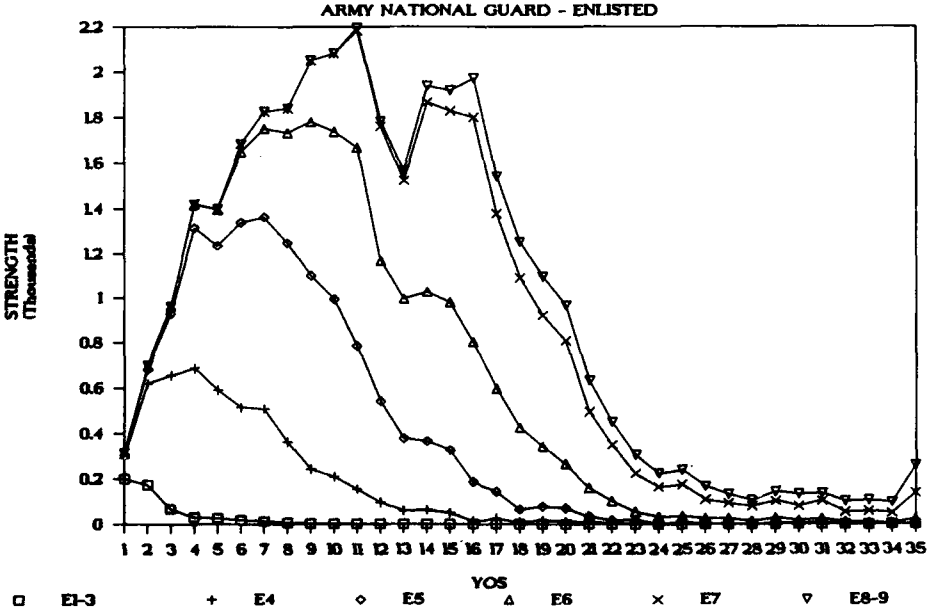
TOTAL AGRs BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - ENLISTED



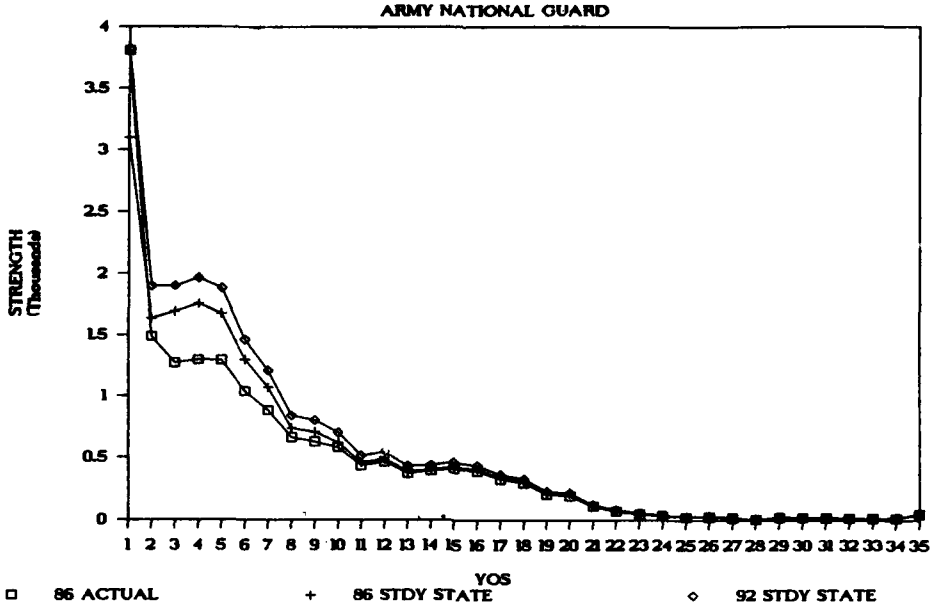
TOTAL AGRs BY YOS 92 STEADY STATE

ARMY NATIONAL GUARD - ENLISTED



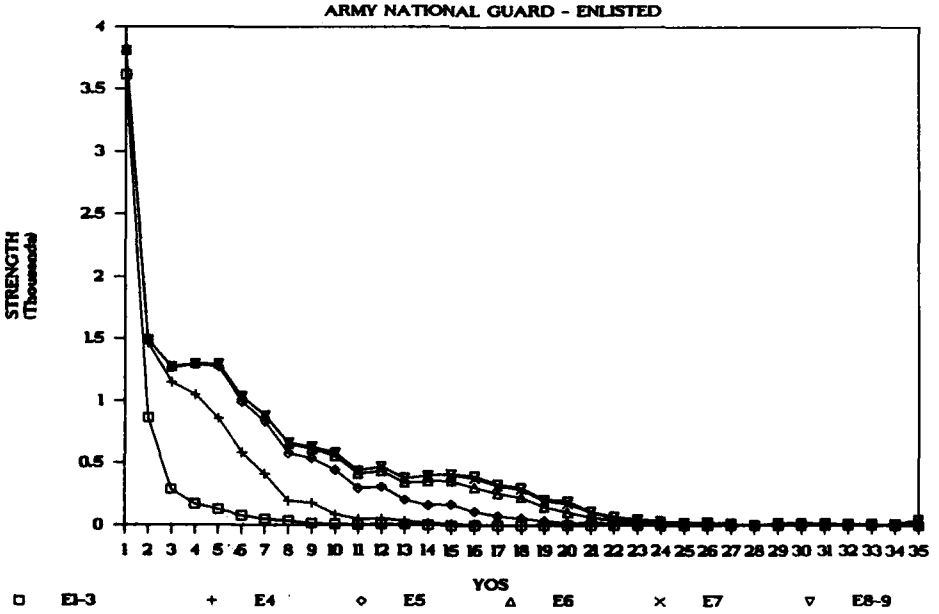
TOTAL MEDICAL ENLISTED BY YOS

ARMY NATIONAL GUARD



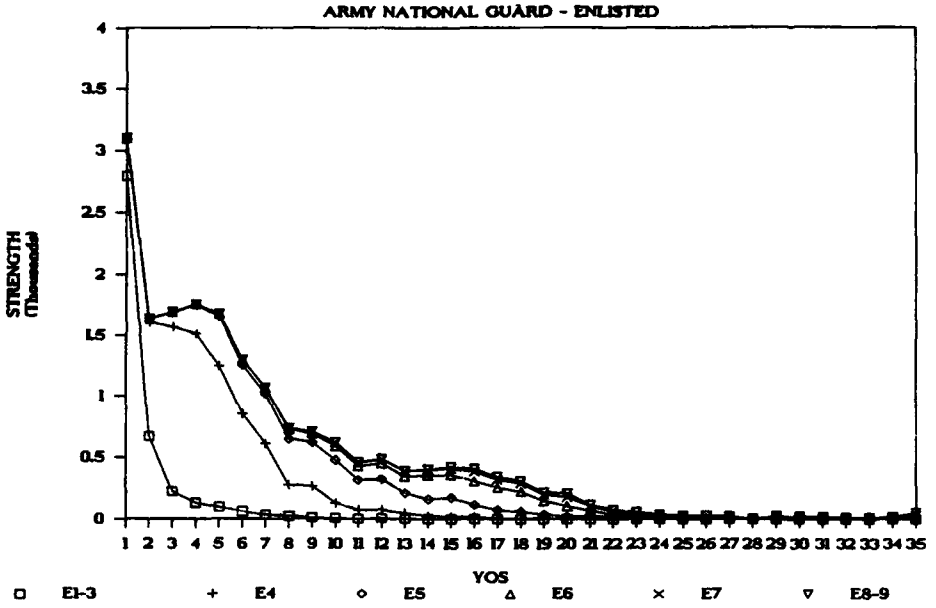
TOTAL MEDICAL BY YOS 86 ACTUAL

ARMY NATIONAL GUARD - ENLISTED



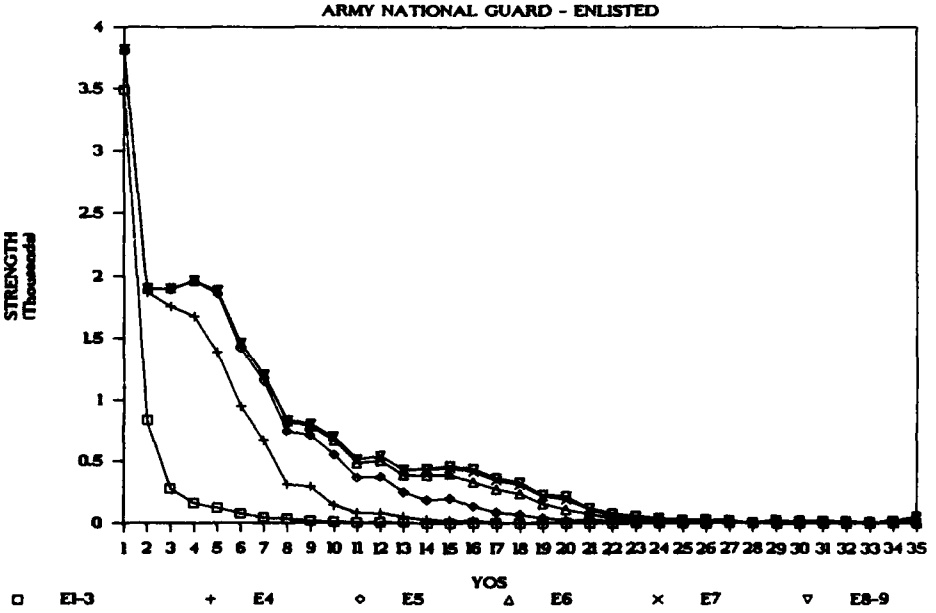
TOTAL MEDICAL BY YOS 86 STEADY STATE

ARMY NATIONAL GUARD - ENLISTED

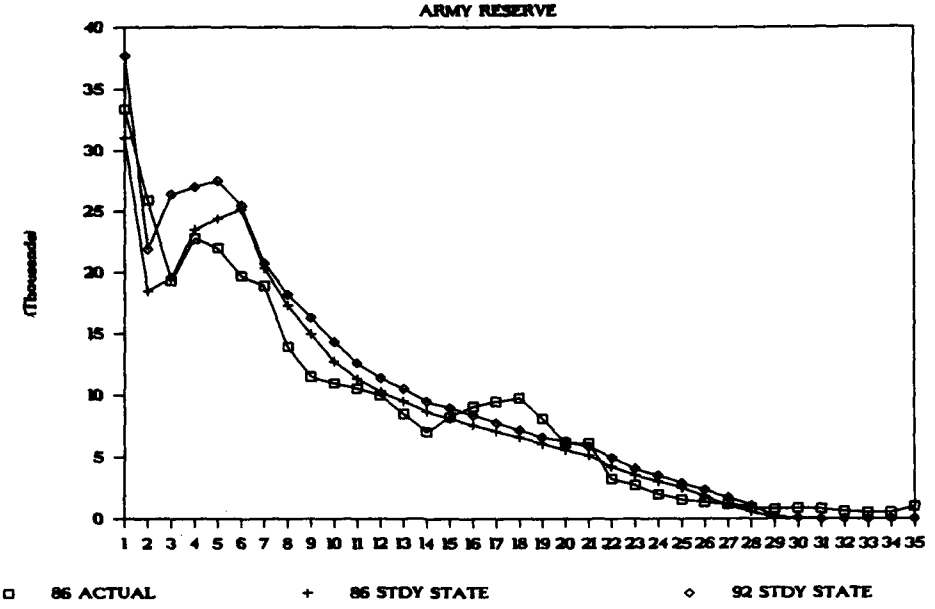


TOTAL MEDICAL BY YOS 92 STEADY STATE

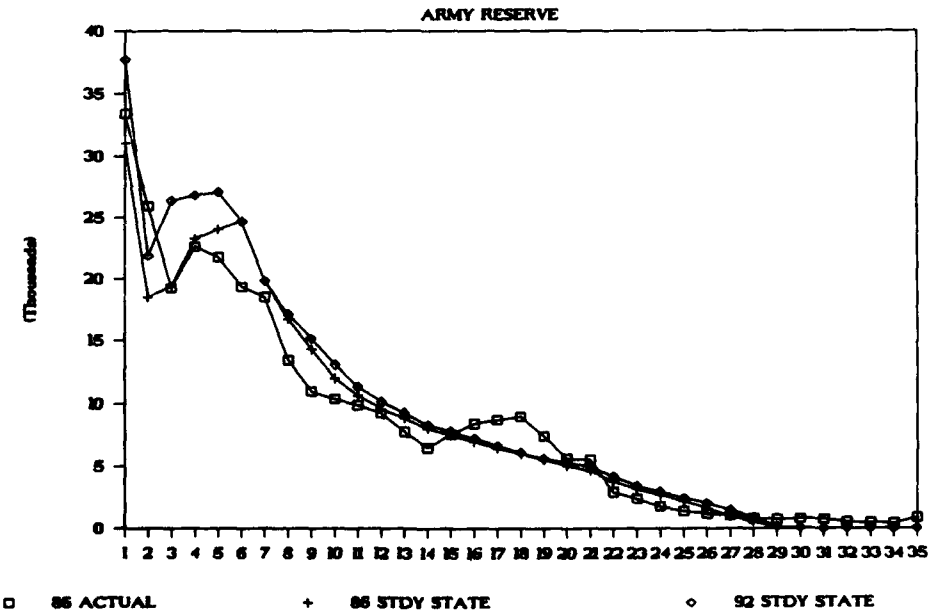
ARMY NATIONAL GUARD - ENLISTED



TOTAL SELRES BY YOS

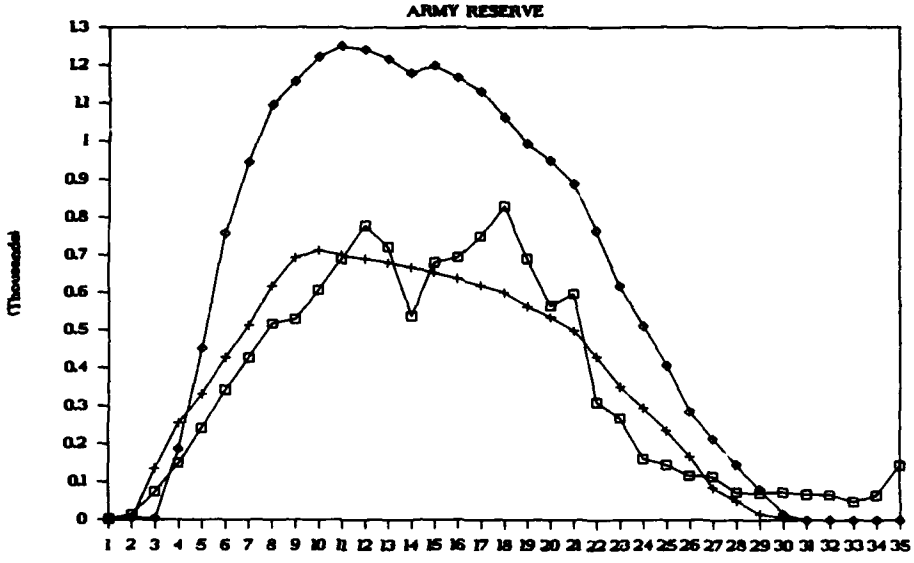


TOTAL PART-TIME BY YOS



TOTAL AGRs BY YOS

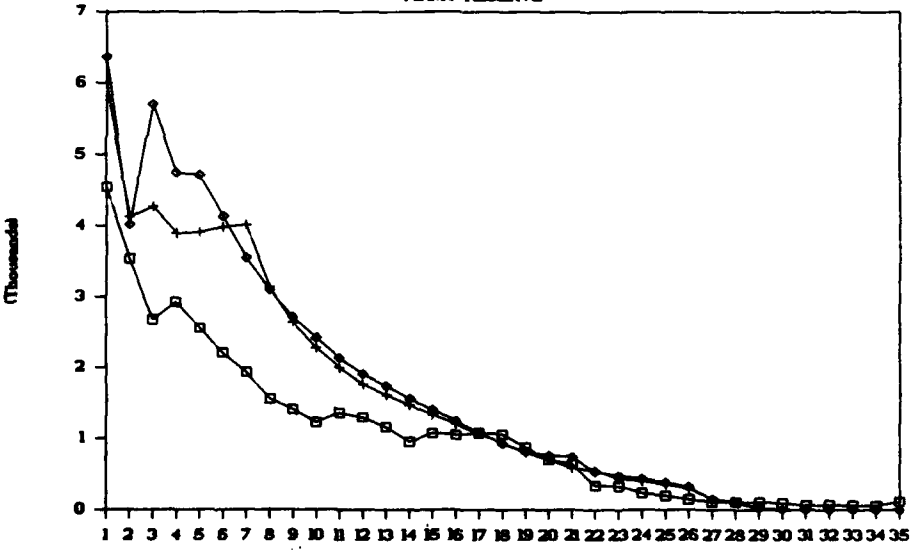
ARMY RESERVE



□ 86 ACTUAL + 86 STDY STATE ◇ 92 STDY STATE

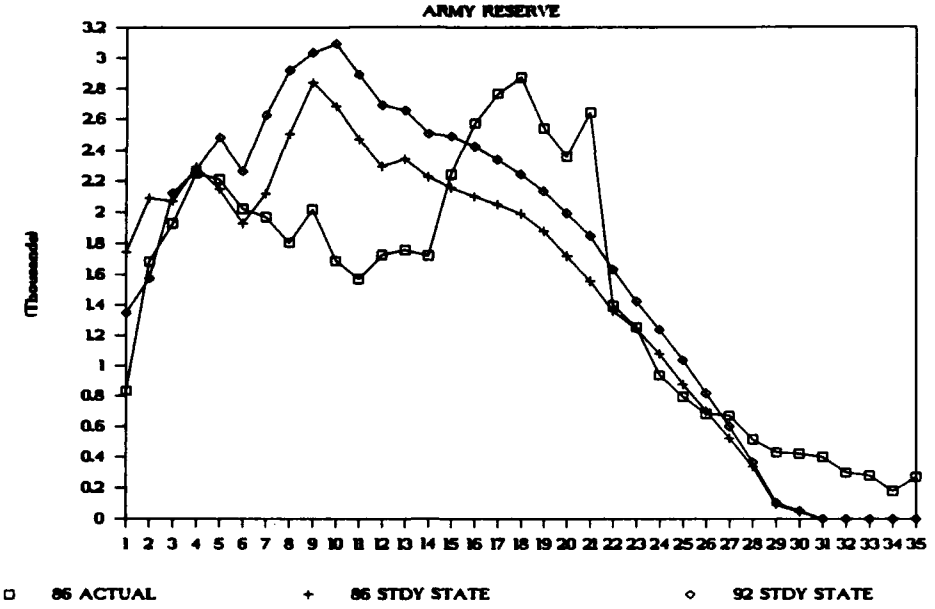
TOTAL MEDICAL BY YOS

ARMY RESERVE

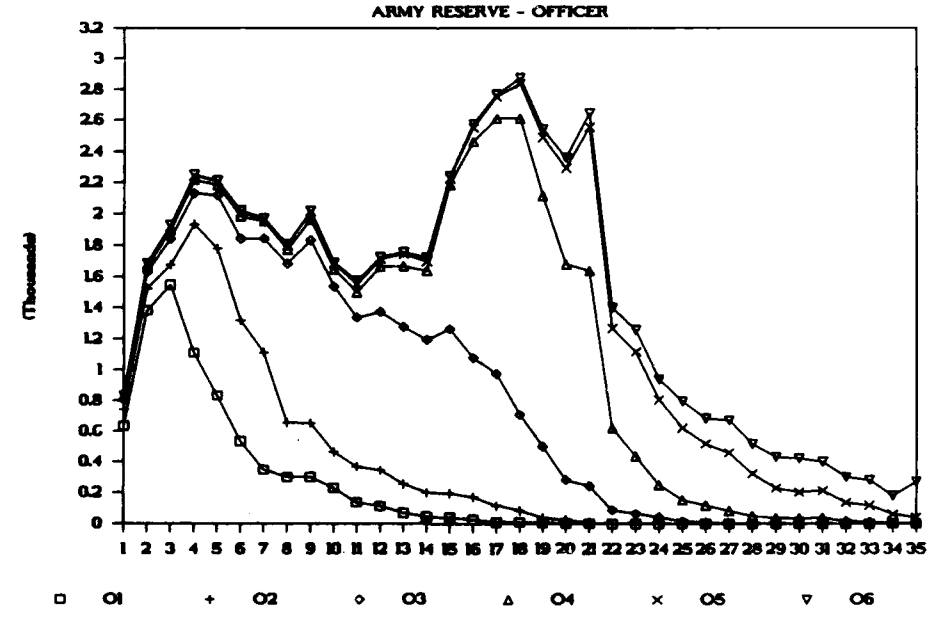


□ 86 ACTUAL + 86 STDY STATE ◇ 92 STDY STATE

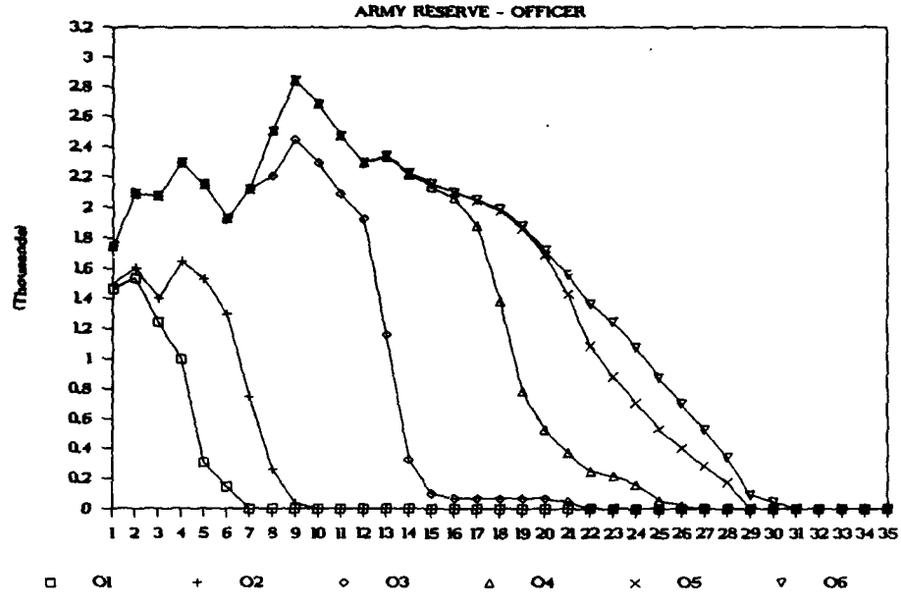
TOTAL SELRES OFFICERS BY YOS



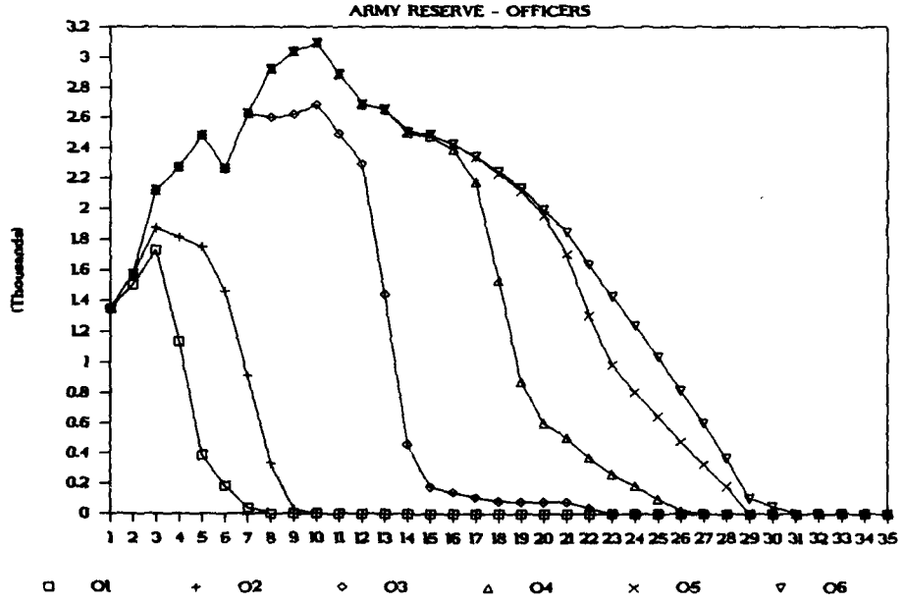
TOTAL SELRES BY YOS 86 ACTUAL



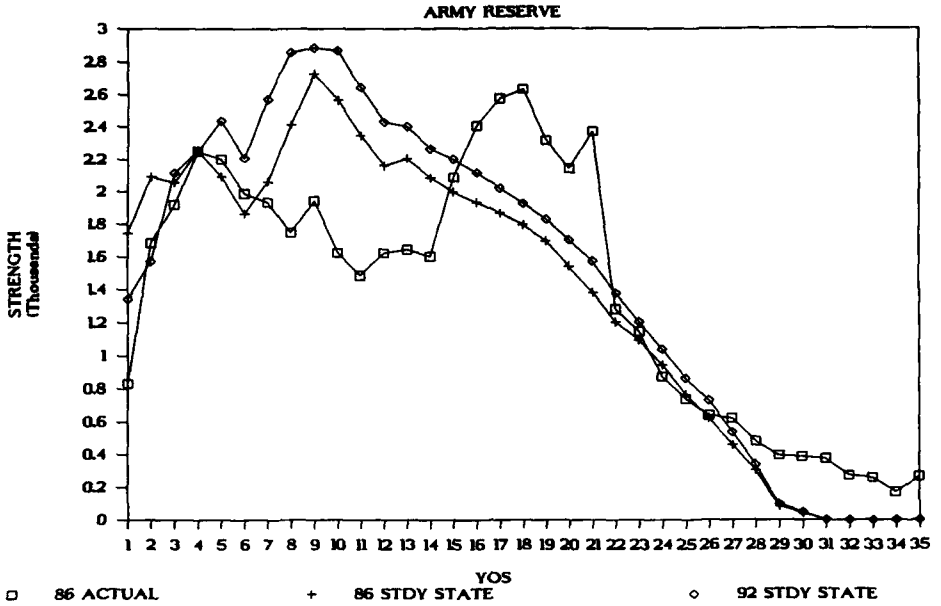
TOTAL SELRES BY YOS 86 STEADY STATE



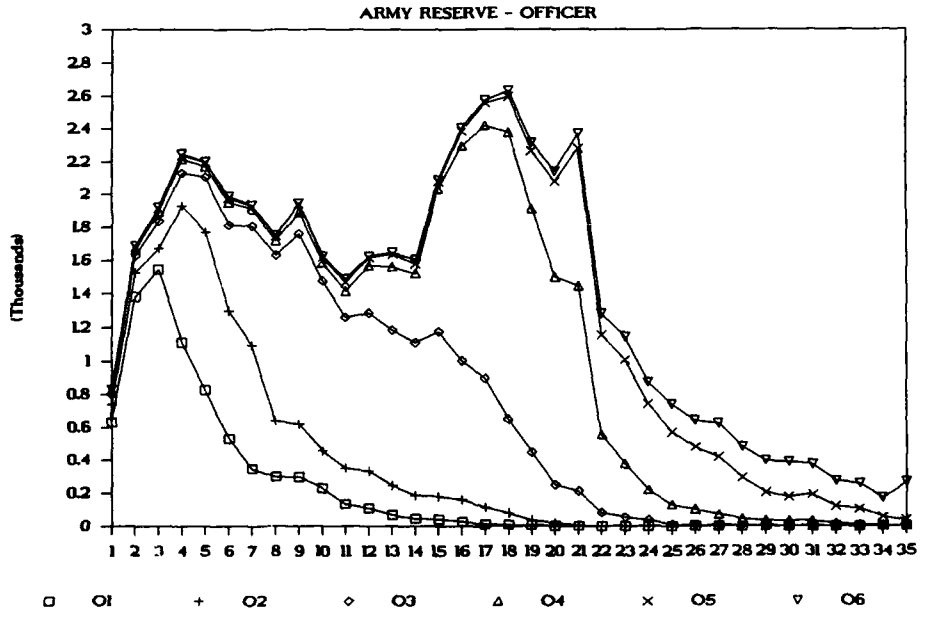
TOTAL SELRES BY YOS 92 STEADY STATE



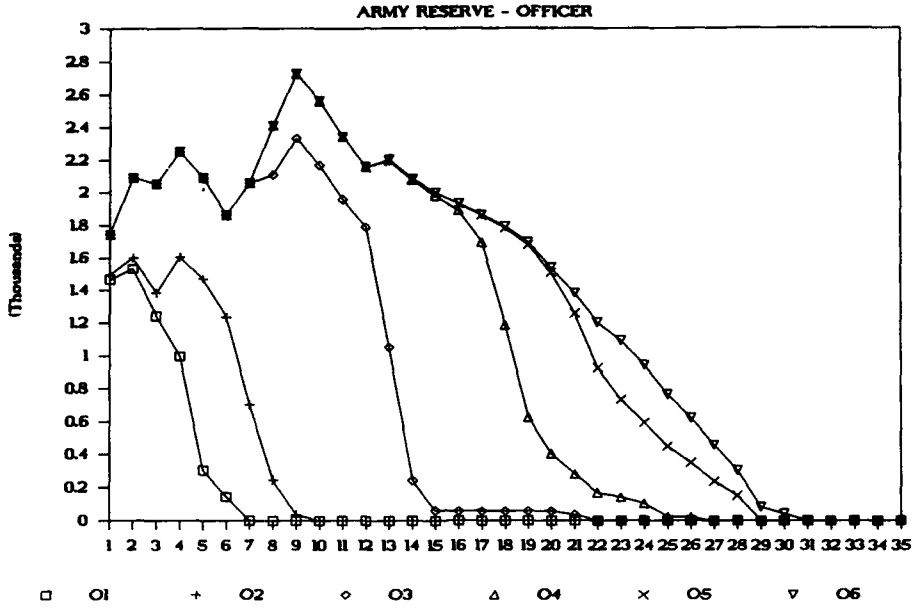
TOTAL PART-TIME OFFICERS BY YOS



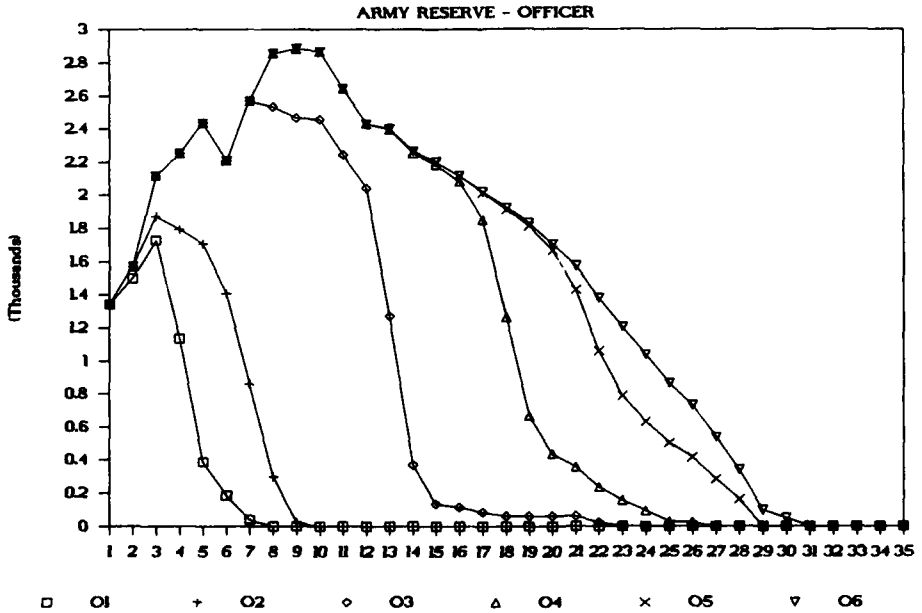
TOTAL PART-TIME BY YOS 86 ACTUAL



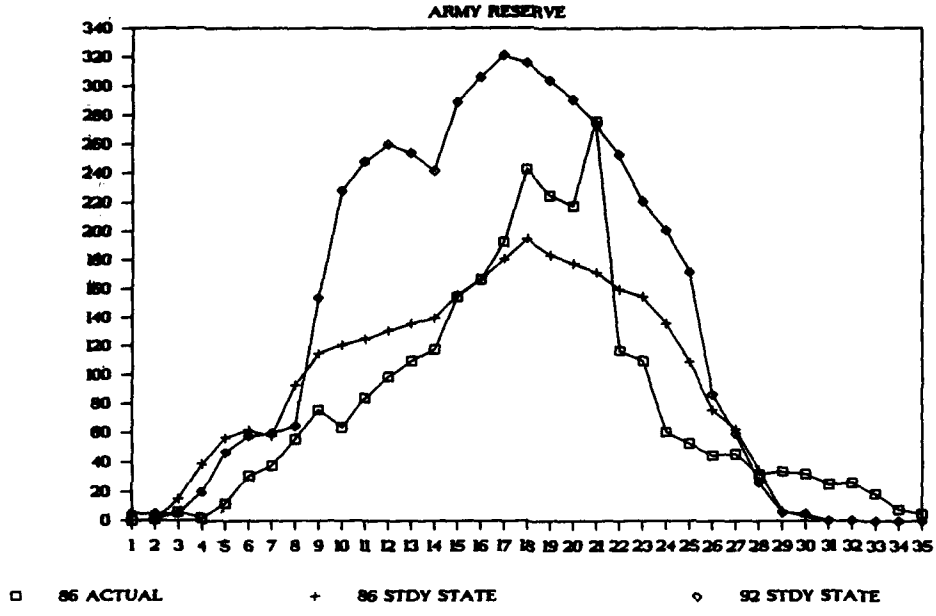
TOTAL PART-TIME BY YOS 86 STEADY STATE



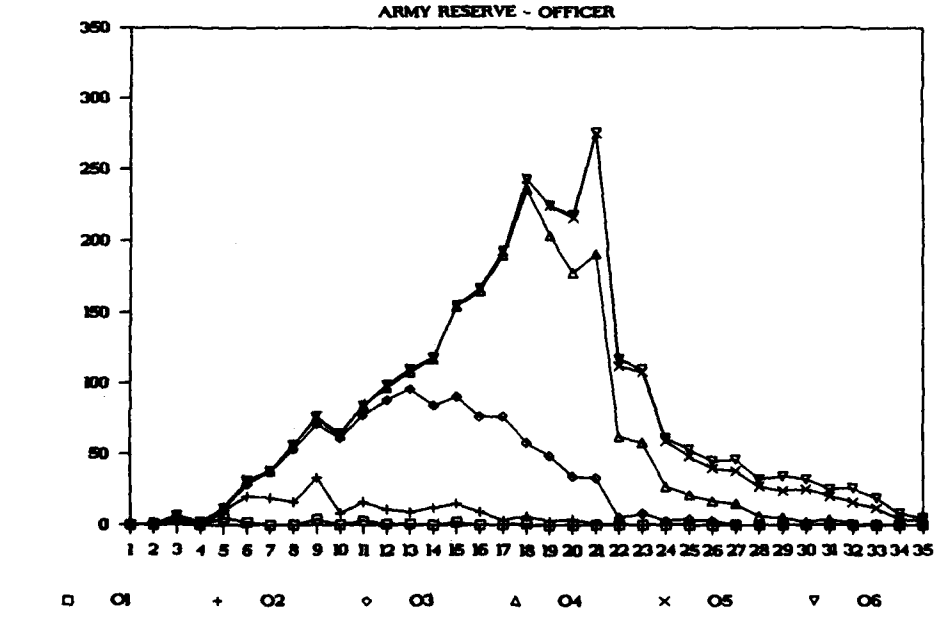
TOTAL PART-TIME BY YOS 92 STEADY STATE



TOTAL AGR OFFICERS BY YOS

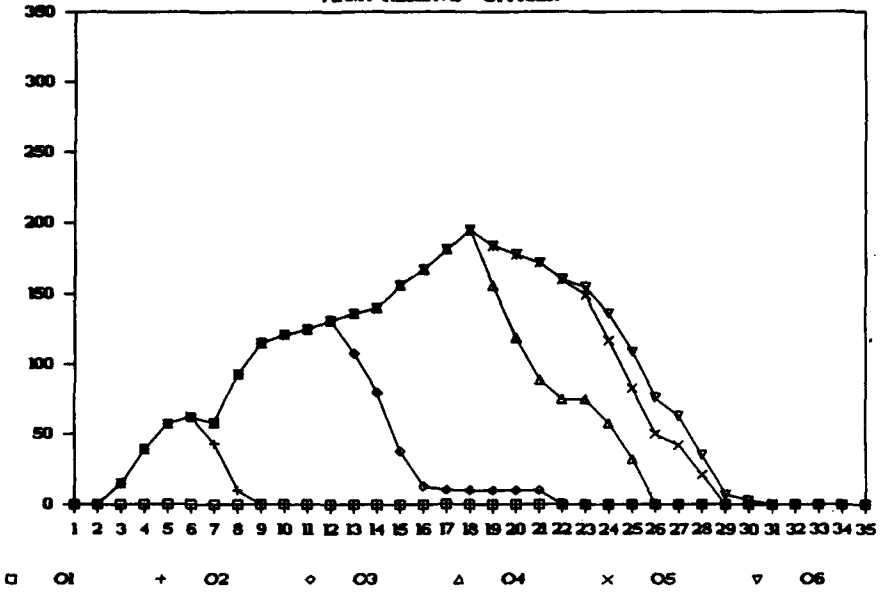


TOTAL AGR BY YOS 86 ACTUAL



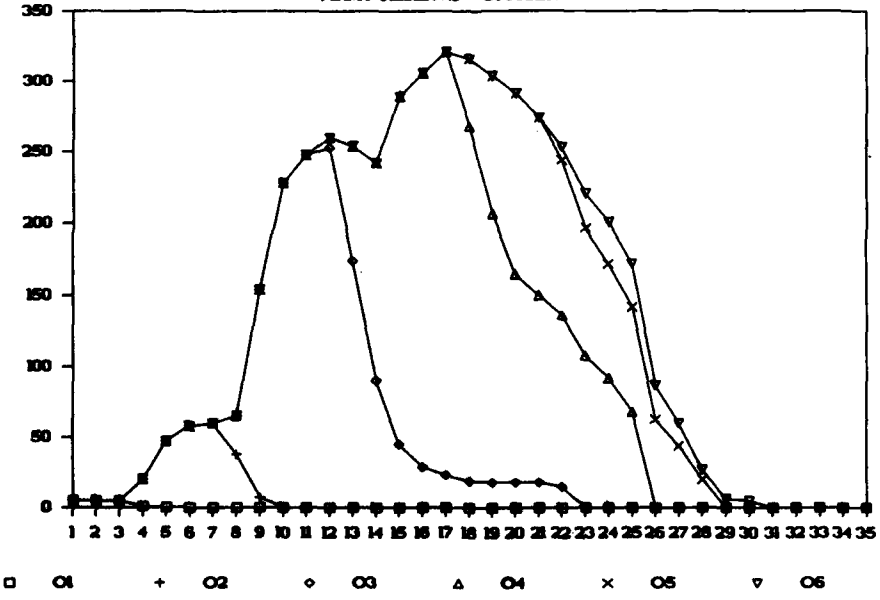
TOTAL AGR BY YOS 86 STEADY STATE

ARMY RESERVE - OFFICER

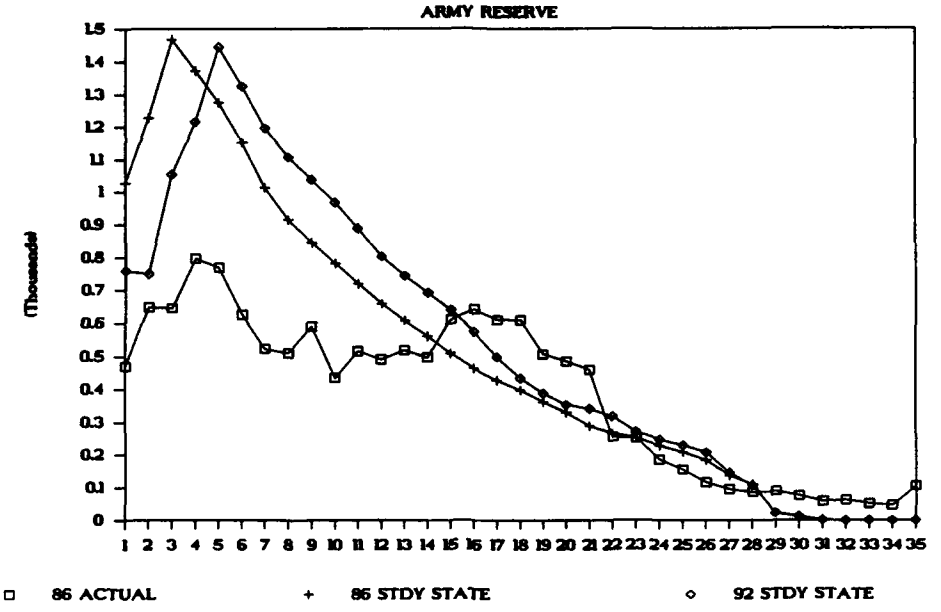


TOTAL AGR BY YOS 92 STEADY STATE

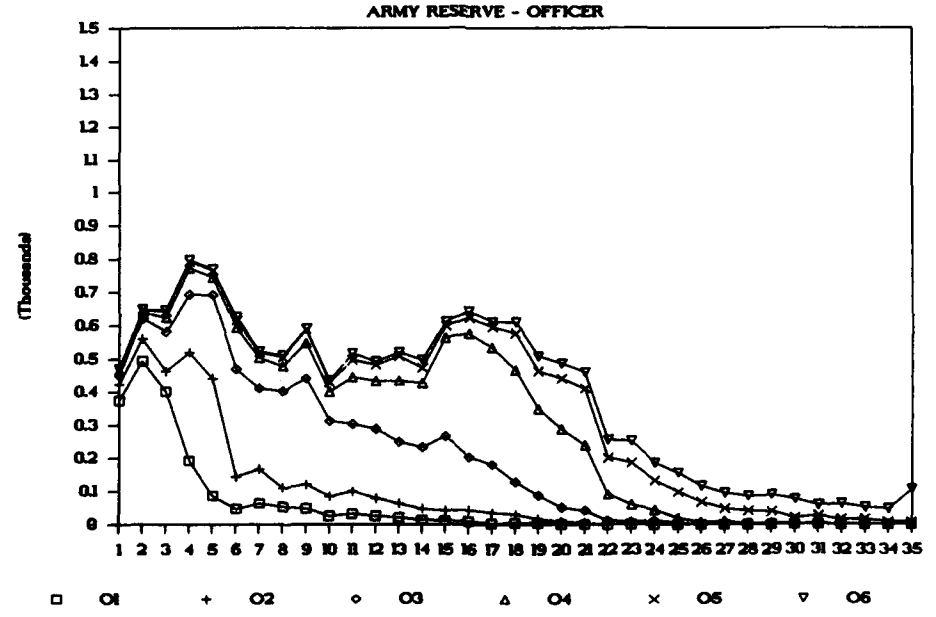
ARMY RESERVE - OFFICER



TOTAL MEDICAL OFFICERS BY YOS

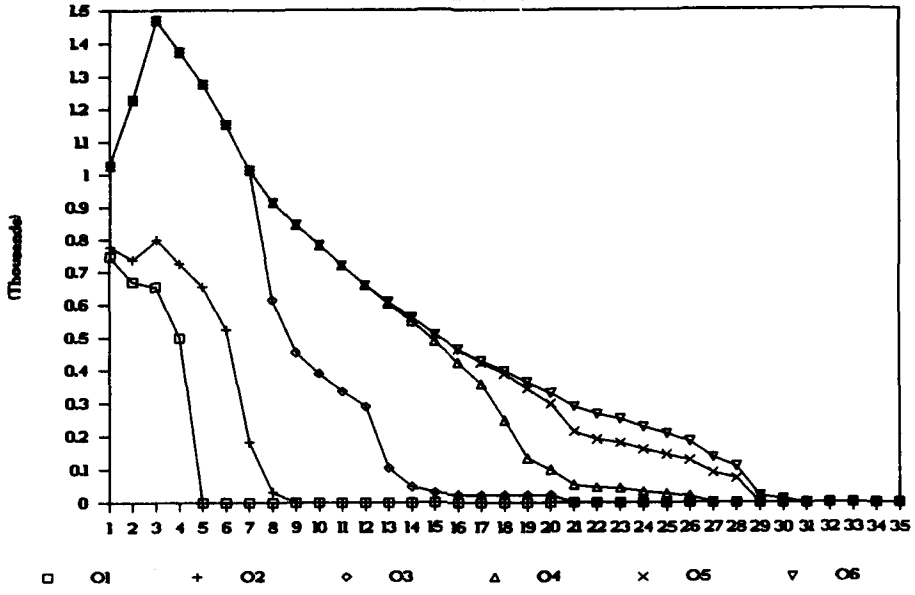


TOTAL MEDICAL BY YOS 86 ACTUAL



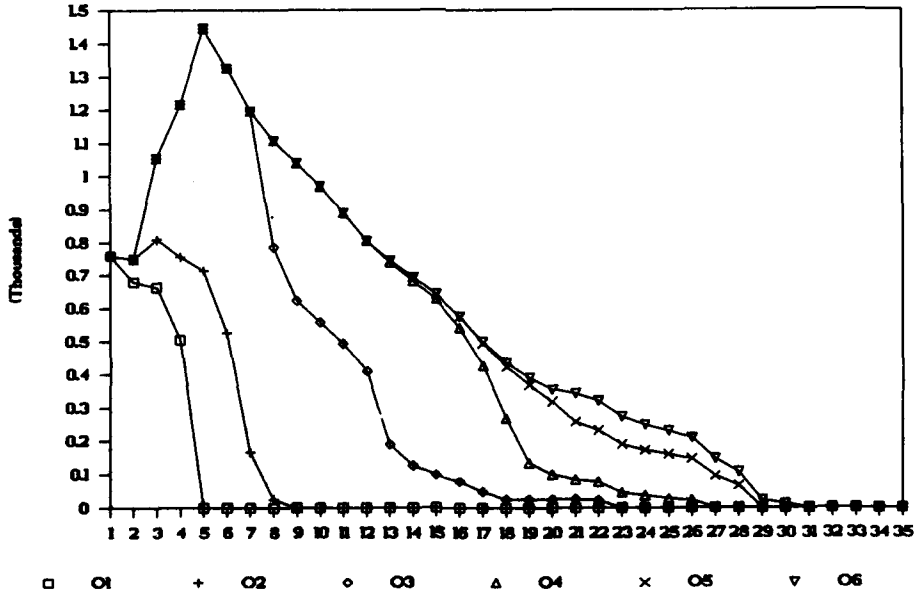
TOTAL MEDICAL BY YOS 86 STEADY STATE

ARMY RESERVE - OFFICER

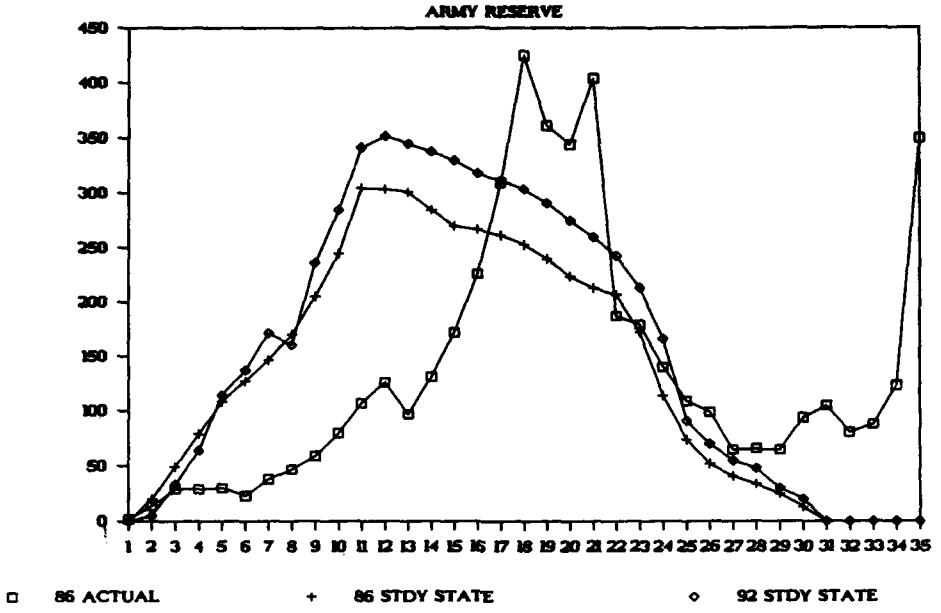


TOTAL MEDICAL BY YOS 92 STEADY STATE

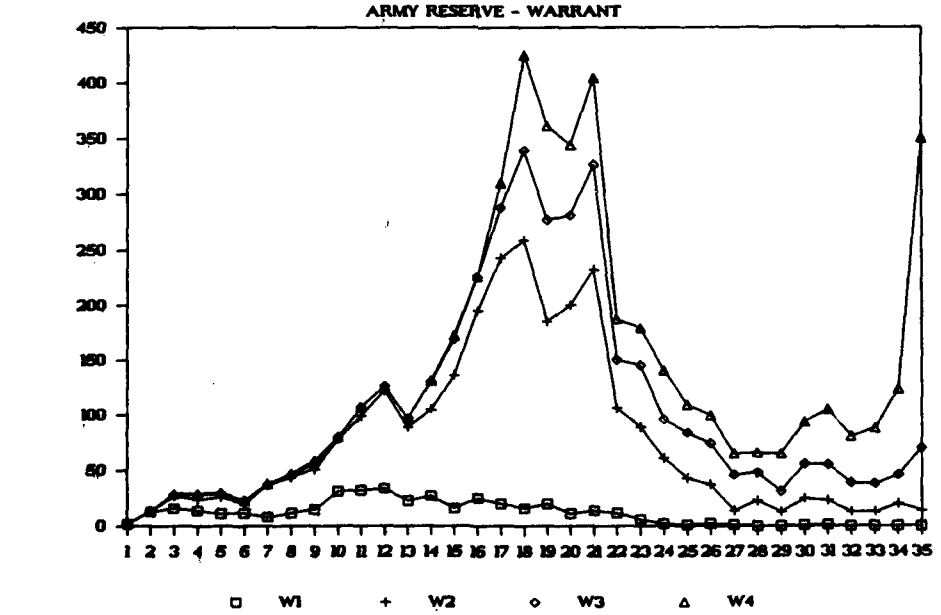
ARMY RESERVE - OFFICER



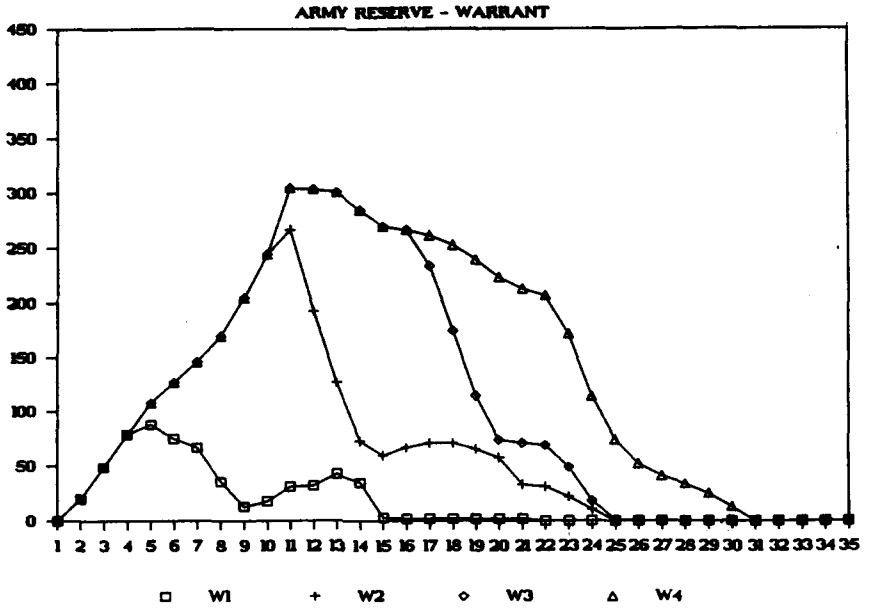
TOTAL SELRES WARRANT OFFICERS BY YOS



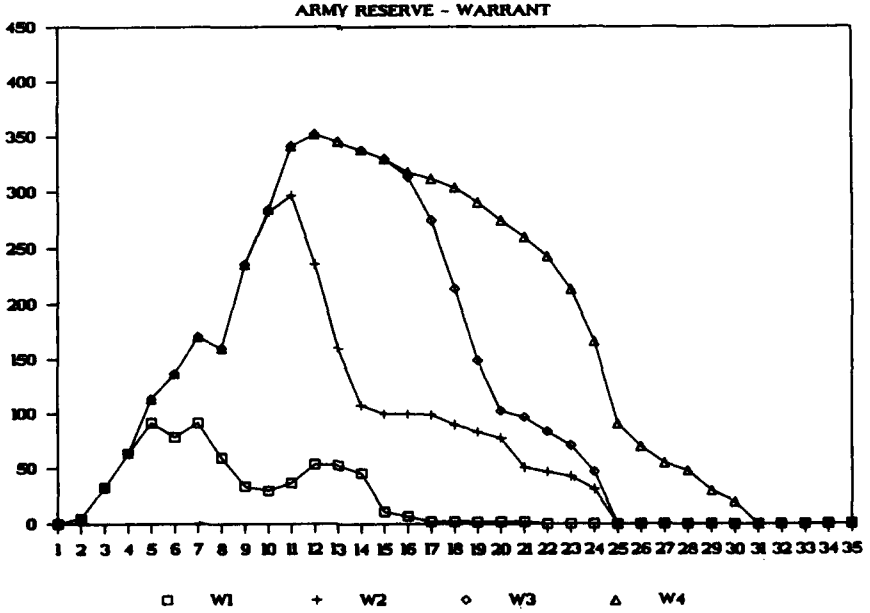
TOTAL SELRES BY YOS 86 ACTUAL



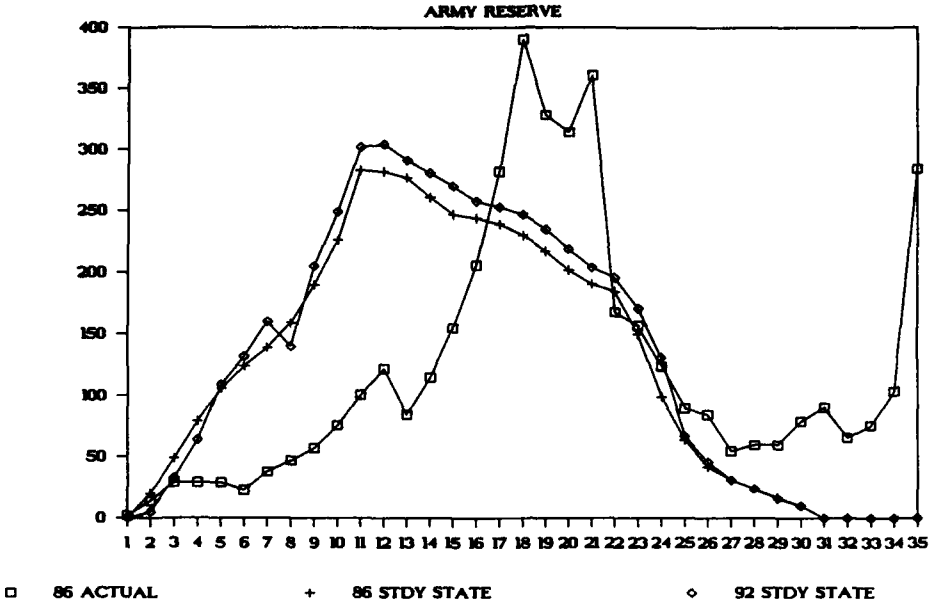
TOTAL SELRES BY YOS 86 STEADY STATE



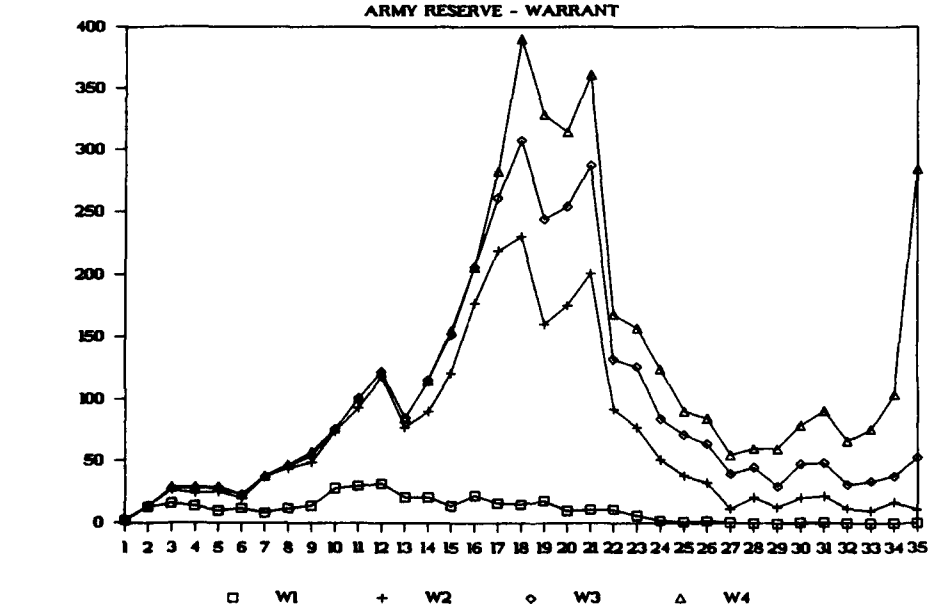
TOTAL SELRES BY YOS 92 STEADY STATE



TOTAL PART-TIME WARRANT OFFICERS BY YOS

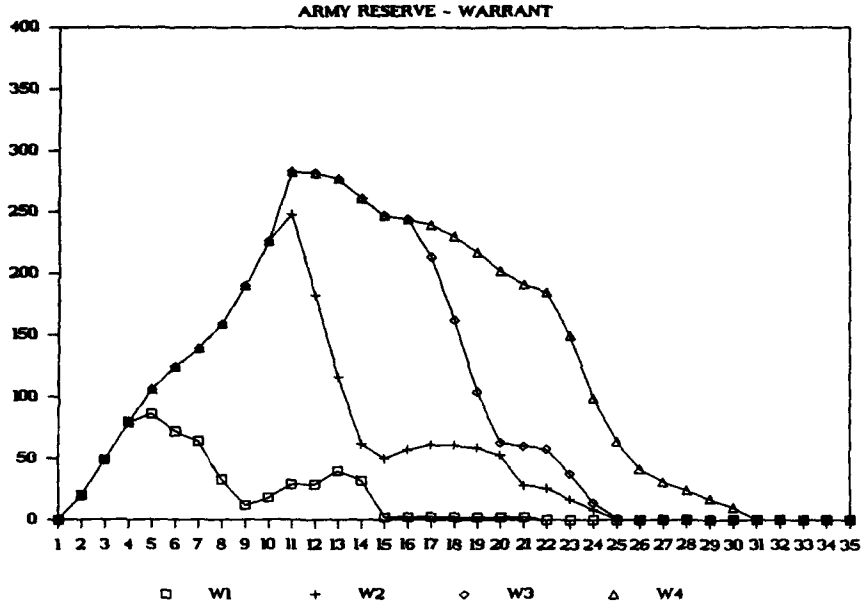


TOTAL PART-TIME BY YOS 86 ACTUAL



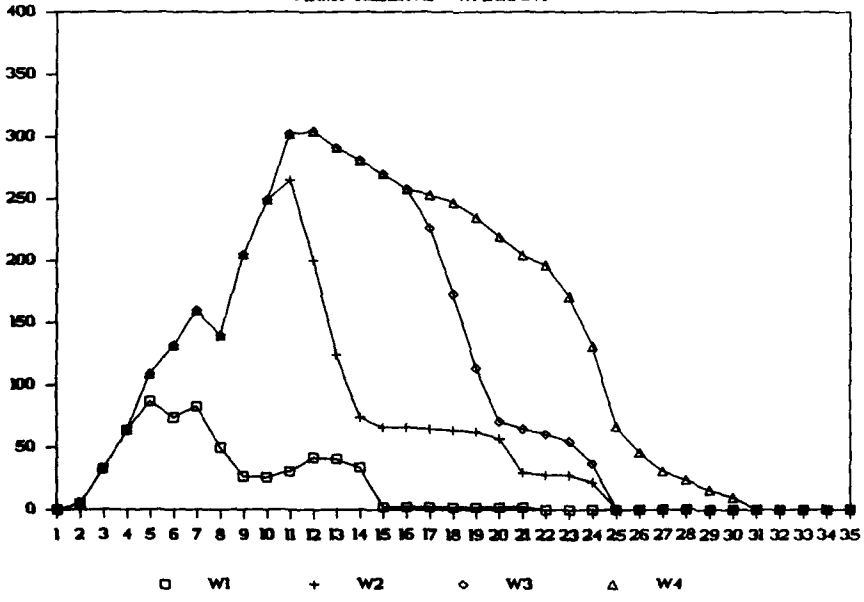
TOTAL PART-TIME BY YOS 86 STEADY STATE

ARMY RESERVE - WARRANT



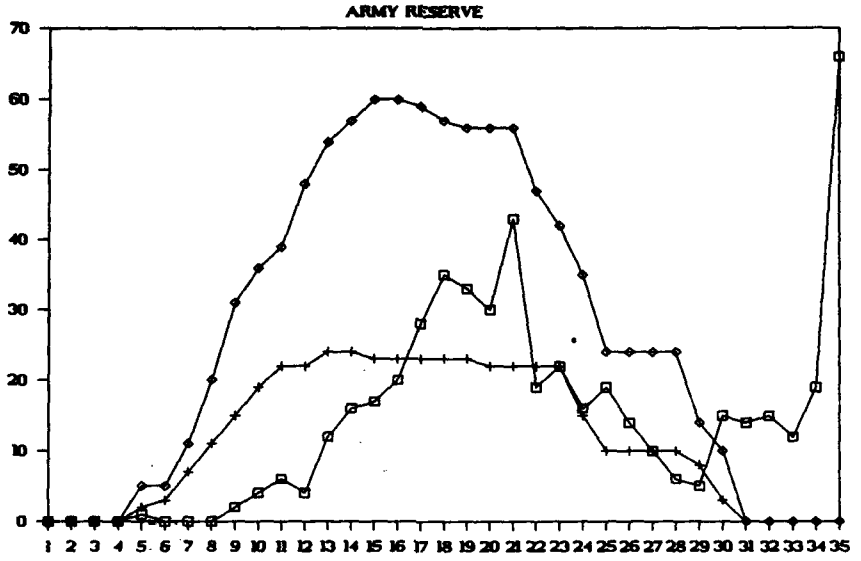
TOTAL PART-TIME BY YOS 92 STEADY STATE

ARMY RESERVE - WARRANT



TOTAL AGR WARRANT OFFICERS BY YOS

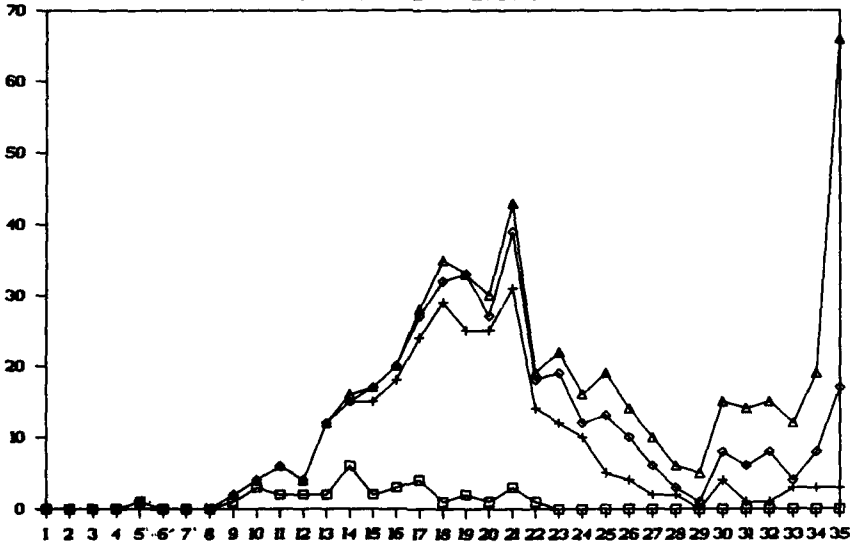
ARMY RESERVE



□ 86 ACTUAL + 86 STDY STATE ◇ 92 STDY STATE

TOTAL AGR BY YOS 86 ACTUAL

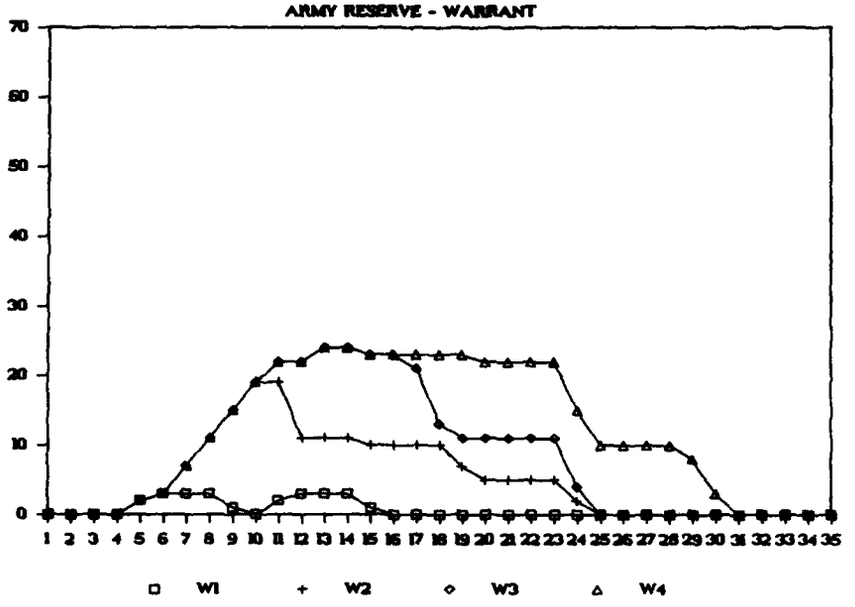
ARMY RESERVE - WARRANT



□ W1 + W2 ◇ W3 △ W4

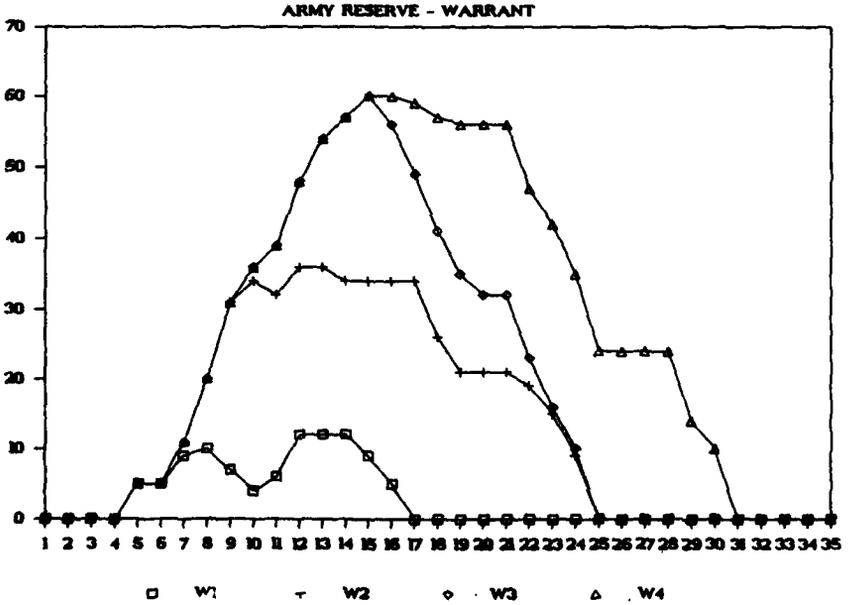
TOTAL AGR BY YOS 86 STEADY STATE

ARMY RESERVE - WARRANT

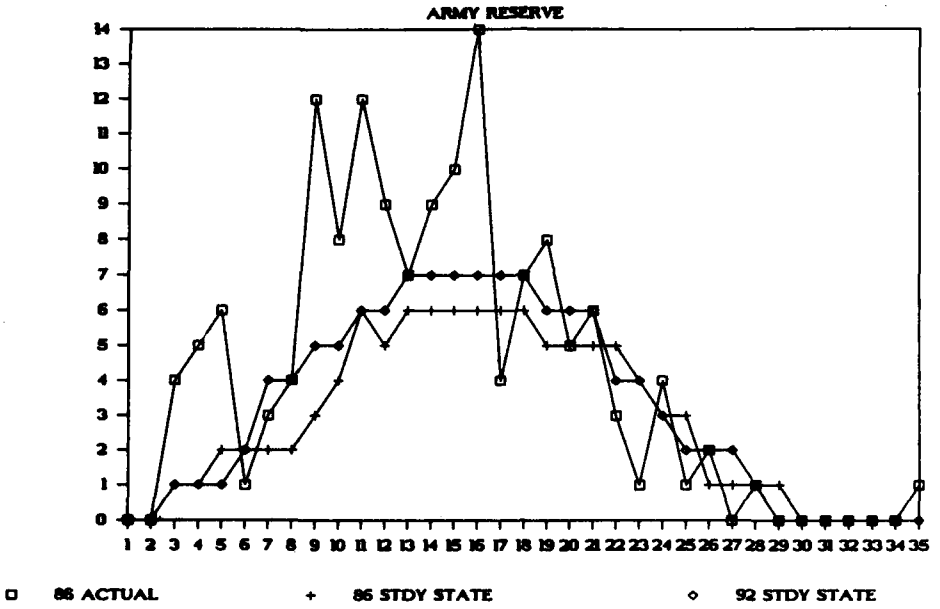


TOTAL AGR BY YOS 92 STEADY STATE

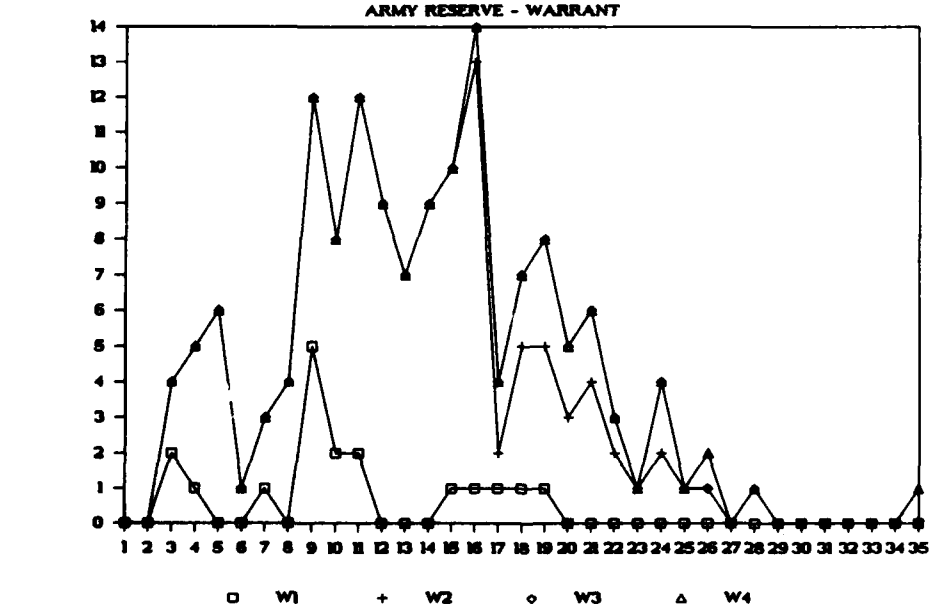
ARMY RESERVE - WARRANT



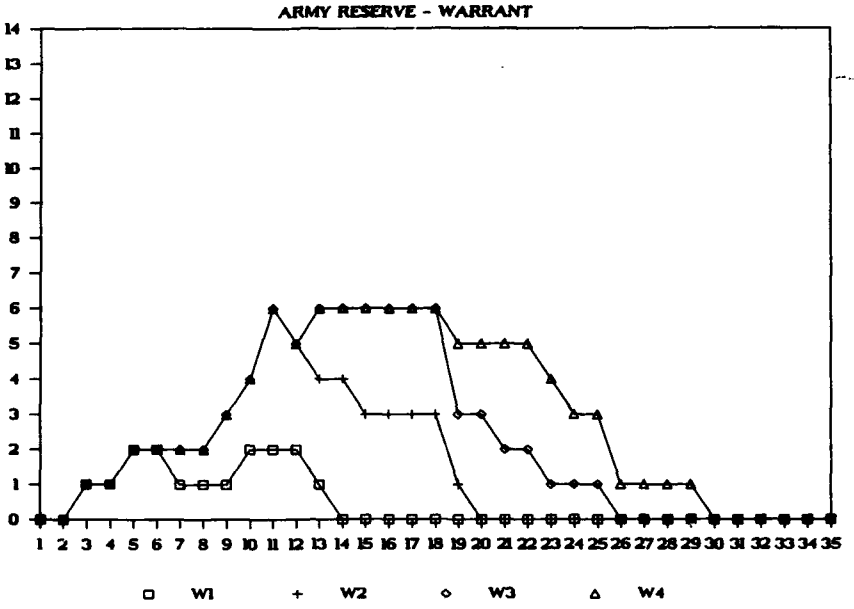
TOTAL MEDICAL WARRANT OFFICERS BY YOS



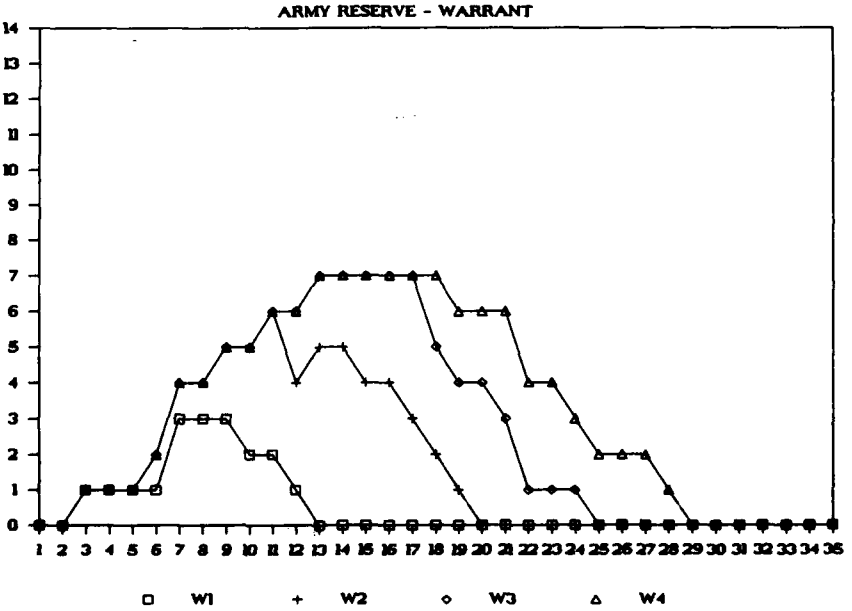
TOTAL MEDICAL BY YOS 86 ACTUAL



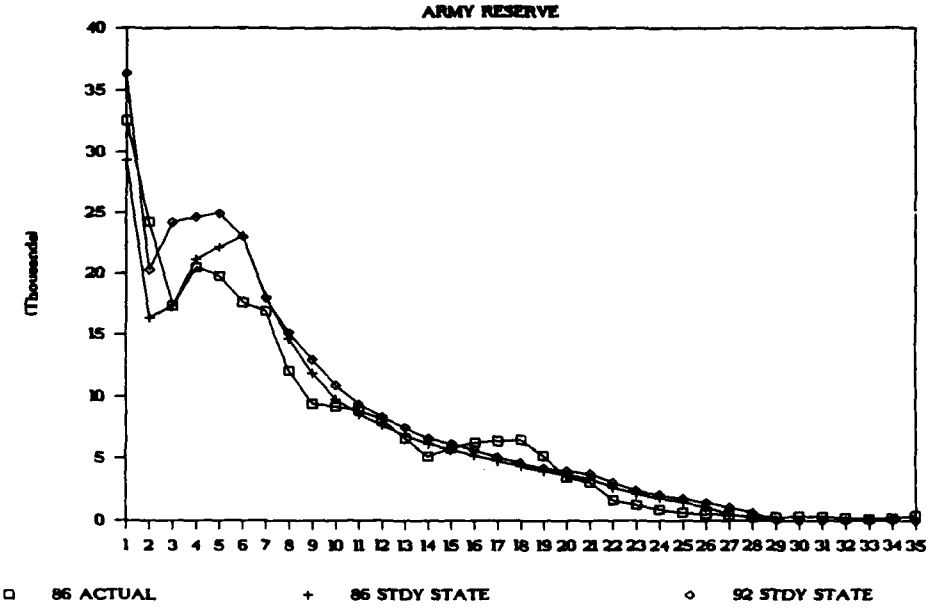
TOTAL MEDICAL BY YOS 86 STEADY STATE



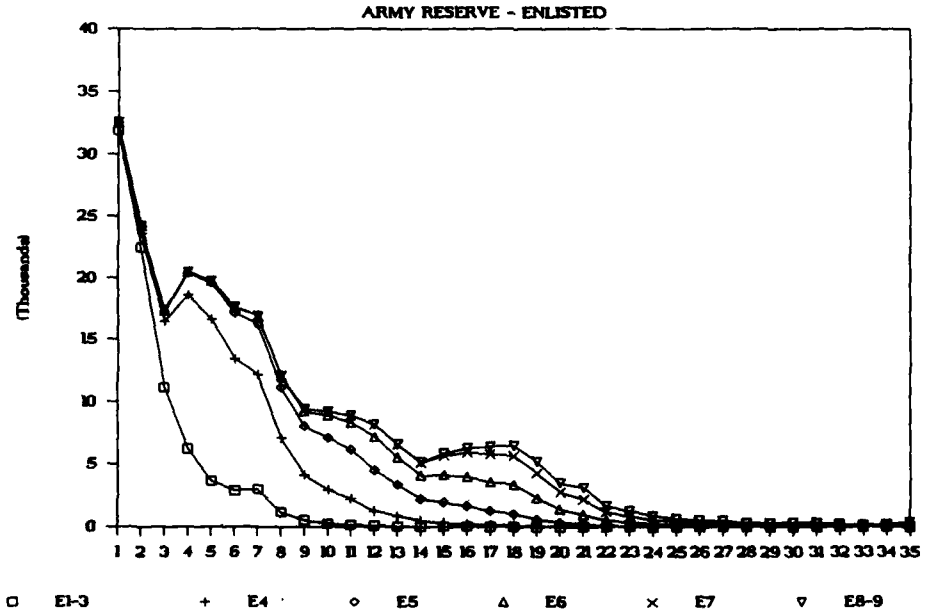
TOTAL MEDICAL BY YOS 92 STEADY STATE



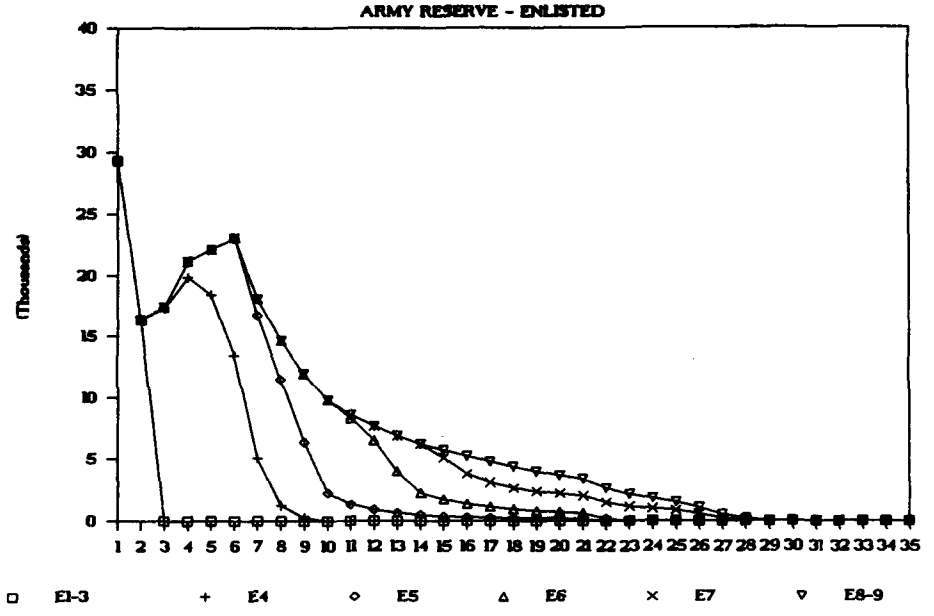
TOTAL SELRES ENLISTED BY YOS



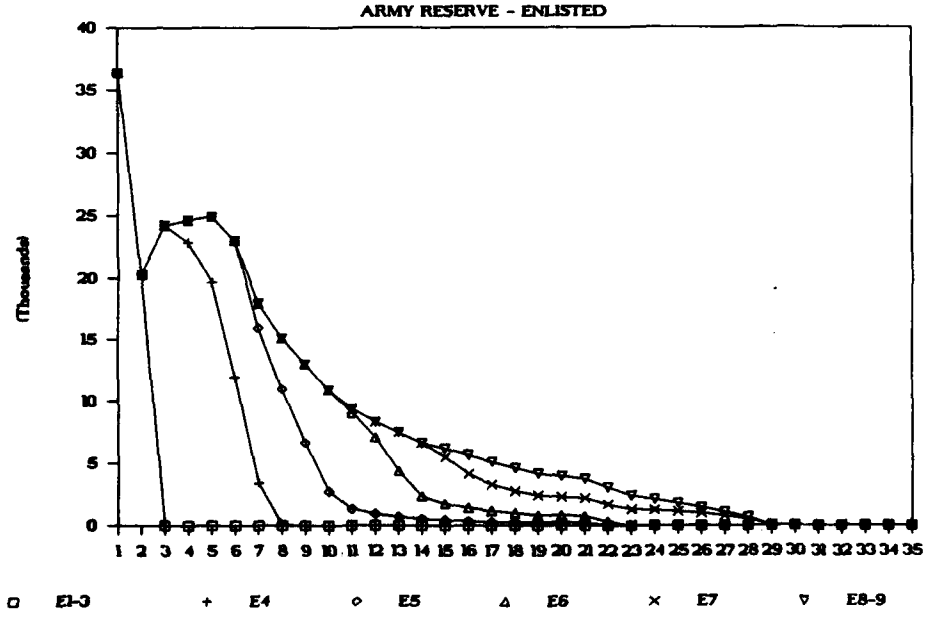
TOTAL SELRES BY YOS 86 ACTUAL



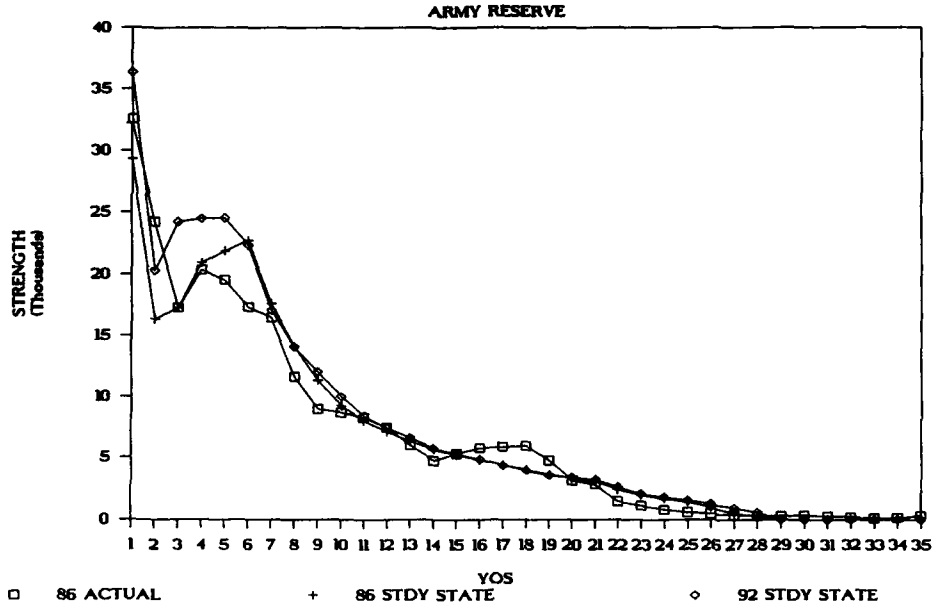
TOTAL SELRES BY YOS 86 STEADY STATE



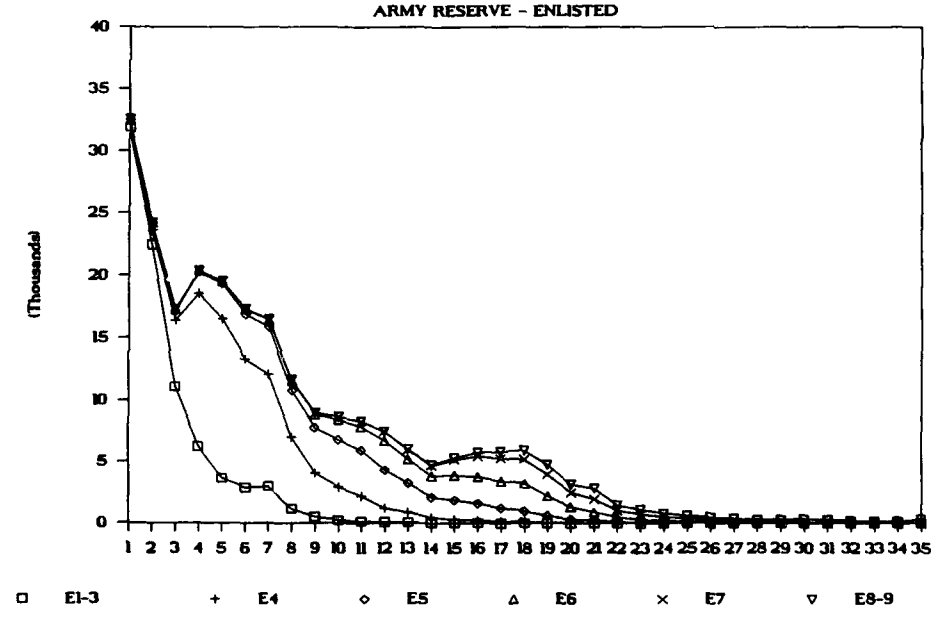
TOTAL SELRES BY YOS 92 STEADY STATE



TOTAL PART-TIME ENLISTED BY YOS

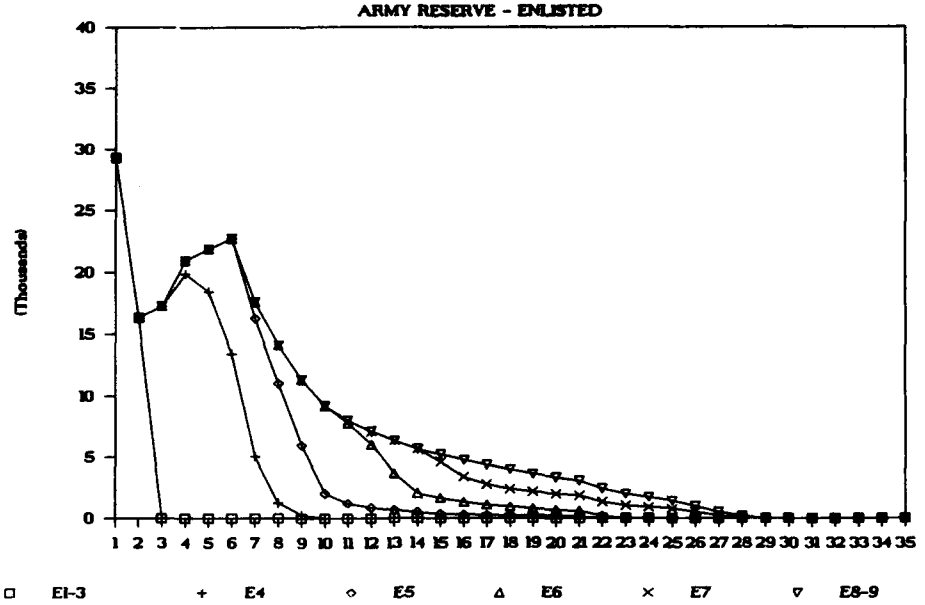


TOTAL PART-TIME BY YOS 86 ACTUAL



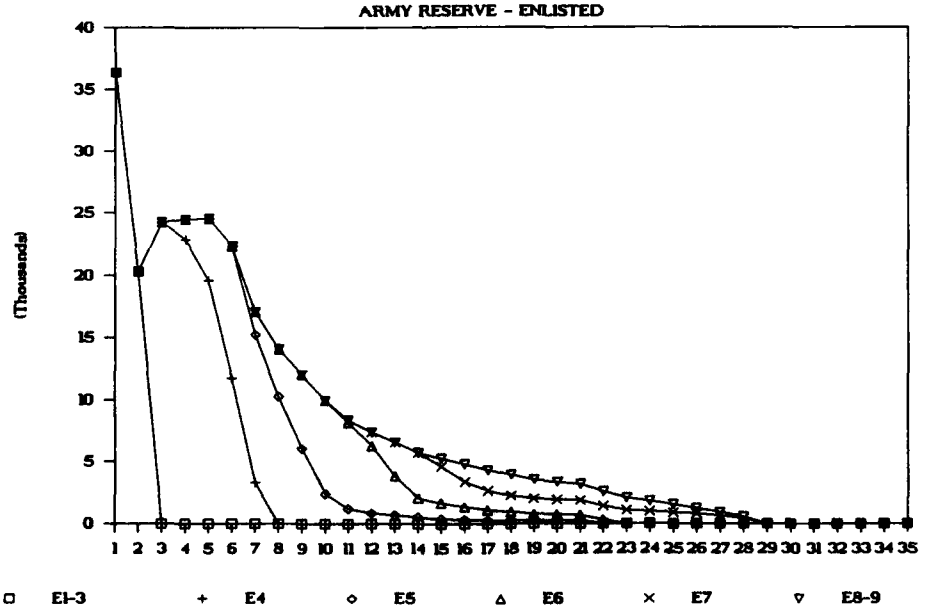
TOTAL PART-TIME BY YOS 86 STEADY STATE

ARMY RESERVE - ENLISTED

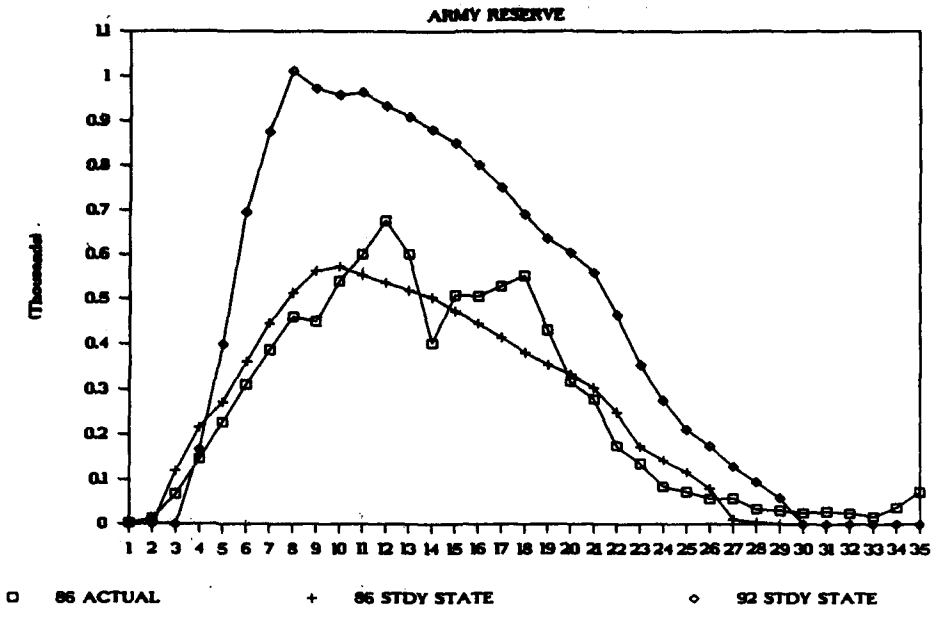


TOTAL PART-TIME BY YOS 92 STEADY STATE

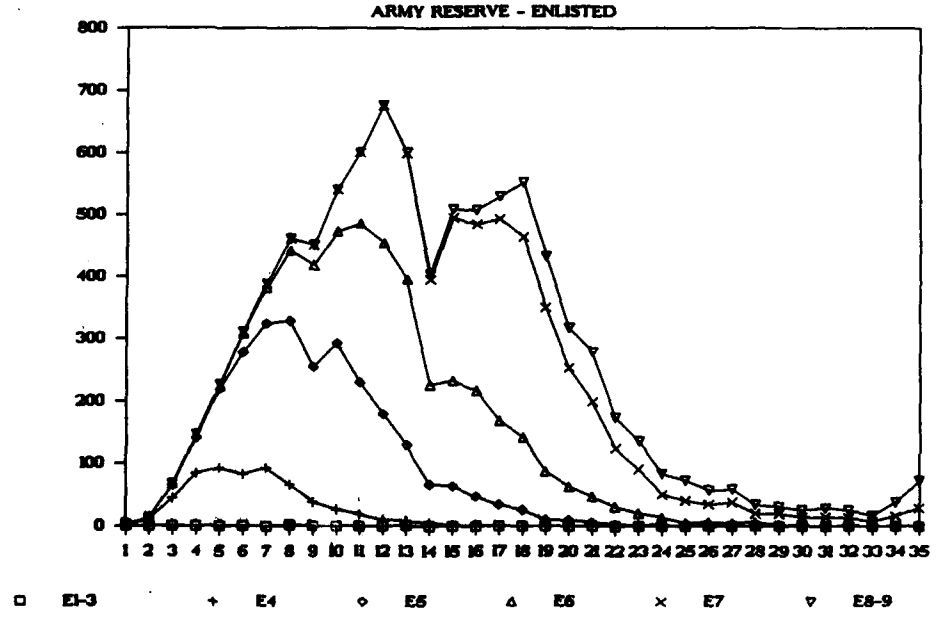
ARMY RESERVE - ENLISTED



TOTAL AGR ENLISTED BY YOS

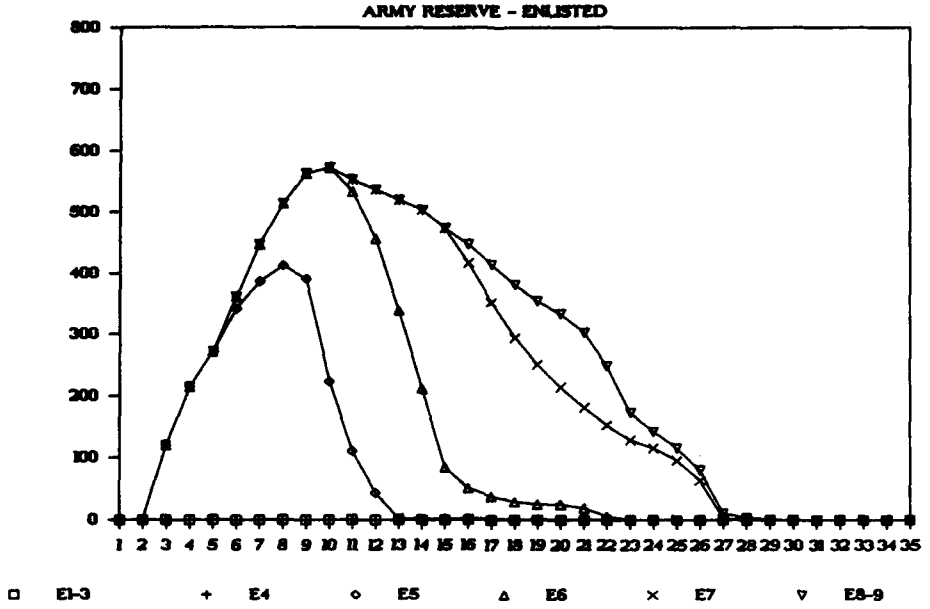


TOTAL AGR BY YOS 86 ACTUAL



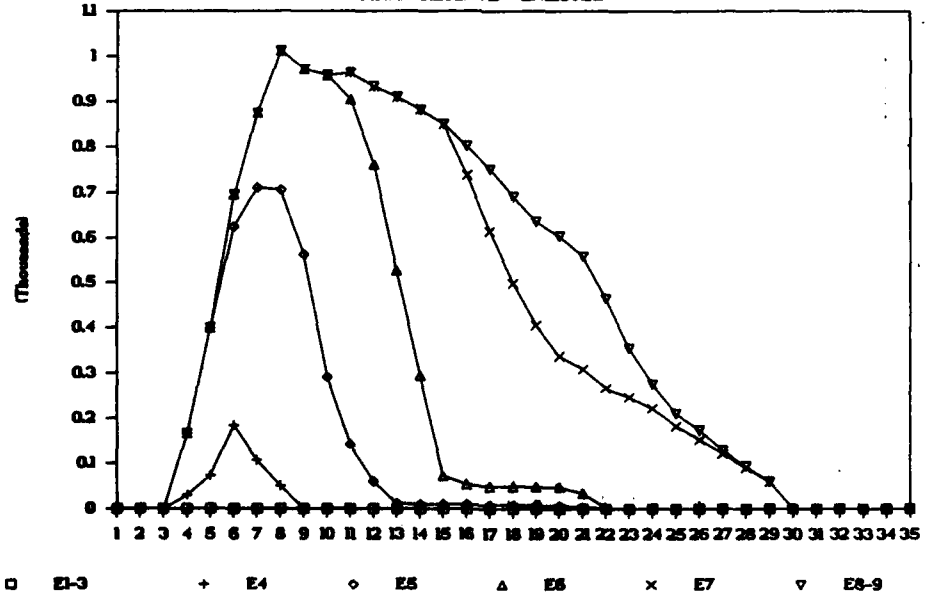
TOTAL AGR BY YOS 86 STEADY STATE

ARMY RESERVE - ENLISTED

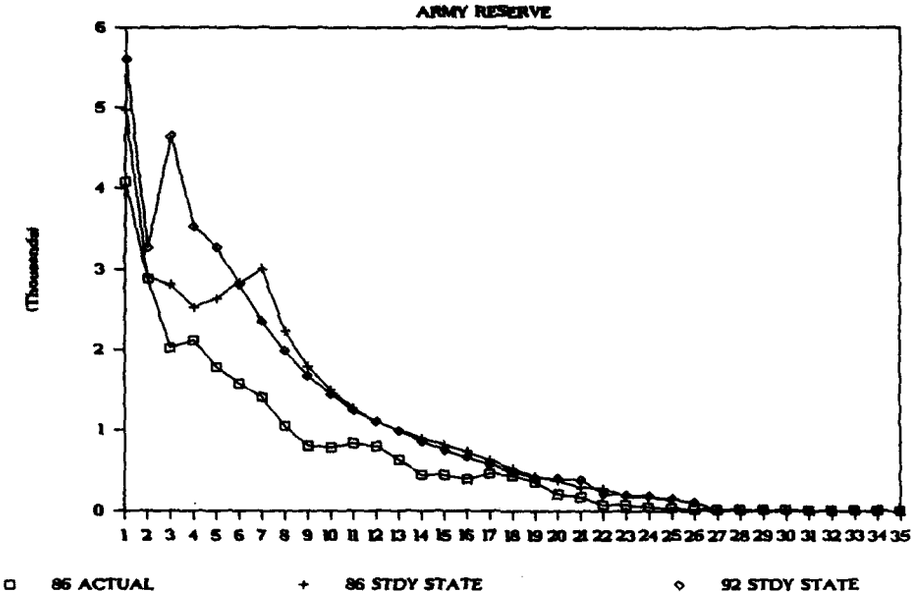


TOTAL AGR BY YOS 92 STEADY STATE

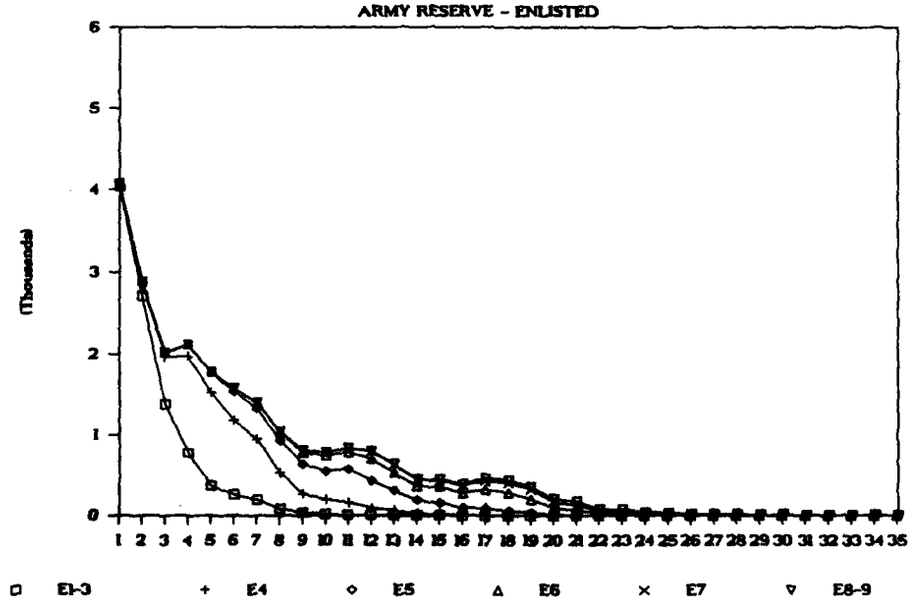
ARMY RESERVE - ENLISTED



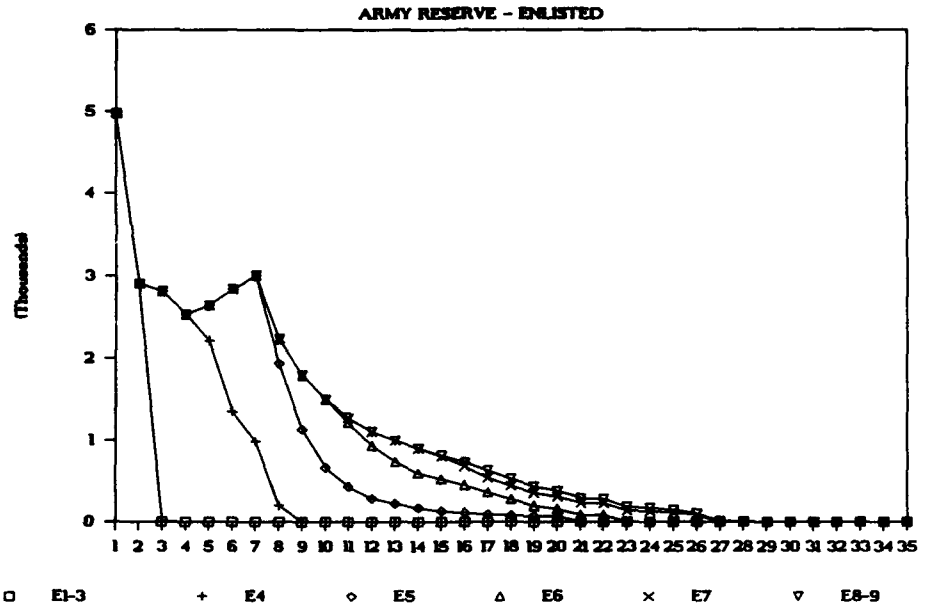
TOTAL MEDICAL ENLISTED BY YOS



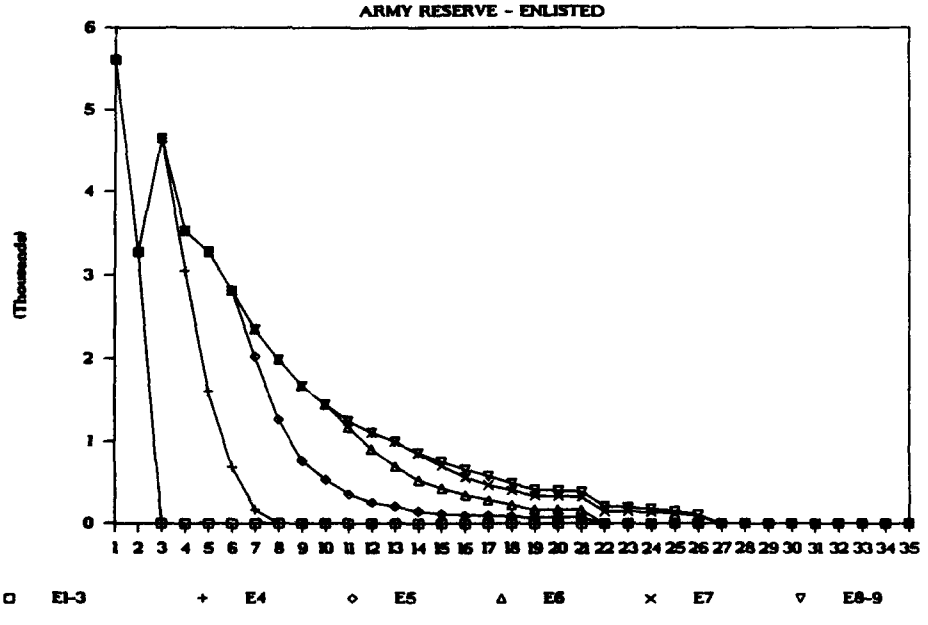
TOTAL MEDICAL BY YOS 86 ACTUAL



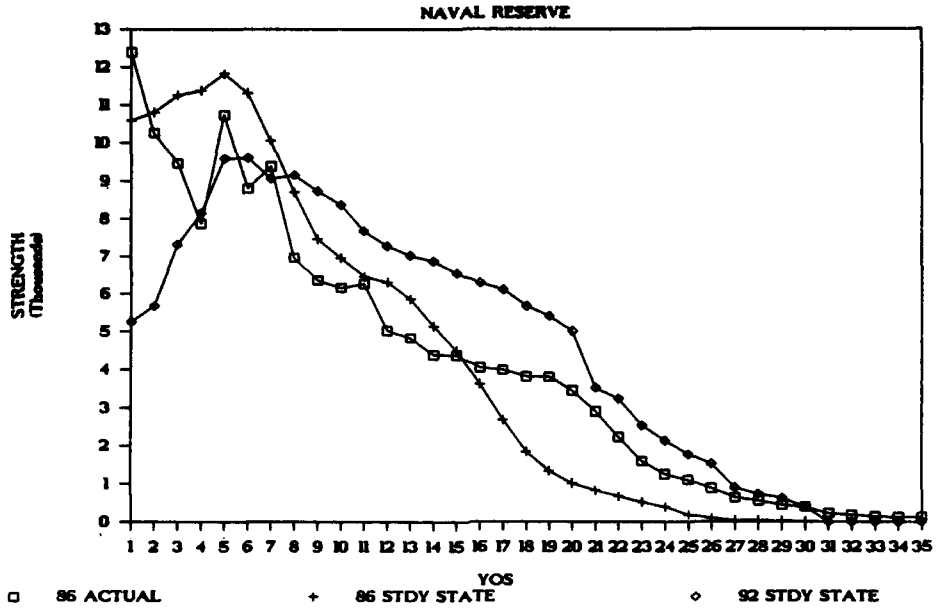
TOTAL MEDICAL BY YOS 86 STEADY STATE



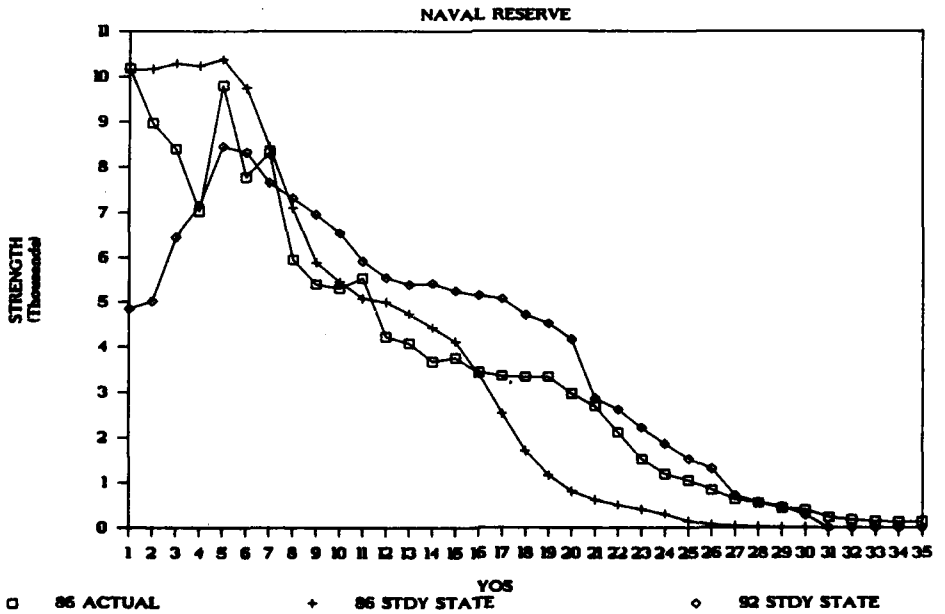
TOTAL MEDICAL BY YOS 92 STEADY STATE



TOTAL SELRES BY YOS

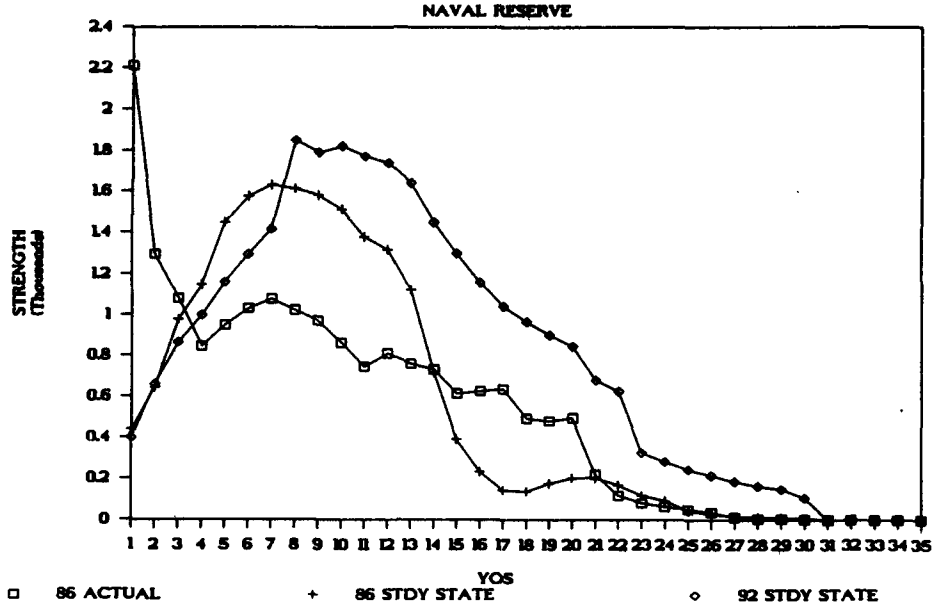


TOTAL PART-TIME BY YOS



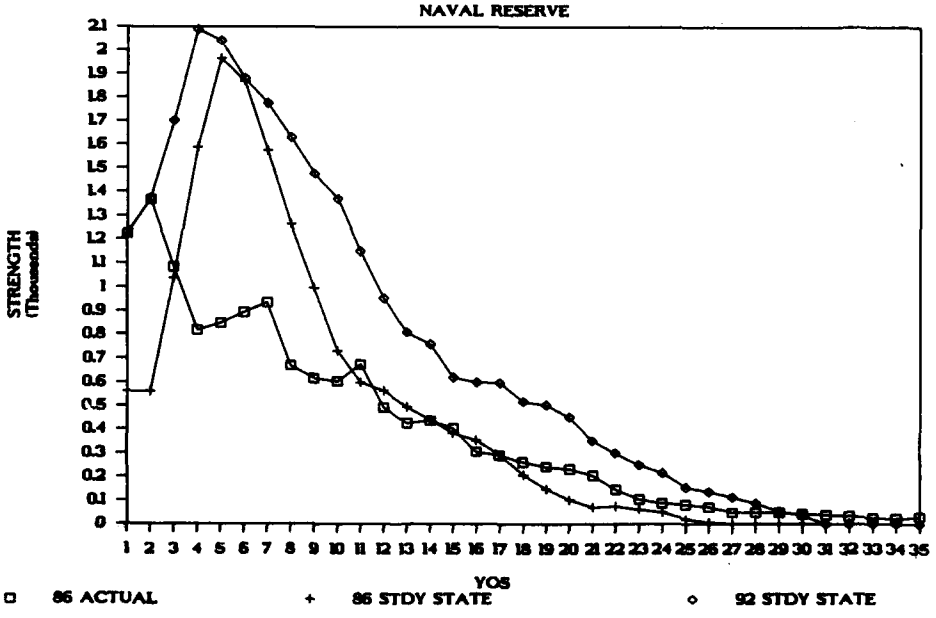
TOTAL TARs BY YOS

NAVAL RESERVE

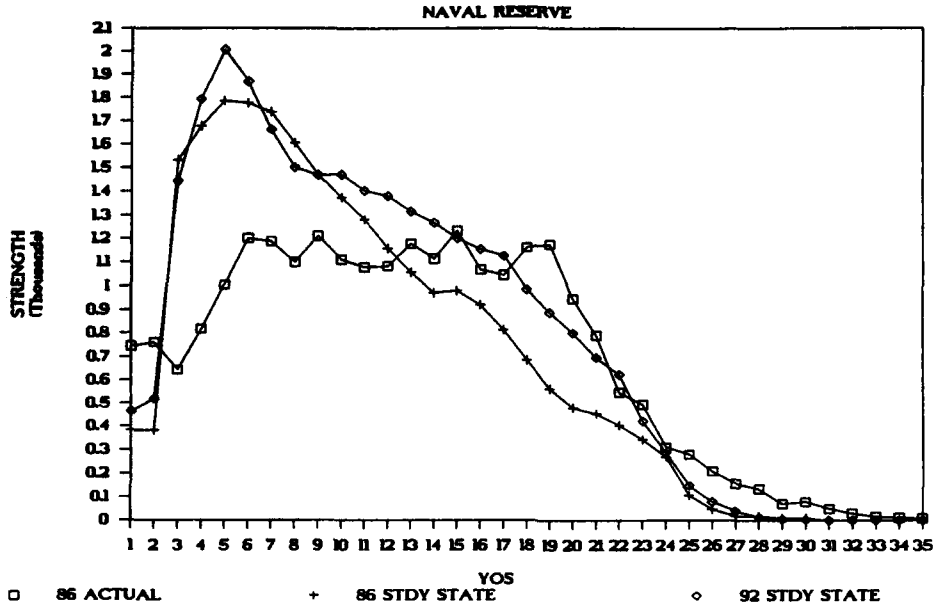


TOTAL MEDICAL BY YOS

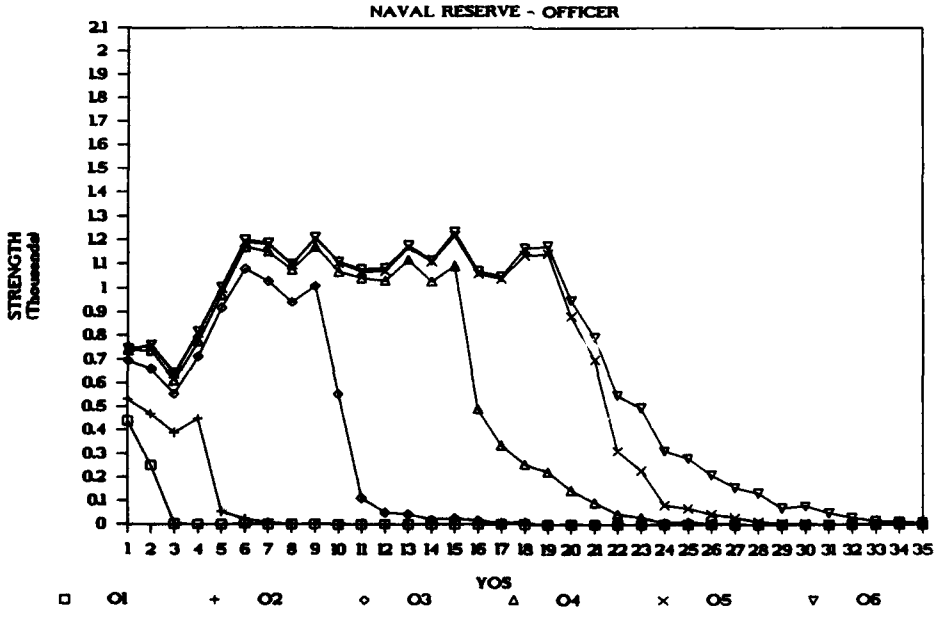
NAVAL RESERVE



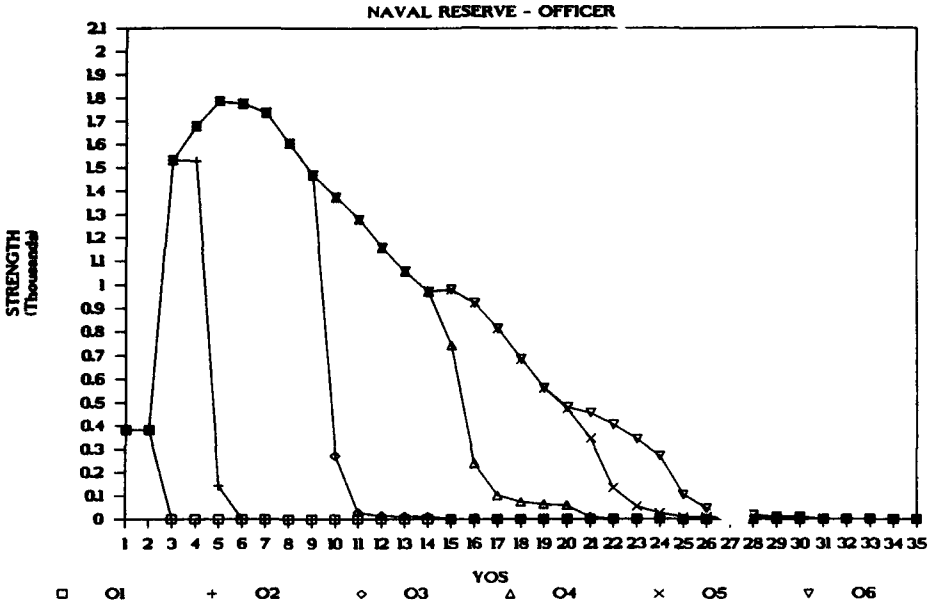
TOTAL SELRES OFFICERS BY YOS



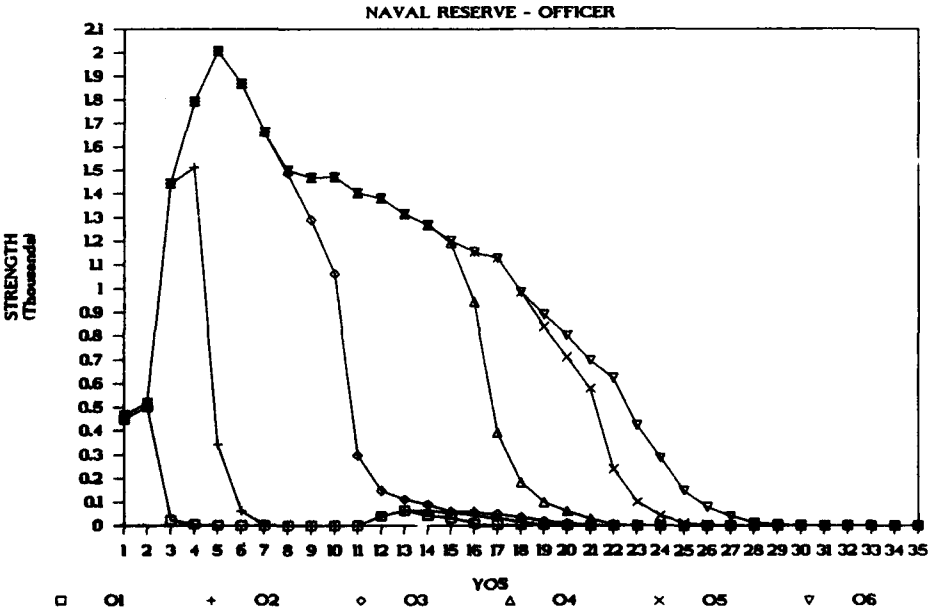
TOTAL SELRES BY YOS 86 ACTUAL



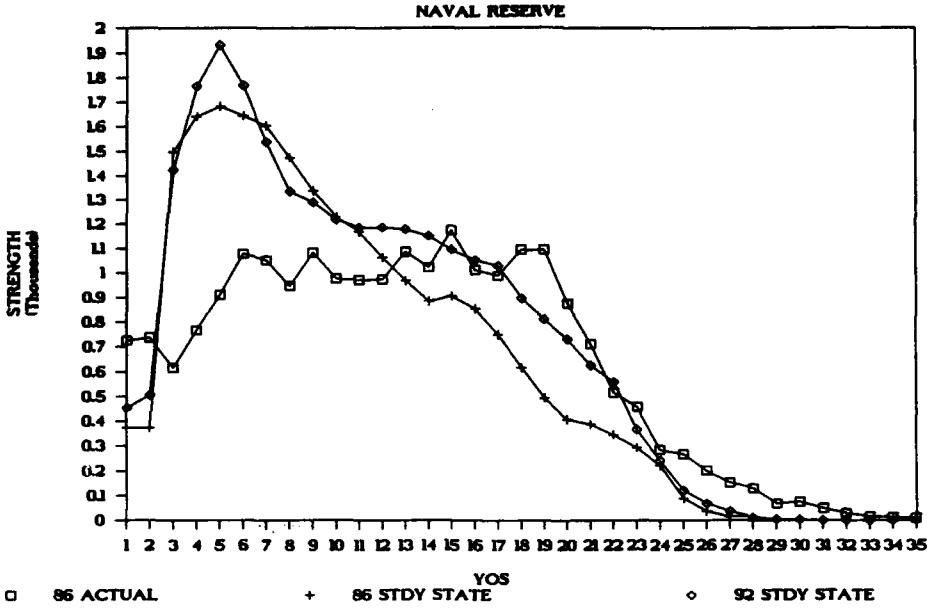
TOTAL SELRES BY YOS 86 STEADY STATE



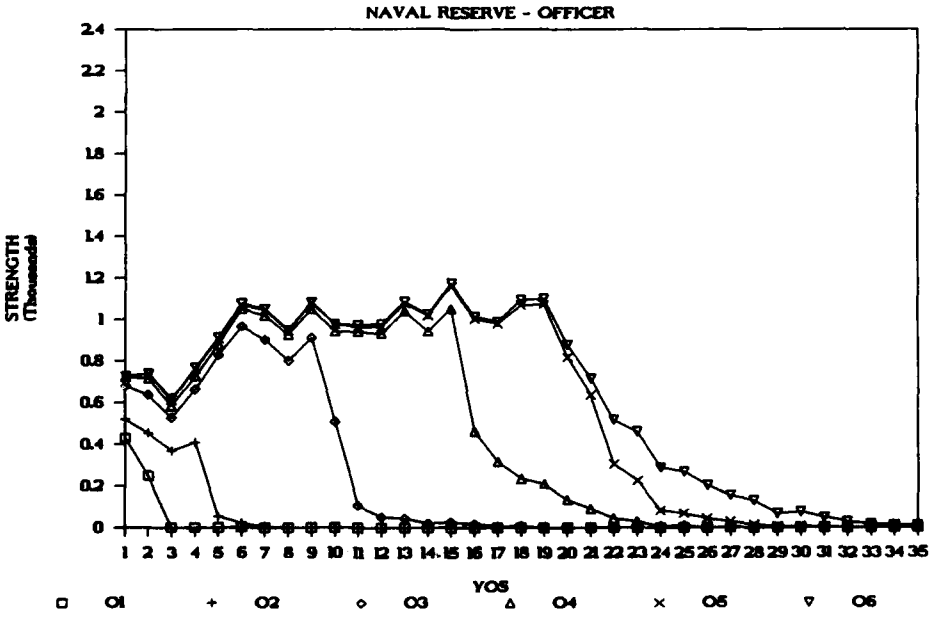
TOTAL SELRES BY YOS 92 STEADY STATE



TOTAL PART-TIME OFFICERS BY YOS

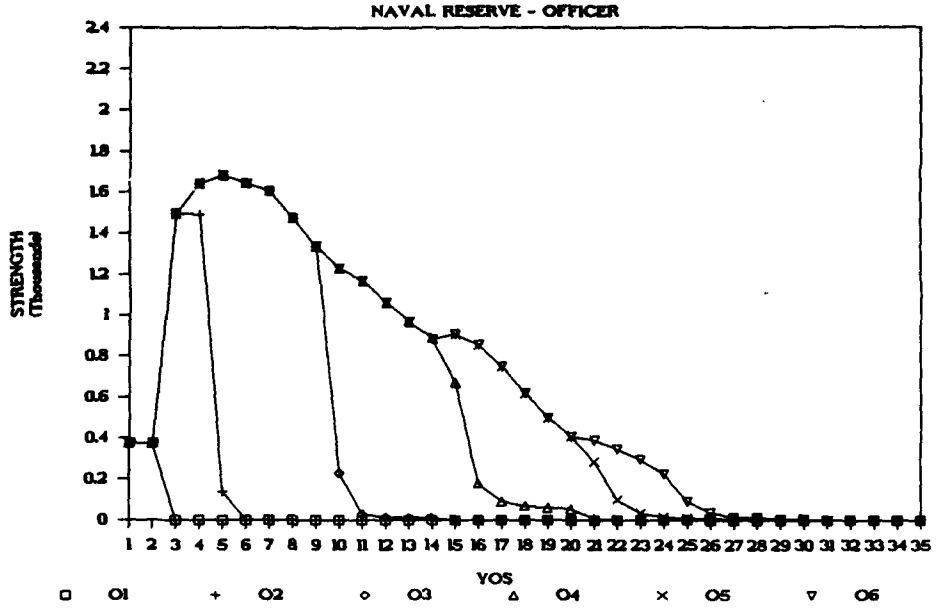


TOTAL PART-TIME BY YOS 86 ACTUAL



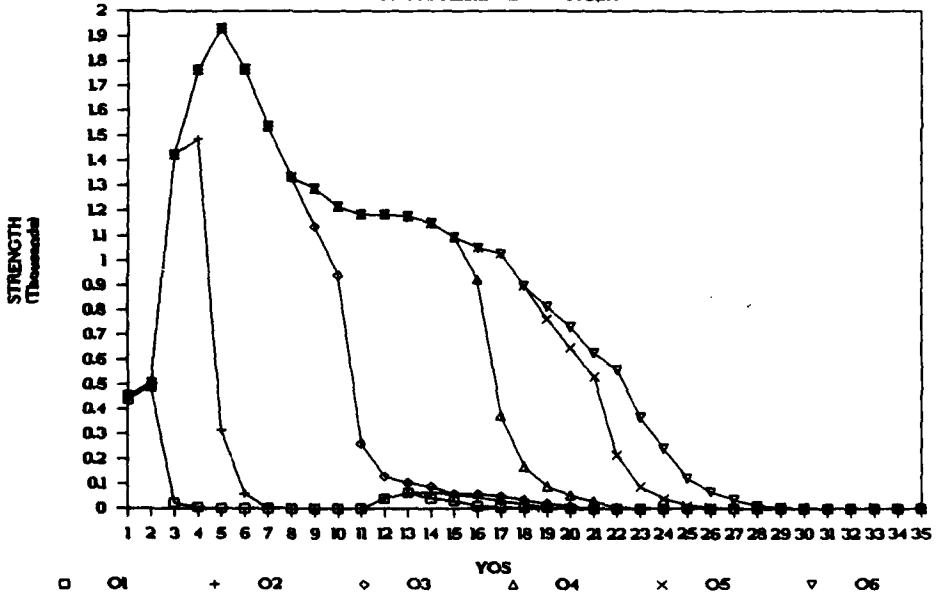
TOTAL PART-TIME BY YOS 86 STEADY STATE

NAVAL RESERVE - OFFICER

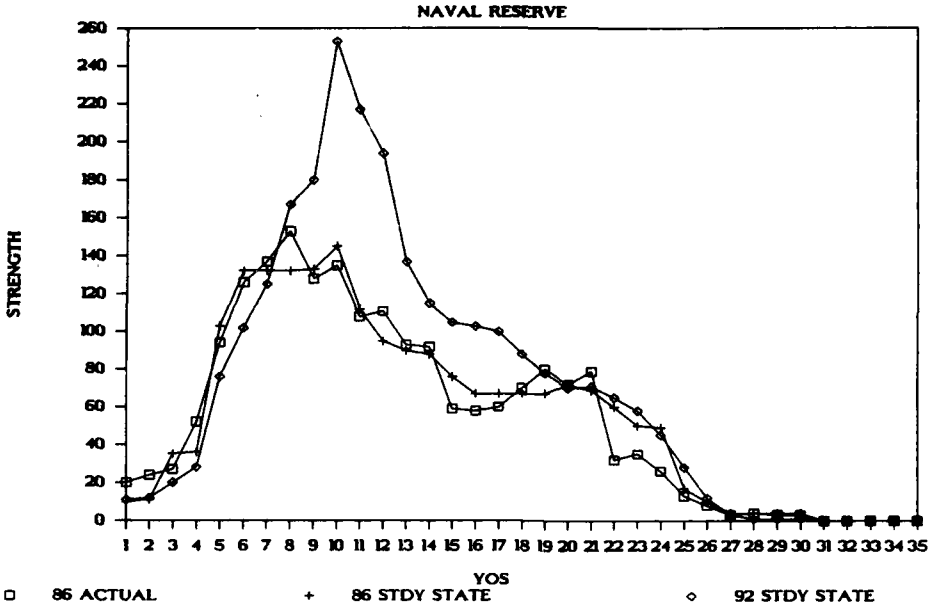


TOTAL PART-TIME BY YOS 92 STEADY STATE

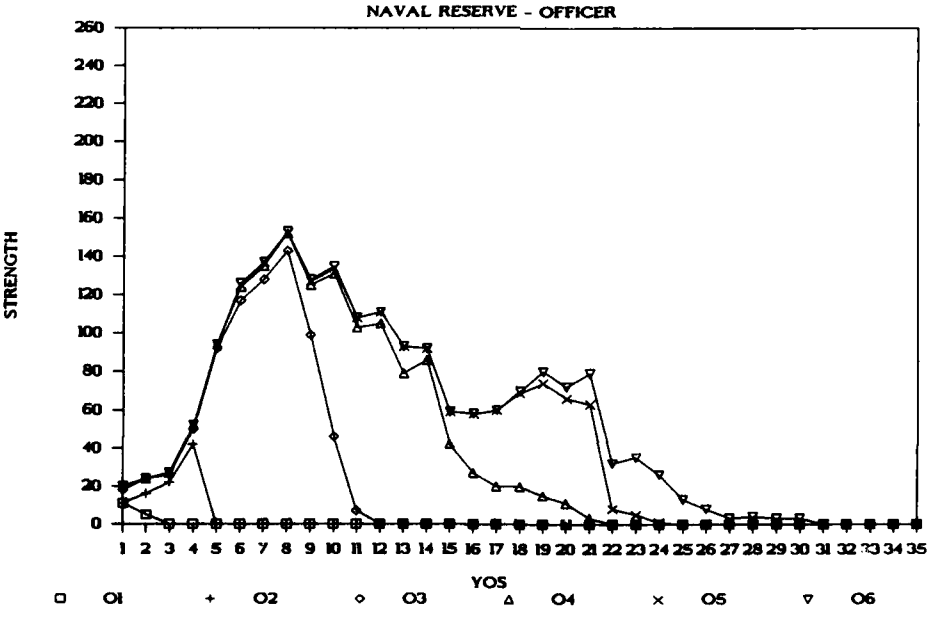
NAVAL RESERVE - OFFICER



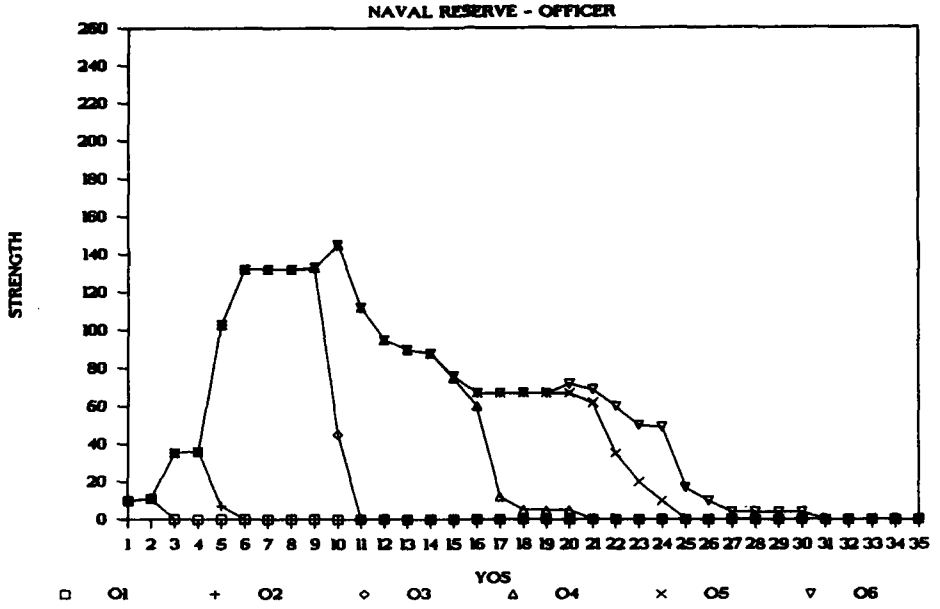
TOTAL TAR OFFICERS BY YOS



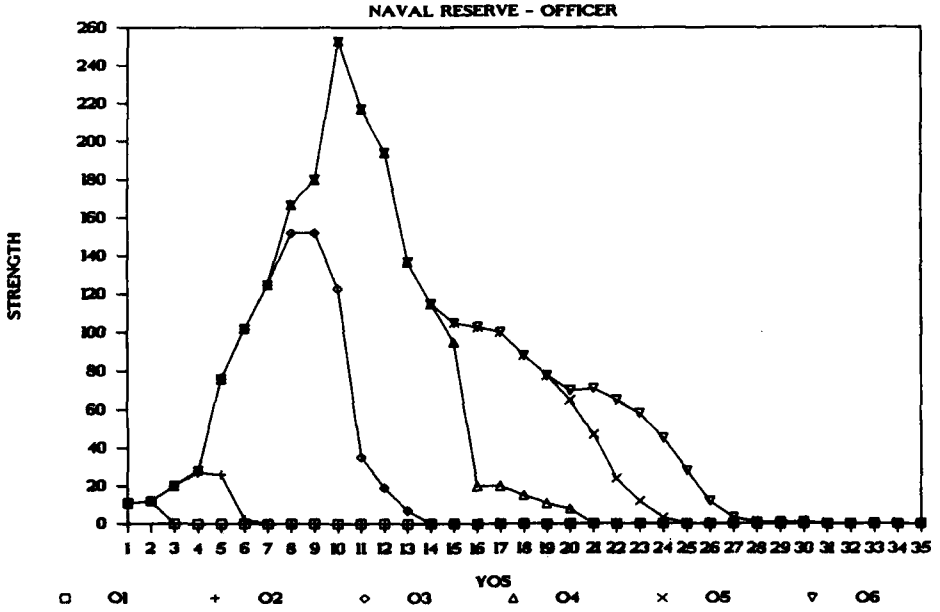
TOTAL TARs BY YOS 86 ACTUAL



TOTAL TARs BY YOS 86 STEADY STATE

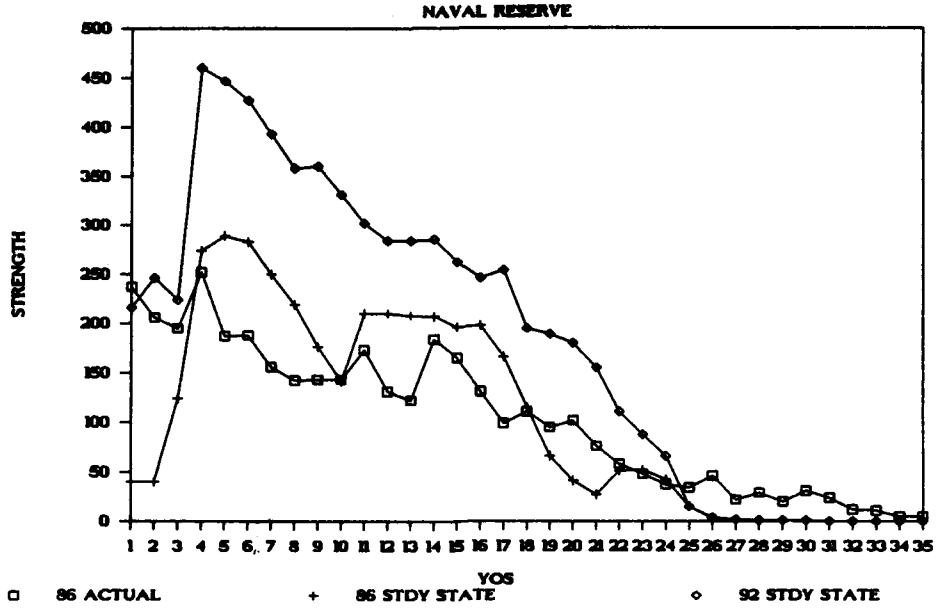


TOTAL TARs BY YOS 92 STEADY STATE



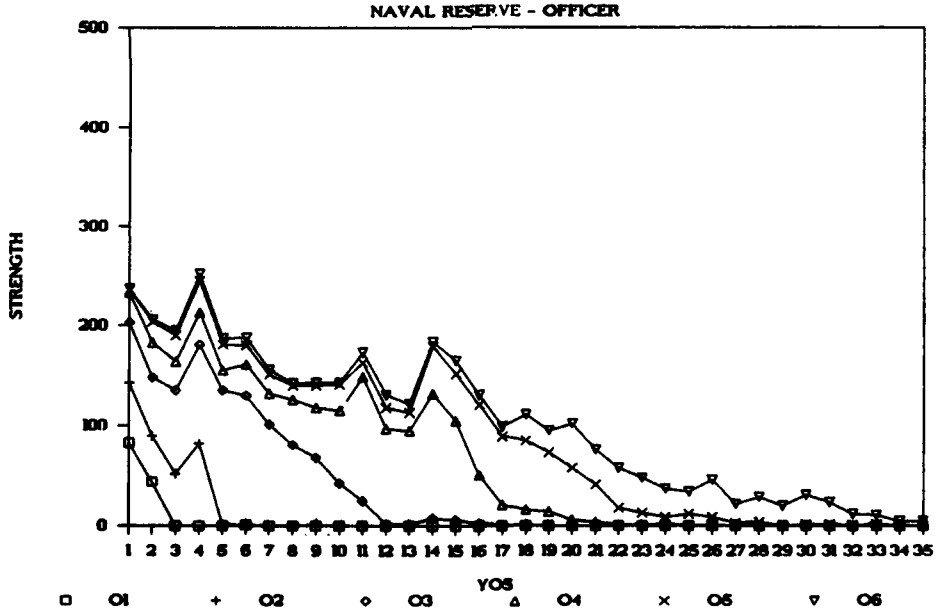
TOTAL MEDICAL OFFICERS BY YOS

NAVAL RESERVE

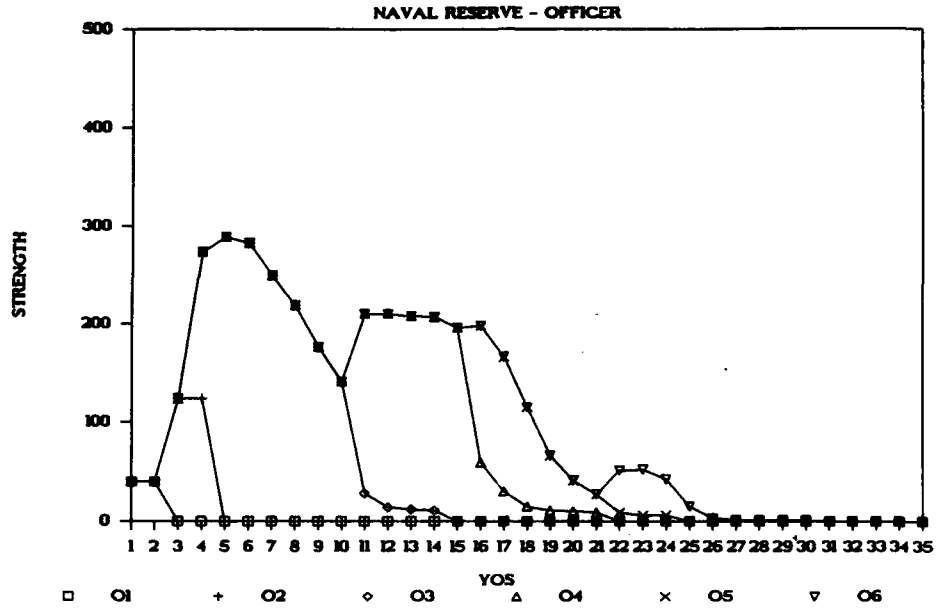


TOTAL MEDICAL BY YOS 86 ACTUAL

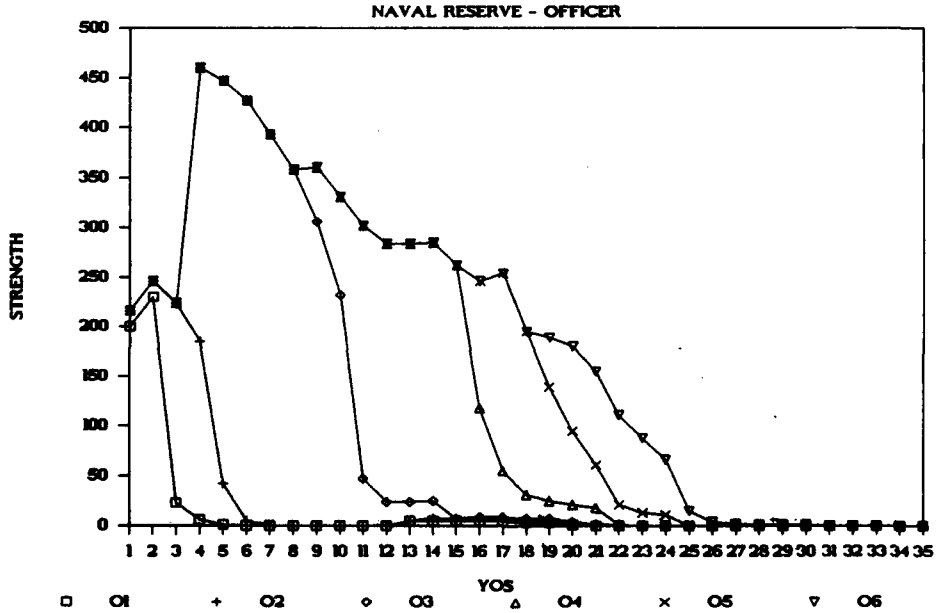
NAVAL RESERVE - OFFICER



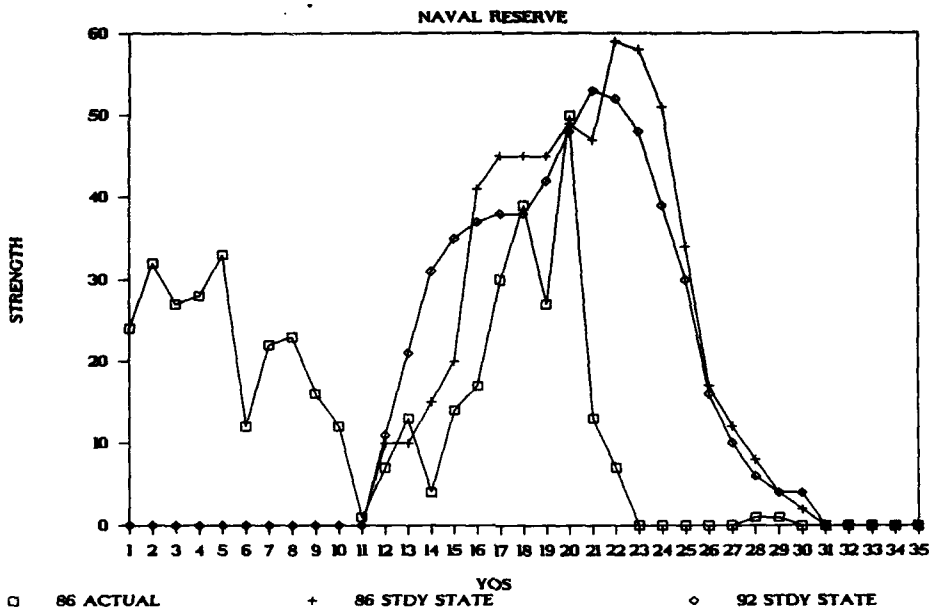
TOTAL MEDICAL BY YOS 86 STEADY STATE



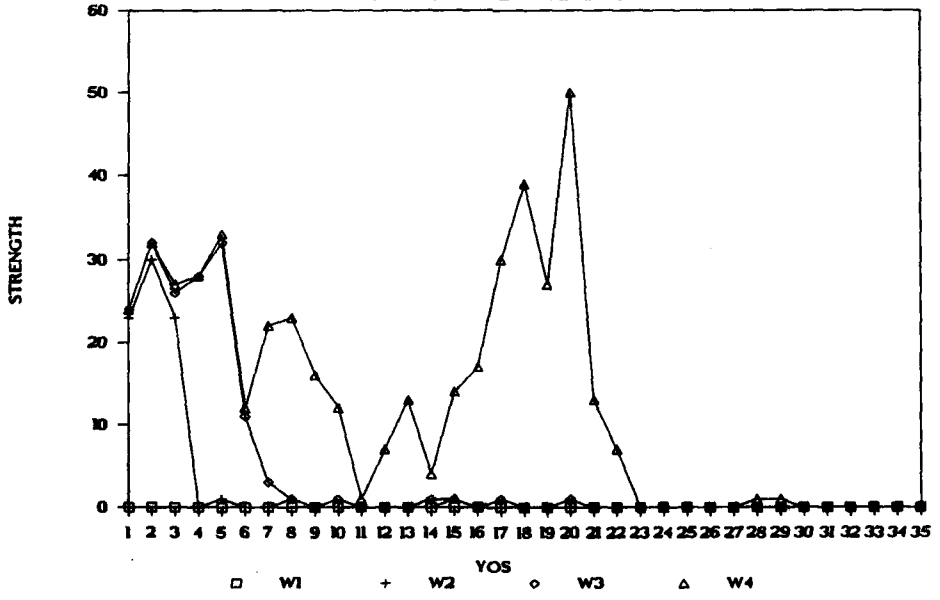
TOTAL MEDICAL BY YOS 92 STEADY STATE



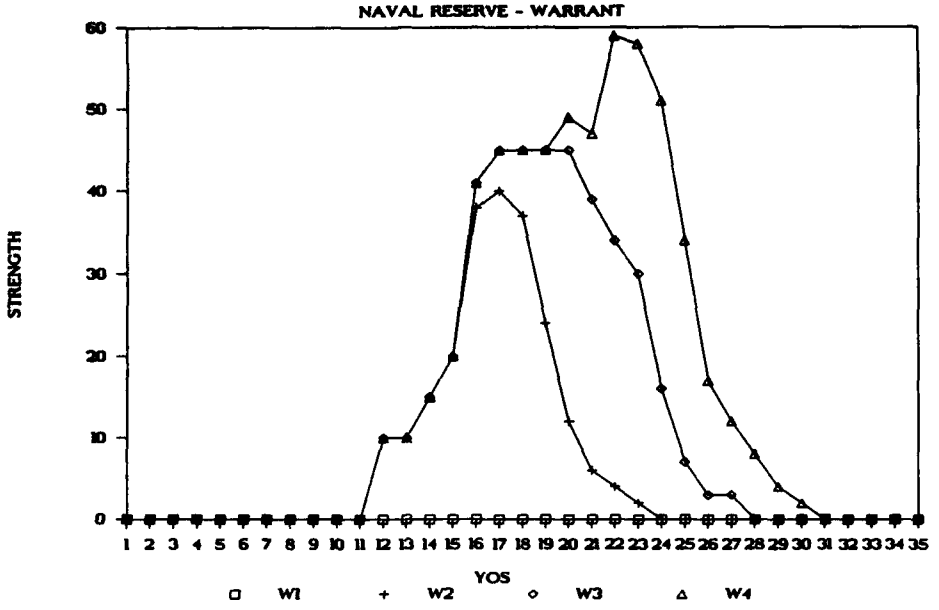
TOTAL SELRES WARRANT OFFICERS BY YOS



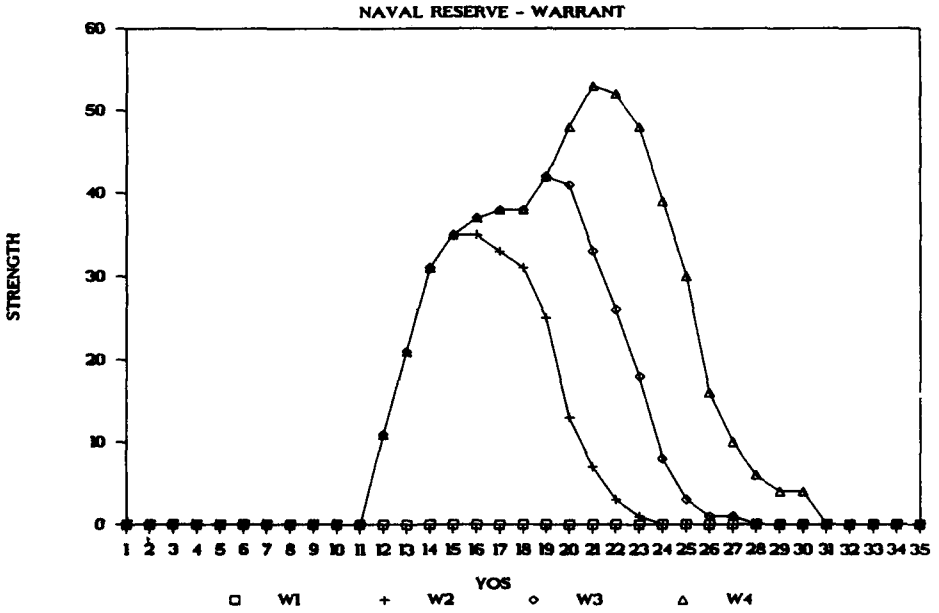
TOTAL SELRES BY YOS 86 ACTUAL



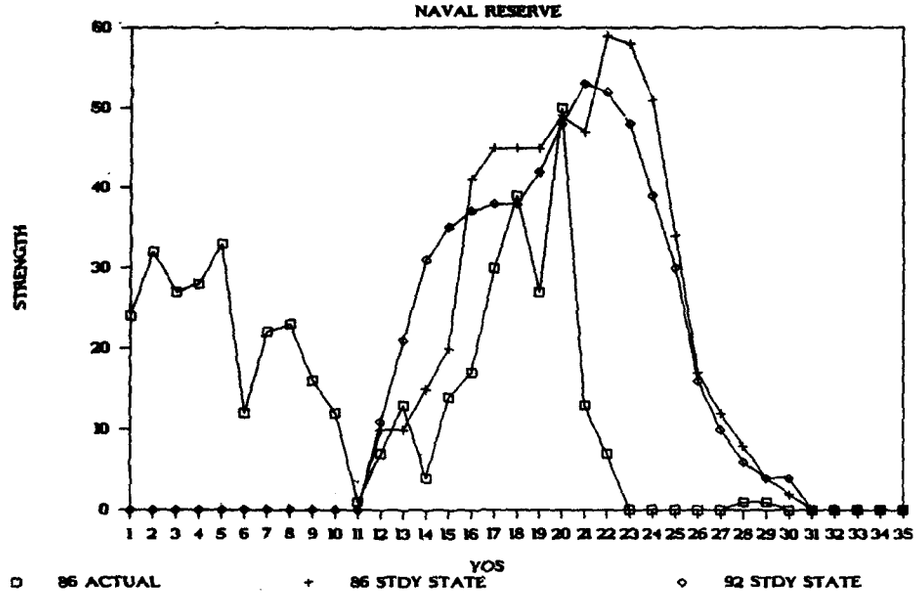
TOTAL SELRES BY YOS 86 STEADY STATE



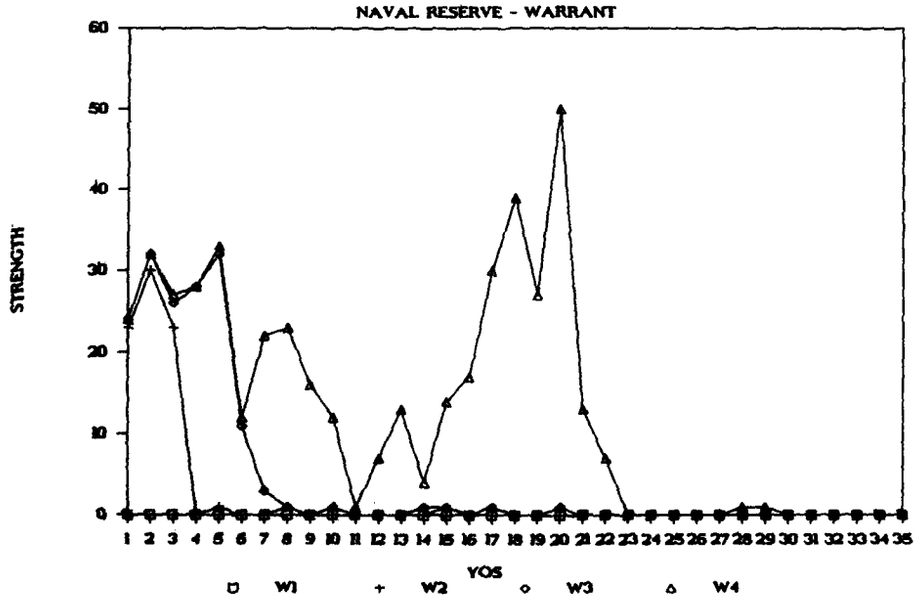
TOTAL SELRES BY YOS 92 STEADY STATE



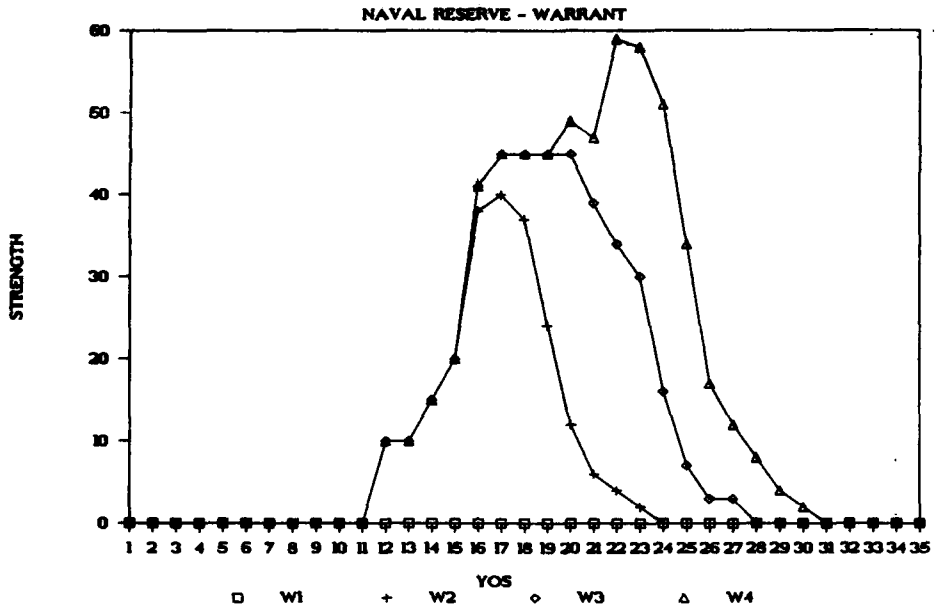
TOTAL PART-TIME WARRANT OFFICERS BY YOS



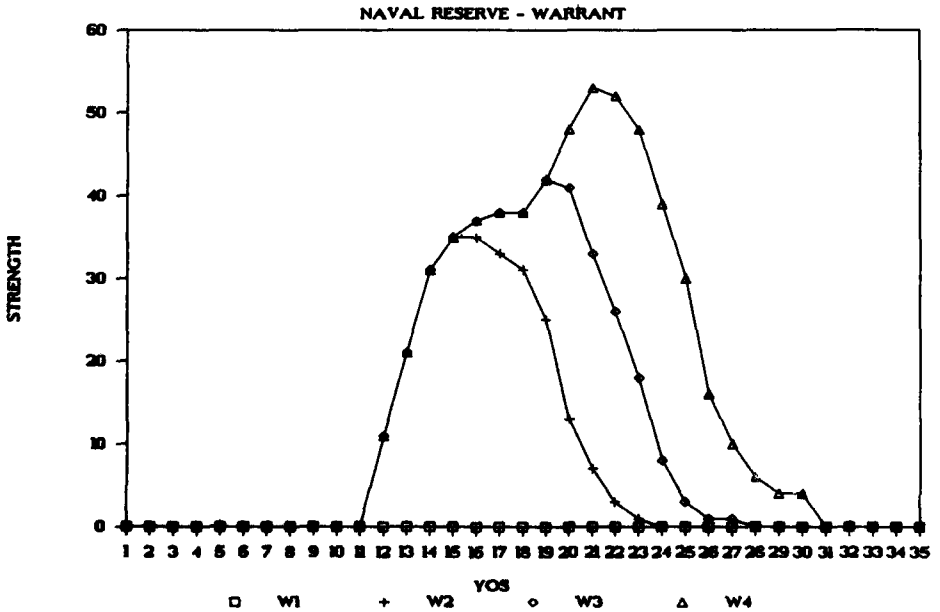
TOTAL PART-TIME BY YOS 86 ACTUAL



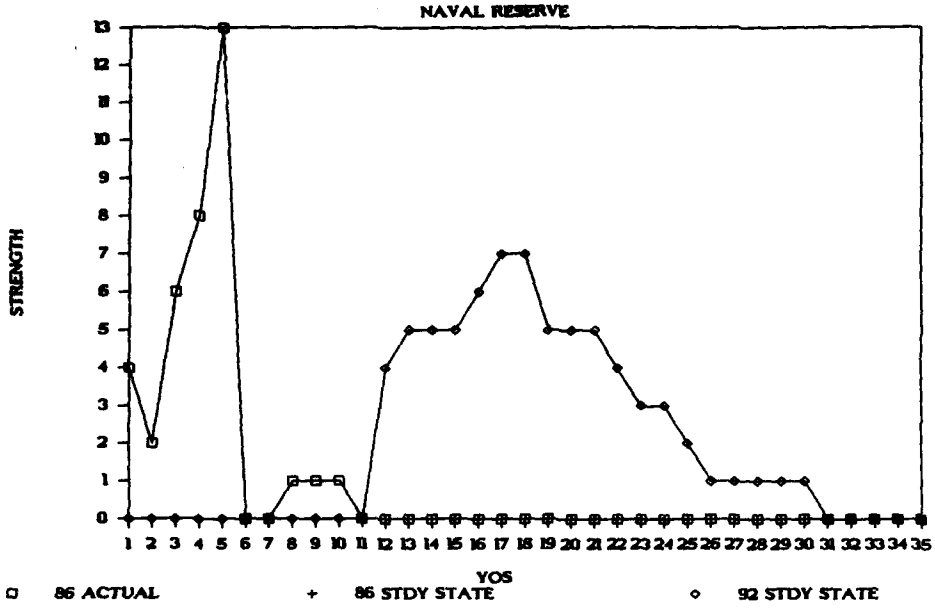
TOTAL PART-TIME BY YOS 86 STEADY STATE



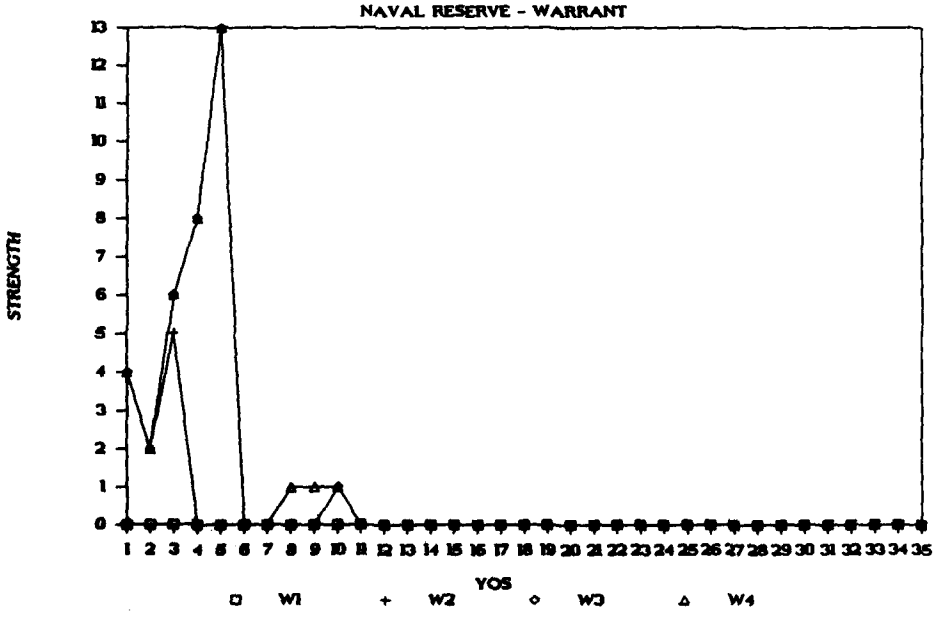
TOTAL PART-TIME BY YOS 92 STEADY STATE



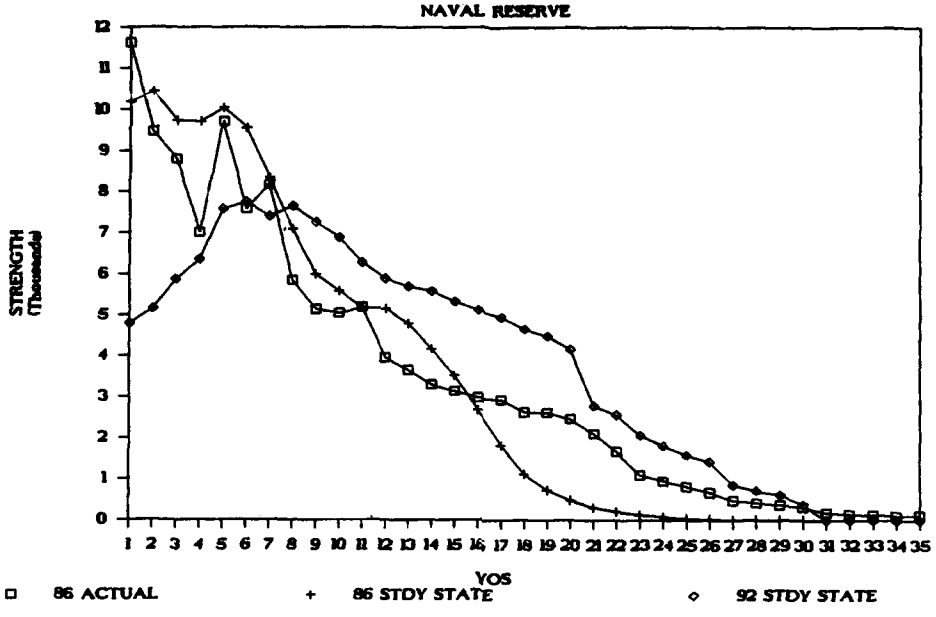
TOTAL MEDICAL WARRANT OFFICERS BY YOS



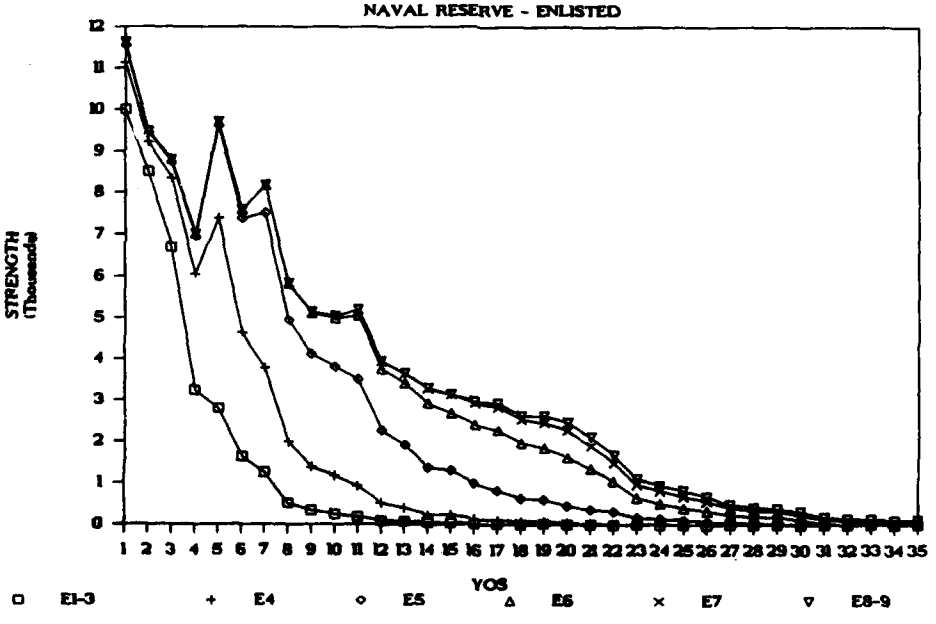
TOTAL MEDICAL BY YOS 86 ACTUAL



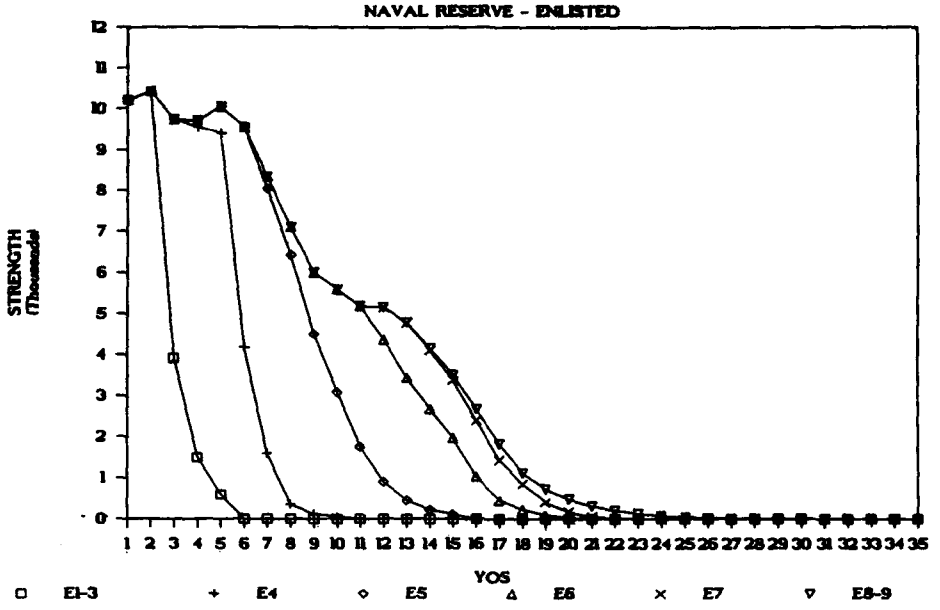
TOTAL SELRES ENLISTED BY YOS



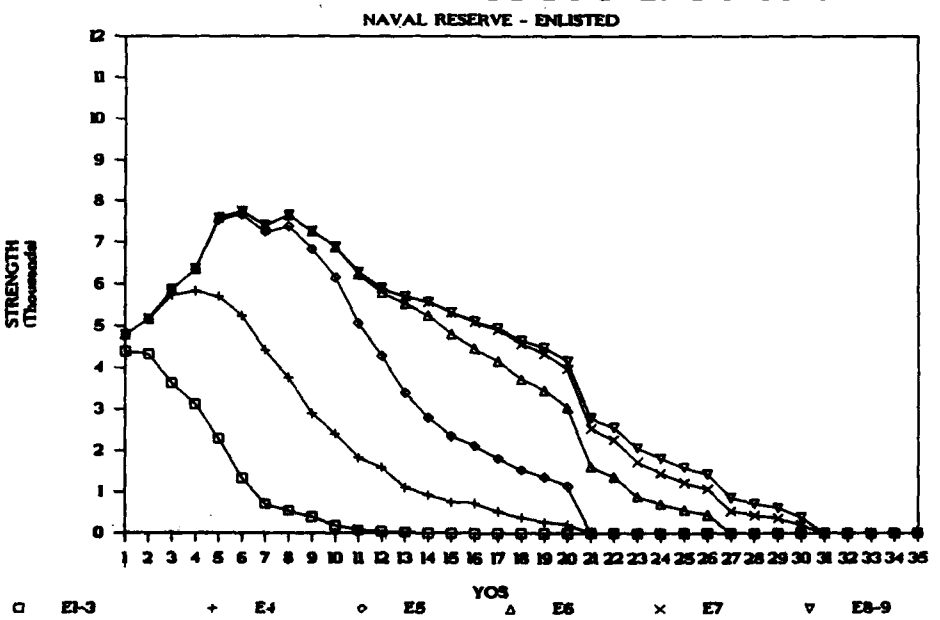
TOTAL SELRES BY YOS 86 ACTUAL



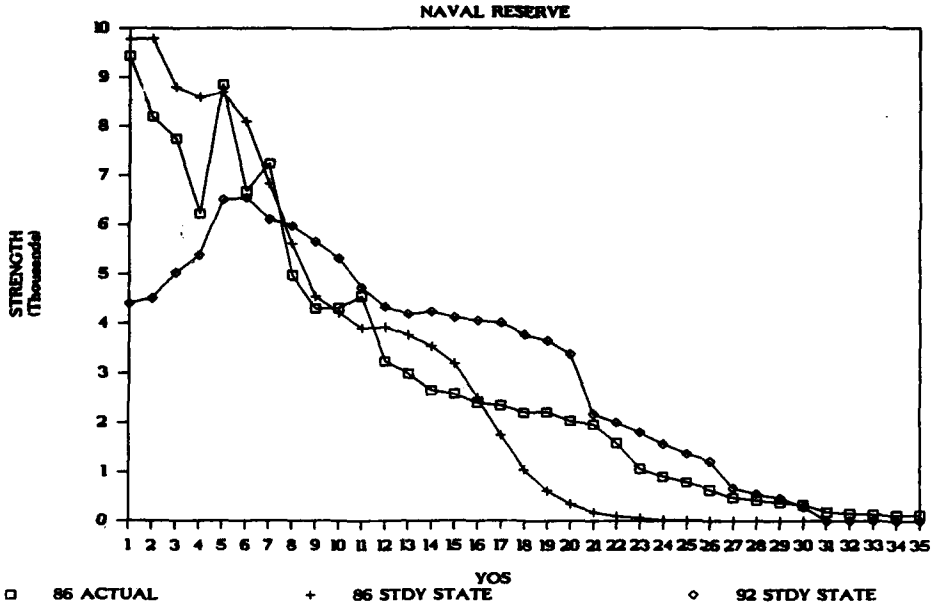
TOTAL SELRES BY YOS 86 STEADY STATE



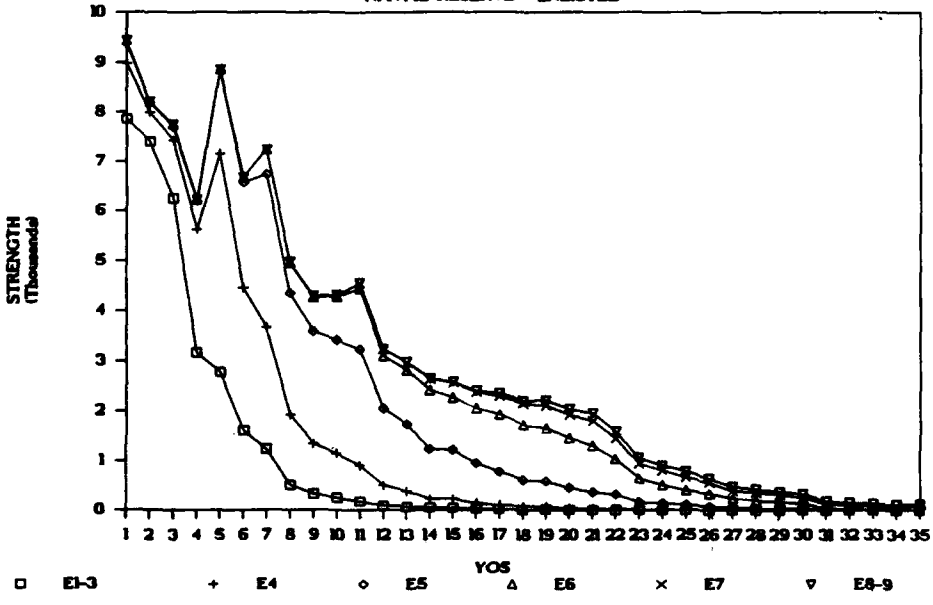
TOTAL SELRES BY YOS 92 STEADY STATE



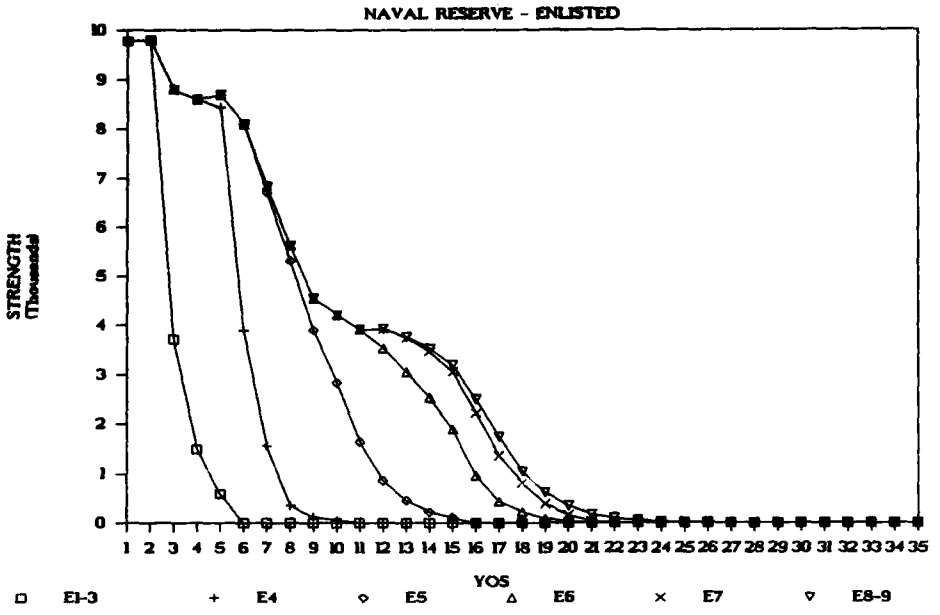
TOTAL PART-TIME ENLISTED BY YOS



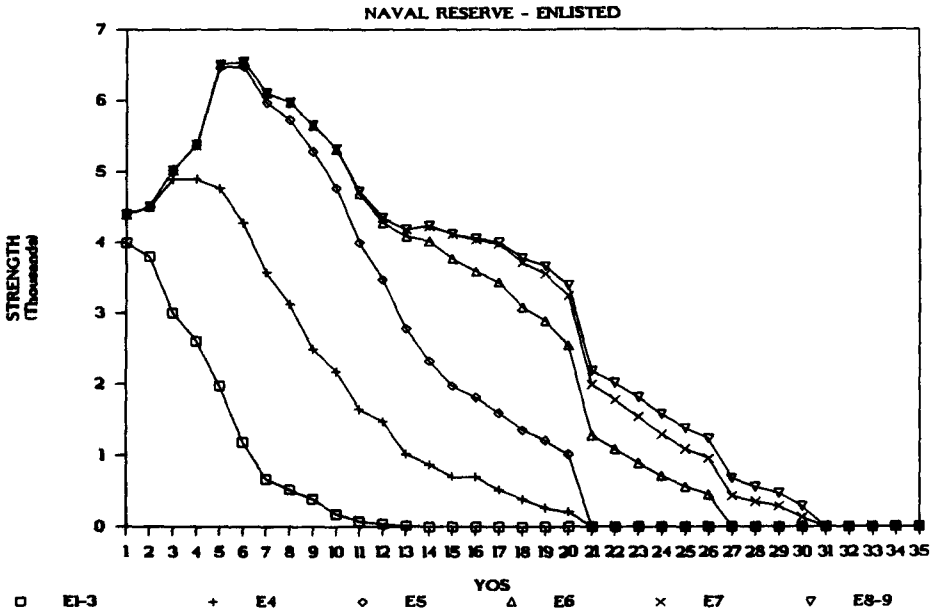
TOTAL PART-TIME 86 ACTUAL



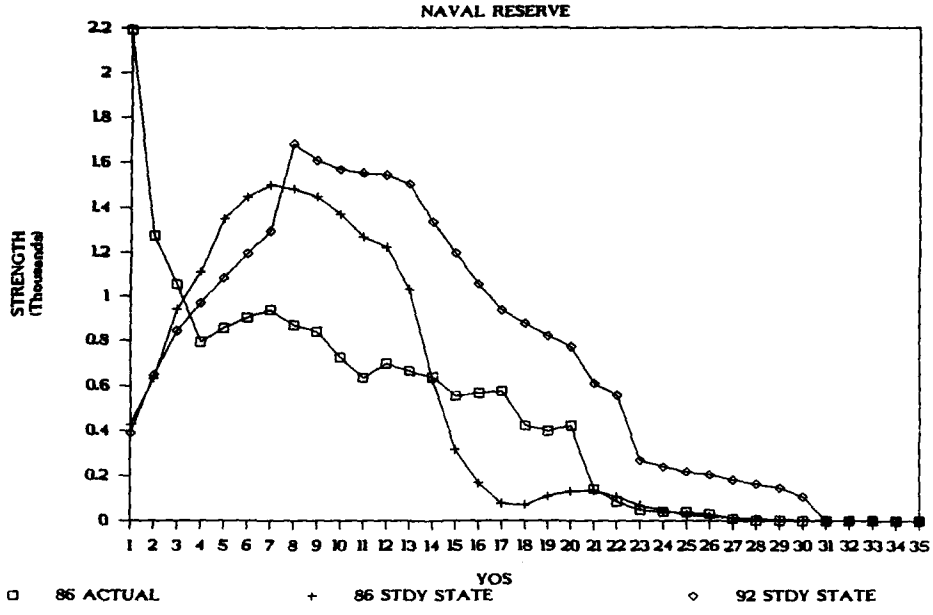
TOTAL PART-TIME 86 STEADY STATE



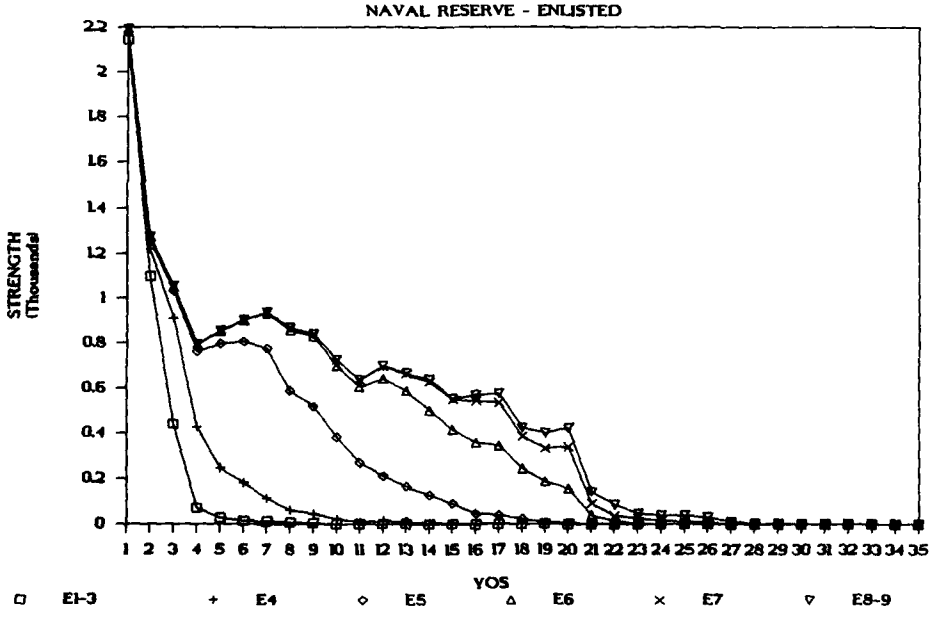
TOTAL PART-TIME 92 STEADY STATE



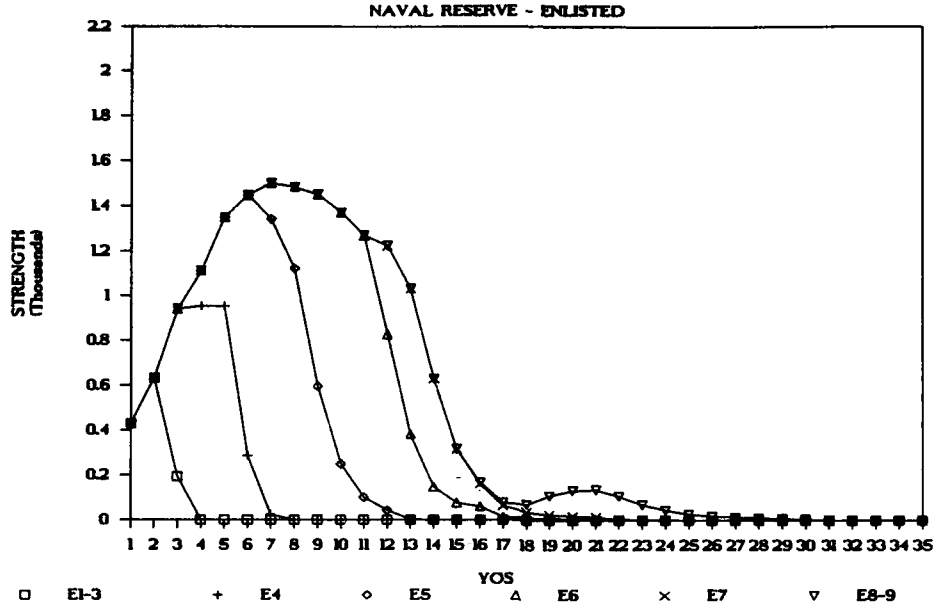
TOTAL TAR ENLISTED BY YOS



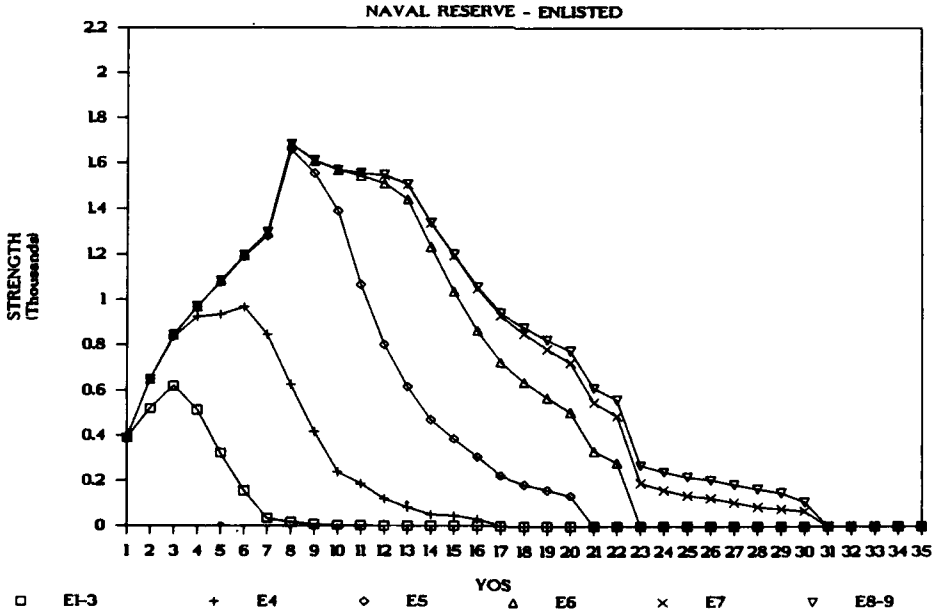
TOTAL TARs BY YOS 86 ACTUAL



TOTAL TARs BY YOS 86 STEADY STATE

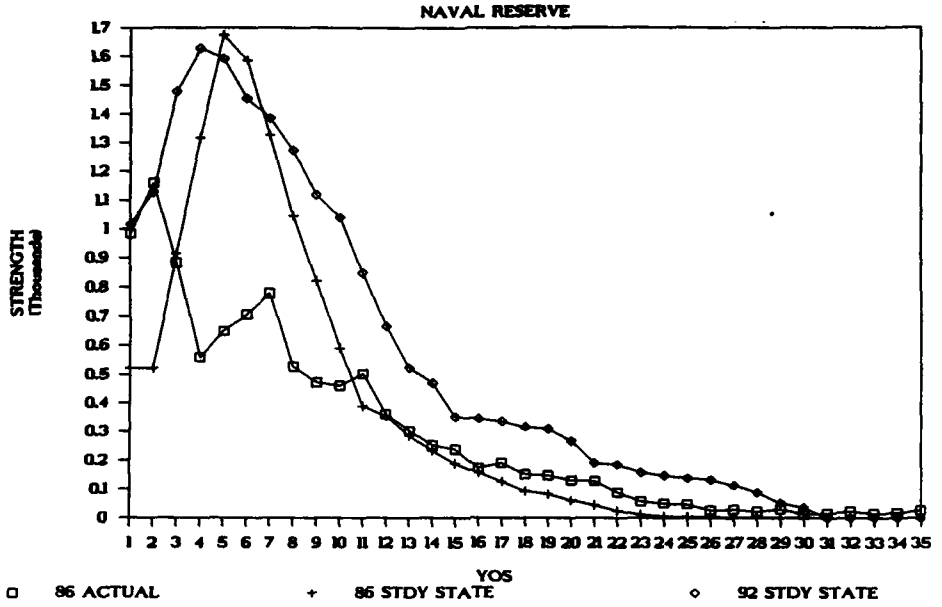


TOTAL TARs BY YOS 92 STEADY STATE



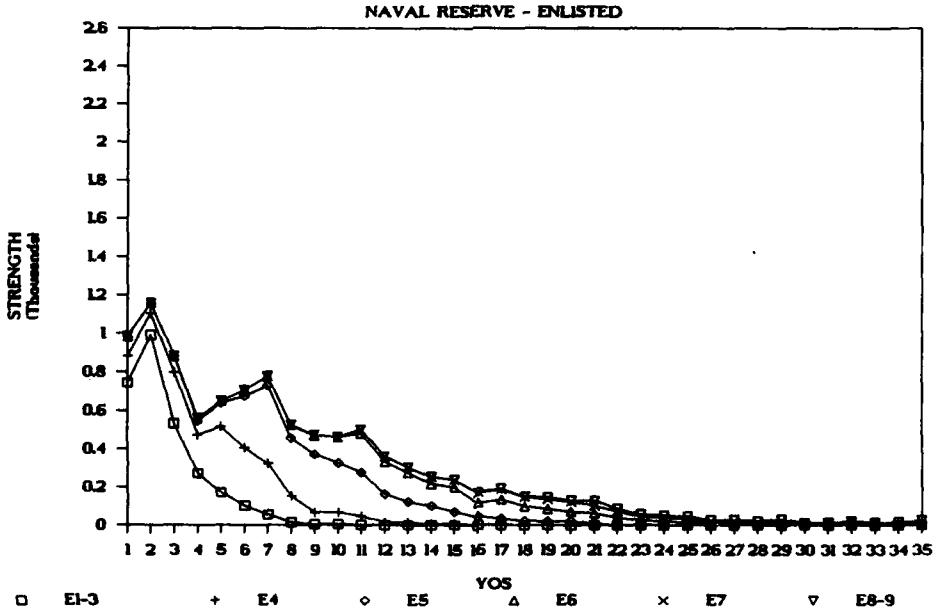
TOTAL MEDICAL ENLISTED BY YOS

NAVAL RESERVE

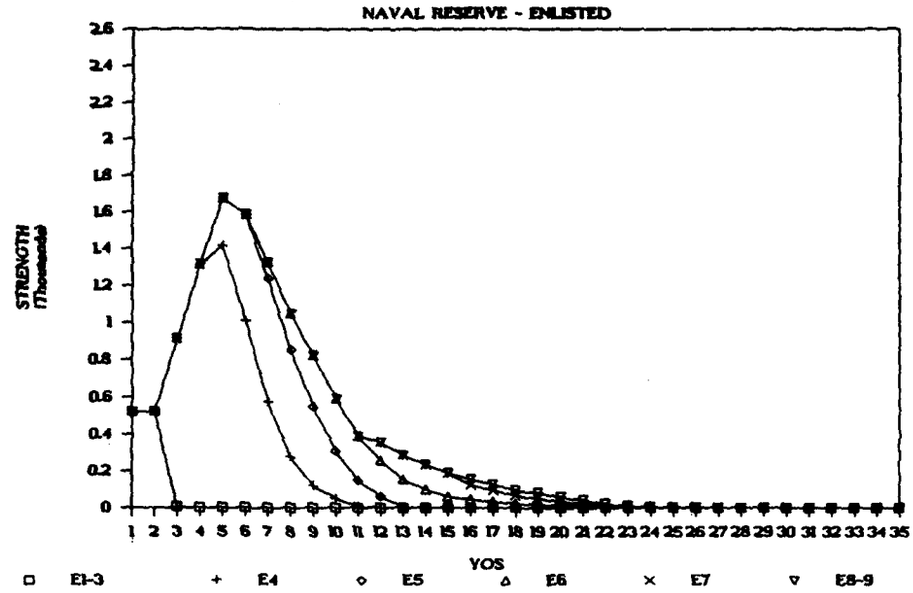


TOTAL MEDICAL BY YOS 86 ACTUAL

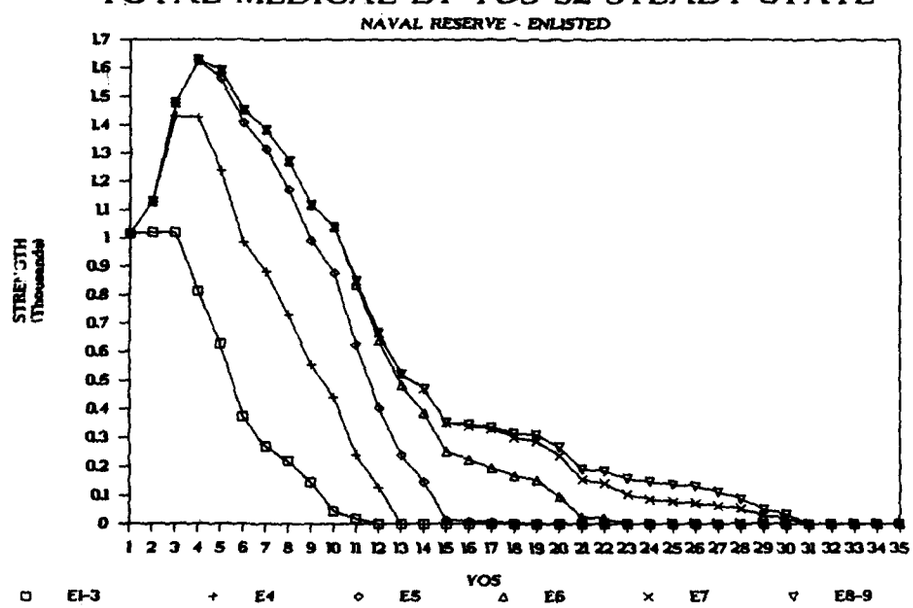
NAVAL RESERVE - ENLISTED



TOTAL MEDICAL BY YOS 86 STEADY STATE

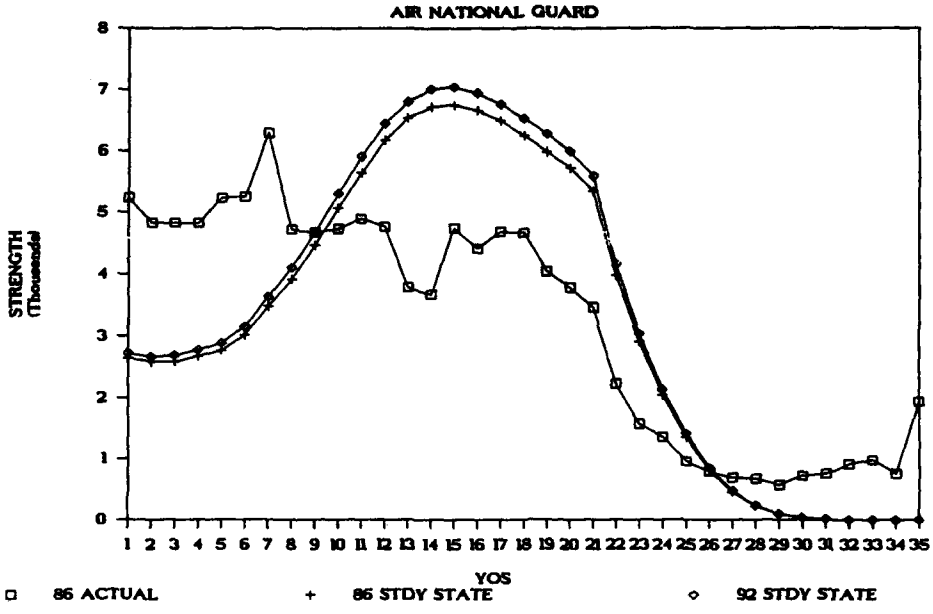


TOTAL MEDICAL BY YOS 92 STEADY STATE



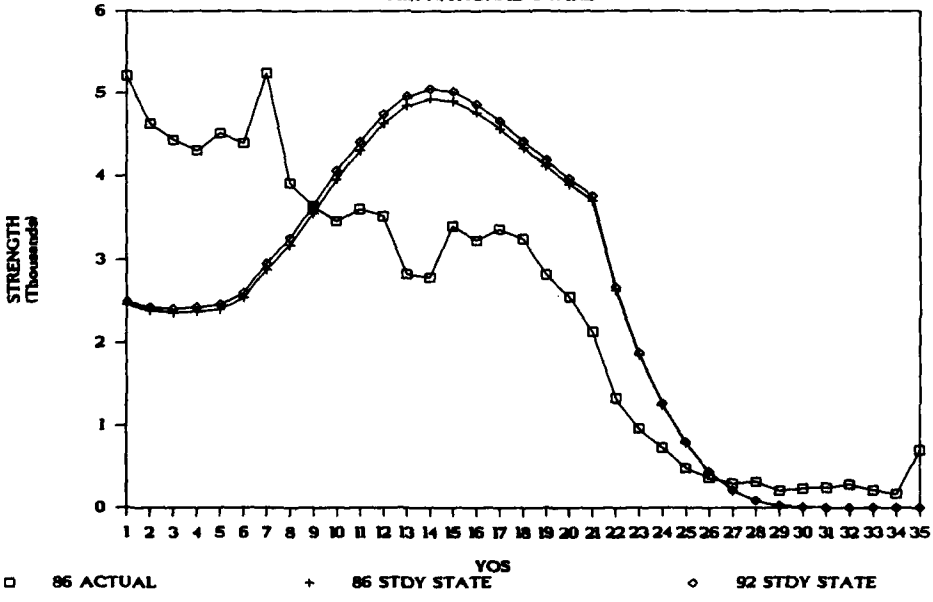
TOTAL SELRES BY YOS

AIR NATIONAL GUARD



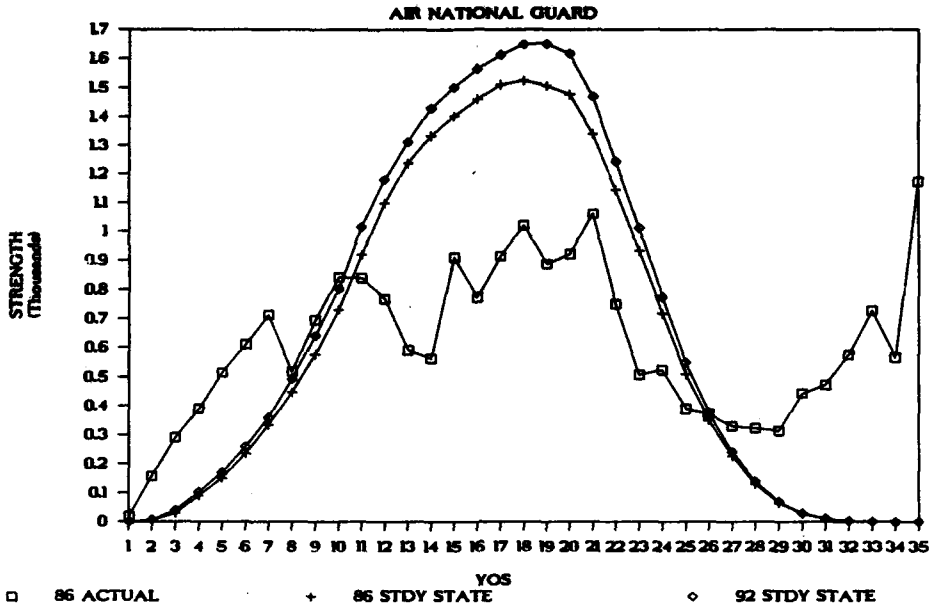
TOTAL PART-TIME BY YOS

AIR NATIONAL GUARD



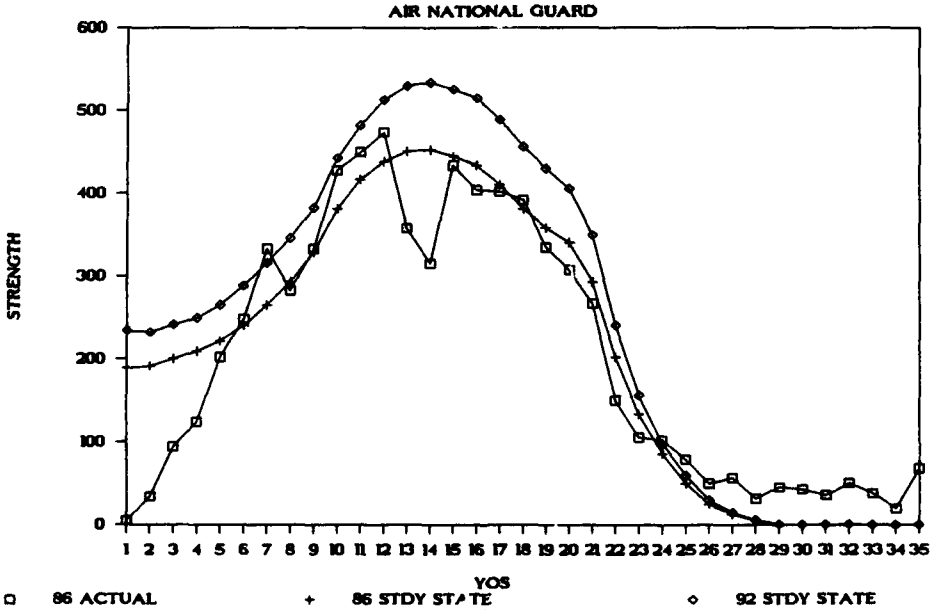
TOTAL MTs BY YOS

AIR NATIONAL GUARD



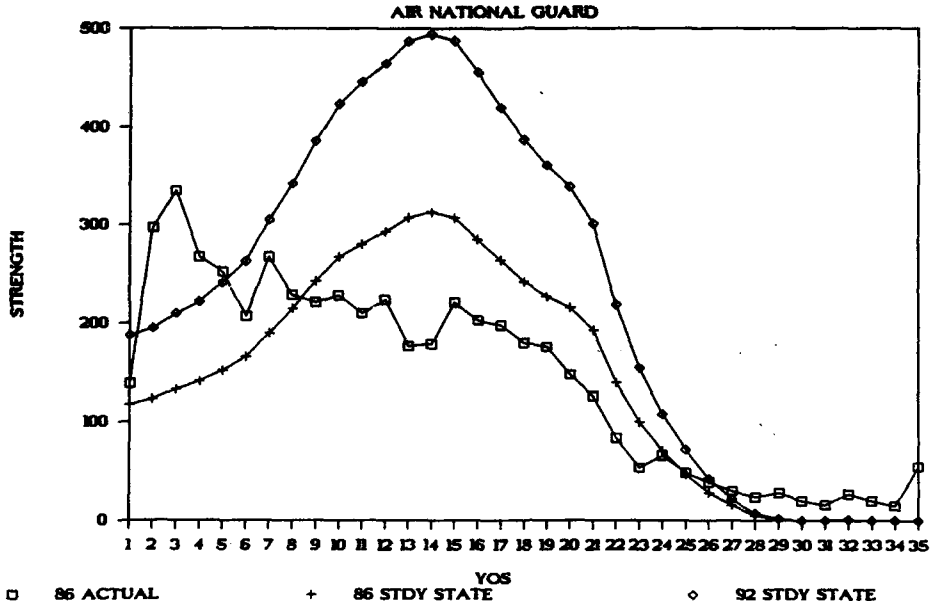
TOTAL AGR BY YOS

AIR NATIONAL GUARD



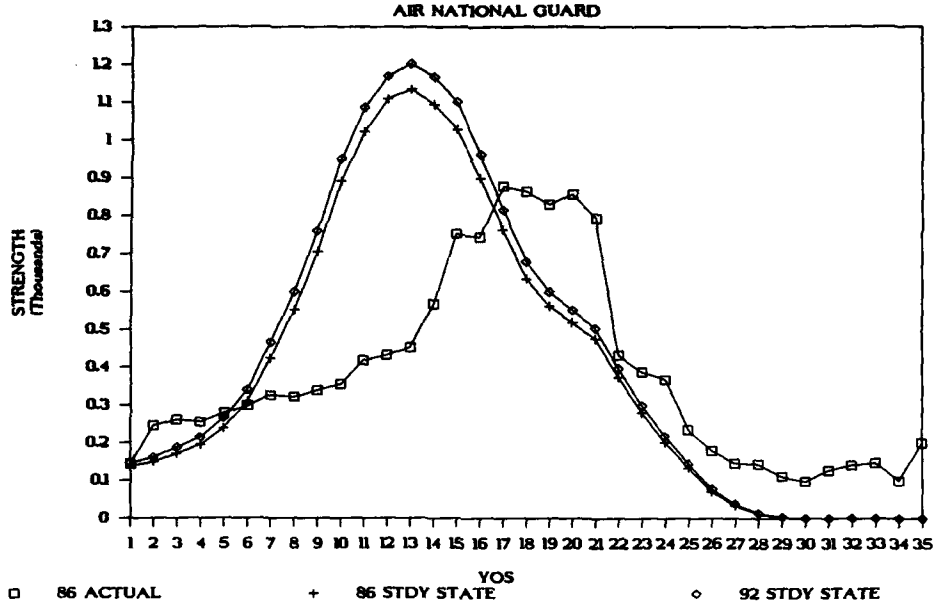
TOTAL MEDICAL BY YOS

AIR NATIONAL GUARD



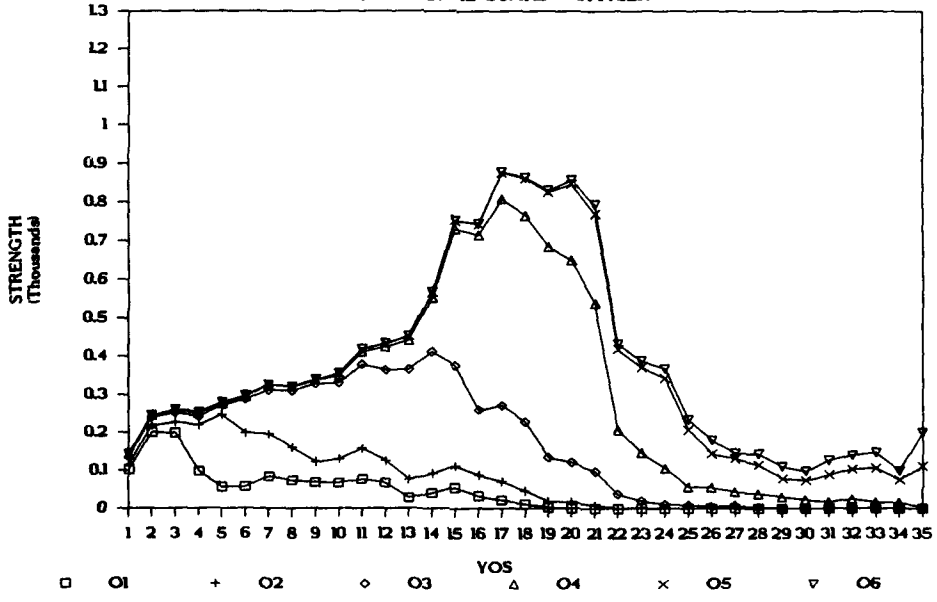
TOTAL SELRES OFFICERS BY YOS

AIR NATIONAL GUARD



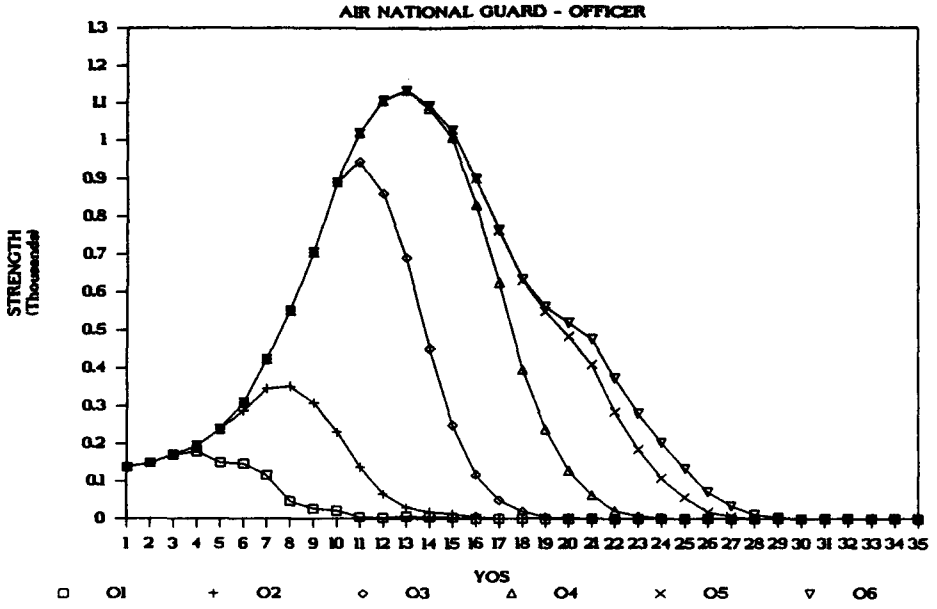
TOTAL SELRES BY YOS 86 ACTUAL

AIR NATIONAL GUARD - OFFICER



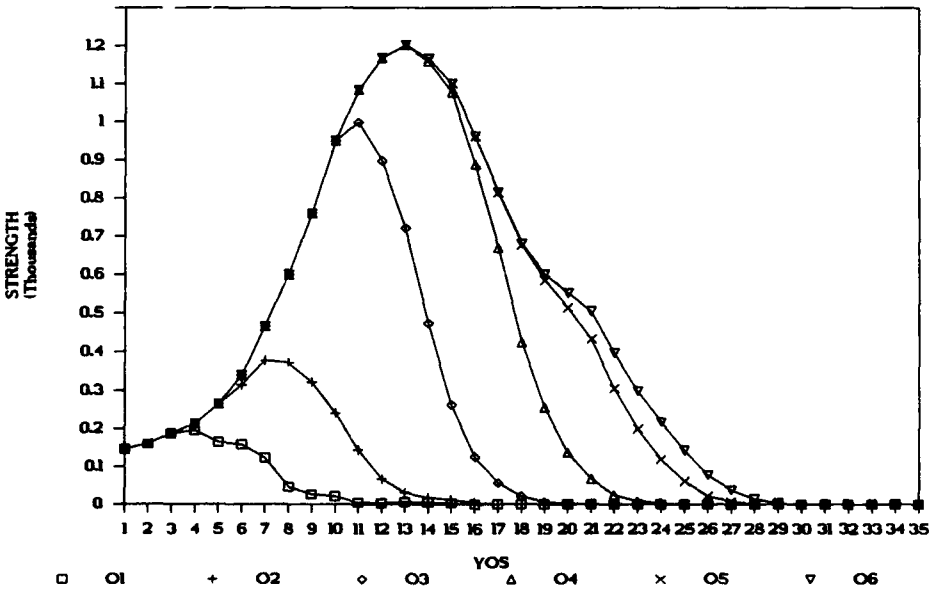
TOTAL SELRES BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - OFFICER

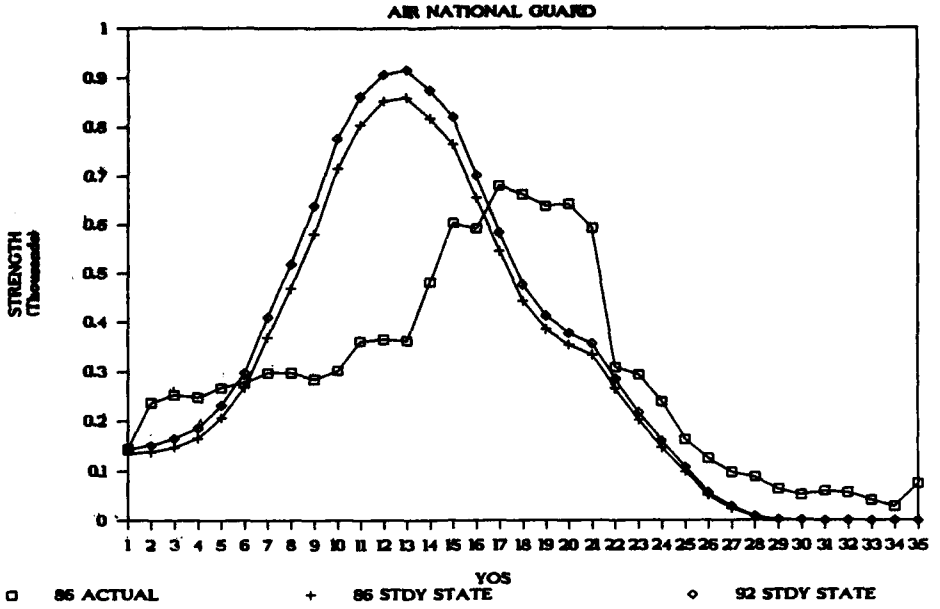


TOTAL SELRES BY YOS 92 STEADY STATE

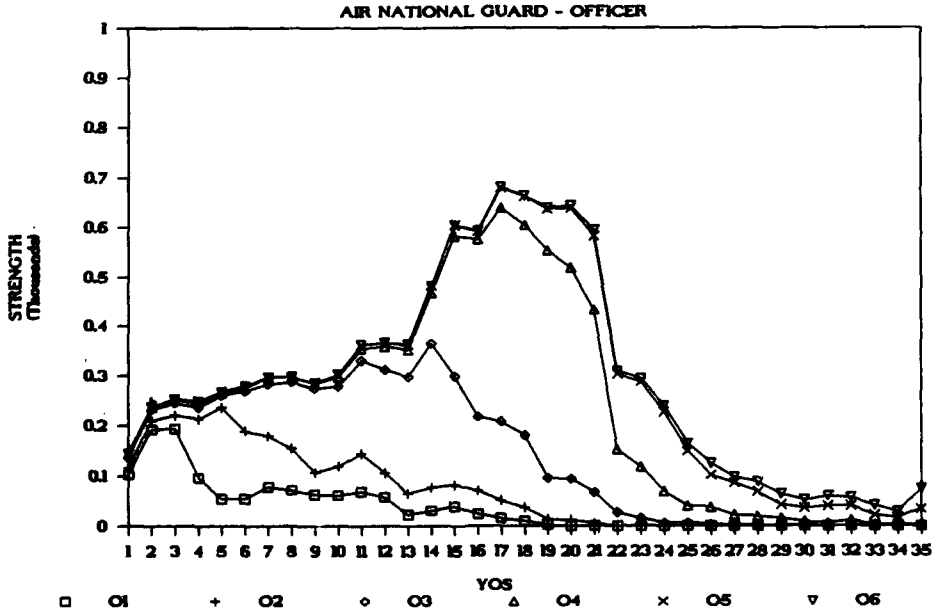
AIR NATIONAL GUARD - OFFICER



TOTAL PART-TIME OFFICERS BY YOS

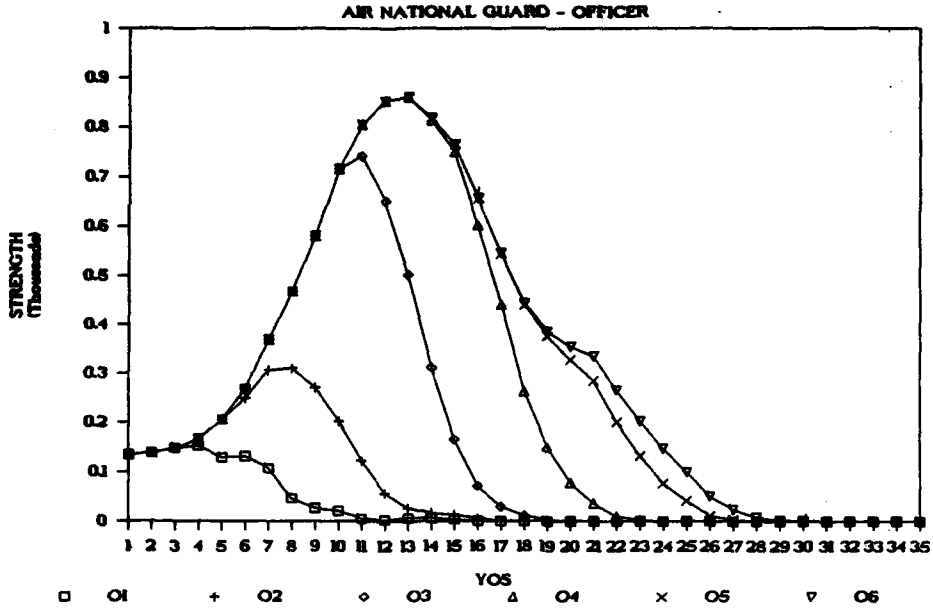


TOTAL PART-TIME BY YOS 86 ACTUAL



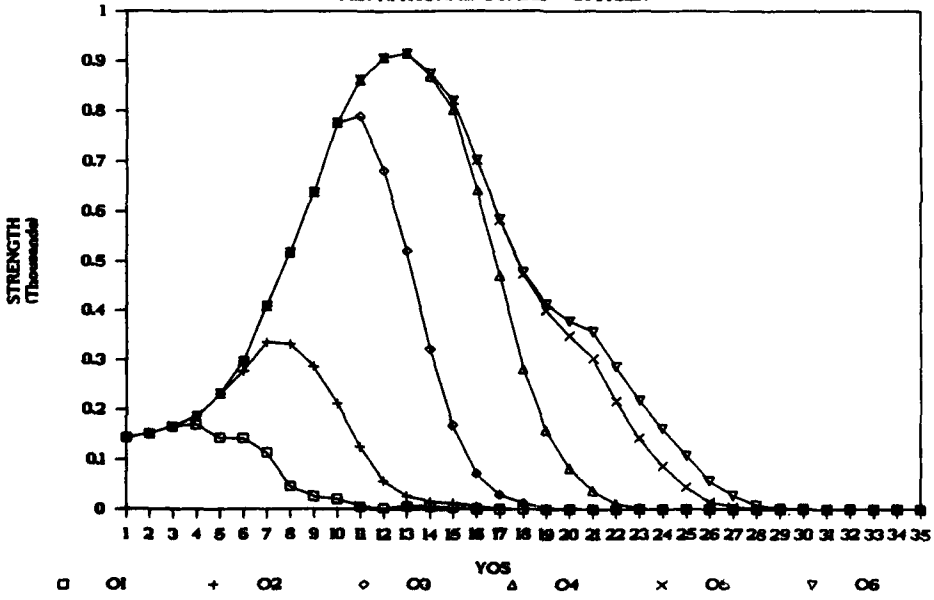
TOTAL PART-TIME BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - OFFICER



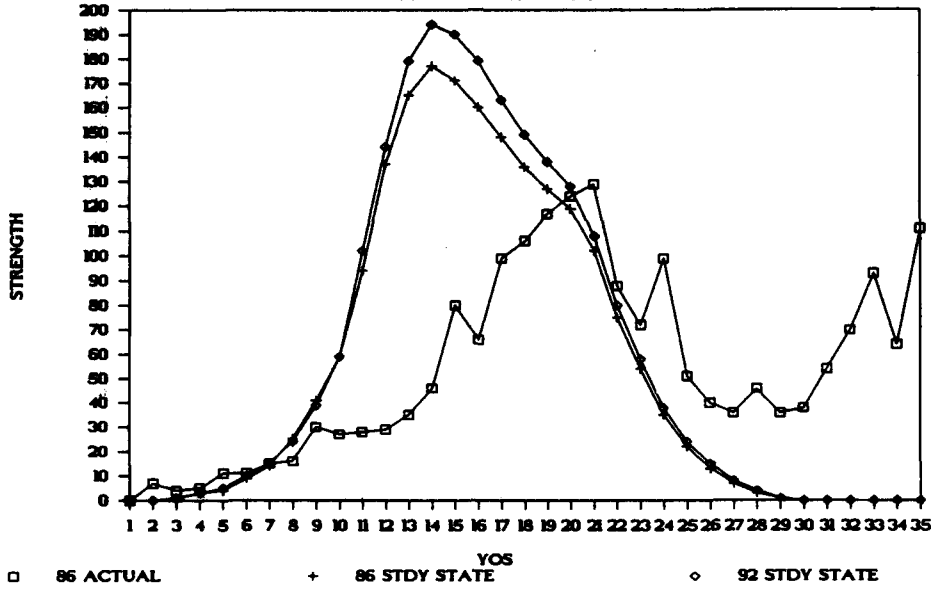
TOTAL PART-TIME BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - OFFICER



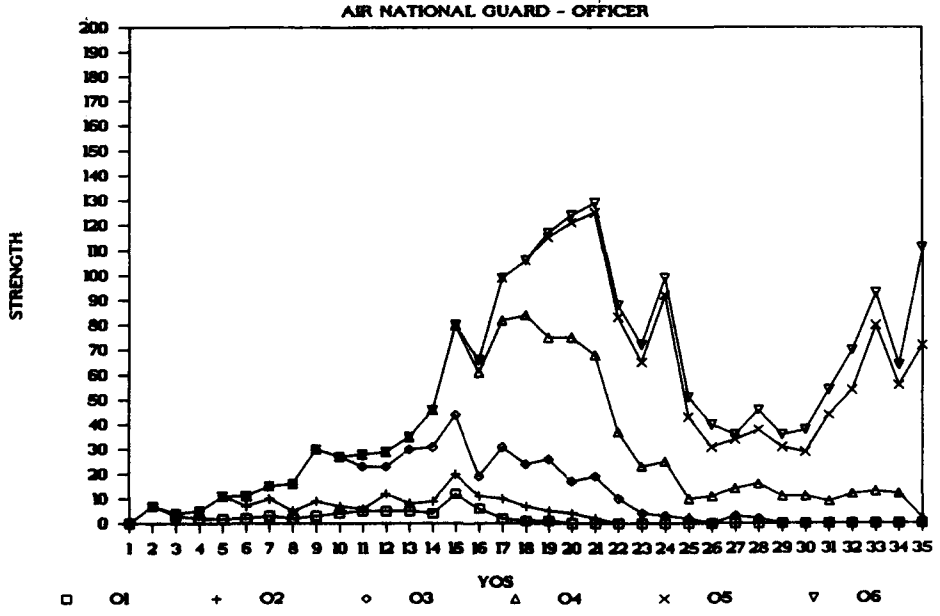
TOTAL MT OFFICERS BY YOS

AIR NATIONAL GUARD



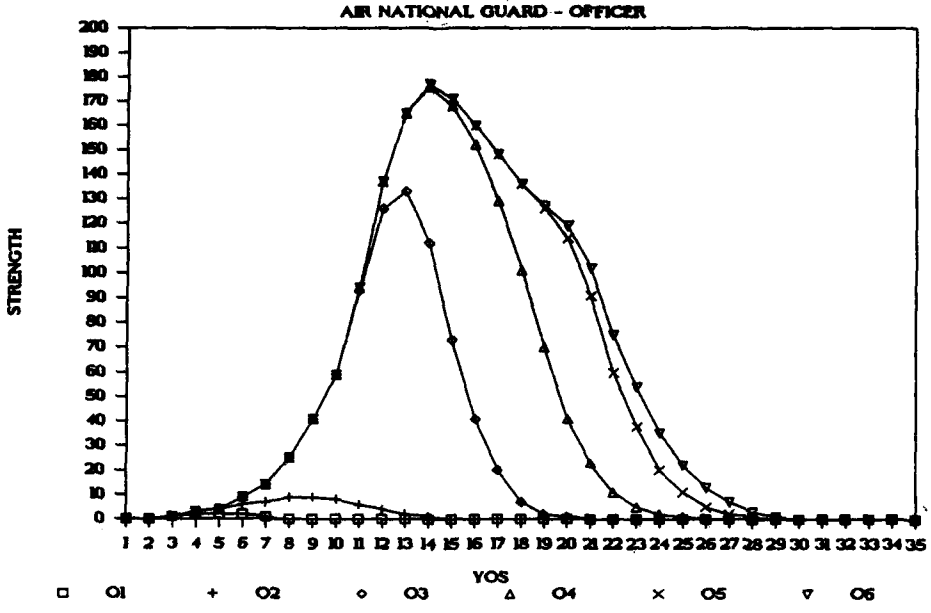
TOTAL MTs BY YOS 86 ACTUAL

AIR NATIONAL GUARD - OFFICER



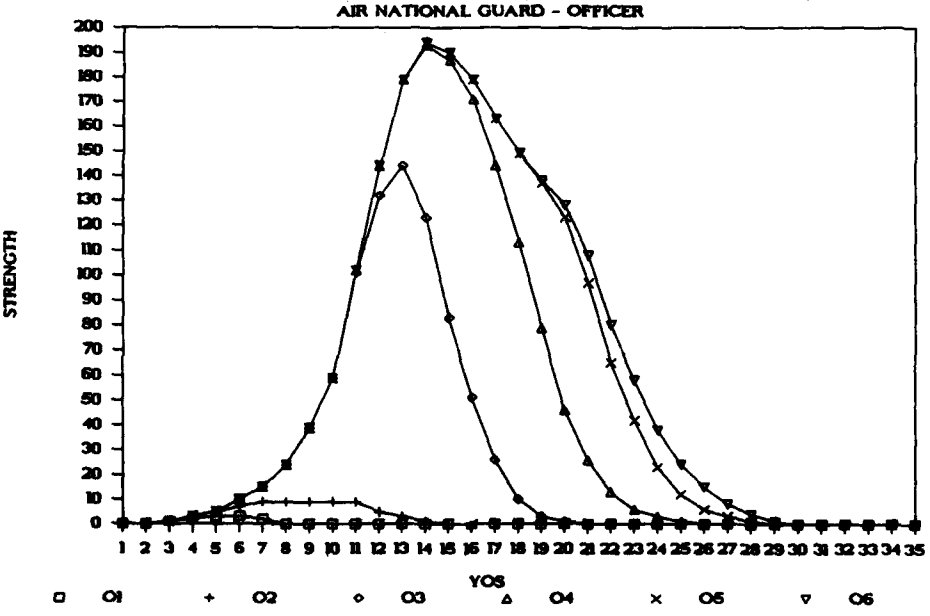
TOTAL MTs BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - OFFICER



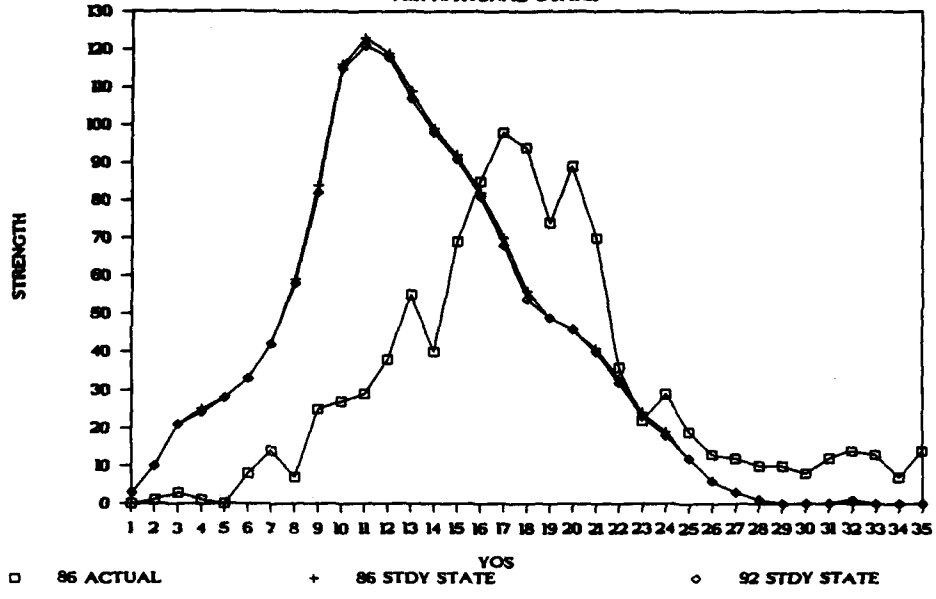
TOTAL MTs BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - OFFICER



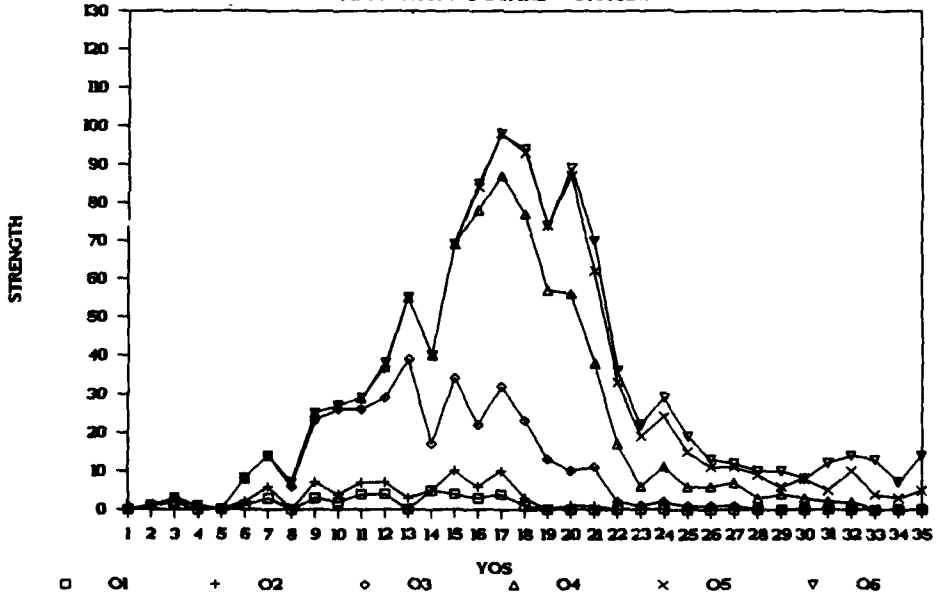
TOTAL AGR OFFICERS BY YOS

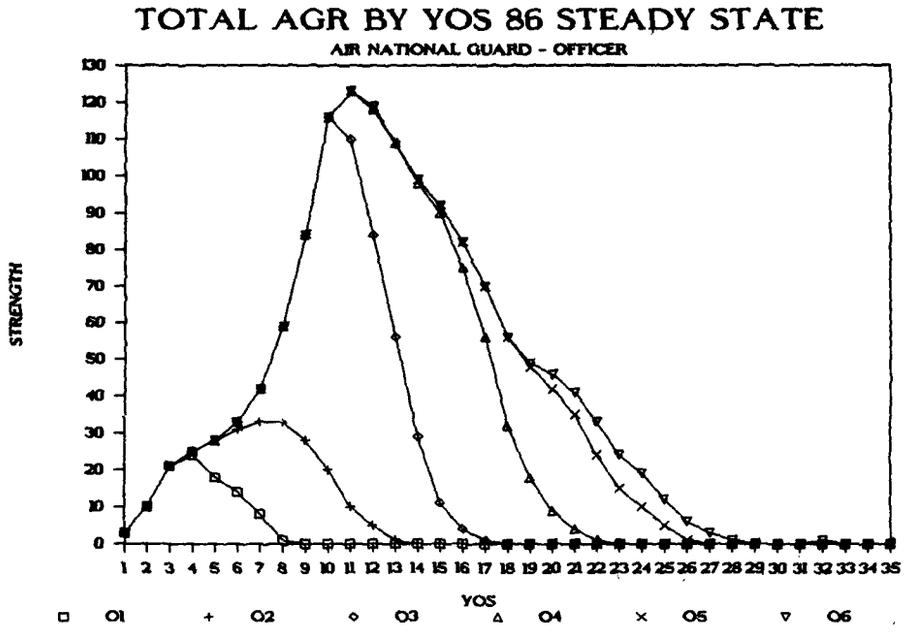
AIR NATIONAL GUARD

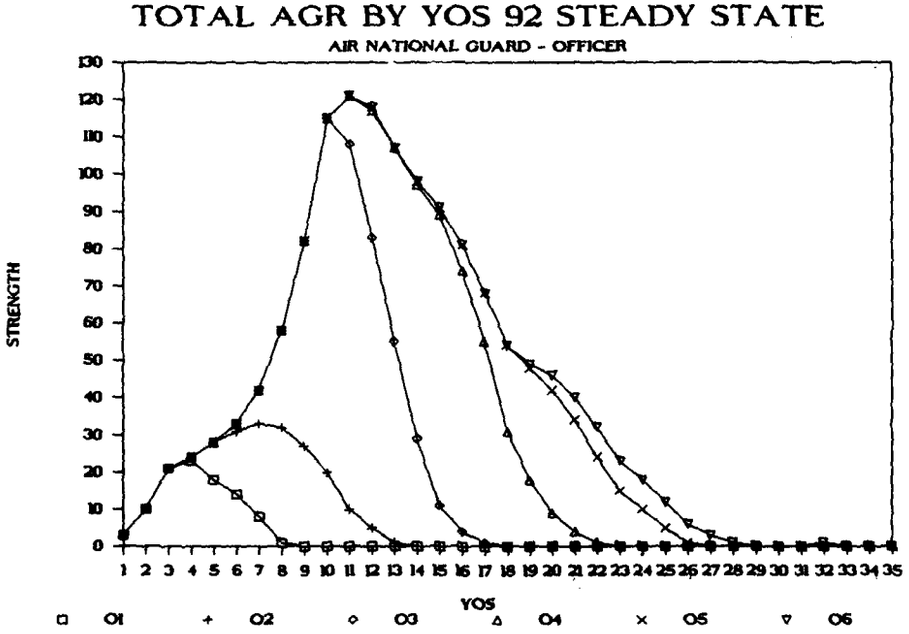


TOTAL AGR BY YOS 86 ACTUAL

AIR NATIONAL GUARD - OFFICER

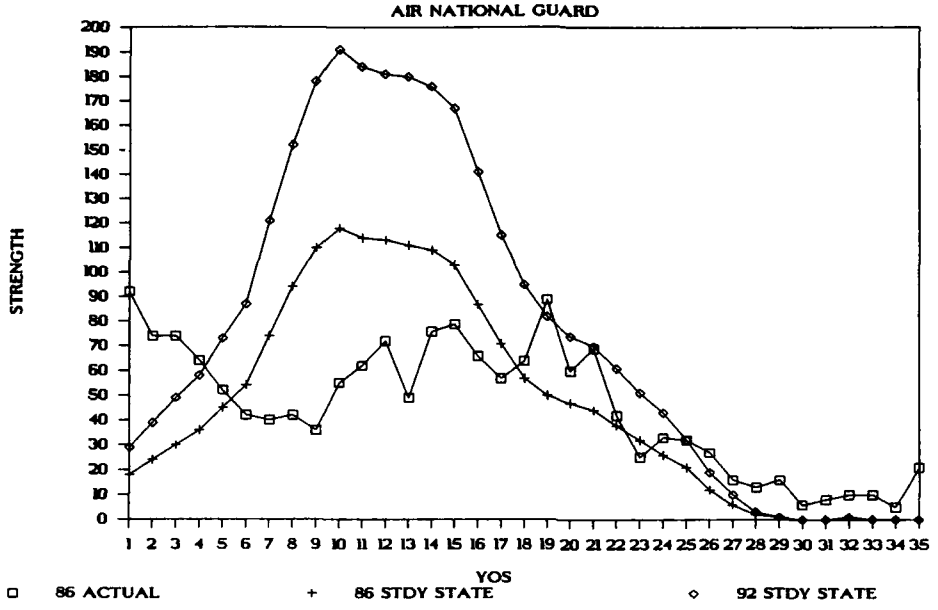



TOTAL AGR BY YOS 86 STEADY STATE
AIR NATIONAL GUARD - OFFICER
STRENGTH
YOS
O1
O2
O3
O4
O5
O6


TOTAL AGR BY YOS 92 STEADY STATE
AIR NATIONAL GUARD - OFFICER
STRENGTH
YOS
O1
O2
O3
O4
O5
O6

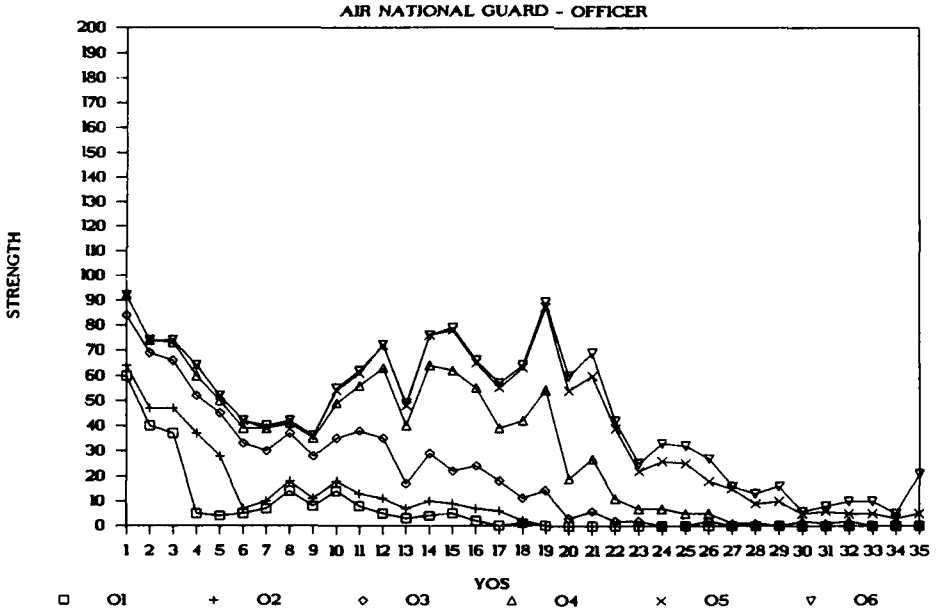
TOTAL MEDICAL OFFICERS BY YOS

AIR NATIONAL GUARD

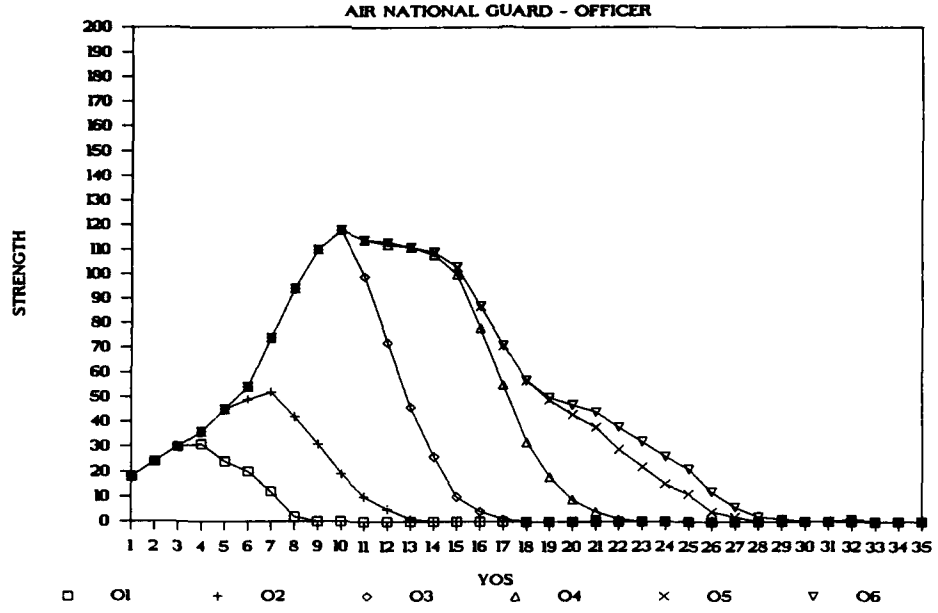


TOTAL MEDICAL BY YOS 86 ACTUAL

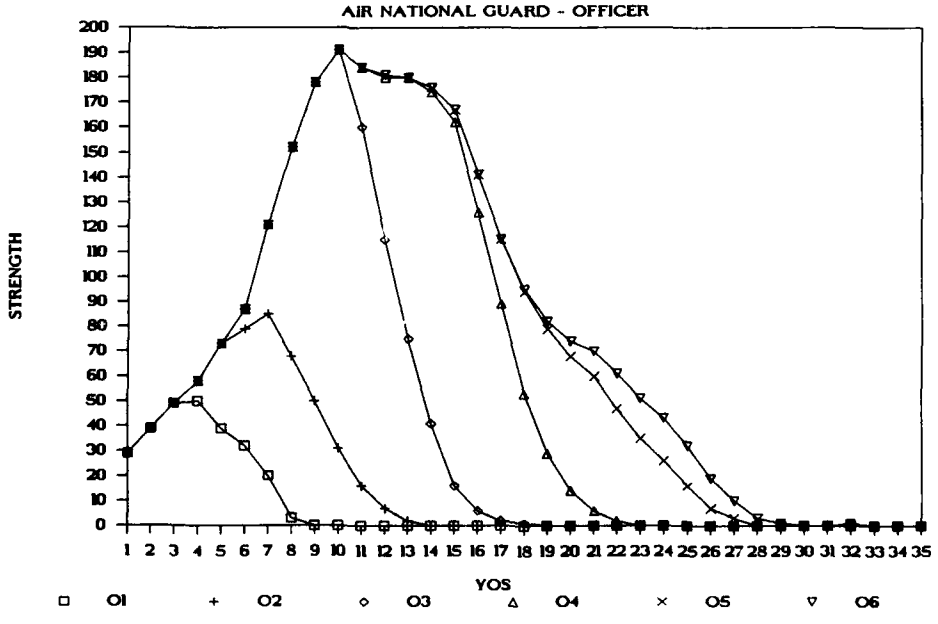
AIR NATIONAL GUARD - OFFICER



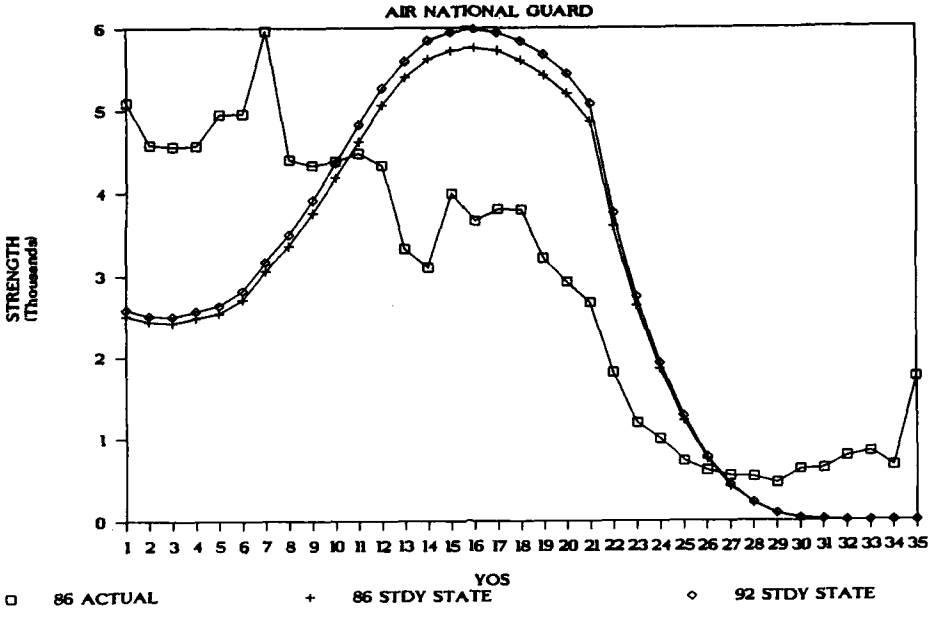
TOTAL MEDICAL BY YOS 86 STEADY STATE



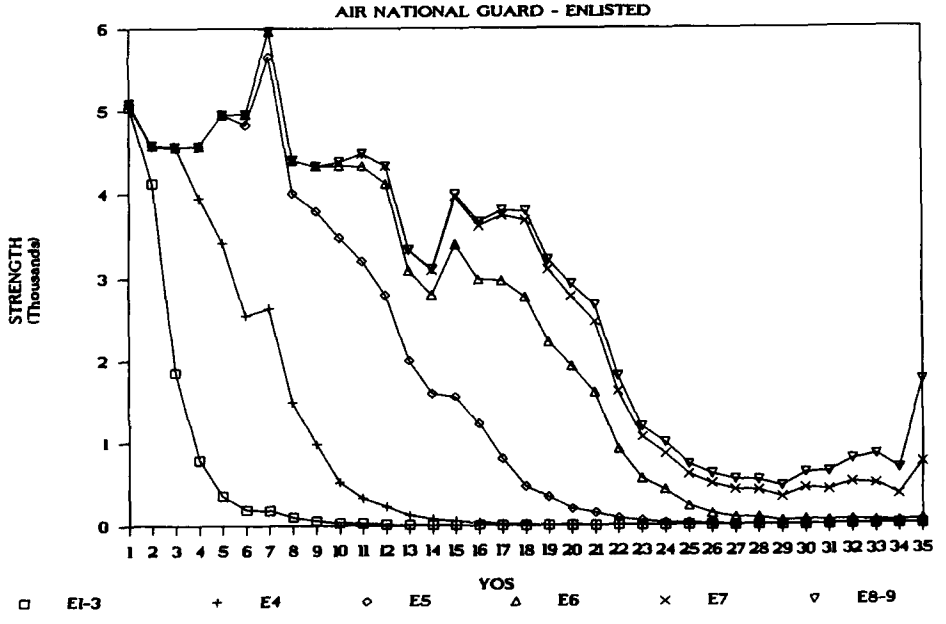
TOTAL MEDICAL BY YOS 92 STEADY STATE



TOTAL SELRES ENLISTED BY YOS

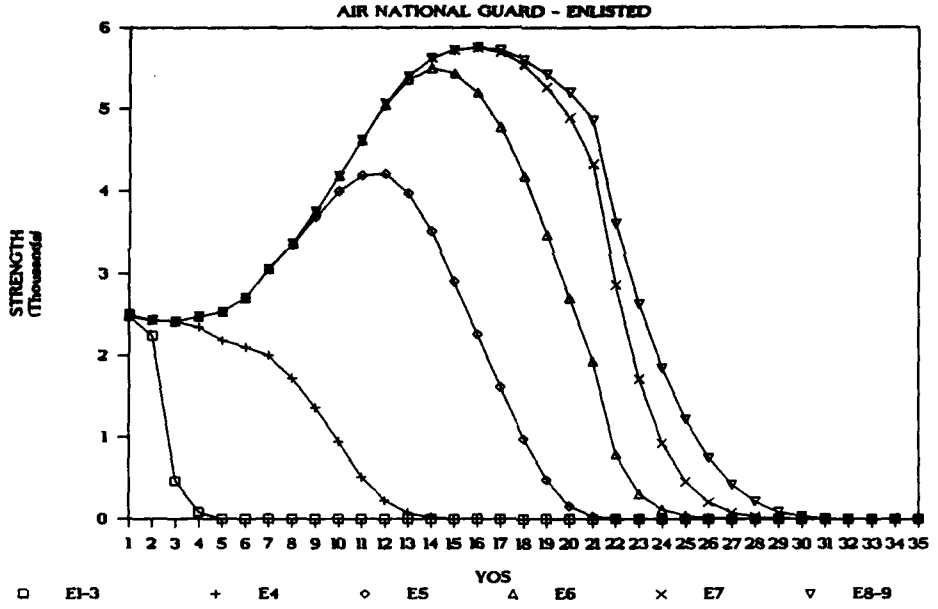


TOTAL SELRES BY YOS 86 ACTUAL



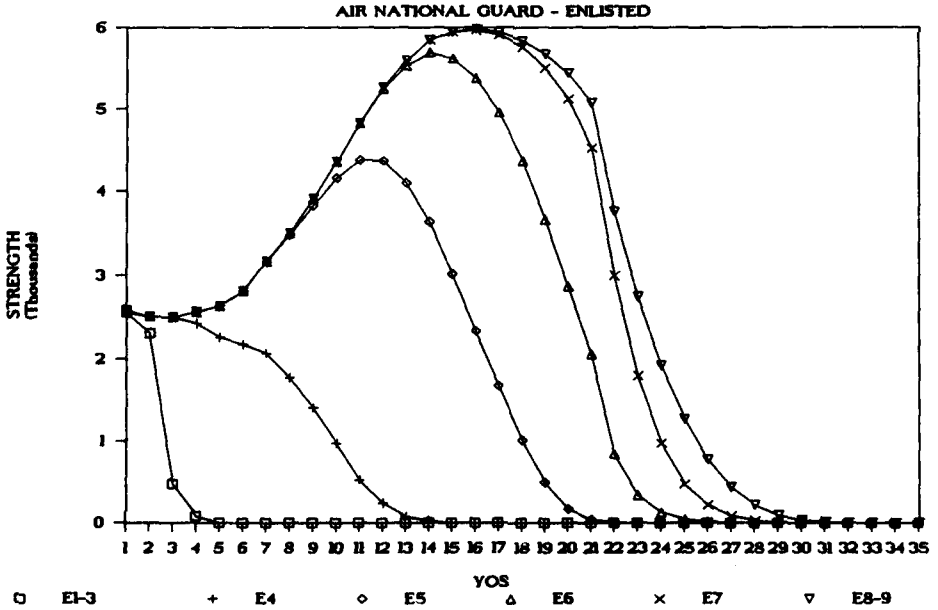
TOTAL SELRES BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



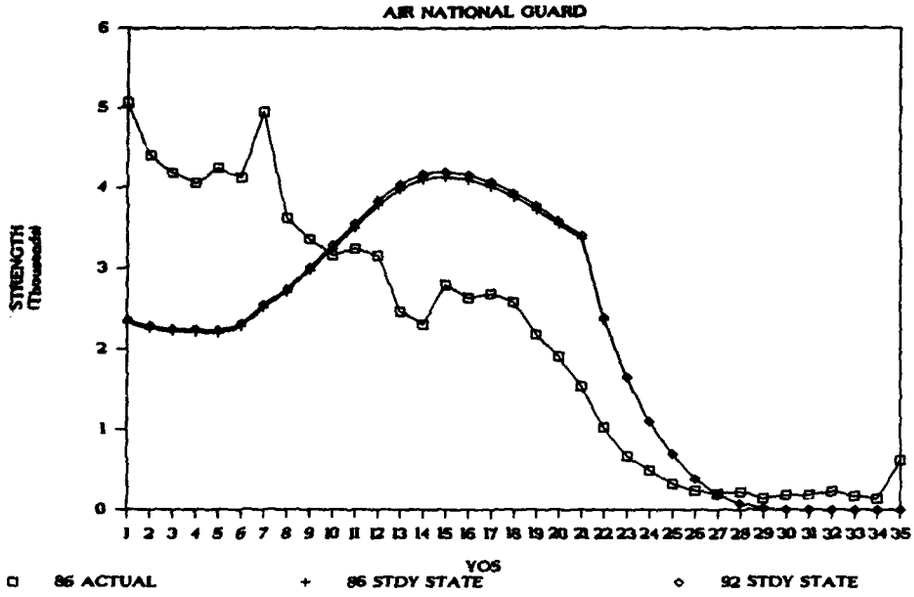
TOTAL SELRES BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



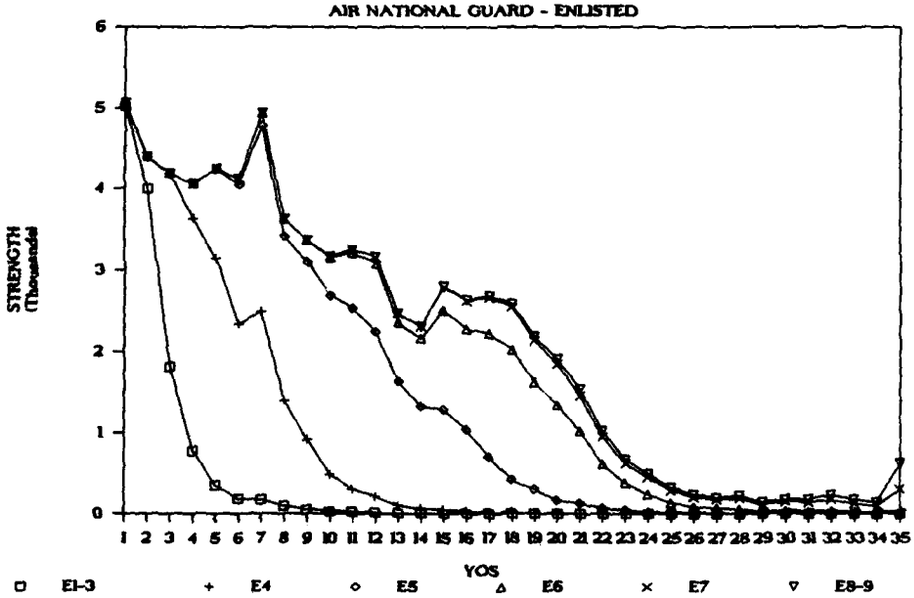
TOTAL PART-TIME ENLISTED BY YOS

AIR NATIONAL GUARD



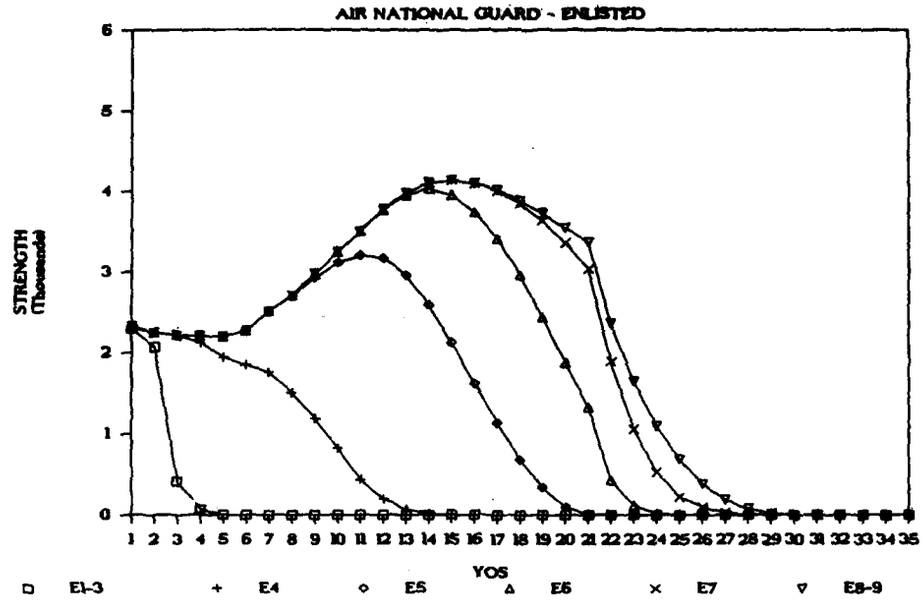
TOTAL PART-TIME BY YOS 86 ACTUAL

AIR NATIONAL GUARD - ENLISTED



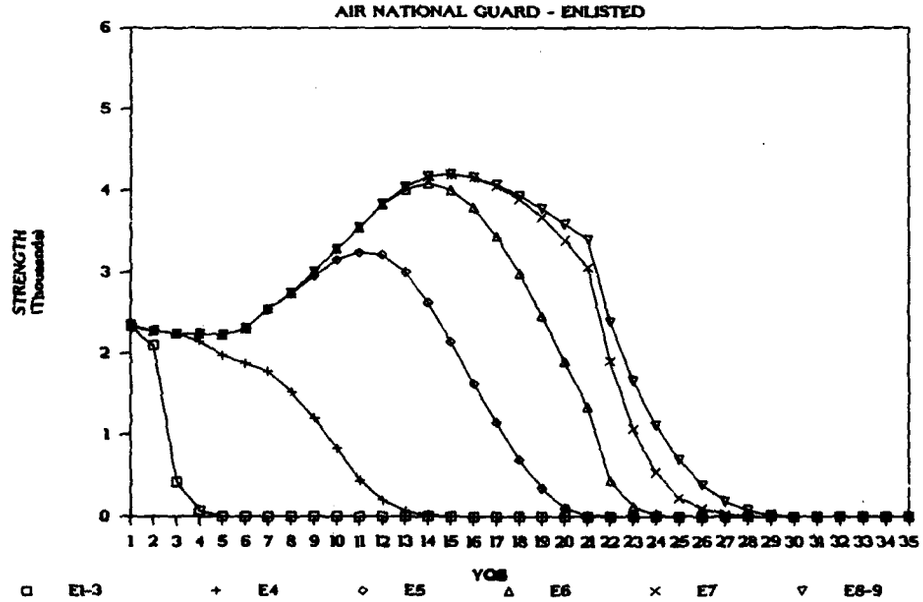
TOTAL PART-TIME BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



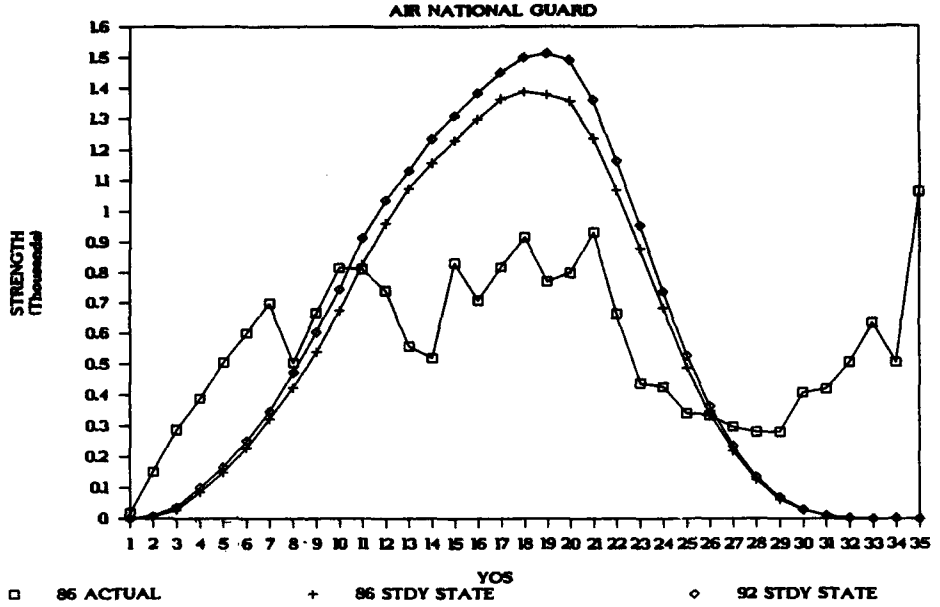
TOTAL PART-TIME BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



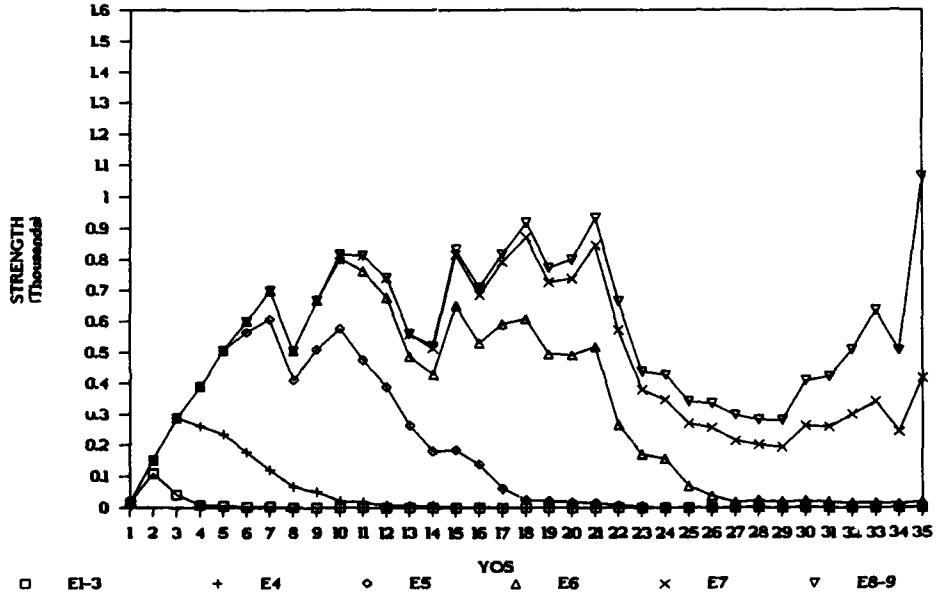
TOTAL MT ENLISTED BY YOS

AIR NATIONAL GUARD



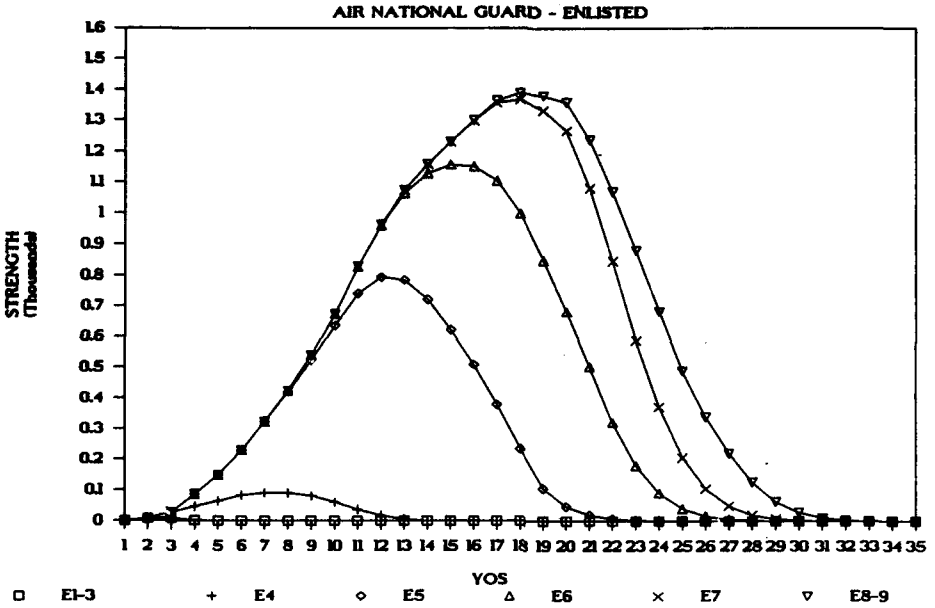
TOTAL MTs BY YOS 86 ACTUAL

AIR NATIONAL GUARD - ENLISTED



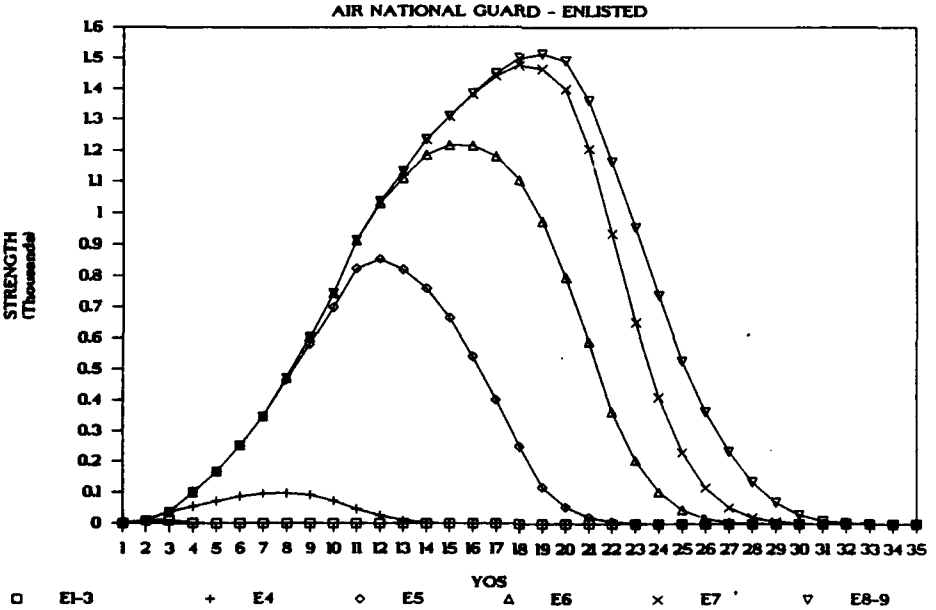
TOTAL MTs BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



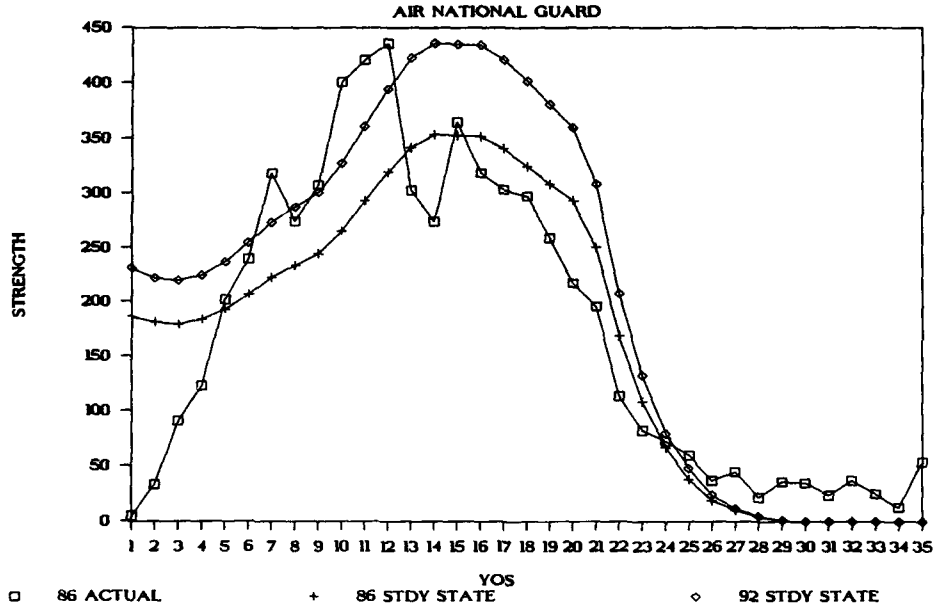
TOTAL MTs BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



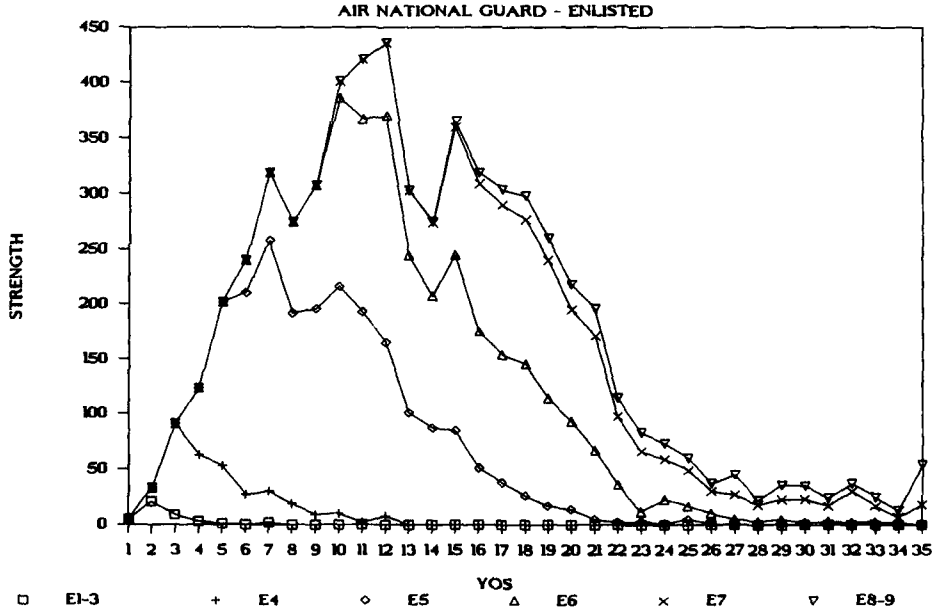
TOTAL AGR ENLISTED BY YOS

AIR NATIONAL GUARD



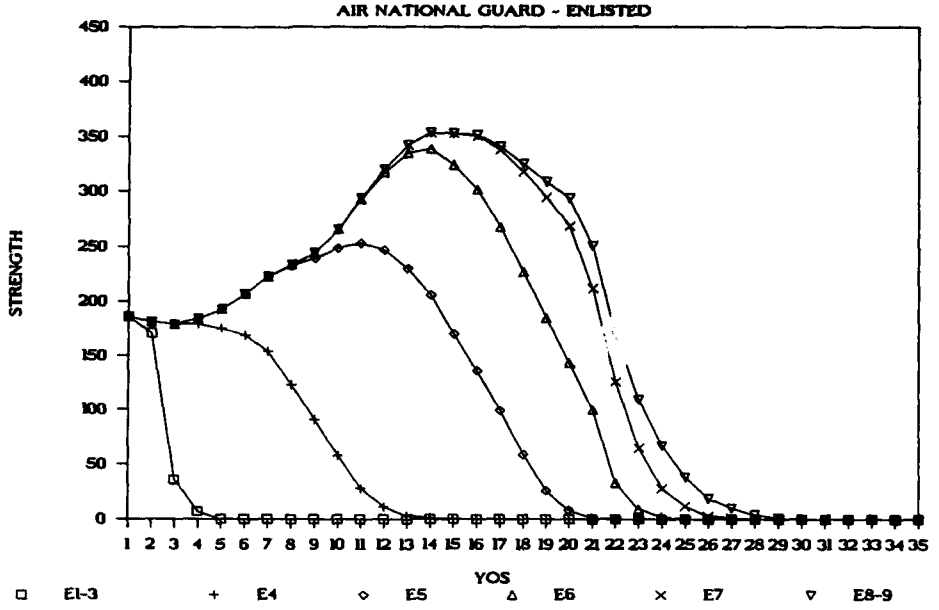
TOTAL AGR BY YOS 86 ACTUAL

AIR NATIONAL GUARD - ENLISTED



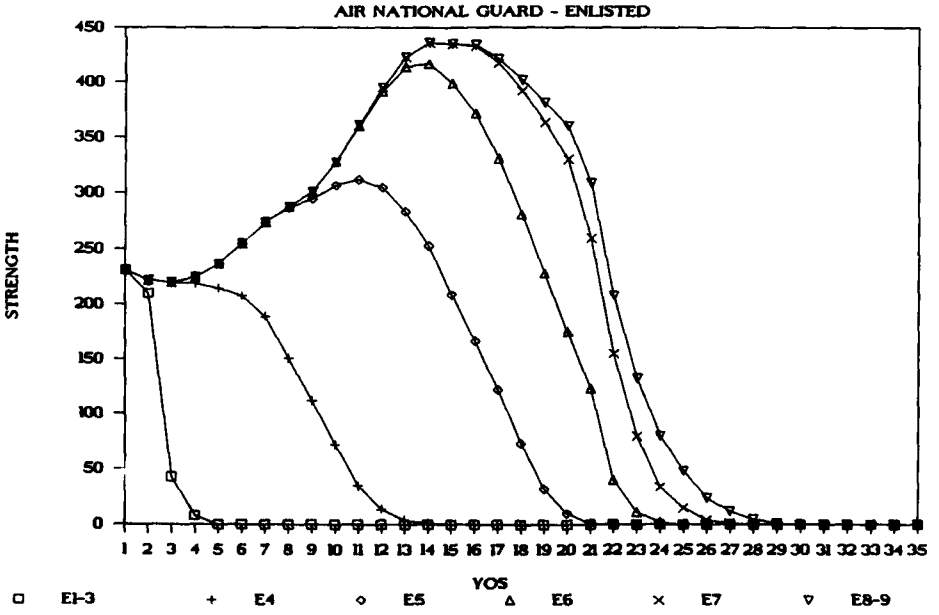
TOTAL AGR BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



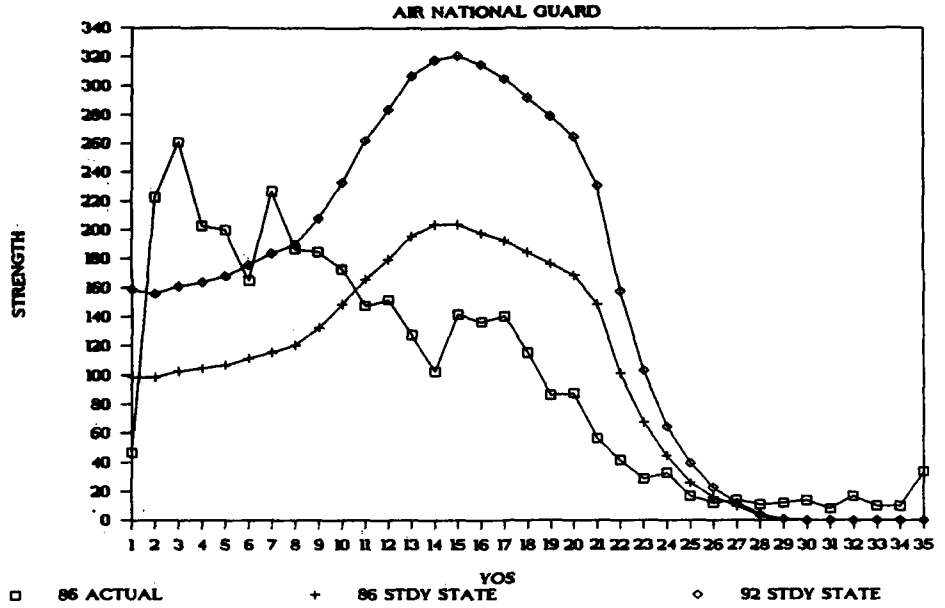
TOTAL AGR BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



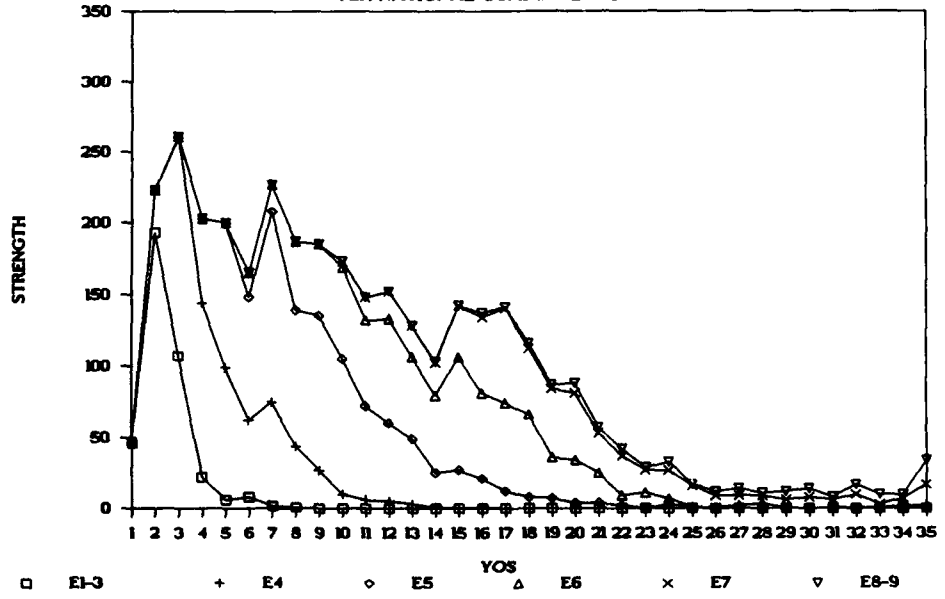
TOTAL MEDICAL ENLISTED BY YOS

AIR NATIONAL GUARD



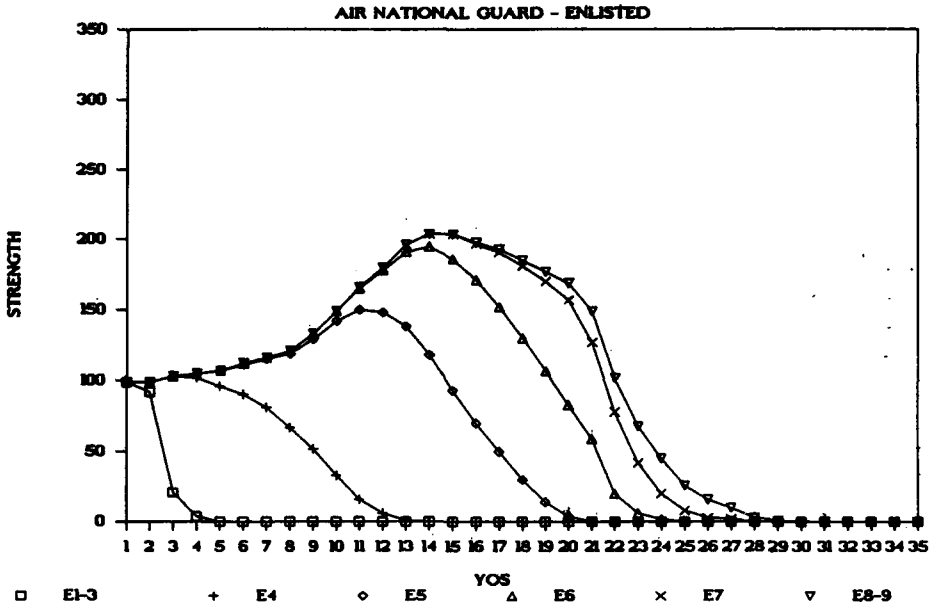
TOTAL MEDICAL BY YOS 86 ACTUAL

AIR NATIONAL GUARD - ENLISTED



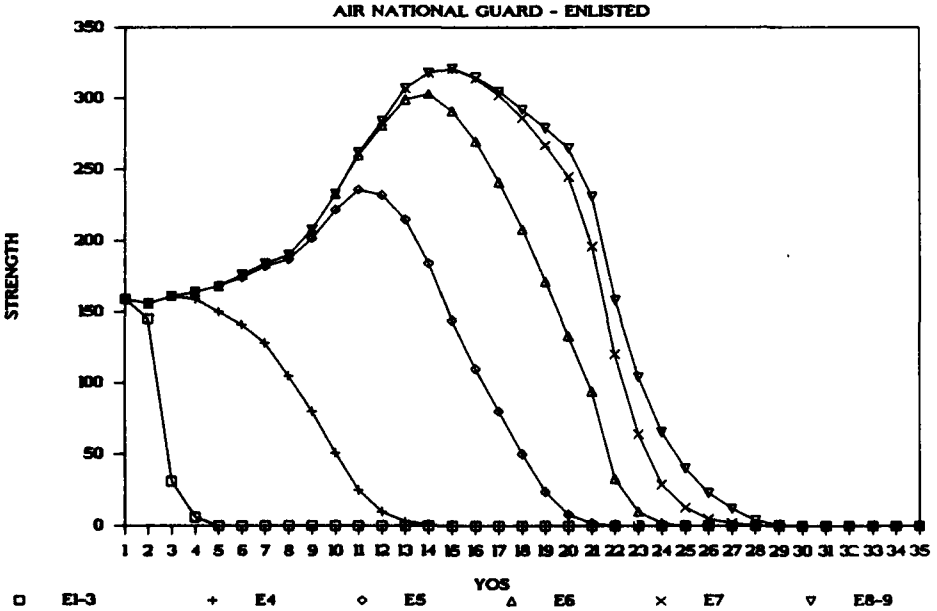
TOTAL MEDICAL BY YOS 86 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



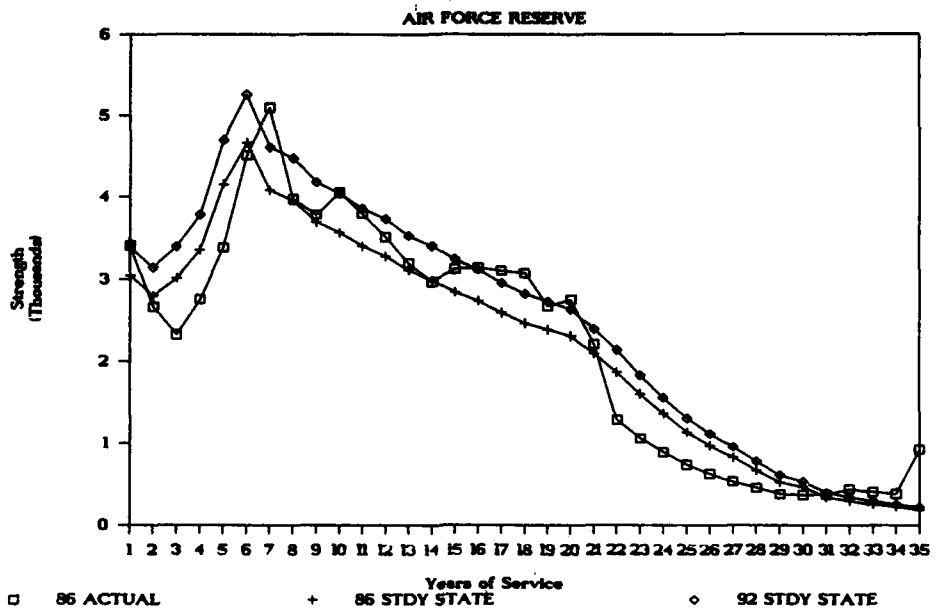
TOTAL MEDICAL BY YOS 92 STEADY STATE

AIR NATIONAL GUARD - ENLISTED



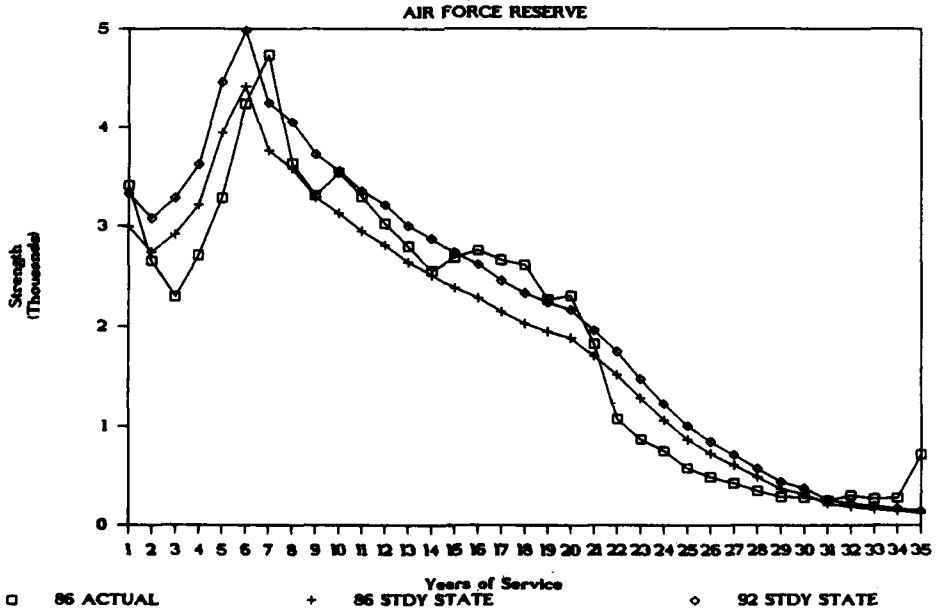
TOTAL SELRES BY YOS

AIR FORCE RESERVE



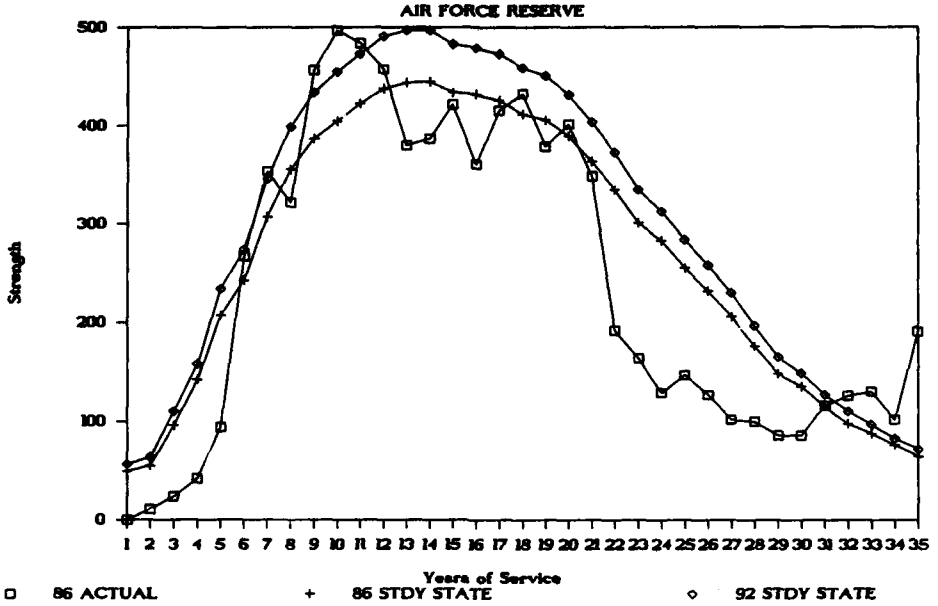
TOTAL PART-TIME BY YOS

AIR FORCE RESERVE



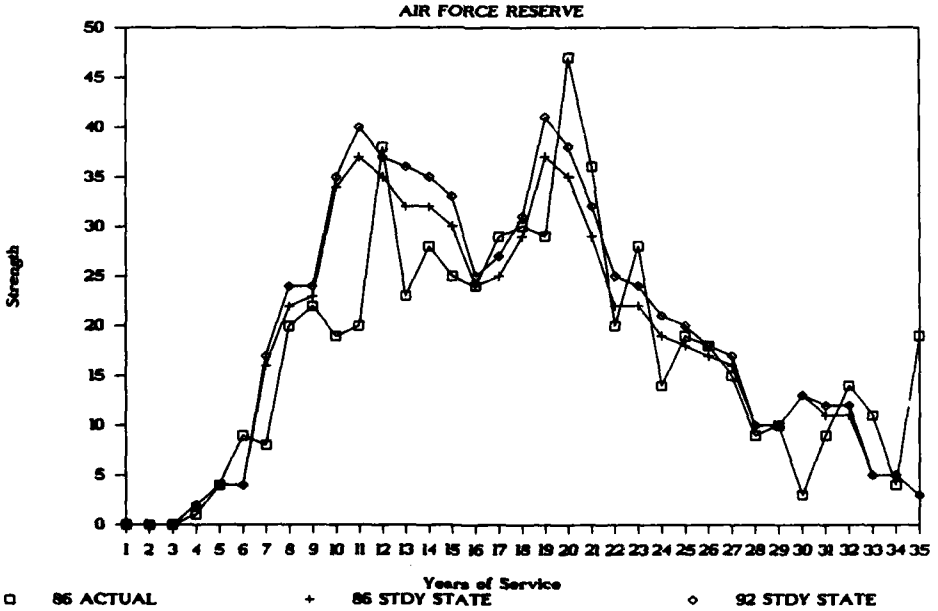
TOTAL MTs BY YOS

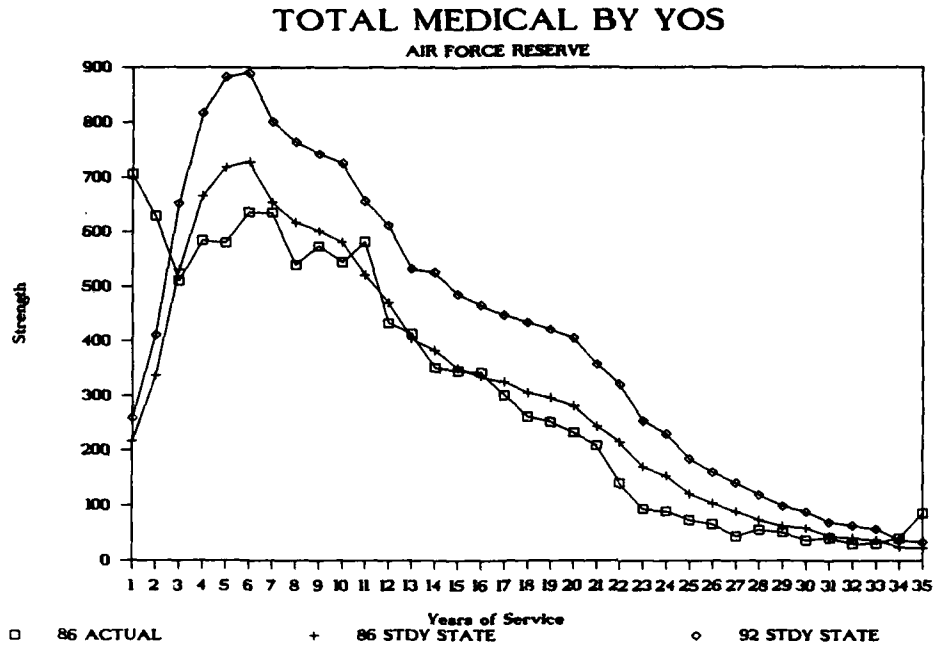
AIR FORCE RESERVE



TOTAL AGRs BY YOS

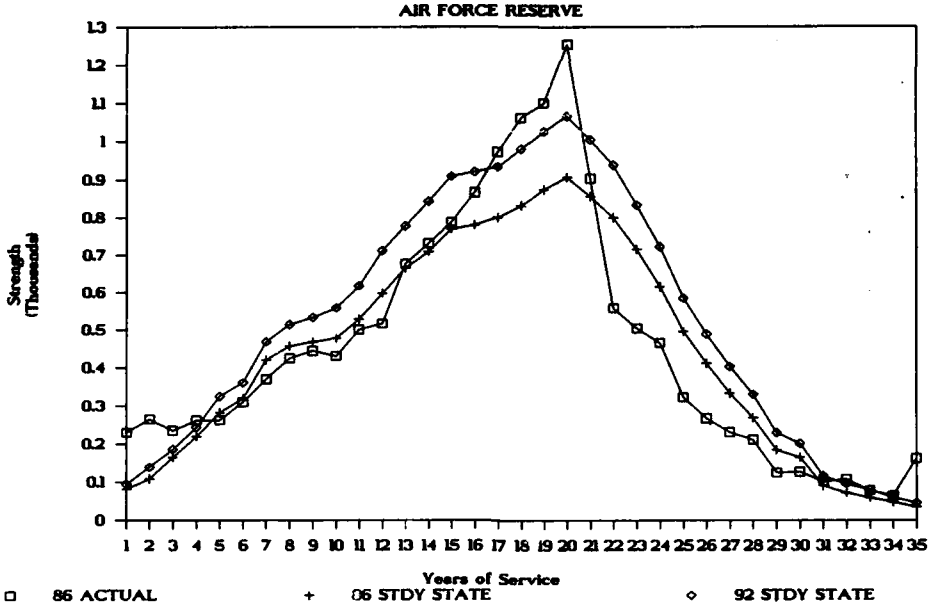
AIR FORCE RESERVE




TOTAL MEDICAL BY YOS
AIR FORCE RESERVE
Strength
900
800
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
Years of Service
86 ACTUAL
86 STDY STATE
92 STDY STATE

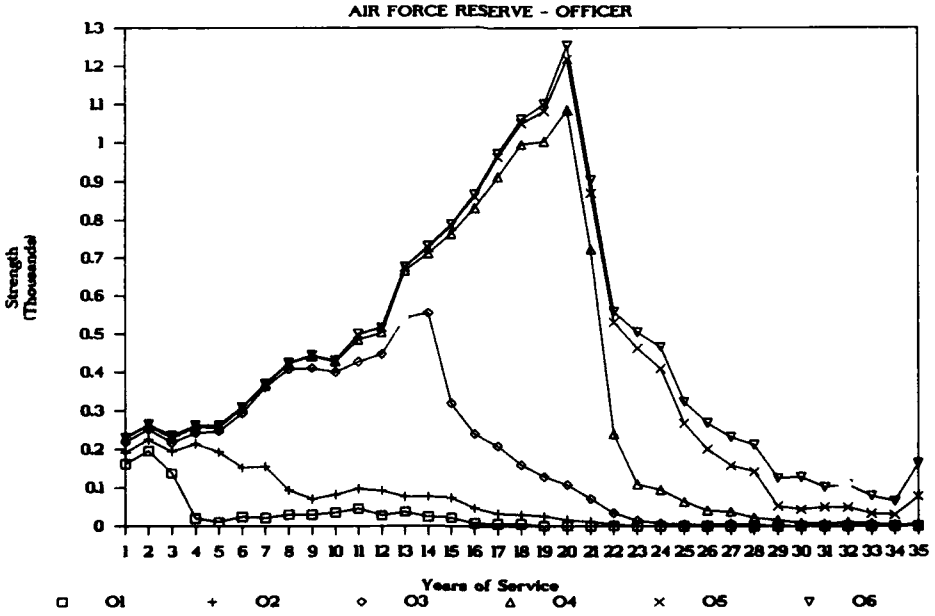
TOTAL SELRES OFFICERS BY YOS

AIR FORCE RESERVE

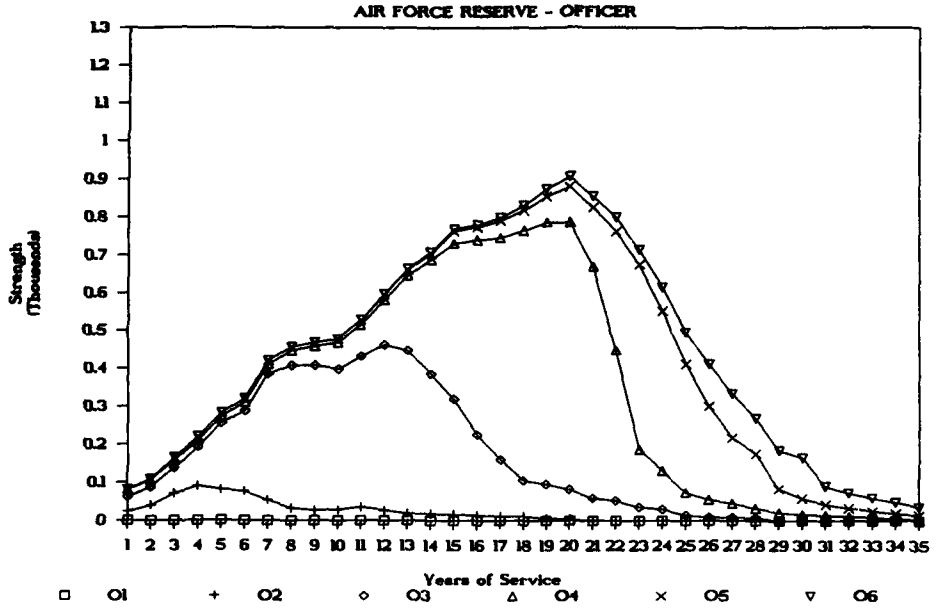


TOTAL SELRES BY YOS 86 ACTUAL

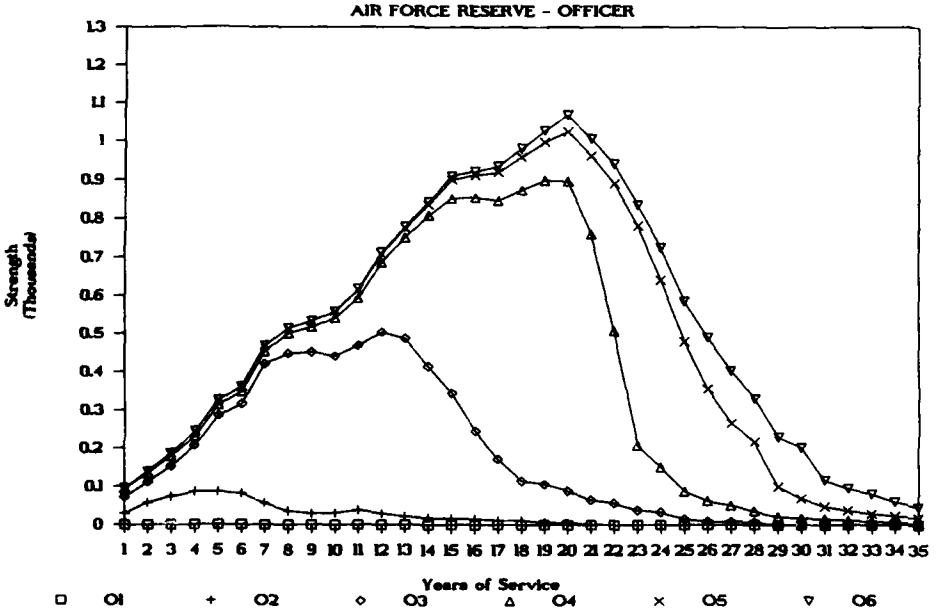
AIR FORCE RESERVE - OFFICER



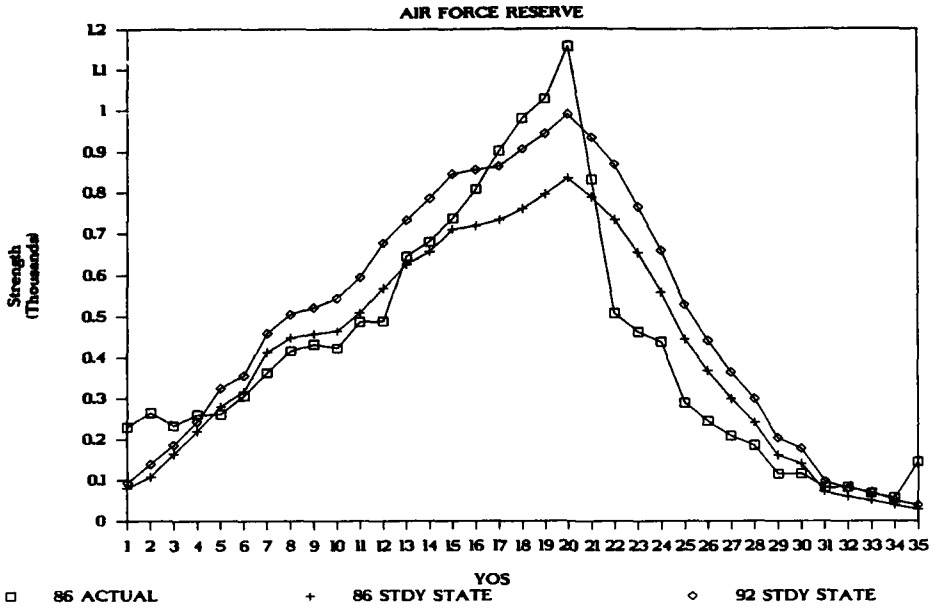
TOTAL SELRES BY YOS 86 STEADY STATE



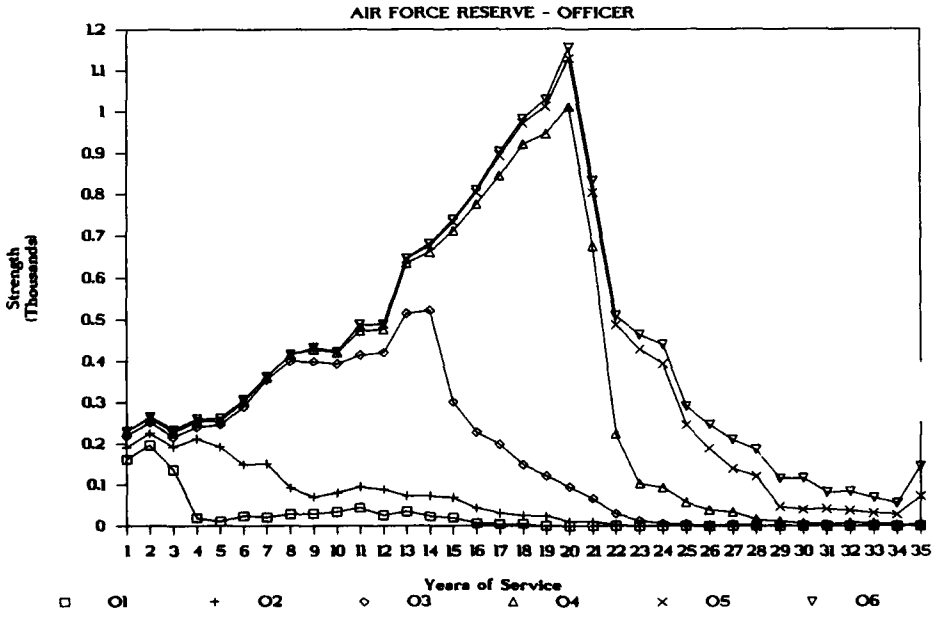
TOTAL SELRES BY YOS 92 STEADY STATE



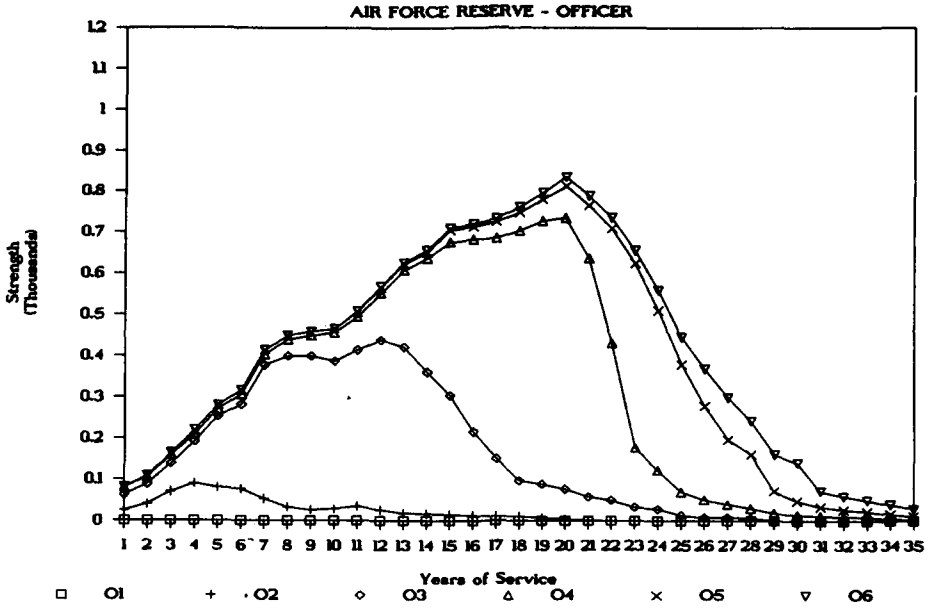
TOTAL PART-TIME OFFICERS BY YOS



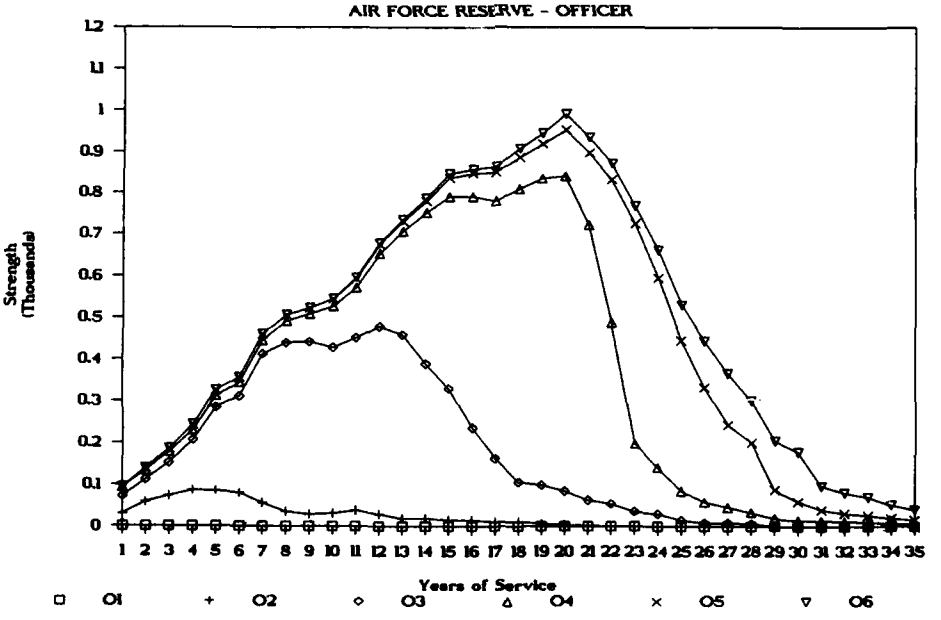
TOTAL PART-TIME BY YOS 86 ACTUAL



TOTAL PART-TIME BY YOS 86 STEADY STATE

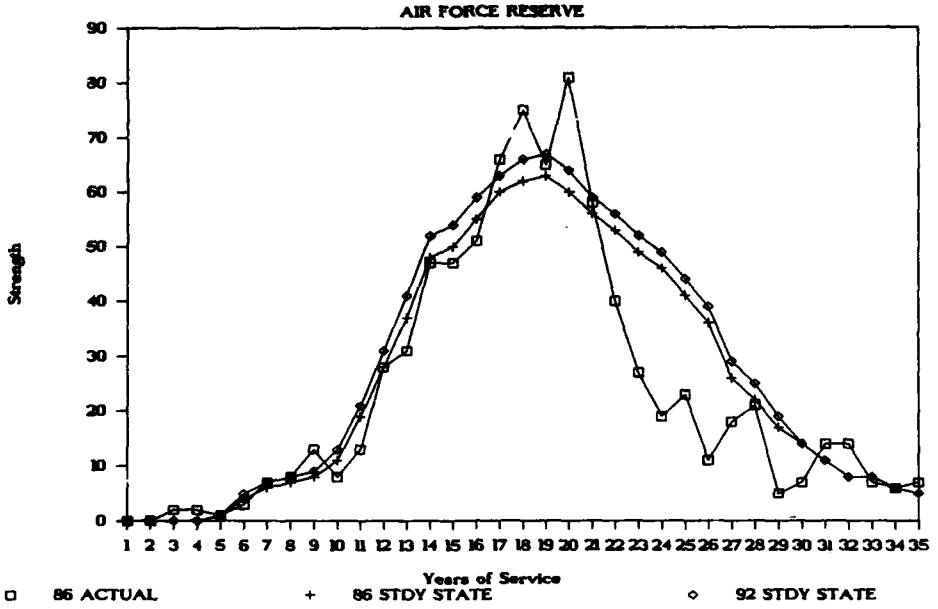


TOTAL PART-TIME BY YOS 92 STEADY STATE



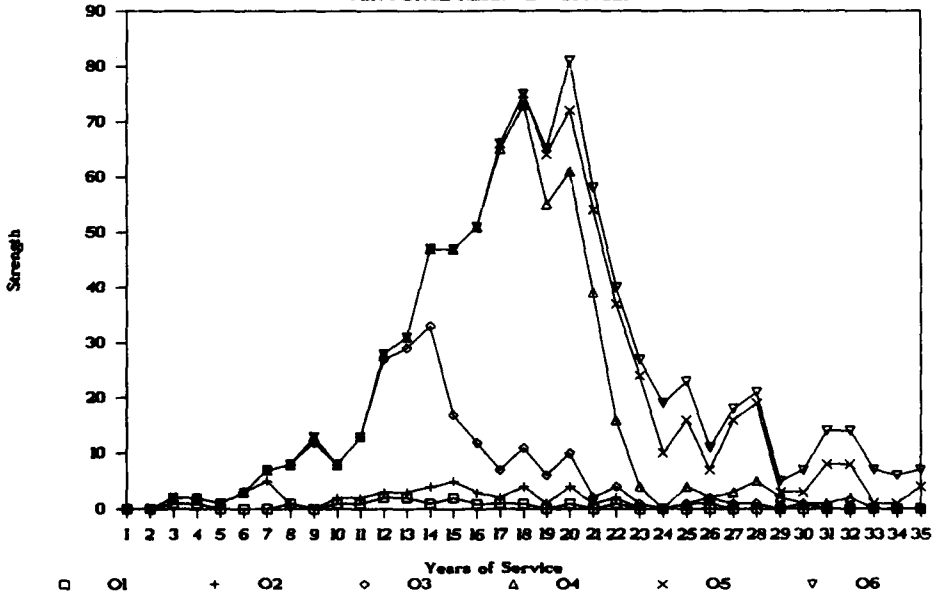
TOTAL MT OFFICERS BY YOS

AIR FORCE RESERVE



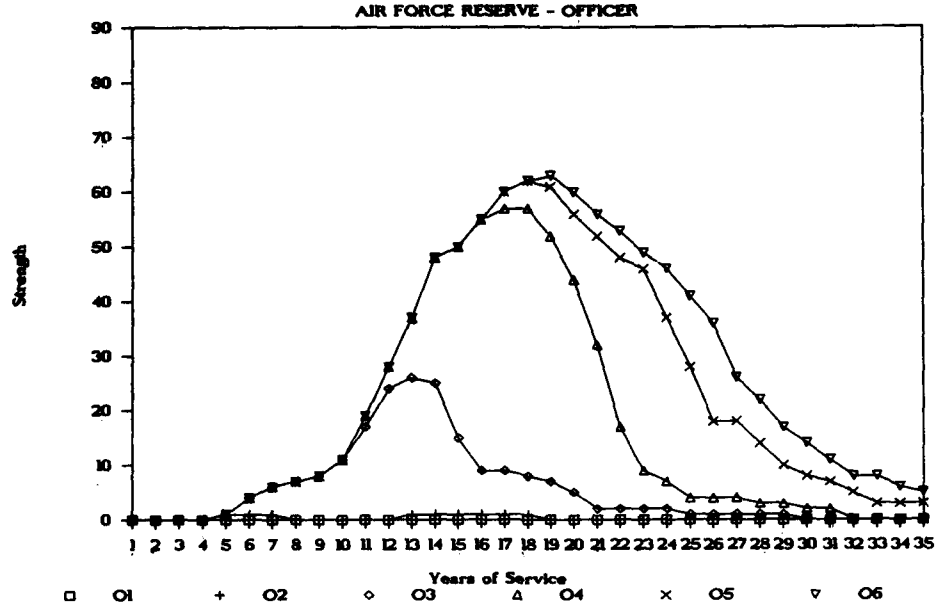
TOTAL MTs BY YOS 86 ACTUAL

AIR FORCE RESERVE - OFFICER



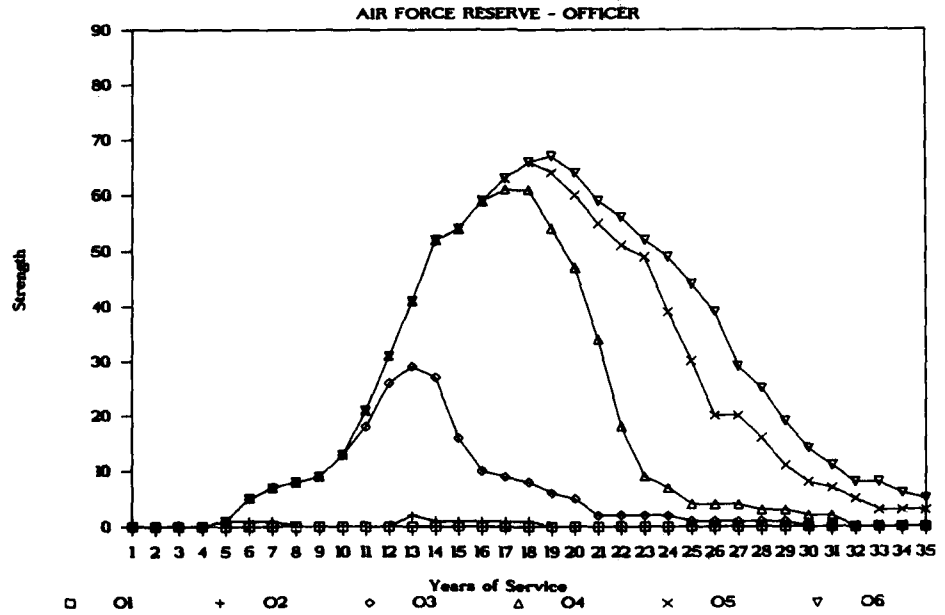
TOTAL MTs BY YOS 86 STEADY STATE

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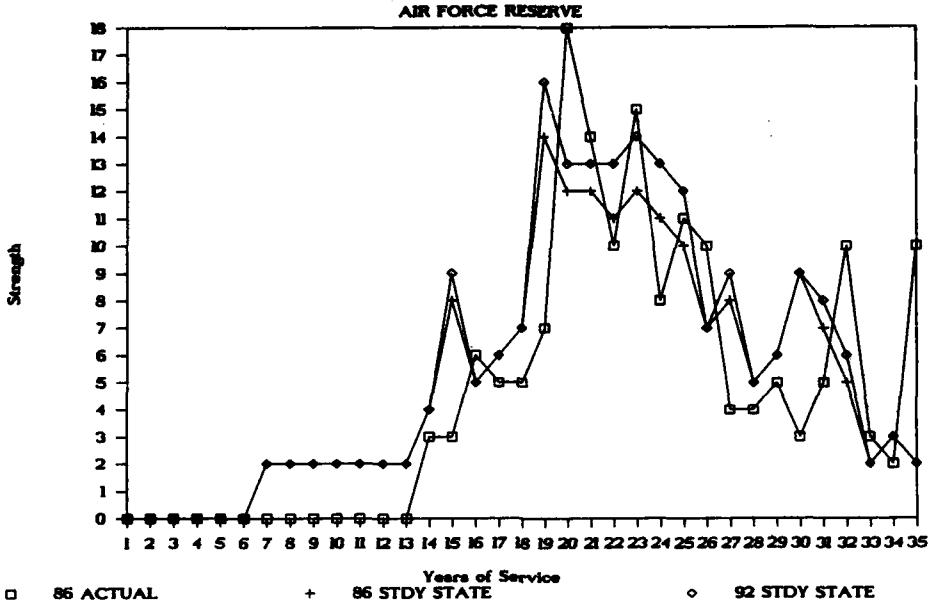


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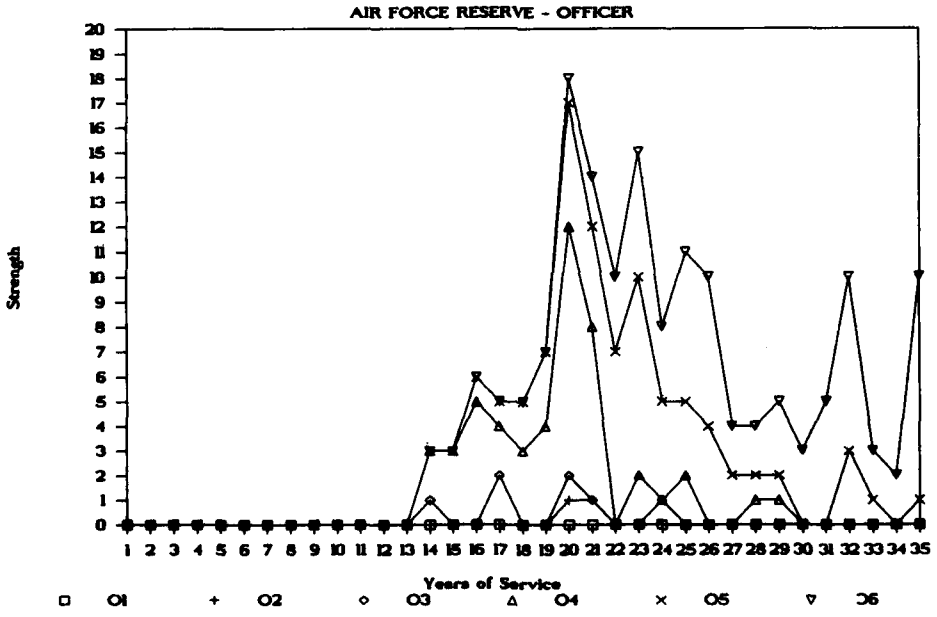
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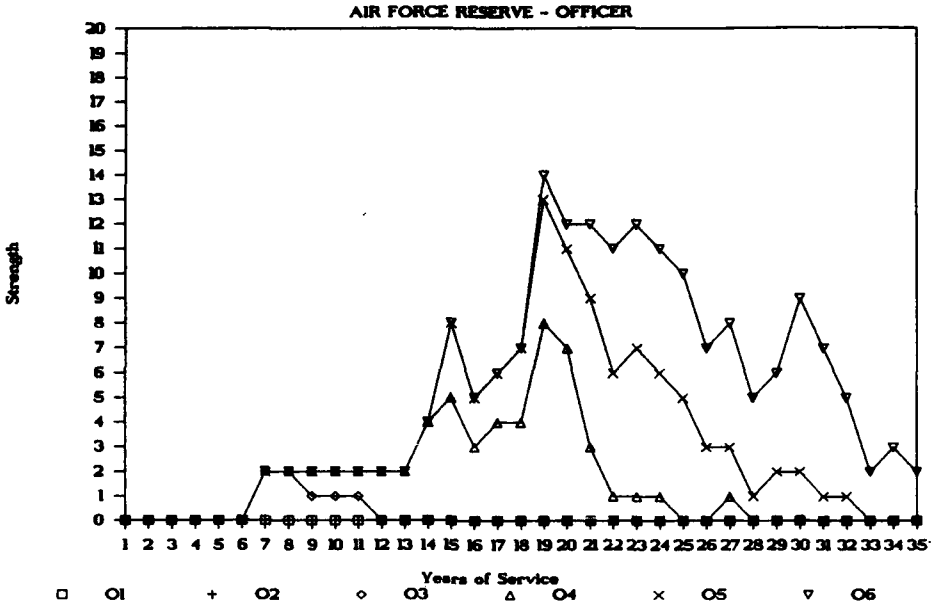
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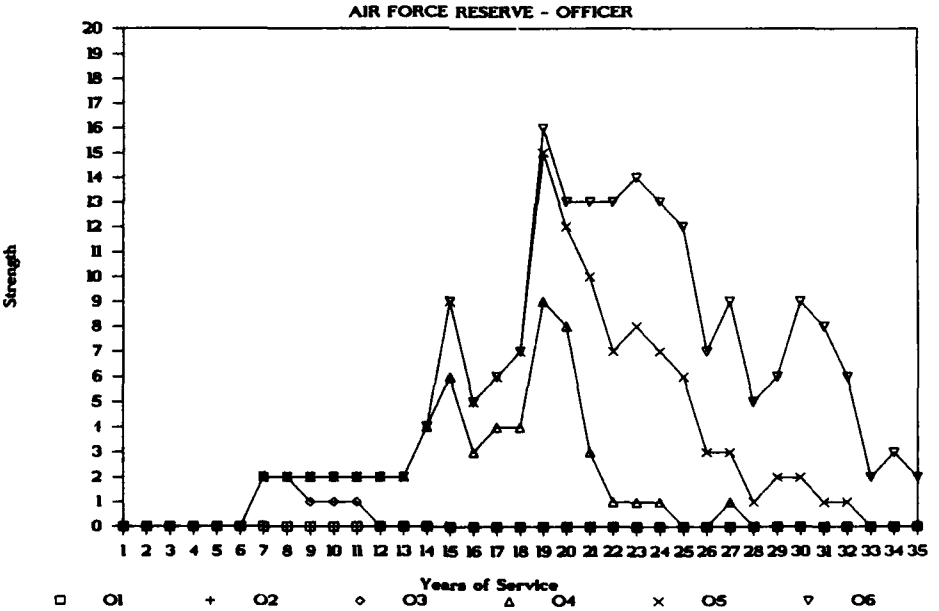
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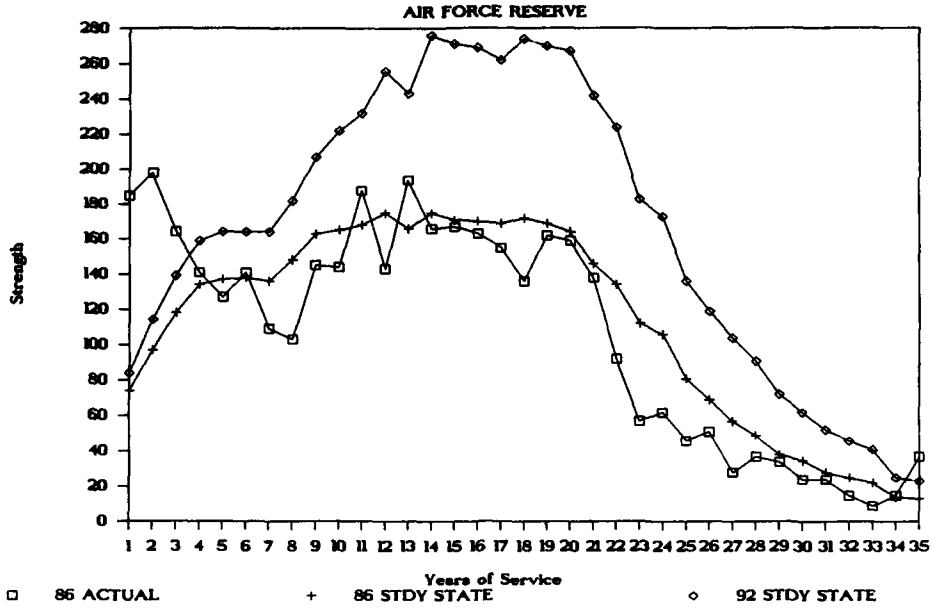
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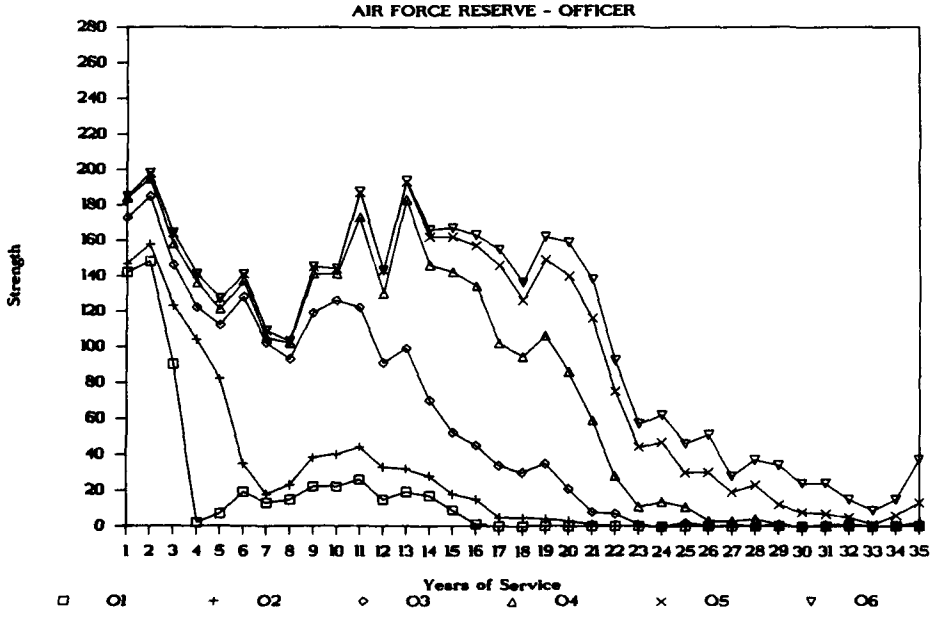
TOTAL AGRs BY YOS 92 STEADY STATE



TOTAL MEDICAL OFFICERS BY YOS

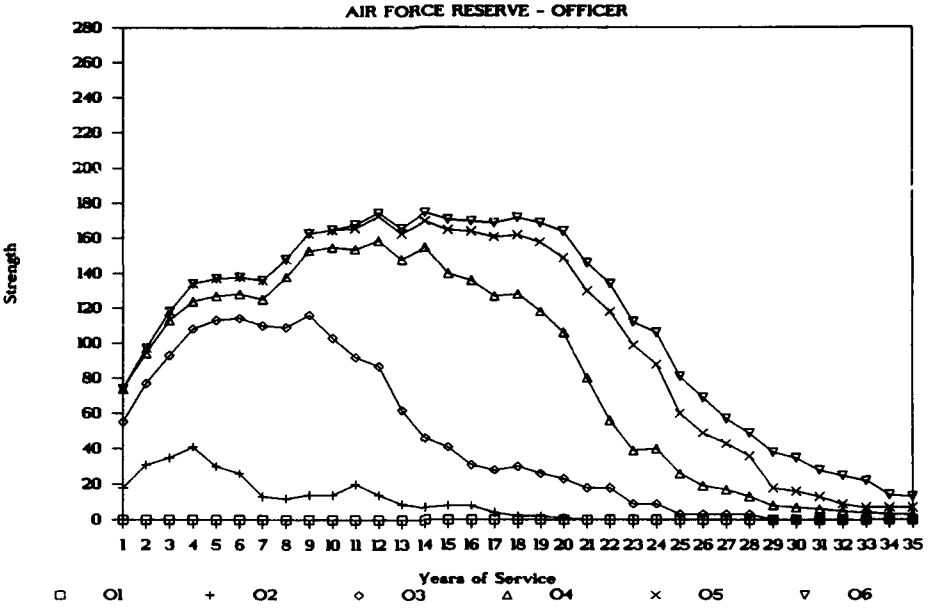


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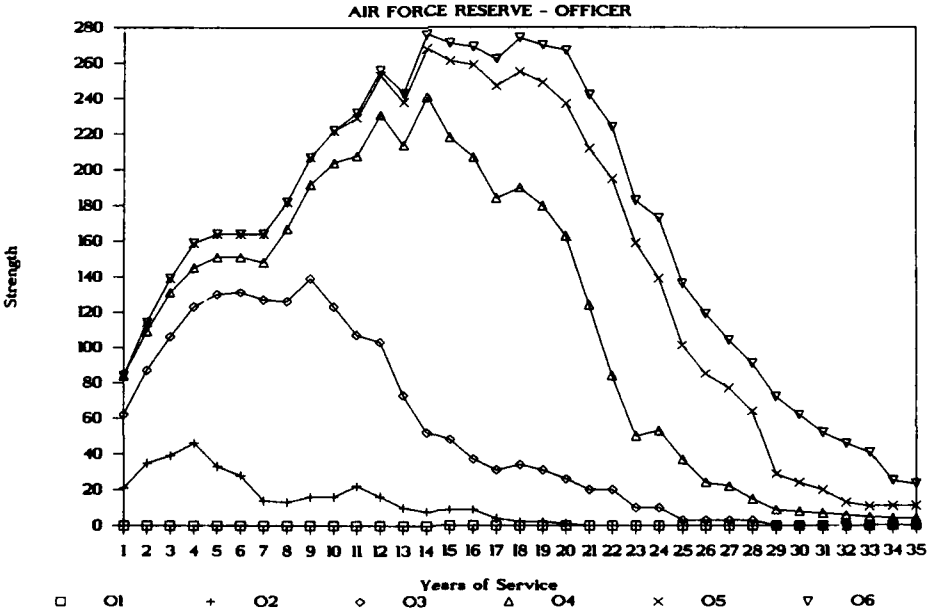
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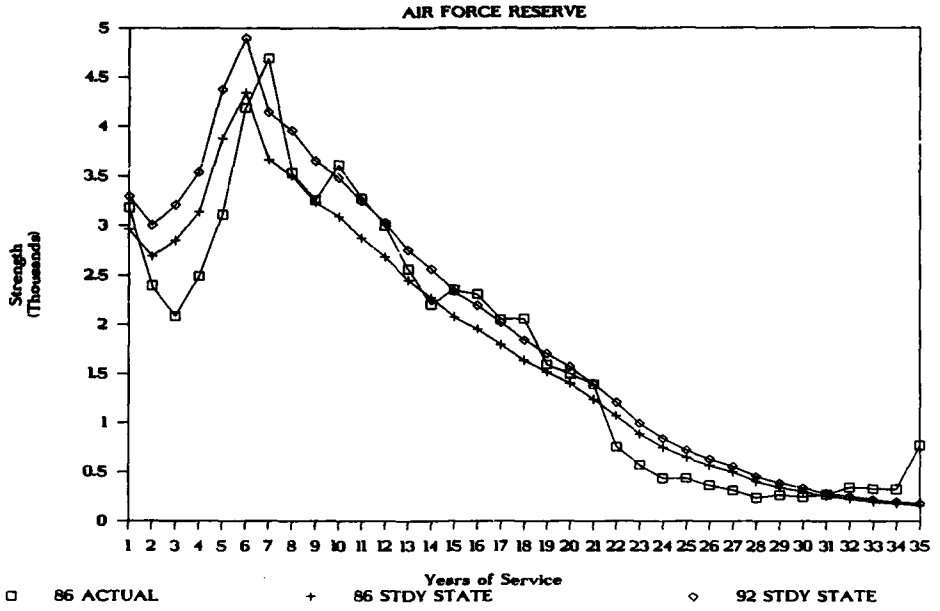


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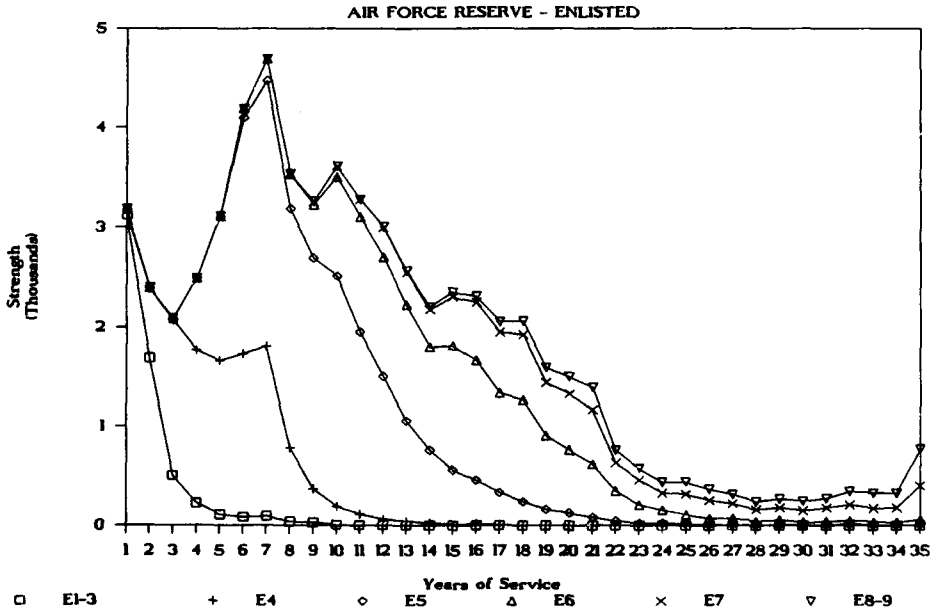
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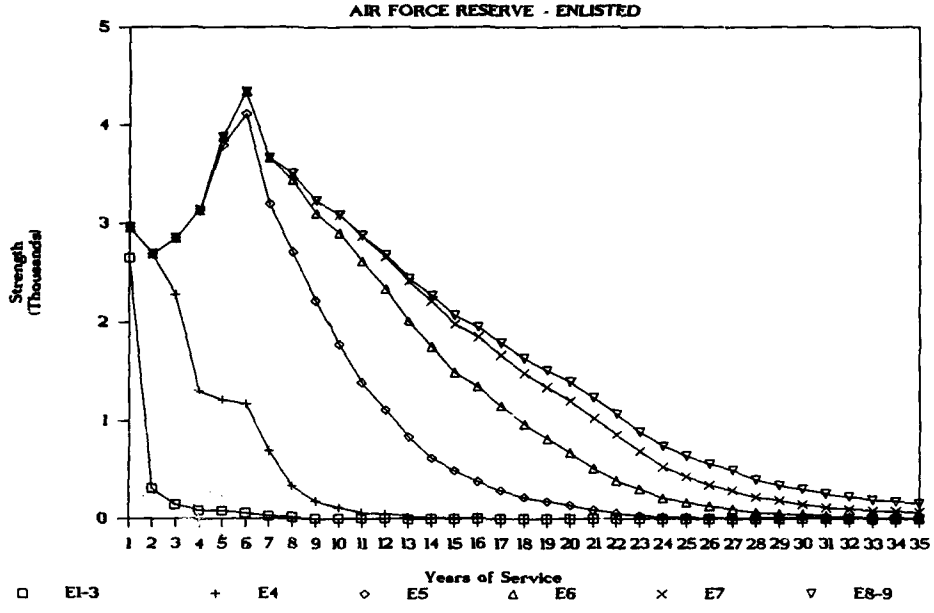
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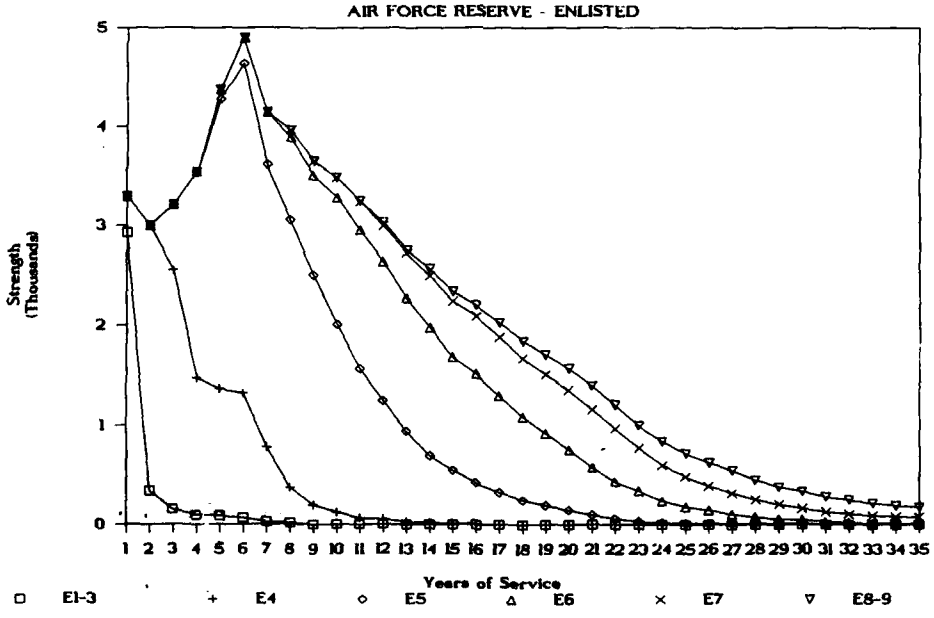
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TOTAL SELRES BY YOS 86 STEADY STATE

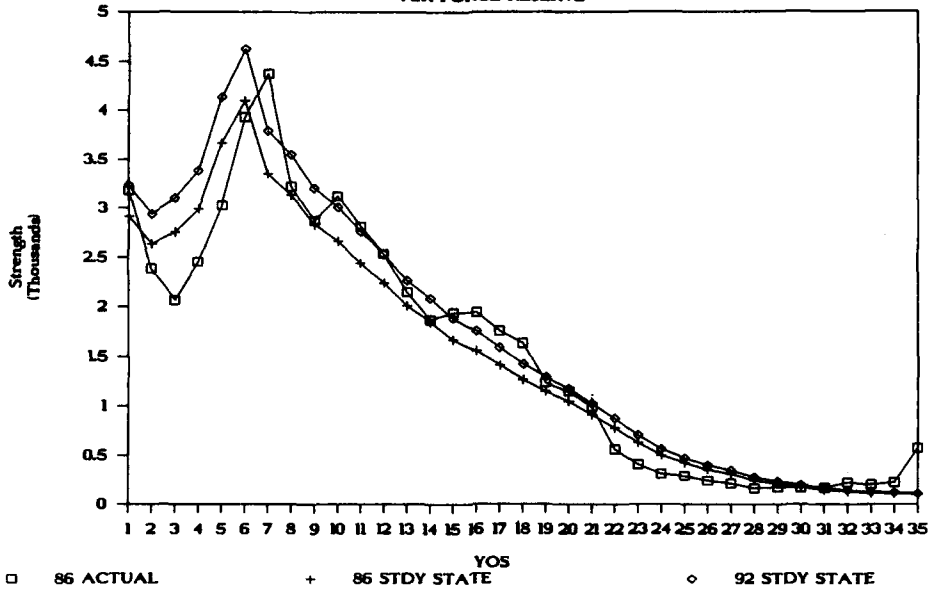


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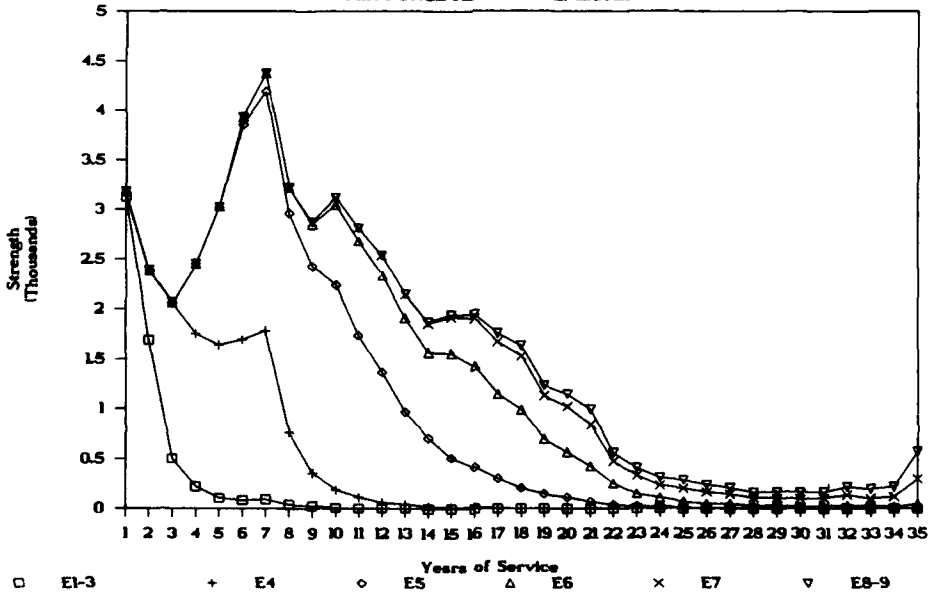
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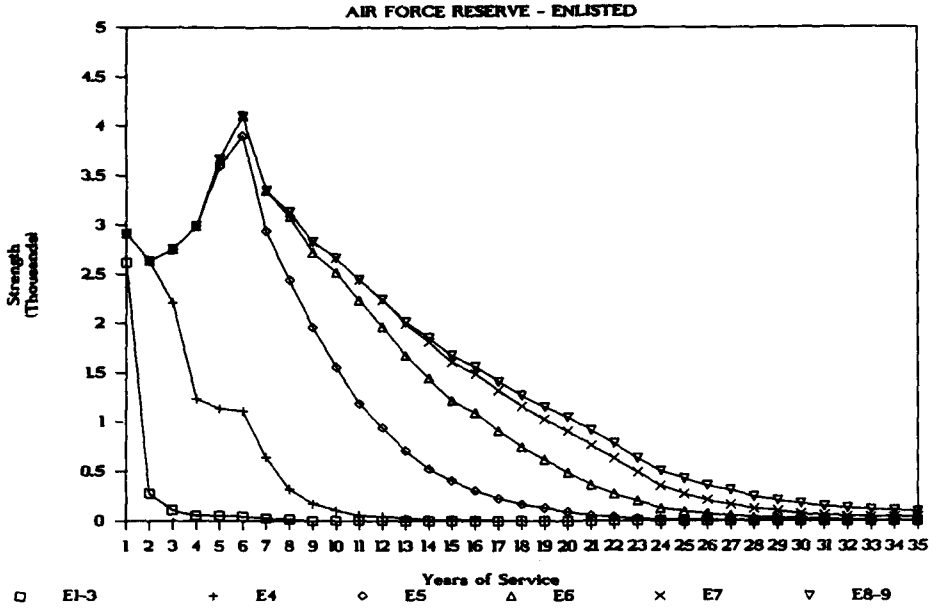


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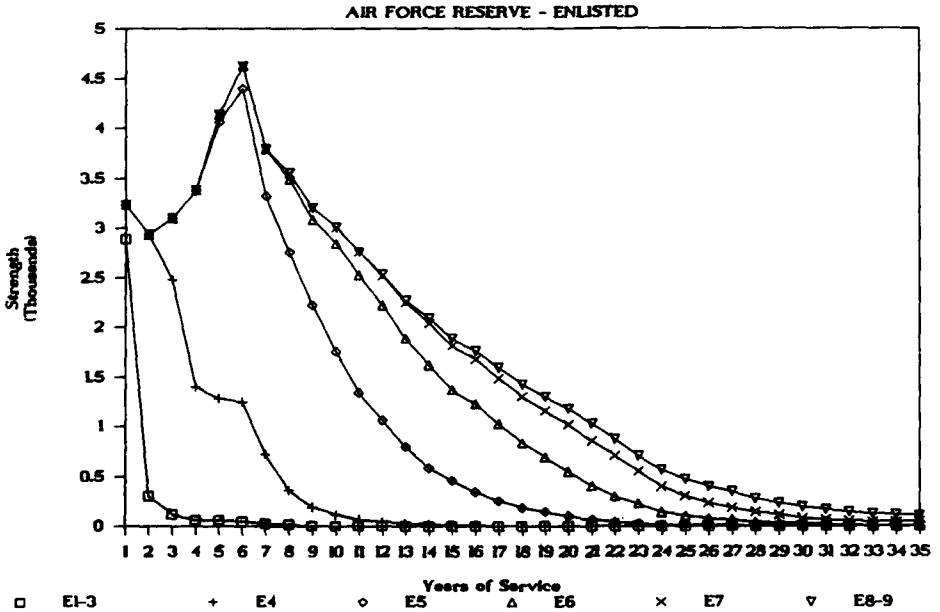
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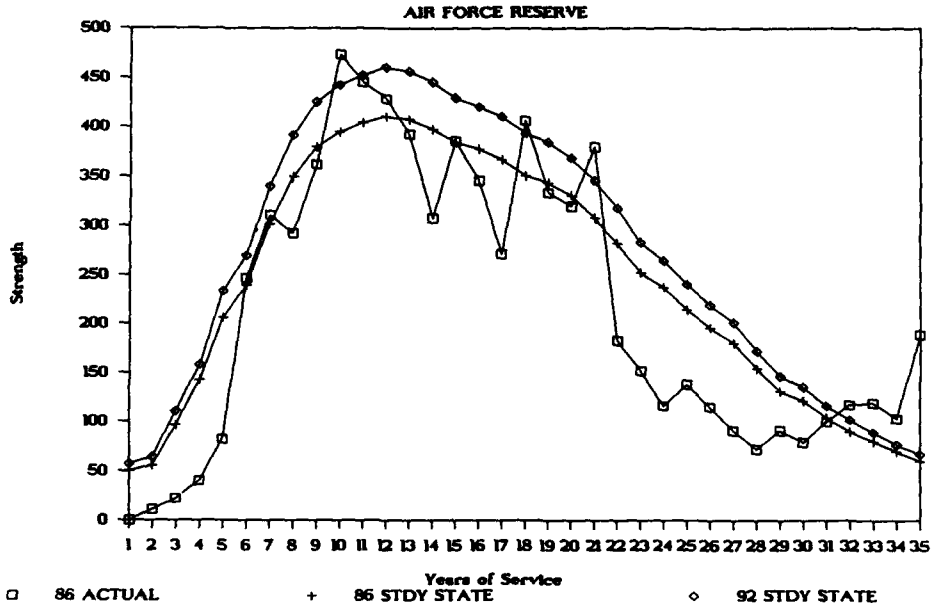
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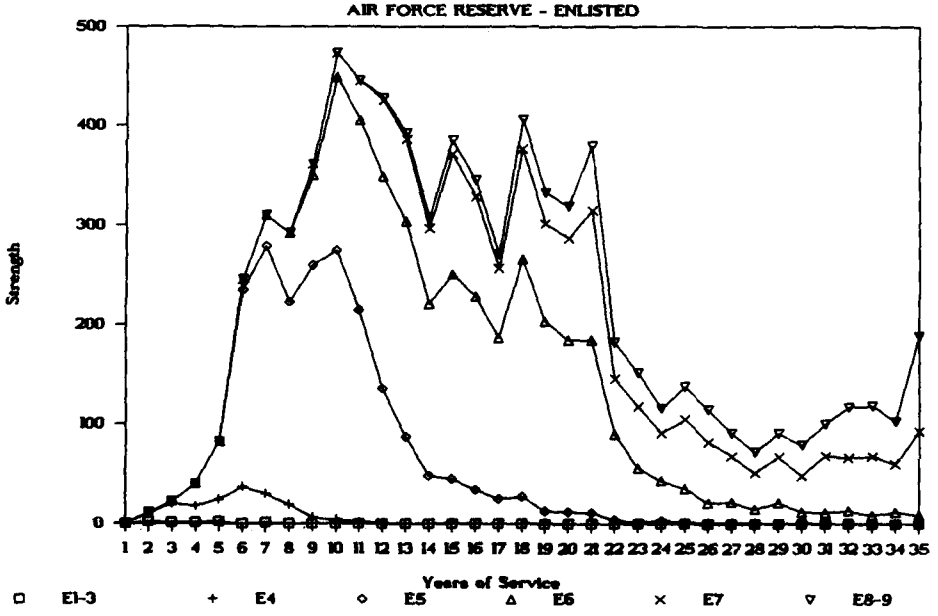
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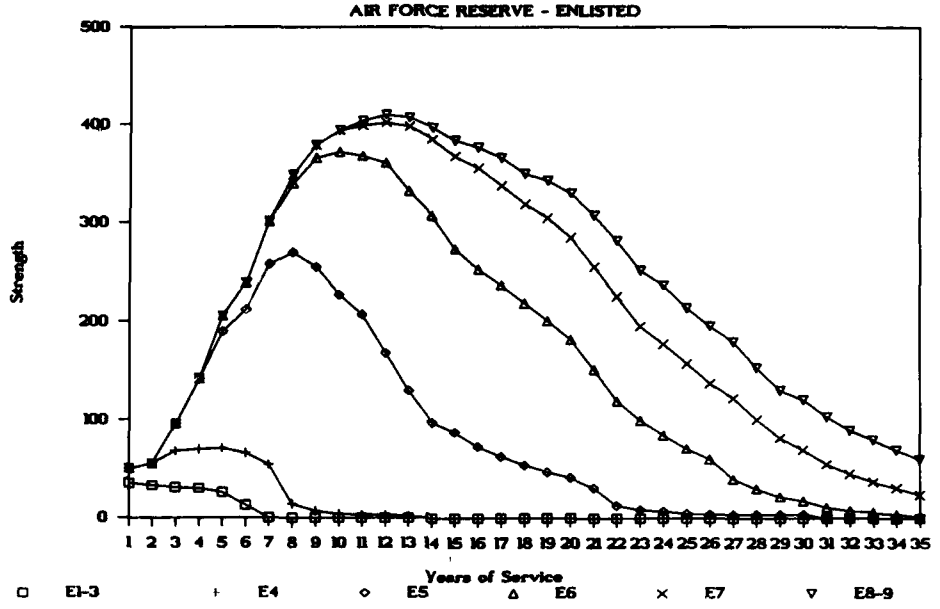


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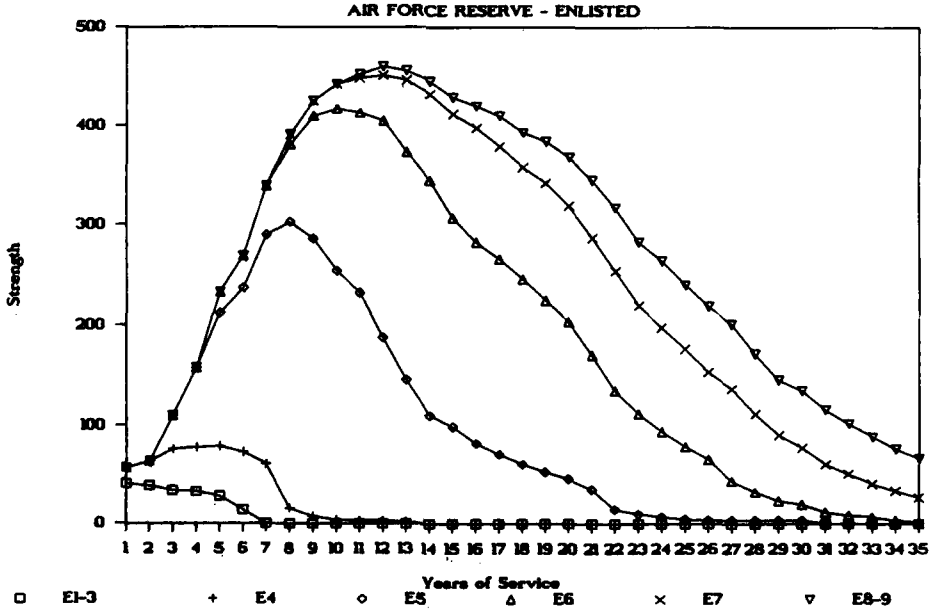
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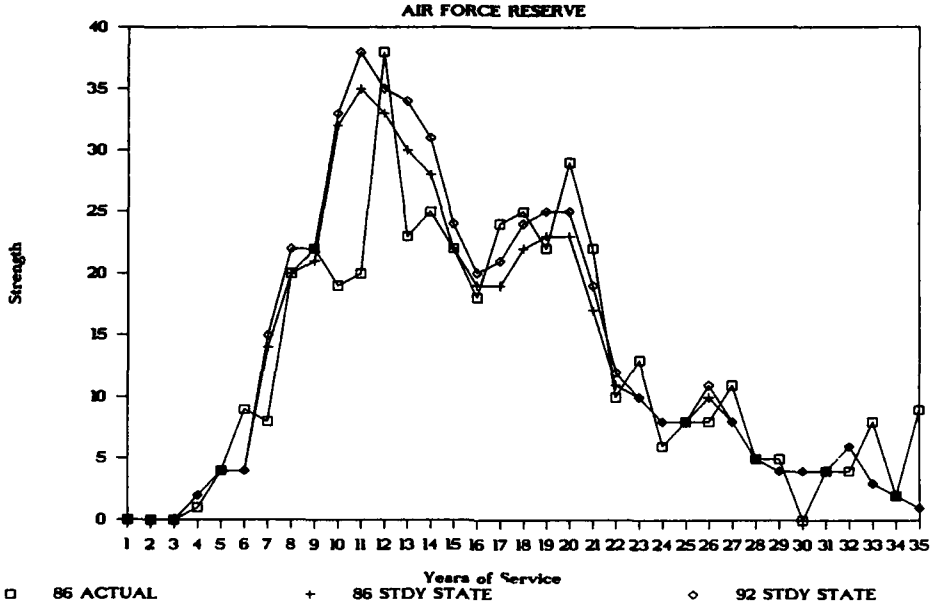
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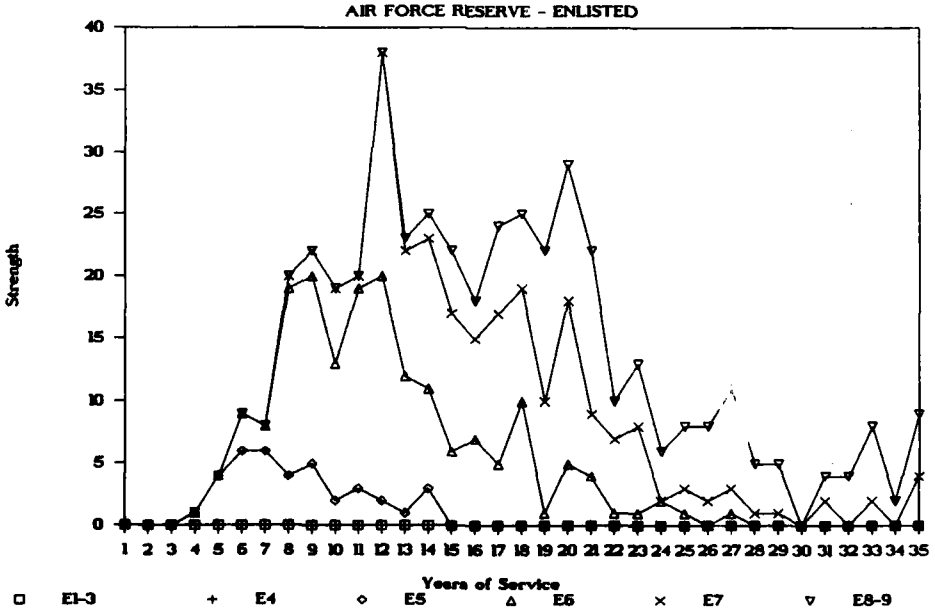
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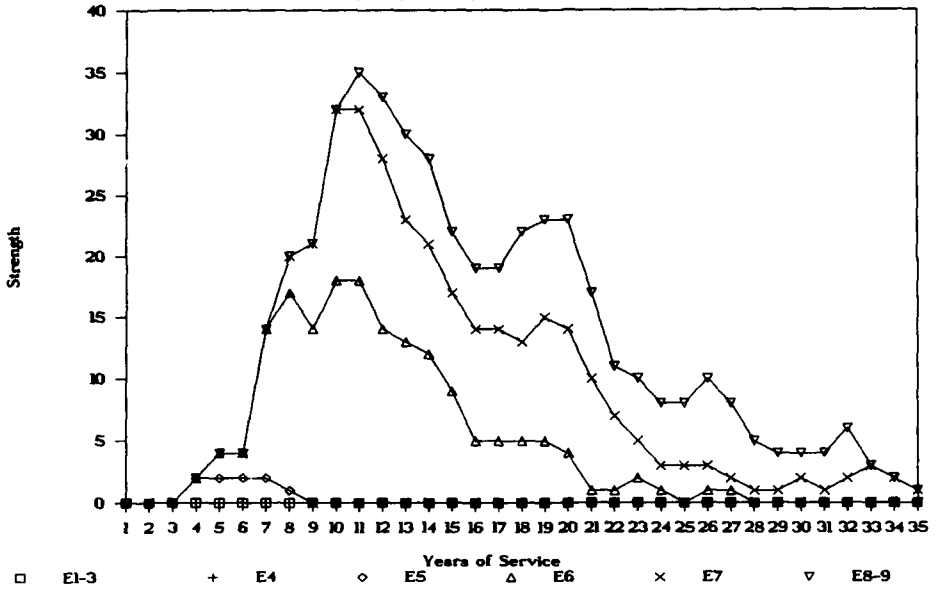
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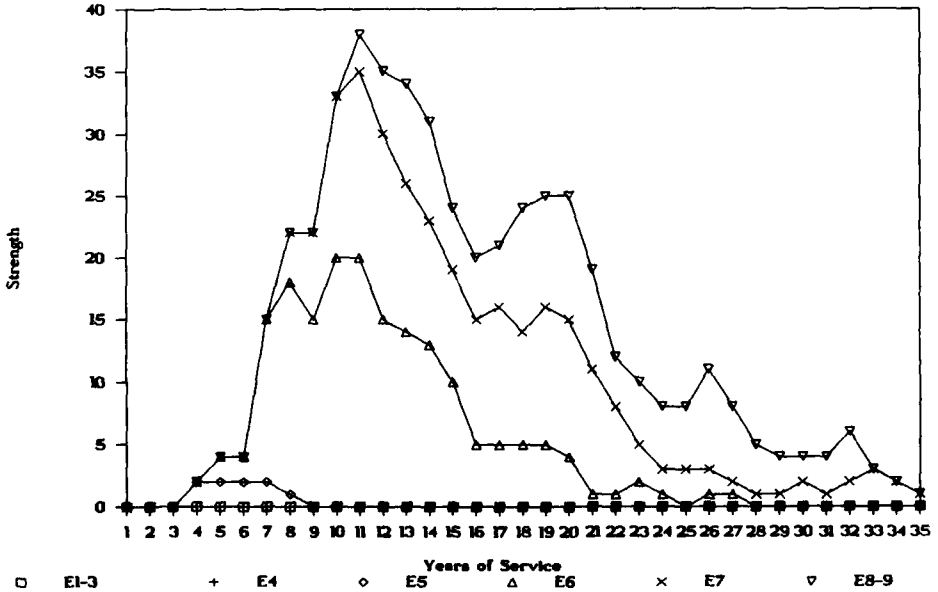
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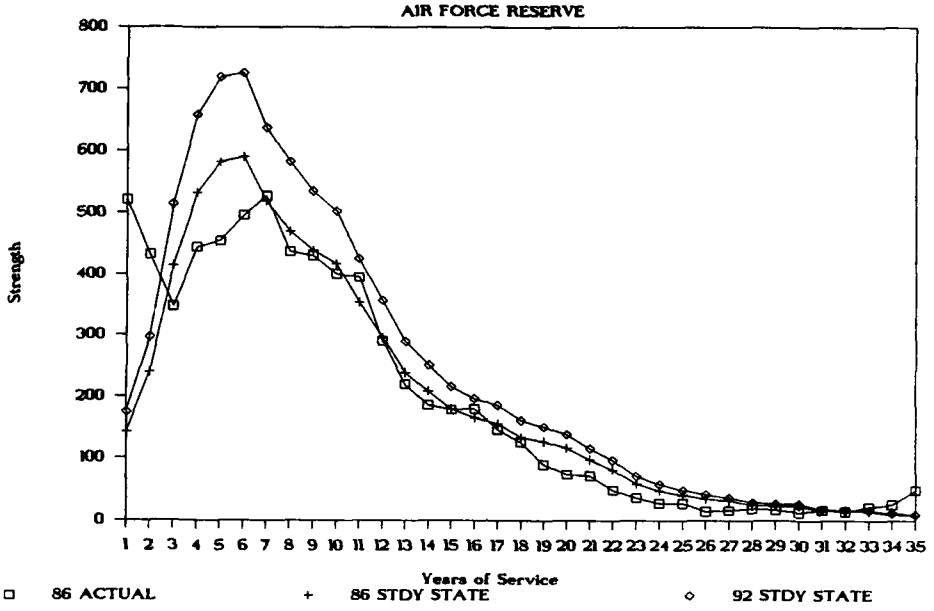
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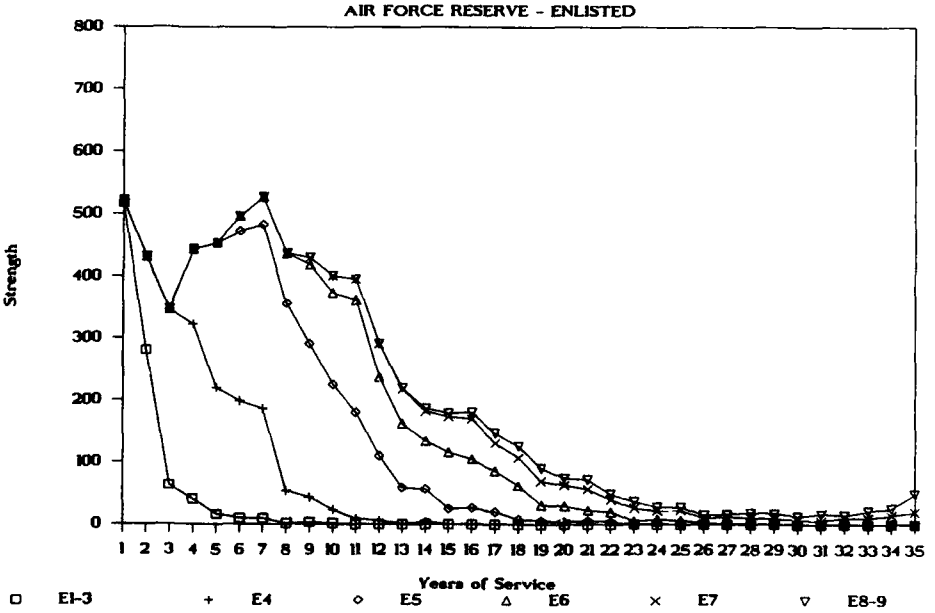
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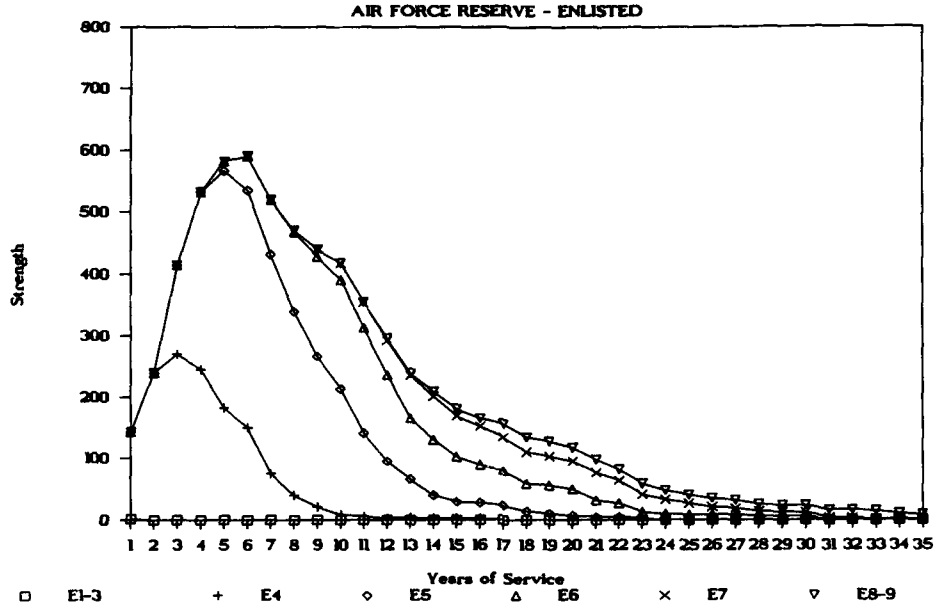
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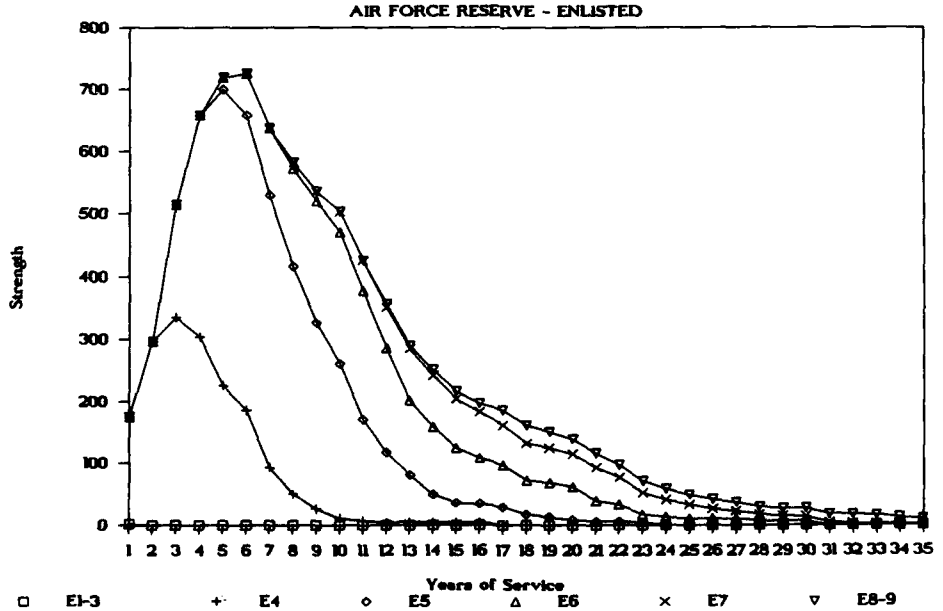
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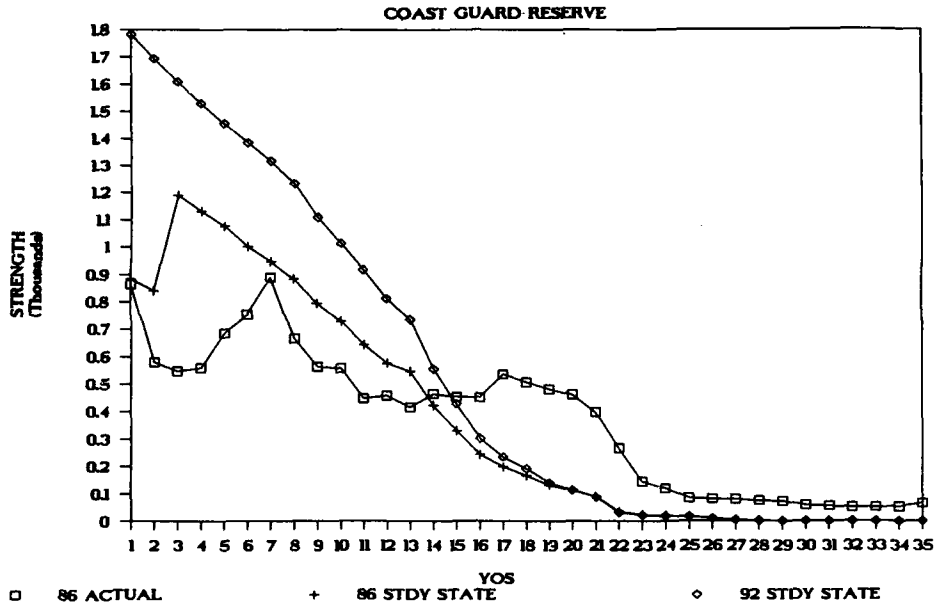


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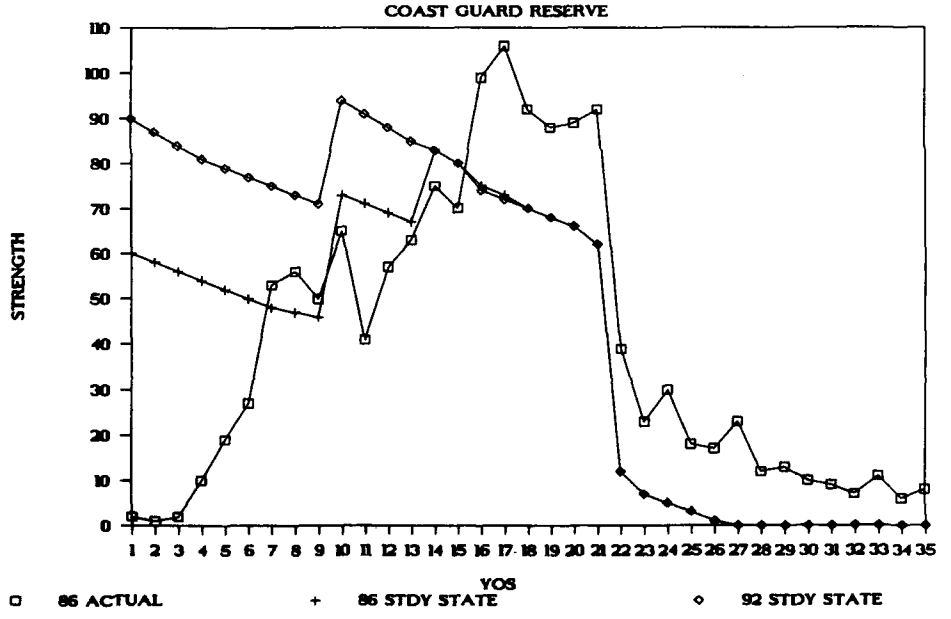
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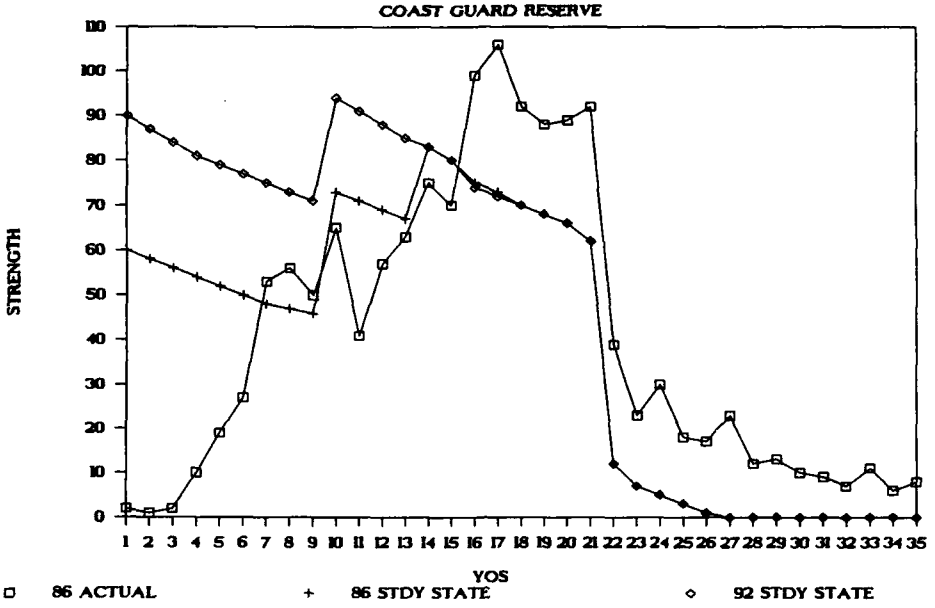
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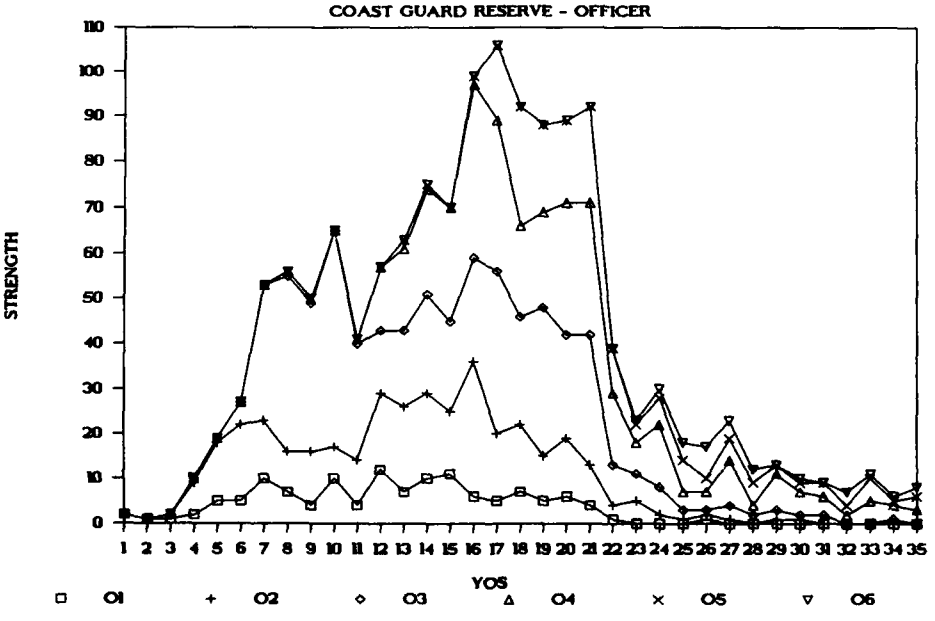
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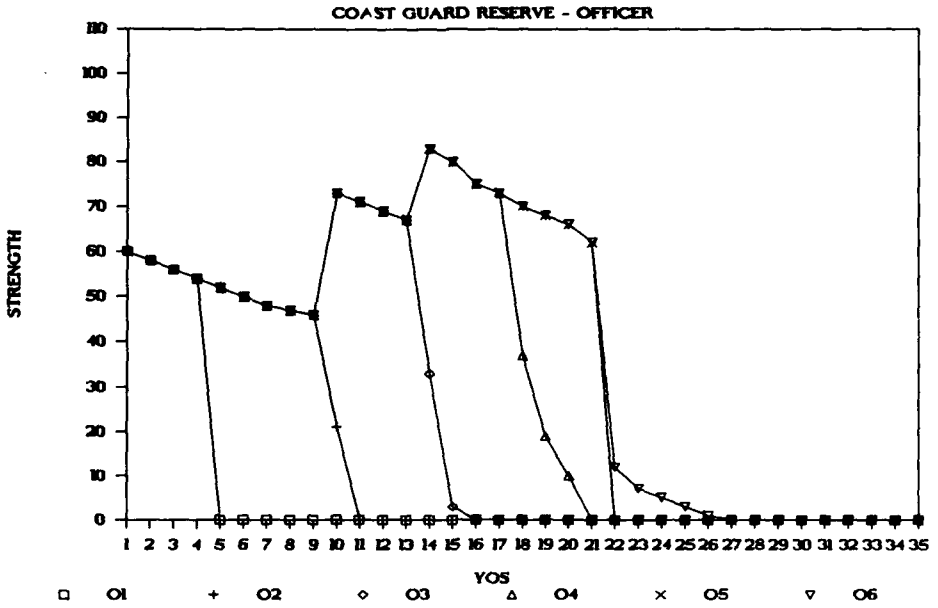
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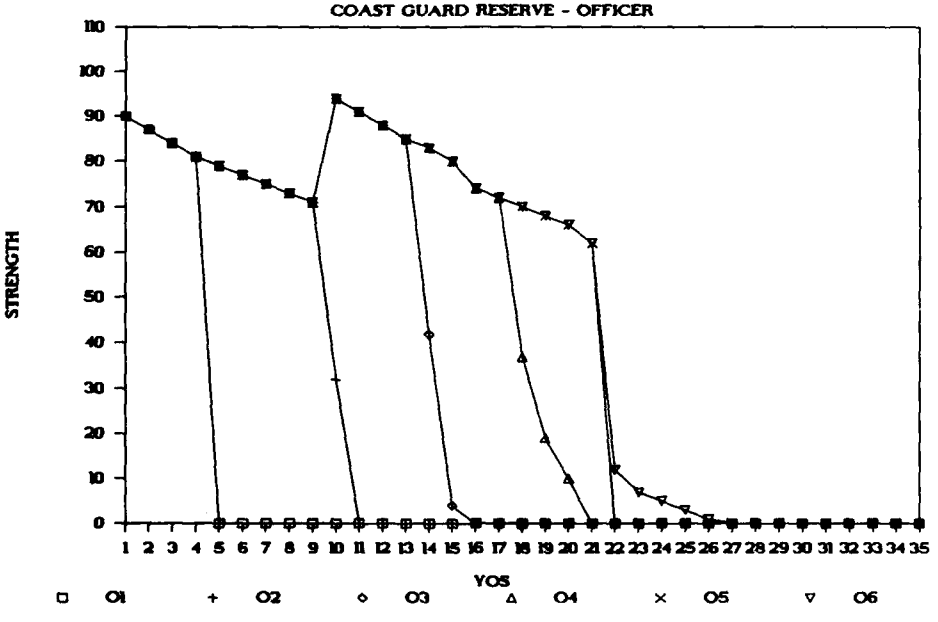
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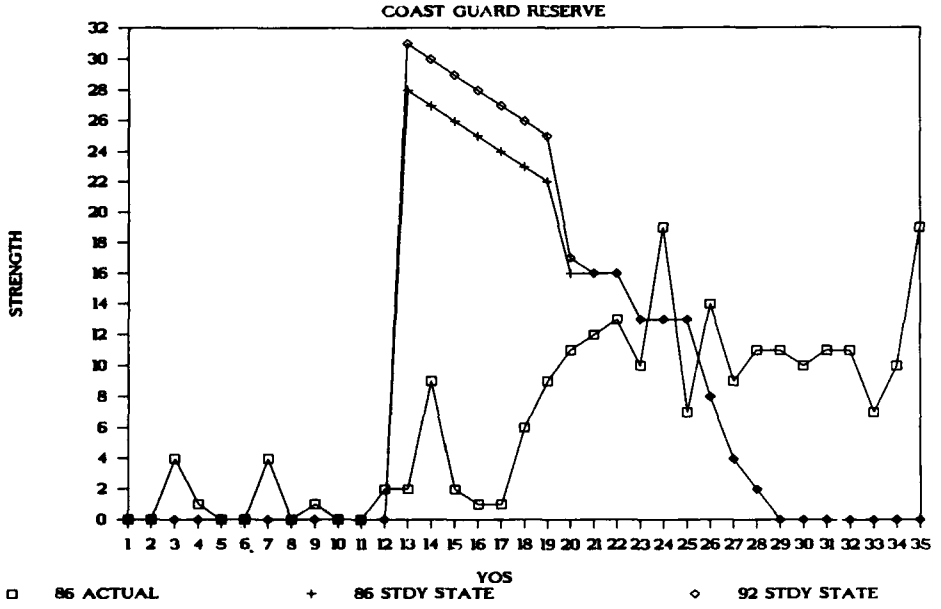
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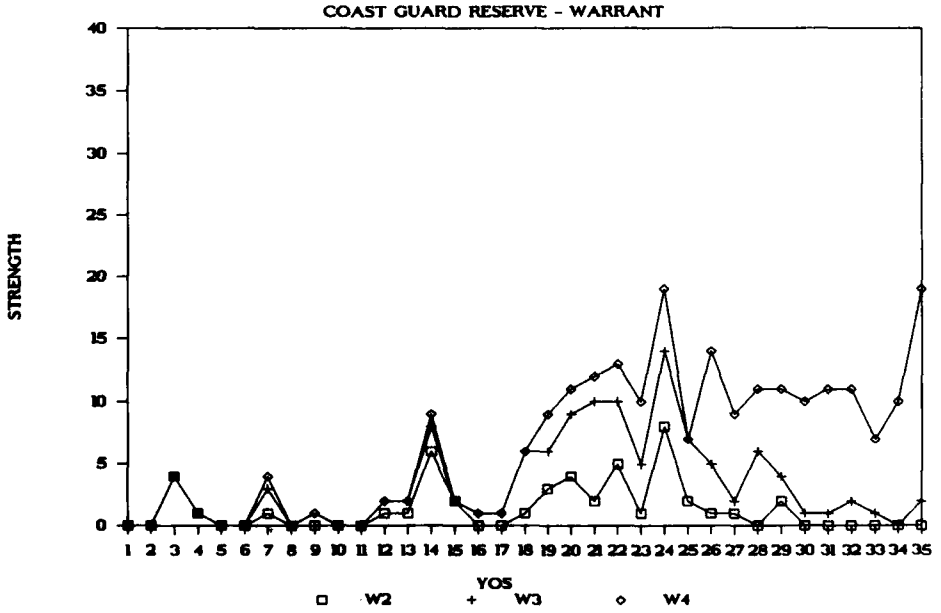
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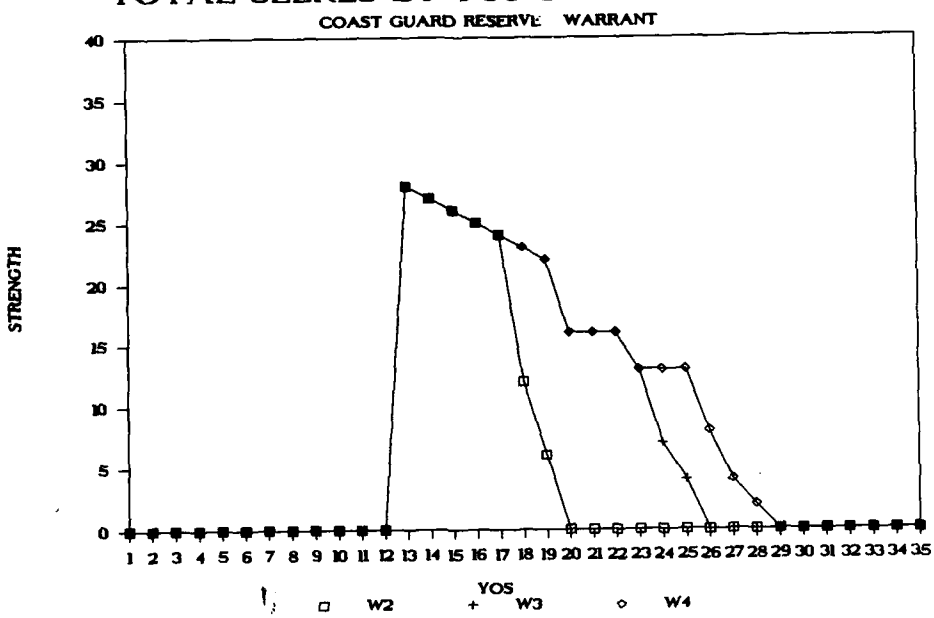
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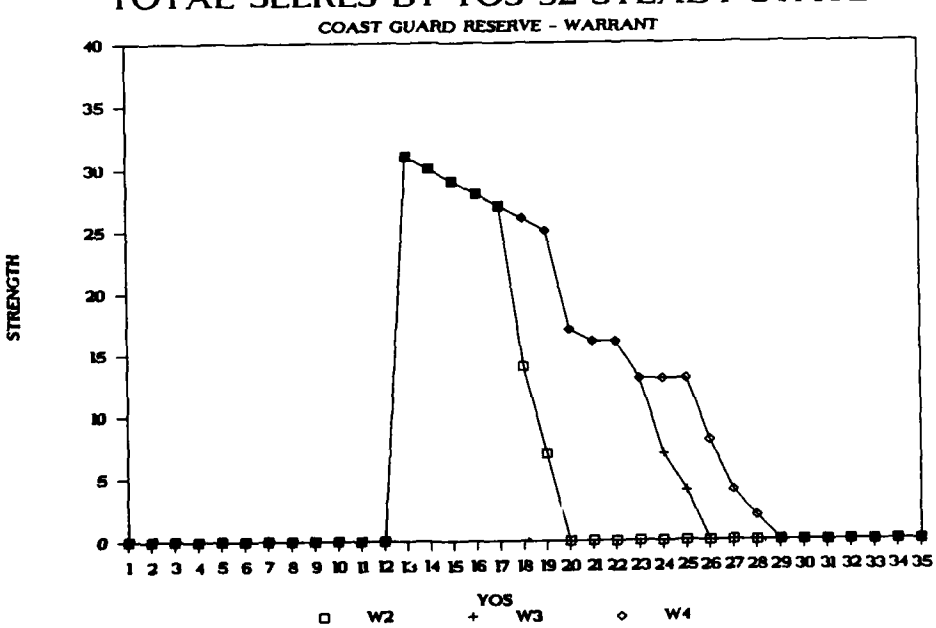
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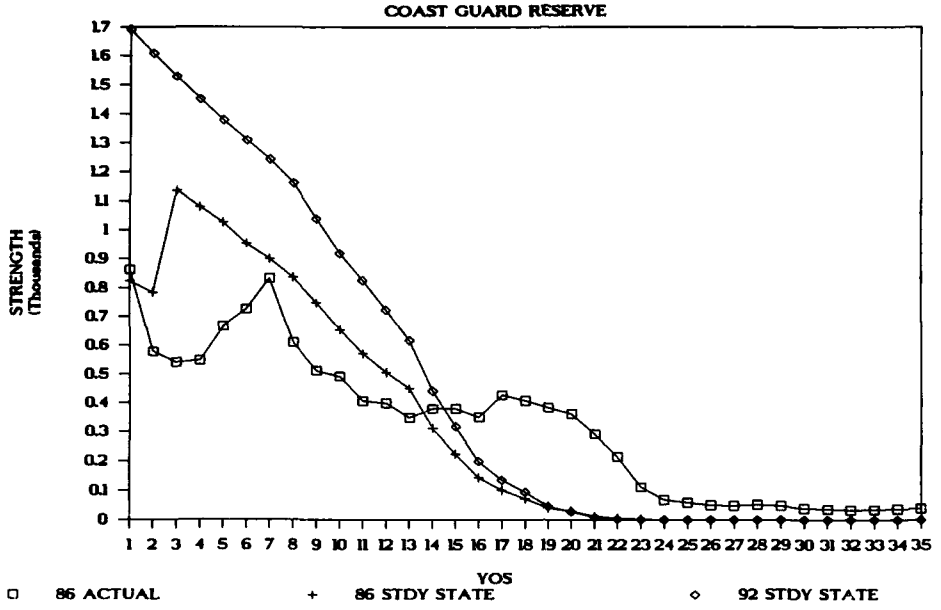
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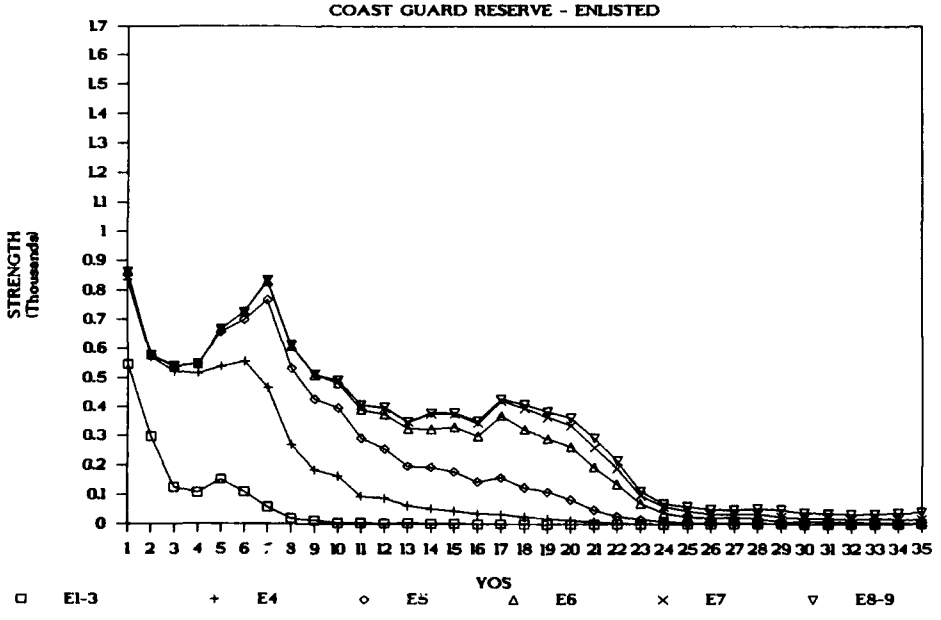
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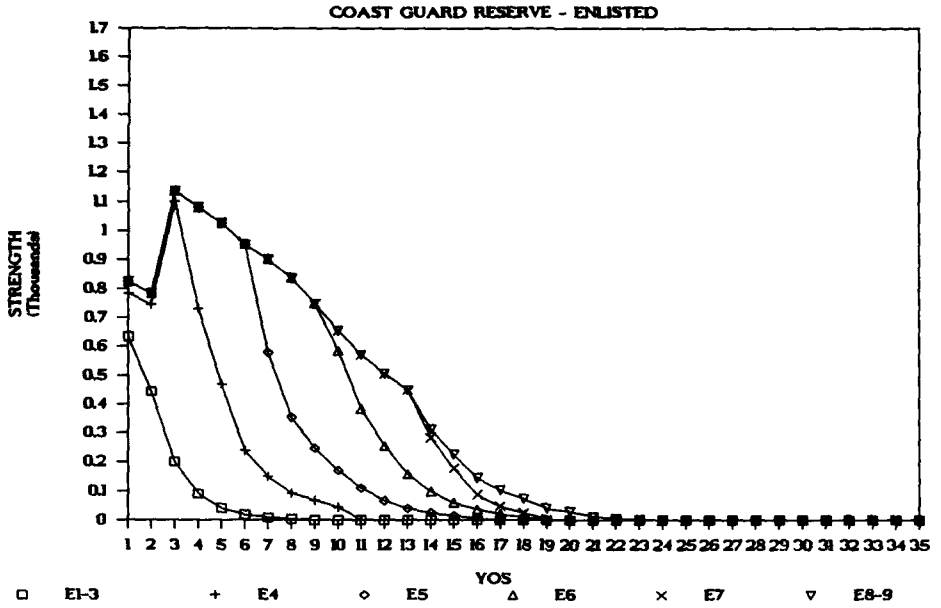
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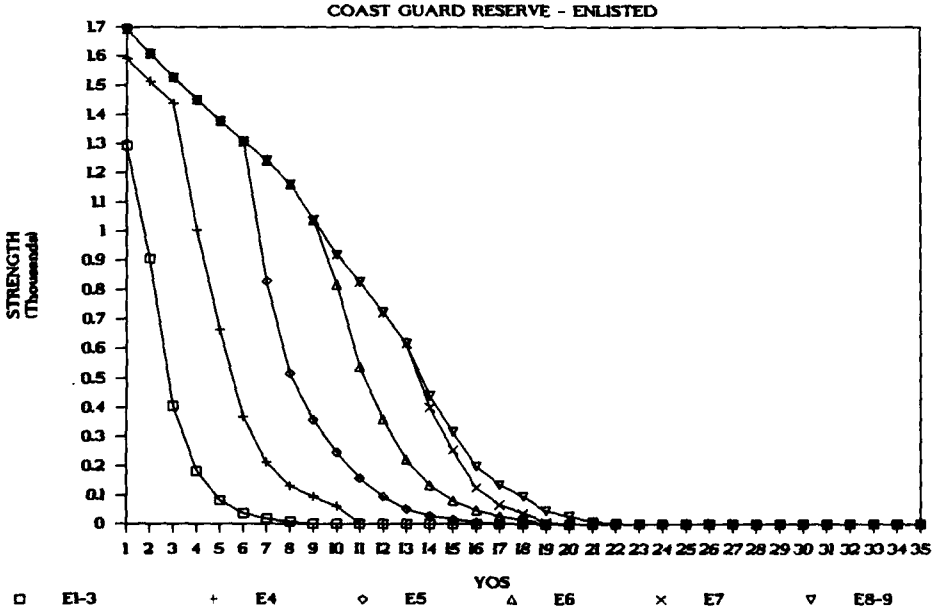
TOTAL SELRES BY YOS 86 ACTUAL



TOTAL SELRES BY YOS 86 STEADY STATE



TOTAL SELRES BY YOS 92 STEADY STATE



ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-4000

)RCE MANAGEMENT
AND PERSONNEL

4 MAR 1987

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (M&RA)
ASSISTANT SECRETARY OF THE NAVY (M&RA)
ASSISTANT SECRETARY OF THE AIR FORCE (MRA&I)
COMMANDANT OF THE COAST GUARD

SUBJECT: Reserve Component Manpower Force Structures

On September 25, 1986, the President tasked the Secretary of Defense to be the Executive Agent for the Sixth Quadrennial Review of Military Compensation (6th QRMC). In line with the President's direction, this quadrennial review is conducting a comprehensive evaluation of the benefits and costs of all reserve component compensation programs. The purpose of this memorandum is to request Reserve Component Manpower Force Structure data to enable the 6th QRMC to evaluate, validate, and justify reserve compensation programs.

The development of these manpower force structure data will become the benchmark for evaluating current and proposed reserve compensation programs. These structures should be developed as soon as possible and are needed not later than April 25, 1987. Attached are instructions to be used in formulating your response. The 6th QRMC staff stands ready to assist in this important undertaking. Please have your designated action officer contact Captain J. F. Murphy, USN, Technical Director of the 6th QRMC at 693-2204.

David J. Armor
Principal Deputy

Attachment
As stated

BACKGROUND

1. Military compensation analysis depends in large measure on identification and understanding of manpower requirements derived within reasonable and practical constraints. To establish the benchmarks necessary to properly examine reserve compensation systems, each Service must provide data on desired accession, attrition, and continuation rates over the course of a reserve career period for its reserve component(s). The data will describe three separate and distinct force structures. These three force structures are interrelated in that they describe in some precision where we are, where we would like to be, and where we are heading.

2. These data will be used to compare how the past and current personnel inventory has matched the requirement. Further, it will help focus on current and deferred reserve pay and benefits necessary for the design of a reserve compensation system responsive to personnel management requirements.

I. DATA REQUIREMENTS

Data will be required for each component for the three force structures mentioned in paragraph one above. Each component force structure will be further subdivided as described in paragraph II (Scope). The three force structures are defined below:

A. FY86 ACTUAL: This is the actual force configuration, by grade and year of service (YOS), as it existed on September 30, 1986.

B. FY86 STEADY-STATE: This is a conceptual force profile that reflects desired continuation rates and force management practices. Unlike other force profiles, it is not bound by factors such as cost considerations (including current levels of reserve compensation programs), external economic conditions, and historical continuation rates. This force should reflect continuation rates required by the services in their reserve components to fulfill assigned missions. When defining these force structures, issues such as age of the force, realistic promotion flow relative to length of service, training requirements, and skill level compared to pay grade must be carefully balanced.

C. FY92 STEADY-STATE: This is a conceptual force profile constructed in the same manner as the FY86 steady-state force, with on exception: this steady-state force will be built at the FY92 force strength as described in POM 88. When completed, it

will reflect, among other things, service desired changes in endstrength, promotion, skill composition, and experience when compared to the FY86 steady-state force.

II. SCOPE

Force profiles for Full Time and Part Time (other than Full Time) personnel are required for the Selected Reserve of each component, i.e., Army National Guard, Naval Reserve, etc. The chart defines subdivisions for the three force structures described in paragraph I, and for six subpopulations. Note that separate Health Professional force structures are required by component where applicable.

Chart 1

	Full Time			Part Time		
	FY86 ACTUAL	FY86 SS	FY92 SS	FY86 ACTUAL	FY86 SS	FY92 SS
Officers (less Health Professionals)	X	X	X	X	X	X
Officers (Health Professionals)	X	X	X	X	X	X
Warrant Officers (less Health Professionals)	X	X	X	X	X	X
Warrant Officers (Health Professionals)	X	X	X	X	X	X
Enlisted (less Health Professionals)	X	X	X	X	X	X
Enlisted (Health Professionals)	X	X	X	X	X	X

* Army and Air Force should submit separate AGR and Technician force profiles.
** Steady-State

Notes:

1. It is recognized that each element of the force profiles does not exist, e.g., Coast Guard Office Health Professionals, Marine Corps Health Professionals (officer and enlisted). In such cases, a clarifying statement should be included in the data submission.

2. Health Professional force profiles must be consistent with established or projected manpower requirements derived from the OSD (Health Affairs) Medical Planning Module (MPM).

3. Flag and general officer requirements will not be described in the force profiles.

III. DESIGN CONSIDERATIONS

In designing the two steady-state forces specified in paragraphs I.B and I.C, several considerations are in order:

A. Steady-State

Steady-state forces are defined as those that maintain equilibrium, i.e., strengths in each pay grade/YOS cell remain the same; therefore gains must equal losses. This means that continuation rates for each YOS cell remain constant, e.g., YOS 3 equals 80%, YOS 4 equals 64%, etc.

B. Approach

Force Configuration design can be accomplished in two separate ways. The first method is to determine all individual billet requirements and aggregate them to a total force requirement. This is normally defined as a bottom-up approach and inmost cases will yield a force profile that exceeds endstrength targets. A second method, a top-down approach, requires the establishment of manpower parameters with resultant allocations defining subcategory total numbers. Experience has shown that a combination of these two methods will be required but that the bottom-up approach should be considered first. This will produce a force which provides the maximum Reserve Component contribution to national defense readiness within specified manpower constraints.

C. Design Procedure

A useful procedure for constructing the steady-state force configurations would proceed through the following steps. Although these procedures are worded from the standpoint of the two steady-state forces, they can also be used for the FY86 Actual force as well. See Enclosure I for a pictorial representation which shows the impact of cumulative losses to a cohort over the years of service.

1. In designing the steady-state forces, a significant departure from historical continuation patterns may be required. Assume that everyone entering the force has the potential to serve for a period of up to 30 years recognizing, however, that this service may be terminated at the convenience of the reserve component at any time.

2. Account for losses that are outside the influence of any compensation system (essentially beyond the component's control or in the best interest of the component), such as:

   a. Deaths.

   b. Disability losses.

   c. Involuntary attrition -- such as losses due to various adverse reasons or failure to meet standards, etc.

   d. Voluntary attrition -- as defined with respect to the two steady-state forces, this means those hardship or humanitarian losses which are beyond the influence of the compensation system and are in the best interest of the component to permit. It does not include current levels of voluntary attrition simply for the convenience of the member.

Accounting for these losses defines for a given year of service, the maximum achievable residual force configuration to which force control actions must be applied.

3. Account for those losses that are necessary from a force control viewpoint and are at the total discretion of the component. Some of the considerations that must be incorporated in this step are:

   a. Youth versus experience.

   b. Stagnation versus turnover.

   c. Maintenance of a career progression plan.

   d. Physical limitations (aging).

   e. Flexibility to adapt to changing requirements.

   f. Maintenance of an adequate influx of "fresh blood" (i.e., enthusiasm/new talent/latest in technology from the universities/high schools/private sector and active duty).

   g. Minimizing the proportion of the force in training or not fully qualified in a particular skill.

   h. Job knowledge and technical skill requirements.

   i. Levels of job content and responsibility.

   j. Organizational hierarchical requirements.

k. Male/Female mix.

l. Quality personnel (mental categories...HS grad, etc.)

m. Combat versus non-combat requirements.

n. Mobilization status/requirements.

IV. CONSTRAINTS/ASSUMPTIONS

A. Grade Ceilings

Abide by current component policy for both officers and enlisted grade ceilings.

B. Maximum Service

Limit maximum possible service to 30 years for both officers and enlisted for these models, recognizing that it is possible currently to be in the Selected Reserve even after completing that many years of service. All losses generated by force control actions (component discretion) should be identified and explained.

V. SUBPOPULATIONS

As discussed previously, separate force configurations will be constructed for officers (01 - 06), warrant officers, and enlisted for health professionals based on the Medical Planning Module (MPM). The manpower levels for these forces will be configured internally on the basis of previously established career field and grade authorizations. Departures from the FY86 career field configuration to better express requirements related to skill mismatch or build up for force improvements must be explained. Additional subpopulations may be submitted by the components to amplify specific career fields. As explained in Enclosure 2, for each such defined category within the component, a separate set of data forms must be submitted.

VI. DATA REQUIREMENT FORMS

There are four data requirement forms necessary to obtain and display data:

Format 1: Exclusion Reconciliation
Format 2: Force Configuration
Format 3: Flow Dynamics
Format 4: Age Distribution By Grade

Enclosure 2 describes which data forms should be utilized depending upon the data required. At Enclosure 3 are blank examples of the four forms.

A. Data Element Description

1. Exclusion Reconciliation, Format 1: Indicates the population excluded, e.g., flag and general officers and health professionals. The components should coordinate with the QRMC staff concerning any additional exclusions desired but not directed in these instructions.

2. Force Configuration, Format 2: The overall aggregate of the force by grade and years of service. Years of service will be established by Pay Entry Base Date (PEBD) to be consistent with the way reserve manpower data bases are maintained currently.

3. Flow Dynamics, Format 3: Displays accessions, attritions and flow within the service by grade and years of service:

   a. GRADE: E-1 through E-9, W-1 through W-4, O-1 through O-6. E-1 through E-3 may be combined if most Non-Prior Service (NPS) accessions will be promoted to E-3 within the first year of service.

   b. CATEGORY: The overall population should be examined with respect to internal career field configuration. Separate data sets may be submitted for each category of MOS, Rating, Designator, AFSC, etc. that is managed significantly different from other categories or which has specific manning problems. If separate data sets by category are submitted, a force configuration FORMAT 2 form must also be submitted.

   c. YEARS OF SERVICE: Years of service are based on Pay Entry Base Date (PEBD). Year of Service One (1) is all personnel who have less than, or equal to, one year of service. Year 2 is all personnel who have greater than one, but less than or equal to two years of service, etc.

   d. STRENGTH: Limited to Manpower Authorizations as indicated.

e. GAINS:

(1) GAINS TO SERVICE. Number of gains due to accession. Must identify accession as NPS (YOS 1) or PS (YOS greater than 1) derived from either prior reserve status, active duty or a combination of the two. Does not include promotions into the YOS cell.

(2) ADVANCE PAYGRADE ENTRY: Permitted but should be reflective of component policy.

f. REMAIN IN SERVICE:

(1) TRANSFER TO OTHER CATEGORIES: The number of transfers to Officer and Warrant Officer Programs. No transfers to other Reserve components are permitted. Note: the officer or warrant officer profile must indicate an equal gain.

(2) REMAIN IN GRADE: The rate that remain in that grade by YOS.

(3) PROMOTE OUT: The rate that promote out to the next higher grade.

g. LOSSES TO SERVICE:

(1) DEATH: Self-explanatory

(2) RETIREMENT:

(a) DISABILITY: Self-explanatory

(b) NONDISABILITY VOLUNTARY: For the steady-state forces this is the rate of nondisability retirement for all reasons.

(3) ATTRITION:

(a) INVOLUNTARY: Losses due to various adverse reasons or failure to meet standards, etc.

(b) FORCE CONTROL: Those losses which are desirable from a force control or management point of view.

(c) OTHER: Losses to service following the above criteria but do not result in the member receiving a retirement benefit.

h. RATES (%): Rates should be carried to three decimal points and should add to 100% for each year of service.

4. Age Distribution by Grade, Format 4. After completing Formats 1, 1, and 3, Format 4 should be completed to reflect the age distribution desired for each of the force profiles developed.

5. A sample of completed Formats 1, 2, and 3 is provided at Enclosure 4. Each component will submit their force structure profiles in the prescribed Format using Lotus 1-2-3. Submission should include a hard copy with high density diskette backup. Coordinate with service point of contact indicated below.

Appendix H. ANALYSIS OF SKILL IMBALANCES

This appendix is derived from a technical paper prepared for the 6th QRMC by the Logistics Management Institute (LMI) on reserve component personnel readiness.

Introduction

A periodic review of skill imbalances in high-priority reserve units can contribute to an understanding of how personnel readiness in the reserve components may be improved. This paper is the baseline for much of the information presented in Volume II, Chapter 4.

First, a rationale is established for analyzing personnel requirements and availability of qualified personnel in early-deploying Army Reserve units. Next is a discussion of the data sources and techniques that allow an examination of skill imbalances within hundreds of units and for hundreds of officer, warrant officer, and enlisted specialties. Finally, several different ways of viewing and measuring skill imbalances are reviewed.

Skill Imbalances Defined

A unit should contain a mix of individuals who have the skills[1] needed to accomplish its mission. A shortage of qualified, available[2] personnel in any of the required skills reduces the unit's ability to accomplish its mission.

Such skill shortages may be considered as belonging to one of four groups:

- "Pure" or inventory shortage. This kind of imbalance occurs when positions calling for certain qualifications simply cannot be filled: in unit after unit, efforts to attract and retain individuals for these positions consistently fall short. These specialties may represent chronic shortages to the Military Service concerned. They may include unpopular specialties, or specialties with very high aptitude or difficult training requirements, or specialties with high turnover.

- Individual unit imbalance. These groups of "shortages" in certain specialties also include unoccupied positions. These shortages are particularly troublesome because they occur only in some military units. Other units in other locations may actually show overstrength conditions in the same military jobs.

- Training pipeline. Many positions are filled by individuals who are not yet trained and have no skill qualification. In reserve component units, enlistees who require initial skills training are currently enrolled as unit members, but they cannot be counted as being available in readiness reporting until they complete that training. Some specialties consistently include large groups of Service members declared unavailable because they are awaiting training or undergoing training. These specialties have high turnover rates in the units; they may show high attrition rates during training.

- Skill mismatch. This kind of imbalance occurs when positions calling for certain qualifications are filled, but filled with people having the wrong qualifications. When these individuals are not required to undergo training in the proper skill, the skill mismatch persists.

Certain specialties may display more than one set of characteristics at any one time. That is, a specialty may represent a chronic "pure" shortage in a number of units and show consistently large populations undergoing training at the same time. All these problems can be viewed collectively as skill imbalances.

The Need For a Unit-By-Unit Analysis

Problems With Aggregate Data

The use of aggregate data to identify and study skill imbalances in the Selected Reserve can present problems. One can be misled into believing that the personnel situation for an individual specialty across the entire component is better or worse than it actually is. The overall inventory of qualified personnel in a particular specialty may look quite satisfactory, although many individual units in particular locations may be experiencing severe shortages in that specialty. On the other hand, a specialty that appears to be a problem, having only a limited inventory of qualified personnel, may actually not be a problem for most units. This can happen because sufficient numbers of qualified personnel are available in units for which the skill is critical, and units that are short simply do not require a full supply of that specialty. In short, the

distribution of skills among units can be more important than total inventories of skills when evaluating Selected Reserve personnel status.

These findings are not difficult to explain. Reserve units are found in thousands of locations across the country, without the ability to transfer personnel from one place to another as the active components do. They are subject to local demographics, and local factors often result in skill imbalances. For example, Unit 1 has more than its requirement of personnel qualified in skill A, but has a shortage of qualified people in skill B; Unit 2, a similar unit in another part of the country, has a shortage of personnel qualified in skill A and an excess of qualified people in skill B.

The special circumstances and peculiar problems of the reserve components make it difficult to identify and respond to skill imbalances. The LMI analysis identified and quantified skill imbalances through a detailed, unit-by-unit analysis of each required specialty. This method is especially useful for identifying imbalances in different units and groups of units, each of which has its own specific skill imbalances.

Focusing on High-Priority Units

The first step in the review was the identification of high-priority units. Because resources are limited, personnel readiness should be improved where the payback in increased combat capability is the greatest. Because specialty imbalances are unit-specific, the remedies needed to improve combat capability should be targeted first at imbalances in our most important units.

The identification of high-priority units was best accomplished through the individual Services. The Army has established reserve component unit lists for all major combat scenarios. The review of Selected Reserve personnel readiness used Army National Guard and Army Reserve units that were slated for early deployment to two different combat scenarios.

Authorized Level of Organization

Limited resources prevent the Army from manning and equipping all units in peacetime at 100 percent of their wartime requirement. The Army classifies units depending on their type, mission, and priority in order to determine what percentage of their full wartime requirement to authorize in peacetime. Units whose type, mission, and priority make it necessary for them to operate in peacetime at (or close to) their full wartime requirement are assigned the highest authorized level of organization (ALO). In peacetime, these ALO 1 units are authorized 100 percent (or close to 100 percent) of their

wartime requirement. Units with slightly lower priority are assigned ALO 2. ALO 2 units are authorized approximately 90 percent of their wartime requirement; ALO 3 units, 80 percent; ALO 4 units, 70 percent; and so on down to units to which no resources have been assigned. The high-priority units examined were typically ALO 1 or ALO 2, with a few ALO 3 units included.

Data Requirements and Sources

Once the group of high-priority units was identified, a detailed, unit-by-unit analysis was undertaken. Three different kinds of data were required for this analysis: each unit's wartime personnel authorization by specialty, the specialty qualifications of all personnel assigned to each unit, and the personnel readiness condition of each unit. For the Army, this data is located in three different databases. Wartime authorization data, by unit and specialty, is located in the Personnel Structure and Composition System (PERSACS) maintained by the U.S. Army Force Development Support Agency (USAFDA). Data on personnel assigned to each unit and their qualifications is located in the Reserve Components Common Personnel Data System (RCCPDS) maintained by the Defense Manpower Data Center (DMDC). Unit personnel readiness data is located in the Joint Chiefs of Staff's Unit Status and Identity Report (UNITREP) system.

It should be noted that the Joint Chiefs of Staff have implemented certain changes to UNITREP:

- UNITREP has been renamed "Status of Resources and Training Systems " (SORTS).
- The term "combat ratings" has been changed to "category levels."
- The term "equipment readiness" has been changed to "equipment condition".
- Short title definitions have been eliminated (for example, Fully Combat Ready, Marginally Combat Ready, etc.).
- New definitions have been established for the five resource and training status categories (C-1 through C-5).

Although the transition to SORTS resulted in the establishment of new definitions for the five rating categories, no adjustments were made to personnel readiness reporting criteria and, for the purposes of this Appendix, UNITREP classifications and rating definitions are used.

Integrating The Databases

Producing a Unit Personnel List

It was possible to produce a personnel list for each unit by combining the unit authorizations in PERSACS with the unit assignments in RCCPDS. This list was simplified by ignoring the grade and skill level of the required specialty and the grade and skill level of those assigned.[3] Table H-1 shows an example of a unit list that compares, in each specialty, the total personnel required with the number of qualified personnel assigned. In producing unit lists, it was assumed that people who have been awarded a specialty as their "primary" specialty are assigned to that specialty if it is required within the unit. Personnel assigned to the unit were excluded if they are listed as "in-training" or "awaiting training."

The unit personnel list serves as the basis for a unit-by-unit look at skill imbalances. Table H-1 shows a sample unit (an actual unit, but not identified here) with serious skill imbalances. Serious shortages exist in 13B, 31K, 88M, and 76C, while overages exist in 76Y and the 31V.

Using the Unit Commander's Personnel Readiness Rating

The unit list is not sufficient for a review designed to link skill imbalances to personnel readiness; for example, the list does not account for the substitution of one skill for another when appropriate, or competency learned on the job, or the lag time between becoming qualified for a job and updating the personnel database. Instead, the unit commander's own rating of the unit's personnel readiness for qualified personnel (from UNITREP) was used as a check. If the unit commander rated the unit's qualified personnel strength at a level higher than that shown by the unit list, it was assumed that the analysis missed some qualified people, and that the unit does not need as many additional qualified personnel as indicated by its roster. Likewise, if the unit commander rated the unit's qualified personnel strength at a level lower than that shown by the unit list, it was concluded that the unit needs more qualified personnel than indicated by the unit list. The total number of additional qualified personnel needed to improve a unit's readiness rating for personnel was calculated using the percentage of qualified personnel available to the unit as reported by the unit commander.

Determination of the overall number of additional qualified personnel needed by a unit was critical to the review process. This number was used to measure the severity of the skill imbalance within a unit; it guided the selection and quantification of specialties responsible for the problem.

Table H-1. UNIT LIST- XXTH FIELD ARTILLERY BATTALION

Specialty	Military Class	Wartime Requirement	Assigned
13B Cannon Crewman	E	263	134
31K Combat Signaler	E	35	8
13E Cannon Fire Direction Specialist	E	26	22
13E Cannon Field Artillery Officer	O	23	15
63B Light Wheel Vehicle Mechanic	E	23	20
94B Food Service Specialist	E	21	20
76Y Unit Supply Specialist	E	16	18
88M Motor Transport Operator	E	16	9
82C Field Artillery Surveyor	E	12	10
76C Equipment Records and Parts Specialist	E	11	3
31V UL Communications Maintenance Repairer	E	9	13
31C Single Channel Radio Operator	E	8	6
91A Medical Specialist	E	8	1
13Z Field Artillery Senior Sergeant	E	7	6
75B Personnel Administration Specialist	E	6	5
54B Chemical Operations Specialist	E	5	3
71L Administration Specialist	E	3	0
29E Communications Electronics Radio Repairer	E	3	0
52D Power Generation Equipment Repairer	E	3	0
25C Communications-Electronics Operations Officer	O	2	1
13F Fire Support Specialist	E	2	1
91B Medical NCO	E	2	2
630 Field Artillery Maintenance Technician	W	1	1
761 General Supply Technician	W	1	1
60E General Medical Officer	O	1	0
71D Legal Specialist	E	1	0
71M Chapel Activities Specialist	E	1	0
13D Field Artillery Target Acquisition Officer	O	1	1
00Z Command Sergeant Major	E	1	1
63S Heavy Wheel Vehicle Mechanic	E	1	0
56A Command and Unit Chaplain	O	1	1
44B Metal Worker	E	1	2
74B Chemical Operations/Training Officer	O	1	0
77F Petroleum Supply Specialist	E	1	1
Total		516	305

Source: PERSACS, November 1986 and RCCPDS, March 1987.

Note: O=Officer; W=Warrant; E=Enlisted.

Under UNITREP (now SORTS), four levels of personnel readiness--as measured by the availability of qualified personnel--are possible for a unit: (1) the highest level, 85 percent or more of wartime required; (2) between 75 percent and 84 percent of wartime required; (3) between 65 percent and 74 percent of wartime required; and (4) the lowest level, less than 65 percent of wartime required.

If a unit is organized at the highest level of peacetime authorized strength (ALO 1 or 100 percent of wartime strength), it is reasonable to expect that unit to achieve the highest level of personnel readiness. To do this, the unit must have qualified personnel available in at least 85 percent of its wartime positions. Similarly, units placed at the second level of peacetime authorized strength (ALO 2 or 90 percent of wartime strength) should be compared with the second level of personnel readiness (having qualified personnel in between 75 percent and 84 percent of its wartime positions). ALO 3 and ALO 4 units should be compared with personnel readiness levels 3 and 4, respectively.

For units with a personnel readiness rating (level) for qualified personnel that is lower (worse) than their ALO, the number of additional qualified personnel needed to raise the unit readiness level to the same level as its ALO serves as a measure of the skill imbalance problem present in each unit. For example, the unit shown in Table H-1 is an ALO 2 unit. To achieve level 2 personnel readiness, at least 75 percent (387 out of 516) of its wartime positions must be filled. The unit commander reported having only 300 qualified personnel (58 percent). The additional 87 required serves as a useful measure of this unit's skill imbalance problem, and is very close to the number indicated by our unit personnel list. Table H-2 shows a sampling of other high-priority Army units from this review and the measure of skill imbalance for each unit.

Problems With the Databases

Matching up large, diverse databases was not without its problems. A number of minor problems were encountered. A small number of important units could not be reviewed because authorization data for these units could not be found in PERSACS. This occurred because Unit Identification Codes (UIC) are subject to change as units convert from one mission to another, new units are activated, and old units are disbanded. Sometimes there is a time lag between output of databases due to changes made in one database. Databases are also updated at different times. The PERSACS used was current as of November 1986,[4] the inventory data from RCCPDS was current as of March 1987, and the UNITREP data was updated in April 1987.

Table H-2. MEASURING UNIT SKILL IMBALANCES

Unit	ALO	Additional Qualified Personnel Required *
1	3	25
2	1	15
3	1	5
4	1	3
5	1	76
6	3	61
7	1	2
8	1	3
9	3	0
10	1	2
11	2	0
12	3	0
13	3	0
14	3	0
15	1	10
16	1	1
17	1	0
18	1	14

* Quantity needed to ensure unit personnel readiness level is equal to unit ALO.

Limitations within RCCPDS make it difficult to be completely accurate when determining the qualifications of individuals assigned to units. The secondary specialty carried by an individual is not contained in this database, leading to the likelihood that the unit roster will underestimate the number of adequately qualified personnel in the unit.[5] Some qualified personnel assigned to units were overlooked due to another limitation: about 3,000 Army Reservists on full-time active duty and assigned to Selected Reserve units do not carry their unit's UIC on their RCCPDS record, making it impossible to include them on any unit roster. Although these problems require attention, they did not appear to disqualify the use of this review technique.

Identifying Problem Specialties

The third step of this review process was to create a list of specialties that account for skill imbalances in the units being analyzed. Problem specialties were first identified and quantified for each unit. These individual unit lists were then combined to produce a list that summarizes and ranks all the specialty problems.

The process of identifying and quantifying the problem specialties in a unit requires measuring the magnitude of the skill imbalance for that unit. Such a measure is available in the numbers presented in Table H-2. For example, Unit 8 requires only three additional people to ensure a high level of personnel readiness. This indicates a small imbalance including not more than three of the specialties in this unit. Unit 5, on the other hand, needs 76 additional people, indicating a more serious imbalance problem, likely affecting several specialties in significant quantities.

Using this measure of a unit's skill imbalance problem, a computer program examines each unit roster and allocates a portion of the unit's overall need for additional qualified personnel to specific problem specialties. The program arranges the unit's personnel list by the density (quantity) of wartime specialty authorizations, ranking the low density skills first.[6]

The program then proceeds through this list, "adding" personnel to a specialty when needed and recording the specialties and quantities that are required. The number added to a specialty would bring the total number of qualified personnel in that specialty to a level consistent with the overall level of personnel readiness sought for the entire unit.[7]

After the program allocates the total number of additional qualified personnel needed by the unit (regardless of how far down the list the program has progressed), the review of that unit is complete and the next unit is reviewed. In some units, all skills may not be examined and filled with the necessary additional personnel. The assumption implicit in the algorithm is that the low-density skills must be considered and remedied first.

Problem Specialties in High-Priority Army Units

The program produced a complete list of problem specialties for an entire group of units. This list includes every specialty for which the program allocated additional personnel, with the total number allocated for each summed up across all units. Table H-3 shows the top and bottom portions of the list completed for Army reserve units that are slated for the first combat scenario. Specialties have been ranked by the total number of additional qualified personnel needed by those units to improve their personnel readiness.

The complete list contains 337 officer, warrant officer, and enlisted specialties. As the bottom portion of Table H-3 implies, a number of those were allocated only one additional

Table H-3. SPECIALTY SHORTAGES AFFECTING READINESS (208 HIGH-PRIORITY ARMY UNITS)*

(Specialties ranked by aggregate quantity needed to improve readiness)

Specialty	Military Class	Wartime Required	Additional Qualified Personnel Needed **	Percent of Wartime Required ***
11B Infantryman	E	6,508	766	12
11C Indirect Fire Infantryman	E	1,469	169	12
31K Combat Signaler	E	941	113	12
11H Heavy Antiarmor Weapons Infantry	E	1,016	112	11
12B Combat Engineer	E	860	97	11
52D Power Generation Equipment Repairer	E	546	97	18
11B Light Infantry Officer	O	552	96	17
77F Petroleum Supply Specialist	E	482	85	18
95B Military Police	E	784	83	11
36M Switching Systems Operator	E	185	77	42
31C Single Channel Radio Operator	E	568	74	13
91A Medical Specialist	E	885	70	8
31V UL Communications Maintenance Repairer	E	428	69	16
76C Equipment Records and Parts Specialist	E	433	64	15
13F Fire Support Specialist	E	395	63	16
31M Multichannel Communications Equipment Operator	E	806	57	7
71L Administrative Specialist	E	1,242	50	4
54B Chemical Operations Specialist	E	421	46	11
88M Traffic Management Coordinator	E	170	43	25
11M Fighting Vehicle Infantryman	E	345	43	12
•				
•				
68P Sanitary Engineer	O	5	1	20
16H Air Defense Artillery Operations and Intelligence Assistant	E	1	1	100
82B Construction Surveyor	E	3	1	33
45M M60A1/A3 Tank Turret Mechanic	E	22	1	5
91J Physical Therapy Specialist	E	4	1	25
Total		40,485	4,681	12

Note: O=Officer; W=Warrant; E=Enlisted.

* Includes 111 USAR and 97 ARNG units.

** Number of additional MOS-qualified personnel needed in each specialty to ensure that all 208 units have a personnel readiness rating (for available MOS-qualified personnel) equal to their ALO.

*** This percentage should not be confused with the "percentage of positions filled" that appears in other writings on this subject. This percentage is offered as another gauge of the severity of a particular specialty's imbalance problem. The relationship between this percentage and the "percentage of authorized positions filled" is convoluted.

person. There were 183 that required five or fewer additional personnel. The top 68 skills (roughly 20 percent) account for nearly three-fourths of the 4,681 people allocated to the units.

The group of additional personnel required by these units to improve their readiness is relatively small when compared with the wartime size of these units. However, these units currently only have 26,315 of their 40,485 wartime positions filled with available, qualified personnel.[8] The additional 4,681 represent an increase in qualified personnel of 18 percent.

These additional personnel would leave ALO 1 units 85 percent filled (level 1 personnel readiness), ALO 2 units 75 percent filled (level 2 personnel readiness), and ALO 3 units 65 percent filled (level 3 personnel readiness). Based on the mix of ALOs, these units as a whole would end up with nearly 77 percent of their wartime positions filled with qualified personnel.

Table H-4 shows the top and bottom portions of the list completed for all Army reserve units slated for another high priority combat assignment. The complete list contains 224 officer, warrant officer, and enlisted specialties. There were 43 specialties that were allocated only one additional person. A total of 182 specialties required five or fewer. The top 55 skills (roughly 24 percent) account for over two-thirds of the 1,729 allocated to the units.

These units currently have 12,858 of their 17,858 wartime positions filled with available, qualified personnel.[9] The additional 1,729 represent a 13 percent increase in qualified personnel. Again, ALO 1 units would end up 85 percent filled, ALO 2 units 75 percent filled, and ALO 3 units 65 percent filled. These units as a group would end up with nearly 82 percent of their wartime positions filled.

Comparing the Two Lists

Any list of skills to be targeted for remedy is dependent on the types and sizes of units whose readiness is targeted for improvement. This fundamental principle can be illustrated by comparing the two lists.

The lists shown in Tables H-3 and H-4 differ substantially. The first group of units is made up primarily of combat forces; thus infantry specialties like 11B (both enlisted and officer), 11C, 11H, and 11M dominate its list. The second group of units is made up primarily of combat service support forces; thus a variety of support specialties like 54B, 12C, 52D, and 91A dominate.

Table N-4. SPECIALTY SHORTAGES AFFECTING READINESS (268 HIGH-PRIORITY ARMY UNITS)*

(Specialties ranked by aggregate quantity needed to improve readiness)

Specialty	Military Class	Wartime Required	Additional Qualified Personnel Needed **	Percent of Wartime Required ***
54B Chemical Operations Specialist	E	644	123	19
95B Military Police	E	880	106	12
12C Bridge Crewman	E	188	80	43
52D Power Generation Equipment Repairer	E	181	56	31
91A Medical Specialist	E	524	55	10
18O Special Operations Technician	W	102	39	38
75B Personnel Administration Specialist	E	173	30	17
62B Construction Equipment Repairer	E	148	28	19
76V Materiel Storage and Handling Specialist	E	191	26	14
63B Light Wheel Vehicle Mechanic	E	383	25	7
55B Ammunition Specialist	E	322	25	8
55R Ammunition Stock Control and Accounting Specialist	E	59	25	42
76Y Unit Supply Specialist	E	549	24	4
76C Equipment Records and Parts Specialist	E	126	23	18
94B Food Service Specialist	E	497	23	5
88N Traffic Management Coordinator	E	256	22	9
95B Traffic Management	O	69	20	29
75Z Personnel Sergeant	E	83	19	23
00Z Command Sergeant Major	E	89	17	19
97G Counter Signal Intelligence Specialist	E	34	16	47
•				
•				
66G Utility Airplane Technical Inspector	E	2	1	50
96R Ground Surveillance Systems Operator	E	6	1	17
29H ADMSE Repairer	E	1	1	100
762 Support Supply Technician	W	9	1	11
61K Thoracic Surgeon	O	2	1	50
Total		17,858	1,729	10

Note: O=Officer; W=Warrant; E=Enlisted.

* Includes 168 USAR and 100 ARNG unit.

** Number of additional MOS-qualified personnel needed in each specialty to ensure that all 268 units have a personnel readiness rating(for available MOS-qualified personnel)equal to their ALO.

*** This percentage should not be confused with the "percentage of positions filled" that appears in other writings on this subject. This percentage is offered as another gauge of the severity of a particular specialty's imbalance problem. The relationship between this percentage and the "percentage of authorized positions filled" is convoluted.

Several skills are ranked near the top of both lists: 88N, 91A, 95B, 54B, and 76C. These skills are needed in a variety of units but found in short supply, independent of combat scenario, tending to indicate that these specialties are especially important and may suffer from a chronic or "pure" inventory shortage.

Limitations

One of the important points of this approach is that it uses actual readiness reports from unit commanders in the field. This link to readiness adds credibility to the unit-by-unit analysis of the merged authorization and assignment databases. It also reduces the chances of "fixing things that are not broken." That is, it eliminates the need to analyze units whose reported readiness is satisfactory (personnel readiness level equal to unit ALO).

This direct link to readiness, however, also has drawbacks. Under certain conditions of skill mismatch, UNITREP can create an overly optimistic impression of unit readiness. This is especially true when a modest unit shortage (say 10 percent to 15 percent) is concentrated in one or two critical skill specialties.

A large percentage of units in the sample reported personnel readiness equal to their ALO. If we look at individual specialties within these units, however, we sometimes find critical specialties with large shortages of personnel. There are even some units whose personnel readiness appears satisfactory even though there are no qualified individuals in some required specialties. These skill imbalances can be missed by the described review process.

A second drawback to this approach is the limited number of skills it selects for improvement in the units analyzed. After allocating the minimum number of additional personnel needed to raise a unit's personnel readiness level to its ALO, the review of specialties for that unit is ended. Since the additional personnel are allocated to low-density skills first, this often means that skill imbalances in high-density skills are not improved as much as in low-density skills.

An Alternative Approach

To overcome the limitations mentioned above, modifications were made to the methodology to review and correct skill deficiencies in each specialty in every unit regardless of the unit's reported personnel readiness situation. In this modified approach, each specialty was "filled" to a level consistent with the unit's ALO: all specialties in ALO 1 units must be filled to at least 85 percent, all specialties in ALO 2 units must be

filled to at least 75 percent, and all specialties in ALO 3 units must be filled to at least 65 percent. No units were omitted, and no skill imbalances within any unit escaped consideration.

Table H-5 shows the top and bottom portions of the new list completed for Army units slated for the first combat scenario. It is important to note that skills ranked at the top of this list are nearly identical to those on the list in Table H-3. The alternative approach, however, added substantially greater numbers to most skills. Overall, it requires nearly twice as many additional personnel as the previous list. In some cases, the difference in quantity is dramatic. The previous list added 43 additional Fighting Vehicle Infantryman (11M). The new list adds more than five times as many.

Personnel were added without regard to the overall readiness situation of the unit as reported by UNITREP, with the result that units ended up filled at levels higher than those minimally required to be rated at a readiness level consistent with their ALO. Some units could even have enough additional qualified personnel added to be rated at a readiness level higher than their ALO. Even with this more generous approach, the units represented in Table H-5 would end up with only 87 percent of their total wartime positions filled with qualified personnel.

The new list, like the previous list, has many specialties that required only one or two additional people. The top 68 skills account for roughly 70 percent of the personnel added.

Table H-6 summarizes the new list for the second group of units. The top 20 specialties are nearly the same as the previous list for the same group of units, but the quantities are substantially larger. Overall, the alternative approach requires three times as many additional personnel as the original approach. And again, some of the quantity differences in specific skills are dramatic. For example, the new list requires four times as many Traffic Management Coordinators (88N) as did the original.

The Need for Management Judgment

The outputs of these programs serve only as a tool. Judgment must still be applied in determining which skills most seriously effect combat readiness and how shortfalls can best be made up.

Substantial increases in the quantities of some skills, like Administrative Specialist (71L) on both lists for the first group of units and Personnel Administration Specialist (75B) on the lists for the second group of units, may not be essential

Table N-5. SKILL IMBALANCES IN HIGH-PRIORITY UNITS (208 HIGH-PRIORITY ARMY UNITS)*

(Specialties ranked by aggregate quantity needed to improve readiness)

Specialty	Military Class	Wartime Required	Additional Qualified Personnel Needed **	Percent of Wartime Required ***
11B Infantryman	E	6,508	985	15
11M Fighting Vehicle Infantryman	E	345	224	65
71L Administrative Specialist	E	1,242	200	16
52D Power Generation Equipment Repairer	E	546	179	33
11C Indirect Fire Infantryman	E	1,469	177	12
31K Combat Signaler	E	941	176	19
77F Petroleum Supply Specialist	E	482	147	30
13F Fire Support Specialist	E	395	145	37
95B Military Police	E	784	143	18
31M Multichannel Communications Equipment Operator	E	806	138	17
12B Combat Engineer	E	860	126	15
31C Single Channel Radio Operator	E	568	124	22
11H Heavy Antiarmor Weapons Infantry	E	1,016	122	12
91A Medical Specialist	E	885	110	12
11B Light Infantry Officer	O	552	104	19
72E telecommunications Center Operator	E	534	101	19
54B Chemical Operations Specialist	E	421	94	22
76C Equipment Records and Parts Specialist	E	433	93	21
36M Switching Systems Operator	E	185	87	47
76Y Unit Supply Specialist	E	1,032	86	8
•				
•				
13C Tacfire Operations Specialist	E	1	1	100
31G Tactical Communications Chief	E	1	1	100
35L Avionic Communications Equipment Repairer	E	1	1	100
16H Air Defense Artillery Operations & Intelligence Assistant	E	1	1	100
39X Electronic Equipment Maintenance Chief	E	1	1	100
Total		40,485	8,799	22

Note: O=Officer; W=Warrant; E=Enlisted

* Includes 111 USAR and 97 ARNG units.

** Number of additional MOS-qualified personnel needed by these 208 units so that each unit has at least its ALO strength for each of its required specialties (ALO 1=85 percent of wartime required, ALO 2=75 percent of wartime required, and ALO 3= 65 percent of wartime required). As a result, each unit's personnel readiness would be at least equal to its ALO.

*** This percentage should not be confused with the "percentage of positions filled" that appears in other writings on this subject. This percentage is offered as another gauge of the severity of a particular specialty's imbalance problem. The relationship between this percentage and the "percentage of authorized positions filled" is convoluted.

Table H-6. SKILL IMBALANCES IN HIGH-PRIORITY UNITS (268 HIGH-PRIORITY ARMY UNITS)*

(Specialties ranked by aggregate quantity needed to improve readiness)

Specialty	Military Class	Wartime Required	Additional Qualified Personnel Needed **	Percent of Wartime Required ***
71L Administrative Specialist	E	1,351	225	17
54B Chemical Operations Specialist	E	644	195	30
95B Military Police	E	880	162	18
91C Practical Nurse	E	249	124	50
38A Civil Affairs,General(RS Comp)	O	192	123	64
18A Special Operations Officer	O	220	120	55
91A Medical Specialist	E	524	117	22
76Y Unit Supply Specialist	E	549	117	21
18E Special Operations Communications Sergeant	E	318	97	31
31C Single channel Radio Operator	E	456	95	21
18F Special Operations Intelligence Sergeant	E	167	93	56
52D Power Generation Equipment Repairer	E	181	93	51
88N Traffic Management Coodinator	E	256	88	34
74B Chemical Operations/Training Officer	O	84	84	100
12C Bridge Crewman	E	188	84	45
55B Ammunition Specialist	E	322	83	26
31K Combat Signaler	E	321	80	25
180 Special Operations Technician	W	102	80	78
94B Food Service Specialist	E	497	78	16
75B Personnel Administration Specialist	E	173	73	42
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67Y Attack Helicopter Repairer	E	1	1	100
67T Tactical Transport Helicopter Repairer	E	4	1	25
67G Utility Airplane Repairer	E	7	1	14
151 Avionics Maintenance Technician	W	1	1	100
35F Human Intelligence	O	1	1	100
Total		17,858	5,615	31

Note: O=Officer; W=Warrant; E=Enlisted

* Includes 168 USAR and 100 ARNG units.

** Number of additional MOS-qualified personnel needed by these 268 unts so that each unit has at least its ALO strength for each of its required specialties(ALO 1=85 percent of wartime required, ALO 2=75 percent of wartime required, and ALO 3=65 percent of wartime required). As a result, each unit's personnel readiness would be least equal to its ALO.

*** This percentage should not be confused with "percentage of positions filled" that appears in other writings on this subject. This percentage is offered as another guage of the severity of a particular specialty's imbalance problem. The relationship between this percentage and the "percentage of authorized positions filled" is convoluted.

for a unit to fulfill its combat or combat service support mission. These skills may be in short supply, but they may have less affect on combat readiness than do other skills.

Other skills that ranked high in the review (like the Chemical Operations and Training Officer (74B) that shows up on Table H-6) may not have a problem at all. Further research reveals that these positions are actually intended for officers trained as (and carrying) the 74A Chemical, General area of concentration. Assignments of 74A officers to 74B positions are routine and appropriate. What looked like a serious skill imbalance is not, demonstrating the need for further detailed review of each specialty that is identified as a potential problem.

In summary, understanding and identifying skill imbalances that reduce personnel readiness in reserve units requires a comprehensive, unit-by-unit review of individual specialties, and also requires decisions regarding which skill shortfalls most adversely affect combat readiness.

Notes

1. "Skill" and "specialty" are used interchangeably to refer to a formal military job or occupational qualification awarded to an individual, based on training or experience he or she has received. The relative "skill level" of an individual is not considered.

2. Not everyone assigned to a unit is available for deployment in the event of emergency. Service members are considered to be unavailable if they have not yet completed initial skills training, if they are pregnant, if they are within seven days of discharge, if they are sole-surviving family members, or if they are not available for one of several additional reasons.

3. Although the skill level required by a position and the skill level acquired by an incumbent are important considerations, they are not reported as part of each unit's personnel readiness rating under UNITREP. Consideration of skill levels is therefore omitted as part of our analysis.

4. PERSACS is updated semiannually, with both versions containing authorizations that will become effective as of the end of the current fiscal year. That is, both versions anticipate unit authorizations occurring in the future. Thus, the November 1986 PERSACS contained unit authorizations that were to become effective by the end of FY 1987.

5. In a 1987 review of the impact of secondary and additional Army MOSs on the qualification "fit" of Army Reserve medical personnel to their unit positions, the fit improvement was discovered to be 2 percent for enlisted personnel and 4 percent for officers. The review included about 30,000 enlisted soldiers and 14,000 officers, all assigned to the Army's medical career management field.

6. Many small support units require only a single specialist for each skill category required in the unit. If that position is unfilled, the unit has lost all its capacity in that limited area. Such shortages are especially important to units, so the review identifies replacements required in these positions first.

7. Personnel are added to a specialty under the following conditions: for an ALO 1 unit, if less than 85 percent of its wartime positions are filled; for an ALO 2 unit, if less than 75 percent of its wartime positions are filled; for an ALO 3 unit, if less than 65 percent of its wartime positions are filled. Sufficient additional personnel will be added to bring the specialty to 85 percent, 75 percent, or 65 percent filled, respectively. These percentages were selected because they are consistent with levels of personnel readiness described earlier.

8. Based on the unit commander reports taken from the April 1987 UNITREP.

9. Based on the unit commander reports taken from the April 1987 UNITREP.

Appendix I. ARMY NATIONAL GUARD AND RESERVE ENLISTED SKILL MATCH DATA

Source: Logistics Management Institute (LMI)

This appendix contains tables displaying Army National Guard and Reserve enlisted skill match information. The tables depict how well specialty requirements of Army Selected Reserve units match the primary skill qualifications of the enlisted personnel assigned to those units.

The first table (pp. I-2 through I-12) portrays data on all Army National Guard and Reserve units combined, while the second table (pp. I-13 through I-23) contains data on Army National Guard units, and the third table (pp. I-24 through I-34) displays Army Reserve unit data. The title at the top of each page summarizes the information contained on that page. The column entitled authorizations equates to the wartime requirement for the Military Occupational Specialties (MOSs) displayed. The column heading P=DY means the primary skill or MOS of the individual matches the skill required of the position to which the individual is assigned. Additionally, the acronym CMF refers to the term Career Management Field, which is a collection of similar MOSs.

All of the data presented compare wartime requirements contained in the Army's Personnel Structure and Composition System (PERSACS) against personnel assignments information from the Reserve Components Common Personnel Data System (RCCPDS).

One data discrepancy must be noted. Omitted from the displays are 8,872 individuals whose specific status is in doubt. This results from the fact that although they are coded as belonging to the Selected Reserve, there is no Unit Identification Code (UIC) shown for any of their unit assignments. Consequently, it's not possible to slot each of these individuals against a given position's MOS.

The data provided in this appendix was developed by LMI through an expansion of their Reserve Medical Management Information System (REMMIS). REMMIS is a microcomputer-based information system that compares medical personnel of the reserve components with manpower authorizations by unit and by individual medical specialty.

TABLE 1A(N) G & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P=0Y	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
11 INFANTRY	91037	79123	86 %	65 %	3 %	7 %	10 %	1 %
11B Infantryman	68875	59273	87 %	67 %	2 %	7 %	10 %	1 %
11C Indirect Fire Infantryman	12206	10385	84 %	66 %	5 %	6 %	8 %	0 %
11H HV Anti-Ar Wpn Infantryman	10066	8698	86 %	61 %	7 %	6 %	12 %	0 %
11M FV Infantryman	1470	847	58 %	28 %	23 %	2 %	5 %	0 %
12 COMBAT ENGINEERING	37011	30972	84 %	63 %	1 %	8 %	11 %	1 %
12B Combat Engineer	30636	25968	85 %	64 %	1 %	8 %	11 %	1 %
12C Bridge Crewmember	4245	3101	73 %	53 %	3 %	7 %	9 %	1 %
12E Atomic Demolition Mun Sp	0	11	0 %	0 %	0 %	0 %	0 %	0 %
12P Engr Tracked Veh Crwbr	1326	1070	81 %	53 %	5 %	11 %	12 %	0 %
12Z Combat Engineering Sr SGT	804	825	103 %	74 %	13 %	14 %	0 %	0 %
13 FIELD ARTILLERY	42485	37934	89 %	67 %	3 %	7 %	11 %	1 %
13B Cannon Crewmember	29873	25883	87 %	70 %	1 %	6 %	12 %	0 %
13C Y-effire Opns Sp	344	117	34 %	15 %	8 %	3 %	8 %	0 %
13E Cannon FD Sp	3834	4070	106 %	76 %	8 %	10 %	11 %	1 %
13F Fire Support Sp	5231	3583	68 %	44 %	5 %	10 %	8 %	1 %
13M MLRS Crewmember	0	5	0 %	0 %	0 %	0 %	0 %	0 %
13N Lance Crewmember	0	42	0 %	0 %	0 %	0 %	0 %	0 %
13R FA Firefinder Rdr Operator	208	160	77 %	38 %	19 %	7 %	16 %	0 %
13T RPV Crewmember	0	0	0 %	0 %	0 %	0 %	0 %	0 %
13Z Field Artillery Senior SGT	365	1123	308 %	225 %	45 %	36 %	0 %	2 %
15E Pershing MSL Crewmember	0	26	0 %	0 %	0 %	0 %	0 %	0 %
15J MLRS/Lance OP/FD Sp	0	5	0 %	0 %	0 %	0 %	0 %	0 %
17B FA Radar Crewmember (RC)	310	246	79 %	62 %	6 %	6 %	5 %	0 %
17C FA Target Acq Sp (RC)	677	378	56 %	43 %	5 %	6 %	2 %	0 %
82C Field Arty Surveyor	1908	1912	96 %	72 %	4 %	9 %	10 %	1 %
93F FA METeorological Crwbr	455	444	98 %	70 %	4 %	13 %	11 %	0 %
16 AIR DEFENSE ARTILLERY	4353	3973	91 %	74 %	3 %	9 %	5 %	0 %
16D Hawk Msl Crewmember	0	28	0 %	0 %	0 %	0 %	0 %	0 %
16E Hawk Fire Control Crwbr	0	21	0 %	0 %	0 %	0 %	0 %	0 %
16F Light Air Def Arty Crwbr	2010	2604	130 %	112 %	1 %	9 %	0 %	0 %
16G Roland System Crwbr (RC)	151	148	98 %	64 %	9 %	23 %	1 %	1 %
16H ADA OP-Intel Assistant	118	125	106 %	69 %	8 %	23 %	4 %	2 %
16J Def Acq Radar Opr	50	32	64 %	48 %	10 %	0 %	4 %	2 %
16P Chaparral Crewmember	467	197	42 %	21 %	11 %	6 %	3 %	1 %
16R Vulcan Crewmember	18	26	144 %	116 %	11 %	6 %	0 %	11 %
16S Manpads Crewmember	1475	725	49 %	35 %	2 %	9 %	4 %	1 %
16T Patriot Msl Crewmember	0	4	0 %	0 %	0 %	0 %	0 %	0 %
16Z ADA Senior Sergeant	64	71	111 %	83 %	19 %	9 %	0 %	0 %

TABLE 1A(M) E & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 84

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
18 SPECIAL OPERATIONS	2644	2955	112 %	31 %	7 %	63 %	9 %	8 %
18B Special Opns Wpns Sgt	472	601	127 %	43 %	8 %	76 %	4 %	8 %
18C Special Opns Engr Sgt	468	471	101 %	30 %	4 %	59 %	7 %	1 %
18D Special Opns Medical Sgt	424	540	127 %	29 %	1 %	75 %	28 %	8 %
18E Special Opns Comms Sgt	597	732	123 %	34 %	8 %	66 %	16 %	8 %
18F Special Opns Intel Sgt	330	283	86 %	10 %	24 %	50 %	8 %	8 %
18Z Special Opns Senior Sgt	353	328	93 %	34 %	17 %	42 %	8 %	8 %
19 ARMOR	30035	27047	90 %	70 %	3 %	8 %	9 %	8 %
19B Cav Scout	11127	9994	90 %	68 %	8 %	9 %	10 %	1 %
19E M48-M60 Armor CRewman	14985	15113	89 %	71 %	8 %	7 %	9 %	8 %
19K M1 Armor CRewman	1061	1078	102 %	70 %	17 %	5 %	10 %	8 %
19Z ARMOR SENIOR NCO	862	862	100 %	77 %	16 %	7 %	8 %	8 %
23 AIR DEFENSE SYSTEMS MAINTENANCE	95	80	84 %	47 %	8 %	23 %	11 %	3 %
24C Hawk Firing Sec Mech	8	8	8 %	8 %	8 %	8 %	8 %	8 %
24E Hawk Fire Con Mech	8	8	8 %	8 %	8 %	8 %	8 %	8 %
24G Hawk Info Coord Cen Mech	8	7	8 %	8 %	8 %	8 %	8 %	8 %
24H Vulcan Sys Mech	4	7	175 %	125 %	8 %	8 %	8 %	50 %
24M Chaparral Sys Mech	42	11	26 %	6 %	8 %	18 %	18 %	8 %
24R Hawk Master Mech	8	8	8 %	8 %	8 %	8 %	8 %	8 %
24S Roland System Mech (RC)	36	25	69 %	44 %	8 %	25 %	8 %	8 %
24T Patriot Op/Sys Mech	8	8	8 %	8 %	8 %	8 %	8 %	8 %
25L AN/TSQ-73 op/rep	8	5	8 %	8 %	8 %	8 %	8 %	8 %
25M Air Def MOR Rep	13	19	146 %	46 %	8 %	46 %	46 %	8 %
25 AUDIO VISUAL	1140	1155	101 %	58 %	1 %	21 %	20 %	1 %
25T Radio/TV Sys Sp	7	11	157 %	86 %	8 %	71 %	8 %	8 %
41E Audio/Visual Equip Rep	61	71	116 %	61 %	5 %	30 %	18 %	8 %
81E Illustrator	602	596	99 %	56 %	8 %	21 %	20 %	2 %
84B Still Photo Sp	410	412	100 %	60 %	1 %	19 %	19 %	1 %
84C Motion Picture Sp	28	32	114 %	53 %	11 %	7 %	39 %	4 %
84F Audio/TV Sp	30	31	103 %	67 %	3 %	20 %	10 %	3 %
84T TV/Radio Broadcast Ops Ch	2	2	100 %	8 %	100 %	8 %	8 %	8 %

TABLE 1A(M) E & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (MANNING) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 80

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
27 LAND COMBAT/AIR DEF SYS INTERMEDIATE MAINTENANCE	1638	829	88 %	49 %	2 %	14 %	13 %	2 %
21B Pershing Elct Mnt Sp	0	6	0 %	0 %	0 %	0 %	0 %	0 %
21L Pershing Electronics Rep	6	2	25 %	11 %	0 %	14 %	0 %	0 %
24H Hawk Fire Con Rep	5	2	40 %	20 %	0 %	20 %	0 %	0 %
24J Hawk Pulse Rdr Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
24K Hawk CW Radar Rep	0	2	0 %	0 %	0 %	0 %	0 %	0 %
24L Hawk Launcher/Mech Sys Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
24W Hawk Maint Chief	3	2	67 %	34 %	33 %	0 %	0 %	0 %
27B LCSS Test Sp	65	60	92 %	80 %	7 %	24 %	0 %	1 %
27C Roland Rep (RC)	18	12	67 %	0 %	0 %	61 %	0 %	6 %
27D Roland FMTS Rep (RC)	7	0	0 %	0 %	0 %	0 %	0 %	0 %
27E Tow/Dragon Rep	829	684	83 %	53 %	0 %	12 %	16 %	2 %
27F Vulcan Rep	4	1	25 %	25 %	0 %	0 %	0 %	0 %
27G Chaparral/Redeye Rep	12	5	42 %	34 %	0 %	0 %	0 %	0 %
27L Lance Sys Rep	7	5	71 %	14 %	14 %	29 %	14 %	0 %
27M MLRS Rep	19	7	37 %	11 %	5 %	5 %	16 %	0 %
27N FAAR Rep	18	2	28 %	28 %	0 %	0 %	0 %	0 %
27Z DLC/AD Sys Maint Chief	33	27	82 %	49 %	15 %	18 %	0 %	0 %
28 AVIATION COMMUNICATIONS ELECTRONICS SYS MAINT	1219	1266	104 %	63 %	0 %	14 %	17 %	2 %
28K Avionic Mech	484	518	126 %	71 %	9 %	21 %	22 %	3 %
28L Avionic Comm Eq Rep	249	262	105 %	65 %	6 %	7 %	26 %	1 %
28M Avionic NAV/FLT Cntrl Eq R	287	322	107 %	59 %	13 %	14 %	18 %	3 %
28P Avionic Eq Maint Supv	176	149	85 %	64 %	0 %	11 %	0 %	2 %
28R Avionic Sp Eq Rep	183	125	68 %	39 %	5 %	10 %	13 %	1 %
29 COMMUNICATIONS ELECTRONICS Avionic Sp Eq Rep	6427	5197	81 %	43 %	4 %	17 %	13 %	2 %
29E C-E Radio Rep	1329	1166	88 %	49 %	6 %	20 %	11 %	2 %
29F Fixed Comsec Equip Rep	27	19	70 %	44 %	11 %	4 %	0 %	11 %
29G Digital Comm Equip Rep	44	49	77 %	28 %	0 %	38 %	5 %	6 %
29W ADVME Rep	42	37	68 %	6 %	21 %	23 %	2 %	0 %
29J TeleTYpe Writer Equip Rep	806	610	76 %	44 %	5 %	15 %	10 %	2 %
29M TAC Satellite/MW Rep	583	587	106 %	68 %	4 %	17 %	24 %	1 %
29N Telephone Con Office Rep	701	400	57 %	27 %	3 %	16 %	10 %	1 %
29P Comsec Maint Chief	5	1	20 %	20 %	0 %	0 %	0 %	0 %
29R Field Comm Sec Equip Rep	410	237	58 %	38 %	4 %	6 %	11 %	2 %
29V Strat Wnave Equip Rep	91	25	27 %	19 %	2 %	4 %	0 %	2 %

TABLE 1A(M) E & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
21W Comm Maint Support Chief	417	247	59 %	33 %	9 %	16 %	0 %	1 %
21X Comm Equip Maint Chief	1	104	14402 %	100 %	400 %	900 %	0 %	0 %
21Y Satcom systems Rep	2	8	400 %	350 %	0 %	50 %	0 %	0 %
21Z C/E Maint Chief	31	25	84 %	26 %	10 %	46 %	0 %	0 %
25B Calibration Specialist	226	268	119 %	83 %	5 %	15 %	14 %	2 %
25D ATE Operator/Maintainer	6	4	67 %	34 %	0 %	33 %	0 %	0 %
29C Target Acq Surv Radar Rep	484	330	68 %	34 %	5 %	13 %	14 %	2 %
29D BASIS Computer Sys Rep	332	246	74 %	22 %	5 %	35 %	9 %	1 %
29E Spacial Elect Dev Rep	516	597	116 %	44 %	4 %	14 %	31 %	1 %
29K ZSEV ADPs rep	23	17	74 %	22 %	17 %	27 %	4 %	4 %
29L FA Digital sys Rep	89	30	51 %	12 %	17 %	5 %	12 %	5 %
29T Tac Computer Sys Rep	27	7	26 %	4 %	11 %	11 %	0 %	0 %
29V Computerized Sys Maint ch	0	24	0 %	0 %	0 %	0 %	0 %	0 %
29Y FA tac fire dir rep	261	164	63 %	27 %	9 %	11 %	14 %	2 %
31 COMMUNICATIONS-ELECTRONICS OPERATIONS	48181	44800	93 %	41 %	7 %	18 %	13 %	2 %
31C Single Channel Radio Op	8178	7548	93 %	38 %	8 %	11 %	14 %	2 %
31E Tactical Comm Chief	0	2	0 %	0 %	0 %	0 %	0 %	0 %
31K Combat Signaler	12839	12025	94 %	36 %	7 %	11 %	15 %	3 %
31L Wire Systems Installer	5249	4492	86 %	44 %	4 %	7 %	10 %	1 %
31M Multichannel Comm sys Op	4067	4050	80 %	30 %	3 %	7 %	11 %	1 %
31N Tac Circuit Controller	691	586	85 %	39 %	7 %	10 %	8 %	1 %
31Q Tactical Sat Mu Sys Op	905	807	89 %	52 %	6 %	15 %	15 %	1 %
31V Unit Level Comm Maint	6361	6937	109 %	40 %	9 %	14 %	13 %	3 %
31Y Comm Systems Supv	0	66	0 %	0 %	0 %	0 %	0 %	0 %
31Z Comm Operations Chief	804	833	104 %	72 %	17 %	15 %	0 %	0 %
32D Computer Sys Circuit Contr	41	26	63 %	24 %	2 %	22 %	7 %	2 %
36L au switch sys opr/maint.	63	36	57 %	31 %	9 %	30 %	12 %	2 %
36M Switching Sys Operator	1256	901	72 %	39 %	18 %	6 %	0 %	1 %
72E Tactical Telecom Center Op	5871	5225	89 %	48 %	6 %	8 %	16 %	2 %
72D Auto Data Telecom Cen Op	176	230	131 %	67 %	17 %	15 %	7 %	5 %
33 EW/INTERCEPT SYSTEMS MAINTENANCE	267	167	61 %	37 %	2 %	13 %	10 %	10 %
33P EW/I Recv Equip Rep	0	4	0 %	0 %	0 %	0 %	0 %	0 %
33R EW/I Aun System Rep	66	38	58 %	23 %	9 %	3 %	14 %	9 %
33T EW/I Tactical Systems Rep	117	98	84 %	38 %	0 %	14 %	10 %	22 %
33V EW/I Aerial Sensor Rep	23	27	117 %	60 %	0 %	35 %	0 %	22 %
33Z EW/I Systems Maint Supv	1	0	0 %	0 %	0 %	0 %	0 %	0 %

TABLE 1A(M) 0 & M ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS
30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P+DY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
46 PUBLIC AFFAIRS	1428	1414	99 %	53 %	6 %	26 %	12 %	2 %
71Q Journalist	884	884	104 %	55 %	2 %	28 %	17 %	2 %
71R Broadcast Journalist	420	378	90 %	40 %	9 %	25 %	7 %	1 %
84Z Public Affairs Chief	154	152	99 %	57 %	21 %	21 %	0 %	0 %
51 GENERAL ENGINEERING	26096	24798	95 %	60 %	7 %	14 %	13 %	1 %
00B Diver	130	97	75 %	15 %	0 %	42 %	18 %	0 %
51B Carpentry/Masonry Sp	4678	4557	97 %	61 %	7 %	11 %	16 %	2 %
51D Materials Quality Sp	182	148	81 %	41 %	6 %	14 %	18 %	2 %
51M Const Engr Supv	1518	1435	95 %	69 %	12 %	13 %	0 %	1 %
51K Plumber	1680	1381	80 %	50 %	4 %	11 %	14 %	1 %
51M Firefighter	525	531	101 %	69 %	2 %	19 %	9 %	2 %
51R Interior Electrician	1743	1748	100 %	67 %	4 %	10 %	18 %	1 %
51T Tech Engr Supv	167	182	109 %	50 %	20 %	21 %	0 %	2 %
51Z Gen Engr Supv	385	362	94 %	64 %	15 %	15 %	0 %	0 %
52E Prime Power Production sp	26	29	112 %	50 %	4 %	38 %	0 %	8 %
52G Transmission & Dist Sp	455	367	81 %	37 %	10 %	19 %	14 %	1 %
62E Heavy Const Eq Op	5399	5838	108 %	65 %	7 %	15 %	14 %	2 %
62F Crane Operator	2759	2746	100 %	63 %	6 %	16 %	14 %	1 %
62G Quarrying Sp	562	405	72 %	51 %	3 %	11 %	6 %	1 %
62H Concrete/Asphalt Eq Op	696	567	81 %	52 %	7 %	17 %	4 %	1 %
62J Gen Const Eq Op	3073	2631	86 %	58 %	6 %	12 %	15 %	1 %
62M Const Eq Supv	806	829	103 %	75 %	13 %	14 %	0 %	1 %
81B Tech Drafting Sp	689	721	105 %	50 %	3 %	19 %	23 %	2 %
82B Const Surveyor	631	562	89 %	52 %	6 %	16 %	14 %	1 %
54 CHEMICAL	6722	9176	137 %	62 %	0 %	37 %	16 %	2 %
54B Chemical Operations Sp	6722	9176	137 %	62 %	0 %	37 %	16 %	2 %
55 AMMUNITION	5229	4105	79 %	45 %	5 %	18 %	10 %	1 %
55B Ammo Sp	4048	3216	79 %	46 %	1 %	18 %	11 %	1 %
55D EOD Sp	5	2	40 %	40 %	0 %	0 %	0 %	0 %
55G Nuclear Mun Sp	13	17	131 %	70 %	15 %	46 %	0 %	0 %
55R Ammo Stk Clk & Acty Sp	751	523	70 %	37 %	14 %	15 %	12 %	2 %
55X Ammo Insp	318	240	77 %	29 %	32 %	15 %	0 %	1 %
55Z Ammo Supv	102	107	105 %	48 %	17 %	22 %	0 %	1 %

TABLE IA(M) O & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PrOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
63 MECHANICAL MAINTENANCE	75115	74371	108 %	69 %	10 %	9 %	13 %	1 %
41C Fire Control Instr Rep	447	423	95 %	62 %	8 %	10 %	14 %	1 %
41J Office Mach Rep	117	131	112 %	71 %	9 %	13 %	16 %	3 %
44B Metal Worker	2308	2476	108 %	63 %	11 %	11 %	22 %	1 %
44E Machinist	1173	1226	105 %	72 %	9 %	6 %	15 %	1 %
45B Small Arms Rep	541	704	130 %	72 %	13 %	16 %	28 %	1 %
45D Sp Fa Turret Mech	520	442	85 %	60 %	6 %	7 %	12 %	0 %
45E M1 Abrams Tank Turret Mech	52	60	115 %	80 %	12 %	8 %	15 %	0 %
45G Fire Control Sys Rep	230	167	73 %	33 %	9 %	12 %	19 %	0 %
45K Tank Turret Rep	1224	965	79 %	54 %	10 %	8 %	6 %	1 %
45L Artillery Rep	432	327	76 %	43 %	17 %	10 %	6 %	0 %
45N M60A1/A3 Tank Turret Mech	826	700	85 %	56 %	10 %	6 %	13 %	0 %
45T Bradley FVS Turret Mech	234	162	69 %	27 %	15 %	9 %	18 %	0 %
45Z Armt/Fire Control Maint Su	192	190	99 %	63 %	23 %	12 %	0 %	1 %
52C Util Equip Rep	1903	1607	84 %	53 %	6 %	9 %	15 %	1 %
52D Power Gen Equip Rep	7216	5763	80 %	47 %	11 %	10 %	11 %	1 %
52F Turbine Eng Driven Gen Rep	31	9	29 %	14 %	3 %	3 %	6 %	3 %
52X Sp Purpose Equip Rep	6	0	0 %	0 %	0 %	0 %	0 %	0 %
62B Const Equip Rep	7241	7256	100 %	67 %	10 %	9 %	13 %	1 %
63B Lt Wheel Vehicle Mech	21272	26252	123 %	86 %	7 %	11 %	16 %	1 %
63D Sp Fa Sys Mech	1929	1710	89 %	61 %	12 %	8 %	7 %	1 %
63E M1 Tank Sys Mech	164	182	111 %	75 %	15 %	12 %	9 %	0 %
63G Fuel & Elec Sys Rep	1076	804	82 %	50 %	11 %	7 %	14 %	0 %
63H Track Vehicle Rep	5883	5892	100 %	71 %	11 %	6 %	9 %	1 %
63J Mft & Chem Equip Rep	2077	1790	86 %	47 %	10 %	9 %	19 %	1 %
63M M60A1/A3 Tank Sys Mech	3102	3021	97 %	72 %	7 %	8 %	9 %	1 %
63S Heavy Wheel Veh Mech	3402	3113	92 %	58 %	21 %	7 %	13 %	1 %
63T Bradley FVS Mech	3426	3375	99 %	73 %	8 %	9 %	9 %	0 %
63M Wheel Veh Rep	4588	3984	87 %	56 %	12 %	7 %	11 %	1 %
63Y Track Veh Mech	749	682	91 %	51 %	29 %	10 %	9 %	1 %
63Z Mech Maint Supv	770	870	113 %	74 %	19 %	0 %	0 %	1 %
67 AIRCRAFT MAINTENANCE	11685	13547	116 %	76 %	16 %	11 %	12 %	1 %
66G Utility Airplane Mech Insp	33	29	88 %	27 %	55 %	3 %	0%	3 %
66H Obsn Airplane Mech Insp	11	17	155 %	18 %	18 %	101 %	18 %	0 %
66J Aircraft Armament Mech Ins	48	38	67 %	11 %	36 %	18 %	0 %	2 %
66M Utility Hel Mech Insp	251	213	85 %	40 %	41 %	4 %	0 %	0 %
66R AH-64 Attack Hel Mech Insp	0	4	0 %	0 %	0 %	0 %	0 %	0 %
66S Scout Hel Mech Insp	0	3	0 %	0 %	0 %	0 %	0 %	0 %
66T Tac Trans Hel Mech Insp	72	51	71 %	31 %	34 %	3 %	0 %	3 %
66U Medium Hel Mech Insp	66	51	77 %	0 %	56 %	5 %	0 %	0 %

TABLE 1A(4) O & M ENLISTED SKILL - NATION - PERCENTAGE DISTRIBUTION
AUTHORIZED (MARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 84

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
66V Chem/Scout Hel Tech Insp	103	64	62 %	59 %	29 %	6 %	1 %	2 %
66X Heavylift Hel TI (RC)	16	14	88 %	31 %	57 %	0 %	0 %	0 %
66Y AH-1 Attack Hel Tech Insp	88	47	53 %	10 %	34 %	1 %	0 %	0 %
67B Utility Airplane Rep	299	310	104 %	62 %	25 %	7 %	4 %	6 %
67M Chem Airplane Rep	129	151	117 %	75 %	15 %	22 %	3 %	2 %
67N Utility Hel Rep	3106	4902	158 %	114 %	14 %	13 %	15 %	2 %
67R AH-64 Attack Hel Rep	0	32	0 %	0 %	0 %	0 %	0 %	0 %
67S Scout Hel Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
67T Tac Trans Hel Rep	635	606	95 %	56 %	24 %	7 %	6 %	2 %
67U Medium Hel Rep	581	703	121 %	74 %	16 %	0 %	29 %	3 %
67V Chem/Scout Hel Rep	1348	1632	121 %	76 %	18 %	15 %	12 %	0 %
67X Heavy Lift Hel Rep (RC)	374	342	91 %	68 %	7 %	10 %	6 %	0 %
67Y AH-1 Attack Hel Rep	941	756	80 %	44 %	16 %	8 %	11 %	1 %
67Z Aircraft Maint Sr Sgt	287	354	123 %	73 %	29 %	17 %	0 %	4 %
68B Aircraft Powerplant Rep	689	659	96 %	66 %	7 %	7 %	16 %	0 %
68D Aircraft Powertrain Rep	351	396	113 %	72 %	11 %	8 %	21 %	1 %
68F Aircraft Electrician	285	347	122 %	68 %	5 %	11 %	28 %	1 %
68G Aircraft Structural Rep	795	774	97 %	72 %	4 %	10 %	10 %	1 %
68H Aircraft Pneudraulics Rep	228	210	92 %	68 %	7 %	11 %	13 %	1 %
68J Aircraft Fire Control Rep	479	368	76 %	48 %	12 %	9 %	14 %	1 %
68K Aircraft Comp Rep Supv	181	158	87 %	55 %	26 %	4 %	0 %	2 %
68M Aircraft Weapon Sys Rep	376	431	115 %	69 %	12 %	14 %	19 %	1 %
71 ADMINISTRATION	55736	54461	98 %	57 %	10 %	17 %	12 %	2 %
00J Club Manager	8	8	100 %	62 %	13 %	25 %	0 %	0 %
03C Physical Activities Sp	133	132	99 %	53 %	10 %	23 %	11 %	2 %
71C Executive Admin Asst	821	640	78 %	29 %	25 %	10 %	12 %	2 %
71D Legal Specialist	2372	2395	101 %	53 %	20 %	15 %	12 %	1 %
71E Court Reporter	295	200	68 %	21 %	20 %	15 %	3 %	1 %
71L Administrative Sp	27242	26616	98 %	57 %	8 %	20 %	13 %	3 %
71M Chapel Activities Sp	1526	1485	98 %	56 %	7 %	13 %	14 %	2 %
73C Finance Sp	2966	2931	99 %	72 %	6 %	9 %	11 %	1 %
73B Accounting Sp	530	533	101 %	47 %	21 %	11 %	19 %	3 %
73Z Finance Sr Sgt	253	238	93 %	65 %	20 %	6 %	0 %	0 %
75B Personnel Admin Sp	6167	7483	121 %	66 %	16 %	22 %	15 %	2 %
75C Personnel Mgmt Sp	8605	8327	89 %	58 %	14 %	11 %	13 %	1 %
75B Personnel Records Sp	4721	4323	92 %	55 %	10 %	10 %	24 %	1 %
75E Personnel Actions Sp	1468	1298	88 %	48 %	12 %	9 %	18 %	1 %
75F Personnel Info Sys Mgmt Sp	1076	919	85 %	42 %	15 %	12 %	15 %	1 %
75Z Personnel Sgt	3883	3521	91 %	56 %	19 %	15 %	9 %	1 %

TABLE 1A(M) E & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 66

CMF/MOS	AUTH	ASSIGN	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMBY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
74 AUTOMATIC DATA PROCESSING	1344	1429	106 %	60 %	6 %	21 %	15 %	2 %
740 Computer/Machine Op	702	775	99 %	61 %	3 %	19 %	14 %	2 %
74F Programmer/Analyst	472	546	116 %	62 %	8 %	24 %	19 %	3 %
74Z Data Processing MCO	118	99	88 %	47 %	25 %	14 %	0 %	2 %
76 SUPPLY & SERVICE	53167	55984	105 %	71 %	6 %	16 %	11 %	1 %
43E Parachute Rigger	653	596	89 %	50 %	1 %	17 %	19 %	2 %
43M Fabric Rep Sp	1118	1045	93 %	60 %	3 %	11 %	18 %	1 %
57E Laundry/Bath Sp	2185	1791	90 %	60 %	3 %	12 %	14 %	1 %
57F Graves Registration Sp	671	636	95 %	64 %	8 %	14 %	14 %	3 %
76C Equip Records/Parts Sp	7734	7986	103 %	63 %	9 %	17 %	13 %	1 %
76P Material Control & Acty Sp	6898	7032	107 %	72 %	9 %	12 %	13 %	1 %
76W Mat Storage & Handling Sp	11052	10384	94 %	60 %	7 %	13 %	13 %	1 %
76X Subsistence Supply Sp	1150	1197	103 %	62 %	9 %	11 %	19 %	2 %
76Y Unit Supply Sp	20519	23611	115 %	83 %	4 %	10 %	0 %	2 %
76Z Sr Supply Sgt	1589	1618	103 %	64 %	18 %	23 %	0 %	1 %
77 PETROLEUM & WATER	7694	6869	89 %	60 %	0 %	19 %	9 %	1 %
77F Petroleum Supply Sp	6388	5388	88 %	59 %	0 %	17 %	0 %	1 %
77L Petroleum Lab Sp	182	168	88 %	49 %	4 %	16 %	17 %	2 %
77W Water Treatment Sp	1297	1381	112 %	70 %	0 %	28 %	13 %	1 %
79 RECRUITMENT & RELISTMENT	1336	4843	363 %	298 %	6 %	58 %	0 %	1 %
00E Recruiter (RC)	0	3149	0 %	0 %	0 %	0 %	0 %	0 %
00R Recruiter/Retention MCO	24	11	46 %	0 %	17 %	13 %	0 %	0 %
79S Reenlistment MCO (RC)	1312	1683	128 %	87 %	3 %	37 %	0 %	1 %
81 TOPOGRAPHIC ENGINEERING	1317	1261	96 %	56 %	6 %	17 %	16 %	1 %
81B Topographic Inst Rep Sp	45	38	84 %	27 %	4 %	36 %	13 %	4 %
81C Cartographer	212	219	103 %	68 %	7 %	16 %	11 %	1 %
81G Terrain Analyst	120	112	93 %	37 %	9 %	26 %	18 %	3 %
81Z Topographic Engrng Supv	9	11	122 %	78 %	22 %	22 %	0 %	0 %
82D Topographic Surveyor	260	225	86 %	59 %	3 %	15 %	5 %	2 %
83E Photo and Layout Sp	98	96	107 %	62 %	6 %	17 %	22 %	0 %
83F Printing & Bindery Sp	573	868	98 %	59 %	1 %	15 %	22 %	1 %

TABLE IA(M) G & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
88 TRANSPORTATION	38399	34877	90 %	73 %	1 %	13 %	12 %	1 %
88H Cargo Specialist	1778	1841	87 %	58 %	3 %	21 %	9 %	2 %
88K Watercraft Operator	847	758	89 %	56 %	3 %	13 %	15 %	2 %
88L Watercraft Engineer	681	549	81 %	49 %	4 %	14 %	11 %	3 %
88M Motor Transport Op	29184	28835	99 %	73 %	0 %	12 %	13 %	1 %
88N Traffic Management Coord	2046	2069	101 %	36 %	3 %	23 %	36 %	3 %
88P Locomotive Rep (RC)	67	44	66 %	45 %	1 %	19 %	10 %	0 %
88Q Railway Car Rep (RC)	202	123	61 %	30 %	4 %	22 %	3 %	2 %
88R Airbrake Rep (RC)	20	11	55 %	18 %	10 %	10 %	20 %	0 %
88S Locomotive Electrician (RC	42	27	64 %	38 %	2 %	17 %	10 %	0 %
88T Railway Sec Rep (RC)	42	42	100 %	33 %	2 %	38 %	2 %	5 %
88U Locomotive Operator (RC)	29	28	97 %	46 %	17 %	24 %	10 %	0 %
88V Train Crewmember (RC)	66	76	115 %	44 %	23 %	35 %	2 %	9 %
88M Railway Movement Coord (RC	69	21	30 %	10 %	6 %	13 %	0 %	1 %
88X Railway Sr Sgt (RC)	15	13	87 %	67 %	7 %	13 %	0 %	0 %
88Y Marine Sr Sgt	10	10	100 %	40 %	60 %	0 %	0 %	0 %
88Z Transportation Sr Sgt	384	438	114 %	64 %	18 %	29 %	0 %	1 %
91 MEDICAL	58695	48943	86 %	58 %	11 %	7 %	16 %	2 %
01H Biological Sciences Asst	0	2	0 %	0 %	0 %	0 %	0 %	0 %
35B Biomedical Equip Sp, Basic	119	103	134 %	86 %	11 %	20 %	31 %	4 %
35U Biomedical Equip Sp, Adv	484	306	96 %	38 %	40 %	17 %	5 %	2 %
42C Orthotic Sp	32	25	78 %	41 %	6 %	6 %	19 %	6 %
42D Dental Lab Sp	417	336	81 %	49 %	7 %	6 %	18 %	1 %
42E Optical Lab Sp	91	63	69 %	40 %	5 %	10 %	10 %	4 %
71G Patient Admin Sp	2188	2196	100 %	63 %	5 %	14 %	14 %	2 %
76J Medical Supply Sp	3154	2618	83 %	42 %	3 %	21 %	14 %	1 %
91A Medical Sp	17330	17542	101 %	60 %	9 %	6 %	25 %	1 %
91B Medical NCO	7132	7403	104 %	71 %	23 %	7 %	1 %	2 %
91C Practical Nurse	7755	4389	56 %	20 %	21 %	3 %	3 %	1 %
91D Operating Room Sp	3573	2911	81 %	46 %	6 %	4 %	23 %	2 %
91E Dental Sp	1665	1834	102 %	60 %	5 %	8 %	19 %	2 %
91F Psychiatric Sp	265	253	95 %	56 %	9 %	5 %	22 %	3 %
91G Behavioral Science Sp	457	429	94 %	48 %	5 %	7 %	19 %	1 %
91H Orthopedic Sp	418	297	71 %	44 %	6 %	1 %	18 %	2 %
91J Physical Therapy Sp	272	327	120 %	59 %	8 %	6 %	44 %	3 %
91L Occupational Therapy Sp	125	107	86 %	51 %	4 %	6 %	25 %	2 %
91M Cardiac Sp	92	71	77 %	49 %	4 %	4 %	18 %	2 %
91P X-Ray Sp	1235	1239	100 %	63 %	9 %	5 %	20 %	2 %
91Q Pharmacy Sp	1062	672	63 %	38 %	5 %	3 %	21 %	2 %
91R Veterinary Food Insp Sp	151	174	115 %	76 %	11 %	9 %	14 %	5 %

TABLE 1A(M) S & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P=DY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
91S Preventive Medicine Sp	539	464	86 %	45 %	18 %	19 %	10 %	2 %
91T Animal Care Sp	48	56	117 %	82 %	6 %	6 %	19 %	4 %
91U Ent Sp	180	91	91 %	46 %	13 %	6 %	22 %	4 %
91V Respiratory Sp	790	267	34 %	13 %	9 %	5 %	6 %	1 %
91W Nuclear Medicine Sp	0	3	0 %	0 %	0 %	0 %	0 %	0 %
91X Health Physics Sp	0	1	0 %	0 %	0 %	0 %	0 %	0 %
91Y Eye Sp	97	66	68 %	31 %	12 %	4 %	20 %	1 %
92B Medical Lab Sp	3376	2719	81 %	53 %	3 %	3 %	21 %	1 %
92E Cytology Sp	28	5	18 %	11 %	7 %	0 %	0 %	0 %
94F Hospital Food Service Sp	2440	1702	70 %	35 %	2 %	21 %	11 %	1 %
93 AVIATION OPERATION	1215	1320	109 %	71 %	3 %	20 %	13 %	2 %
93B Aerorescue Observer	0	7	0 %	0 %	0 %	0 %	0 %	0 %
93D ATCes Equip Rep	27	28	104 %	44 %	4 %	49 %	7 %	0 %
93M ATC Tower Operator	171	184	90 %	62 %	3 %	11 %	11 %	1 %
93J ATC Radar Controller	220	200	91 %	66 %	5 %	10 %	10 %	0 %
93P Flight Operations Coord	797	931	117 %	73 %	2 %	24 %	15 %	3 %
94 FOOD SERVICE	26505	29907	113 %	93 %	0 %	12 %	7 %	1 %
94B Food Service Sp	26505	29907	113 %	93 %	0 %	12 %	7 %	1 %
95 MILITARY POLICE	22698	20761	91 %	67 %	1 %	10 %	12 %	1 %
95B Military Police	21994	19964	91 %	68 %	0 %	10 %	12 %	1 %
95C Corrections NCO	464	541	117 %	73 %	17 %	19 %	5 %	3 %
95D CID Special Agent	240	256	107 %	64 %	27 %	13 %	0 %	3 %
96 MILITARY INTELLIGENCE	5694	4862	85 %	41 %	5 %	25 %	9 %	5 %
96B Intelligence Analyst	1836	1986	108 %	62 %	3 %	32 %	0 %	3 %
96D Imagery Analyst	379	369	97 %	49 %	4 %	25 %	15 %	4 %
96F Psyop Specialist	915	607	66 %	11 %	14 %	28 %	9 %	4 %
96H Aerial Intel Sp	68	72	106 %	80 %	0 %	13 %	12 %	1 %
96R Ground Surv1 Sys Op	920	441	48 %	32 %	0 %	10 %	5 %	1 %
96Z Intel Senior SGT	35	37	106 %	65 %	3 %	29 %	0 %	9 %
97B CI Agent	547	542	99 %	49 %	9 %	31 %	6 %	4 %
97E Interrogator	806	645	80 %	28 %	3 %	20 %	16 %	13 %
97G Counter Sigint Sp	188	163	87 %	37 %	1 %	30 %	15 %	4 %

TABLE 1A(1N) @ & R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD & RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
97 BAND	2880	2769	96 %	77 %	9 %	4 %	5 %	1 %
02B Cornet or Trumpet Player	455	512	113 %	95 %	8 %	4 %	6 %	0 %
02C Baritone or Euphonium Play	145	142	98 %	77 %	12 %	4 %	4 %	1 %
02D French Horn Player	233	188	81 %	65 %	9 %	3 %	3 %	1 %
02E Trombone Player	297	293	99 %	82 %	7 %	2 %	7 %	1 %
02F Tuba Player	221	184	83 %	67 %	6 %	4 %	5 %	1 %
02G Flute or Piccolo Player	146	136	93 %	74 %	7 %	2 %	10 %	0 %
02H Oboe Player	70	103	147 %	106 %	39 %	1 %	1 %	0 %
02J Clarinet Player	578	371	64 %	53 %	5 %	2 %	4 %	0 %
02K Bassoon Player	78	49	78 %	53 %	9 %	4 %	4 %	0 %
02L Saxophone Player	298	300	101 %	86 %	4 %	4 %	5 %	2 %
02M Percussion Player	145	297	205 %	172 %	14 %	18 %	8 %	1 %
02N Piano Player	76	64	84 %	53 %	22 %	4 %	5 %	0 %
02S Special Bandsperson	1	2	200 %	0 %	100 %	0 %	0 %	100 %
02T Guitar Player	70	59	84 %	61 %	19 %	3 %	1 %	0 %
02U Electric Bass Player	0	1	0 %	0 %	0 %	0 %	0 %	0 %
02Z Bands Senior SGT	75	68	91 %	76 %	15 %	0 %	0 %	0 %
96 ELECTRONIC WARFARE CRYPTOLOGIC OPERATIONS	1877	1008	54 %	33 %	4 %	8 %	7 %	2 %
05D EW/Sigint Ident/LOs	29	24	83 %	69 %	17 %	14 %	3 %	0 %
05H EW/Sigint Intop-Ino	258	165	64 %	38 %	4 %	11 %	9 %	4 %
05K EW/Sigint N-K Intop	1	18	800 %	600 %	0 %	100 %	0 %	100 %
98C EW/Sigint Analyst	442	264	60 %	39 %	5 %	6 %	6 %	2 %
98G EW/Sigint Voice Intop	842	369	44 %	28 %	2 %	6 %	6 %	2 %
98J EW/Sigint NC Intop	188	132	70 %	38 %	10 %	8 %	13 %	1 %
98Z EW/Sigint Chief	125	34	27 %	7 %	5 %	14 %	0 %	1 %
special duty	1996	2952	148 %	58 %	0 %	57 %	27 %	6 %
00B Special Duty Assignment	64	951	1486%	36 %	0 %	500 %	762 %	100 %
00U ED NCO	125	107	86 %	33 %	0 %	51 %	0 %	2 %
00Z CMD SGT Major	1887	1894	100 %	61 %	0 %	42 %	2 %	0 %
subtotal	648522	634798	98 %	65 %	6 %	11 %	12 %	1 %
reporting codes	0	7222	0 %	x	x	x	x	x
09r simultaneous member prg	0	5220	0 %	x	x	x	x	x
09s commissioned officer cand	0	1842	0 %	x	x	x	x	x
09t coll student mng off prg	0	107	0 %	x	x	x	x	x
09u warrant officer candidate	0	53	0 %	x	x	x	x	x
unknown duty	0	536	0 %	x	x	x	x	x
GRAND TOTAL	648522	642586	97 %	x	x	x	x	x

TABLE 1A(M) 6 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
11 INFANTRY	71224	59036	84 %	66 %	3 %	5 %	10 %	0 %
11B Infantryman	49568	42010	85 %	68 %	2 %	5 %	10 %	0 %
11C Indirect Fire Infantryman	11819	9101	83 %	67 %	5 %	4 %	7 %	0 %
11H HV Anti-Ar Msn Infantryman	9223	7983	86 %	62 %	7 %	5 %	12 %	0 %
11M FV Infantryman	1414	774	55 %	23 %	24 %	2 %	6 %	0 %
12 COMBAT ENGINEERING	25403	21338	84 %	70 %	1 %	5 %	8 %	0 %
12B Combat Engineer	20862	17688	85 %	70 %	1 %	5 %	9 %	0 %
12C Bridge Crewmember	3105	2242	72 %	58 %	3 %	5 %	6 %	0 %
12E Atomic Demolition Msn Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
12F Engr Tracked Veh Crwbr	1034	904	87 %	62 %	5 %	9 %	11 %	0 %
12Z Combat Engineering Sr SGT	402	504	105 %	80 %	13 %	12 %	0 %	0 %
13 FIELD ARTILLERY	36299	31814	88 %	71 %	2 %	6 %	9 %	0 %
13B Cannon Crewmember	24371	21312	87 %	73 %	0 %	4 %	10 %	0 %
13C Tacfire Opns Sp	294	102	35 %	14 %	10 %	3 %	8 %	0 %
13E Cannon FD Sp	3304	3449	104 %	78 %	0 %	9 %	8 %	1 %
13F Fire Support Sp	4923	3267	66 %	44 %	4 %	10 %	7 %	1 %
13M MLRS Crewmember	0	2	0 %	0 %	0 %	0 %	0 %	0 %
13N Lance Crewmember	0	2	0 %	0 %	0 %	0 %	0 %	0 %
13R FA Firefinder Rdr Operator	189	138	73 %	31 %	20 %	6 %	16 %	0 %
13T RPV Crewmember	0	0	0 %	0 %	0 %	0 %	0 %	0 %
13Z Field Artillery Senior SGT	152	908	592 %	466 %	85 %	39 %	0 %	2 %
15E Pershing MSL Crewmember	0	0	0 %	0 %	0 %	0 %	0 %	0 %
15J MLRS/Lance OP/FD Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
17B FA Radar Crewmember (RC)	297	233	78 %	60 %	6 %	6 %	6 %	0 %
17C FA Target Acq Sp (RC)	648	348	54 %	42 %	4 %	6 %	2 %	0 %
68C Field Arty Surveyor	1699	1642	97 %	76 %	4 %	8 %	9 %	0 %
93F FA METeorological Crwbr	402	407	101 %	72 %	4 %	14 %	11 %	0 %
16 AIR DEFENSE ARTILLERY	4118	3784	92 %	73 %	3 %	10 %	6 %	0 %
16D Hawk Msl Crewmember	0	0	0 %	0 %	0 %	0 %	0 %	0 %
16E Hawk Fire Control Crwbr	0	1	0 %	0 %	0 %	0 %	0 %	0 %
16F Light Air Def Arty Crwbr	2010	2600	129 %	111 %	1 %	9 %	8 %	0 %
16G Roland System Crwbr (RC)	151	148	98 %	64 %	9 %	23 %	1 %	1 %
16H ADA OP-Intel Assistant	117	110	94 %	58 %	8 %	22 %	4 %	2 %
16J Def Acq Radar Opr	50	29	58 %	34 %	10 %	8 %	4 %	2 %
16P Chaparral Crewmember	447	168	36 %	16 %	11 %	5 %	3 %	1 %
16R Vulcan Crewmember	18	4	22 %	11 %	11 %	0 %	0 %	0 %
16S Manpads Crewmember	1241	653	53 %	38 %	2 %	9 %	4 %	0 %
16T Patriot Msl Crewmember	0	0	0 %	0 %	0 %	0 %	0 %	0 %
16Z ADA Senior Sergeant	44	71	111 %	83 %	19 %	9 %	0 %	0 %

TABLE 1A(W) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
18 SPECIAL OPERATIONS	1238	1452	118 %	42 %	6 %	57 %	11 %	0 %
18B Special Opns Wpns Sgt	224	332	148 %	50 %	3 %	79 %	6 %	0 %
18C Special Opns Engr Sgt	198	235	119 %	42 %	6 %	61 %	10 %	0 %
18D Special Opns Medical Sgt	228	269	118 %	32 %	1 %	66 %	19 %	0 %
18E Special Opns Comms Sgt	259	323	125 %	40 %	3 %	58 %	19 %	0 %
18F Special Opns Intel Sgt	128	103	86 %	22 %	28 %	36 %	0 %	0 %
18Z Special Opns Senior Sgt	154	140	91 %	55 %	19 %	17 %	0 %	0 %
19 ARMOR	24752	21794	88 %	70 %	2 %	7 %	9 %	0 %
19D Cav Scout	9499	8308	87 %	69 %	1 %	0 %	9 %	0 %
19E M48-M60 Armor CRewman	13752	12082	87 %	71 %	1 %	6 %	9 %	0 %
19K M1 Armor CRewman	945	920	97 %	65 %	18 %	5 %	9 %	0 %
19Z ARMOR SENIOR SGT	556	564	101 %	78 %	15 %	0 %	0 %	0 %
23 AIR DEFENSE SYSTEMS MAINTENANCE	66	47	55 %	25 %	0 %	20 %	0 %	0 %
24C Hawk Firing Sec Mech	0	0	0 %	0 %	0 %	0 %	0 %	0 %
24E Hawk Fire Con Mech	0	0	0 %	0 %	0 %	0 %	0 %	0 %
24G Hawk Intg Coord Con Mech	0	1	0 %	0 %	0 %	0 %	0 %	0 %
24H Vulcan Sys Mech	4	0	0 %	0 %	0 %	0 %	0 %	0 %
24M Chaparral Sys Mech	42	9	21 %	1 %	0 %	9 %	11 %	0 %
24R Hawk Master Mech	0	0	0 %	0 %	0 %	0 %	0 %	0 %
24S Roland System Mech (RC)	36	25	69 %	44 %	0 %	25 %	0 %	0 %
24T Patriot Op/Sys Mech	0	0	0 %	0 %	0 %	0 %	0 %	0 %
25L AN/TSQ-73 op/rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
26H Air Def RDR Rep	6	12	200 %	83 %	0 %	67 %	50 %	0 %
28 AUDIO VISUAL	428	474	111 %	65 %	2 %	22 %	21 %	1 %
26T Radio/TV Sys Sp	1	0	0 %	0 %	0 %	0 %	0 %	0 %
41E Audio/Visual Equip Rep	37	49	132 %	86 %	5 %	19 %	19 %	5 %
81E Illustrator	229	239	104 %	60 %	1 %	21 %	21 %	1 %
84B Still Photo Sp	142	165	116 %	68 %	1 %	29 %	17 %	1 %
84C Motion Picture Sp	18	20	111 %	39 %	11 %	6 %	56 %	0 %
84F Audio/TV Sp	1	1	100 %	100 %	0 %	0 %	0 %	0 %
84T TV/Radio Broadcast Ops Ch	6	6	0 %	0 %	0 %	0 %	0 %	0 %

TABLE 1A(1M) 6 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
27 LAND COMBAT/AIR DEF SYS INTERMEDIATE MAINTENANCE	955	734	77 %	48 %	1 %	14 %	13 %	1 %
21B Pershing Elct Mat Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
21L Pershing Electronics Rep	1	0	0 %	0 %	0 %	0 %	0 %	0 %
24H Hawk Fire Con Rep	1	1	100 %	0 %	0 %	100 %	0 %	0 %
24J Hawk Pulse Rdr Rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
24K Hawk CW Radar Rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
24L Hawk Launcher/Mech Sys Rep	0	2	0 %	0 %	0 %	0 %	0 %	0 %
24V Hawk Maint Chief	1	1	100 %	0 %	100 %	0 %	0 %	0 %
24W Hawk Maint Chief	0	0	0 %	0 %	0 %	0 %	0 %	0 %
27B LCSS Test Sp	80	62	78 %	46 %	6 %	25 %	0 %	1 %
27C Roland Rep (RC)	18	12	67 %	0 %	0 %	61 %	0 %	6 %
27D Roland PMTS Rep (RC)	7	0	0 %	0 %	0 %	0 %	0 %	0 %
27E Tow/Dragon Rep	787	630	80 %	50 %	0 %	12 %	16 %	2 %
27F Vulcan Rep	4	0	0 %	0 %	0 %	0 %	0 %	0 %
27G Chaparral/Redeye Rep	12	4	33 %	25 %	0 %	0 %	0 %	0 %
27H Chaparral/Redeye Rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
27L Lance Sys Rep	1	1	100 %	0 %	0 %	100 %	0 %	0 %
27M MLRS Rep	7	0	0 %	0 %	0 %	0 %	0 %	0 %
27N FAAR Rep	18	0	0 %	0 %	0 %	0 %	0 %	0 %
27Z BLC/AD Sys Maint Chief	26	21	81 %	57 %	12 %	12 %	0 %	0 %
28 AVIATION COMMUNICATIONS ELECTRONICS SYS MAINT	948	989	104 %	62 %	10 %	14 %	16 %	2 %
35K Avionic Mech	330	404	122 %	60 %	10 %	21 %	28 %	3 %
35L Avionic Comm Eq Rep	197	196	99 %	50 %	7 %	8 %	25 %	1 %
35M Avionic NAV/FLT Cntrl Eq R	181	163	100 %	50 %	15 %	17 %	17 %	1 %
35P Avionic Eq Maint Supv	145	131	90 %	71 %	8 %	9 %	0 %	2 %
35R Avionic Sp Eq Rep	125	95	76 %	42 %	8 %	13 %	11 %	2 %
29 COMMUNICATIONS ELECTRONICS Avionic Sp Eq Rep	4316	3510	81 %	46 %	5 %	17 %	12 %	1 %
29E C-E Radio Rep	844	745	88 %	53 %	5 %	20 %	9 %	1 %
29F Fixed Comsec Equip Rep	0	1	13 %	13 %	0 %	0 %	0 %	0 %
29G Digital Comm Equip Rep	11	10	91 %	46 %	0 %	27 %	18 %	0 %
29H ADPSE Rep	35	26	74 %	11 %	31 %	29 %	3 %	0 %
29J TeleTYpe Writer Equip Rep	533	398	75 %	43 %	6 %	15 %	9 %	2 %
29M TAC Satellite/MM Rep	378	430	114 %	68 %	3 %	16 %	26 %	1 %
29N Telephone Cen Office Rep	339	305	90 %	25 %	3 %	18 %	9 %	0 %
29P Comsec Maint Chief	4	0	0 %	0 %	0 %	0 %	0 %	0 %

TABLE 1A(1) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PrOBY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
29B Field Comm Sec Equip Rep	313	160	51 %	31 %	5 %	5 %	10 %	0 %
29T Satellite/MM Comm Chief	0	0	0 %	0 %	0 %	0 %	0 %	0 %
29U Digital Equip Maint Chief	0	0	0 %	0 %	0 %	0 %	0 %	0 %
29V Strat Mnuvr Equip Rep	87	8	9 %	3 %	1 %	5 %	0 %	0 %
29W Comm Maint Support Chief	224	150	67 %	43 %	6 %	17 %	0 %	1 %
29X Comm Equip Maint Chief	0	59	0 %	0 %	0 %	0 %	0 %	0 %
29Y Satcom systems Rep	1	1	100 %	100 %	0 %	100 %	0 %	0 %
29Z C/E Maint Chief	23	21	91 %	30 %	4 %	57 %	0 %	0 %
30H Calibration Specialist	194	224	115 %	80 %	6 %	13 %	16 %	0 %
39B ATE Operator/Maintainer	0	0	0 %	0 %	0 %	0 %	0 %	0 %
39C Target Acq Surv Radar Rep	297	197	66 %	35 %	5 %	14 %	12 %	2 %
39D DAS3 Computer Sys Rep	241	196	81 %	27 %	6 %	36 %	10 %	2 %
39E Special Elect Dev Rep	326	412	126 %	73 %	5 %	17 %	32 %	1 %
39K IBM ADPs rep	1	6	600 %	200 %	100 %	100 %	0 %	0 %
39L FA Digital sys Rep	20	7	35 %	15 %	15 %	0 %	5 %	0 %
39T Tac Computer Sys Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
39V Computerized Sys Maint ch	0	23	0 %	0 %	0 %	0 %	0 %	0 %
39Y FA tac fire dir rep	217	129	59 %	26 %	9 %	12 %	11 %	1 %
31 COMMUNICATIONS-ELECTRONICS OPERATIONS	36519	31903	87 %	49 %	6 %	19 %	10 %	1 %
31C Single Channel Radio Op	6231	5507	88 %	57 %	7 %	13 %	12 %	1 %
31E Tactical Comm Chief	0	2	0 %	0 %	0 %	0 %	0 %	0 %
31K Comb. Signaler	9089	8442	88 %	56 %	6 %	12 %	12 %	2 %
31L Wire Systems Installer	3674	3182	86 %	46 %	3 %	6 %	7 %	0 %
31M Multichannel Comm sys Op	5196	3895	75 %	37 %	3 %	6 %	9 %	0 %
31N Tac Circuit Controller	557	468	84 %	61 %	6 %	10 %	6 %	1 %
31Q Tactical Sat Mn Sys Op	496	388	83 %	49 %	7 %	15 %	12 %	0 %
31V Unit Level Comm Maint	4946	5225	106 %	70 %	7 %	15 %	12 %	2 %
31Y Comm Systems Supv	0	46	0 %	0 %	0 %	0 %	0 %	0 %
31Z Comm Operations Chief	420	432	103 %	76 %	15 %	11 %	0 %	0 %
32B Computer Sys Circuit Contr	37	16	43 %	5 %	5 %	59 %	0 %	0 %
36L au switch sys opr/maint	12	14	117 %	17 %	33 %	59 %	0 %	0 %
36M Switching Sys Operator	1065	700	66 %	40 %	16 %	6 %	4 %	0 %
72E Tactical Telecom Center Op	3402	2921	86 %	41 %	5 %	6 %	13 %	1 %
72B Auto Data Telecom Cen Op	65	73	112 %	63 %	22 %	20 %	5 %	2 %
33 EW/INTERCEPT SYSTEMS MAINTENANCE	33	26	85 %	46 %	0 %	27 %	3 %	15 %
33P EW/I Recv Equip Rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
33R EW/I Aun Systems Rep	7	1	14 %	0 %	0 %	0 %	14 %	0 %
33T EW/I Tactical Systems Rep	9	2	22 %	0 %	0 %	22 %	0 %	0 %

TABLE 1A(M) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOS	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
33V EW/I Aerial Sensor Rep	17	25	147 %	77 %	0 %	41 %	0 %	29 %
46 PUBLIC AFFAIRS	687	760	108 %	60 %	6 %	28 %	11 %	1 %
71Q Journalist	386	428	111 %	61 %	3 %	32 %	14 %	1 %
71R Broadcast Journalist	226	230	102 %	60 %	10 %	23 %	9 %	0 %
04Z Public Affairs Chief	75	82	109 %	61 %	27 %	21 %	0 %	0 %
51 GENERAL ENGINEERING	13011	13600	90 %	60 %	0 %	11 %	11 %	0 %
00B Diver	50	68	136 %	12 %	0 %	00 %	44 %	0 %
51B Carpentry/Masonry Sp	2149	2165	100 %	70 %	11 %	0 %	11 %	0 %
51D Materials Quality Sp	84	66	79 %	52 %	0 %	5 %	13 %	1 %
51N Const Engr Supv	623	681	109 %	69 %	10 %	10 %	0 %	0 %
51R Plumber	790	685	82 %	60 %	5 %	0 %	9 %	0 %
51H Firefighter	216	236	109 %	90 %	1 %	12 %	6 %	0 %
51R Interior Electrician	816	886	105 %	74 %	6 %	9 %	16 %	0 %
51T Tech Engr Supv	97	125	129 %	79 %	29 %	21 %	0 %	0 %
51Z Gen Engr Supv	196	192	99 %	76 %	13 %	12 %	0 %	0 %
52E Prime Power Production sp	10	13	130 %	80 %	0 %	50 %	0 %	0 %
52D Transmission & Dist Sp	219	198	90 %	49 %	9 %	21 %	11 %	0 %
62E Heavy Const Eq Op	3477	3831	102 %	71 %	8 %	11 %	12 %	0 %
62F Crane Operator	1388	1449	105 %	72 %	9 %	13 %	11 %	0 %
62G Quarrying Sp	337	259	77 %	56 %	3 %	10 %	6 %	0 %
62H Concrete/Asphalt Eq Op	364	299	82 %	62 %	6 %	12 %	2 %	0 %
62J Gen Const Eq Op	1843	1581	86 %	58 %	7 %	9 %	10 %	0 %
62N Const Eq Supv	438	485	111 %	67 %	11 %	13 %	0 %	0 %
81B Tech Drafting Sp	338	394	117 %	66 %	4 %	19 %	28 %	0 %
82B Const Surveyor	358	347	97 %	61 %	9 %	12 %	18 %	0 %
54 CHEMICAL	4467	4596	103 %	69 %	0 %	20 %	6 %	0 %
54B Chemical Operations Sp	4467	4596	103 %	69 %	0 %	20 %	6 %	0 %
55 AMMUNITION	2173	1766	81 %	47 %	5 %	21 %	0 %	0 %
55B Ammo Sp	1748	1423	81 %	52 %	0 %	21 %	0 %	0 %
55D EOD Sp	1	0	.0 %	0 %	0 %	0 %	0 %	0 %
55G Nuclear Wpn Sp	10	7	70 %	10 %	20 %	40 %	0 %	0 %
55R Ammo Stk Clk & Acty Sp	274	212	77 %	27 %	19 %	21 %	9 %	1 %
55X Ammo Insp	103	87	84 %	30 %	36 %	16 %	0 %	0 %
55Z Ammo Supv	37	37	100 %	59 %	22 %	19 %	0 %	0 %

TABLE 1A(N) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
63 MECHANICAL MAINTENANCE	52071	52417	101 %	73 %	9 %	8 %	11 %	0 %
41C Fire Control Instr Rep	371	357	96 %	66 %	8 %	8 %	15 %	1 %
41J Office Mach Rep	66	87	132 %	87 %	11 %	12 %	20 %	2 %
44B Metal Worker	1497	1686	113 %	68 %	13 %	10 %	22 %	0 %
44E Machinist	762	829	109 %	81 %	10 %	6 %	12 %	0 %
45B Small Arms Rep	390	548	141 %	78 %	15 %	14 %	33 %	1 %
45D Sp Fa Turret Mech	429	357	83 %	59 %	6 %	6 %	12 %	0 %
45E M1 Abrams Tank Turret Mech	52	54	104 %	71 %	12 %	6 %	15 %	0 %
45G Fire Control Sys Rep	191	141	74 %	30 %	9 %	14 %	20 %	1 %
45K Tank Turret Rep	1031	835	81 %	58 %	9 %	7 %	7 %	0 %
45L Artillery Rep	332	260	78 %	45 %	18 %	10 %	5 %	0 %
45M M60A1/A3 Tank Turret Mech	766	646	84 %	55 %	10 %	6 %	13 %	0 %
45T Bradley FVS Turret Mech	230	154	67 %	27 %	13 %	9 %	18 %	0 %
45Z Armt/Fire Control Maint Su	148	152	103 %	71 %	22 %	9 %	0 %	1 %
52C Util Equip Rep	1142	986	86 %	59 %	6 %	9 %	12 %	0 %
52D Power Gen Equip Rep	4646	3482	75 %	50 %	10 %	8 %	7 %	0 %
52F Turbine Eng Driven Gen Rep	5	1	20 %	0 %	20 %	0 %	0 %	0 %
52X Sp Purpose Equip Rep	2	0	0 %	0 %	0 %	0 %	0 %	0 %
62B Const Equip Rep	4336	4314	99 %	74 %	8 %	8 %	9 %	0 %
63B Lt Wheel Vehicle Mech	14231	17524	123 %	93 %	6 %	10 %	14 %	0 %
63D Sp Fa Sys Mech	1609	1368	85 %	62 %	10 %	7 %	6 %	0 %
63E M1 Tank Sys Mech	164	178	108 %	71 %	15 %	10 %	8 %	0 %
63G Fuel & Elec Sys Rep	881	719	82 %	52 %	12 %	6 %	12 %	0 %
63H Track Vehicle Rep	4681	4705	101 %	76 %	10 %	7 %	8 %	0 %
63J QM & Chem Equip Rep	1181	951	81 %	50 %	8 %	8 %	15 %	0 %
63M M60A1/A3 Tank Sys Mech	2806	2694	96 %	73 %	7 %	8 %	8 %	0 %
63S Heavy Wheel Veh Mech	2079	1919	92 %	54 %	20 %	7 %	11 %	0 %
63T Bradley FVS Mech	3268	3157	97 %	71 %	8 %	9 %	9 %	0 %
63W Wheel Veh Rep	3700	3232	87 %	58 %	13 %	7 %	9 %	0 %
63Y Track Veh Mech	585	563	96 %	56 %	21 %	11 %	8 %	0 %
63Z Mech Maint Supv	490	526	107 %	65 %	14 %	8 %	8 %	0 %
67 AIRCRAFT MAINTENANCE	9385	10901	117 %	79 %	16 %	11 %	11 %	0 %
66G Utility Airplane Tech Insp	24	17	71 %	38 %	29 %	0 %	0 %	4 %
66H Cbat Airplane Tech Insp	9	3	33 %	22 %	11 %	0 %	0 %	0 %
66J Aircraft Armament Tech Ins	35	23	66 %	14 %	46 %	6 %	0 %	0 %
66M Utility Hel Tech Insp	181	167	92 %	51 %	36 %	5 %	0 %	0 %
66R AH-64 Attack Hel Tech Insp	0	4	0 %	0 %	0 %	0 %	0 %	0 %
66S Scout Hel Tech Insp	0	3	0 %	0 %	0 %	0 %	0 %	0 %
66T Tac Trans Hel Tech Insp	55	47	85 %	36 %	41 %	4 %	0 %	2 %
66U Medium Hel Tech Insp	43	16	37 %	7 %	25 %	5 %	0 %	0 %

TABLE 1A(M) 6 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 84

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P+DY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
66V Chan/Scout Hel Tech Insp	86	57	66 %	27 %	32 %	6 %	0 %	1 %
66X Heavylift Hel TI (RC)	16	14	88 %	31 %	57 %	0 %	0 %	0 %
66Y AH-1 Attack Hel Tech Insp	78	47	60 %	21 %	38 %	1 %	0 %	0 %
67B Utility Airplane Rep	185	167	90 %	68 %	23 %	5 %	1 %	1 %
67H Chan Airplane Rep	129	150	116 %	75 %	14 %	22 %	3 %	2 %
67N Utility Hel Rep	2300	3898	163 %	119 %	14 %	14 %	15 %	1 %
67R AH-64 Attack Hel Rep	0	32	0 %	0 %	0 %	0 %	0 %	0 %
67S Scout Hel Rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
67T Tac Trans Hel Rep	497	509	102 %	64 %	26 %	7 %	4 %	1 %
67U Medium Hel Rep	269	370	138 %	94 %	23 %	7 %	14 %	0 %
67V Chan/Scout Hel Rep	1224	1456	119 %	77 %	17 %	14 %	11 %	0 %
67X Heavy Lift Hel Rep (RC)	374	341	91 %	68 %	7 %	18 %	4 %	0 %
67Y AH-1 Attack Hel Rep	878	684	78 %	43 %	16 %	7 %	12 %	0 %
67Z Aircraft Maint Sr Sgt	173	214	124 %	78 %	31 %	12 %	0 %	3 %
68B Aircraft Powerplant Rep	514	496	96 %	67 %	8 %	7 %	14 %	0 %
68D Aircraft Powertrain Rep	292	325	111 %	71 %	12 %	9 %	19 %	0 %
68F Aircraft Electrician	218	278	128 %	86 %	5 %	12 %	25 %	0 %
68G Aircraft Structural Rep	628	622	99 %	74 %	5 %	18 %	10 %	0 %
68H Aircraft Pneudraulics Rep	160	155	97 %	63 %	8 %	13 %	13 %	0 %
68J Aircraft Fire Control Rep	417	298	78 %	39 %	10 %	6 %	13 %	0 %
68K Aircraft Comp Rep Supv	143	123	86 %	56 %	26 %	3 %	0 %	1 %
68M Aircraft Weapon Sys Rep	348	401	116 %	71 %	12 %	14 %	19 %	0 %
71 ADMINISTRATION	20792	21452	103 %	66 %	12 %	17 %	0 %	0 %
06J Club Manager	0	0	0 %	0 %	0 %	0 %	0 %	0 %
83C Physical Activities Sp	47	48	102 %	87 %	11 %	15 %	19 %	0 %
71C Executive Admin Asst	282	234	83 %	39 %	26 %	11 %	7 %	0 %
71D Legal Specialist	1089	1026	102 %	56 %	22 %	17 %	7 %	0 %
71E Court Reporter	102	68	67 %	22 %	22 %	20 %	3 %	0 %
71L Administrative Sp	7562	8003	106 %	74 %	6 %	16 %	10 %	0 %
71M Chapel Activities Sp	708	672	95 %	65 %	7 %	15 %	8 %	0 %
73C Finance Sp	1444	1388	96 %	75 %	6 %	9 %	6 %	0 %
73D Accounting Sp	155	164	106 %	59 %	23 %	10 %	14 %	0 %
73Z Finance Sr Sgt	119	127	107 %	76 %	23 %	0 %	0 %	0 %
75B Personnel Admin Sp	3358	4484	134 %	80 %	15 %	29 %	10 %	0 %
75C Personnel Mgmt Sp	995	734	74 %	42 %	17 %	10 %	5 %	0 %
75D Personnel Records Sp	1843	1488	81 %	46 %	14 %	10 %	11 %	0 %
75E Personnel Actions Sp	629	459	73 %	38 %	17 %	10 %	8 %	0 %
75F Personnel Info Sys Mgmt Sp	539	506	94 %	48 %	17 %	14 %	14 %	1 %
75Z Personnel Sgt	2000	2051	103 %	64 %	20 %	19 %	0 %	0 %

TABLE 1A(M) 6 ENLISTED SKILL - MATCH- - PERCENTAGE DISTRIBUTION
AUTHORIZED (MARTIME) VS: ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOT	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
74 AUTOMATIC DATA PROCESSING	656	785	119 %	71 %	9 %	23 %	15 %	1 %
74B Computer/Machine Op	330	372	113 %	78 %	4 %	22 %	10 %	2 %
74F Programmer/Analyst	264	341	130 %	60 %	11 %	26 %	24 %	1 %
74Z Data Processing MCO-	64	70	106 %	60 %	26 %	10 %	0 %	2 %
76 SUPPLY & SERVICE	27907	30684	110 %	79 %	7 %	16 %	0 %	0 %
43E Parachute Rigger	86	73	85 %	60 %	1 %	19 %	3 %	0 %
43N Fabric Rep Sp-	515	543	105 %	72 %	3 %	10 %	20 %	0 %
57E Laundry/Bath Sp-	767	678	88 %	78 %	2 %	8 %	0 %	0 %
57F Graves Registration Sp	220	203	92 %	68 %	6 %	9 %	9 %	0 %
76C Equip Records/Parts Sp	5380	5274	100 %	64 %	9 %	18 %	9 %	0 %
76P Material Control & Acty Sp	3809	4198	110 %	76 %	9 %	13 %	12 %	0 %
76V Mat Storage & Handling Sp	4809	3838	98 %	68 %	9 %	11 %	0 %	0 %
76X Subsistence Supply Sp	534	599	112 %	70 %	10 %	10 %	22 %	0 %
76Y Unit Supply Sp	11038	14374	121 %	95 %	3 %	10 %	5 %	0 %
76Z Sr Supply Spt	832	863	104 %	72 %	13 %	10 %	0 %	1 %
77 PETROLEUM & WATER	4578	4090	89 %	63 %	0 %	19 %	7 %	0 %
77F Petroleum Supply Sp	3724	3078	83 %	60 %	0 %	17 %	6 %	0 %
77L Petroleum Lab Sp	54	56	104 %	56 %	7 %	15 %	24 %	0 %
77N Water Treatment Sp	800	956	120 %	81 %	1 %	29 %	9 %	0 %
79 RECRUITMENT & RELISTMENT	620	4190	676 %	579 %	12 %	84 %	0 %	1 %
00E Recruiter (RC)	0	3140	0 %	0 %	0 %	0 %	0 %	0 %
00R Recruiter/Retention NCO	16	0	50 %	6 %	25 %	13 %	0 %	6 %
79Q Reenlistment NCO (RC)	604	1042	173 %	126 %	6 %	40 %	0 %	1 %
81 TOPOGRAPHIC ENGINEERING	436	422	97 %	62 %	7 %	15 %	13 %	0 %
41B Topographic Inst Rep Sp	35	30	86 %	31 %	6 %	48 %	9 %	0 %
81C Cartographer	109	110	101 %	71 %	10 %	11 %	9 %	0 %
81Q Terrain Analyst	35	27	77 %	33 %	17 %	26 %	11 %	0 %
81Z Topographic Engring Supv	4	5	125 %	100 %	0 %	25 %	0 %	0 %
88D Topographic Surveyor	137	126	92 %	73 %	4 %	8 %	7 %	0 %
83E Photo and Layout Sp	16	14	88 %	63 %	13 %	6 %	6 %	0 %
83F Printing & Bindery Sp	100	110	110 %	63 %	2 %	17 %	28 %	0 %

TABLE 1A(M) 0 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSIGN	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PrDY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
88 TRANSPORTATION	19269	18484	96 %	76 %	0 %	18 %	10 %	0 %
88H Cargo Specialist	239	175	73 %	53 %	5 %	13 %	2 %	0 %
88K Watercraft Operator	198	200	101 %	78 %	6 %	21 %	4 %	0 %
88L Watercraft Engineer	137	120	88 %	64 %	3 %	18 %	2 %	1 %
88M Motor Transport Op	18213	17510	96 %	76 %	0 %	10 %	10 %	0 %
88N Traffic Management Coord	324	312	96 %	66 %	3 %	26 %	7 %	0 %
88P Locomotive Mop (RC)	0	1	0 %	0 %	0 %	0 %	0 %	0 %
88Q Railway Car Mop (RC)	0	0	0 %	0 %	0 %	0 %	0 %	0 %
88R Airbrake Mop (RC)	0	0	0 %	0 %	0 %	0 %	0 %	0 %
88S Locomotive Electrician (RC	0	1	0 %	0 %	0 %	0 %	0 %	0 %
88T Railway Spa Mop (RC)	0	1	0 %	0 %	0 %	0 %	0 %	0 %
88U Locomotive Operator (RC)	0	1	0 %	0 %	0 %	0 %	0 %	0 %
88V Train Crewmember (RC)	0	0	0 %	0 %	0 %	0 %	0 %	0 %
88W Railway Movement Coord (RC	0	0	0 %	0 %	0 %	0 %	0 %	0 %
88X Railway Sr Sgt (RC)	1	1	100 %	0 %	100 %	0 %	0 %	0 %
88Y Marine Sr Sgt	4	4	100 %	50 %	50 %	0 %	0 %	0 %
88Z Transportation Sr Sgt	153	158	103 %	75 %	10 %	10 %	0 %	0 %
91 MEDICAL	20007	18671	93 %	61 %	12 %	0 %	12 %	0 %
91M Biological Sciences Asst	0	0	0 %	0 %	0 %	0 %	0 %	0 %
35B Biomedical Equip Sp, Basic	21	39	186 %	114 %	10 %	19 %	38 %	5 %
35U Biomedical Equip Sp, Adv	113	123	109 %	32 %	49 %	28 %	0 %	0 %
42C Orthotic Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
42D Dental Lab Sp	39	32	82 %	57 %	5 %	10 %	10 %	0 %
42E Optical Lab Sp	18	14	78 %	28 %	6 %	22 %	22 %	0 %
71B Patient Admin Sp	568	603	106 %	67 %	0 %	16 %	16 %	1 %
76J Medical Supply Sp	522	564	108 %	67 %	7 %	23 %	11 %	0 %
91A Medical Sp	10718	9249	86 %	56 %	0 %	6 %	16 %	0 %
91B Medical NCO	4385	4671	107 %	79 %	20 %	0 %	1 %	1 %
91C Practical Nurse	1068	902	85 %	84 %	26 %	4 %	1 %	0 %
91D Operating Room Sp	598	585	98 %	61 %	10 %	6 %	21 %	0 %
91E Dental Sp	365	363	99 %	70 %	5 %	0 %	0 %	0 %
91F Psychiatric Sp	16	15	94 %	36 %	6 %	13 %	39 %	0 %
91G Behavioral Science Sp	100	94	67 %	45 %	7 %	0 %	17 %	0 %
91H Orthopedic Sp	45	46	107 %	61 %	4 %	0 %	22 %	0 %
91J Physical Therapy Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
91L Occupational Therapy Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
91M Cardiac Sp	12	9	75 %	34 %	0 %	0 %	33 %	0 %
91P X-Ray Sp	245	285	116 %	67 %	10 %	0 %	38 %	1 %
91Q Pharmacy Sp	197	178	90 %	84 %	9 %	7 %	19 %	1 %
91R Veterinary Food Insp Sp	24	19	79 %	42 %	21 %	0 %	4 %	4 %

TABLE 1A(N) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
91S Preventive Medicine Sp	150	122	81 %	49 %	9 %	13 %	9 %	1 %
91T Animal Care Sp	1	1	100 %	0 %	0 %	0 %	100 %	0 %
91U Ent Sp	9	6	67 %	45 %	0 %	0 %	22 %	0 %
91V Respiratory Sp	54	35	65 %	32 %	16 %	11 %	4 %	0 %
91W Nuclear Medicine Sp	0	1	0 %	0 %	0 %	0 %	0 %	0 %
91X Health Physics Sp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
91Y Eye Sp	20	13	65 %	35 %	15 %	5 %	10 %	0 %
91B Medical Lab Sp	537	490	91 %	56 %	7 %	4 %	23 %	1 %
92E Cytology Sp	1	0	0 %	0 %	0 %	0 %	0 %	0 %
94F Hospital Food Service Sp	259	210	81 %	45 %	6 %	26 %	4 %	0 %
93 AVIATION OPERATION	973	1036	106 %	71 %	3 %	19 %	12 %	1 %
93B Aerosocut Observer	0	7	0 %	0 %	0 %	0 %	0 %	0 %
93D ATCas Equip Rep	24	25	104 %	46 %	4 %	44 %	0 %	0 %
93H ATC Tower Operator	145	120	83 %	60 %	6 %	6 %	11 %	0 %
93J ATC Radar Controller	214	189	88 %	64 %	5 %	9 %	10 %	0 %
93P Flight Operations Coord	598	695	116 %	77 %	2 %	24 %	13 %	2 %
94 FOOD SERVICE	16715	18719	112 %	96 %	0 %	11 %	5 %	0 %
94B Food Service Sp	16715	18719	112 %	96 %	0 %	11 %	5 %	0 %
95 MILITARY POLICE	14586	12693	87 %	69 %	0 %	8 %	9 %	1 %
95B Military Police	14445	12473	86 %	68 %	0 %	8 %	9 %	1 %
95C Corrections NCO	74	113	153 %	125 %	9 %	15 %	4 %	0 %
95D CID Special Agent	37	67	181 %	111 %	36 %	32 %	0 %	0 %
96 MILITARY INTELLIGENCE	1948	1777	92 %	49 %	2 %	29 %	11 %	1 %
96B Intelligence Analyst	988	988	100 %	51 %	1 %	39 %	8 %	1 %
96D Imagery Analyst	62	64	106 %	39 %	10 %	39 %	13 %	5 %
96F Psyop Specialist	0	6	0 %	0 %	0 %	0 %	0 %	0 %
96H Aerial Intel Sp	68	70	103 %	77 %	0 %	13 %	12 %	1 %
96R Ground Survl Sys Op	420	385	92 %	40 %	0 %	11 %	5 %	1 %
96Z Intel Senior NCO	18	19	106 %	73 %	0 %	22 %	0 %	11 %
97B CI Agent	168	135	129 %	81 %	16 %	20 %	12 %	0 %
97E Interrogator	153	218	142 %	68 %	3 %	31 %	40 %	0 %
97G Counter Sigint Sp	6	2	33 %	15 %	0 %	10 %	0 %	0 %

TABLE 1A(M) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY GUARD UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
97 BAND	2159	2212	102 %	84 %	9 %	3 %	6 %	0 %
02B Cornet or Trumpet Player	340	409	120 %	100 %	9 %	4 %	7 %	0 %
02C Baritone or Euphonium Play	109	114	105 %	80 %	15 %	4 %	6 %	0 %
02D French Horn Player	172	158	87 %	73 %	8 %	3 %	3 %	0 %
02E Trombone Player	225	238	106 %	89 %	7 %	2 %	8 %	0 %
02F Tuba Player	167	148	89 %	75 %	5 %	3 %	6 %	0 %
02G Flute or Piccolo Player	110	109	99 %	81 %	6 %	2 %	10 %	0 %
02H Oboe Player	52	78	150 %	100 %	36 %	2 %	2 %	0 %
02J Clarinet Player	429	294	69 %	58 %	4 %	2 %	5 %	0 %
02K Bassoon Player	52	45	87 %	65 %	12 %	4 %	6 %	0 %
02L Saxophone Player	226	238	104 %	98 %	4 %	4 %	6 %	0 %
02M Percussion Player	109	237	217 %	182 %	15 %	12 %	7 %	1 %
02N Piano Player	58	56	97 %	65 %	22 %	3 %	7 %	0 %
02S Special Bandperson	1	1	100 %	0 %	100 %	0 %	0 %	0 %
02T Guitar Player	52	45	87 %	60 %	15 %	2 %	2 %	0 %
02U Electric Bass Player	0	1	0 %	0 %	0 %	0 %	0 %	0 %
02Z Bands Senior NCO	57	52	91 %	75 %	16 %	0 %	0 %	0 %
98 ELECTRONIC WARFARE CRYPTOLOGIC OPERATIONS	147	54	37 %	10 %	2 %	13 %	4 %	0 %
05D EW/Sigint Ident/LOs	0	0	0 %	0 %	0 %	0 %	0 %	0 %
05H EW/Sigint Interp-Ins	0	0	0 %	0 %	0 %	0 %	0 %	0 %
05K EW/Sigint M-M Interp	0	1	0 %	0 %	0 %	0 %	0 %	0 %
98C EW/Sigint Analyst	54	30	56 %	22 %	0 %	27 %	7 %	0 %
98G EW/Sigint Voice Interp	66	8	12 %	3 %	0 %	6 %	3 %	0 %
98J EW/Sigint NC Interp	13	12	92 %	62 %	15 %	15 %	0 %	0 %
98Z EW/Sigint Chief	14	3	21 %	14 %	7 %	0 %	0 %	0 %
special duty	1149	1247	109 %	40 %	0 %	45 %	4 %	0 %
88D Special Duty Assignment	58	53	91 %	48 %	0 %	51 %	0 %	0 %
88U EO NCO	124	97	78 %	30 %	0 %	47 %	0 %	1 %
88Z CMD SGT Major	467	1097	113 %	64 %	0 %	45 %	4 %	0 %
subtotal	428861	398139	95 %	70 %	5 %	10 %	10 %	0 %
reporting codes	0	4747	0 %	x	x	x	x	x
09r simultaneous member prg	0	2750	0 %	x	x	x	x	x
09s commissioned officer cand	0	1841	0 %	x	x	x	x	x
09t coll student mg off prg	0	107	0 %	x	x	x	x	x
09w warrant officer candidate	0	49	0 %	x	x	x	x	x
unknown duty	0	0	0 %	x	x	x	x	x
GRAND TOTAL	428861	402886	94 %	x	x	x	x	x

TABLE 1A(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 84

CMF/MOS	AUTH	ASSND	X FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P-GY	SAME CMF	OTHER CMF	INITIAL TRAINEE	UNKNOWN
11 INFANTRY	20613	19285	94 X	64 X	3 X	14 X	10 X	3 X
11B Infantryman	16807	17263	93 X	64 X	2 X	14 X	10 X	3 X
11C Indirect Fire Infantryman	1187	1204	101 X	63 X	6 X	10 X	17 X	3 X
11M MV Anti-Ar 4bn Infantryman	863	745	86 X	81 X	7 X	10 X	15 X	3 X
11M FV Infantryman	56	73	130 X	111 X	13 X	2 X	2 X	2 X
12 COMBAT ENGINEERING	11528	9634	84 X	51 X	1 X	14 X	15 X	3 X
12B Combat Engineer	9774	8277	85 X	52 X	1 X	13 X	16 X	3 X
12C Bridge Crewmember	1148	859	75 X	41 X	3 X	13 X	15 X	3 X
12E Atomic Demolition Mun Sp	0	11	0 X	0 X	0 X	0 X	0 X	0 X
12F Engr Tracked Veh Crwbr	192	166	87 X	15 X	2 X	21 X	17 X	2 X
12Z Combat Engineering Sr SGT	322	321	100 X	66 X	12 X	21 X	0 X	1 X
13 FIELD ARTILLERY	6106	6120	99 X	64 X	3 X	12 X	18 X	2 X
13B Cannon Crewmember	4702	4541	97 X	65 X	1 X	11 X	18 X	2 X
13C Tacfire Opns Sp	50	15	30 X	24 X	0 X	2 X	4 X	0 X
13E Cannon FD Sp	530	621	117 X	65 X	9 X	13 X	28 X	2 X
13F Fire Support Sp	300	286	95 X	52 X	9 X	13 X	17 X	2 X
13M MLRS Crewmember	0	3	0 X	0 X	0 X	0 X	0 X	0 X
13N Lance Crewmember	0	40	0 X	0 X	0 X	0 X	0 X	0 X
13R FA Firefinder Rdr Operator	19	22	116 X	74 X	5 X	16 X	16 X	5 X
13Z Field Artillery Senior SGT	213	223	105 X	54 X	16 X	33 X	0 X	2 X
15E Pershing MSL Crewmember	0	26	0 X	0 X	0 X	0 X	0 X	0 X
15J MLRS/Lance OP/FD Sp	0	5	0 X	0 X	0 X	0 X	0 X	0 X
17B FA Radar Crewmember (RC)	13	13	100 X	77 X	0 X	23 X	0 X	0 X
17C FA Target Acq Sp (RC)	9	18	200 X	145 X	33 X	22 X	0 X	0 X
88C Field Arty Surveyor	289	270	93 X	57 X	3 X	14 X	17 X	2 X
93F FA METeorological Crwbr	53	37	70 X	49 X	4 X	11 X	4 X	2 X
16 AIR DEFENSE ARTILLERY	235	189	80 X	67 X	1 X	9 X	0 X	3 X
16D Hawk Msl Crewmember	0	20	0 X	0 X	0 X	0 X	0 X	0 X
16E Hawk Fire Control Crwbr	0	20	0 X	0 X	0 X	0 X	0 X	0 X
16F Light Air Def Arty Crwbr	0	4	0 X	0 X	0 X	0 X	0 X	0 X
16G Roland System Crwbr (RC)	0	0	0 X	0 X	0 X	0 X	0 X	0 X
16H ADA OP-Intel Assistant	1	15	500 X	400 X	0 X	100 X	0 X	0 X
16J Def Acq Radar Opr	0	3	0 X	0 X	0 X	0 X	0 X	0 X
16P Chaparral Crewmember	0	29	0 X	0 X	0 X	0 X	0 X	0 X
16R Vulcan Crewmember	0	22	0 X	0 X	0 X	0 X	0 X	0 X
16S Manpads Crewmember	234	72	31 X	22 X	1 X	6 X	0 X	2 X
16T Patriot Msl Crewmember	0	4	0 X	0 X	0 X	0 X	0 X	0 X
16Z ADA Senior Sergeant	0	0	0 X	0 X	0 X	0 X	0 X	0 X

TABLE 1A(M) E ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
18 SPECIAL OPERATIONS	1409	1503	107 %	21 %	6 %	69 %	7 %	4 %
18B Special Opns Wpns Sgt	248	269	108 %	29 %	1 %	74 %	1 %	1 %
18C Special Opns Engr Sgt	220	186	82 %	10 %	1 %	86 %	4 %	3 %
18D Special Opns Medical Sgt	196	271	138 %	27 %	2 %	63 %	21 %	5 %
18E Special Opns Comms Sgt	320	409	128 %	29 %	2 %	71 %	14 %	9 %
18F Special Opns Intel Sgt	210	186	89 %	3 %	21 %	69 %	8 %	2 %
18Z Special Opns Senior Sgt	199	186	94 %	19 %	15 %	59 %	1 %	0 %
19 ARMOR	5283	5255	99 %	71 %	3 %	12 %	11 %	2 %
19D Cav Scout	1428	1686	104 %	74 %	2 %	14 %	10 %	4 %
19E M48-M60 Armor CRewman	3233	3111	96 %	69 %	2 %	12 %	12 %	1 %
19K M1 Armor CRewman	116	150	136 %	100 %	14 %	4 %	28 %	3 %
19Z ARMOR SENIOR SGT	306	298	97 %	76 %	17 %	4 %	0 %	0 %
23 AIR DEFENSE SYSTEMS MAINTENANCE	7	33	471 %	328 %	0 %	57 %	43 %	43 %
24C Mnvr Firing Sec Mech	0	2	0 %	0 %	0 %	0 %	0 %	0 %
24E Mnvr Fire Con Mech	0	2	0 %	0 %	0 %	0 %	0 %	0 %
24G Mnvr Info Coord Cen Mech	0	6	0 %	0 %	0 %	0 %	0 %	0 %
24M Vulcan Sys Mech	0	7	0 %	0 %	0 %	0 %	0 %	0 %
24N Chaparral Sys Mech	0	2	0 %	0 %	0 %	0 %	0 %	0 %
24S Roland System Mech (RC)	0	0	0 %	0 %	0 %	0 %	0 %	0 %
24T Patriot Op/Sys Mech	0	2	0 %	0 %	0 %	0 %	0 %	0 %
25L AN/TSQ-73 op/rep	0	5	0 %	0 %	0 %	0 %	0 %	0 %
26N Air Def MSR Rep	7	7	100 %	14 %	0 %	29 %	43 %	14 %
25 AUDIO VISUAL	712	681	96 %	84 %	1 %	20 %	19 %	0 %
26T Radio/TV Sys Sp	6	11	183 %	100 %	0 %	83 %	0 %	0 %
41E Audio/Visual Equip Rep	24	22	92 %	25 %	4 %	46 %	17 %	8 %
84E Illustrator	373	387	96 %	84 %	0 %	21 %	19 %	2 %
84G Still Photo Sp	268	247	92 %	55 %	1 %	14 %	21 %	1 %
84C Motion Picture Sp	10	12	120 %	80 %	10 %	10 %	10 %	10 %
84F Audio/TV Sp	29	30	103 %	66 %	3 %	21 %	10 %	3 %
84T TV/Radio Broadcast Ops Ch	2	2	100 %	0 %	100 %	0 %	0 %	0 %

TABLE 1A(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMDY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
27 LAND COMBAT/AIR DEF SYS INTERMEDIATE MAINTENANCE	83	95	114 %	86 %	6 %	12 %	0 %	2 %
216 Pershing Elct Mat Sp	0	6	0 %	0 %	0 %	0 %	0 %	0 %
21L Pershing Electronics Rep	7	2	29 %	15 %	0 %	14 %	0 %	0 %
24H Hawk Fire Con Rep	4	1	25 %	25 %	0 %	0 %	0 %	0 %
24J Hawk Pulse Rdr Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
24K Hawk CW Radar Rep	0	2	0 %	0 %	0 %	0 %	0 %	0 %
24L Hawk Launcher/Mech Sys Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
24V Hawk Maint Chief	2	1	50 %	50 %	0 %	0 %	0 %	0 %
27B LCSS Test Sp	3	6	200 %	167 %	33 %	0 %	0 %	0 %
27C Roland Rep (RC)	0	0	0 %	0 %	0 %	0 %	0 %	0 %
27E Tow/Dragon Rep	42	54	129 %	107 %	0 %	10 %	7 %	5 %
27F Vulcan Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
27G Chaparral/Redeye Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
27L Lance Sys Rep	6	4	67 %	16 %	17 %	17 %	17 %	0 %
27M MLRS Rep	12	7	58 %	17 %	8 %	0 %	25 %	0 %
27N FAAR Rep	0	2	0 %	0 %	0 %	0 %	0 %	0 %
27Z BLC/AD Sys Maint Chief	7	6	86 %	14 %	29 %	43 %	0 %	0 %
28 AVIATION COMMUNICATIONS ELECTRONICS SYS MAINT	271	279	103 %	62 %	4 %	11 %	22 %	4 %
35K Avionic Mech	74	106	143 %	84 %	1 %	23 %	31 %	4 %
35L Avionic Comm Eq Rep	52	66	127 %	88 %	4 %	4 %	29 %	2 %
35N Avionic NAV/FLT Cntrl Eq R	56	59	105 %	63 %	7 %	5 %	21 %	9 %
35P Avionic Eq Maint Supv	31	18	58 %	26 %	10 %	19 %	0 %	3 %
35R Avionic Sp Eq Rep	58	30	52 %	33 %	0 %	3 %	16 %	0 %
29 COMMUNICATIONS ELECTRONICS Avionic Sp Eq Rep	2111	1687	80 %	39 %	7 %	17 %	13 %	4 %
29E C-E Radio Rep	485	421	87 %	42 %	8 %	20 %	13 %	4 %
29F Fixed Commos Equip Rep	19	18	95 %	58 %	16 %	5 %	0 %	16 %
29G Digital Comm Equip Rep	53	39	74 %	15 %	9 %	48 %	2 %	6 %
29H ADMSE Rep	27	11	41 %	0 %	7 %	15 %	0 %	19 %
29J TeleType Writer Equip Rep	267	212	79 %	48 %	2 %	15 %	12 %	2 %
29M TAC Satellite/MM Rep	175	157	90 %	41 %	6 %	21 %	19 %	3 %
29N Telephone Cen Office Rep	142	95	67 %	37 %	3 %	10 %	13 %	4 %
29P Commos Maint Chief	1	1	100 %	100 %	0 %	0 %	0 %	0 %
29S Field Comm Sec Equip Rep	97	77	79 %	58 %	2 %	7 %	13 %	7 %
29V Strat Mauve Equip Rep	4	17	425 %	350 %	25 %	0 %	0 %	50 %
29W Comm Maint Support Chief	193	97	50 %	22 %	12 %	15 %	0 %	1 %

Appendix 1

TABLE 1A(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P=DY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
29X Comm Equip Maint Chief	1	45	4500%	2700 %	400 %	1400 %	0 %	0 %
29Y Satcom systems Rep	1	6	600 %	600 %	0 %	0 %	0 %	0 %
29Z C/E Maint Chief	8	5	63 %	13 %	25 %	25 %	0 %	0 %
35H Calibration Specialist	32	44	138 %	94 %	3 %	25 %	3 %	13 %
39B ATE Operator/Maintainer	6	4	67 %	34 %	0 %	33 %	0 %	0 %
39C Target Acq Surv Radar Rep	187	133	71 %	30 %	9 %	12 %	17 %	3 %
39D DA33 Computer Sys Rep	91	44	48 %	10 %	2 %	28 %	8 %	0 %
39E Special Elect Dev Rep	198	185	97 %	51 %	5 %	8 %	31 %	2 %
3\ IBM ADPs rep	22	11	50 %	14 %	9 %	22 %	0 %	5 %
39L FA Digital sys Rep	39	23	59 %	10 %	18 %	8 %	18 %	8 %
39T Tac Computer Sys Rep	27	6	22 %	0 %	11 %	11 %	0 %	0 %
39V Computerized Sys Maint ch	0	1	0 %	0 %	0 %	0 %	0 %	0 %
39Y FA tac fire dir rep	44	35	80 %	28 %	9 %	7 %	31 %	5 %
31 COMMUNICATIONS-ELECTRONICS OPERATIONS	11671	12677	109 %	61 %	11 %	11 %	21 %	5 %
31C Single Channel Radio Op	1947	2061	106 %	55 %	11 %	11 %	22 %	7 %
31H Tactical Comm Chief	0	0	0 %	0 %	0 %	0 %	0 %	0 %
31K Combat Signaler	3038	3383	112 %	59 %	11 %	10 %	25 %	7 %
31L Wire Systems Installer	1375	1310	95 %	56 %	7 %	10 %	19 %	3 %
31M Multichannel Comm sys Op	671	955	110 %	68 %	4 %	9 %	24 %	5 %
31N Tac Circuit Controller	134	128	98 %	56 %	10 %	4 %	18 %	1 %
31Q Tactical Sat Mw Sys Op	209	227	109 %	62 %	5 %	15 %	24 %	3 %
31V Unit Level Comm Maint	1419	1712	121 %	65 %	15 %	10 %	17 %	6 %
31Y Comm Systems Supv	0	14	0 %	0 %	0 %	0 %	0 %	0 %
31Z Comm Operations Chief	184	201	109 %	53 %	23 %	31 %	1 %	1 %
32D Computer Sys Circuit Contr	4	10	250 %	225 %	0 %	0 %	0 %	25 %
36L au switch sys opr/maint	31	22	71 %	36 %	0 %	19 %	13 %	3 %
36M Switching Sys Operator	191	201	105 %	31 %	33 %	3 %	34 %	4 %
72E Tactical Telecom Center Op	2169	2304	106 %	64 %	9 %	9 %	20 %	4 %
72G Auto Data Telecom Cen Op	111	157	141 %	101 %	14 %	12 %	6 %	6 %
33 EW/INTERCEPT SYSTEMS MAINTENANCE	174	139	80 %	37 %	4 %	10 %	11 %	18 %
33P EW/I Rcvr Equip Rep	0	4	0 %	0 %	0 %	0 %	0 %	0 %
33R EW/I Avn System Rep	59	37	63 %	26 %	10 %	3 %	14 %	10 %
33T EW/I Tactical Systems Rep	108	96	89 %	41 %	0 %	13 %	11 %	24 %
33V EW/I Aerial Sensor Rep	6	2	33 %	15 %	0 %	18 %	0 %	0 %
33Z EW/I Systems Maint Supv	1	0	0 %	0 %	0 %	0 %	0 %	0 %

TABLE 1A(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
46 PUBLIC AFFAIRS	741	674	91 X	46 X	4 X	25 X	14 X	2 X
71Q Journalist	468	456	97 X	48 X	1 X	25 X	20 X	3 X
71P Broadcast Journalist	194	148	76 X	36 X	7 X	26 X	6 X	1 X
04Z Public Affairs Chief	79	70	89 X	52 X	15 X	22 X	0 X	0 X
51 GENERAL ENGINEERING	12285	11198	91 X	50 X	5 X	17 X	16 X	3 X
00B Diver	80	29	36 X	17 X	0 X	16 X	3 X	0 X
51B Carpentry/Masonry Sp	2589	2392	95 X	56 X	3 X	13 X	20 X	3 X
51G Materials Quality Sp	98	82	84 X	34 X	4 X	22 X	21 X	3 X
51H Const Engr Supv	887	754	85 X	35 X	14 X	15 X	0 X	1 X
51K Plumber	882	696	79 X	42 X	3 X	13 X	19 X	2 X
51M Firefighter	309	295	95 X	53 X	2 X	25 X	11 X	4 X
51R Interior Electrician	927	884	95 X	59 X	2 X	12 X	20 X	2 X
51T Tech Engr Supv	70	57	81 X	29 X	27 X	21 X	0 X	4 X
51Z Gen Engr Supv	191	170	89 X	54 X	16 X	19 X	0 X	0 X
52E Prime Power Production sp	16	16	100 X	31 X	6 X	63 X	0 X	0 X
52G Transmission & Dist Sp	236	169	72 X	25 X	11 X	17 X	17 X	2 X
62E Heavy Const Eq Op	1922	2007	104 X	54 X	6 X	22 X	18 X	4 X
62F Crane Operator	1379	1297	94 X	50 X	4 X	20 X	17 X	3 X
62G Quarrying Sp	225	146	65 X	48 X	4 X	13 X	6 X	2 X
62H Concrete/Asphalt Eq Op	332	268	81 X	42 X	0 X	23 X	6 X	2 X
62J Gen Const Eq Op	1230	1050	85 X	41 X	5 X	18 X	18 X	3 X
62M Const Eq Supv	368	344	93 X	50 X	17 X	15 X	0 X	3 X
81B Tech Drafting Sp	351	327	93 X	49 X	3 X	18 X	19 X	4 X
82B Const Surveyor	273	215	79 X	39 X	3 X	21 X	13 X	3 X
54 CHEMICAL	2255	4580	203 X	107 X	0 X	55 X	36 X	5 X
54B Chemical Operations Sp	2255	4580	203 X	107 X	0 X	55 X	36 X	5 X
55 AMMUNITION	3056	2339	77 X	43 X	5 X	15 X	12 X	2 X
55B Ammo Sp	2300	1793	78 X	46 X	1 X	16 X	14 X	2 X
55D EOD Sp	4	2	50 X	50 X	0 X	0 X	0 X	0 X
55G Nuclear Wpn Sp	3	10	333 X	266 X	0 X	67 X	0 X	0 X
55R Ammo Stk Clk & Actg Sp	477	311	65 X	27 X	11 X	12 X	13 X	2 X
55X Ammo Insp	207	153	74 X	31 X	27 X	14 X	0 X	2 X
55Z Ammo Supv	65	70	108 X	69 X	14 X	23 X	0 X	2 X

TABLE 1A(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (MANTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P+OY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
63 MECHANICAL MAINTENANCE	21044	21984	104 %	68 %	11 %	12 %	10 %	3 %
41C Fire Control Instr Rep	76	66	87 %	52 %	7 %	20 %	7 %	1 %
41J Office Mach Rep	51	44	86 %	50 %	6 %	14 %	12 %	4 %
44B Metal Worker	803	790	98 %	54 %	6 %	13 %	23 %	2 %
44E Machinist	411	397	97 %	56 %	9 %	11 %	19 %	2 %
45B Small Arms Rep	151	156	103 %	61 %	5 %	19 %	15 %	3 %
45D Sp Fa Turret Mech	91	85	93 %	58 %	10 %	14 %	11 %	0 %
45E M1 Abrams Tank Turret Mech	0	4	0 %	0 %	0 %	0 %	0 %	0 %
45G Fire Control Sys Rep	39	26	67 %	41 %	8 %	3 %	15 %	0 %
45K Tank Turret Rep	193	130	67 %	36 %	15 %	9 %	4 %	3 %
45L Artillery Rep	100	67	67 %	34 %	13 %	11 %	8 %	1 %
45N M60A1/A3 Tank Turret Mech	60	54	90 %	63 %	7 %	7 %	10 %	3 %
45T Bradley FVS Turret Mech	4	8	200 %	100 %	100 %	0 %	0 %	0 %
45Z Armt/Fire Control Maint Su	44	38	86 %	36 %	30 %	20 %	0 %	0 %
52C Util Equip Rep	761	621	82 %	45 %	6 %	9 %	20 %	2 %
52D Power Gen Equip Rep	2570	2281	89 %	48 %	12 %	13 %	16 %	3 %
52F Turbine Eng Driven Gen Rep	26	8	31 %	15 %	0 %	4 %	8 %	4 %
52X Sp Purpose Equip Rep	4	0	0 %	0 %	0 %	0 %	0 %	0 %
62B Const Equip Rep	2905	2942	101 %	58 %	12 %	11 %	18 %	2 %
63B Lt Wheel Vehicle Mech	7041	8728	124 %	68 %	9 %	12 %	19 %	4 %
63D Sp Fa Sys Mech	329	358	109 %	56 %	22 %	11 %	16 %	4 %
63E M1 Tank Sys Mech	0	12	0 %	0 %	0 %	0 %	0 %	0 %
63H Fuel & Elec Sys Rep	195	165	85 %	45 %	8 %	18 %	21 %	1 %
63M Track Vehicle Rep	1202	1187	99 %	59 %	13 %	12 %	13 %	2 %
63J Gft & Chem Equip Rep	896	839	94 %	48 %	13 %	11 %	23 %	2 %
63M M60A1/A3 Tank Sys Mech	296	327	110 %	70 %	11 %	13 %	13 %	3 %
63S Heavy Wheel Veh Mech	1323	1194	90 %	41 %	23 %	7 %	16 %	3 %
63T Bradley FVS Mech	158	218	138 %	96 %	13 %	8 %	20 %	1 %
63M Wheel Veh Rep	880	752	85 %	46 %	8 %	9 %	28 %	2 %
63Y Track Veh Mech	164	119	73 %	37 %	16 %	4 %	13 %	3 %
63Z Mech Maint Supv	280	344	123 %	58 %	28 %	36 %	0 %	1 %
67 AIRCRAFT MAINTENANCE	2330	2646	114 %	66 %	15 %	11 %	16 %	6 %
66B Utility Airplane Tech Insp	9	12	133 %	0 %	122 %	11 %	0 %	0 %
66N Obsn Airplane Tech Insp	2	14	700 %	0 %	50 %	550 %	100 %	0 %
66J Aircraft Armament Tech Ins	10	7	70 %	0 %	0 %	60 %	0 %	10 %
66N Utility Hel Tech Insp	70	46	66 %	10 %	53 %	3 %	0 %	0 %
66R AH-64 Attack Hel Tech Insp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
66S Scout Hel Tech Insp	0	0	0 %	0 %	0 %	0 %	0 %	0 %
66T Tac Trans Hel Tech Insp	17	4	24 %	0 %	18 %	0 %	0 %	6 %
66U Medium Hel Tech Insp	23	35	152 %	9 %	117 %	4 %	0 %	22 %

TABLE JAIN) E ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (MARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS
30 SEPTEMBER 84

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
66V Chan/Scout Hel Tech Insp	17	7	41 %	18 %	13 %	6 %	6 %	6 %
66X Heavylift Hel TI (RC)	0	0	0 %	0 %	0 %	0 %	0 %	0 %
66Y AH-1 Attack Hel Tech Insp	10	0	0 %	0 %	0 %	0 %	0 %	0 %
67B Utility Airplane Rep	114	143	125 %	60 %	30 %	11 %	18 %	14 %
67N Chan Airplane Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
67N Utility Hel Rep	726	1012	139 %	90 %	14 %	12 %	16 %	7 %
67R AH-64 Attack Hel Rep	0	0	0 %	0 %	0 %	0 %	0 %	0 %
67S Scout Hel Rep	0	1	0 %	0 %	0 %	0 %	0 %	0 %
67T Tac Trans Hel Rep	138	97	70 %	49 %	14 %	6 %	13 %	6 %
67U Medium Hel Rep	312	333	107 %	68 %	18 %	8 %	24 %	5 %
67V Chan/Scout Hel Rep	124	176	142 %	78 %	23 %	17 %	22 %	2 %
67X Heavy Lift Hel Rep (RC)	0	1	0 %	0 %	0 %	0 %	0 %	0 %
67Y AH-1 Attack Hel Rep	63	72	114 %	62 %	21 %	13 %	8 %	10 %
67Z Aircraft Maint Sr Sgt	36	40	111 %	44 %	21 %	41 %	0 %	12 %
68B Aircraft Powerplant Rep	173	163	94 %	56 %	5 %	8 %	23 %	2 %
68D Aircraft Powertrain Rep	59	71	120 %	71 %	5 %	5 %	32 %	7 %
68F Aircraft Electrician	67	69	103 %	62 %	7 %	7 %	24 %	4 %
68G Aircraft Structural Rep	167	152	91 %	62 %	2 %	11 %	13 %	3 %
68H Aircraft Pneudraulics Rep	60	55	81 %	51 %	3 %	9 %	18 %	3 %
68J Aircraft Fire Control Rep	58	70	121 %	38 %	21 %	21 %	16 %	5 %
68K Aircraft Comp Rep Supv	38	35	92 %	47 %	26 %	11 %	0 %	8 %
68M Aircraft Weapon Sys Rep	31	30	97 %	53 %	6 %	13 %	19 %	6 %
71 ADMINISTRATION	34944	33209	95 %	51 %	9 %	17 %	15 %	3 %
08J Club Manager	8	8	100 %	62 %	13 %	25 %	0 %	0 %
83C Physical Activities Sp	86	84	98 %	54 %	9 %	27 %	6 %	2 %
71C Executive Admin Asst	539	404	75 %	24 %	24 %	18 %	16 %	3 %
71D Legal Spacialist	1363	1367	100 %	49 %	19 %	13 %	17 %	2 %
71E Court Reporter	193	132	68 %	28 %	31 %	12 %	3 %	2 %
71L Administrative Sp	19680	18613	95 %	51 %	5 %	22 %	14 %	3 %
71M Chapel Activities Sp	818	733	90 %	49 %	7 %	12 %	18 %	4 %
73C Finance Sp	1522	1543	101 %	44 %	7 %	18 %	16 %	2 %
73D Accounting Sp	375	369	98 %	41 %	21 %	11 %	21 %	4 %
73Z Finance Sr Sgt	134	108	81 %	58 %	18 %	8 %	0 %	0 %
75B Personnel Admin Sp	2809	2999	107 %	51 %	19 %	14 %	20 %	3 %
75C Personnel Mgmt Sp	1618	1593	99 %	56 %	12 %	11 %	18 %	2 %
75D Personnel Records Sp	2878	2838	99 %	60 %	8 %	9 %	20 %	2 %
75E Personnel Actions Sp	659	636	100 %	56 %	8 %	9 %	26 %	1 %
75F Personnel Info Sys Mgmt Sp	537	413	77 %	37 %	13 %	10 %	15 %	2 %
75Z Personnel Sgt	1953	1178	75 %	44 %	19 %	11 %	8 %	1 %

TABLE 1A(M) P ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P=DY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
74 AUTOMATIC DATA PROCESSING	708	637	90 %	50 %	4 %	19 %	14 %	3 %
74D Computer/Machine Op	452	403	89 %	51 %	2 %	10 %	16 %	2 %
74F Programmer/Analyst	210	205	98 %	52 %	4 %	22 %	14 %	6 %
74Z Data Processing NCO	46	29	63 %	28 %	24 %	9 %	0 %	2 %
76 SUPPLY & SERVICE	25260	25330	100 %	60 %	6 %	16 %	15 %	3 %
43E Parachute Rigger	567	507	89 %	48 %	1 %	17 %	21 %	2 %
43M Fabric Rep Sp	603	502	83 %	50 %	4 %	11 %	16 %	2 %
57E Laundry/Bath Sp	1330	1226	92 %	55 %	3 %	15 %	17 %	2 %
57F Graves Registration Sp	481	435	90 %	46 %	9 %	20 %	17 %	4 %
76C Equip Records/Parts Sp	2434	2682	110 %	61 %	8 %	17 %	20 %	4 %
76P Material Control & Actg Sp	2789	2842	102 %	63 %	9 %	12 %	15 %	3 %
76V Mat Storage & Handling Sp	7043	6884	93 %	55 %	6 %	14 %	16 %	2 %
76X Subsistence Supply Sp	624	598	96 %	57 %	8 %	11 %	17 %	3 %
76Y Unit Supply Sp	8604	9237	106 %	64 %	5 %	19 %	13 %	3 %
76Z Sr Supply Sgt	727	747	103 %	57 %	17 %	26 %	0 %	1 %
77 PETROLEUM & WATER	3116	2779	89 %	56 %	0 %	19 %	12 %	3 %
77F Petroleum Supply Sp	2501	2280	88 %	57 %	0 %	10 %	11 %	2 %
77L Petroleum Lab Sp	128	104	81 %	47 %	2 %	16 %	14 %	2 %
77M Water Treatment Sp	487	395	97 %	47 %	0 %	27 %	20 %	3 %
79 RECRUITMENT & RELISTMENT	716	653	91 %	54 %	1 %	35 %	0 %	1 %
00E Recruiter (RC)	0	9	0 %	0 %	0 %	0 %	0 %	0 %
00R Recruiter/Retention NCO	8	3	38 %	12 %	0 %	13 %	0 %	13 %
79D Reenlistment NCO (RC)	708	641	91 %	54 %	1 %	35 %	0 %	1 %
81 TOPOGRAPHIC ENGINEERING	881	839	95 %	55 %	2 %	18 %	18 %	2 %
41B Topographic Inst Rep Sp	10	8	80 %	10 %	0 %	20 %	30 %	20 %
81C Cartographer	103	109	106 %	65 %	4 %	20 %	14 %	3 %
81Q Terrain Analyst	85	85	100 %	44 %	6 %	26 %	20 %	4 %
81Z Topographic Engring Supv	5	6	120 %	60 %	40 %	20 %	0 %	0 %
82D Topographic Surveyor	131	99	76 %	43 %	2 %	23 %	3 %	5 %
83E Photo and Layout Sp	74	82	111 %	62 %	4 %	19 %	26 %	0 %
83F Printing & Bindery Sp	473	458	98 %	58 %	1 %	14 %	21 %	1 %

TABLE IA(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P=DY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
88 TRANSPORTATION	16130	16093	100 %	63 %	2 %	17 %	15 %	3 %
88N Cargo Specialist	1536	1366	89 %	52 %	3 %	22 %	10 %	2 %
88K Watercraft Operator	649	550	85 %	52 %	3 %	11 %	16 %	3 %
88L Watercraft Engineer	544	429	79 %	45 %	4 %	13 %	14 %	3 %
88M Motor Transport Op	10891	11385	104 %	69 %	0 %	18 %	17 %	3 %
88N Traffic Management Coord	1722	1787	102 %	55 %	3 %	23 %	17 %	4 %
88P Locomotive Rep (RC)	67	43	64 %	64 %	1 %	9 %	18 %	0 %
88Q Railway Car Rep (RC)	202	123	61 %	38 %	4 %	22 %	3 %	2 %
88R Airbrake Rep (RC)	20	11	55 %	15 %	10 %	10 %	20 %	0 %
88S Locomotive Electrician (RC	42	26	62 %	36 %	2 %	14 %	10 %	0 %
88T Railway Sea Rep (RC)	42	41	98 %	53 %	2 %	36 %	2 %	5 %
88U Locomotive Operator (RC)	29	27	93 %	45 %	17 %	21 %	10 %	0 %
88V Train Crewmember (RC)	66	76	115 %	44 %	23 %	38 %	2 %	9 %
88M Railway Movement Coord (RC	69	21	30 %	10 %	6 %	13 %	0 %	1 %
88X Railway Sr Sgt (RC)	14	12	86 %	72 %	0 %	14 %	0 %	0 %
88Y Marine Sr Sgt	6	6	100 %	33 %	67 %	0 %	0 %	0 %
88Z Transportation Sr Sgt	231	280	121 %	59 %	23 %	37 %	0 %	2 %
91 MEDICAL	38686	38272	98 %	47 %	10 %	7 %	19 %	2 %
81N Biological Sciences Asst	0	2	0 %	0 %	0 %	0 %	0 %	0 %
35G Biomedical Equip Sp, Basic	98	144	147 %	82 %	11 %	20 %	30 %	4 %
35U Biomedical Equip Sp, Adv	291	263	90 %	32 %	37 %	18 %	3 %	3 %
42C Orthotic Sp	32	25	78 %	41 %	6 %	6 %	19 %	6 %
42D Dental Lab Sp	378	304	80 %	47 %	7 %	6 %	19 %	1 %
42E Optical Lab Sp	73	49	67 %	43 %	5 %	7 %	7 %	5 %
71G Patient Admin Sp	1620	1593	98 %	62 %	4 %	13 %	17 %	2 %
76J Medical Supply Sp	2632	2044	78 %	37 %	2 %	20 %	17 %	2 %
91A Medical Sp	6612	8293	125 %	66 %	9 %	6 %	41 %	3 %
91B Medical NCO	2827	2732	97 %	55 %	29 %	7 %	2 %	4 %
91C Practical Nurse	6695	3407	51 %	22 %	21 %	2 %	4 %	2 %
91D Operating Room Sp	2975	2326	78 %	44 %	5 %	4 %	23 %	2 %
91E Dental Sp	1448	1471	102 %	66 %	5 %	8 %	21 %	2 %
91F Psychiatric Sp	249	238	96 %	60 %	9 %	4 %	20 %	3 %
91G Behavioral Science Sp	349	338	96 %	60 %	4 %	7 %	16 %	1 %
91M Orthopedic Sp	373	249	67 %	41 %	6 %	1 %	17 %	2 %
91J Physical Therapy Sp	272	327	120 %	59 %	8 %	6 %	44 %	3 %
91L Occupational Therapy Sp	125	107	86 %	51 %	4 %	6 %	23 %	2 %
91M Cardiac Sp	86	62	70 %	50 %	4 %	5 %	16 %	3 %
91P X-Ray Sp	990	984	96 %	61 %	4 %	4 %	26 %	3 %
91Q Pharmacy Sp	1065	694	65 %	38 %	4 %	3 %	21 %	2 %
91R Veterinary Food Insp Sp	127	155	122 %	83 %	9 %	9 %	16 %	5 %

TABLE IA(M) 8 ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASSND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				P=OY	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
91S Preventive Medicine Sp	389	342	88 %	43 %	10 %	22 %	11 %	2 %
91T Animal Care Sp	47	55	117 %	84 %	6 %	6 %	17 %	4 %
91U Ent Sp	91	85	93 %	46 %	14 %	7 %	22 %	4 %
91V Respiratory Sp	734	232	32 %	11 %	9 %	3 %	6 %	1 %
91W Nuclear Medicine Sp	0	2	0 %	0 %	0 %	0 %	0 %	0 %
91X Health Physics Sp	0	1	0 %	0 %	0 %	0 %	0 %	0 %
91Y Eye Sp	77	53	69 %	30 %	12 %	4 %	22 %	1 %
92B Medical Lab Sp	2839	2229	79 %	51 %	3 %	3 %	21 %	1 %
92E Cytology Sp	27	5	19 %	12 %	7 %	0 %	0 %	0 %
94F Hospital Food Service Sp	2181	1492	68 %	33 %	1 %	21 %	12 %	1 %
93 AVIATION OPERATION	243	284	117 %	63 %	2 %	26 %	19 %	7 %
93B Aeroscout Observer	0	0	0 %	0 %	0 %	0 %	0 %	0 %
93D ATCss Equip Rep	3	3	100 %	33 %	0 %	67 %	0 %	0 %
93E ATCss Equip Rep	1	0	0 %	0 %	0 %	0 %	0 %	0 %
93H ATC Tower Operator	26	34	131 %	84 %	0 %	35 %	0 %	4 %
93J ATC Radar Controller	6	11	183 %	133 %	0 %	33 %	17 %	0 %
93P Flight Operations Coord	207	236	114 %	60 %	2 %	25 %	20 %	7 %
94 FOOD SERVICE	9790	11188	114 %	68 %	0 %	12 %	11 %	3 %
94B Food Service Sp	9790	11188	114 %	68 %	0 %	12 %	11 %	3 %
95 MILITARY POLICE	8142	8188	100 %	65 %	2 %	13 %	18 %	2 %
95B Military Police	7549	7491	99 %	65 %	1 %	12 %	19 %	2 %
95C Corrections NCO	398	438	110 %	68 %	18 %	19 %	5 %	3 %
95D CID Special Agent	203	189	93 %	55 %	25 %	10 %	0 %	3 %
96 MILITARY INTELLIGENCE	3754	3888	82 %	38 %	6 %	23 %	9 %	6 %
96B Intelligence Analyst	928	1078	116 %	73 %	5 %	25 %	8 %	5 %
96D Imagery Analyst	317	303	96 %	58 %	3 %	23 %	16 %	4 %
96F Psyop Specialist	915	603	66 %	11 %	14 %	28 %	9 %	4 %
96H Aerial Intel Sp	0	2	0 %	0 %	0 %	0 %	0 %	0 %
96R Ground Surv1 Sys Op	308	86	29 %	15 %	0 %	8 %	5 %	1 %
96Z Intel Senior SGT	17	18	106 %	59 %	6 %	35 %	0 %	6 %
97B CI Agent	442	407	92 %	49 %	7 %	27 %	4 %	5 %
97E Interrogator	653	427	65 %	20 %	4 %	17 %	8 %	16 %
97G Counter Sigint Sp	182	161	88 %	36 %	1 %	31 %	16 %	4 %

TABLE 1A(M) R ENLISTED SKILL - MATCH - PERCENTAGE DISTRIBUTION
AUTHORIZED (WARTIME) VS. ASSIGNED BY CMF & THREE DIGIT MOS
ALL ARMY RESERVE UNITS

30 SEPTEMBER 86

CMF/MOS	AUTH	ASGND	% FILL	PRIMARY OF ASSIGNED AS A PERCENTAGE OF AUTHORIZED				
				PMOS	SAME CMF	OTHER CMF	INITIAL TRAINING	UNKNOWN
97 BAND	721	557	77 %	59 %	9 %	4 %	3 %	2 %
02B Cornet or Trumpet Player	115	103	90 %	77 %	4 %	3 %	4 %	2 %
02C Baritone or Euphonium Play	36	28	78 %	63 %	6 %	6 %	0 %	3 %
02D French Horn Player	61	38	62 %	41 %	13 %	5 %	0 %	3 %
02E Trombone Player	72	55	76 %	61 %	6 %	3 %	3 %	3 %
02F Tuba Player	54	36	67 %	48 %	9 %	6 %	0 %	4 %
02G Flute or Piccolo Player	36	27	75 %	53 %	8 %	3 %	11 %	0 %
02H Oboe Player	18	25	139 %	100 %	39 %	0 %	0 %	0 %
02J Clarinet Player	149	77	52 %	38 %	7 %	3 %	3 %	1 %
02K Bassoon Player	18	4	22 %	16 %	0 %	6 %	0 %	0 %
02L Saxophone Player	72	65	90 %	73 %	6 %	4 %	1 %	6 %
02M Percussion Player	36	60	167 %	136 %	14 %	6 %	0 %	3 %
02N Piano Player	18	8	44 %	17 %	21 %	6 %	0 %	0 %
02S Special Bandsperson	0	1	0 %	0 %	0 %	0 %	0 %	0 %
02T Guitar Player	18	14	78 %	44 %	28 %	6 %	0 %	0 %
02U Electric Bass Player	0	0	0 %	0 %	0 %	0 %	0 %	0 %
02Z Bands Senior SGT	18	16	89 %	78 %	11 %	0 %	0 %	0 %
96 ELECTRONIC WARFARE CRYPTOLOGIC OPERATIONS	1737	954	55 %	34 %	6 %	8 %	7 %	2 %
05D EW/Sigint Ident/LOc	29	24	83 %	69 %	17 %	14 %	3 %	0 %
05N EW/Sigint Intcp-Ime	250	165	66 %	38 %	4 %	11 %	9 %	4 %
05K EW/Sigint N-M Intcp	1	17	1700 %	500 %	0 %	100 %	0 %	100 %
98C EW/Sigint Analyst	388	236	61 %	42 %	5 %	6 %	6 %	2 %
98G EW/Sigint Voice Intcp	776	361	47 %	29 %	2 %	7 %	6 %	3 %
98J EW/Sigint NC Intcp	175	120	69 %	38 %	9 %	7 %	14 %	1 %
98Z EW/Sigint Chief	118	31	26 %	6 %	4 %	15 %	0 %	1 %
special duty	847	1705	201 %	56 %	0 %	73 %	58 %	14 %
00D Special Duty Assignment	6	898	14967%	0 %	0 %	4917 %	8133 %	4917 %
00U ED MCO	1	10	1000%	400 %	0 %	400 %	0 %	200 %
00Z CMD SGT Major	840	797	95 %	56 %	0 %	39 %	0 %	0 %
subtotal	244670	236659	97 %	57 %	6 %	15 %	16 %	3 %
reporting codes	0	2475	0 %	x	x	x	x	x
09r simultaneous member prg	0	2470	0 %	x	x	x	x	x
09s commissioned officer cand	0	1	0 %	x	x	x	x	x
09w warrant officer candidate	0	4	0 %	x	x	x	x	x
unknown duty	0	538	0 %	x	x	x	x	x
GRAND TOTAL	244670	239672	98 %	x	x	x	x	x

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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

VOLUME III

6th QRMC SUPPORTING STUDIES

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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

VOLUME III

6th QRMC SUPPORTING STUDIES

AUGUST 1988

6th QRMC Report

Executive Summary

Volume I: National Guard and Reserve Compensation

Volume IA: Compensation of Full-Time Support Personnel

Volume IB: National Guard and Reserve Retirement

Volume IC: Compensation in Support of Reserve Medical Manpower

Volume II: Compensation and Personnel Readiness

Volume III: 6th QRMC Supporting Studies

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PREFACE

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This volume includes major supporting studies that were completed in support of the work of the 6th QRMC. It is published to provide users of the report of the 6th QRMC with direct access to important materials used in the analysis and development of recommendations. The documents included here are the major separate reports which were prepared for the QRMC and not incorporated elsewhere in whole or in part in the body of the QRMC report. The major exception is several additional RAND Corporation documents, which were used by the QRMC in preliminary working draft form and will be separately published as RAND reports.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air

Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988), and the Reserve Center Commanders Conference (1987), were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard Association of the United States, National Military Family Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis and advice at every stage of the review.

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143d Combat Communications Group, Seattle, Washington

156th Tactical Fighter Group, Muniz ANGB, San Juan, Puerto Rico

United States Air Force Reserve

514 Military Airlift Wing, McGuire AFB, New Jersey

702 Military Airlift Squadron, McGuire AFB, New Jersey

37th Aeromedical Evacuation Group, MacDill AFB, Florida

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Part A. Analysis of Selected Reserve Compensation and Retention

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ANALYSIS OF SELECTED RESERVE COMPENSATION AND RETENTION

FINAL REPORT

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PREFACE

This report presents an analysis of the civilian earnings of reserve force members and comparison groups. It also contains analysis of other compensation, civilian employer support for employee participation in the Selected Reserve, and intent of members to stay in the Selected Reserve.

This study was conducted for the Sixth Quadrennial Review of Military Compensation under the overall direction of Col. Frank Rush, USAF. Ms. Zahava Doering and Ms. Bette Mahoney of the Defense Manpower Data Center (DMDC) facilitated our understanding of the data elements contained in the 1986 Reserve Component (RC) Survey files. Ms. Elaine Sellman prepared the data file extracts for our specific use.

Dr. George Kettner of Syllogistics served as project director and principal analyst for the study. Mr. Ali Sayer of Syllogistics provided analyst/programmer support, while Ms. Julien Chan served as programmer. Mr. Ed Hustead of Hay/Huggins Company performed actuarial analysis of Selected Reserve benefits and civilian employer-provided benefits with support from Mr. Larry Bobbitt of the same company. Mr. David Weeks of Weeks & Associates conducted an informal survey of large companies on their support for employee participation in the Selected Reserve.

EXECUTIVE SUMMARY

The study, Analysis of Selected Reserve Compensation and Retention, conducted for the Sixth Quadrennial Review of Military Compensation by Syllogistics, analyzes the civilian earnings of reserve force members, civilian employer support for reserve participation, and factors relating to retention of reserve force members. The principal data source used for this study was the 1986 Reserve Components Survey of reserve force members.

In an analysis which compared the civilian earnings of reserve members to non-reserve civilians, it was found that enlisted reserve force members earned about $330 less annually than the comparison. Reserve officers had an annual earnings advantage of about $2,190. Enlisted reserve members actually had an earnings advantage as well for several major occupational categories. This comparative analysis used Bureau of the Census/Bureau of Labor Statistics Current Population Survey data and controlled for certain critical variables such as years of workforce experience and education.

Two principle factors are believed to be behind the discovery of an earnings premium for the reserve force member. One is that the reserve member is more able than the general population within certain occupational groupings, particularly for the officer reserve member. The other factor is that older or more experienced individuals in the Guard/Reserve are more adaptive to combining civilian and military careers and/or are generally more capable. As in most organizations, a self-selection or "weeding out" phenomenon may occur whereby less adaptive members tend to leave sooner.

The analysis of civilian employer support reveals that a majority of reserve force members receive at least part civilian pay for their time off from civilian jobs to perform reserve force duties. Federal and state governments provide the most financial support, followed by larger private firms and then smaller firms. The typical practice in the private sector is to pay the difference between military pay and civilian pay for the reserve member's annual two week training duty. Employer support tends to be less than this for junior grade members or members with little tenure in their civilian jobs.

The study also analyzed 1985 total compensation for enlisted and officer reserve members, including civilian pay and benefits and reserve income and benefits. Civilian compensation, inclusive of pay and benefits, amount to $29,190 and $54,550 for enlisted and officers, respectively. Selected Reserve income and benefits (including the actuarial value of retirement benefits) were estimated at $3,400 and $8,800 for enlisted and officer reserve members, respectively. In other words, reserve income and benefits constitute 11.6 percent of civilian compensation for enlisted members and 16.1 percent for officers.

The relation between the reserve force member's intent to stay and several potential explanatory variables was analyzed. Aside from being eligible already for retirement, the most predominant influence on retention is, by far, earning credits toward retirement. Educational benefits and patriotism are also highly significant factors, followed by civilian employer support. Spouse attitude is very important in the member's stay/leave decision and is influenced by these same factors.

SECTION 1

INTRODUCTION

1.1 OBJECTIVE OF STUDY

The overall objective of this study is to conduct an analysis of civilian earnings, other compensation and employer support of reserve force members, and an analysis of factors which could affect their intent to stay in the Selected Reserves. The analysis of compensation encompasses a comparison of civilian earnings of reserve force members to non-reserve force members, analysis of Selected Reserve retirement and other benefits, and analysis of benefits or non-salary compensation from civilian jobs and Selected Reserve participation. One critical question posed in this study is whether participation in the Selected Reserve has a positive or negative effect on civilian earnings. Analysis of civilian pay, Selected Reserve income and other benefits, and the non-salary benefits for reserve force members from their civilian jobs provides a basis for *total* compensation analysis. In the analysis of factors which affect or relate to the reserve force members intent to stay in the Selected Reserve, potential factors include supplemental pay from civilian employment for time off for reserve force duties, other measures of employer support, spouse's attitude, educational benefits, and age.

1.2 CHARACTERISTICS OF SELECTED RESERVE FORCE MEMBERS

In order to provide background information on the population groups being analyzed in this study, Table 1-1 presents the percent distribution of reserve force members (exclusive of military technicians) according to several different descriptors. The results are based on weighted frequencies of observations from

TABLE 1-1

CHARACTERISTICS OF RESERVE FORCE MEMBERS

	SURVEY		TOTAL POPULATION	
Reserve Components	**ENLISTED[1]**	**OFFICER[1]**	**ENLISTED[2]**	**OFFICER[2]**
Army National Guard	42.3%	27.9%	41.0%	27.1%
Army Reserve	25.3	35.2	25.3	35.2
Navy Reserve	11.7	18.3	12.1	15.9
Marine Corps Reserve	4.1	2.2	3.9	2.2
Air National Guard	9.2	8.7	10.1	8.4
Air Force Reserve	6.0	6.4	6.4	10.1
Coast Guard Reserve	1.4	1.3	1.1	1.0
Pay Grades				
E1 to E4	50.0	--	51.6	--
E5 to E6	40.0	--	38.2	--
E7 to E9	10.0	--	10.2	--
W1 to W4	--	8.6	--	9.7
01 to 03	--	50.4	--	46.1
04 to 07	--	41.0	--	44.2
Years of Service				
Less than 1 year	2.7	1.2	9.7	1.4
1 to 4 years	30.7	7.6	29.0	10.8
5 to 10 years	32.6	23.3	29.8	19.9
Over 10 years	34.0	68.0	31.5	67.9
Age				
25 years old or younger	38.1	6.0	41.8	7.1
26 to 35 years old	30.5	33.2	29.6	29.8
36 years or older	31.5	60.8	28.6	63.1
Sex				
Male	89.0	88.4	88.8	88.6
Race				
White	74.6	91.2	76.2	89.4
Marital Status				
Married	53.8	78.0	NA	NA
Non-Reserve Employment				
Federal government	10.5	13.8	NA	NA
State government	8.4	10.6	NA	NA
Local government	8.5	10.0	NA	NA
Self-employed	9.9	12.9	NA	NA
Private firm w/500 + employees	26.5	33.0	NA	NA
Private firm w/100-499 employees	13.0	8.3	NA	NA
Private firm w/<100 employees	22.5	11.2	NA	NA
Working w/o pay in family business	0.7	0.2	NA	NA

TABLE 1-1 (Cont.)

Reserve Components	SURVEY ENLISTED[1]	SURVEY OFFICER[1]	TOTAL POPULATION ENLISTED[2]	TOTAL POPULATION OFFICER[2]
Federal Pay Type (for Federal Workers)				
GS or GM	37.3	75.5	NA	NA
Wage Grade	23.6	3.5	NA	NA
Postal Services	18.5	6.2	NA	NA
Other	20.6	14.8	NA	NA
Hours of Work Per Week				
35 hours or more	88.7	92.9	NA	NA
Less than 35 hours	11.3	7.1	NA	NA

[1] Source: Weighted results from 1986 Reserve Components Survey.

[2] Source: Official Guard and Reserve Manpower Strengths and Statistics, June 1987, Department of Defense. NA = Not Available.

the 1986 Reserve Components Survey data files for enlisted and officer personnel. The respective figures based on the total populations, as of July 1987, are presented as well for comparison. For the most part, they compare similarly. However, the survey included trained personnel only. Also, our analysis excluded military technicians. Survey results included:

- The predominate proportion of reserve force members, either enlisted or officer, are in the Army National Guard and the Army Reserve.
- Half of all enlisted personnel reserve force members are in the lower pay grades E1 to E4.
- About a third of the Selected Reserve enlisted members surveyed have less than five years of service in the military. In contrast, less than a tenth of the officers have less than five years. Likewise, 38 percent enlisted members are 25 years old or younger, while the respective percent for officers is only six.

- Nearly 90 percent of either enlisted or officer reserve force members are male.
- About 25 percent of enlisted members are non-white, while the respective percent for officers is nine.
- About 54 percent of enlisted members and 78 percent of officers are married.
- A significant number of reserve force members are government civilian employees (10.5 and 13.8 percent of enlisted and officer respectively, are employed by the federal government and 16.9 and 20.6 percent, respectively, are employed by state/local governments.)
- About one-fourth of the enlisted members work for private firms with more than 500 employees, while the respective proportion for officers is one-third.
- About 90 percent of reserve force members work 35 hours or more per week at their civilian job.

1.3 ORGANIZATION OF REPORT

Section 2 compares the civilian earnings of reserve force members to non-reserve force members, controlling for years of workforce experience, years of education, and other factors. The analysis focuses on earnings differences stemming from Selected Reserve participation. Section 3 examines employer support for employee participation in the Selected Reserves, in terms of financial support for employee time off to fulfill Selected Reserve obligations and employer attitude toward employee participation. Section 4 examines reserve pay and benefits, satisfaction of reserve force members with such benefits, benefits

provided by civilian employers, and total compensation. In Section 5 multiple regression techniques are used to analyze statistical relationships between the reserve force member's intent to stay and several potential explanatory variables.

Unless otherwise noted, the data source used in this study is the 1986 Reserve Components Survey of reserve force members, conducted and edited under the auspices of the Defense Manpower Data Center (DMDC). The military technicians were excluded from the DMDC files during the analysis. Current Population Survey data from the March 1986 Census Bureau files on non-reserve force members were used for comparison of civilian earnings. Hay/Huggins data on civilian employer benefits and an informal Weeks & Associates survey of employer support for employee participation in the reserves were utilized as well.

SECTION 2

COMPARISON OF CIVILIAN EARNINGS

2.1 APPROACH

A key objective of the study is to provide insight into a possible relation between civilian earnings and participation in the Selected Reserves. A positive effect of reserve force participation on civilian careers can enhance the overall recruitment and retention. On the other hand, if reserve force participation is an obstruction to career advancement, recruitment and retention will be more difficult.

The study approach to this issue is to compare the civilian earnings experience of reserve force members (excluding military technicians) to non-reserve force members, controlling for the effects of years of workforce experience, years of education, and other factors. Data on the earnings experiences of non-reserve force members is derived from the 1986 March Current Population Survey (CPS)[1]. The records selected from this data base are individual (not household or family) records, civilians (including federal as well as non-federal employees), aged 14 or over, who worked 50 or more weeks in 1985. Approximately 42,000 records were extracted from this source.

In order to assess the relationship between civilian earnings of reserve force members and non-reserve force members, it is essential that the two groups are similar to each other in terms of key attributes. Attributes which we have chosen to obtain comparable groups are:

[1] It is possible that some of the CPS records include reserve force members, but if so, their numbers would be very small and have no effect on the statistical results in this study.

- o Individuals in both groups work 50 or more weeks in 1985.
- o Individuals in both groups work 35 or more hours in a week.
- o Individuals in each group are sorted according to the same Census occupational category and matched against each other, respectively.
- o Since the reserve data files contain younger individuals, on average, than the CPS files, sampling was used to achieve similar age distributions for the two groups.

For the sampling, the cross-tabulations of major occupation groups were calculated by different age groups for the 1986 Reserve Components (RC) Survey data files, separately, for enlisted and officer personnel, separately. Records from the 1986 March Current Population Survey (CPS) were randomly selected by age group so that the CPS data file would have the same percent distribution by age and occupation groups characteristic of enlisted and officer files.

The civilian occupational categories selected for analysis in this study for both the CPS and RC Survey files are based on the 13 Census major recode categories, which are listed in Table 2-1[2]. Also shown in Table 2-1 is the percent of workers in each category for each of the CPS, enlisted reserve, and officer reserve files. Since the percent is relatively small for some of the categories, the 13 categories were reduced to 9 for the enlisted analysis (refer to Table 2-2) and to 6 for the officer analysis (refer to Table 2-3). Tables 2-4 and 2-5 present cross-tabulations of major occupational groups by different age groups for non-reserve force members (i.e., workers in the CPS file) before and after sampling, and for

[2] This analysis focuses strictly on civilian occupations, and no attempt is made to "cross-walk" between civilian and military jobs. Survey responses on kinds of civilian jobs were coded into 3-digit Census occupational codes by another contractor for the Defense Manpower Data Center. The same occupational codes reside in both the RC Survey and CPS files.

TABLE 2-1

PERCENTAGE DISTRIBUTION OF EMPLOYEES

BY MAJOR CENSUS RECODES

OCCUPATION GROUP	CENSUS RECODE	CENSUS OCCUPATION CODE	CPS	RC SURVEY ENLISTED	RC SURVEY OFFICER
Executive, Administrative and Managerial Occupations	1	3-37	13.8%	12.8%	32.8%
Professional Specialty Occupations	2	43-199	14.0	6.9	36.8
Technicians and Related Support Occupations	3	203-235	3.8	7.8	7.6
Sales Occupations	4	243-285	9.6	6.2	7.2
Administrative Support Occupations	5	303-389	17.8	10.3	3.6
Private Household Service Occupations	6	403-407	0.3	0.0	0.0
Protective Service Occupations	7	413-427	2.2	9.6	5.1
Service Occupations, except Household and Protective	8	433-469	7.6	4.1	0.8
Farming, Forestry, and Fishing Occupations	9	473-499	1.2	2.4	1.0
Precision Production, Craft, and Repair Occupations	10	503-699	13.7	20.8	4.0
Machine Operators, Assemblers, and Inspectors	11	703-799	8.4	8.2	0.4
Transportation and Material Moving Equipment Occupations	12	803-859	4.3	5.8	0.4
Handlers, Equipment Cleaners, Helpers, and Laborers	13	863-889	3.3	5.1	0.4
TOTAL			100.0%	100.0%	100.0%

TABLE 2-2

MAJOR OCCUPATION GROUP RECODE FOR REGRESSION MODEL ON EARNINGS (ENLISTED)

OCCUPATION GROUP	CENSUS OCCUPATION CODE	RECODE	PERCENTAGE DISTRIBUTION
Executive, Administrative and Managerial Occupations	3-37	1	12.83
Professional Specialty Occupations	43-199	2	6.86
Technicians and Related Support Occupations	203-235	3	7.80
Sales Occupations	243-285	4	6.20
Administrative Support Occupations, Including Clerical	303-389	5	10.25
Private Household Service Occupations, and Protective Service Occupations	403-427	6	9.60
Service Occupations, Except Protective and Household	433-469	7	4.11
Farming, Forestry, and Fishing Occupations, and Precision Production, Craft and Repair Occupations	473-699	8	23.26
Machine Operators, Assemblers, and Inspectors Occupations, Transportation and Material Moving Equipment Occupations, and Handlers, Equipment Cleaners, Helpers and Laborers	703-889	9	19.10
TOTAL			100.00

TABLE 2-3

MAJOR OCCUPATION GROUP RECODE FOR REGRESSION MODEL ON EARNINGS (OFFICER)

OCCUPATION GROUP	CENSUS OCCUPATION CODE	RECODE	PERCENTAGE DISTRIBUTION
Executive, Administrative and Managerial Occupations	3-37	1	32.76
Professional Specialty Occupations	43-199	2	36.77
Technicians and Related Support Occupations	203-235	3	7.60
Sales Occupations	243-285	4	7.20
Administrative Support Occupations, Including Clerical, Private Household Service Occupations, Protective Service Occupations, and Service Occupations, Except Protective and Household	303-469	5	9.50
Farming, Forestry, and Fishing Occupations, Precision Production, Craft, and Repair Occupations, Machine Operators, Assemblers, and Inspectors Occupations, Transportation and Material Moving Equipment Occupations, and Laborers	473-889	6	6.17
TOTAL			100.00

TABLE 2-4

MAJOR OCCUPATIONAL DISTRIBUTION BY AGE GROUPS,

NON-RESERVE FORCE MEMBERS AND ENLISTED RESERVE FORCE MEMBERS

	OCCUPATION GROUP									
	1	2	3	4	5	6	7	8	9	TOTAL
NON-RESERVE FORCE MEMBERS, BEFORE SAMPLING[1]										
Age Category										
16-25	1.03%	0.72%	0.49%	1.47%	2.93%	0.24%	1.38%	2.09%	2.57%	12.93%
26-35	4.64	5.34	1.59	3.58	5.91	0.87	2.24	5.20	5.32	34.70
36-50	5.92	6.03	1.35	3.05	6.11	1.00	2.41	5.47	5.56	36.91
51-55	1.19	1.16	0.24	0.71	1.48	0.19	0.68	1.34	1.39	8.38
56-60	1.06	0.81	0.17	0.61	1.26	0.18	0.67	1.08	1.25	7.09
TOTAL	13.83	14.07	3.83	9.43	17.71	2.48	7.38	15.18	16.09	100.00
NON-RESERVE FORCE MEMBERS, AFTER SAMPLING[1]										
Age Category										
16-25	1.20%	0.47%	0.92%	1.56%	1.52%	0.50%	1.27%	4.39%	4.81%	16.63%
26-35	3.52	1.93	2.98	1.86	4.01	1.83	1.52	7.94	6.75	32.34
36-50	7.97	4.19	2.84	2.71	4.82	2.11	1.33	11.16	8.02	45.15
51-55	0.84	0.45	0.32	0.32	0.48	0.38	0.23	0.87	0.65	4.53
56-60	0.19	0.14	0.12	0.14	0.16	0.12	0.06	0.21	0.21	1.36
TOTAL	13.71	7.18	7.17	6.59	10.99	4.93	4.41	24.57	20.44	100.00
ENLISTED										
Age Category										
16-25	1.10%	0.45%	0.87%	1.53%	1.43%	1.24%	1.17%	4.28%	4.56%	16.64%
26-35	3.31	1.96	2.75	1.71	3.65	3.35	1.40	7.37	6.40	31.90
36-50	7.47	3.91	3.77	2.59	4.55	4.55	1.30	10.51	7.34	45.99
51-55	0.79	0.41	0.30	0.25	0.47	0.35	0.20	0.85	0.62	4.25
56-60	0.17	0.12	0.11	0.12	0.14	0.11	0.05	0.24	0.17	1.22
TOTAL	12.83	6.86	7.80	6.20	10.25	9.60	4.11	23.26	19.10	100.00

[1] Before Sampling is the CPS file without any reduction in the number of older workers contained in the file. After Sampling effectively reduces the percent of older workers so that the overall age distribution is similar between the CPS and RC Survey files. Individuals in both groups work 50 or more weeks in 1985, 35 or more hours in a week, and are older than 14 and younger than 61.

TABLE 2-5

MAJOR OCCUPATIONAL DISTRIBUTION BY AGE GROUPS,

NON-RESERVE FORCE MEMBERS AND OFFICER RESERVE FORCE MEMBERS

	OCCUPATION GROUP						
	1	2	3	4	5	6	TOTAL
NON-RESERVE FORCE MEMBERS, BEFORE SAMPLING[1]							
Age Category							
16-25	1.03%	0.72%	0.49%	1.47%	4.55%	4.67%	12.93%
26-35	4.64	5.34	1.59	3.58	9.03	10.52	34.70
36-50	5.92	6.03	1.35	3.05	9.52	11.03	36.91
51-55	1.19	1.16	0.24	0.71	2.36	2.73	8.38
56-60	1.06	0.81	0.17	0.61	2.11	2.33	7.09
TOTAL	13.83	14.07	3.83	9.43	27.56	31.27	100.00
NON-RESERVE FORCE MEMBERS, AFTER SAMPLING[1]							
Age Category							
16-25	0.37%	0.27%	0.11%	0.07%	0.16%	0.15%	1.13%
26-35	6.83	10.56	2.30	2.08	3.01	2.39	27.18
36-50	23.56	23.60	4.86	4.93	5.83	3.71	66.48
51-55	1.39	1.86	0.16	0.22	0.49	0.09	4.22
56-60	0.06	0.58	0.07	0.04	0.11	0.02	0.99
TOTAL	32.31	36.88	7.51	7.34	9.61	6.36	100.00
OFFICERS							
Age Category							
16-25	0.26%	0.31%	0.09%	0.07%	0.20%	0.15%	1.09%
26-35	6.98	10.70	2.39	2.03	3.06	2.28	27.44
36-50	23.90	23.16	4.88	4.88	5.71	3.52	66.05
51-55	1.40	2.04	0.18	0.17	0.46	0.17	4.42
56-60	0.22	0.55	0.06	0.06	0.07	0.06	1.01
TOTAL	32.76	36.77	7.60	7.20	9.50	6.17	100.00

[1] Before Sampling is the CPS file without any reduction in the number of older workers contained in the file. After Sampling effectively reduces the percent of older workers so that the overall age distribution is similar between the CPS and RC Survey files. Individuals in both groups work 50 or more weeks in 1986, 35 or more hours in a week, and are older than 14 and younger than 61.

enlisted and officer personnel. The sampling reduced the percent of older workers in the CPS file in order to achieve an age distribution similar to that in the RC Survey files.

Relatively broad categories of occupations were chosen for the analysis in order to insure a sufficient number of statistical observations for each category. Each category has a more heterogeneous mix of specific occupations than we would want ideally. Significant variations in the mix for one comparison group versus another affect the validity of comparison of civilian earnings. So long as the categorization is broad, it is difficult to avoid this problem. Alternative broad categorizations tend to be arbitrary without necessarily resolving the problem. In the regression analysis which follows, some attempt was made to control for varying mixes of less aggregate occupations by specifying categorical variables for them (e.g., teachers and pilots).

2.2 REGRESSION RESULTS ON RESERVE PARTICIPATION

Multiple regression equations were estimated for reserve force members and non-members (strictly civilian) combined in a single data file with results presented in Tables 2-6 and 2-7. An explanatory variable was specified in the regression equation to estimate the effect of Selected Reserve participation, in addition to several other variables. This variable has a value of 1 for the reserve force member and 0 for the non-member. It is designed to measure the civilian earnings difference related to Selected Reserve participation. Several other variables are included in the equation in order to control for their effects on earnings such as years of experience and education. In other words, in order to effectively compare earnings, differences attributed to factors other than Selected Reserve participation need to be held constant.

TABLE 2-6

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBER AND NON-RESERVE FORCE MEMBER COMBINED

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-27,255	-49.01	7.72	354.68
EXP	882	34.52	0.04	42.95
EXP2	-13.28	-19.62	-0.0007	-26.70
Education	1,981	65.80	0.09	72.24
Sex	6,526	36.72	0.30	42.79
Marital	1,546	10.53	0.09	15.69
FEDEMP	2,129	9.25	0.13	13.91
STLOEMP	-1,673	-9.37	-0.03	-4.90
HRWORK	228	26.70	0.008	22.83
Reserve	-330	-2.35	-0.001	-0.19
Veteran	-474	-3.18	-0.01	-2.00
Pilots	8,216	4.24	0.008	0.11
Teachers	-3,538	-7.60	-0.13	-6.93
FOODOCC	-5,698	-10.11	-0.38	-17.37
No. of observations[3]:	38,272		38,272	
Adjusted R-Square:	0.245		0.305	

TABLE 2-7

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBER AND NON-RESERVE FORCE MEMBER COMBINED

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-52,803	-36.54	7.83	173.36
EXP	1,345	16.83	0.04	15.67
EXP2	-19.39	-8.92	-0.0006	-9.33
Education	3,074	41.87	0.09	39.03
Sex	8,487	21.91	0.30	25.05
Marital	1,243	3.41	0.05	4.19
FEDEMP	-1,470	-2.91	0.02	1.01
STLOEMP	-4,656	-11.33	-0.09	-6.86
HRWORK	364	19.11	0.007	11.80
Reserve	2,191	5.99	0.09	7.75
Veteran	-775	-2.25	-0.003	-0.32
Pilots	7,808	8.10	0.20	6.52
Teachers	-5,944	-9.93	-0.14	-7.64
No. of observations[3]:	10,905		10,905	
Adjusted R-Square:	0.369		0.338	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

Tables 2-6 and 2-7 present the civilian earnings regression results for enlisted and officer personnel, respectively, for all occupations and reserve force members and non-members combined. Selected Reserve pay is excluded from civilian earnings. The Selected Reserve participation variable (RESERVE) has a negative sign in the enlisted equation and a positive sign in the officer equation, and it is statistically significant at a greater than the 95 percent confidence level in both equations. The annual earnings *disadvantage* for enlisted reserve force members related to their Reserve participation is about $330. The respective earnings *advantage* for officers is about $2,191 per year.

Other key variables in the regression equation which have significant coefficient estimate values are years of experience (EXP), years of experience squared (EXP2), and years of education (EDUCATION). Years of experience is defined as the individual's age minus years of education minus six. Its coefficien in the estimated regression equation is positive, reflecting that with more years of experience earnings of the individual are greater. The years of experience squared coefficient has a negative value, reflecting that with advancing age earnings will increase at a slower rate or level out. The coefficient for years of education has the expected positive sign and is highly significant.

The coefficient for hours of work per week (HRWORK) is positive and significant for the both enlisted and officer equations. SEX (1=male, 0=female), and MARITAL (1=married, 0=not married) each have positive and significant coefficients in both equations. Federal workers earn more in the enlisted equation, less in the officer equation (FEDEMP=1 for federal workers, 0 otherwise). Workers in state/local governments earn less in either equation (STLOEMP = 1 for state/local government workers, 0 otherwise).

An additional factor considered for the analysis is that many reserve force members had active duty experience previously. Prior-service (PS) reserve force members are potentially a different group than non-prior service (NPS) members. They have been screened for active duty tour, have different Reserve contract obligations, and have potentially greater Reserve retirement benefits. A variable for PS experience is added to the regression to control for this (Veteran = 1 for those who served active duty when first entered the military, 0 otherwise). The estimated coefficient for this variable is negative for both enlisted and officer equations. The annual earnings disadvantage for enlisted and officer veterans is about $474 and $775, respectively. From a statistical point of view the effect of PS appears to be relatively small, and in the case of officers the statistical significance is marginal. The negative sign for the veteran variable could be interpreted to imply that civilian income opportunities were greater for NPS reserve force members at the start of their careers, relative to an active duty tour (as opposed to any cause and effect relationship).

In addition to specifying the dependent variable (DV) in terms of actual annual earnings, the natural logarithmic value of earnings is specified as the DV for regression estimation as well. The estimated coefficient for the explanatory variables then represent the <u>percent</u> difference in earnings for a marginal change in a given variable, as opposed to the actual dollar difference in earnings. These results are reported in Tables 2-6 and 2-7. For example, an additional year of education yields an nine percent increase in earnings for either enlisted or officer reserve force members. Reserve participation relates to only one-tenth of one percent less earnings on the enlisted side, but a 9 percent premium on the officer side.

The "adjusted R-Square" is also reported in Tables 2-6 and 2-7. This statistic is defined as the ratio of variation in the dependent variable explained by the regression equation to total variation of the dependent variable. For the type of data which we are analyzing (i.e., cross-sectional survey data), the results for the R-Square are typical. While it appears that much of the total variation in earnings is left unexplained, nearly all of the explanatory variables specified in the regression equation are statistically significant at the 95 percent confidence level or higher. The exception is that veteran (Prior Service) tends to have a weak effect in either the enlisted or officer equation.

Regressions equations were also estimated separately for each of nine major occupational groups for enlisted personnel and six groups for officers. Three occupational dummy variables were added to the multiple regression equations to control for pilots', teachers', and food preparation and service related occupations' effects on earnings. For group 2 (Professionals), a dummy variable for Teachers (1 = Yes, 0 = No) was included in the enlisted and officer equations. It has a negative and significant sign in both equations. Pilots were similarly specified in the regression equation for group 3 (Technicians). The coefficient of the variable for Pilots (1 = Yes, 0 = No) is statistically significant and positive, where, as expected, pilots earn more than the other occupations in the technicians group. Excluding this variable would have resulted in a greater earnings difference between the reserve force member technicians and non-reserve force member technicians. For the same reasons, a dummy variable for food preparation and service occupations (1 = Yes, 0 = No) was added in the regression equation in group 7 for enlisted reserve force members. It has a negative and significant sign. Detailed results for each of the major occupational groups are reported in Appendix A.

Table 2-8 presents the regression results for the Selected Reserve participation variable for each of the major occupation groups. For the enlisted personnel, both the direction and magnitude of the relation between civilian pay and Selected Reserve participation varies widely among the occupation groups. In fact, the result for a given occupation can be much different from all occupations combined, as reported previously in Table 2-6. There is no statistical relation for group 3 (Technicians), a negative relation for groups 1 (Exec/Admin), 2 (Professional), and 4 (Sales), and positive for groups 5 to 9 (Admin Support, Household Service, Service, Production, Industrial). Among the groups with a positive relation, the annual earnings advantage for the enlisted reserve force member varies from a low of $470 for group 8 to a high of $3,705 for group 7. For the officers, the relation is more consistently positive across all six major occupational groups, except for group 1 where there is essentially no difference. The earnings differences are also consistently greater.

Multiple regression equations were also estimated for reserve force members where CPS or non-reserve force member observations are excluded from the equation. Table 2-9 and 2-10 present civilian earnings regression results for enlisted personnel and officers, respectively. Two dummy variables were added in the regression equations. The first variable (ARMY) takes the value of 1 if reserve force member is a member of Army National Guard or Army Reserve, and 0 otherwise. Similarly, the other variable (AIR) takes the value of 1 if reserve force member is a member of Air National Guard or Air Force Reserve, and 0 otherwise. ARMY variable has a negative sign in both enlisted and officer equations, and it is statistically significant. In other words, Army reserve component members earn less in their civilian occupations than the Naval and Coast Guard Reserves. The coefficient for AIR is positive in the officer equation, and negative in the enlisted equation. Officer Air Force reserve component members earn more, while enlisted

earn less, compared to their respective counterparts in the Naval and Coast Guard Reserves. Geographic location may be affecting these results. A predominance of Army Reserve/Guard installations in rural or Southern areas relative to the other Reserve Components, for example, may have some effect on the negative sign of the ARMY variable. Naval installations, in contrast, predominate in coastal areas.

The other variables in the enlisted and officer equations have the expected signs. They are very similar to the regression results of reserve force members and non-reserve force members combined.

TABLE 2-8

RELATION BETWEEN CIVILIAN PAY AND SELECTED RESERVE PARTICIPATION

Enlisted Occupation Group	No. of Observations[1]	Statistical Relation	Annual Pay Difference	Level of Significance
1	2,528	Negative	-$4,839	95%[2]
2	1,351	None	-944	90
3	1,537	None	--	--
4	1,221	Negative	-2,605	95
5	2,020	Positive	1,734	95
6	1,891	Positive	1,991	95
7	810	Positive	3,705	95
8	4,583	Positive	470	90
9	3,764	Positive	1,097	95

Officer Occupation Group	No. of Observations[1]	Statistical Relation	Annual Pay Difference	Level of Significance
1	1,779	None	--	--
2	1,997	Positive	4,154	95
3	413	Positive	2,627	95
4	391	Positive	2,512	90
5	516	Positive	4,594	95
6	335	Positive	4,403	95

[1] Number of observations from Reserve Survey. Number of observations in regression equation which includes CPS records is approximately twice the number shown in this column.
[2] I.e., 95% or greater.

TABLE 2-9

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS

Variable	Actual Earnings[1]		Log (Earnings)[1]	
	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-13,549	-13.44	8.36	248.43
EXP	1,038	24.46	0.05	35.48
EXP2	-15.57	-14.09	-0.0008	-22.31
Education	1,316	24.26	0.05	29.93
Sex	3,148	7.70	0.16	11.50
Marital	1,099	4.60	0.07	9.27
FEDEMP	2,237	7.57	0.12	12.17
STLOEMP	-995	-3.92	-0.02	-1.82
HRWORK	202	16.56	0.007	16.31
Veteran	-1,227	-5.96	-0.04	-6.18
ARMY	-3,033	-12.65	-0.13	-16.76
AIR	-837	-2.88	-0.02	-2.47
Teachers	-1,652	-1.79	-0.07	-2.41
FOODOCC	-5,554	-5.61	-0.35	-10.48
No. of observations:	19,704		19,704	
Adjusted R-Square:	0.162		0.263	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE 2-10

REGRESSION RESULTS FOR CIVILIAN EARNINGS,

OFFICERS

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-55,455	-20.57	8.30	129.83
EXP	1,727	11.88	0.05	14.96
EXP2	-20.71	-5.20	-0.0008	-8.15
Education	3,183	25.11	0.07	23.75
Sex	6,193	7.78	0.16	8.45
Marital	406	0.62	0.03	2.00
FEDEMP	-1,696	-2.41	-0.09	-0.53
STLOEMP	-4,720	-7.27	-0.10	-6.53
HRWORK	401	14.30	0.007	10.43
Veteran	-1,350	-2.76	-0.02	-1.46
ARMY	-3,063	-5.67	-0.09	-7.02
AIR	2,161	2.89	0.03	1.58
Pilots	6,615	5.71	0.17	6.14
Teachers	-3,975	-3.00	-0.07	-2.32
No. of observations:	5,430		5,430	
Adjusted R-Square:	0.281		0.273	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

Figures 2-1 and 2-2 show the civilian earnings profiles of reserve force members and non-reserve force members by years of workforce experience (including military) for enlisted personnel and officers, respectively. These profiles are based on the regression results whereby earnings vary according to the years of experience variable and the other variables are held constant at their mean values. In both figures the earnings profile for non-reserve force members starts out at a higher level, but then later the reserve force member profile crosses over to a higher level. The cross-over for enlisted personnel occurs with about 18 years of experience, while for officers the cross-over is at only twelve years of experience.

FIGURE 2-1

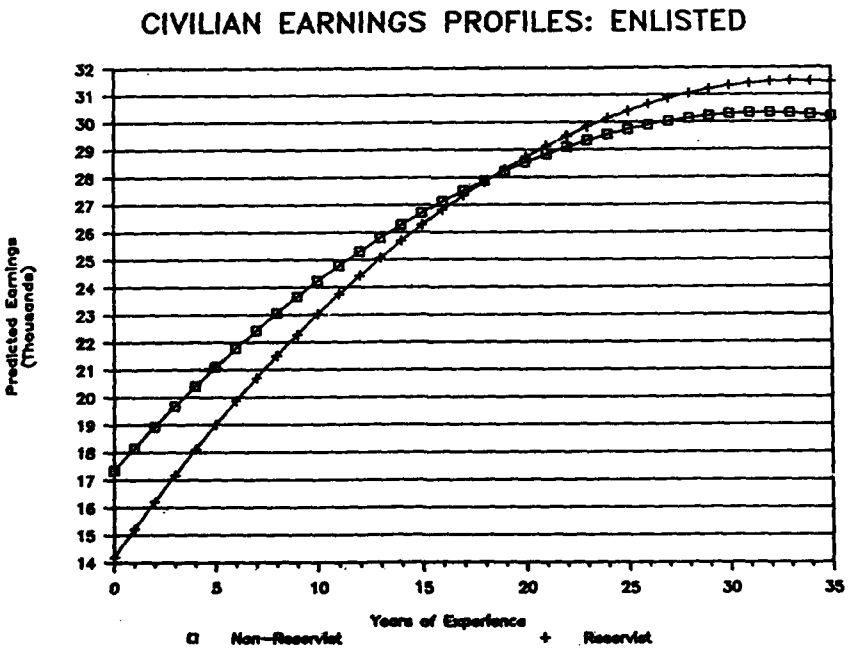
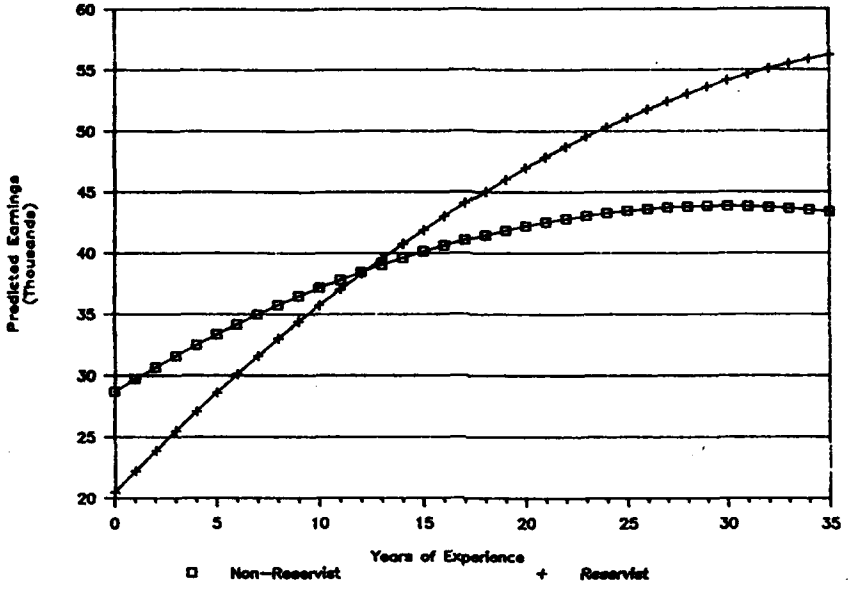


FIGURE 2-2

CIVILIAN EARNINGS PROFILES: OFFICERS



2.3 INTERPRETATION OF RESULTS

How the regression results for civilian earnings can be best interpreted is an important issue for this study. One interpretation of a positive relation between reserve participation and civilian earnings is that the participation enhances one's civilian career. An alternative explanation is that reserve members are superior in ability compared to the general population as represented in the CPS data file. Therefore, their earnings would be higher regardless of Reserve participation. The latter explanation pertains to a selection bias relation, in contrast to a cause and effect relation. Selection bias could also result from Selected Reservists quitting

whose prospective civilian earnings would have been less than their counterparts who stayed in the Selected Reserve longer.

To the best of our knowledge, previous research has not investigated the relation between Guard/Reserve participation and civilian earnings. A number of studies have investigated the effects of active duty military experience on civilian earnings of veterans.[3] Although these studies are not directly relevant to our present study on reserve force members, we review them in the context of the screening issue. Generally, the finding is that veterans earn more than non-veterans after controlling for such variables as years of experience and education. Whether this finding is more a result of cause and effect or a *priori* selection has been much debated in the literature. One study[4], for example, focused on whether the vocational training content of military experience enhances one's productivity in the workforce or alternatively, the military service acts as a screening device for employers to select a higher quality job applicant.

Another study[5] examined the differences between the post-service earnings of military retirees and separatees and the earnings of their comparably aged and educated civilian peers. The latter included Reserve members, National Guardsmen, and others who were screened for military service, including veterans of World War II, the Korean, and Vietnam Wars. The major finding of the study indicates that for officers, military service appears to provide valuable experience which increases post-service earnings relative to the comparison group. In contrast, enlisted personnel face financial disincentives to remaining in military service beyond their fourth year. Officer separatees fare better relative to their civilian

[3] See, e.g., Goldberg, M. and J. Warner, "Military Experience, Civilian Experience, and the Earnings of Veterans," Journal of Human Resources, 22 (Winter 1987): 62-81.
[4] Dubey, D., "Veteran Status as a Screening Device," American Economic Review, 73 (March 1983): 133-142.
[5] Cooper, R., et. al., "Military Retirees' and Separatees' Post-Service Earnings," Coopers and Lybrand, January 1984 (this study was conducted for the 6th QRMC).

peers with each additional year of service through eight years of service. After the eighth year post-service earnings decline relative to the comparison group with each additional year of service through 25 years. Officers who retire from military service earn slightly less than the comparison group.

Also according to the Coopeh (1984) study, enlisted personnel retiring after 20 to 25 years of service earn substantially less than the comparison group. Officers and enlisted personnel working in different military occupations do not fare equally well in the civilian workforce. In general, those with timely and relevant skills fare better in their post-service careers. Military personnel who worked as scientists, engineers, physicians, and dentists earned much more, on average, than individuals in the comparison group in comparable occupations.

In relating Guard/Reserve participation to civilian earnings, various influences could be at work. From the point of view of productivity effects, Guard/Reserve participation can result in skill augmentation/enhancement that impacts favorably on the civilian career. Alternatively, accommodating Guard/Reserve duties with a civilian job results in a productivity loss with the civilian job.

From the point of view of screening effects, one possibility is that reserve members have greater ability than non-reserve individuals with similar work experience, education, and occupation. The individual's status as a Guard/Reserve member may be a "signal" to employers of the individual's superior job capabilities. An alternative screening hypothesis is that retention rates in the Guard/Reserve are higher, on average, for members who fare better in their civilian jobs than other members. In particular, younger members who find it difficult to accommodate their Guard or Reserve duties with their civilian jobs and/or do not have employer support may tend to "self-select" themselves out of the Selected

Reserves. A changing mix of the Reserve population could also be affected by reserve force members who leave the Guard/Reserve who have relatively less ability than those who stay. Most organizations tend to "weed out" less capable or adaptive members.

The empirical results in this study, overall, point to a civilian earnings premium for the Guard/Reserve member. Skill augmentation/enhancement may be one factor, although there is no evidence to suggest that it is predominant. In our analysis of the member's intent to stay (see Section 5) obtaining training that affects a civilian job has only a small marginal impact on retention.

We believe that selection bias where the reserve force member is more able than the general population is particularly strong in the civilian earnings results for officers, particularly for occupations where the earnings difference is very large. The selection bias is likely less for enlisted personnel for occupations where the reserve force members more closely represent the talents of the general population. In the case of occupation group 1 (executive, administrative, and managerial occupations), the selection bias for enlisted members is likely to be opposite from that for officers, i.e., non-reserve force members in group 1 are more able than the enlisted reserve force members in this group.

The study's empirical analysis reveals, more specifically, a cross-over point where the average member achieves a civilian earnings premium after a number of years of workforce experience (refer back to Figures 2-1 and 2-2). This result supports the argument that the selection bias stems from a "weeding out" phenomenon. That is, older or more experienced individuals in the Guard/Reserve are more adaptive to combining civilian and military careers and generally more successful in either career.

A corollary hypothesis in the context of a weeding phenomenon could be that Guard/Reserve members who do not have good employer support tend to leave relatively sooner. The lack of employer support affects their civilian earnings. Results in Section 5 of this report suggest that employer support does affect retention decisions but other factors such as retirement benefits, patriotism, and educational benefits are more important.

SECTION 3

EMPLOYER SUPPORT

Employer support for employee participation in the Selected Reserves is a critical factor to attract and retain personnel. One positive measure of employer support is the extent to which they supplement military pay for employee time off to fulfill Selected Reserve obligations. A negative measure is the number of employees who must use their vacation time instead of being granted additional leave time for these duties. Management attitude is another important attribute of employer support. One specific measure available from the Reserve survey is how favorable is the attitude of the reserve force member's civilian supervisor. Other attitude measures pertain to the degree to which employee absences for reserve force duties constitute a problem for the employer.

3.1 SUPPLEMENTAL CIVILIAN PAY/LEAVE: OVERALL COMPARISONS

Four sources of data were available to this study pertaining to civilian pay/leave which supplements military pay for employee time-off for reserve force duties:

- o 1986 Reserve Components surveys (reporting results for 1985);
- o 1986 Bureau of Labor Statistics' (BLS) survey of employee benefits in medium and large firms;
- o 1987 Hay/Huggins benefits survey (reportings results for 1986); and,
- o Syllogistics informal survey of 27 large companies (as of October 1987).

The Hay/Huggins benefits survey is part of a larger Hay compensation survey of over 900 medium and large companies. The companies are clients of Hay, and many of them are Fortune 500 corporations. The Syllogistics survey is based on informal telephone interviews of personnel or compensation directors at 27 large, prominently known companies.

Significant differences exist among the three sources of data, and therefore, differences in results should not be unexpected. The number and types of respondents vary widely among the three surveys. The respondents for the BLS, Hay/Huggins, and Syllogistics surveys were the *employers*, whereas in the Reserve surveys the respondents were the *employees*. The survey questions vary as well. The questions in the Hay/Huggins and Syllogistics survey pertain to the two-week annual training, whereas in the Reserve Component Survey the questions pertain to all Selected Reserve obligations.

Table 3-1 shows the percent of respondents in each survey reporting full, part, or no civilian pay for reserve duty. The overall indication is that a majority of reserve force members receive at least part civilian pay for their time off from civilian jobs to perform reserve force duties. Thirty-four percent of officers reported no paid military leave, which is identical to the respective percent in the BLS survey.

Among the other surveys or categories of employees, there are wide differences. One factor hampering comparability among the surveys is that multiple responses from the same respondent are allowed in the Reserve Component Survey whereas in the other three surveys responses are mutually exclusive. A respondent, for instance, could mark or indicate a "no pay" response, thinking of weekend drills, but mark "part pay" as well, thinking of annual training.

TABLE 3-1

PERCENT OF RESPONDENTS REPORTING CIVILIAN PAID TIME OFF FOR SELECTED RESERVE DUTY

	FULL PAY	PART PAY	NO PAY
Enlisted Reserve Survey[1]	25.3%	15.4%	50.1%
Officer Reserve Survey[1]	45.9	17.0	34.0
BLS Survey[2]	NA	NA	34.0
Syllogistics Survey	3.7	88.9	7.4
Hay/Huggins Survey			
Firms with 500+ Employees	14.0	66.0	17.0
Firms with less than 500	20.0	52.0	18.0

[1] In the RC Survey questionnaire, the respondent is directed to "mark all that apply" or "does not apply, I was self-employed." Results in this table pertain to employees working full-time.
[2] Source: BLS Bulletin 2281, Employee Benefits in Medium and Large Firms, 1986.

3.2 RESERVE SURVEY RESULTS ON SUPPLEMENTAL CIVILIAN PAY/LEAVE

Further insights can be gained into the Reserve Component Survey by analyzing more detailed categories. Table 3-2 shows the percent of reserve force members who received supplemental civilian pay for reserve duty, by each grade category. The table shows that lower grade personnel (hence, younger) tend to get less supplemental pay. The lower grade personnel are likely to have less tenure in their civilian jobs and less benefits, including employer financial support for reserve force member time off. In the Syllogistics survey there is an indication that if there were recent changes in company policy, they tended to reduce benefits for employees with less tenure.

TABLE 3-2

CIVILIAN PAID TIME-OFF, BY GRADE CATEGORY

Enlisted Working Full-Time	Full Civilian Pay	Part Civilian Pay	Military Pay Only
E1-E4	18%	12%	59%
E5-E6	36	20	40
E7-E9	49	24	27
Officer Working Full-Time			
W1-W4	47	21	33
01-03	39	18	41
04-06	52	19	28

Source: Question 107 in the 1986 RC Survey.

Table 3-3 reveals the incidence of supplemental civilian pay by each type of employer for reserve force members who work full-time. An anomaly of the attitudinal survey is that nearly 100 percent of the reserve force members who hold federal civilian jobs should indicate that they receive full civilian pay while performing their two week active duty training. The results for this category are less than 100 percent in Table 3-4, particularly for enlisted reserve force members[1]. Hence, we could expect underreporting of supplemental civilian pay for other categories of employers. The overall patterns, however, are likely to be still valid. In particular, the percent of reserve force members working in federal, state, or local government who receive full civilian pay is much higher than it is for

[1] On the other hand, the reserve force member may take less than full leave as a matter of routine practice in some of the law enforcement agencies (e.g., Federal Bureau of Investigation).

reserve force members who work for private firms. The percent of reserve force members working for the largest private firms (500 or more employees) who receive at least supplemental pay is higher than it is for smaller firms. These results help to explain part of the wide disparity of results among the three surveys reported in Table 3-1. Undoubtedly, type of respondent and reporting anomalies would account for differences as well.

TABLE 3-3

CIVILIAN PAID TIME OFF, BY TYPE OF EMPLOYER

Enlisted Working Full-Time	Full Civilian Pay	Part Civilian Pay	Military Pay Only
Federal government	72.5%	5.9%	15.3%
State/Local government	65.3	8.0	17.6
Private firm with 500+ employees	10.0	35.3	48.6
Private firm with 100-499 employees	8.7	16.1	65.5
Private firm with under 100 employees	8.6	7.4	69.1
Overall	27.8	17.0	45.9

Officer Working Full-Time	Full Civilian Pay	Part Civilian Pay	Military Pay Only
Federal government	89.0	2.7	12.9
State/Local government	73.7	6.7	18.2
Private firm with 500+ employees	22.5	33.2	42.9
Private firm with 100-499 employees	30.4	19.1	45.5
Private firm with under 100 employees	32.9	9.6	43.3
Overall	47.6	17.7	32.4

Source: Question 107 in the 1986 RC Survey.

Additional leave or leave of absence time granted by employers for reserve force members to perform their Selected Reserve duties is another barometer of employer support. Table 3-4 reports the percent of reserve force members who

received "military leave/leave of absence" from their civilian job for each type of civilian employer. Employer support for additional leave to perform reserve duties is more prevalent with government employers than it is for private firms, which is similar to the respective pattern for supplemental civilian pay. In contrast to supplemental civilian pay, the disparity for leave support between government and private firms is much less. The occurrence of leave support is greater among the larger private firms than among the smaller size firms.

TABLE 3-4

LEAVE TIME FOR RESERVE DUTIES, BY TYPE OF EMPLOYER

Enlisted Working Full-Time	Received Military Leave/Leave of Absence	Used Vacation Days
Federal government	82.8%	23.2%
State/Local government	76.7	21.4
Private firm with 500+ employees	73.5	20.8
Private firm with 100-499 employees	65.5	19.1
Private firm with under 100 employees	51.7	21.2
Overall	68.9	21.1

Officer Working Full-Time	Received Military Leave/Leave of Absence	Used Vacation Days
Federal government	93.7	39.5
State/Local government	83.1	32.6
Private firm with 500+ employees	72.8	43.0
Private firm with 100-499 employees	68.0	37.5
Private firm with under 100 employees	51.2	37.7
Overall	75.7	38.8

Source: Question 106 in the 1986 RC Survey.

3.3 HAY/HUGGINS SURVEY RESULTS ON SUPPLEMENTAL CIVILIAN PAY

The Hay/Huggins 1986 survey of their clients includes questions on employer practice concerning reserve duty. These results are reported in Table 3-5. The most prevalent supplement for both two-weeks of annual active duty training and for short-term active duty is to provide salary less military pay. The second most prevalent practice is to provide full salary. Seven percent of small employers and two percent of large employers do not have a policy regarding supplemental pay for either training or short-term active duty. Employers are much less likely to supplement short-term active duty than they are to supplement annual active duty training. While only 18 percent of small employers do not supplement pay for annual active duty training, 41 percent of these same organizations do not supplement short-term active duty. For large employers, 17 percent do not supplement annual active duty training but 39 percent do not supplement short-term active duty. Short-term active duty for reserve force members, though, occurs rarely.

Provision of full salary for annual active duty training is more prevalent among small employers (20%) than it is for large employers (14%). Provision of full salary less military pay is more prevalent for large employers (59%) than for small employers (42%). This same result holds for short-term active duty. In the area of long-term active duty, only a few employers supplement pay (3 percent of large employers and 5 percent of small employers).

Many employers do not have a policy regarding supplemental pay. This may be related to the infrequency with which employers are confronted by the need to have such a policy, particularly in the area of supplemental pay for long-term active duty.

TABLE 3-5

PREVALENCE OF EMPLOYER PRACTICE CONCERNING RESERVE DUTY[1]

		1 to 500 Domestic Employees	500 or more Domestic Employees
A.	Prevalence of supplemental pay for two-weeks of military training		
	1. Pay salary less military pay	42%	59%
	2. Pay full salary	20	14
	3. Provide the employee with a choice of either salary less military pay or vacation	10	7
	4. Do not supplement pay	18	17
	5. Provide some other supplement	3	2
	6. Do not have a policy	7	2
	TOTAL	100	100
B.	Prevalence of supplemental pay for short-term active duty[2] (emergency call-up)		
	1. Pay salary less military pay	37%	47%
	2. Pay full salary	14	10
	3. Provide some other supplement	2	2
	4. Do not supplement pay	41	39
	5. Do not have a policy	7	2
	TOTAL	100	100
C.	Prevalence of supplemental pay for long-term active duty[2]		
	1. Do not supplement pay	63%	81%
	2. Supplement pay	3	5
	3. Do not have a policy	34	14
	TOTAL	100	100

[1] Source: Hay/Huggins benefits survey of clients.

[2] The "short-term" and "long-term" active duty terms were used in the Hay/Huggins benefits questionnaire and were not defined any further. Their interpretation was left up to the respondent.

In order to investigate the relationship between employer practice concerning supplemental pay for two weeks of training and the actuarial dollar value of civilian employer-provided benefits, the companies in the Hay/Huggins survey were divided into the following categories:

1. Employers who do not supplement pay;
2. Employers who provide full civilian salary; and
3. Employers who supplement pay but do not provide full civilian salary.

The average dollar value of non-salary benefits was calculated for each category by base salary level in increments of $10,000. The result of this analysis is presented in Figure 3-1. The value of the benefits provided by employers does not seem to be strongly related to their policy regarding supplemental pay for military training. There is some tendency for firms with lower benefits in general to offer no supplemental pay for reserve duty as well. (Calculation of benefit values is discussed in Section 4.)

3.4 SURVEY OF LEADING COMPANIES ON DIRECTION OF EMPLOYER PAY/LEAVE POLICY

In addition to the 1986 Reserve Components and Hay/Huggins surveys, it was also thought highly relevant to track the past, current, and future direction of civilian employer pay/leave policy. To accomplish this, Syllogistics commissioned David A. Weeks & Associates to interview the personnel vice president or compensation director of each of 27 leading corporations. These interviews sought to determine the main features of the firms' time off with pay policies and then to query the subjects on the evolution and direction of that policy.

FIGURE 3-1

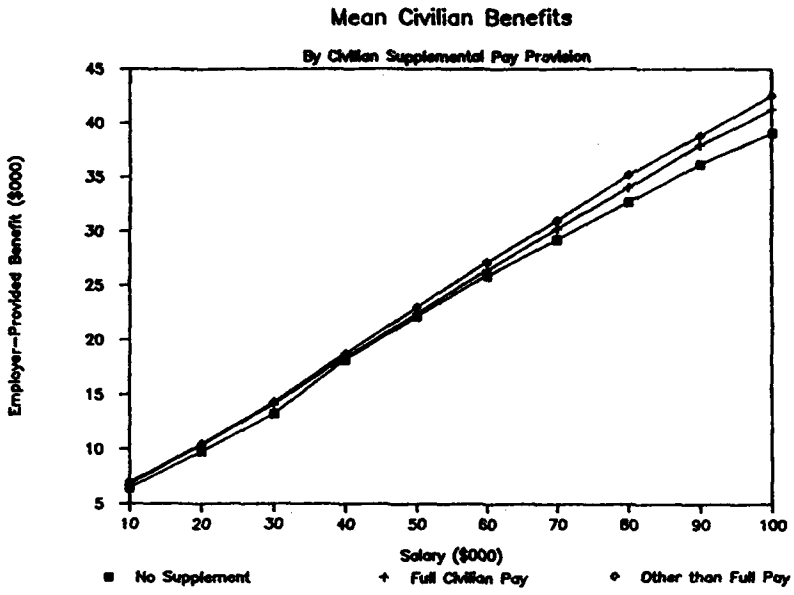


Table 3-6 lists the companies in the survey. Of the 27 selected companies, 20 are in the industrial sector and 7 are the services sector. Fifteen are predominantly unionized, while 12 are non-union. All the firms are very large and were selected because they have a history of liberal employee benefits policies. They are leading firms in computers, pharmaceuticals, aerospace, food, communications and services. Two are utilities.

TABLE 3-6

COMPANIES SURVEYED BY SYLLOGISTICS

Aeroject General Corp.
Aetna Life & Casualty Company
American Cyanamid Company
ARA Services, Inc.
AT&T
Bristol Myers Company
Burrough Corp.
Ciba Geigy Corp.
Comburstion Engineering
Coopers & Lybrand
Digital Equipment
Emery Worldwide
Florida Light & Power Company
General Electric Company
General Mills, Inc.
IBM Corp.
Johnson & Johnson, Inc.
Thomas J. Lipton, Inc.
Martin Marietta Aerospace
Miliken & Company
Owens Illinois, Inc.
Pacific Gas & Electric Company
Sandoz, Inc.
A.O. Smith Corp.
TRW, Inc.
Warner-Lambert
Westinghouse-Lambert
Westinghouse Electric Corp.

CURRENT POLICY

Current policies with regard to time off for military leave are as follows:

- Twenty-five firms grant time off in addition to vacation.
- Two firms require that military leave include vacation.
- Twenty-four firms paid the difference between regular straight time pay and military pay for the period granted for reserve duty.
- Two firms paid for no time unless military leave and paid vacation ran concurrently.
- One company gave full pay in addition to military pay for only the first week of leave. The second week is unpaid time off.

Eighteen of the 27 companies reported no real change in their policies and practices in this area since the end of the draft. Union demand for increased time off with pay have not been a keystone bargaining issue in the last decade. Many firms felt that they had done enough in this area for both white- and blue-collar employees.

Nine companies reported that they had revised their policies since the end of the draft. In most of these companies, the standard benefit is to grant time off for two-week annual training and provide salary less military pay. Some of the companies which made a change initiated the review because their policies were unclear on payment and time off for National Guardsmen involved in civil emergencies; a few had more liberal benefit limits for one group of employees or another, and they wanted to scale these back to the "core" level.

No policy distinctions were reported between men and women. None were reported between male and female employees, or among the different Reserve Components. The leave policies are the same for officers and enlisted ranks, but companies did report that upper middle managers who are also senior officers in the reserve are given additional informal consideration in taking time off for military duty in addition to annual active duty for training with their units.

When queried about top management attitudes toward employee participation in the reserve components now that there is no draft obligation, 20 of the personnel directors characterized their companies' stances as neutral. Five of the firms stated that their corporations maintain a very positive attitude toward employees (particularly managers) who are career reserve force members. Two personnel directors characterized their attitudes toward reserve service as somewhat negative.

DIRECTION OF POLICY

The basic policy of providing pay equal to the difference between normal pay and military pay for annual active duty training continues in large corporations. Most of the companies have looked at their policies every few years and see little reason to change. "The cost of the policy is declining by itself," said one vice president. "Fewer of our employees are involved with the reserve than was the case when the draft was in place." Others said, "We do not know the consequences of cutting down such payments." A few of these executives referred to potential negative morale impacts of a cutback in this benefit, and some are concerned about the potential negative effects their lack of support might have on their ability to be considered for government contracts.

Concern may be well-founded that practices in this area are about to be reconsidered by major companies. The David A. Weeks & Associates' survey encountered two other recent confidential surveys in the field. One was among leading companies in the insurance and financial services area[2], the other among Fortune 50 large firms. These surveys show some renewed interest in reducing benefit costs for reserve force members. Where companies have indicated the direction of change in policy, it is toward paying for only one-week of the annual two-week training time at full pay and requiring employees to take paid vacation time or unpaid military leave for the other week. The reason for the cutback to one full week's pay by several of the insurance companies seems to relate to a desire to cut the administrative burden as well as costs. In the other survey, the only change reported seems to result from a desire to make policies more uniform across company units.

Three facts about these reported changes in policy are noteworthy: First is the fact that all of the companies who are involved in changing policy are in the service industries -- communication, insurance and finance. Second is the fact that the new levels of benefit are about half what the former level was. Third is the evidence from the new policies that some of the companies are diminishing benefits radically for employees with less than a year or two of company service, while continuing the full benefit for those with over two years.

The thinking at AT&T does not seem to follow the rationale of the insurance group in Hartford, CT. Changes (all reductions of a day or two) at AT&T are due to an effort by the company to harmonize differing provisions in union contracts in effect in the three major new divisions of the company.

[2] Companies in this survey included: Cigna Companies; Connecticut Bank and Trust; Hartford Fire; Marine and Casualty Company; Phoenix Mutual Company; and the Travellers Insurance Company.

Companies with strong Defense Department ties are more likely to continue liberal policies in reserve force member benefits. In half a dozen companies, the fact that top management contained several retired general officers was cited as a policy influence. Almost a dozen companies mentioned the fact that they felt a "responsibility" to continue their policies of supporting the reserve components. Some connected this rationale to the high profile of their companies as "patriotic citizens." Others connected it to their responsibility as managers not to jeopardize government contract business prospects.

One cannot generalize these results too far beyond the limited sample. The sample in the survey is very small, and the companies are very large. The survey does reveal the current thinking of employee policy makers in selected companies that might be viewed as being on the "leading edge" of new developments.

3.5 ATTITUDINAL SUPPORT

The employer's attitude toward his employees' Selected Reserve participation is an important factor affecting the members' decisions to stay in the Selected Reserves. As shown in Section 5 of this report, this factor can be just as important as employer compensation or leave support.

One measure of employer attitudinal support is the member's civilian supervisor's overall attitude toward Selected Reserve participation. The possible responses range from "very favorable" with a code value of one to "very unfavorable" with a code value of 5. When evaluating the statistical means of survey item responses, one should consider that larger mean values imply less favorable attitudes.

Table 3-7 reports mean values of supervisor attitude by type of employer and pay grade category. In the aggregate, the civilian supervisors' attitudes are "somewhat favorable," but leaning more towards "neither favorable nor unfavorable" than towards "very favorable."[3] The overall means of supervisor attitude for enlisted and officer reserve force members are very similar. Supervisor attitude is rated highest by survey respondents who work within the federal government and better at higher enlisted and officer grade levels. Attitude varies little among private firms in different size categories.

TABLE 3-7

MEAN VALUES OF CIVILIAN SUPERVISOR ATTITUDE TOWARD EMPLOYEE PARTICIPATION IN THE SELECTED RESERVE[1]

	Enlisted	Officer
Type of Employer		
Federal government	2.15	2.11
State/Local government	2.26	2.32
Private firm with 500+ Employees	2.31	2.34
Private firm with 100-499 Employees	2.32	2.38
Private firm with under 100 Employees	2.31	2.31
Pay Grade Category		
E1-E4	2.28	--
E5-E6	2.30	--
E7-E9	2.24	--
W1-W4	--	2.40
01-03	--	2.36
04-06	--	2.22
Overall	2.27	2.30

Source: Question 94 in the 1986 RC Survey.

[1] Mean values are presented in this table based on the following scale: 1 = very favorable, 2 = somewhat favorable, 3 = neither favorable nor unfavorable, 4 = somewhat unfavorable, 5 = very unfavorable.

[3] The question on the civilian supervisor's attitude is "what is your immediate (main) civilian supervisor's overall attitude toward your participation in the Guard/Reserve?"

Another measure of employer support is how much of a problem there is for the employer when the member is absent for Selected Reserve duty. Possible survey responses range from "serious problem" (code value is 1) to "not a problem" (code value is 4). Table 3-8 reports mean values of survey responses concerning employer attitudes towards four different types of absence. The aggregate attitude is that being absent from the civilian job for Selected Reserve activities presents only a "slight problem" for the employer. Absence for annual active duty training presents somewhat of a worse problem than time away for other activities, and absence for weekend drills tends to be the least problematical. Employer attitudes about absences tend to be less problematical for enlisted reserve force members than for officers. These results are reflected in the percent distribution figures as well, as shown in Table 3-9.

TABLE 3-8

MEAN VALUES OF EMPLOYER PROBLEM CONCERNING EMPLOYEE ABSENCES FOR SELECTED RESERVE TIME[1]

Type of Absence	Enlisted	Officer
Absence for Weekend Drills	3.47	3.51
Absence for Annual Training	3.07	2.85
Absence for Extra Time	3.11	2.96
Time spent at work on Selected Reserve Business	3.31	3.12

Source: Question 95 in the 1986 RC Survey.

[1] Mean values are presented in this table based on the following scale: 1 = serious problem, 2 = somewhat of a problem, 3 = slight problem, 4 = not a problem.

TABLE 3-9

PERCENT DISTRIBUTION OF EMPLOYER PROBLEM CONCERNING

EMPLOYEE ABSENCES FOR SELECTED RESERVE TIME

Enlisted	Serious Problem	Somewhat of a Problem	Slight Problem	Not a Problem
Absence for Weekend Drills	3.4%	11.6%	19.8%	65.2%
Absence for Annual Training	8.4	21.1	25.2	45.2
Absence for Extra Time	9.6	17.6	24.7	48.2
Time Spent at work on Selected Reserve Business	8.4	12.3	19.6	59.8
Officer				
Absence for Weekend Drills	1.8	11.9	19.8	66.5
Absence for Annual Training	7.9	29.0	33.4	29.6
Absence for Extra Time	9.2	22.4	31.7	26.7
Time Spent at work on Selected Reserve Business	9.5	15.7	28.3	46.4

Source: Question 95 in the 1986 RC Survey.

SECTION 4

BENEFITS AND TOTAL COMPENSATION ANALYSIS

Section 4 describes Selected Reserve benefits, both potential and actual, for reserve force members fulfilling their duty obligations. It reports their level of satisfaction with benefits, including Selected Reserve pay, and analyzes the dollar value of benefits which can be valued in monetary terms. In order to provide a complete compensation picture, Section 4 reports the dollar value of benefits provided by civilian employers as well and then totals up all the components of pay and benefits to obtain estimates of total compensation.

4.1 DESCRIPTION OF RESERVE BENEFITS

Reserve force members receive pay and other benefits from the Department of Defense for performing their Reserve Force Component obligations. The more significant benefits include: commissary and exchange privileges, health benefits, educational benefits, and state benefits. The benefit of greatest value, by far, is the retirement one; it is discussed in more detail in Section 4.4 (Actuarial Value of Reserve Benefits). State benefits typically include educational benefits and state income tax breaks as well as other kinds of benefits. The more significant benefits are discussed in more detail as follow:

EXCHANGE AND COMMISSARY PRIVILEGES FOR MEMBERS OF THE RESERVES/GUARD

Members of the National Guard and Reserve and their families may purchase food and other items at military commissaries at any time during the year but not to exceed 14 days annually. Members of both the Reserves and National Guard serving on active duty or active duty for training may use PX or other exchange facilities, and their families have direct access to PX catalog order

facilities. Reserve force members who serve in inactive duty training status, either in pay or non-pay status, are entitled to use PX or other exchange facilities, based on the formula of one day of shopping for one drill. Spouses and/or other dependents are entitled to accompany a reserve force member into a PX and are entitled to unaccompanied exchange shopping in certain cases.

In the most recent market survey on a market basket of 350 items sold by exchanges, there was a savings of 24 percent for at least 90 percent of the time. Savings on commissary purchases currently provide a benefit of about 25 percent as well.[1]

MILITARY HEALTH BENEFITS

Reserve force members are entitled to medical and hospital care for *disease* or *injury* incurred or aggravated while serving on active duty or in active duty for training.

The medical and dental care benefits of the retired members of the Reserve Components drawing pay after age 60 are subject to the availability of space in any facility of any uniformed service and the capabilities of the medical and dental staff. They also may obtain medical and dental care for non-service-connected disabilities in Veterans Administration facilities, again subject to the availability of space.

If medical care is not available at a military facility, certain categories of people may use the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), including: all members of the reserve forces who are serving on active duty or active duty for training under orders that do not specify a

[1] Sources: HQ, Army, Air Force Exchange Service, Dallas, Texas, and USAF Fact Sheet 87-32, Air Force Commissary Service, August 1987, respectively.

period of 30 days or less; their dependents; and dependents of the Retired reserve force members who are eligible for retired, retainer, or equivalent pay or who die in such a status are eligible for CHAMPUS benefits. On the other hand, members of the Retired reserve force members who are entitled to receive retired, retainer, or equivalent pay but who are not yet 60 are not eligible for CHAMPUS benefits.

STATE BENEFITS FOR RESERVE FORCE MEMBERS AND NATIONAL GUARDSMEN

In addition to the benefits received from the federal government, National Guard members are also eligible for additional benefits from their individual states. Examples of these benefits, which vary by state are enlistment/reenlistment bonuses, educational scholarships and tuition assistance, state-funded retirement pensions, improved medical benefits, legal assistance, life insurance programs, special license plates, and state tax exemptions. Even for members of the purely Federal Reserve Components , several states offer benefits, mostly in terms of tax considerations, leave entitlements, and tuition waivers, to these personnel.[2]

EDUCATIONAL BENEFITS

The new G.I. Bill, put into effect July 1, 1985 and applicable to the Selected Reserve (not to Individual Ready reserve force members), provides money for undergraduate college education at a rate of $140 per month for full-time school enrollment, $105 per month for three-quarters-time enrollment, and $70 per month for half-time enrollment. The maximum benefit is $5,040.

[2] A more detailed description and analysis of state benefits are presented in: "Summary of State Benefits to Guardsmen and other Reserves," prepared by Computer Based Systems, Inc. for the 6th QRMC. For example, this source reports that 30 states offer Guardsmen tuition assistance for college or vocational/technical schools.

The Services contribute to a trust fund for this program, while the Veterans Administration handles payment to the beneficiaries. According to rough DoD actuary estimates, the trust fund is yielding approximately $100 per year for each eligible member. The Defense Manpower Data Center (DMDC) is developing an education forecast model to provide more accurate estimates for these trust contributions.

Another educational benefit program is the Selected Reserve Loan Repayment. It was first authorized on September 9, 1980 as a one year test to be conducted in Fiscal Year 1981. It is designed to repay designated portions of outstanding educational loans made, insured, or guaranteed under Part B of Title IV of the Higher Education Act of 1965 and Part E of such Act after October 1, 1975. Guaranteed Student Loans (GSL), Federal Insured Student Loan (FISG), Auxiliary Loans to Assist Students (ALAS) and National Direct Student Loans (NDSL) incurred after October 1, 1975 qualify under this program. This incentive is offered only to enlisted personnel who meet specific enlistment criteria and may be paid in addition to any enlistment, reenlistment, or voluntary extension bonus.

The amount that may be repaid on all qualifying loans, when totaled together, is 15 percent of the outstanding loan balance plus annual accrued interest not paid by the Department of Education or $500, whichever is greater, for each year of satisfactory service performed in the Selected Reserves.

The largest user of this program was the Army National Guard followed by the Army Reserve. In FY 1986, 4,314 payments were made to the Guard for a total expenditure of $3,075,928, an average of $713 per payment. During the same period of time, 1,293 payments were made to USAR personnel amounting to $1,337,254 or $1,034 per payment. The only other service that used this program was the Air National Guard. In FY 1986, 1,963 personnel used this program at a

cost of $1,530,155 ($779 per person) in new and anniversary payments. The range of payments made to individuals varies by Service. The Army reported that the minimum annual payment was $500 plus interest up to a maximum of $1,500 plus interest. Data were not available on the number of individuals who qualified for the maximum loan repayment. The Air National Guard, by not limiting loan repayments to a specific enlistment or reenlistment, reported payments ranging from $500 plus interest charges per year to a maximum of $4,500 plus interest.

4.2 ANALYSIS OF RESERVE INCOME AND THE USE OF BENEFITS

Reserve force members receive basic military compensation, based on the joint military pay tables, for inactive duty training (drill), annual active duty for training (14 days), and other active duty. In addition, reserve force members can receive additional pay for special skills or duties, such as Aviation Career Incentive Pay or incentive pay for hazardous duty. Based on the RC Survey, Table 4-1 presents the mean Selected Reserve income from military pay by pay grade group.

A large variety of potential benefits are available for reserve force members[3], but the frequency of use or value is not necessarily great. Some of the benefits are of token value (e.g., special license plates), while others are available only when the member is performing Selected Reserve duties (e.g., Selected Reserve health coverage). Furthermore, data on the use of specific benefits is limited. Information available from the Reserve Components survey is presented below.

[3] These benefits are described in the Reserve Forces Almanac and the National Guard Almanac.

TABLE 4-1

MEAN VALUES OF SELECTED RESERVE INCOME,

BY PAY GRADE CATEGORY

Pay Grade Category	ENLISTED	OFFICERS
E1 - E4	$1,865	--
E5 - E6	2,874	--
E7 - E9	4,351	--
W1 - W4	--	$6,366
01 - 03	--	5,870
04 - 07	--	8,700

Source: Question 36 in the 1986 RC Survey. Question 36 states: "For all of 1985, what was your total Guard/Reserve income BEFORE taxes and deductions?"

Table 4-2 displays the average amounts of exchange and commissary spending reported by survey respondents, by pay grade and whether or not the survey respondent answered yes to the question: "Did you participate in the 1984-1985 Selected Reserve Commissary Test (conducted in the Los Angeles, San Antonio, New England areas from 1 January 1984 to 30 September 1985)?" As one might expect, spending is greater by those at higher grade levels and those who participated in the commissary test. Even exchange spending was higher if the reserve force member participated in the commissary test, suggesting that a greater

TABLE 4-2

EXCHANGE AND COMMISSARY SPENDING

	Participated In Commissary Test		Did Not Participate	
	Amount Spent In Military Exchanges	Amount Spent In Commissaries	Amount Spent In Military Exchanges	Amount Spent In Commissaries
Enlisted				
E1 to E4	$264	$315	$142	$ 69
E5 to E6	429	535	205	100
E7 to E9	547	615	312	149
Officer				
W1 to W4	527	652	336	155
01 to 03	412	502	296	161
04 to 06	607	483	414	176

Source: Questions 38 and 39 in 1986 RC Survey.

awareness of the opportunity and the proximity of many exchanges to the commissaries will lead to greater use. It can be noted that commissary privileges used in the test were provided to all reserve force members, starting in 1987.

Table 4-3 reports: (1) the percent of reserve force members who are eligible for educational benefits, and (2) the percent of the eligibles who are currently using the benefit, by program category. The data in Table 4-3 reflect a higher level of use of educational benefits by enlisted personnel than by officers. Two-thirds of the enlisted respondents indicated that they are currently eligible for educational benefits, whereas the respective proportion for officers is less than one-half. Approximately 30 percent of the eligible enlisted are currently using an additional benefit, compared to 23 percent for officers. Among officers, both the

rate of eligibility and use of state educational benefits are greater than for the Selected Reserve G.I. Bill. In the case of enlisted, eligibility and use is somewhat higher for the Selected Reserve G.I. Bill.

TABLE 4-3

EDUCATIONAL BENEFITS: ELIGIBILITY AND USE

	Enlisted	Officers
Eligible for State Educational Benefits	26.3%	22.2%
Eligible for Selected Reserve G.I. Bill	29.8	16.7
Eligible for Active Force Benefits (VEAP[1], G.I. Bill)	18.3	37.9
Not Eligible for Educational Benefits	33.0	53.7
Now Using State Educational Benefits[2]	11.2	7.6
Now Using Selected Reserve G.I. Bill[2]	12.3	5.3
Now Using Active Force Benefits[2] (VEAP[1], G.I. Bill)	10.2	12.0
Not Now Using Educational Benefits (of those eligible)	70.1	76.7

1 Veterans Educational Assistance Program.

2 For those currently eligible for the respective benefit.

Source: Questions 40 and 41 in the 1986 RC Survey.

4.3 SATISFACTION WITH RESERVE BENEFITS

In the 1986 RC Survey, respondents were asked to "indicate your level of satisfaction" with various features of the Selected Reserve. How "satisfaction" is defined is the respondent's own interpretation. Satisfaction levels of enlisted personnel and officers with various pecuniary and non-pecuniary benefits of the Selected Reserve are presented in Tables 4-4 to 4-6. For comparison purposes, features of the Selected Reserve program other than benefits are presented as well. Certain patterns are evident from Tables 4-4 to 4-6:

- Satisfaction levels of officers are greater than of enlisted personnel;

- The level of satisfaction with commissary privileges is lower than it is for any of the other selected features for both enlisted personnel and officers (since the survey there has been a significant increase in these benefits for reserve force members);

- Satisfaction levels with pay and benefits are greater for higher grade personnel;

- Satisfaction levels with pay and benefits and participation in the Selected Reserve are greater for reserve force members working for federal or state/local government relative to the private sector.

- Satisfaction levels with pay/benefits and participation in the Selected Reserve are greatest with the Air National Guard and least with the Marine Corps Reserve (reflecting, in part, age/seniority differences in one Reserve Component versus another).

TABLE 4-4

LEVEL OF SATISFACTION WITH SELECTED FEATURES OF SELECTED RESERVE PARTICIPATION[1]

	ENLISTED	OFFICER
Acquaintances/friendships	4.13	4.31
Opportunity to serve one's country	4.07	4.25
Time required at Selected Reserve activities	3.59	3.50
Military Pay and Allowances	3.56	4.02
Military Retirement Benefits	3.32	3.47
Opportunities for education/ training	3.30	3.30
Unit social activities	3.18	3.31
Other Military Privileges (e.g., exchange, space-available travel)	3.13	3.13
Commissary Privileges	2.74	2.41

[1] Means values are based on the scale of 1 = very dissatisfied, 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied, and 5 = very satisfied. Results are based on Question 123 of the RC Survey, but responses were recoded so that higher levels of satisfaction are associated with higher code values.

TABLE 4-5

LEVEL OF OVERALL SATISFACTION WITH MILITARY PAY/BENEFITS AND PARTICIPATION IN SELECTED RESERVE, BY SELECTED VARIABLES[1]

	SATISFACTION WITH PAY/BENEFITS		SATISFACTION WITH PARTICIPATION	
	ENLISTED	OFFICERS	ENLISTED	OFFICERS
Pay Grade				
E1 - E4	4.42	--		
E5 - E6	4.73	--	5.27	--
E7 - E9	4.87	--	5.57	--
W1 - W4	--	4.77	--	5.44
01 - 03	--	4.89	--	5.27
04 - 07	--	5.14	--	5.49
Type of Employer				
Federal Government	4.60	5.05	5.20	5.39
State/Local Govt.	4.61	5.05	5.18	5.44
Private firm w/500+ employees	4.55	4.85		5.24
Private firm w/100-499 employees	4.61	5.00	5.12	5.36
Private firm w/under 100 employees	4.58	5.04	5.12	5.38
Reserve Component				
Army National Guard	4.59	4.98	5.15	5.39
Army Reserve	4.52	4.82	5.11	5.26
Naval Reserve	4.62	5.15	5.03	5.41
Marine Corps Reserve	4.24	5.17	4.98	5.67
Air National Guard	4.83	5.23	5.31	5.60
Air Force Reserve	4.66	4.93	5.26	5.34
Coast Guard Reserve	4.67	5.01	5.11	5.51
Occupation				
1	4.61	5.05	5.15	5.44
2	4.54	4.99	5.10	5.35
3	4.57	4.78	5.08	5.18
4	4.63	5.04	5.09	5.48
5	4.64	4.84	5.10	5.29
6	4.48	4.98		5.41
7	4.71	--	5.18	--
8	4.59	--	5.22	--
9	4.62	--	5.18	--
OVERALL	4.59	4.98	5.14	5.37

[1] Means values are presented based on a scale which ranges from 1 = Very dissatisfied to 7 = Very satisfied in Questions 124 and 125 of the 1986 RC Survey.

TABLE 4-6

LEVEL OF OVERALL SATISFACTION WITH MILITARY RETIREMENT BENEFITS AND OPPORTUNITIES FOR EDUCATION/TRAINING, BY SELECTED VARIABLES[1]

	SATISFACTION WITH RETIREMENT/BENEFITS		SATISFACTION WITH OPPORTUNITIES FOR EDUCATION/TRAINING	
	ENLISTED	OFFICERS	ENLISTED	OFFICERS
Pay Grade				
E1 - E4	3.35	--	3.31	--
E5 - E6	3.30	--	3.29	--
E7 - E9	3.23	--	3.28	--
W1 - W4	--	3.33	--	3.30
01 - 03	--	3.39	--	3.25
04 - 07	--	3.59	--	3.36
Type of Employer				
Federal Government	3.27	3.50	3.25	3.28
State/Local Govt.	3.30	3.48	3.24	3.31
Private firm w/500+ employees	3.29	3.44	3.26	3.26
Private firm w/100-499 employees	3.34	3.53	3.30	3.27
Private firm w/under 100 employees	3.32	3.46	3.32	3.30
Reserve Component				
Army National Guard	3.33	3.36	3.41	3.43
Army Reserve	3.33	3.47	3.21	3.24
Naval Reserve	3.33	3.65	3.08	3.22
Marine Corps Reserve	3.15	3.46	3.01	3.23
Air National Guard	3.34	3.48	3.49	3.36
Air Force Reserve	3.19	3.33	3.26	3.26
Coast Guard Reserve	3.33	3.56	3.06	3.13
Occupation				
1	3.27	3.55	3.17	3.31
2	3.28	3.49	3.11	3.26
3	3.24	3.26	3.15	3.27
4	3.33	3.46	3.35	3.41
5	3.32	3.36	3.27	3.30
6	3.23	3.35	3.20	3.38
7	3.41	--	3.39	--
8	3.26	--	3.32	--
9	3.36	--	3.36	--
OVERALL	3.32	3.47	3.30	3.30

[1] Means values are based on the scale of 1 = very dissatisfied, 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied, and 5 = very satisfied. Results are based on Question 123 of the RC Survey, but responses were recoded so that higher levels of satisfaction are associated with higher code values.

4.4 ACTUARIAL VALUE OF RESERVE BENEFITS

Hay/Huggins Company, the benefits and actuarial consulting division of the Hay Group, calculated the actuarial dollar value of Selected Reserve benefits and benefits provided by their civilian employers. In particular, the Hay/Huggins Benefits Value Comparison (BVC) is used to perform a quantitative analysis of the value of the benefits provided by an employer. The unit of measure is: (a) the rate of expected use of a benefit, multiplied times (b) the expected value of the benefit, multiplied times (c) the duration of receipt of the benefit. For instance, the value of the disability benefit is determined by multiplying: (a) the expected rate of disability, by (b) the expected annual benefit, by (c) the expected number of years on the disability rolls.

Five benefits were determined to be of significant monetary value to the reserve force members and were included in the calculation of the average value of benefits. The first, and most important, is the retirement benefit. Details on the calculation of the retirement value are provided below.

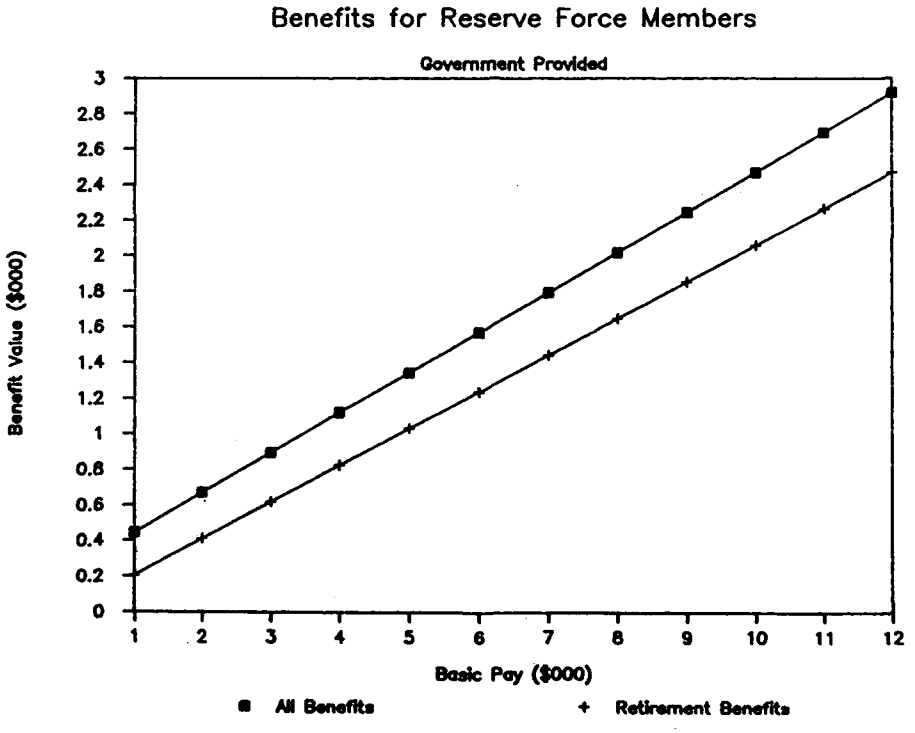
The second benefit is the value of the government's Social Security contribution for pay while on active duty. There is a proposal to cover drill pay for Social Security, but the values show the effect of current law which covers approximately 25 percent of total reserve pay.

The third benefit is the average value of the educational assistance. The benefit value was determined to be about $100 a year based on determinations of the Board of Actuaries of the military retirement system. The value is included as an opportunity at all pay levels although reserve force members are not eligible if they already have a college degree or do not sign up for at least a six year tour of duty.

The fourth benefit is the savings resulting from use of commissary and exchange privileges. The last benefit is the value of compensation and benefits received as a result of injury while on duty.

The value of these benefits is shown in Figure 4-1. These benefits decline somewhat as a percent of different reserve force member basic pay levels with an average value of about 32 percent of basic pay salary for enlisted personnel and 26 percent for officers whose Selected Reserve income is higher compared to enlisted. The graph covers the range of total yearly earnings of officers and enlisted for 48 drills and 14 days of annual active duty.

FIGURE 4-1



Values were not assigned to other government-provided benefits because: (1) they apply to reserve force members only while on active duty, (2) the frequency of use of the benefits is very low, and/or (3) the amount of the benefit is negligible. The benefits that were not assigned a value include:

- Use of military clothing stores;
- Legal assistance;
- Use of military postal facilities;
- Use of military recreational facilities;
- Burial flag;
- Wearing of uniforms;
- Official library services;
- Military affiliate radio service;
- Military Red Cross assistance;
- Military death gratuity;
- Military medical/dental services; and
- Transportation by military aircraft on a space-available basis.

Retirement plan points are accumulated for active duty, for drills, for other instruction, and for certain other services provided to the government by the reserve force member. The reserve force member who accumulates 50 such points annually for 20 years becomes eligible for retirement benefits at age 60. The 20 years need not be consecutive. The benefit amount is based on both current basic pay and the total number of points accumulated. For purposes of this calculation all points earned are counted including points earned in years in which the reserve force member did not accumulate 50 points. The benefit provided is 2-1/2 percent of active duty basic pay for every 360 points. Total retirement pay may not exceed 75 percent of active duty basic pay.

The value of the benefit of commissary and exchange privileges depends on both usage and availability. The amount spent in commissaries and exchanges depends on the individual reserve force member. Additionally, the number of days in which a reserve force member has access to these privileges depends on the amount of training and drills in which an individual reserve force members participates. An estimate of 24 percent savings per dollar spent together with data on annual spending provided by the 1986 Reserve Component Surveys were used to estimate the average annual amount saved through the use of these services by reserve force members. The benefit provided is the dollar amount saved by use of the service. Therefore, the benefit increases as the amount spent in commissaries increases.

The BVC uses the normal cost of a retirement system to measure the value of the benefit as a percentage of Selected Reserve salary. The reserve-specific normal cost calculated by the Office of the Actuary of the Department of Defense was used as the base for the BVC calculation. The office reports that the military normal cost is 26.4 percent of covered payroll in 1987 and will decline eventually to 22.8 percent of covered payroll. The 22.8 percent will be the normal cost when all of the reserve force members are subject to the retirement plan changes enacted in July 1986 for members first entering on or after August 1, 1986 (Military Retirement Reform Act of 1986).

If there is more than one retirement plan, the BVC measures the cost of the plan that will apply to new employees since one of the purposes of the analysis is to determine the effect that benefits programs will have on recruiting new personnel. Therefore, it is appropriate to base the BVC analysis on the ultimate 22.8 percent normal cost.

The normal cost was adjusted to reflect the economic assumptions used in the BVC. Actuaries for different employers use different sets of assumptions based on the unique characteristics of the benefits, investments, and funding philosophy of the specific plan. The BVC uses a standard yardstick based on a set of assumptions that are the approximate average of actuarial assumptions in the private sector. The differences in assumptions were applied against the baseline costs of 22.8 percent to produce a BVC cost of 18.8 percent of covered payroll for military retirement. The average cost of retirement benefits in the private sector is 13 percent of salary. The 13 percent includes the value of pension plans and capital accumulation plans since the latter are primarily tax-deferred income to be used for retirement income. The demographic assumptions, such as the UP-1984 mortality table used in the BVC, were not adjusted since they create only marginal differences.

It is important to understand that the BVC assumptions are used in this study to standardize the measurement of the benefits systems. The set of assumptions used by the DoD has been established as the most appropriate for funding of the military retirement system. The differences in economic assumptions are:

	Department of Defense	BVC
Annual inflation	5.0%	4.0%
Annual salary scale increase	6.2%	6.0%
Annual investment	6.6%	7.0%

4.5 CIVILIAN EMPLOYER-PROVIDED BENEFITS

Data from the Hay/Huggins Benefit Comparison (HHBC) for 1986 were analyzed for 836 employers selected from the 912 HHBC participants as most likely

to employ reserve force members while they are not on military duty. The HHBC is an annual survey of employers throughout the country and includes participants from all industry groups and geographical areas. The survey concentrates on medium and large organizations and includes questions concerning insurance plans, pension plans, capital accumulation plans, annual and sick leave, and executive perquisites. Data for this study were drawn for specific groups from the 912 employers reporting in the 1986 HHBC.

Benefits provided by these employers average 65 percent of pay for low-paid employees and decline to an average of 35 percent of pay for higher-paid employees. Larger employers (those with over 500 employees) provide a benefits package that is worth about 4 percent more on average than the package provided by smaller employers. In addition, the Department of Defense provides benefits worth about 32 percent of Selected Reserve salary for enlisted reserve force members and 26 percent for officers, as discussed in Section 4.4.

The level of benefits which an employer provides to its employees is known to vary by the size of the firm and the industrial sector. To measure the impact of these factors, and how they relate to reserve force member benefits, the analysis concentrated on the following industry groups which are more likely to employ reserve force members:

- Manufacturing (273 firms);
- Transportation and Trade (138 firms);
- Finance (394 firms); and
- Government (31).

Further, an analysis of the benefits provided by employers in all four industry groups was performed for two categories of firm size:

- o Employers with 1 to 500 employees 154
- o Employers with 501 or more employees 682

Figures 4-2 to 4-4 show the total value of benefits provided by each group of employers. The total values are compared at pay levels from $10,000 to $100,000. Figure 4-2 shows the values by industry group and in total for the 154 employers in the survey who reported 500 or fewer employees. Figure 4-3 shows the results in total and by group for the 682 employers who reported 501 or more employees.

There is a tendency for the smaller employers to offer benefits which are similar for lower salary ranges. However, for higher salary ranges, the Finance industry group clearly provides comparatively higher benefits than the other industries for the smaller organizations. The Transportation and Trade industry group provides lower benefits at the higher salary levels.

The mean values of employer-provided benefits are close together by industry segment for employer groups with 501 or more employees. Within that limited range, however, in contrast to smaller organizations, the Transportation and Trade industry group offers higher benefits than other industry groups.

FIGURE 4-2

Mean Civilian Benefits

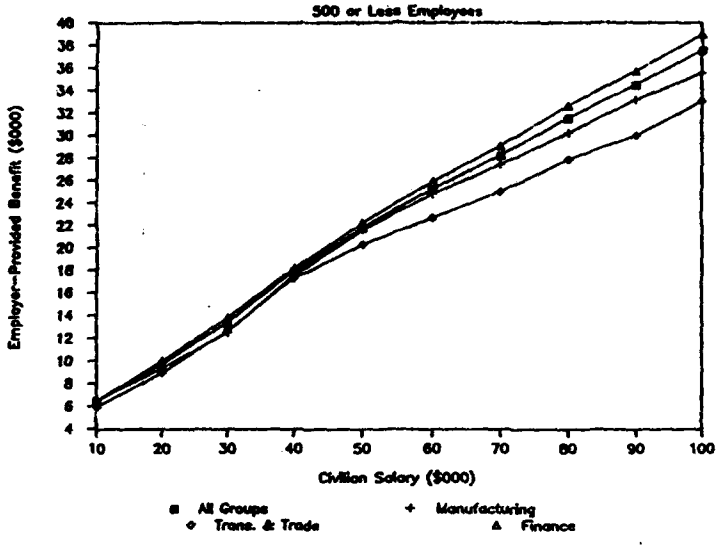


FIGURE 4-3

Mean Civilian Benefits

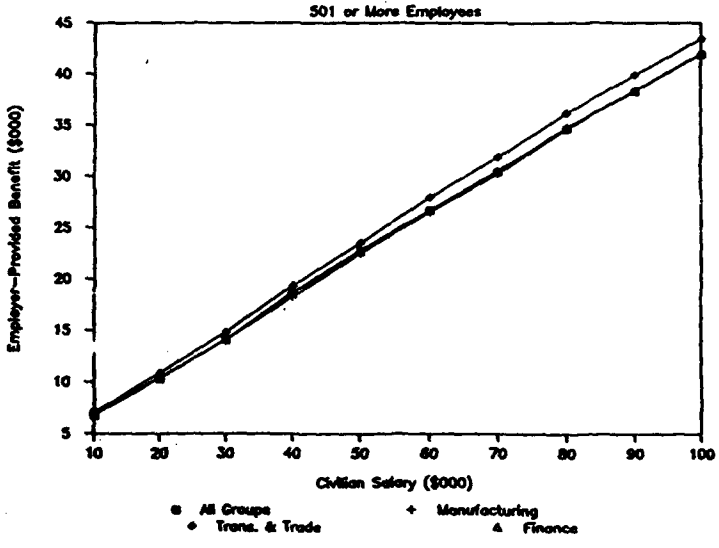


FIGURE 4-4
Mean Civilian Benefits

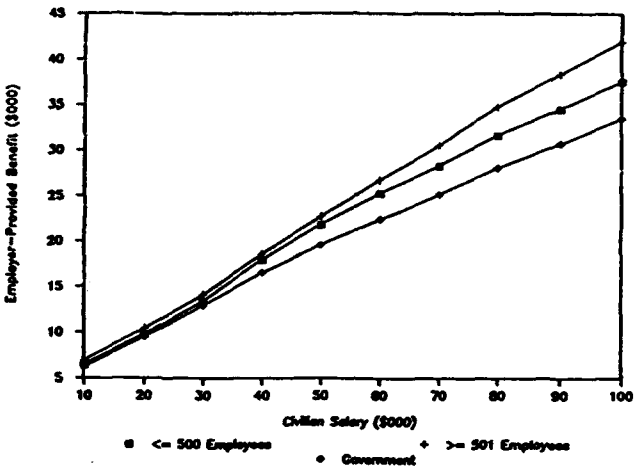


Figure 4-4 compares the mean values of employer-provided benefits for government employers, employers with 500 or less employees, and employers with 501 or more employees. Large organizations tend to have higher benefits. This result might be expected since the larger employers have typically been in business longer and have had time to develop better benefit packages for employees than those offered by the smaller employers. The benefit values for the 31 government employers in the survey are lower than the benefit values provided by non-government employers.

Figure 4-5 and 4-6 show the first and third quartiles and mean benefit values for both large and small organizations. The first quartile (Q_1) for each group represents that benefit level which was exceeded by 75 percent of the organizations in that group. The third quartile (Q_3) represents that level which was exceeded by only 25 percent of the organizations in the group. In both large and small organizations the variability of the value

FIGURE 4-5

Civilian Benefits

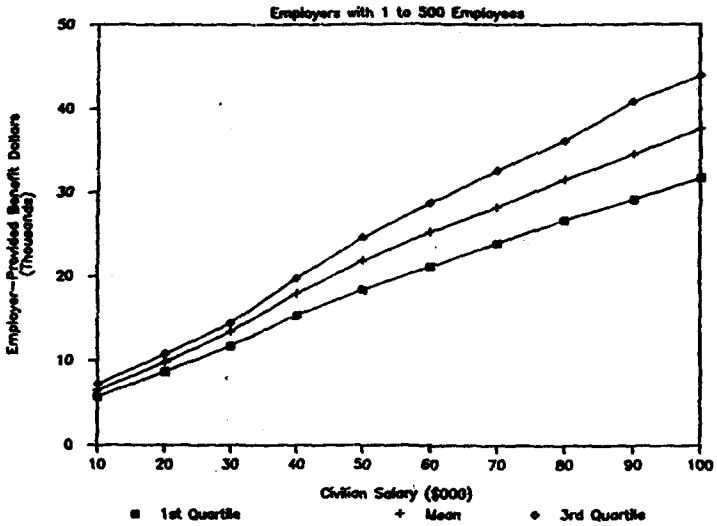
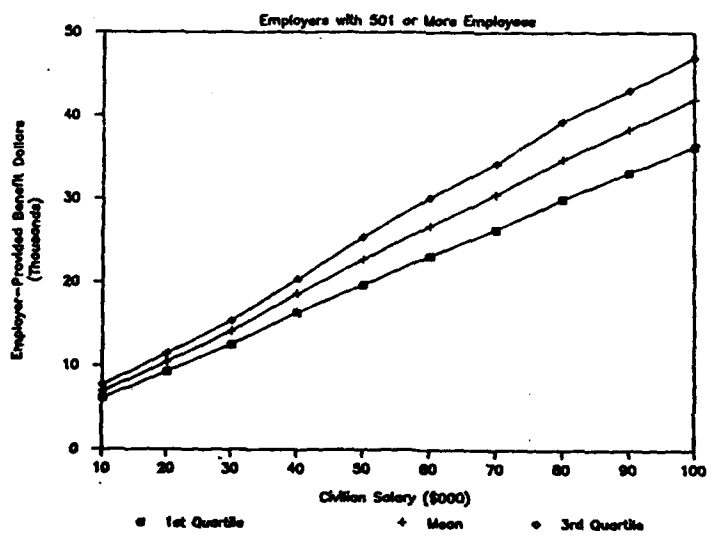


FIGURE 4-6

Civilian Benefits



of benefits provided increases with salary.

Total benefits encompass life insurance, disability benefits, health care, pension benefits, capital accumulation; holiday and vacation, and executive perquisites. The prevalence and benefit values of each of these benefits were analyzed in order to arrive at the total benefit values reported here. Separate analyses for each of the benefits are reported under separate cover by Hay/Huggins.

4.6 TOTAL COMPENSATION ANALYSIS

Previously, in Section 4 we examined Selected Reserve income, Selected Reserve benefits, and civilian benefits. Civilian pay of reserve force members and of those not in the Selected Reserve were compared in Section 2. The various compensation components are related to each other as a conclusion to Section 4.

To start with, Selected Reserve income and benefit values are related to civilian pay in Table 4-7. In this table, average amounts of Selected Reserve income and benefits are calculated according to annual civilian income that varies in increments of $10,000. Selected Reserve annual income amounts to $2,515 overall for enlisted and $7,074 overall for officers. At these Selected Reserve income levels, the average actuarial value of Selected Reserve benefits are estimated at $700 and $1,600 for enlisted personnel and officers, respectively.[4]

[4] Selected Reserve income includes basic pay and other pay and allowances. Selected Reserve benefits, particularly the retirement benefit, are determined as a percent of basic pay only. While estimates will vary by Reserve Component and grade, basic pay for Selected Reserve duty is roughly 90 percent of total Selected Reserve income, based on budget justification estimates submitted to Congress.

TABLE 4-7

AVERAGE SELECTED RESERVE INCOME AND BENEFIT VALUE, BY CIVILIAN INCOME CATEGORIES

Annual Civilian Income	Selected Reserve Income		Selected Reserve Benefits	
	Enlisted	Officer	Enlisted	Officer
Less than $15,000	$2,200	$6,400	$650	$1,490
$15,000 to $24,999	2,600	6,200	730	1,460
$25,000 to $34,999	3,000	6,600	800	1,530
$35,000 to $44,999	3,200	7,200	850	1,660
$45,000 to $54,999	3,200	7,500	850	1,720
$55,000 to $64,999	3,000	8,300	800	1,900
$65,000 to $74,999	2,800	7,800	770	1,770
$75,000 and above	2,700	7,800	770	1,770
OVERALL	2,515	7,074	720	1,630

Source: Questions 36 and 108 in the 1986 RC survey and Hay/Huggins actuarial calculations.

Next, in Table 4-8, actuarial values of non-salary benefits provided by civilian employers are calculated as a percent of civilian salaries. In Table 4-9, the total of Selected Reserve income and benefits are calculated as a percent of civilian salary as well. Both civilian benefits and Selected Reserve income and benefits decline as a percent of civilian pay for increasing levels of civilian salary.

Average civilian income, excluding civilian benefits, is presented in Table 4-10. Overall, enlisted reserve force members earned $19,460 annual income in 1985, while for officers annual income was $37,619. Total compensation, then, consists of civilian income, civilian benefits, and Selected Reserve income and benefits. According to Table 4-11, total compensation amounted to $32,590 for enlisted personnel and $63,350 for officers, based on the overall average civilian income levels for enlisted and officers, respectively. Selected Reserve income and benefits made up about 10 percent of average total compensation for enlisted personnel and 14 percent for officers.

A question at this point is what would be the total compensation if the member did not participate in the Selected Reserve. The 10 or 14 percent Selected Reserve income of total compensation for enlisted or officers, respectively, would be gone, but offsetting it somewhat is the recapture of loss pay due to the Selected Reserve two-week annual training. The civilian employer typically pays only the difference between Selected Reserve pay and what the civilian pay would be if the member were not absent from the civilian job. Suppose, for example, the member loses about one-week of civilian pay. Between two and three percent of total compensation (depending on which civilian benefits are affected) would be regained if the employee were not absent to fulfill the annual two-week training.

TABLE 4-8

PERCENT CIVILIAN BENEFITS OF CIVILIAN SALARY

Civilian Salary	Under 501 Employees	Over 500 Employees	State/local Government
$10,000	64.8%	69.4%	61.9%
$20,000	49.0	52.1	47.4
$30,000	44.8	47.1	43.1
$40,000	44.8	46.4	41.2
$50,000	43.6	45.4	39.1
$60,000	42.1	44.5	37.2
$70,000	40.3	43.5	35.8
$80,000	39.5	43.4	34.9

Source: Hay/Huggins 1986 benefits survey and actuarial calculations.

TABLE 4-9

PERCENT SELECTED RESERVE INCOME

AND BENEFITS OF CIVILIAN SALARY

Civilian Salary	Enlisted	Officers
$10,000	28.5%	78.9%
$20,000	16.7	38.3
$30,000	12.7	27.1
$40,000	10.1	22.2
$50,000	8.1	18.4
$60,000	6.3	17.2
$70,000	5.1	13.7
$80,000	4.3	12.0

Source: Table 4-7.

TABLE 4-10

AVERAGE CIVILIAN INCOME, BY TYPE OF CIVILIAN EMPLOYER

	Enlisted	Officers
OVERALL	19,460	37,619
Federal Government	24,965	37,254
State/local Government	21,433	32,599
Private firm w/501+ employees	22,397	40,285
Private firm w/500 or less employees	15,987	33,248

Source: *Questions 108 amd 109 in the 1986 RC Survey.*

TABLE 4-11

COMPENSATION: TOTAL AND BY MAJOR COMPONENT

	Enlisted	Officers
Civilian Income	$19,460	$37,619
Civilian Benefits	9,730	19,930
Civilian Total	29,190	54,550
Selected Reserve Income and Benefits	3,400	8,800
Total Compensation	32,590	63,350

Source: Tables 4-8 to 4-10.

SECTION 5

INTENT TO STAY

Section 5 focuses on the members' intent to stay in the Selected Reserves. Intent to stay is measured by the survey respondent's response on a likelihood scale which ranges from "no chance" to "certain" with nine other possible responses over the range. Multiple regression and logit regression techniques were used to analyze possible relations between intent to stay and several explanatory variables. Spouse attitude toward the Selected Reserve is similarly analyzed, as it is closely associated with intent to stay and affected by many of the same variables which relate to intent to stay.

5.1 ANALYSIS OF INTENT TO STAY

Measures of intent to stay are presented in Table 5-1 by pay grade category, type of employer, occupation group, and reserve component. Two measures of enlisted intent to stay are available from the Reserve Component Survey, which are likelihood of reenlistment on a scale of 1 to 11 and yes/no response to stay to retirement. One measure for officers is likelihood of staying until retirement on a scale of 1 to 11. Certain patterns are evident from Table 5-1:

- Officers are more likely than enlisted to stay;
- The likelihood of staying is greater for higher grade personnel;
- The likelihood of staying is greater for reserve force members employed in their civilian job in the federal government, followed by employees of state/local government, then larger private firms, and finally smaller firms.

TABLE 5-1

INTENT TO STAY, BY SELECTED VARIABLES

Pay Grade Category	Enlisted: Likelihood of Reenlistment[1]	Enlisted: % Staying to Retire	Officer: Likelihood of Staying to Retire[1]
E1 - E4	6.28	64%	--
E5 - E6	8.05	94	--
E7 - E9	8.52	99	--
W1 - W4	--	--	9.73
01 - 03	--	--	8.54
04 - 07	--	--	9.89
Type of Employer			
Federal government	7.83	92	9.35
State/Local government	7.62	88	9.35
Private firm w/500+employees	7.29	85	9.04
Private firm w/100-499 employees	7.08	81	8.93
Private firm w/under 100 employees	6.96	76	8.93
Reserve Components			
Army National Guard	6.82	82	8.99
Army Reserve	7.28	87	8.87
Naval Reserve	7.39	89	9.32
Marine Corps Reserve	5.67	49	9.04
Air National Guard	7.79	91	9.48
Air Force Reserve	7.82	92	8.91
Coast Guard Reserve	7.79	91	9.62
Occupation Group[2]			
1	7.70	88	9.51
2	7.53	88	8.87
3	7.47	86	8.90
4	7.04	77	9.40
5	7.41	84	8.97
6	7.54	87	9.22
7	6.86	74	--
8	7.34	85	--
9	7.08	81	--
OVERALL	7.12	84%	9.05

1 Mean values are presented based on likelihood scale which ranges from 1 = no chance to 11 = certain.

2 Occupation groups 5 and 6 are defined differently for enlisted and officers.

Source: Questions 18 and 22 in the enlisted RC Survey and Question 19 in the officer RC Survey.

- The likelihood of staying varies more among different categories of enlisted personnel than it does among officer personnel. It is much lower for junior grade enlisted than it is for other grade categories.

Explanatory variables are statistically related to intent to stay using the ordinary least squares regression method. Results are presented in Tables 5-2 and 5-3 for enlisted and officers, respectively. Table 5-2 displays results for two dependent variables (D.V.): likelihood of reenlistment and intent of enlisted reserve force member to stay to retirement (D.V. equals one if yes, zero if no). In Table 5-4 the D.V. is the officer's likelihood of staying until retirement.

Most of the explanatory variables presented in these tables have the expected directional effect and are statistically significant in excess of the 95 percent confidence level. Aside from being eligible already for retirement, the most predominant influence on retention is, by far, earning credit toward retirement. In addition, intent to stay is more likely, given any one of the following conditions, holding other factors constant:

- The less of a problem it is to be absent from civilian employment for weekend drills or annual training;
- If the member receives full or part supplemental civilian pay for military leave (as opposed to none);
- The older the age of the reserve force member;
- If eligible to receive educational benefits;
- If the civilian supervisor's attitude is more favorable;

- o If serving the country is more of a reason to stay;
- o If obtaining training in a skill that would help to get a civilian job is more of a reason to stay;
- o If the member has a high school diploma;
- o If getting credit toward Guard/Reserve retirement is more of a reason to stay;
- o If the enlisted member has a college degree; and
- o If the member had active duty experience (defined for this analysis according to whether the member served in an active duty or reserve component when first entering the military).

Similarly, intent to stay is less likely if:

- o The enlisted member is already eligible to retire.
- o The officer reserve force member has a college degree.

A variable which measures the ratio of Reserve income to civilian pay was found to have no statistical relation in intent to stay for enlisted members. In the regression analysis for officers, there is some marginal significance with this variable (but no statistical significance based on the logit analysis presented later in this section). Staying in the reserve force for "obtaining training in a skill that would help get a civilian job" (Question 26c in RC Survey) is more significant for reenlistment, compared to the retirement decision for either enlisted or officers.

TABLE 5-2

REGRESSION RESULTS FOR INTENT TO STAY

(ENLISTED)

Variable	Intent to Reenlist		Intent to Stay Until Retirement	
	Parameter Estimate	T-Statistic[1]	Parameter Estimate	T-Statistic[1]
Intercept	6.25	39.06	0.34	15.39
Supervisor Attitude	0.10	5.94	0.008	3.58
Absence for Weekend Drills	0.24	9.41	0.02	5.41
Absence for Annual Training	0.25	11.29	0.003	1.10
Received Supplemental Civilian Pay	0.07	1.89	0.02	4.81
Age	-0.003	-1.04	0.01	29.33
Stayed in to Serve Country	0.47	19.80	0.03	7.94
Eligible for Education Benefits	0.48	13.57	0.06	12.49
Already Eligible to Retire	-0.98	-11.88	-.84	-74.30
High School Graduate	0.14	3.28	0.02	3.07
College Graduate	0.34	6.63	0.04	5.90
Veteran	0.20	5.47	-0.004	-0.72
Stayed in for training to get a civilian job	0.07	4.53	-0.006	-2.99
Stayed in for credit toward retirement	1.44	73.58	0.21	77.76
Ratio of Reserve income to civilian pay	-0.0004	-0.40	0.000005	0.03
No. of observations:	30,794		30,906	
Adjusted R-Square:	0.266		0.361	

[1] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE 5-3

REGRESSION RESULTS FOR INTENT TO STAY UNTIL RETIREMENT

(OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	6.62	23.72
Supervisor Attitude	0.06	2.31
Absence for Weekend Drills	0.08	1.94
Absence for Annual Training	0.13	3.72
Received Supplemental Civilian Pay	0.12	2.16
Age	0.07	14.14
Stayed in to Serve Country	0.44	11.64
Eligible for Education Benefits	0.07	1.16
College Graduate	-0.31	-4.11
Veteran	0.13	2.44
Stayed in for training to get a civilian job	0.05	1.50
Stayed in for credit toward retirement	1.34	38.45
Ratio of Reserve income to civilian pay	0.02	1.59

No. of observations: 5,956
Adjusted R-Square: .31

[1] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

Aside from "serving the country", the two variables which potentially have the greatest impact on intent to stay are "obtaining credit toward retirement" and "already eligible to retire" in both the enlisted and officer regression equations. Serving the country tends to be more dominant than being eligible for educational benefits in both of the enlisted and officer equations. How problematical absence for weekend drills or annual training is for the employer has a larger quantitative impact and more statistical significance than employer support measure of

supplemental civilian pay in the intent to reenlist equation, relative to the intent of enlisted personnel to stay until retirement equation and the officer equation.

An enlisted member who has a high school and/or college degree is more likely to reenlist at the end of his current term of service and/or to stay until retirement, while the reverse is the case for the officers.

The low "adjusted R-Square" statistic calculated in the regression equations does not necessarily imply that the model is not a satisfactory one. The lower R-Square value occurs, for one, because of the large variation across individual units of observation inherently present in cross-sectional survey data. Secondly, the dependent variable is strictly an attitudinal measure, and as such, much of its variation will be "noise" that cannot be explained by any available measure.

Beside multiple regressions, intent to stay regressions also were estimated by using a different technique, called logit regression technique. This technique is often preferred over linear regression analysis when the dependent variable is dichotomous in nature, such as the "likelihood of staying until retirement" variable in this study. The dependent variable in the logit model is the logarithm of the ratio of the probability of staying to the probability of not staying[1]. The likelihood of staying in the Selected Reserve until retirement is a dependent variable in the enlisted equation, where the values are: 1 = Yes, 0 = No. For the likelihood of reenlistment at the end of enlisted member's service and the likelihood of staying until retirement for the officers, the answers are based on a scale from 1 = No chance to 11 = Certain. These two variables are recoded as a

[1] The logit model is based on a cumulative logistic probability function, and the slope of this function implies that changes in independent variables will have their greatest impact on the probability of choosing a given option at the midpoint of the distribution. The low slopes by the two ends of the distribution imply that large changes in independent variable are necessary to bring about a small change in probability. For a detailed technical discussion, see, e.g., Pindyck, R. S., and D. L. Rubinfeld, Econometric Models and Economic Forecasts, Second Edition, McGraw Hill Co., 1981.

binary variable (1 = if the answer is between "Fairly Good Possibility" to "Certain" and 0 = if the answer is between "No Chance" to "Fair Possibility").

The results of estimation of the logit models are reported in Tables 5-4 through 5-10 for overall enlisted and officer personnel and for different categories of pay grades. Intent to stay is analyzed for different grade categories as well, because it is generally recognized that the attitude of members changes throughout a career. Furthermore, the composition of the reserve force changes if younger members with certain attitudes self-select out of the force. Logit analysis results and differences between the logit analysis and the linear regression analysis are summarized as follows:

- Estimated logit equations have more statistical significance overall than the estimated linear regression equations.
- The estimated logit equations for the enlisted reserve force members are statistically more significant than for the officers.
- "Intent of enlisted reserve force member to stay" logit model is statistically superior over "intent to reenlist" logit model. (We can relate this to having a more natural dichotomous dependent variable in the former equation, whereas in the latter, the dependent variable was recoded in order to have a dichotomous variable.)
- Age variable in the officers' intent to stay logit model has a negative sign implying that the older age of the officer, the less likelihood of staying until retirement, whereas in the multiple regression equations age is positively related to intent to stay until retirement.

- For officers, having a college degree is positively related to intent to stay in the logit regression model, while it is negatively related in the multiple regression model. In either equation, however, the level of statistical significance for this parameter is not as high as it is for other parameters.

- The results by pay grade are generally similar to overall results. The relation of age to intent to stay, though, varies depending on grade category. Holding other factors constant, including eligible to retire and earning credit towards retirement, age is negatively related to intent to stay among more senior grade members, but positively among junior grade members. Eligibility for education benefits has more of an impact on the retention decision for junior grade members. Staying in the reserve force in order to get a civilian job is significant only for the E5 to E9 pay grade category.

TABLE 5-4

LOGIT REGRESSION RESULTS (ALL ENLISTED)

	Intent To Reenlist[1]		Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]	Estimated Parameter	Chi-Square[2]
Intercept	0.53	16.81	0.38	9.21
Supervisor Attitude	0.08	32.21	0.03	4.35
Absence for Weekend Drill	0.16	60.22	0.09	22.44
Absence for Annual Training	0.16	80.70	0.04	6.01
Received Supplemental Civilian Pay	0.03	0.78	0.12	18.40
Age	-0.01	28.73	0.005	7.20
Stayed in to Serve Country	0.28	208.88	0.10	27.79
Eligible for Education Benefits	0.33	124.77	0.35	153.51
High School Graduate	0.01	7.59	0.03	0.92
College Graduate	0.21	23.84	0.39	93.54
Veteran	0.15	22.86	0.33	138.39
Already Eligible to Retire	-0.64	98.47	--	--
Stayed in for training to get a civilian job	0.06	22.12	-0.03	4.62
Stayed in for credit toward retirement	0.86	2895.04	1.11	3721.76
Ratio of Reserve income to civilian pay	-0.0006	0.39	-0.0001	0.01
	R = 0.406[3]		R = 0.448[3]	

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalised Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

TABLE 5-5

LOGIT REGRESSION RESULTS, PAY GRADES E1-E4

	Intent To Reenlist[1]		Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]	Estimated Parameter	Chi-Square[2]
Intercept	-0.16	0.55	-1.28	30.56
Supervisor Attitude	0.09	15.70	0.07	8.87
Absence for Weekend Drill	0.15	20.59	0.07	3.27
Absence for Annual Training	0.14	23.92	0.07	4.25
Received Supplemental Civilian Pay	-0.12	5.44	0.04	0.59
Age	0.01	9.35	0.05	97.19
Stayed in to Serve Country	0.28	85.22	0.20	29.70
Eligible for Education Benefits	0.42	83.31	0.45	81.28
High School Graduate	0.03	0.25	-0.05	0.82
College Graduate	-0.19	4.28	0.21	4.69
Veteran	-0.10	3.12	-0.09	2.04
Already Eligible to Retire	-1.43	5.85	--	--
Stayed in for training to get a civilian job	-0.07	12.86	-0.04	3.71
Stayed in for credit toward retirement	0.84	1327.78	1.06	1369.44
Ratio of Reserve income to civilian pay	0.0009	0.32	0.001	0.12
	R = 0.436[3]		R = 0.482[3]	

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

TABLE 5-6

LOGIT REGRESSION RESULTS, PAY GRADES E5-E9

	Intent To Reenlist[1]		Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]	Estimated Parameter	Chi-Square[2]
Intercept	1.46	65.70	1.79	125.35
Supervisor Attitude	0.09	23.01	0.03	3.32
Absence for Weekend Drill	0.16	37.37	0.10	17.65
Absence for Annual Training	0.20	68.41	0.05	5.30
Received Supplemental Civilian Pay	0.05	1.71	0.07	4.38
Age	-0.04	203.09	-0.03	140.60
Stayed in to Serve Country	0.30	136.39	0.08	11.86
Eligible for Education Benefits	0.19	23.18	0.22	39.06
High School Graduate	0.11	5.78	0.03	0.41
College Graduate	0.25	23.37	0.33	54.62
Veteran	0.13	12.32	0.32	92.92
Already Eligible to Retire	-0.49	54.87	--	--
Stayed in for training to get a civilian job	0.09	23.46	-0.02	1.54
Stayed in for credit toward retirement	0.79	1127.50	1.07	1866.96
Ratio of Reserve income to civilian pay	0.02	0.60	0.005	0.18
	R = 0.326[3]		R = 0.331[3]	

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

TABLE 5-7

LOGIT REGRESSION RESULTS (ALL OFFICERS)

	Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]
Intercept	4.11	165.85
Supervisor Attitude	0.02	0.32
Absence for Weekend Drill	0.05	0.93
Absence for Annual Training	0.07	2.69
Received Supplemental Civilian Pay	0.08	1.37
Age	-0.09	304.25
Stayed in to Serve Country	0.29	43.22
Eligible for Education Benefits	0.25	11.31
College Graduate	0.38	21.62
Veteran	0.31	23.87
Stayed in for training to get a civilian job	-0.01	0.10
Stayed in for credit toward retirement	0.99	597.31
Ratio of Reserve income to civilian pay	0.008	0.07

$R = 0.353$[3]

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalised Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

TABLE 5-8

LOGIT REGRESSION RESULTS, PAY GRADES 01-02, W1

	Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]
Intercept	0.71	0.87
Supervisor Attitude	0.005	0.01
Absence for Weekend Drill	0.13	1.48
Absence for Annual Training	0.15	2.44
Received Supplemental Civilian Pay	0.20	1.68
Age	0.01	0.59
Stayed in to Serve Country	0.26	5.99
Eligible for Education Benefits	0.55	9.42
College Graduate	-0.05	0.07
Veteran	0.55	9.36
Stayed in for training to get a civilian job	0.06	0.65
Stayed in for credit toward retirement	1.01	161.84
Ratio of Reserve income to civilian pay	0.20	4.24

R = 0.436[3]

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalised Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

TABLE 5-9

LOGIT REGRESSION RESULTS, PAY GRADES 03-05, W2-W4

	Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]
Intercept	4.94	137.37
Supervisor Attitude	0.01	0.08
Absence for Weekend Drill	0.04	0.46
Absence for Annual Training	0.07	2.23
Received Supplemental Civilian Pay	-0.01	0.02
Age	-0.11	237.10
Stayed in to Serve Country	0.35	49.01
Eligible for Education Benefits	0.10	1.31
College Graduate	0.47	22.00
Veteran	0.14	3.65
Stayed in for training to get a civilian job	0.002	0.01
Stayed in for credit toward retirement	0.94	347.73
Ratio of Reserve income to civilian pay	0.0003	0.01

R = 0.339[3]

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

TABLE 5-10

LOGIT REGRESSION RESULTS, PAY GRADES 06-07

	Intent To Stay Until Retirement[1]	
	Estimated Parameter	Chi-Square[2]
Intercept	-1.47	0.54
Supervisor Attitude	0.19	2.54
Absence for Weekend Drill	-0.09	0.19
Absence for Annual Training	0.01	0.01
Received Supplemental Civilian Pay	-0.01	0.01
Age	-0.01	0.18
Stayed in to Serve Country	0.12	0.38
Eligible for Education Benefits	0.81	4.40
College Graduate	1.39	3.99
Veteran	0.27	1.20
Stayed in for training to get a civilian job	0.01	0.01
Stayed in for credit toward retirement	-0.39	5.40
Ratio of Reserve income to civilian pay	-0.38	0.30

R = 0.320[3]

[1] Dependent variable.

[2] Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

[3] R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

5.2 ANALYSIS OF SPOUSE ATTITUDE

Spouse attitude towards the Selected Reserve was purposely omitted from the regression equations for intent to stay for both statistical and conceptual reasons. Without question, spouse attitude is highly relevant to the issue of the members intention of staying. In our analysis, however, it is viewed as a factor that is *jointly determined* with intent to stay rather than strictly as an "explanatory" variable. Furthermore, spouse attitude is highly or significantly correlated with other variables which are specified in the intent to stay equations. Its inclusion in the equations as well would obscure our reading of the possible effects from these other variables.

In order to demonstrate this interrelatedness of spouse attitude with these other variables and, hence, with intent to stay as well, spouse attitude was analyzed in a regression equation as a function of the variables. The results are reported in Tables 5-6 and 5-7 for enlisted personnel overall and officers overall, respectively, and in Appendix C for each Reserve Component. The results are as expected. In particular, a more favorable civilian supervisor attitude and supplemental civilian pay relate positively to a more favorable spouse attitude. The less of a problem it is for the member to be absent for reserve force duties, the more favorable the spouse's attitude is.

These results support our view that the members' decision of intent to stay is made in consultation with the spouse. Thus, the spouse's attitude is more of a "dependent variable" than an "independent variable" affecting intent to stay. The same factors which affect the members decision affect spouse's attitude as well.

TABLE 5-11

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.73	50.88
Supervisor Attitude	0.17	23.98
Absence for Weekend Drills	-0.04	-3.21
Absence for Annual Training	-0.14	-14.75
Age	-0.02	-19.75
Received Supplemental Civilian Pay	0.08	5.45

No. of observations: 20,769
Adjusted R-Square: 0.102

[1] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE 5-12

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE (OFFICER)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.36	19.68
Supervisor Attitude	0.16	11.61
Absence for Weekend Drills	-0.02	-0.93
Absence for Annual Training	-0.12	-6.41
Age	-0.01	-6.06
Received Supplemental Civilian Pay	0.05	1.70
Age		

No. of observations: 5,458
Adjusted R-Square: 0.069

[1] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

APPENDIX A

REGRESSION RESULTS FOR CIVILIAN EARNINGS, BY OCCUPATION GROUP

TABLE A-1

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 1

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-32,436	-17.39	7.99	123.41
EXP	1,129	13.01	0.05	15.55
EXP2	-16.43	-7.13	-0.0008	-9.65
Education	2,274	23.54	0.08	22.97
Sex	8,285	15.13	0.26	13.87
Marital	1,356	2.79	0.08	4.47
FEDEMP	1,646	2.59	0.10	4.44
STLOEMP	-5,325	-9.67	-0.13	-6.91
HRWORK	279	10.71	0.008	8.61
Reserve	-4,839	-10.73	-0.12	-7.47
Veteran	-508	-1.10	-0.01	-0.70
No. of observations[3]:	5,073		5,073	
Adjusted R-Square:	0.272		0.268	

1 Dependent variable.

2 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

3 Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-2

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 2

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-17,140	-6.55	8.45	96.23
EXP	746	6.81	0.03	8.11
EXP2	-9.52	-3.17	-0.0004	-3.92
Education	1,888	14.28	0.07	16.46
Sex	7,433	10.81	0.26	11.40
Marital	144	0.24	0.03	1.45
FEDEMP	-130	-0.14	0.01	0.34
STLOEMP	-4,026	-6.38	-0.11	-5.07
HRWORK	129	3.76	0.002	1.70
Reserve	-944	-1.55	-0.02	-1.07
Veteran	-1,154	-1.87	-0.05	-2.49
Teachers	-4,527	-6.32	-0.17	-7.14
No. of observations[3]:	2,683		2,683	
Adjusted R-Square:	0.194		0.224	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-3

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 3

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-16,530	-6.96	8.39	95.57
EXP	906	10.47	0.04	11.79
EXP2	-15.26	-6.55	-0.0007	-7.61
Education	1,150	9.83	0.05	11.26
Sex	5,481	9.78	0.23	10.99
Marital	1,806	3.84	0.09	5.12
FEDEMP	247	0.39	0.02	0.76
STLOEMP	-4,206	-6.70	-0.18	-7.73
HRWORK	290	8.11	0.009	6.78
Reserve	-109	-0.22	-0.006	-0.33
Veteran	-151	-0.30	-0.01	-0.65
Pilots	8,202	4.54	-0.03	-0.46
No. of observations[3]:	2,868		2,868	
Adjusted R-Square:	0.209		0.225	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-4

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 4

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-32,499	-13.01	7.37	75.05
EXP	807	7.58	0.04	10.55
EXP2	-11.18	-3.88	-0.0007	-6.38
Education	2,332	15.25	0.10	16.47
Sex	8,165	10.30	0.42	13.51
Marital	2,262	3.40	0.09	3.25
FEDEMP	210	0.05	-0.08	-0.50
STLOEMP	-990	-0.36	0.006	0.05
HRWORK	224	6.47	0.008	6.23
Reserve	-2,605	-3.99	-0.08	-3.30
Veteran	-931	-1.31	-0.03	-1.23
No. of observations[3]:	2,444		2,444	
Adjusted R-Square:	0.250		0.315	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-5

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 5

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-19,426	-9.78	8.02	103.38
EXP	757	11.38	0.04	14.84
EXP2	-13.12	-7.36	-0.0007	-9.95
Education	909	9.16	0.05	11.68
Sex	5,212	12.23	0.25	15.05
Marital	215	0.61	0.01	0.87
FEDEMP	4,022	9.17	0.19	11.02
STLOEMP	-1,572	-3.28	-0.08	-4.19
HRWORK	399	11.26	0.01	10.53
Reserve	1,734	4.12	0.06	3.42
Veteran	426	0.94	0.03	1.41
No. of observations[3]:	4,060		4,060	
Adjusted R-Square:	0.279		0.349	

1 Dependent variable.

2 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

3 Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-6

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 6

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-19,219	-9.23	7.60	96.13
EXP	721	7.27	0.03	8.93
EXP2	-10.04	-3.95	-0.0005	-5.57
Education	1,612	13.53	0.07	16.25
Sex	5,797	6.20	0.52	14.56
Marital	859	1.57	0.04	2.10
FEDEMP	5,027	4.88	0.37	9.57
STLOEMP	6,008	9.81	0.40	17.33
HRWORK	61.51	2.37	0.003	3.11
Reserve	1,991	3.92	0.06	3.02
Veteran	-414	-0.85	-0.01	-0.68
No. of observations[3]:	2,806		2,806	
Adjusted R-Square:	0.232		0.404	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-7

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 7

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-7,457	-2.93	7.92	70.34
EXP	441	4.41	0.03	6.05
EXP2	-8.38	-3.26	-0.0005	-4.03
Education	748	5.04	0.06	8.58
Sex	2,269	3.30	0.22	7.36
Marital	1,029	1.76	0.07	2.65
FEDEMP	2,451	2.06	0.19	3.65
STLOEMP	-614	-0.84	0.03	1.00
HRWORK	173	4.43	0.01	5.35
Reserve	3,705	5.45	0.13	4.35
Veteran	-741	-0.97	-0.03	-0.81
FOODOCC	-3,014	-4.73	-0.18	-6.25
No. of observations[3]:	1,628		1,628	
Adjusted R-Square:	0.137		0.252	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-8

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 8

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-20,014	-15.90	7.97	154.17
EXP	859	17.13	0.04	20.87
EXP2	-11.73	-8.92	-0.0006	-12.01
Education	1,647	23.99	0.08	26.84
Sex	5,678	9.65	0.28	11.41
Marital	7,215	7.42	0.12	10.07
FEDEMP	2,291	4.51	0.13	6.06
STLOEMP	-2,537	-5.46	-0.09	-4.61
HRWORK	151	9.18	0.004	6.09
Reserve	471	1.83	0.01	1.37
Veteran	-85.41	-0.31	0.01	0.46
No. of observations[3]:	9,144		9,144	
Adjusted R-Square:	*0.192*		*0.237*	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-9

REGRESSION RESULTS FOR CIVILIAN EARNINGS, ENLISTED RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 9

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-18,550	-15.59	7.74	152.37
EXP	807	15.75	0.04	20.06
EXP2	-13.71	-10.23	-0.0008	-13.34
Education	1,096	15.21	0.06	21.11
Sex	6,181	14.84	0.33	18.72
Marital	1,181	3.97	0.09	7.34
FEDEMP	2,309	3.47	0.13	4.68
STLOEMP	-1,570	-3.05	-0.07	-3.38
HRWORK	264	15.23	0.01	14.05
Reserve	1,097	3.85	0.04	3.63
Veteran	-320	-1.02	-0.02	-1.46
No. of observations[3]:	7,558		7,558	
Adjusted R-Square:	0.185		0.258	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-10

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 1

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-59,208	-20.88	7.68	95.20
EXP	1,619	10.64	0.05	10.76
EXP2	-24.50	-6.03	-0.0008	-6.69
Education	3,085	21.56	0.09	21.82
Sex	9,315	12.80	0.32	15.31
Marital	934	1.39	0.02	1.25
FEDEMP	-2,626	-3.09	-0.02	-0.82
STLOEMP	-7,656	-10.42	-0.17	-8.13
HRWORK	480	13.43	0.01	10.88
Reserve	215	0.35	0.03	1.52
Veteran	276	0.47	0.003	0.21
No. of observations[3]:	3,547		3,547	
Adjusted R-Square:	0.342		0.348	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-11

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 2

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-45,837	-17.70	8.45	98.92
EXP	962	7.34	0.03	6.05
EXP2	-8.77	-2.34	-0.0003	-2.56
Education	2,976	20.47	0.07	14.94
Sex	7,807	12.63	0.26	12.78
Marital	1,889	3.15	0.06	3.01
FEDEMP	-1,155	-1.42	0.01	0.49
STLOEMP	-4,279	-6.34	-0.06	-2.72
HRWORK	297	9.31	0.002	2.32
Reserve	4,154	6.68	0.15	7.18
Veteran	-2,024	-3.36	-0.03	-1.39
Teachers	-6,067	-7.75	-0.17	-6.51
No. of observations[3]:	4,015		4,015	
Adjusted R-Square:	0.360		0.258	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-12

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 3

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-28,983	-5.18	8.32	52.45
EXP	1,368	4.93	0.04	5.16
EXP2	-21.38	-2.91	-0.007	-3.33
Education	2,135	7.36	0.07	8.01
Sex	7,765	5.40	0.32	7.81
Marital	1,797	1.53	0.05	1.64
FEDEMP	-1,435	-0.81	-0.04	-0.89
STLOEMP	-6,444	-4.03	-0.20	-4.45
HRWORK	91.14	1.62	0.003	1.86
Reserve	2,627	1.84	0.11	2.63
Veteran	-1,671	-1.41	-0.03	-0.85
Pilots	14,285	8.82	0.29	6.24
No. of observations[3]:	823		823	
Adjusted R-Square:	0.465		0.478	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-13

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 4

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-61,378	-9.26	7.07	37.25
EXP	1,638	4.61	0.06	5.69
EXP2	-27.73	-2.90	-0.001	-4.06
Education	2,988	8.14	0.10	9.43
Sex	10,219	5.19	0.46	8.20
Marital	-920	-0.53	0.02	0.47
FEDEMP	-2,739	-0.25	0.06	0.20
STLOEMP	-10,470	-1.99	-0.30	-2.00
HRWORK	504	6.58	0.013	6.11
Reserve	2,512	1.52	0.06	1.30
Veteran	-870	-0.57	-0.05	-1.07
No. of observations[3]:	792		792	
Adjusted R-Square:	0.312		0.396	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-14

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 5

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-32,756	-8.08	7.73	52.39
EXP	1,204	-6.19	0.04	5.88
EXP2	-21.31	-4.30	-0.0007	-4.13
Education	1,789	9.06	0.07	9.70
Sex	7,158	7.32	0.29	8.07
Marital	1,447	1.73	0.07	2.44
FEDEMP	2,107	1.67	0.13	2.75
STLOEMP	1,586	1.82	0.08	2.44
HRWORK	256	4.23	0.01	4.43
Reserve	4,594	4.10	0.18	4.48
Veteran	685	0.75	0.04	1.34
No. of observations[3]:	1,041		1,041	
Adjusted R-Square:	0.418		0.472	

[1] Dependent variable.

[2] T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

[3] Approximately one-half are reserve force members and one-half are non-reserve force members.

TABLE A-15

REGRESSION RESULTS FOR CIVILIAN EARNINGS, OFFICER RESERVE FORCE MEMBERS AND NON-RESERVE FORCE MEMBERS COMBINED, OCCUPATION GROUP 6

	Actual Earnings[1]		Log (Earnings)[1]	
Variable	Parameter Estimate	T-Statistic[2]	Parameter Estimate	T-Statistic[2]
Intercept	-22,851	-4.90	8.30	50.54
EXP	966	3.67	0.03	3.54
EXP2	-17.38	-2.54	-0.0006	-2.43
Education	1,605	6.22	0.06	6.06
Sex	5,328	3.14	0.29	4.91
Marital	-2,076	-1.70	-0.04	-0.82
FEDEMP	3,955	1.96	0.15	2.14
STLOEMP	-2,689	-1.37	-0.12	-1.78
HRWORK	282	4.73	0.007	3.57
Reserve	4,403	3.64	0.17	3.94
Veteran	879	0.84	0.04	1.05
No. of observations[3]:	682		682	
Adjusted R-Square:	0.258		0.273	

1 Dependent variable.

2 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

3 Approximately one-half are reserve force members and one-half are non-reserve force members.

APPENDIX B

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE, BY RESERVE COMPONENT

TABLE B-1

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, ARMY NATIONAL GUARD (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.81	34.32
Supervisor Attitude	0.16	14.89
Absence for Weekend Drills	-0.01	-0.70
Absence for Annual Training	-0.18	-11.45
Age	-0.02	-13.43
Received Supplemental Civilian Pay	0.09	3.61

No. of observations: 8,769
Adjusted R-Square: 0.109

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-2

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, ARMY RESERVE (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.25	17.79
Supervisor Attitude	0.21	13.00
Absence for Weekend Drills	-0.04	-1.64
Absence for Annual Training	-0.12	-5.22
Age	-0.009	-4.33
Received Supplemental Civilian Pay	0.14	3.96

No. of observations: 3,893
Adjusted R-Square: 0.099

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-3

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, NAVAL RESERVE (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	3.14	19.08
Supervisor Attitude	0.13	6.19
Absence for Weekend Drills	-0.08	-2.60
Absence for Annual Training	-0.14	-5.04
Age	-0.02	-8.00
Received Supplemental Civilian Pay	0.09	2.06

No. of observations: 2,251
Adjusted R-Square: 0.103

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-4

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, MARINE CORPS RESERVE (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.85	10.63
Supervisor Attitude	0.26	6.75
Absence for Weekend Drills	0.06	0.91
Absence for Annual Training	-0.16	-2.85
Age	-0.03	-4.89
Received Supplemental Civilian Pay	-0.09	-0.95

No. of observations: 807
Adjusted R-Square: 0.144

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-5

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, AIR NATIONAL GUARD (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.31	14.81
Supervisor Attitude	0.15	7.65
Absence for Weekend Drills	0.01	0.43
Absence for Annual Training	-0.14	-5.27
Age	-0.01	-5.54
Received Supplemental Civilian Pay	0.13	3.10

No. of observations: 2,555
Adjusted R-Square: 0.075

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-6

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, AIR FORCE RESERVE (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.35	10.78
Supervisor Attitude	0.17	6.44
Absence for Weekend Drills	-0.06	-1.25
Absence for Annual Training	-0.08	-2.05
Age	-0.02	-4.50
Received Supplemental Civilian Pay	0.15	2.66

No. of observations: 1,376
Adjusted R-Square: 0.08

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-7

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, COAST GUARD RESERVE (ENLISTED)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.67	11.99
Supervisor Attitude	0.13	4.72
Absence for Weekend Drills	-0.12	-2.72
Absence for Annual Training	-0.08	-1.90
Age	-0.01	-3.75
Received Supplemental Civilian Pay	0.03	0.50

No. of observations: 1,115
Adjusted R-Square: 0.073

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-8

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, ARMY NATIONAL GUARD (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.47	10.04
Supervisor Attitude	0.14	4.67
Absence for Weekend Drills	-0.01	-0.31
Absence for Annual Training	-0.17	-4.38
Age	-0.01	-2.83
Received Supplemental Civilian Pay	0.12	1.93

No. of observations: 1,219
Adjusted R-Square: 0.075

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-9

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, ARMY RESERVE (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.02	8.27
Supervisor Attitude	0.21	7.40
Absence for Weekend Drills	0.04	0.96
Absence for Annual Training	-0.09	-2.48
Age	-0.01	-3.31
Received Supplemental Civilian Pay	0.08	1.38

No. of observations: 1,498
Adjusted R-Square: 0.069

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-10

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, NAVAL RESERVE (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.74	9.99
Supervisor Attitude	0.13	4.22
Absence for Weekend Drills	-0.11	-2.23
Absence for Annual Training	-0.06	-1.57
Age	-0.02	-3.75
Received Supplemental Civilian Pay	0.09	1.43

No. of observations: 945
Adjusted R-Square: 0.06

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-11

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, MARINE CORPS RESERVE (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	1.39	3.16
Supervisor Attitude	0.13	2.61
Absence for Weekend Drills	0.10	1.13
Absence for Annual Training	-0.16	-2.22
Age	0.009	1.04
Received Supplemental Civilian Pay	-0.18	-1.72

No. of observations: 448
Adjusted R-Square: 0.041

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-12

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, AIR NATIONAL GUARD (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.20	5.33
Supervisor Attitude	0.26	5.68
Absence for Weekend Drills	-0.05	-0.69
Absence for Annual Training	0.03	0.46
Age	-0.02	-2.81
Received Supplemental Civilian Pay	-0.09	-0.91

No. of observations: 482
Adjusted R-Square: 0.09

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-13

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, AIR FORCE RESERVE (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.51	4.85
Supervisor Attitude	0.13	2.18
Absence for Weekend Drills	-0.03	-0.42
Absence for Annual Training	-0.22	-2.90
Age	-0.004	-0.35
Received Supplemental Civilian Pay	0.059	0.49

No. of observations: 342
Adjusted R-Square: 0.07

1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

TABLE B-14

REGRESSION RESULTS FOR SPOUSE'S ATTITUDE TOWARD SELECTED RESERVE, COAST GUARD (OFFICERS)

Variable	Parameter Estimate	T-Statistic[1]
Intercept	2.81	7.45
Supervisor Attitude	0.07	1.74
Absence for Weekend Drills	-0.08	-1.17
Absence for Annual Training	-0.21	-3.73
Age	-0.01	-1.68
Received Supplemental Civilian Pay	0.06	0.62

No. of observations: 518
Adjusted R-Square: 0.076

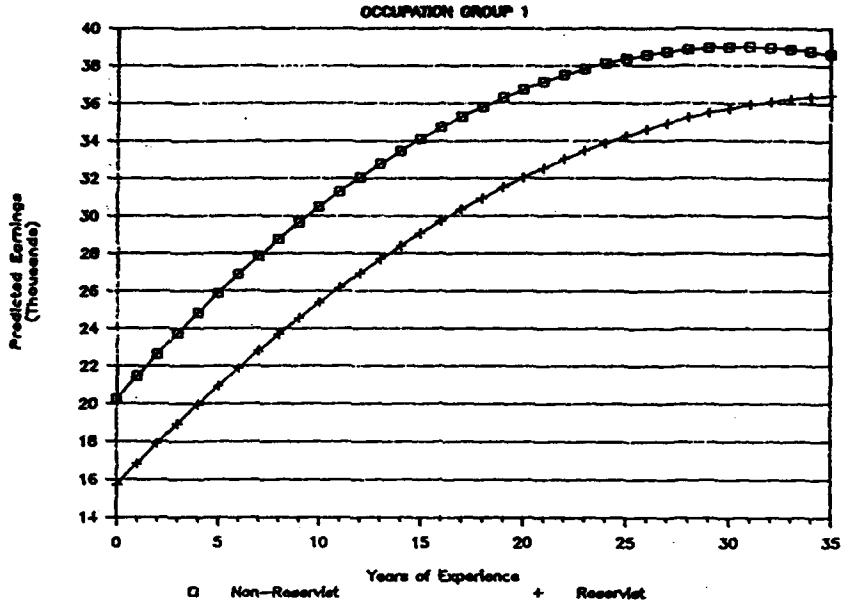
1 T-statistic pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

APPENDIX C

CIVILIAN EARNINGS PROFILES, BY OCCUPATION GROUP

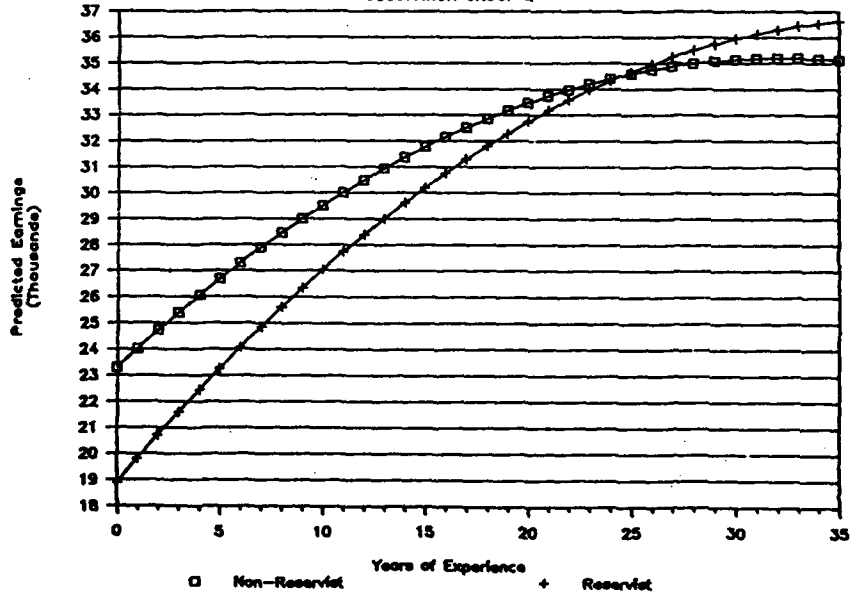
CIVILIAN EARNINGS PROFILES: ENLISTED

OCCUPATION GROUP 1



CIVILIAN EARNINGS PROFILES: ENLISTED

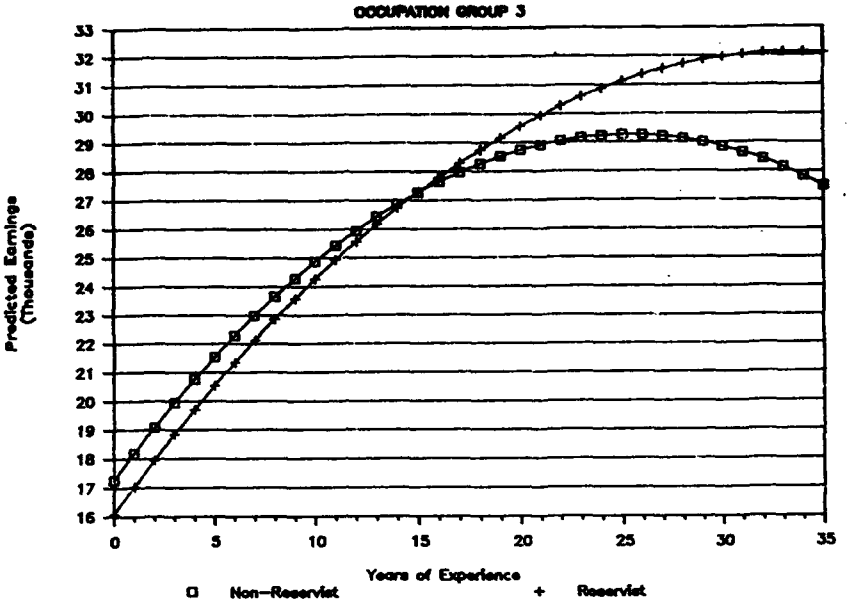
OCCUPATION GROUP 2



C-1

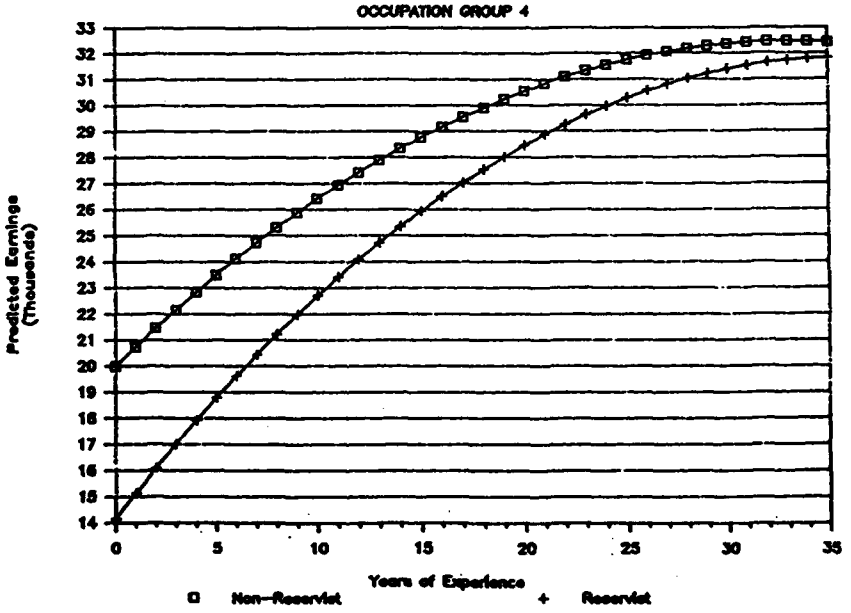
CIVILIAN EARNINGS PROFILES: ENLISTED

OCCUPATION GROUP 3



CIVILIAN EARNINGS PROFILES: ENLISTED

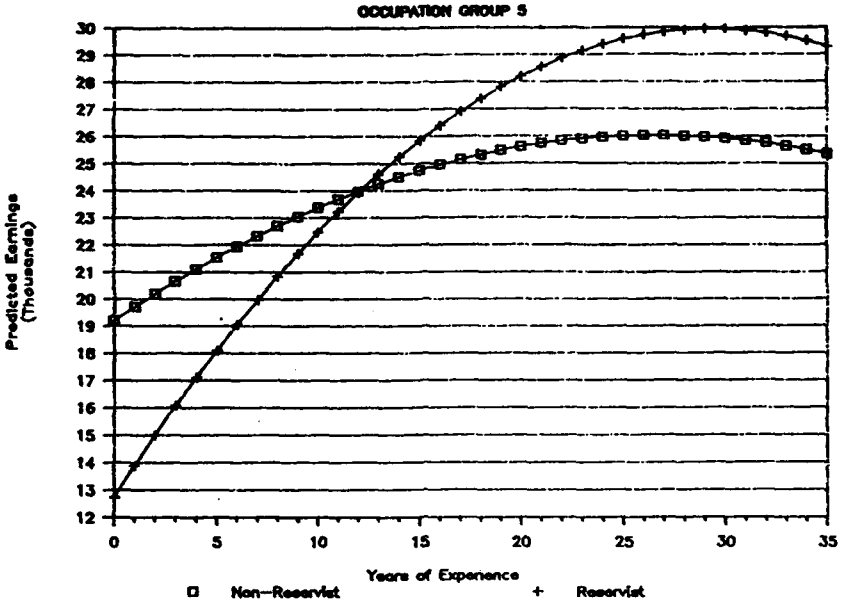
OCCUPATION GROUP 4



C-2

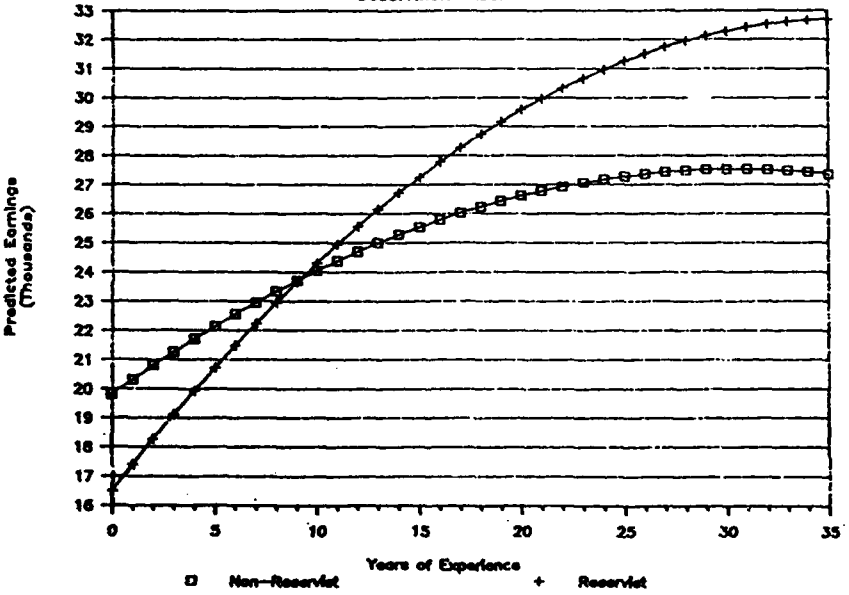
CIVILIAN EARNINGS PROFILES: ENLISTED

OCCUPATION GROUP 5

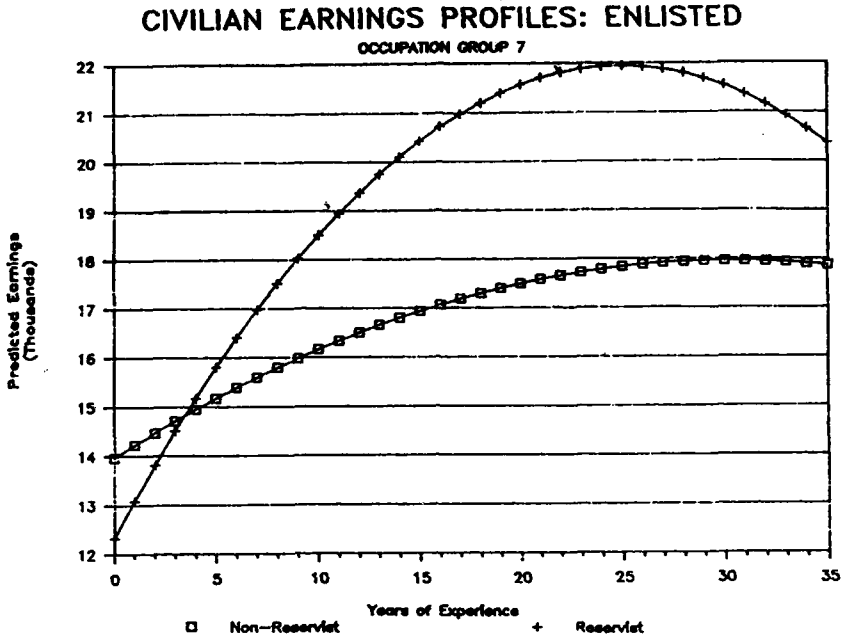


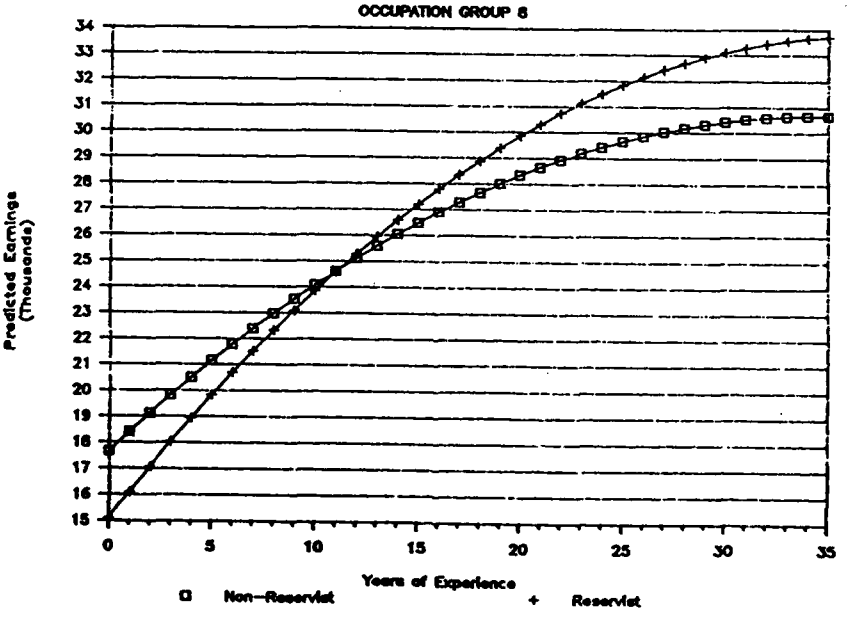
CIVILIAN EARNINGS PROFILES: ENLISTED

OCCUPATION GROUP 6

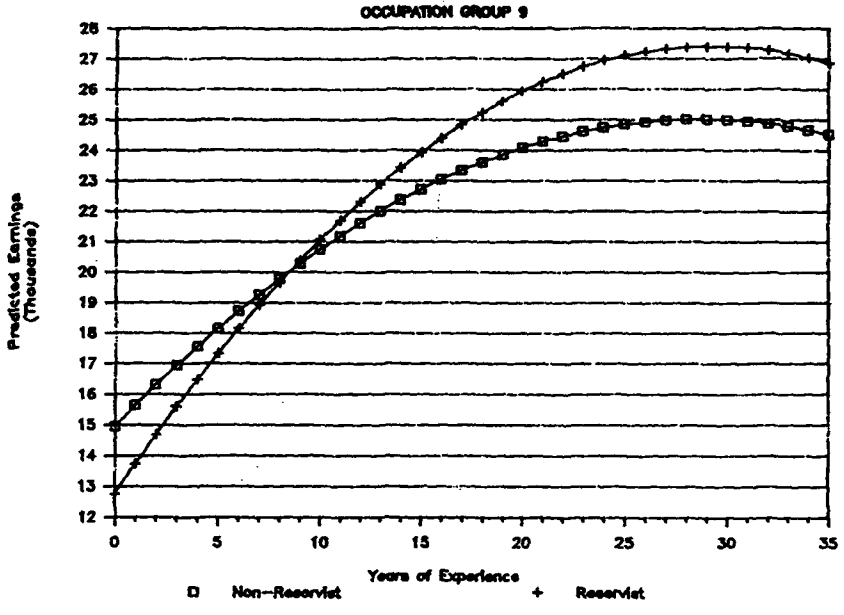


C-3


CIVILIAN EARNINGS PROFILES: ENLISTED
OCCUPATION GROUP 7
Predicted Earnings (Thousands)
22
21
20
19
18
17
16
15
14
13
12
0
5
10
15
20
25
30
35
Years of Experience
Non-Reservist
Reservist

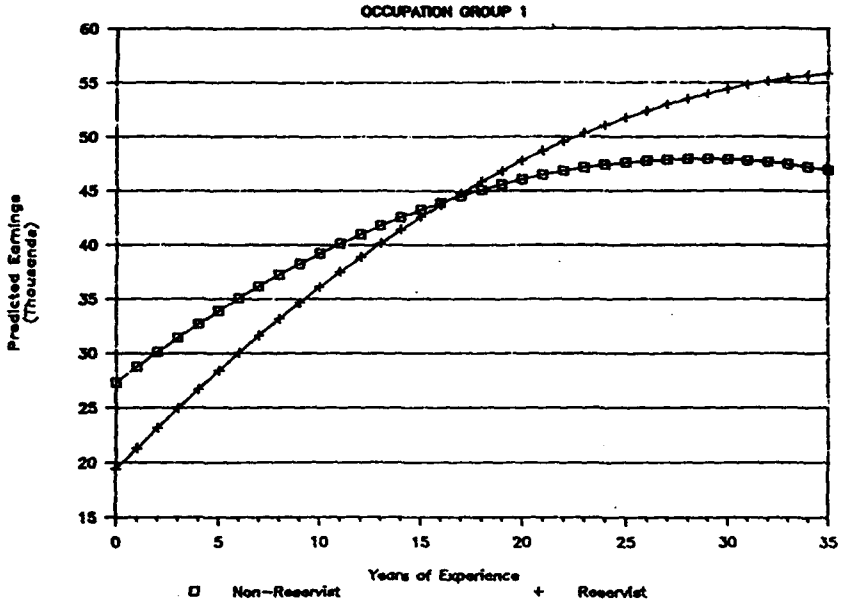

CIVILIAN EARNINGS PROFILES: ENLISTED
OCCUPATION GROUP 8
Predicted Earnings (Thousands)
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
0
5
10
15
20
25
30
35
Years of Experience
Non-Reservist
Reservist

CIVILIAN EARNINGS PROFILES: ENLISTED



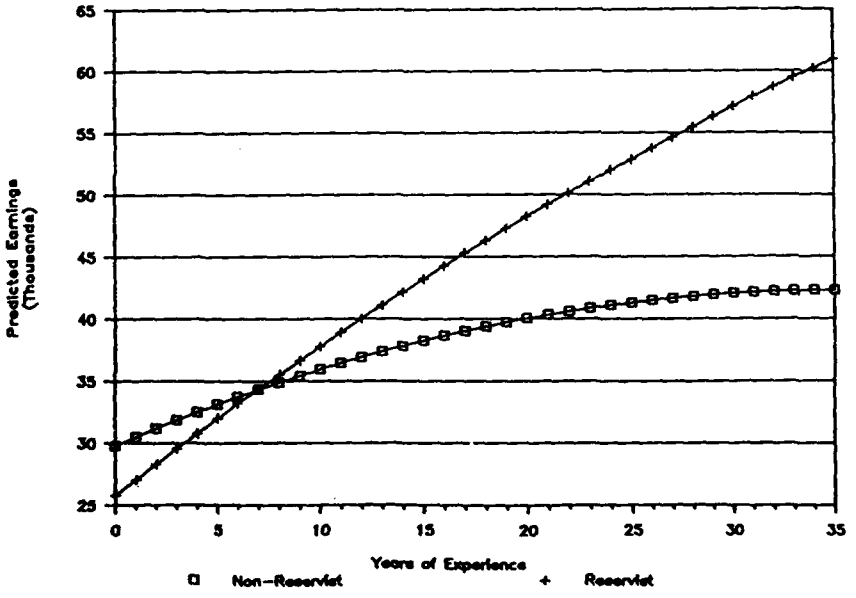
CIVILIAN EARNINGS PROFILES: OFFICERS

OCCUPATION GROUP 1



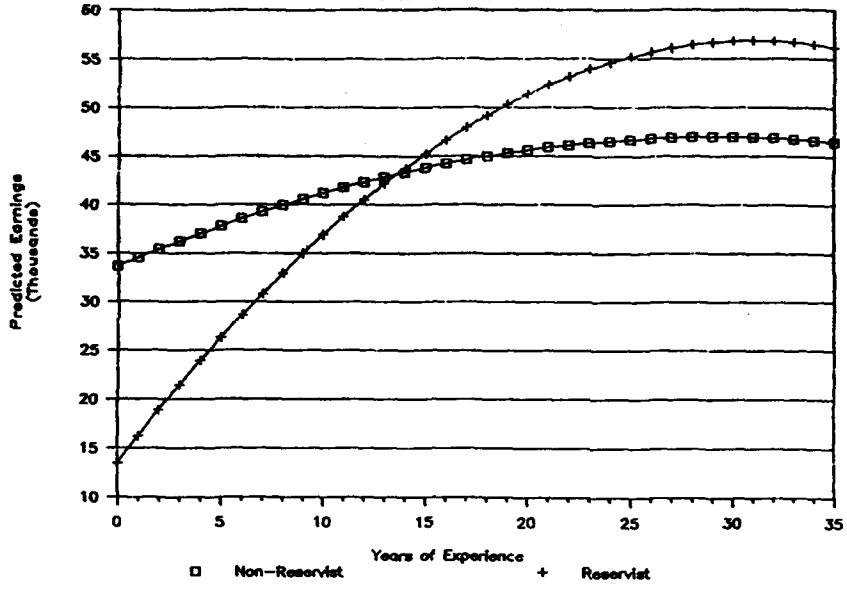
CIVILIAN EARNINGS PROFILES: OFFICERS

OCCUPATION GROUP 2



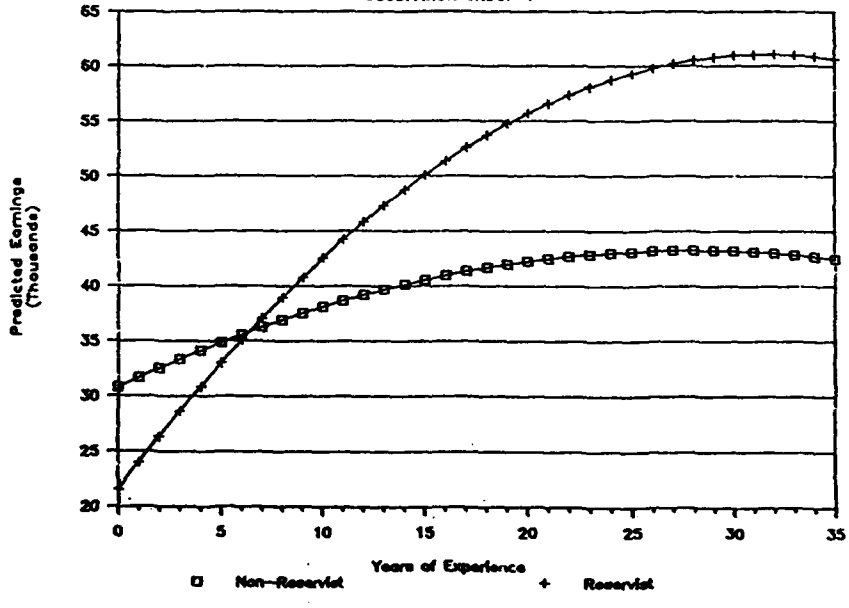
CIVILIAN EARNINGS PROFILES: OFFICERS

OCCUPATION GROUP 3



CIVILIAN EARNINGS PROFILES: OFFICERS

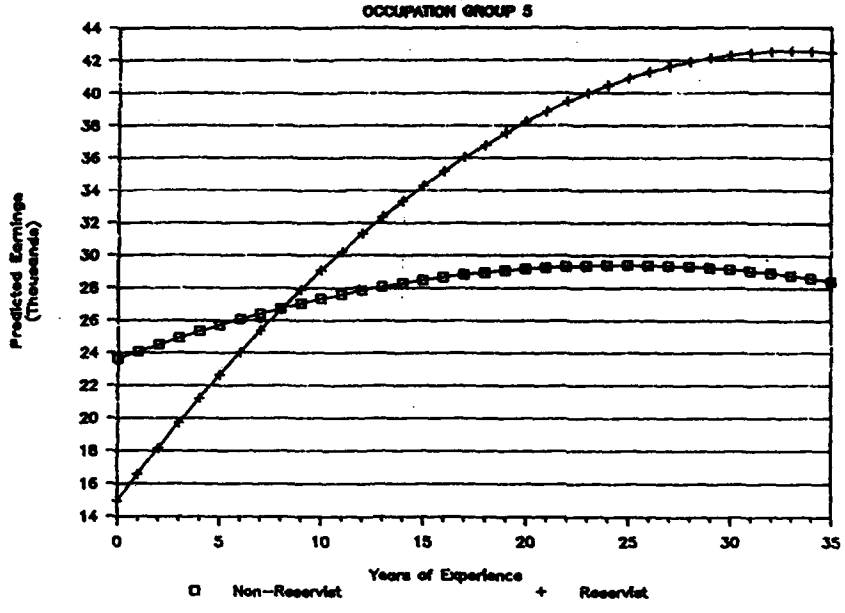
OCCUPATION GROUP 4



C-7

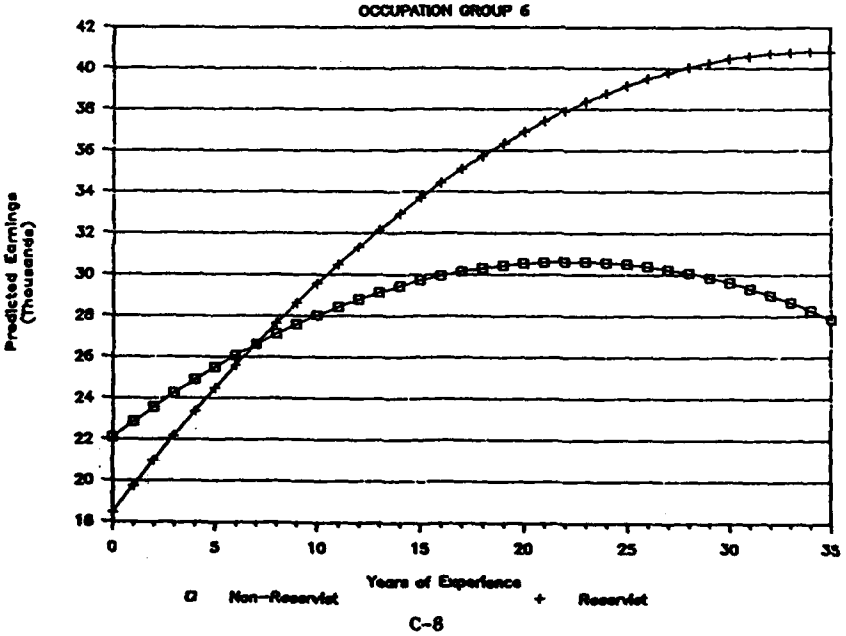
CIVILIAN EARNINGS PROFILES: OFFICERS

OCCUPATION GROUP 5



CIVILIAN EARNINGS PROFILES: OFFICERS

OCCUPATION GROUP 6



C-8

Part B. Civilian Income of Military Reservists: Data from the 1986 Reserve Components Survey

A RAND NOTE

N-2734-FMP/RA

Civilian Income of Military Reservists:
Data from the 1986 Reserve Components Surveys

William T. Mickelson

May 1988

Prepared for
The Offices of the Assistant Secretaries of Defense
for Force Management and Personnel and for
Reserve Affairs

40 Years 1948-1988
RAND

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

PREFACE

This Note documents the definition and creation of civilian income and income-related variables created from the 1986 Reserve Components Survey database designed and conducted by the Defense Manpower Data Center. Presented are the sources used to construct the civilian income variable, the contents of the computer data files incorporated into the 1986 Reserve Components Survey database, and selected income characteristics of reserve personnel.

The task involved extensive data cleaning, definition and creation of civilian income and income-related variables, estimation of total civilian income given multiple sources of income data, and exploratory tabulations on the variables created. The information should be of particular interest to researchers and programmers working on compensation issues pertaining to Guard/Reserve personnel.

The research was sponsored by the Offices of the Assistant Secretaries of Defense for Force Management and Personnel and for Reserve Affairs as part of their support for the Sixth Quadrennial Review of Military Compensation. This Note was prepared by the Defense Manpower Research Center, part of RAND's National Defense Research Institute, a Federally Funded Research and Development Center supported by the Office of the Secretary of Defense.

SUMMARY

The *1986 Reserve Components Survey of Officer and Enlisted Personnel* and the *1986 Reserve Components Survey of Guard/Reserve Spouses* form the first comprehensive survey of Guard/Reserve members and their spouses. The information obtained through the surveys provides baseline information on the composition of the reserve population for current use and for comparison with future data.

The raw survey data on civilian income and other income-related variables were examined. A set of rules for editing/correcting/imputing the civilian income variables was developed and additional civilian income and income-related variables was created for officer and enlisted reserves using alternative sources of income data. Exploratory tabulations on the civilian income variables were calculated to gain insight into the civilian income characteristics of the reserve force.

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I. INTRODUCTION

The *1986 Reserve Components Survey of Officer and Enlisted Personnel* and the *1986 Reserve Components Survey of Guard/Reserve Spouses* form the first comprehensive survey of Guard/Reserve members and their spouses. The information obtained through these surveys provides baseline information on the composition of the reserve population for current use and for comparison with future data.

PURPOSE OF THE SURVEYS

The 1986 Reserve Components Survey data will be used to study a wide range of reserve issues. The surveys make it possible to examine the relationships between families and the retention and readiness of reserve members. They allow the Department of Defense and the individual components to assess the need for family-related programs and policies in the event of mobilization. Finally, the data enable policy researchers and policy makers to answer a variety of questions about Guard/Reserve families which heretofore have been the subject of broad stereotyping and speculation. These in turn can be used in the formulation and justification of programs and budgets, particularly those related to readiness, recruiting and retention management, and human resource issues.

In addition, the 1986 Reserve Components Survey data will be used by the Sixth Quadrennial Review of Military Compensation (QRMC). The QRMC has been tasked to perform a comprehensive evaluation of the benefits and costs of all reserve compensation programs.

QUESTIONS ON CIVILIAN INCOME

An important variable to be created and incorporated into the 1986 Reserve Components Survey database is that of Total Household Income. Total household income of families with one or more members in the Guard/Reserves is composed of Total Household Military Income and Total Household Civilian Income. This Note considers only the civilian income

of reserve personnel and their spouses. Military income is being assessed by another contractor.

The *Reserve Components Survey of Officer and Enlisted Personnel* and the *Reserve Components Survey of Guard/Reserve Spouses* ask identical questions pertaining to civilian income of the survey respondent and the household. The income questions focus on the civilian income of the survey respondent, spouse, and other civilian income. The primary income questions from the Reserve Components Survey used to obtain estimates of Total Civilian Household Income are listed below for reference:

1. In 1985, what were your USUAL WEEKLY EARNINGS from your (main) civilian job or your own business before taxes and other deductions? (q. e104, o104, s51)
2. During 1985, what was the TOTAL AMOUNT THAT YOU EARNED FROM ALL CIVILIAN JOBS or your own business BEFORE taxes and other deductions? (q. e108, o108, s52)
3. Altogether in 1985, what was the total amount that YOUR SPOUSE earned from a civilian job or his or her own business, BEFORE taxes and other deductions? (q. e114, o114, s58)
4. During 1985, how much did you or your spouse receive from other income sources, i.e., interest, capital gains, alimony, unemployment, etc. (q. e116, o116, s65)
5. Altogether in 1985, how many weeks did you work for pay, either full- or part-time, at a civilian job? Include weeks that you were on paid vacation, paid sick leave, and military leave.

OVERVIEW OF NOTE

The Defense Manpower Data Center (DMDC) asked RAND to: (1) develop a set of rules for editing/correcting/imputing the civilian income variables, and (2) create new civilian income and related variables where appropriate.

The results of this work are two SAS computer files containing the variables created by RAND. One file contains variables pertaining to officer reserves and another file contains variables for enlisted

reserves. The files have been incorporated into the 1986 Reserve Components Survey database.

This Note documents the income-related and civilian income variables created by RAND that are incorporated into the 1986 Reserve Components Survey database and presents income characteristics of officer and enlisted reserves and their households. Section II of this Note documents how the civilian income variables were constructed. Section III defines all income-related variables and civilian income variables contained in the final RAND database given to the DMDC in Monterey. Section IV presents income characteristics of officer and enlisted reserves and their households.

II. CONSTRUCTION OF CIVILIAN INCOME VARIABLES

Survey research is always subject to some degree of respondent error, both unintentional and deliberate. Errors in the survey data are generally attributable to: (1) the respondent's incorrect interpretation of the question (e.g., reports income per paycheck instead of income per week), (2) misreporting or miscoding of response (e.g., the respondent inadvertently deletes or adds a digit when reporting income), or (3) deliberate nonresponse to a question.

The raw survey data are valuable and should be preserved. But because of respondent error and nonresponse error in the existing civilian income variables, it is necessary to examine and then correct/impute/refine the values for these variables when data are questionable. Accordingly, RAND has constructed a new set of total civilian income variables, for the Reserve Components Survey database.

For imputing/refining the total civilian income variables, three sources of data were identified:

- Respondent's survey
- Spouse's survey
- Regression estimates

A description and assessment of each source is given below. The collection of rules for deciding which source of data to replace/fill-in the total civilian income value is presented in Section III.

RESPONDENT'S SURVEY

Responses to the questionnaires were received from 11,583 officer reserves, 6868 officer reserve spouses, 48,636 enlisted reserves, and 20,732 enlisted reserve spouses. Questionnaires were sent only to spouses of reservists participating in the survey.

The reservist questionnaire for officer and enlisted reserves and the spouse questionnaire contain identical income-related questions. Both surveys ask the respondent for his/her total 1985 civilian income from all civilian jobs before taxes, the usual weekly civilian income from his/her main civilian job before taxes, and the number of weeks worked for pay, either full or part-time, at a civilian job.

The product of the weekly income and the number of weeks worked is the only combination of survey variables that was intended as a consistency check for the respondent's total civilian income. In most cases, the reservist's or spouse's raw response to the total civilian income question is accurate and should not be adjusted. If the raw total civilian income response is questionable, then the product of the weekly variables can be used as a source of data for imputing a value of the respondent's total civilian income. However, this consistency check may not be valid for all respondents.

Close examination of the survey questions shows that the questions are not completely consistent in their wordings. For example, if a reservist changed civilian jobs or had more than one civilian job during 1985, the product of the weekly variables may be significantly different from his total civilian income. Fortunately, a relatively small number of reserves are of this type.

SPOUSE'S SURVEY

The spouse questionnaire and the reservist questionnaire contain questions in which the respondent reports his/her spouse's total civilian income. In those cases where a reservist (or a spouse) did not provide relevant income-related information and data exist from his/her spouse, there exists an imputation source for total civilian income.

Data on officer and enlisted reservists who have spouses who responded to the spouse's survey were used to evaluate this imputation source of civilian income. Records were selected where both the reservists and their spouses gave income estimates for themselves and income estimates for their spouses. Descriptive statistics and correlations were calculated to determine how well the spouse's estimate

of the reservist's income compares to the reservist's estimate of his own income, and similarly, how well the reservist's estimate of his spouse's income compares to the spouse's estimate of her own income.

Comparison of Estimate to Actual

Tables 2.1 and 2.2 show means and standard deviations of total civilian incomes for officer reserves and their spouses, and enlisted reserves and their spouses, respectively.

For these survey populations, the mean of the differences (own - other) indicates that the spouse tends to, on average, underestimate the reservist's civilian income. This is understandable in that the spouse typically sees only take-home pay, and not the actual income before taxes (which is what the reservist is reporting). On the other hand, the reservist, on average, tends to slightly overestimate the spouse's civilian income, although not by a significant amount.

This result must be tempered by the fact that the means of the differences are rather small as a percentage of mean civilian incomes and relative to the variance of the difference of income estimates. To further illustrate the implication of this point: if a household were chosen at random, the probability the spouse underestimates the

Table 2.1

DESCRIPTIVE STATISTICS OF TOTAL CIVILIAN INCOMES
FOR OFFICER RESERVES AND THEIR SPOUSES

	Officer's Income		Spouse's Income	
	Mean	Std	Mean	Std
Own estimate	36755	20038	17040	14747
Other estimate	35308	19465	17221	14720
Difference (own - other)	1447	11952	- 181	8953

NOTE: Own estimate is the estimate of civilian income by person who earned the income. Other estimate is the estimate of civilian income by a person who did not earn the income. The number of observations in this sample is 3493.

Table 2.2

DESCRIPTIVE STATISTICS OF TOTAL CIVILIAN INCOMES FOR ENLISTED RESERVES AND THEIR SPOUSES

	Enlisted Income Mean	Enlisted Income Std	Spouse Income Mean	Spouse Income Std
Own estimate	23083	12182	12189	9752
Other estimate	21759	11630	12257	10257
Difference (own - other)	1324	8845	- 67	8481

NOTE: Own estimate is the estimate of civilian income by person who earned the income. Other estimate is the estimate of civilian income by a person who did not earn the income. The number of observations in this sample is 10001.

reservist's income is not much greater than one-half. In other words, the overall tendency to underestimate a spouse's income does not lend much additional income-related information for any given household.

Table 2.3 shows the correlations between the two estimates of civilian income for officer and enlisted reservists. The correlations are quite high, indicating a strong linear relationship between the spouse's estimate of the reservist's income and the reservist's estimate of his own income, as well as the reservist's estimate of his spouse's income and the spouse's estimate of her own income.

Table 2.3

CORRELATION OF THE TWO ESTIMATES OF CIVILIAN INCOME

Income	Type of Reservist Officer	Enlisted
Reservist's	0.81731	0.72499
Spouse's	0.81537	0.64176

The high correlation of the two estimates of civilian income, along with the results presented in Tables 2.1 and 2.2, suggest that using the spouse's income data as an imputation source for reservist's civilian income is a viable option. The same is true for the reservist's data as an imputation source for the spouse's civilian income. There are still difficulties that need to be accounted for: Identifying outliers, and who should be believed if information exists from both the reservist and the spouse?

REGRESSION ESTIMATE

In cases in which the reservist has not reported total civilian income or the weekly income variables, and his spouse does not give an estimate for the reservist's income (or the spouse was not part of the spouse survey, or the reservist is not married), the only other alternative for imputing a value for total civilian income is using some form of an estimate. Regression equations were used to estimate total civilian income. Only 426 or 3.7 percent of the officer records and 3728 or 7.7 percent of the enlisted records required replacement of the total civilian income variable by the regression estimate.

For analysis purposes, the officer and enlisted survey data were each split into two groups. One group consisted of those reserves whose spouses responded to the spouse questionnaire, and the other consisted of those reserves who did not have spouse survey data. This was done for two reasons: (1) it was felt that reservists who are not married would exhibit different behavior characteristics than reservists who are married, and (2) the division of the data into groups facilitated the development of the civilian income replacement rules (see Sec. III), by eliminating many redundant tests and checks.

Regression Equation

Regression equations were determined for the four groups. The regression equations were fit to reserve data where the product of weekly income and the number of weeks worked was within 50 percent of total civilian income. The regression equations are a function of age,

age squared, sex (male or female), race (white or nonwhite), level of education completed (did not complete high school, completed high school, completed college), current status (working full time, working part time, in school, not working, other [self-employed, working full time as Guard/Reserve technician, did not report status]), region of the country (northeast, midwest, south, west, other [did not report region of country]), and occupation group (professional/managerial/administration, technical, sales, clerical, craft, security, labor, service, farmer, and other [had no civilian job]). Age and age squared are the only continuous variables, with all other variables being indicator variables.

The regression equations for estimating total civilian income were determined in a two-step process. First, preliminary regressions were run to determine potential significant variables; at least one level from each factor was dropped to permit identification of parameters. Variables found to be not significant were removed from the model and the regressions were rerun to determine the final coefficients. All variables are significant at the 0.10 level unless otherwise indicated. Tables 2.4 and 2.5 show the regression coefficients and T-statistics for officer and enlisted groups.

Table 2.6 gives the means of the continuous variables and the counts of the indicator variables used in determining the coefficients of the regression equations.

Lognormal regression equations were fit to the above specified populations and compared to the standard regression results. The mean of the difference--actual minus predicted--was not significantly different from zero in both regression models. The standard regression was chosen over the lognormal model for estimating total civilian income of officer and enlisted reserves because of smaller mean squared error (MSE) and easier interpretation of the regression coefficients. (For officer reserves: MSE = 217 from standard regression versus MSE = 223 for lognormal regression. For enlisted reserves: MSE = 61 from standard regression versus MSE = 66 for lognormal regression.)

Table 2.4

REGRESSION COEFFICIENTS AND T-STATISTICS FOR ESTIMATING TOTAL CIVILIAN INCOME OF OFFICER RESERVE PERSONNEL

Independent Variable	With Spouse Coefficient	t	No Spouse Coefficient	t
Constant[a]	-34979.76	-4.381	-56525.41	-8.893
Age	1597.23	4.083	2870.66	8.550
Age(sq)	-8.25	-1.700	-23.73	-5.548
Male	9142.88	7.433	9227.29	12.353
White	-2762.52	-2.013	0.0	NS
EDUCATION				
Other	0.0	NS	0.0	NS
High school	0.0	NS	-5989.32	-3.286
College	5889.14	3.230	0.0	NS
CURRENT STATUS				
Full time work	8423.48	7.351	8677.98	7.885
Part time work	0.0	NS	-2169.81	-1.842
In school	-5675.05	-3.916	-2832.79	-2.561
Not working	-3748.47	-2.083	-4711.38	-3.261
Other	0.0	NS	0.0	NS
REGION				
Northeast	0.0	NS	0.0	NS
Midwest	0.0	NS	-2311.66	-2.839
South	0.0	NS	-1209.12	-1.804
West	0.0	NS	0.0	NS
Other	0.0	NS	0.0	NS
OCCUPATION				
Prof/mgrl/admin	5215.64	4.720	6646.34	7.026
Technical	3927.23	2.623	4806.65	3.746
Sales	8040.17	4.655	7812.53	5.279
Clerical	-8685.22	-1.915	0.0	NS
Craft	-6515.10	-2.502	0.0	NS
Security	0.0	NS	0.0	NS
Service	0.0	NS	0.0	NS
Labor	0.0	NS	0.0	NS
Farmer	0.0	NS	0.0	NS
Other	0.0	NS	0.0	NS
	N=2862 R(sq)=0.2272 F=64.42		N=3196 R(sq)=0.3219 F=116.17	

NOTE: NS = Not significant.

[a]Estimate for female or nonwhite reservist; includes estimate for polytomous variables where level is not significant.

Table 2.5

REGRESSION COEFFICIENTS AND T-STATISTICS FOR ESTIMATING TOTAL CIVILIAN INCOME OF ENLISTED RESERVE PERSONNEL

Independent Variable	With Spouse Coefficient	t	No Spouse Coefficient	t
Constant[a]	-30433.02	-12.540	-26070.99	-18.526
Age	1620.95	16.522	1390.19	23.253
Age(sq)	-15.63	-12.182	-12.06	-14.120
Male	5350.97	9.203	3738.23	15.187
White	0.0	NS	576.13	3.127
EDUCATION				
Other	0.0	NS	0.0	NS
High school	3892.37	2.932	3046.92	3.748
College	5279.69	3.958	4073.35	4.980
CURRENT STATUS				
Full time work	1894.73	6.150	2725.86	12.781
Part time work	-2116.00	-4.822	-2495.26	-10.023
In school	-1638.31	-3.489	-2367.08	-9.883
Not working	-4214.99	-7.833	-2802.17	-9.466
Other	0.0	NS	0.0	NS
REGION				
Northeast	7046.30	8.372	6258.83	12.188
Midwest	5503.83	6.591	4869.56	9.533
South	4612.59	5.584	4834.71	9.585
West	7126.08	8.377	6276.05	12.085
Other	0.0	NS	0.0	NS
OCCUPATION				
Prof/mgrl/admin	3087.18	9.993	3147.16	12.485
Technical	2810.74	7.954	2621.18	9.564
Sales	0.0	NS	-621.27	-1.858
Clerical	-1915.00	-3.318	-1144.27	-3.347
Craft	0.0	NS	0.0	NS
Security	1703.62	3.866	567.61	1.799
Service	-4985.62	-7.062	-4173.93	-11.981
Labor	-2016.68	-6.070	-1700.24	-7.588
Farmer	-6542.92	-3.998	-4701.38	-6.065
Other	0.0	NS	0.0	NS
	N=7562 R(sq)=0.2919 F=155.46		N=14,239 R(sq)=0.4332 F=493.82	

NOTE: NS = Not significant.

[a]Estimate for female or nonwhite reservist; includes estimate for polytomous variables where level is not significant.

Table 2.6

MEANS AND COUNTS OF CONTINUOUS VARIABLES
AND INDICATOR VARIABLES

Variable	Officer		Enlisted	
	With Spouse	No Spouse	With Spouse	No Spouse
Age	39.45	37.69	37.12	30.99
Age(sq)	1599.02	1471.88	1444.75	1041.20
Male	2595 (90.7)	2471 (77.3)	7251 (95.9)	12546 (88.1)
White	2697 (94.2)	2886 (90.3)	6793 (89.8)	11169 (78.4)
EDUCATION				
Other	NA	3 (0.1)	50 (0.7)	118 (0.8)
High school	98 (3.4)	94 (2.9)	3533 (46.7)	7136 (50.1)
College	2764 (96.6)	3099 (97.0)	3979 (52.6)	6985 (49.1)
CURRENT STATUS				
Full time work	2581 (90.2)	2793 (87.4)	6254 (82.7)	10923 (76.7)
Part time work	183 (6.4)	307 (9.6)	525 (6.9)	1955 (13.7)
In school	162 (5.7)	306 (9.6)	460 (6.1)	2141 (15.0)
Not working	120 (4.2)	162 (5.1)	366 (4.8)	1144 (8.0)
Other[a]	134 (4.7)	115 (3.6)	833 (11.0)	956 (6.7)
REGION				
Northeast	553 (19.3)	644 (20.2)	1536 (20.3)	3047 (21.4)
Midwest	576 (20.1)	629 (19.7)	1922 (25.4)	3434 (24.1)
South	1159 (40.5)	1190 (37.2)	2778 (36.7)	5017 (35.2)
West	545 (19.0)	684 (21.4)	1193 (15.8)	2420 (17.0)
other	29 (1.1)	49 (1.5)	133 (1.8)	321 (2.3)
OCCUPATION				
Prof/mgrl/admin	2120 (74.1)	2274 (71.2)	1952 (25.8)	2418 (17.0)
Technical	247 (8.6)	309 (9.7)	1102 (14.6)	1636 (11.5)
Sales	152 (5.3)	194 (6.1)	412 (5.4)	926 (6.5)
Clerical	15 (0.5)	49 (1.5)	321 (4.2)	984 (6.9)
Craft	52 (1.8)	47 (1.5)	1148 (15.2)	1927 (13.5)
Security	130 (4.5)	115 (3.6)	585 (7.7)	1062 (7.5)
Service	14 (0.5)	28 (0.9)	191 (2.5)	833 (5.9)
Labor	45 (1.6)	71 (2.2)	1312 (17.3)	3202 (22.5)
Farmer	2 (0.1)	5 (0.2)	33 (0.4)	134 (0.9)
Other	85 (3.0)	104 (3.2)	506 (6.7)	1117 (7.8)

NOTE: NA = Not available.

[a]It is possible for the reservist to be in school and working full time, part time, or not at all.

III. CONTENTS OF DATA FILES

Two SAS data sets containing the variables created by RAND have been sent to DMDC in Monterey for incorporation into the 1986 Reserve Components Survey database. One file contains variables pertaining to officer reserves and the other file contains variables for enlisted reserves.

Each of the data sets contains variables of the following types:

- Indicators of existence and consistency
- Total civilian income
- Replacement indicators

This section contains definitions for all created variables, distributions for all indicator variables, and replacement rules for raw survey data in the total civilian income variables.

INDICATORS OF EXISTENCE AND CONSISTENCY

The product of weekly civilian earnings and the number of weeks worked is the only combination of survey variables that form a consistency check on the total civilian income of the respondent. Six income-related indicator variables were created to determine the existence of the civilian income raw survey data and the consistency between the product of the weekly variables and total civilian income. An existence variable and a consistency variable were created for officer and enlisted reserves, and for spouses. The definition of these variables is given below. The variable names are indented and in boldface print.

Definition of Officer Variables

The following variables pertain to officer reserve member. and are incorporated into the officer data set.

OFFDATA Indicator of the presence of civilian income-related data for officer reservists.

OFFDATA is a string variable consisting of three indicators that distinguish the eight possible combinations of the variables, total civilian income (survey question o108), usual weekly earnings (survey question o104), and number of weeks worked (survey question o109). The meanings of the three indicators are:

```
0  0  0
|  |  |____ 1 if number of weeks paid is > 0, 0 otherwise.
|  |
|  |_______ 1 if usual weekly earning is > 0, 0 otherwise.
|
|__________ 1 if total civilian income is > 0, 0 otherwise.
```

OCONSIST Indicator of the level of consistency between the product of weekly income and number of weeks paid, and total civilian income for officer reservists.

-1 = Missing (OFFDATA ≤ 110).

1 = Product of weekly income and number of weeks paid is within 25 percent of total civilian income.

2 = Product of weekly income and number of weeks paid differs by at least 25 percent and less than 50 percent of total civilian income.

3 = Product of weekly income and number of weeks paid differs by at least 50 percent and less than 75 percent of total civilian income.

4 = Product of weekly income and number of weeks paid differs by more than 75 percent of total civilian income.

Definition of Enlisted Variables

The following variables pertain to enlisted reserve members and are incorporated into the enlisted data set.

ENLDATA Indicator of the presence of civilian income-related data for enlisted reservists.

ENLDATA, like OFFDATA, is a string variable consisting of three indicators that distinguish the eight possible combinations of the variables, total civilian income (survey question e108), usual weekly earnings (survey question e104), and number of weeks worked (survey question e109). The meanings of the three indicators are:

```
0  0  0
|  |  |____ 1 if number of weeks paid is > 0, 0 otherwise.
|  |
|  |_______ 1 if usual weekly earning is > 0, 0 otherwise.
|
|__________ 1 if total civilian income is > 0, 0 otherwise.
```

ECONSIST Indicator of the level of consistency between the product of weekly income and number of weeks paid, and total civilian income for enlisted reservists.

-1 = Missing (ENLDATA ≤ 110).

1 = Product of weekly income and number of weeks paid is within 25 percent of total civilian income.

2 = Product of weekly income and number of weeks paid differs by at least 25 percent and less than 50 percent of total civilian income.

3 = Product of weekly income and number of weeks paid differs by at least 50 percent and less than 75 percent of total civilian income.

4 = Product of weekly income and number of weeks paid differs by more than 75 percent of total civilian income.

DEFINITION OF SPOUSE VARIABLES

The following variables pertain to the spouses of Guard/Reserve members and incorporated into both the officer and reserve data sets.

SPSDATA Indicator of the presence of civilian income-related data for the spouse of the reservists.

SPSDATA, like OFFDATA, is a string variable consisting of three indicators that distinguish the eight possible combinations of the variables, spouse's total civilian income (spouse survey question s52), spouse's usual weekly earnings (spouse survey question s51), and number of weeks spouse worked (spouse survey question s46). The meanings of the three indicators are:

```
0  0  0
|  |  |____ 1 if number of weeks paid is > 0, 0 otherwise.
|  |
|  |_______ 1 if usual weekly earning is > 0, 0 otherwise.
|
|__________ 1 if total civilian income is > 0, 0 otherwise.
```

SCONSIST Indicator of the level of consistency between the product of weekly income and number of weeks paid, and total civilian earning for the spouse.

-1 = Missing (SPSDATA ≤ 110).

1 = Product of weekly income and number of weeks paid is within 25 percent of total civilian income.

2 = Product of weekly income and number of weeks paid differs by at least 25 percent and less than 50 percent of total civilian income.

3 = Product of weekly income and number of weeks paid differs by at least 50 percent and less than 75 percent of total civilian income.

4 = Product of weekly income and number of weeks paid differs by more than 75 percent of total civilian income.

Distribution of Existence and Consistency Variables

Table 3.1 shows the distribution of the variables OFFDATA and SPSDATA that are found in the officer data file. SPSDATA = -1 means the officer does not have a spouse who responded to the *1986 Reserve Components Survey of Guard/Reserve Spouses*. Table 3.2 shows the distribution of the variables OCONSIST and SCONSIST that are found in the officer data file.

Table 3.3 shows the distribution of the variables ENLDATA and SPSDATA that are found in the enlisted data file. SPSDATA = -1 means the enlisted reservist does not have a spouse who responded to the *1986 Reserve Components Survey of Guard/Reserve Spouses*. Table 3.4 shows the distribution of the variables ECONSIST and SCONSIST that are found in the enlisted data file.

Table 3.1

DISTRIBUTION OF OFFDATA AND SPSDATA VARIABLES
IN RESERVE COMPONENTS SURVEY: OFFICER FILE

Code	OFFDATA	Percent	SPSDATA	Percent
-1	0	0.0	4715	40.7
000	715	6.2	2005	17.3
001	323	2.8	5	0.0
010	101	0.9	282	2.4
011	432	3.7	171	1.5
100	18	0.2	3	0.0
101	282	2.4	13	0.1
110	235	2.0	70	0.6
111	9477	81.8	4319	37.3
Total	11583	100.0	11583	100.0

Table 3.2

DISTRIBUTION OF OCONSIST AND SCONSIST VARIABLES IN RESERVE COMPONENTS SURVEY: OFFICER FILE

Code	OCONSIST	Percent	SCONSIST	Percent
-1	2106	18.2	7264	62.7
1	7273	62.8	3213	27.7
2	1077	9.3	518	4.5
3	332	2.9	186	1.6
4	795	6.9	402	3.5
Total	11583	100.0	11583	100.0

Table 3.3

DISTRIBUTION OF ENLDATA AND SPSDATA VARIABLES IN RESERVE COMPONENTS SURVEY: ENLISTED FILE

Code	ENLDATA	Percent	SPSDATA	Percent
-1	0	0.0	27904	57.4
000	5685	11.7	5886	12.1
001	1553	3.2	32	0.1
010	808	1.7	932	1.9
011	1923	4.0	677	1.4
100	217	0.4	25	0.1
101	1219	2.5	64	0.1
110	2039	4.2	236	0.5
111	35192	72.4	12880	26.5
Total	48636	100.0	48636	100.0

Table 3.4

DISTRIBUTION OF ECONSIST AND SCONSIST VARIABLES IN RESERVE COMPONENTS SURVEY: ENLISTED FILE

Code	ECONSIST	Percent	SCONSIST	Percent
-1	13444	27.6	35756	73.5
1	22032	45.3	8928	18.4
2	5964	12.3	1715	3.5
3	1966	4.0	654	1.3
4	5230	10.8	1583	3.3
Total	48636	100.0	48636	100.0

Total Civilian Income

Rules have been developed to adjust the raw data responses in the Reserve Components Surveys for nonresponse and other errors. Using these rules, two civilian income variables were created and serve as corrected/refined versions of the total civilian income variables. One variable is for total civilian income of reserve members, and the other is for the total civilian income of the spouse.

It was assumed in developing the replacement rules that for any given person in the reserves, if the original data seemed questionable or were missing, the objective was not to determine his/her actual income, but rather to determine the income value representative of that type of reservist given the data available.

Definition of total civilian income variables and the rules for replacing the raw survey data are given below.

Variable Definition

The following variables are contained in both the officer and enlisted data sets.

RESINCOM = Reservist's total civilian income.

= -1 if reservist did not have a job in 1985 and did not report civilian income.

= 100000 if reservist made at least $100,000 during 1985.

SPSINCOM = Spouse's total civilian income.

= -1 if spouse did not have a job in 1985 and did not report civilian income.

= 100000 if spouse made at least $100,000 during 1985.

INCXREGR = Reservist's total civilian income as estimated by regression equation.

= -1 if reservist did not have a job in 1985 and did not report civilian income.

(NOTE: INCXREGR is reported for all reserve personnel, and is used as the imputation source when no other information is available.)

Replacement Rules

The following rules were applied to officer and enlisted reserves who responded to the 1986 Reserve Components Survey data and the spouses who responded to the 1986 Reserve Components Survey of Spouses in order to create the RESINCOM and SPSINCOM variables. Regression estimates of spouse's total civilian income were not applicable and are not part of the replacement rules for the SPSINCOM variable. The replacement rules are given below:

1. Two initial consistency checks were made. Failing both consistency checks resulted in the data being further evaluated and potentially replaced/filled in. If the respondent passed either of the checks, raw response was not replaced.

   a. The first check compared the product of weekly civilian income and the number of weeks worked with the total civilian income. If the product of the weekly variables differed by more than 50 percent of the total civilian income, or some combination of the respondent's civilian income variables was missing, then the record failed this test.

b. The second check compared the respondent's estimate of total civilian income with his spouse's estimate of his total civilian income if the spouse's data were available for those respondents who failed the first test. If these estimates differed by more than $2500, the record failed this test.

2. The income variables were checked for extreme values. Records where total civilian income was less than $2500 or total civilian income exceeded $90,000 were considered extreme values. These records were examined by hand to determine the explicit rules to replace the values.

3. If the respondent's total civilian income was missing and at least one of the weekly income variables was missing (e.g., ENLDATA ≤ 010), the total civilian income was filled in using the spouse's estimate of the reservist's income. Estimates that were potential outliers were excluded (e.g., the reservist was not in school, or not working part-time, and the estimate was less than $10,000). If spouse data were not available or excluded as an outlier, the regression estimate was used.

4. If the respondent's total civilian income was missing but the weekly income variables were reported and acceptable (e.g., number of weeks paid ≥ 45), then the income was filled in by the product of the weekly variables. If the weekly income variables were not acceptable and spouse's data were available, then the total civilian income was filled in using the spouse's estimate of the reservist's income; otherwise the regression estimate was used.

5. If the respondent's total civilian income was reported and at least one of the weekly income variables was missing (e.g., 100 ≤ENLDATA≤ 110), and the spouse's estimate of the reservist's total civilian income is given, the difficulty of "who to believe" arises. Here, the total civilian income of the reservists was filled in using the maximum of

the reservist's and the spouse's estimate of the reservist's income.[1] If the total civilian income reported was between $2500 and $90,000 and the spouse's data were not available, the value was not replaced. Since regression estimates are given for all records (see INCXREGR variable), replacement of these values are at the analyst's discretion.

6. If all of the respondent's civilian income variables were reported and the product of weekly civilian income and the number of weeks worked was inconsistent with the total civilian income, then total civilian income was replaced by the product of the weekly variables or the spouse's estimate of the reservist's income, whichever is most appropriate.[2]

REPLACEMENT INDICATORS

Two variables were created that indicate the replacement of the raw survey data in the civilian income variables. These variables give an indication of why the raw survey data were replaced and the source of the replacement data. The definitions of the replacement variables are given below.

---

[1]The maximum of total civilian income and the spouse's estimate of the reservist's income is used since in the majority of cases the income estimates differed by a factor of 10. This suggests that a zero was inadvertently dropped from one of the income estimates.

[2]By nature of the questions, the product of the weekly variables should be less than or equal to the total civilian income. If this is not true, either the reservist underreports his income or is reporting wrong values for the weekly variables. If he appeared to underreport his income, the product of the weekly variables was used; if weekly variables appeared questionable, the spouse's estimate of the reserve's income was used.

Variable Definition

The following variables are contained in both the officer and enlisted data sets.

REPLCODE Indicator of the source of data for RESINCOM and the reason why the original data were replaced.

= 0 if original data are used, no replacement needed.

= 1 if total civilian income is low (income < $2500) and the earnings were not consistent with the weekly consistency check or the spouse's data. Replaced with the product of the weekly variables or spouse's data, whichever is most appropriate.

= 2 if total civilian income is high (income > $90,000) and not consistent with the weekly consistency check or the spouse's data. Replaced with the product of the weekly variables earnings or spouse's data, whichever is most appropriate.

= 3 if total civilian income and at least one of the weekly variables is missing (ENLDATA ≤ 10). Replaced with spouse's data.

= 4 if total civilian income is missing but the weekly earning and number of weeks paid are present. Replaced with the product of the weekly variables or spouse's data, whichever is most appropriate.

= 5 if total civilian income is present but the weekly earning or number of weeks paid are missing. Replaced with spouse data.

= 6 if total civilian income is inconsistent with the weekly consistency check (e.g., ECONSIST ≥ 3). Replaced with the product of the weekly variables or spouse data, whichever is most appropriate.

= 7 if total civilian income is missing and has not been filled in; regression estimate is used.

= 8 if the reservist indicated that he did not have a job in 1985 and received no civilian income. No income replacement needed.

REPLSPS Indicator of the source of data for SPSINCOM and the reason why the original data should be replaced.

= -1 if spouse data do not exist.

= 0 if original spouse data are used.

= 1 if original spouse data are missing. Replace with reservist's data.

= 2 if spouse's total civilian income is missing but the weekly earning and the number of weeks worked is present. Replace with product of weekly variables.

= 3 if spouse's total civilian income is inconsistent with the weekly consistency check and reservist's data on spouse are missing. Replace with product of weekly variables.

= 4 if spouse's total civilian income is inconsistent with the weekly consistency check and the reservist's data on spouse are available. Replace with product of weekly variables or reservist's data, whichever is most appropriate.

Distributions of Replacement Indicator Variables

Tables 3.5 and 3.6 show the distribution of the variables REPLCODE and REPLSPS for officer and enlisted reserve members and their spouses.

Table 3.5

DISTRIBUTION OF REPLCODE VARIABLE FOR OFFICER AND ENLISTED RESERVES

REPLCODE	Officer Frequency	Officer Percent	Enlisted Frequency	Enlisted Percent
0	9221	79.6	33380	68.6
1	196	1.7	2122	4.4
2	29	0.3	82	0.2
3	146	1.3	573	1.2
4	427	3.7	1833	3.8
5	54	0.5	231	0.5
6	537	4.6	2855	5.9
7	426	3.7	3748	7.7
8	547	4.7	3812	7.8
Total	11583	100.0	48636	100.0

Table 3.6

DISTRIBUTION OF REPLSPS VARIABLE FOR OFFICER AND ENLISTED RESERVES

REPLSPS	Officer Frequency	Officer Percent	Enlisted Frequency	Enlisted Percent
-1	5246	45.3	28595	58.8
0	3950	34.1	11275	23.2
1	1863	16.1	6497	13.4
2	123	1.1	535	1.1
3	49	0.4	345	0.7
4	352	3.0	1389	2.9
Total	11583	100.0	48636	100.0

IV. CHARACTERISTICS OF RESERVIST'S INCOME

To better understand the total civilian income variables created by RAND and the civilian income of reserve members in general, it is useful to examine some income characteristics of the variables. Exploratory tabulations were run that look at:

- Distribution of individual income
- Comparison with civilian population
- Average household income

DISTRIBUTION OF INDIVIDUAL INCOME

The civilian income distributions of officer and enlisted reserves and their spouses as shown by the variables RESINCOM and SPSINCOM are given below. These distributions show that the replacement rules, given in Sec. III, do not produce unreasonable results. The distributions of civilian household incomes are also given.

Officer Reserves and Spouses

Figures 4.1 and 4.2 illustrate the distributions of civilian income, as shown by the variables RESINCOM and SPSINCOM, for officer reservists and their spouses, respectively. Income level 77.5 includes all officers or spouses who earned $77,500 or more during 1985. The 0 income level refers to officers or spouses who did not have a civilian job in 1985 and did not report a civilian income, had no civilian income in 1985, and other missing values.

Figure 4.3 shows the distribution of total civilian household income. This income was found by adding reservist's civilian income, spouse's civilian income, and other income.

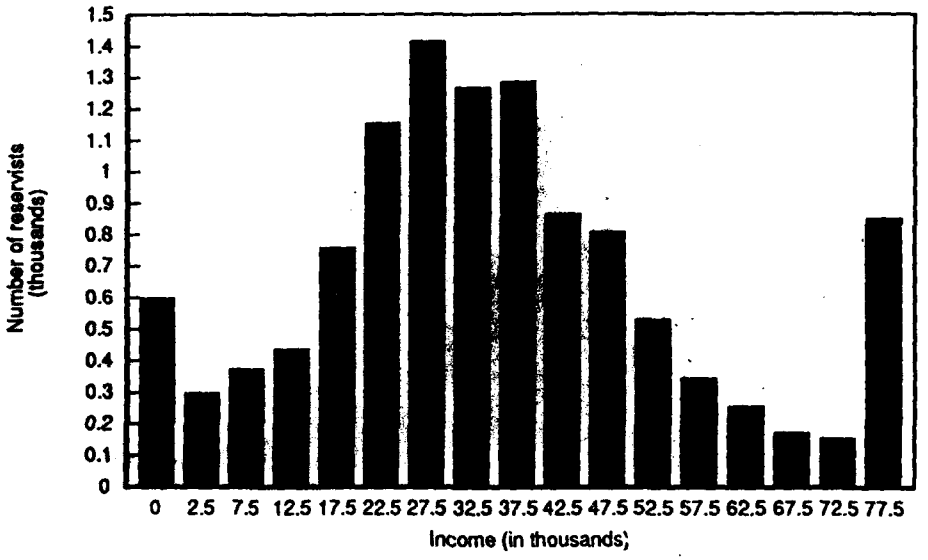


Fig. 4.1--Distribution of civilian income of officer reservists

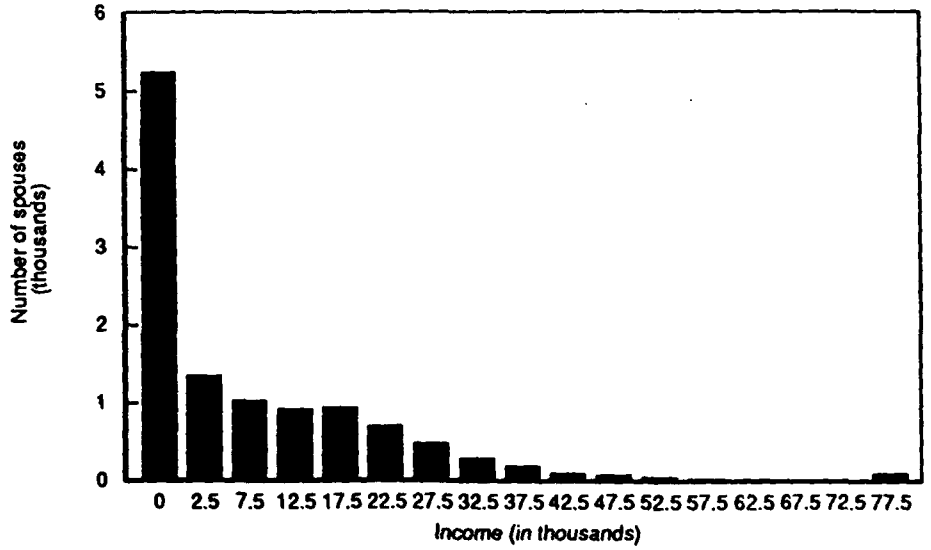


Fig. 4.2--Distribution of income of spouses of officer reservists

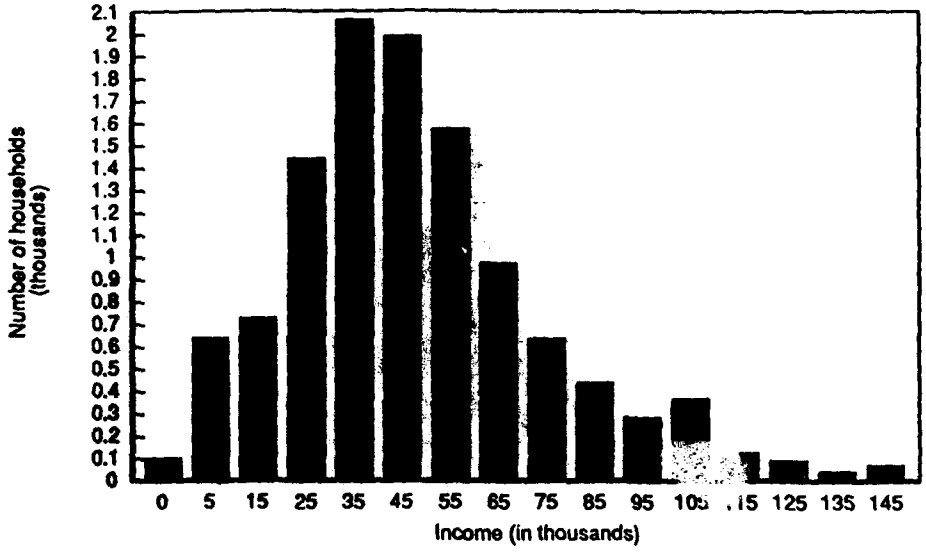


Fig. 4.3--Distribution of total household civilian income of officer reservists

Enlisted Reserves and Spouses

Figures 4.4 and 4.5 illustrate the distributions of civilian income, as shown by the variables RESINCOM and SPSINCOM, for enlisted reservists and their spouses, respectively. Income level 77.5 includes all enlisted reserves or spouses who earned $77,500 or more during 1985. The 0 income level refers to enlisted reservists or spouses who did not have a civilian job in 1985 and did not report a civilian income, had no civilian income in 1985, and other missing values.

Figure 4.6 shows the distribution of total civilian household income. This income was found by adding reservist's civilian income, spouse's civilian income, and other income.

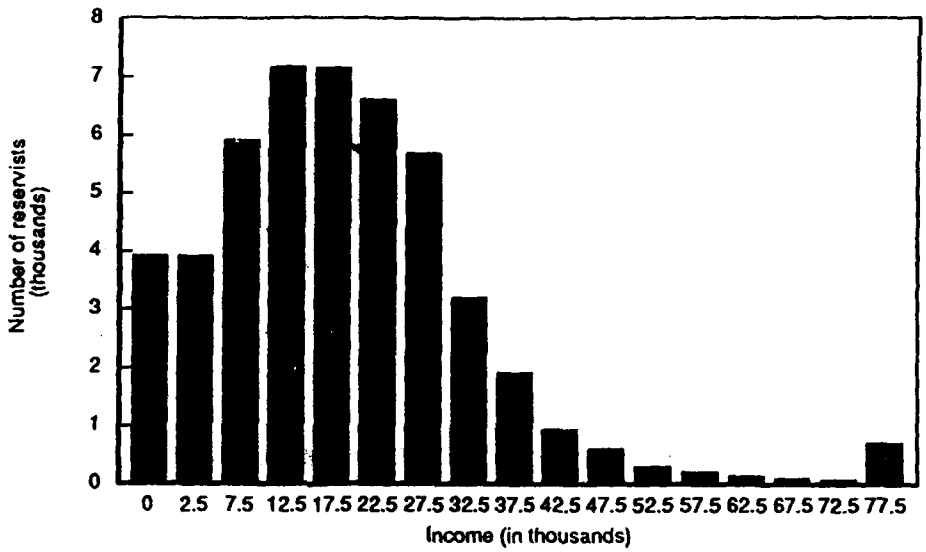


Fig. 4.4--Distribution of civilian income of enlisted reservists

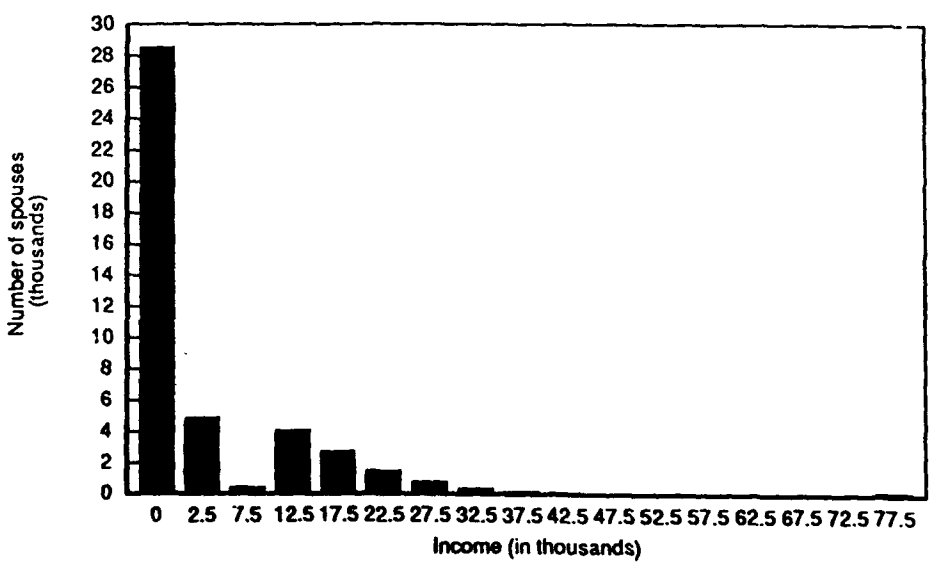


Fig. 4.5--Distribution of income of spouses of enlisted reservists

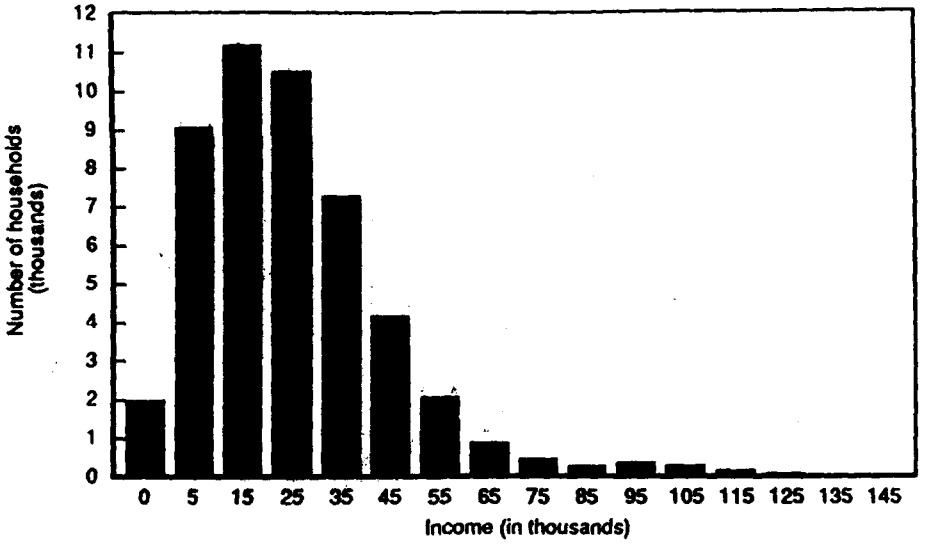


Fig. 4.6--Distribution of total household civilian income of enlisted reservists

AVERAGE HOUSEHOLD INCOMES

The average household incomes of officer and enlisted reserve households are given below. Household income was determined by adding the reservist's total civilian income, spouse's total civilian income, and other income. Since income tends to increase with age, average household incomes are presented controlling for age. The age distribution of the reserve members is also given.

Officer Reserves

Figure 4.7 shows the average civilian household income of officer reserves, controlling for the age of the reserve member. The civilian household income is also delineated by the source of income (reserve, spouse, other income). It is obvious that the reservist is the primary income producer, income increases with age, and other income tends to be only a small portion of civilian household income. Table 4.1 gives the means and standard deviations of the sources of household civilian income.

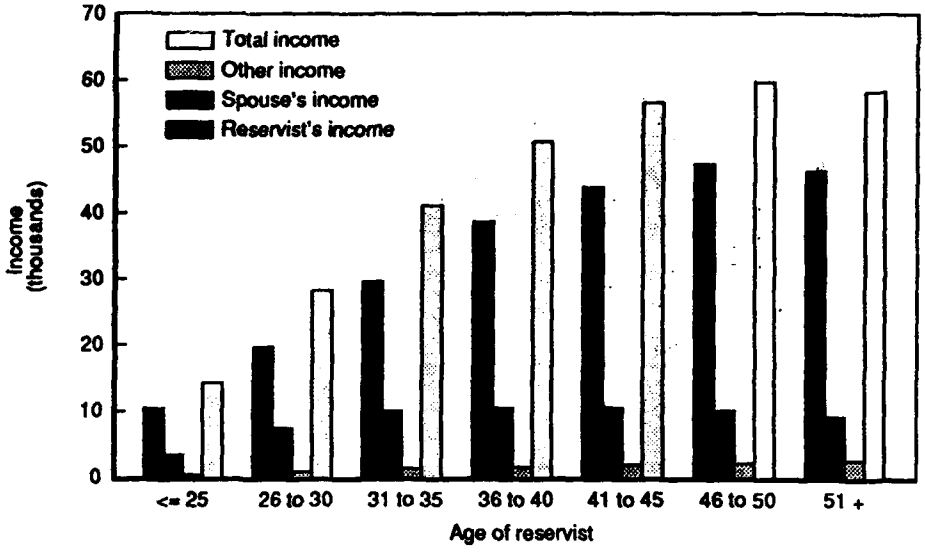


Fig. 4.7--Average household civilian income of officer reserves

Table 4.1

SOURCE OF CIVILIAN HOUSEHOLD INCOME OF OFFICER RESERVES

Reservist's Age	N	RESINCOM Mean	%	SPSINCOM Mean	%	OTHERINC Mean	%	Household Income
≤25	409	10312	72.22	3478	24.36	488	3.42	14279
26-30	1144	19789	69.88	7552	26.67	975	3.45	28317
31-35	2205	29733	72.08	10129	24.55	1391	3.37	41253
36-40	3476	38738	76.08	10559	20.74	1619	3.18	50916
41-45	2346	44109	77.66	10654	18.76	2033	3.58	56796
46-50	1209	47490	79.31	10232	17.09	2156	3.60	59878
51+	791	46452	79.47	9264	15.85	2736	4.68	58451
Total	11580	36676	76.11	9827	20.39	1688	3.50	48191

Enlisted Reserves

Figure 4.8 shows average civilian household income of enlisted reserves, controlling for the age of the reserve member. The civilian household income is also delineated by the source of income (reservist, spouse, other income). Again, the reservist is the primary income producer, income increases with age, and other income is a nominal portion of the total household income of enlisted reserves. Table 4.2 gives the means and standard deviations of the sources of household civilian income.

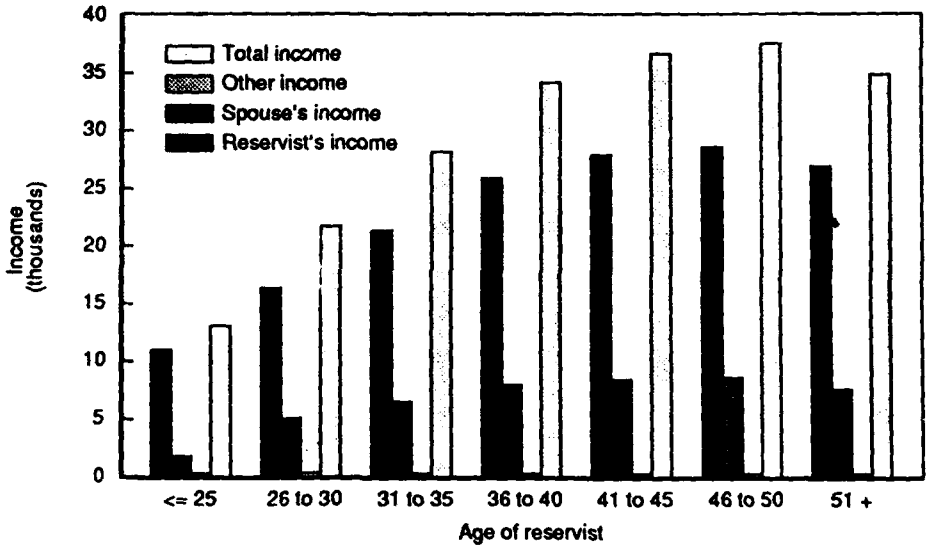


Fig. 4.8--Average household civilian income of enlisted reserves

Table 4.2

SOURCE OF CIVILIAN HOUSEHOLD INCOME OF ENLISTED RESERVES

Reservist's Age	N	RESINCOM Mean	RESINCOM %	SPSINCOM Mean	SPSINCOM %	OTHERINC Mean	OTHERINC %	Household Income
≤25	14323	10949	84.02	1788	13.72	294	2.26	13032
26-30	7997	16356	75.17	5044	23.18	358	1.65	21759
31-35	7211	21397	75.75	6514	23.06	335	1.19	28246
36-40	8658	25978	75.88	7984	23.32	274	0.80	34237
41-45	4927	27965	76.20	8433	22.98	300	0.82	36698
46-50	3065	28601	76.26	8606	22.95	298	0.79	37505
51+	2448	26726	77.17	7613	21.98	293	0.85	34632
Total	48629	19694	77.15	5524	21.64	308	1.21	25526

Part C. Benefits Provided by Employers of Personnel in the Selected Reserves

CONTRACT NUMBER
MDA 903-87-C-0647

BENEFITS PROVIDED BY EMPLOYERS OF PERSONNEL IN THE SELECTED RESERVES

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BENEFITS PROVIDED BY EMPLOYERS OF PERSONNEL IN THE SELECTED RESERVES

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APPENDICES

Appendix A	Prevalence of Benefits
Appendix B	List of Comparator Organizations
Appendix C	Numeric Results

Benefits Provided by Employers of Personnel in the Selected Reserves

This report is the employer-provided benefits section of the Reserve Components study for the Quadrennial Review of Military Compensation (Contract No. MDA 903-87-C-0647). Hay/Huggins was asked to derive the relative value of employer-provided benefits (e.g. retirement, insurance and leave provided by an employer) for reserve force members through the Defense Department and from their full-time employer. Section I explains the survey and analysis methods. Section II shows the value of benefits earned as a reserve force member. Section III of the report shows the value of benefits provided by the full-time employer by type and by economic sector. Appendix A describes the prevalence of benefits by provision; Appendix B is a list of the comparator organizations; and Appendix C is a listing of the numeric results.

Data from the Hay/Huggins Benefit Comparison (HHBC) for 1986 were analyzed for 836 employers selected from the 912 HHBC participants as most likely to employ reserve force members while they are not on military duty. Benefits provided by these employers average 65% of pay for low-paid employees and decline to an average of 35% of pay for higher-paid employees. Larger employers (those with over 500 employees) provide a benefits package that is worth about 4% more on average than the package provided by smaller employers. In addition the Department of Defense provides benefits worth 29% of their reserve salary to the reserve force members.

I. Hay/Huggins Benefits Comparison

Hay/Huggins conducts an annual survey of employers throughout the country. The survey, called the Hay/Huggins Benefits Comparison, includes participants from all industry groups and geographical areas. The survey concentrates on medium and large

organizations and includes questions concerning insurance plans, pension plans, capital accumulation plans, annual and sick leave, and executive perquisites. Data for this study were drawn for specific groups from the 912 employers reporting in the 1986 HHBC.

The survey information is used to measure the total benefit value for each of the organizations in the survey. The Hay/Huggins Benefits Value Comparison (BVC) is used to perform a quantitative analysis of the value of the benefits provided by the employer. The unit of measure is (a) the rate of expected use of a benefit times (b) the expected value of the benefit times (c) the duration of receipt of the benefit. For instance, the disability value is determined by multiplying (a) the expected rate of disability by (b) the expected annual benefit by (c) the expected number of years on the disability rolls.

The level of benefits which an employer provides to its employees is known to vary by the size of the firm and the industrial sector. To measure the impact of these factors, and how they relate to Selected Reservist benefits, the analysis concentrated on the following industry groups which are more likely to employ reserve force members:

I. Manufacturing

II. Transportation and Trade

III. Finance

IV. Government

A complete list of the 836 employers is included in Appendix B (76 employers were excluded because they were in other industry segments or did not report a number of employees). The number by category is:

Manufacturing	273
Transportation & Trade	138
Finance	394
Government	31
Total	836

Further, an analysis of the benefits provided by employers in all four industry groups for each of the subgroups A and B was performed. This final comparison was performed for different benefits categories. The number of employers by subgroup is:

A.	Employers with 1 to 500 Employees	154
B.	Employers with 501 or More Employees	682
	Total	836

The description of Selected Reservist benefits was based primarily on information in the 1987 Reserve Forces Almanac. The almanac includes information on the benefits provided and on the specific rules and regulations covering use of those benefits. Information from the 1986 Reserve Components Survey of Officers and Survey of Enlisted Personnel and the Office of the Actuary of the Department of Defense was used to evaluate the benefits. The Reserve Components Surveys included information on the usage of commissaries and exchanges.

II. Benefits from Reserve Status

Reserve force members receive Defense Department benefits associated with their reserve status. The value of these benefits is shown in Graph I. These benefits are approximately the same as a percentage of different basic pay levels with an average value of 29% of basic pay. The graph covers the range of total yearly earnings of Officers and Enlisteds for 48 drills and 14 days of annual active duty.

Five benefits were determined to be of significant monetary value to the reserve force members and were included in the calculation of the average value of benefits. The first, and most important, is the additional points earned toward retirement credit. Details on the calculation of the retirement value are provided below.

The second benefit is the value of the government's Social Security contribution for pay while on active duty. There is a proposal to cover drill pay for Social Security but the values show the effect of current law which covers approximately 25% of total reserve pay.

The third benefit is the average value of the educational assistance. The benefit value was determined to be about $100 a year based on determinations of the Board of Actuaries of the military retirement system. The value is included as an opportunity at all pay levels although reserve force members are not eligible if they already have a college degree or do not sign up for at least a six year tour of duty.

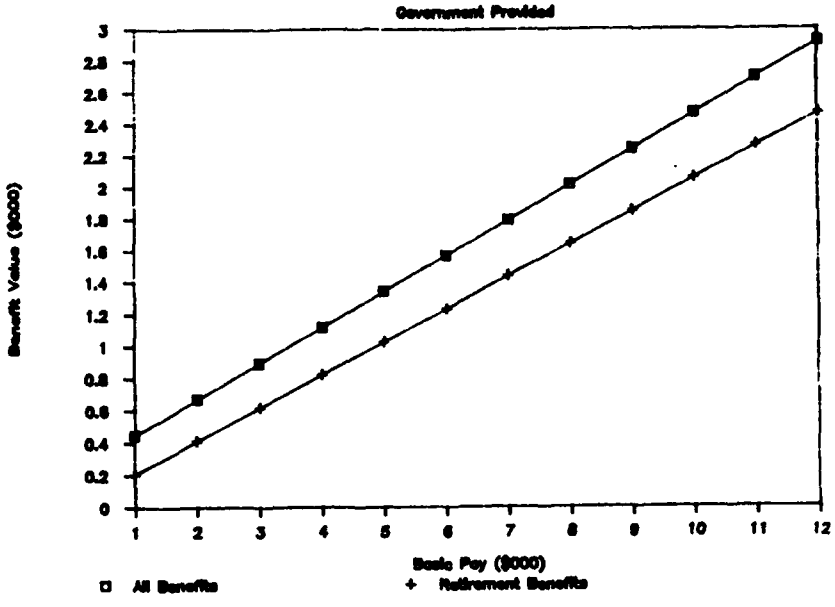
The fourth benefit is the savings resulting from use of commissary and exchange privileges. The last benefit is the value of compensation and benefits received as a result of injury while on duty.

Values were not assigned to other government-provided benefits because (1) they apply to reserve force members only while on active duty, (2) the frequency of use of the benefits is very low, and/or (3) the amount of the benefit is negligible. The benefits that were not assigned a value include:

Use of Military clothing stores
Legal assistance
Use of Military postal facilities
Use of Military recreational facilities
Burial flag
Wearing of uniforms
Official library services
Military affiliate radio service
Military Red Cross assistance
Military death gratuity
Military medical/dental services
Space-available use of military aircraft

Benefits for Reserve Force Members

GRAPH I



Retirement plan points are accumulated for active duty, for drills, for other instruction, and for certain other services provided to the government by the reserve force members. The reserve force member who accumulates 50 such points annually for 20 years becomes eligible for retirement benefits. The 20 years need not be consecutive. The benefit amount is based on both current basic salary and the total number of points accumulated. For purposes of this calculation all points earned are counted including points earned in years in which the reservist did not accumulate 50 points. The benefit provided is 2 1/2 percent of active duty basic pay for every 360 points. Total retirement pay may not exceed 75% of active duty basic pay.

Reserve force members are provided commissary and exchange privileges. The value of this benefit depends on both usage and availability. The amount spent in commissaries and exchanges depends on the individual reserve force member. Additionally, the number of days in which a reserve force member has access to these privileges depends on the amount of training and drills in which an individual reserve force member participates. Data provided by the 1986 Reserve Component Surveys were used to estimate the average annual amount saved through the use of these services by members of the Selected Reserves. The benefit provided is the dollar amount saved by use of the service. Therefore, the benefit increases as the amount spent in commissaries increases.

The BVC uses the normal cost of a retirement system to measure the value of the benefit as a percentage of salary. The reserve-specific normal cost calculated by the Office of the Actuary of the Department of Defense was used as the base for the BVC calculation. The Office reports that the military normal cost is 26.4% of covered payroll in 1987 and will decline eventually to 22.8% of covered payroll. The 22.8% will be the normal cost when all of the reserve force members are subject to the retirement plan changes enacted in July 1986 for members first entering on or after August 1, 1986 (Military Retirement Reform Act of 1986).

If there is more than one retirement plan, the BVC measures the cost of the plan that will apply to new employees since one of the purposes of the analysis is to determine the effect that benefits programs will have on recruiting new personnel. Therefore, it is appropriate to base the BVC analysis on the ultimate 22.8% normal cost.

The normal cost was adjusted to reflect the economic assumptions used in the BVC. Actuaries for different employers use different sets of assumptions based on the unique characteristics of the benefits, investments, and funding philosophy of the specific plan. The BVC uses a standard yardstick based on a set of assumptions that are the approximate average of actuarial assumptions in the private sector. The demographic assumptions, such as the UP-1984 mortality table used in the BVC, were not adjusted since they create marginal differences.

The differences in assumptions were applied against the baseline cost of 22.8% to produce a BVC cost of 18.8% of covered payroll for military retirement. The average cost of retirement benefits in the private sector is 13% of salary. The 13% includes the value of pension plans (see Table XI) and capital accumulation plans (see Table XII) since the latter are primarily tax-deferred income to be used for retirement income.

It is important to understand that the BVC assumptions are used in this study to standardize the measurement of the benefits systems. The set of assumptions used by the DoD has been established as the most appropriate for funding of the military retirement system. The differences in economic assumptions are:

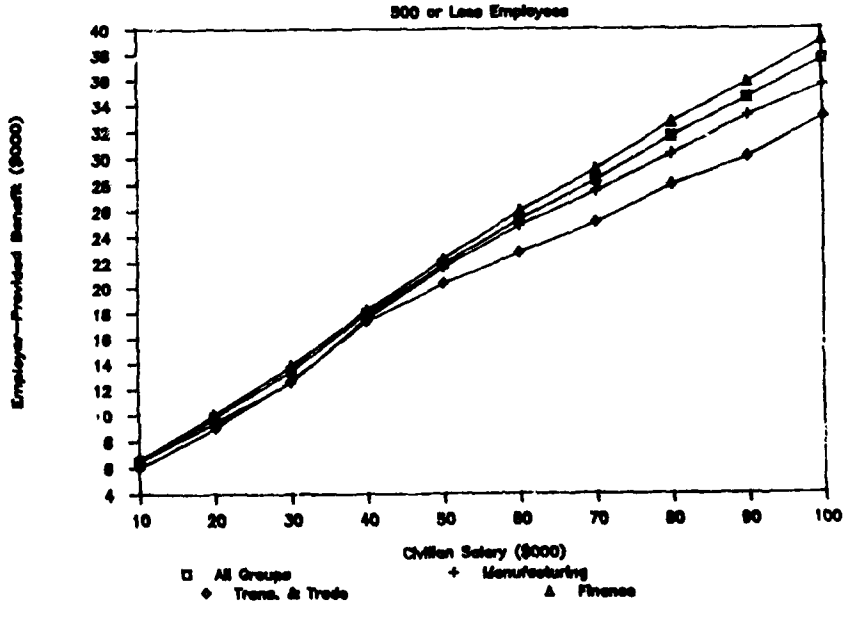
	Department of Defense	BVC
Annual inflation	5.0%	4.0%
Annual salary scale increase	6.2%	6.0%
Annual investment	6.6%	7.0%

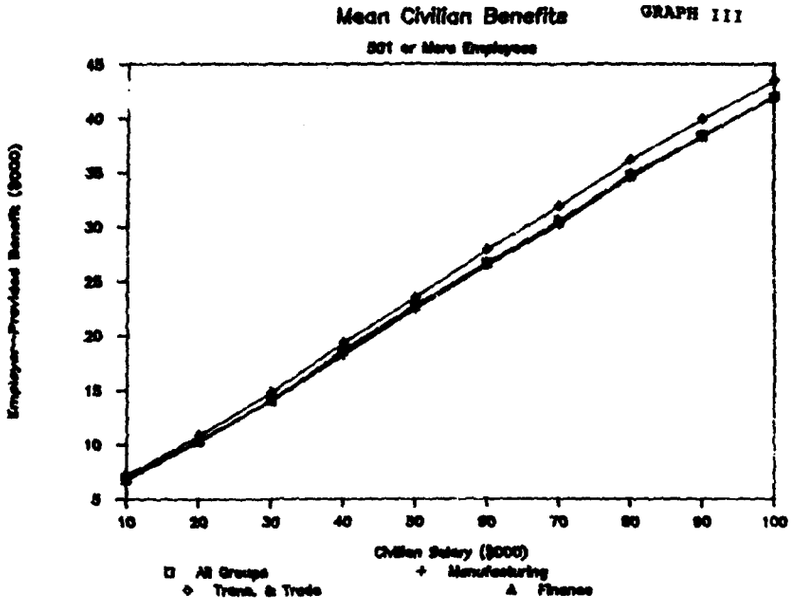
III. Employer-Provided Benefits Values

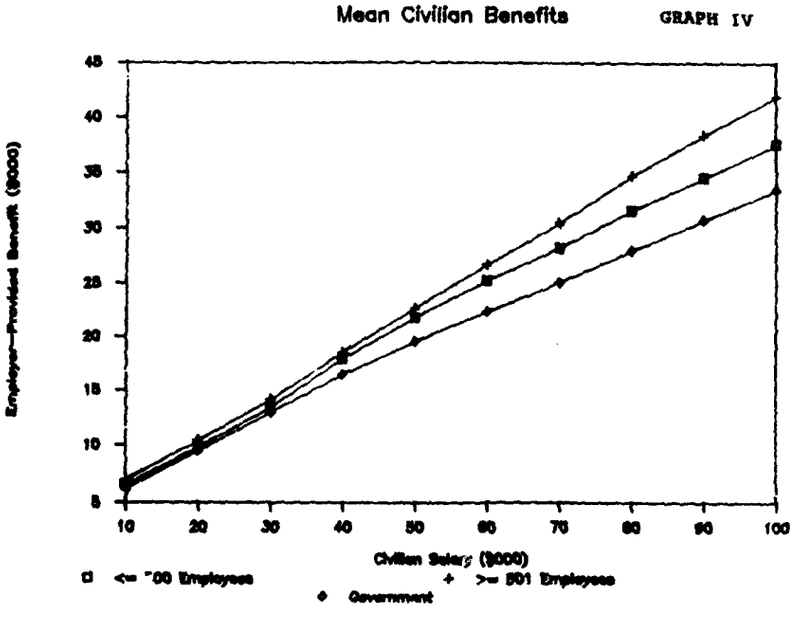
Graphs II through IV show the total value of benefits provided by the civilian group of employers. The total values are compared at pay levels from $10,000 to $100,000. Graph II shows the values by industry group and in total for the 154 employers in the survey who reported 500 or fewer employees. Graph III shows the results in total and by group for the 682 employers who reported 501 or more employees.

There is a tendency for the smaller employers to offer benefits which are similar for lower salary ranges. However, for higher salary ranges, the Finance industry group clearly provides comparatively higher benefits than the other industries for the smaller organizations. The Transportation and Trade industry group provides lower benefits at the higher salary levels.

Mean Civilian Benefits GRAPH II




Mean Civilian Benefits
GRAPH III
501 or More Employees
Employer-Provided Benefit ($000)
45
40
35
30
25
20
15
10
5
10
20
30
40
50
60
70
80
90
100
Civilian Salary ($000)
All Groups
Manufacturing
Trans. & Trade
Finance


Mean Civilian Benefits
GRAPH IV
Employer-Provided Benefit ($000)
45
40
35
30
25
20
15
10
5
10
20
30
40
50
60
70
80
90
100
Civilian Salary ($000)
<= 500 Employees
>= 501 Employees
Government

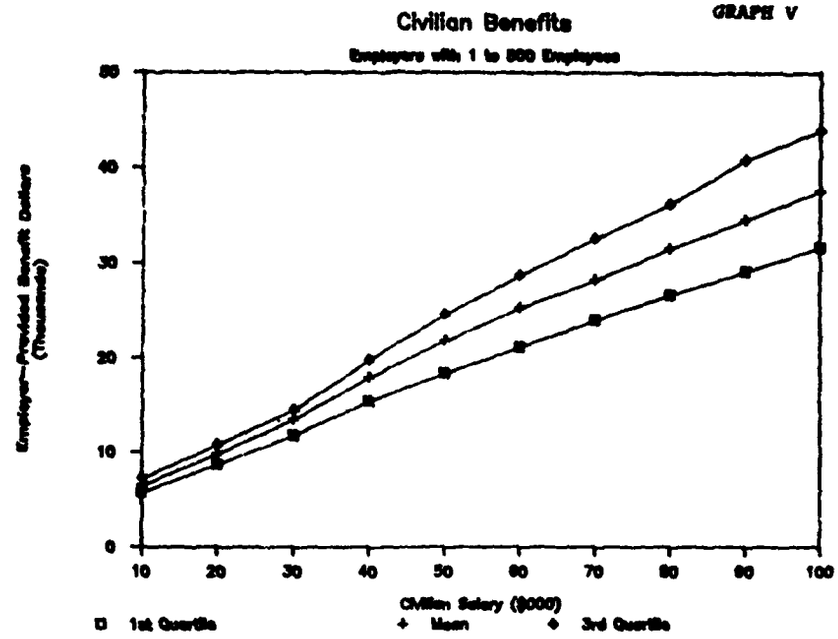
The mean values of employer-provided benefits are close together by industry segment for comparator groups with 501 or more employees. Within that limited range, however, in contrast to smaller organizations, the Transportation and Trade industry group offers higher benefits than other industry groups.

Graph IV compares the mean values of employer-provided benefits for government employers, employers with 500 or less employees, and employers with 501 or more employees. Large organizations tend to have higher benefits. This result is expected since the larger employers have typically been in business longer and have had time to develop better benefit packages than those offered by the smaller employers. The benefit values for the 31 Government employers in the survey are lower than the benefit values provided by non-government employers.

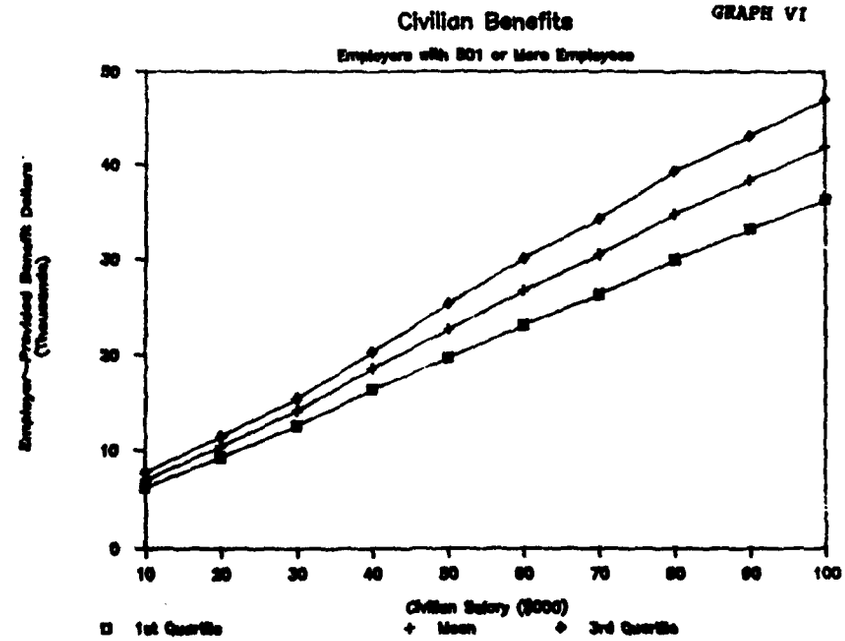
Graphs V and VI show the first and third quartiles and mean benefit values for both large and small organizations. The first quartile (Q_1) for each group represents that benefit level which was exceeded by 75% of the organizations in that group. The third quartile (Q_3) represents that level which was exceeded by only 25% of the organizations in the group. In both large and small organizations the variability of the value of benefits provided increases with salary.

Graphs VII through XIII show the mean employer-provided components of the benefits packages for both large and small employers. The description of prevalent practice within each industry group, in Appendix A, assists in the understanding of the important differences. Appendix C shows the means, quartiles, medians, and percentiles for each benefit category for those employers who provide at least one benefit in the category. The

GRAPH V

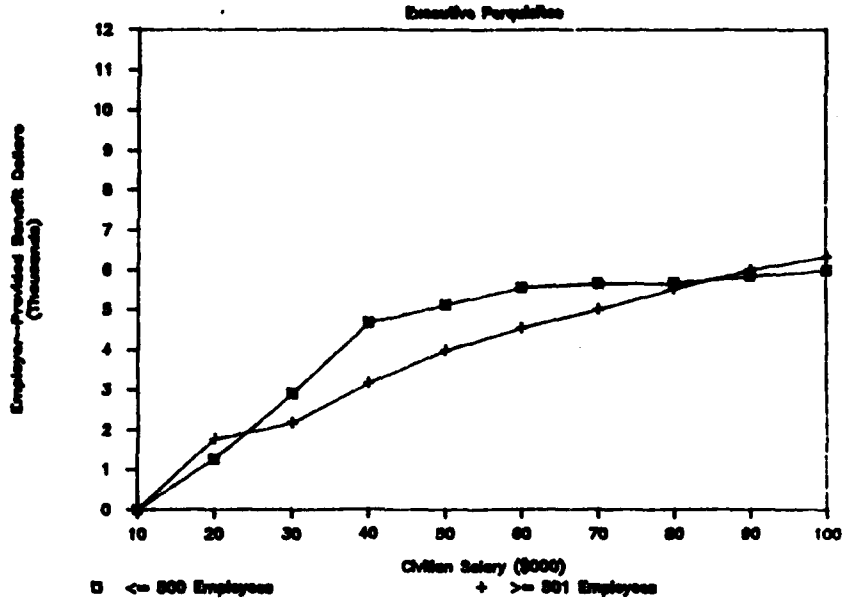


GRAPH VI



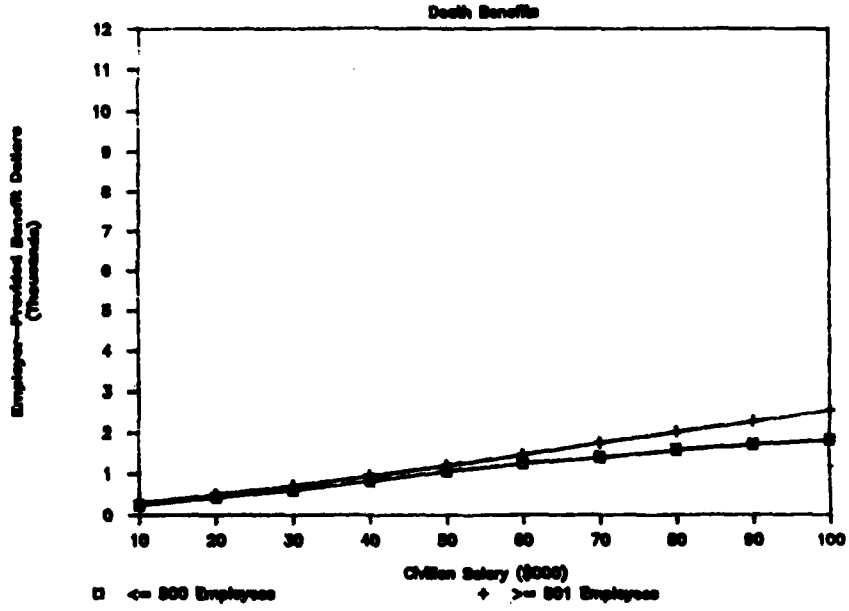
Mean Civilian Benefits

GRAPH VII



Mean Civilian Benefits

GRAPH VIII



median represents that level of benefit which was exceeded by 50% of the employers who provided the benefits. The 10th percentile (P10) and the 90th percentile (P90) represent those levels which exceed the benefit values of 10% and 90%, respectively, of employers who provide at least one benefit in the category.

Provision of executive perquisites begins as low as $20,000 salary but has the highest value after $40,000. The more common executive perquisites are stock option plans, parking, lunch club membership, company cars or car allowances, and liability insurance.

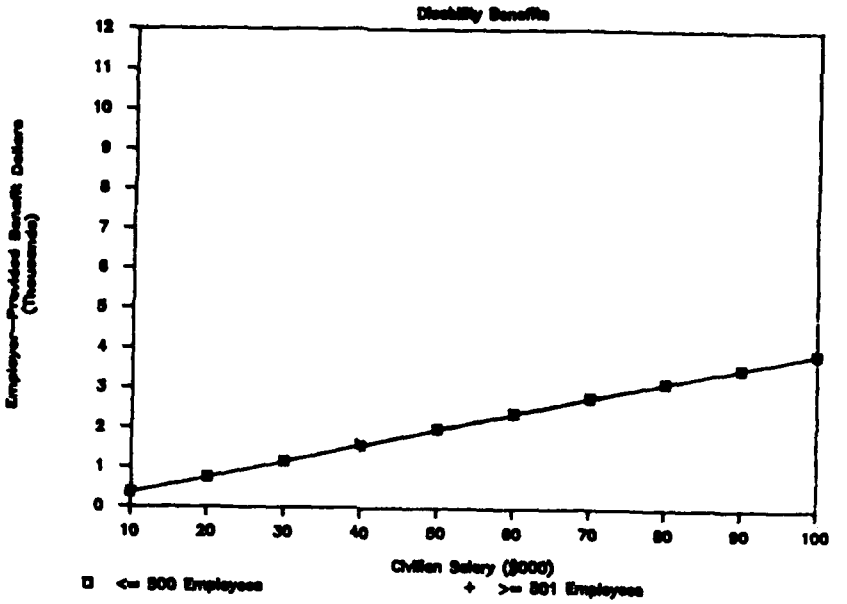
Death benefits provided by the large employers are significantly greater than those provided by small employers with the difference increasing as salary increases. Almost all employers provide life insurance with the typical benefit being two times salary for large employers. A significant percentage (30%) of small employers provide a benefit of one times salary.

Disability benefits are identical for the average employers from the two groups. Ninety-five to ninety-six percent of employers provide a formal sick leave plan and the rest provide a discretionary benefit. The value of the benefit also includes the long-term disability benefit for the 93 to 94 percent of employers who provide such a benefit.

The health care and dental packages tend to provide the same dollar benefit at all pay levels. For instance, a typical design would be to pay all of the employee premium and most of the family premium for all employees, irrespective of salary level. Graph IX shows that the mean value is around $3,000 for both groups of employers with a slight increase as pay increases for the firms with 501 or more employees. The increase results from the value of additional benefits at executive levels. Seventy-eight percent

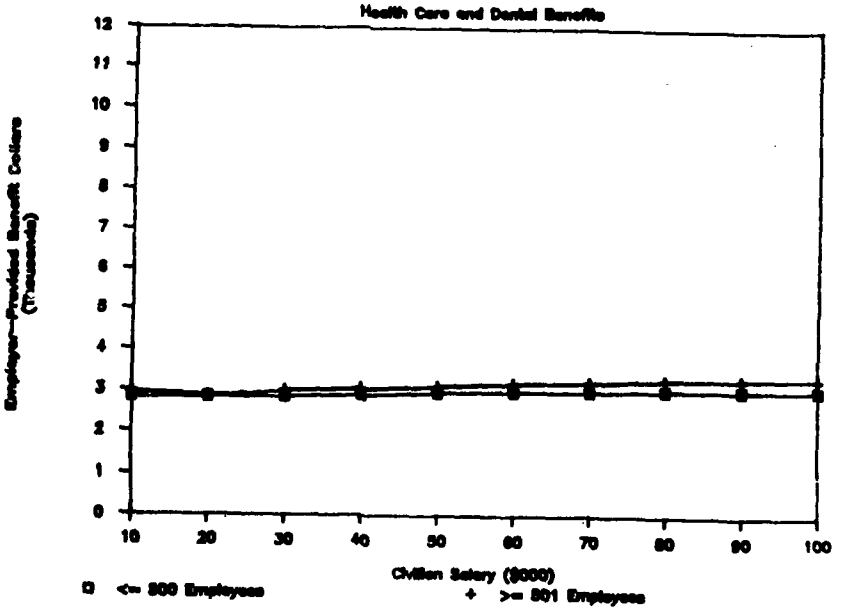
Mean Civilian Benefits

GRAPH IX



Mean Civilian Benefits

GRAPH X



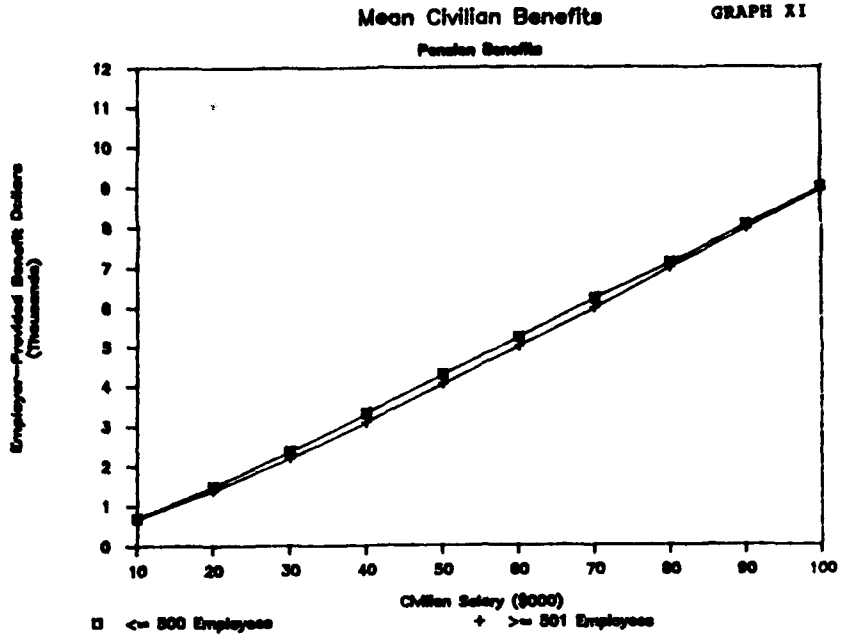
of large firms and 51% of small firms provide physical examinations which are limited to executives in the majority of cases.

The second most valuable part of the benefits package is the pension benefit. The great majority of employers provide a basic retirement package and an increasing number provide capital accumulation plans which, under current tax law, are primarily intended to supplement retirement income. Graphs XI and XII show the value of the pension and capital accumulation plans. The third leg of retirement income, Social Security, is included in the calculation of statutory benefits.

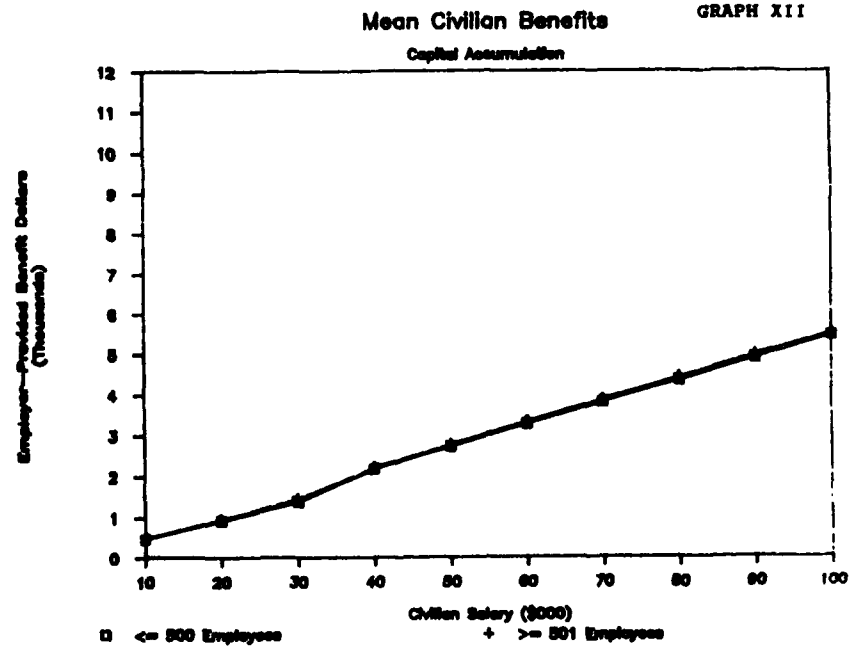
Pension benefits increase by pay levels, as a percentage of salary, because many plans are integrated with Social Security to provide relatively higher benefits at higher pay levels. The values are slightly higher at the mid-pay levels for small employers than they are for the large employers at the middle pay levels, but the values are almost identical at both low and high pay levels. The prevalence tables show that 90 percent of large and 75 percent of small employers provide pension plans and that 59 percent of small and 72 percent of large employers integrate these with Social Security. The BVC includes the value of inflation adjustments whether provided as a formal part of the plan or on an ad hoc basis.

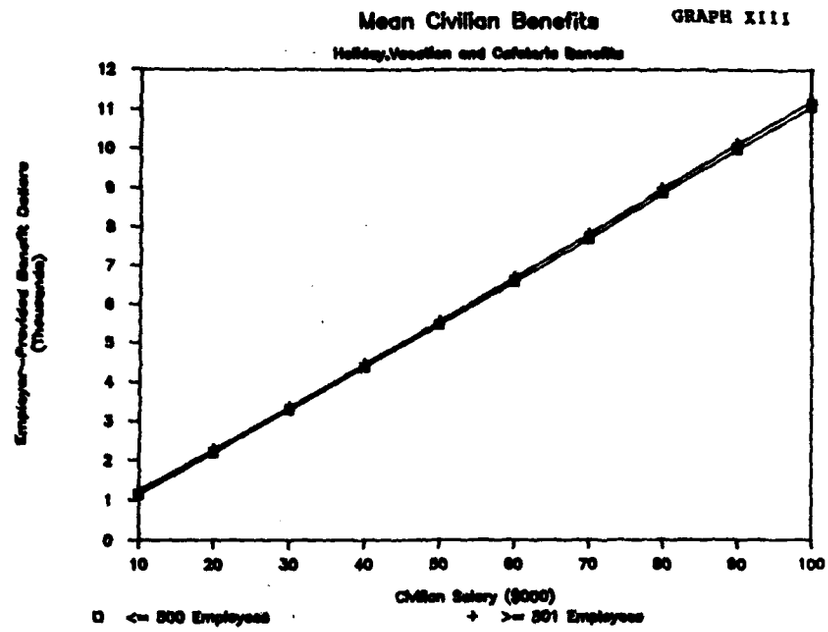
The most valuable benefit provided by an employer is usually the leave provided for vacations and holidays. Typical practice is to provide 9 to 12 holidays a year and from 10 days vacation for new employees to 25 days for long-term employees. The cumulative value of these benefits, together with a small addition for employer-provided cafeterias, is about 11% of salary.

GRAPH XI



GRAPH XII




Mean Civilian Benefits
GRAPH XIII
Holiday,Vacation and Cafeteria Benefits
Employer-Provided Benefit Dollars (Thousands)
0
1
2
3
4
5
6
7
8
9
10
11
12
10
20
30
40
50
60
70
80
90
100
Civilian Salary ($000)
<= 500 Employees
>= 501 Employees

Large employers provide a slightly greater number of leave days at all pay levels. Since the same leave is typically provided at all pay levels, the benefits are directly proportional to salary.

The final element of employer-provided benefits is the required statutory benefits. These include Medicare, Social Security, and Workmen's Compensation programs. The value of these benefits is the same for all employers in the survey and declines from 10% of salary for the lowest-salaried to 3% of salary for the highest-salaried workers.

The prevalence of employer practice concerning supplementing pay while on military duty is of particular interest for this study so it is shown separately in Exhibit 1. The most prevalent supplement for both 2 weeks of training and for short-term active duty is to provide salary less military pay. The second most prevalent practice is to provide full salary. For both training and short-term active duty, 7% of small employers and 2% of large employers do not have a policy regarding supplemental pay. Employers are much less likely to supplement short-term active duty than they are to supplement training. While only 18% of small employers do not supplement pay for training, 41% of these same organizations do not supplement short-term active duty. For large employers, 17% do not supplement training, but 39% do not supplement short-term active duty.

Provision of full salary for training is more prevalent for small employers (20%) than it is for large employers (14%). Provision of full salary less military pay is more prevalent for large employers (59%) than for small employers (42%). This same result holds for short-term active duty. In the area of long-term active duty, only a few employers supplement pay (3% of large employers and 5% of small employers).

EXHIBIT 1

Prevalence of Employer Practice Concerning Reserve Duty

	1 to 500 Domestic Employees	500 or more Domestic Employees
A. Prevalence of supplemental pay for 2 weeks of military training:		
1. Pay Salary less military pay	42%	59%
2. Pay full salary	20%	14%
3. Provide the employee with a choice of either salary less military pay or vacation	10%	7%
4. Do not supplement pay	18%	17%
5. Provide some other supplement	3%	2%
6. Do not have a policy	7%	2%
Total	100%	100%
B. Prevalence of supplemental pay for short-term active duty (emergency call-up)		
1. Pay salary less military pay	37%	47%
2. Pay full salary	14%	10%
3. Provide some other supplement	2%	2%
4. Do not supplement pay	41%	39%
5. Do not have a policy	7%	2%
Total	100%	100%
C. Prevalence of supplemental pay for long-term active duty		
1. Do not supplement pay	63%	81%
2. Supplement pay	3%	5%
3. Do not have a policy	34%	14%
Total	100%	100%

Many employers do not have a policy regarding supplemental pay. This may be related to the frequency with which employers are confronted by the need to have such a policy, particularly in the area of supplemental pay for long-term active duty.

In order to investigate the relationship between employer practice concerning supplemental pay for 2 weeks of training and the value of employer-provided benefits the comparator organizations were split into the following three subgroups:

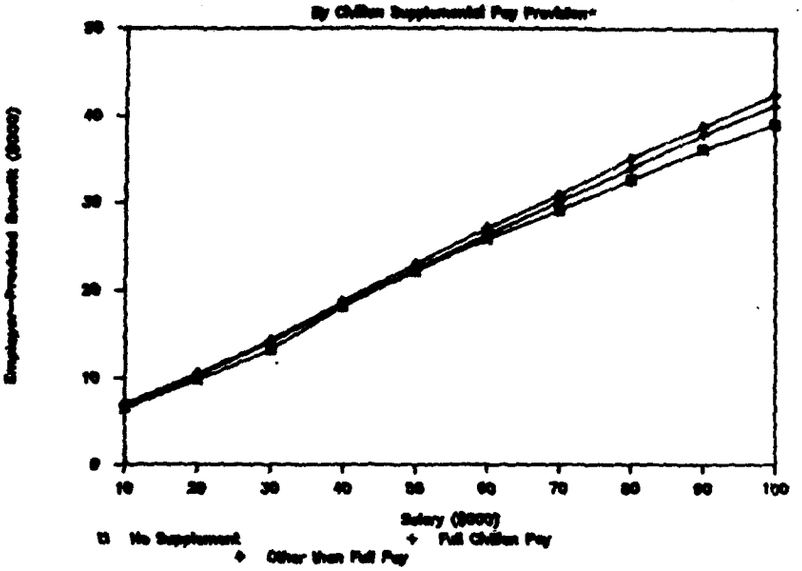
1. Employers who do not supplement pay.
2. Employers who provide full civilian salary.
3. Employers who supplement pay but do not provide full civilian salary.

The result of this analysis is presented in Graph XIV. The value of the benefits provided by employers does not seem to be related to their policy regarding supplemental pay for military training.

Mean Civilian Benefits

GRAPH XIV

By Civilian Supplemental Pay Provision*



*See text.

Appendix A

Prevalence of Benefits

Prevalence of Benefit Practices

1-500 Domestic Employees

(1) DEATH BENEFITS	
Basic Group Life Insurance	100% have a plan
Supplemental Group Life	33% have a plan
Dependent Group Life	26% have a plan
Group Survivor Income	2% have a plan
Basic Accidental Death	84% have a plan
Supplemental Accidental Death	10% have a plan
Voluntary Accidental Death	18% have a plan
Business Travel Accident	56% have a plan
Executive Group Life	11% have a plan
(2) DISABILITY	
Short Term Disability	95% have a formal plan
Long Term Disability	93% have a plan
(3) HEALTH CARE BENEFITS	
Hospital/Medical Plan	100% provide
Retiree Coverage	50% provide
Dental Coverage	79% provide
Vision Care	12% provide
Physical Examinations	51% provide
(4) RETIREMENT BENEFITS	
Pension Plan	75% have a plan
401(k) Thrift Plan/Matching Stock Purchase Plan	32% have a plan
Thrift Plan/Matching Stock Purchase Plan	6% have a plan
401(k) Profit Sharing/Stock Bonus Plan	2% have a plan
Profit Sharing/Stock Bonus Plan	16% have a plan
401(k) Salary Reduction Only Plan	8% have a plan
ESOP	1% have a plan

Prevalence of Benefit Practices

1-500 Domestic Employees

EXECUTIVE PERQUISITES	
Apartments, Suites, or Houses	5% provide
*Athletic Club Membership	11% provide
Chauffers	4% provide
Company Aircraft	8% provide
*Company Cars or Car Allowance	64% provide
*Country Club Membership	36% provide
Deferred Compensation Plan	13% provide
Directors and Officers Liability Insurance	36% provide
Employment Contracts	18% provide
*Excess Personal Liability Insurance	6% provide
*Executive Dining Room	4% provide
Executive Severance Pay Practice	23% provide
Executive Stock Bonus Plan	4% provide
Executive Stock Purchase Plan	6% provide
Front-end Bonuses	4% provide
Golden Parachutes	2% provide
Key Man Life Insurance	18% provide
*Lunch Club Membership	30% provide
Mobile Car Phone	14% provide
Mortgages (other than transfer) and Loans	5% provide
Paid Spouse Travel Expense	27% provide
Performance Shares or Units	1% provide
*Personal Financial Counseling and Tax Preparation Services	16% provide
*Personal Legal Services	3% provide
*Phantom Stock or Dividend Units	4% provide
Pre-Retirement Counseling Program	2% provide
Sabbaticals with Pay	2% provide
Special Education Program for Executives	9% provide
Special Parking	38% provide
Split Dollar Insurance	8% provide
Stock Appreciation Rights	4% provide
Stock Option Plan	38% provide
Waiver of Insurance Waiting Periods	12% provide

Percentages are based on the number of respondents to each perquisite practice.

* Items which are valued.

Prevalence of Benefit Practices

1-500 Domestic Employees

DEATH BENEFITS

(1) **BASIC GROUP LIFE INSURANCE**	100% have a plan
(a) **Eligibility**	46% have immediate eligibility 36% have a waiting period; of these, 46% have 1 months 42% have 3 months 18% have 1st of the month following employment
(b) **Cost**	89% are employer-paid 11% involve cost-sharing
(c) **Basis of Benefit**	79% are based on uniform earnings multiple
(d) **Covered Compensation** (based on bonus-paying companies)	13% credit bonuses as compensation
(e) **Amount of Benefit** based on a uniform earnings multiple)	51% provide 2 times pay 16% provide 1 times pay 15% provide 3 times pay 14% provide 1.5 times pay
(f) **Maximums**	76% have a maximum; of these, 56% have $100,000-$299,999 19% have under $100,000 14% have $500,000 or more 11% have $300,000-$499,999 24% have no maximum
(g) **Disability Benefit**	96% continue coverage in the event of disability
(h) **Retirement Provisions**	58% cancel coverage 22% make a one-time reduction on normal retirement date 16% reduce benefit at retirement and make further reductions during retirement
(i) **Cost of Retiree Coverage**	90% are employer paid

	Prevalence of Benefit Practices 1-500 Domestic Employees
DEATH BENEFITS (Cont'd)	
(2) SUPPLEMENTAL GROUP LIFE INSURANCE	33% have a plan
(a) Eligibility	44% have a waiting period 31% have immediate coverage 50% have 3 months 42% have 1 month 25% have 1st of the month following employment
(b) Cost	78% are employee-paid 14% involve cost-sharing 8% are employer-paid
(c) Basis and Amount of Benefit	39% are based on uniform earnings multiple; of these, 63% provide 1 times pay 21% provide 2 times pay 11% provide 1.5 times pay 29% are based on an earnings multiple that is the employee's choice 12% are based on a flat dollar amount of the employees choice
(d) Covered Compensation (based on bonus-paying companies)	16% credit bonuses as compensation
(e) Disability Benefit	94% continue coverage in the event of disability
(f) Retirement Provisions	86% cancel coverage 12% continue coverage in a reduced amount
(3) DEPENDENT GROUP LIFE	26% have a plan
(a) Cost	51% are employer-paid 34% are employee-paid 14% involve cost-sharing

Prevalence of Benefit Practices

1-500 Domestic Employees

DEATH BENEFITS (Cont'd)

(b) Basis of Benefit

97% are based on a uniform flat flat dollar amount

(c) Maximum Spouse Benefit

36% provide $2,000
18% provide $1,000
15% provide $10,000 or more
10% provide $5,000

(d) Maximum Benefit Per Child

41% provide $1,000 for each child
30% provide $2,000 for each child
10% provide $5,000 or more for each child
5% provide $2,500 for each child

(4) GROUP SURVIVOR INCOME

2% have a plan

(5) BASIC ACCIDENTAL DEATH

84% have a plan

(a) Cost

93% are employer-paid
6% involve cost-sharing
1% are employee-paid

(b) Basis of Benefit

81% are based on uniform earnings multiple

(c) Amount of Coverage (For plans that are based on a uniform earnings multiple)

45% are 2 times pay
37% are 1 to 1.5 times pay
14% are 2.5 to 3 times pay

(d) Maximums

82% have a maximum;
of these,
60% have $100,000-$299,999
22% have under $100,000
10% have $300,000-$499,999
8% have $500,000 or more

18% have no maximum

	Prevalence of Benefit Practices 1-500 Domestic Employees
DEATH BENEFITS (Cont'd)	
(6) SUPPLEMENTAL ACCIDENTAL DEATH	10% have a plan
(7) VOLUNTARY ACCIDENTAL DEATH	18% have a plan
(a) Cost	97% are employee-paid
(b) Basis of Benefit	82% are a flat dollar amount that is the employee's choice
(8) BUSINESS TRAVEL ACCIDENT	56% have plan
(a) Cost	97% are employer-paid
(b) Basis and Amount of Benefit	48% are based on a uniform flat amount; of these 55% provide $100,000 13% provide $50,000 8% provide $150,000 23% are based on a uniform earnings multiple; of these 38% provide 4 to 6 times pay 26% provide 3 times pay 26% provide 2 times pay 14% are based on a flat dollar amount that varies by earnings class 10% are based on a flat dollar amount that varies by job level
(9) EXECUTIVE GROUP LIFE	11% have plan
(a) Cost	82% are employer-paid 18% involve cost-sharing
(b) Coordination of Coverages	65% offer Executive Life in addition to all other life coverages 25% offer Executive Life in lieu of the basic group life plan

Prevalence of Benefit Practices

1-500 Domestic Employees

DISABILITY BENEFITS

(i) **SHORT TERM DISABILITY**

95% have formal plan
5% are discretionary

84% are salary continuance plans
11% are a combination of salary continuance with sickness and accident insurance
1% are sickness and accident insurance only

(a) **Eligibility**

53% have immediate eligibility
47% have a waiting period; of these,
45% have 3 months
22% are 1 month
15% are 6 months

(b) **Salary Continuance Plans**

37% are based on an accumulation of days
29% are based on a service schedule
21% provide a uniform benefit
12% provide a combination plan

(i) Service Schedule

Number of Weeks of Full Pay (Service Related Plans)

Amount of Benefit	2 Years	8 Years	18 Years	Max.
2 Weeks or less	21%	6%	2%	2%
2.1-6.0 Weeks	43%	12%	8%	8%
6.1-13.0 Weeks	32%	36%	22%	20%
13.1-17.9 Weeks	-%	8%	2%	-%
18.0-25.9 Weeks	2%	18%	24%	12%
26 Weeks +	2%	20%	42%	58%

(ii) Number of Days Accumulated Per Year

41% accumulate 12 days
20% accumulate < 10 days
17% accumulate 10 days

(iii) Maximum Number of Days Accumulated

76% have a maximum; of these,
43% have a maximum of 60-120 days
31% have a maximum of less than 60 days
26% have a maximum of over 120 days
24% have no maximum

	Prevalence of Benefit Practices 1-500 Domestic Employees
DISABILITY BENEFITS (Cont'd)	
(2) LONG TERM DISABILITY	93% have a plan
(a) Eligibility	54% have a waiting period; of these, 43% are 3 months 21% are 1 month 16% are 12 months 14% are 6 months 30% have immediate eligibility 16% have 1st of the month following employment
(b) Cost	77% are employer-paid 15% involve cost-sharing 8% are employee-paid
(c) Exclusion Period	58% begin LTD benefits after 6 months of disability 31% begin LTD benefits after 3 months of disability
(d) Amount of Benefit	94% base benefit on a flat percentage of pay; of these, 75% provide 60% of pay 15% provide 65-70% of pay 8% provide 50% of pay 6% base benefits on a percentage of pay that varies with earnings
(e) Covered Compensation (based on bonus-paying companies)	6% credit bonuses as compensation
(f) Maximum Benefit	92% have monthly maximums; of these, 41% are $3,000-$4,999 23% are $5,000 17% are < $3,000 13% are $5,001-$8,000 6% are over $8,000

	Prevalence of Benefit Practices 1-500 Domestic Employees
DISABILITY BENEFITS (Cont'd)	
(2) LONG TERM DISABILITY (Cont'd)	
(g) Social Security Offset	55% directly offset by primary Social Security 34% directly offset by family Social Security 7% offset occurs only after LTD benefit plus Social Security exceeds a specified percentage of earnings
(h) Executive LTD	7% provide; of these, 75% provide Executive LTD to supplement basic plan benefits 25% provide of Executive LTD to restore reduction caused by basic plan maximum

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE	
(1) **HOSPITALIZATION/MEDICAL**	100% have a plan
(a) Eligibility	51% have immediate eligibility 39% are 1st of the month following employment or following one full month of employment
(b) Costs	
(i) Employee	68% are employer-paid 32% involve cost-sharing; of these, 50% employee pays < 25% 48% employee pays 25%-50%
(ii) Dependent Coverage	49% involve cost-sharing; of these, 55% employee pays 25%-50% 34% employee pays < 25% 11% employee pays > 50% 42% are employer-paid 9% are employee-paid
(c) Plan Design	37% cover initial hospitalization and surgical charges at <100% of R&C 37% cover initial hospitalization and *surgical charges at* 100% of R&C 22% cover initial hospitalization charges only at 100% of R&C

		Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)		
(i) **HOSPITALIZATION/MEDICAL (Cont'd)**		
(d) **Hospitalization Benefits**		
(i)	Deductible	38% are subject to major medical deductible 8% have a separate hospital deductible
(ii)	Room and Board	59% pay 100% of semi-private rate 37% pay 80% of semi-private rate
(iii)	Maximum	50% have no maximum 41% have a maximum number of days 9% have a maximum dollar amount
(iv)	Miscellaneous Charges	94% have no separate maximum for miscellaneous charges
(v)	Doctor's Visits in the Hospital	84% base coverage on % of R&C; of these, 53% pay 80% 41% pay 100% 16% base coverage on a dollar amount per visit
(vi)	Psychiatric Care in Hospital	44% cover < 100% of R&C 32% cover 100% of R&C with a separate (from hospital) maximum 24% cover 100% of R&C
(e) **Surgical Benefits**		
(i)	Deductible	51% are subject to major medical deductible 1% have a separate surgical deductible

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)	
(i) **HOSPITALIZATION/MEDICAL (Cont'd)**	
(e) Surgical Benefits (Cont'd)	
(ii) Basis of Benefit	88% base coverage on % of R&C; of these, 50% pay 80% 44% pay 100% 12% have coverage based on a dollar schedule
(iii) Surgery After a Second Opinion	54% do not cover surgery after a second opinion at a higher coinsurance rate 32% cover all surgery at 100% 14% cover surgery after a second opinion at a higher coinsurance rate
(iv) Outpatient Surgery	44% do not cover outpatient surgery at a higher coinsurance rate 43% cover all surgery at 100% 13% do cover outpatient surgery at a higher coinsurance rate
(f) Doctor's Visits: Office	94% cover doctor's office visits
(i) Eligibility	96% provide coverage for both employees and dependents

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)	
(i) HOSPITALIZATION/MEDICAL (Cont'd)	
(f) Comprehensive Major Medical	
(ii) Benefit	99% base coverage on % of R&C; of these, 82% are 80%
(g) Out-patient X-ray & Lab Test	96% base coverage on % of R&C, of these, 50% pay 100% 46% pay 80%
(h) Skilled Nursing Facility or Extended Care Facility	70% covered < 100% of R&C 13% cover 100% of R&C 11% have no coverage 6% cover 100% of R&C with a separate (from hospital) maximum
(i) Emergency Accident/ Illness Benefit	47% have a separate provision
(j) Major Medical Coverage	
(i) Deductible	95% have a flat dollar deductible
- Individual	64% have $100 14% have $150 8% have $200
- Family	87% have a family maximum; of these, 37% have $300 32% have $200 8% have $400 4% have $500

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)	
(l) HOSPITALIZATION/MEDICAL (Cont'd)	
(ii) Coinsurance percentage	86% reimburse 80% of eligible charges
(iii) Stop Loss Limits (one company can have both individual and family out-of-pocket maximums)	87% provide out of pocket limits above which 100% of eligible charges are paid; of these, 64% are based on amount paid by individual: 45% have < $500 maximum 17% have $1,000 maximum 16% have $500-$900 maximum 13% have $1,001-$2,000 maximum 31% are based on amount paid by family: 40% have $1,000-$1,500 23% have $1,501-$2,000 19% have $2,001-$4,000 14% have $900 or less
(iv) Maximum	64% have a lifetime maximum; of these, 64% have a $1,000,000 maximum 20% have a $250,000 maximum 32% have no maximum
(k) Retiree Coverage	50% cover neither 43% cover both early and normal retirees 3% cover early 4% cover normal retirees

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)	
(1) **HOSPITALIZATION/MEDICAL** (Cont'd)	
(i) Cost (Normal Retirees)	
- Retiree Coverage	46% are employer-paid 37% are employee-paid 17% involve cost-sharing, of these; 39% retiree pays < 29% 38% retiree pays 30%-49% 23% retiree pays ≥ 50%
- Dependent Coverage	47% are employee-paid 31% are employer-paid 22% involve cost-sharing, of these; 38% retiree pays ≥ 50% 32% retiree pays 30%-40% 30% retiree pays < 29%
(1) **Prescription Drugs**	87% cover as an eligible expense under major medical 7% cover under a separate plan 5% cover under both 1% do not cover

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)	
(2) DENTAL COVERAGE	65% have a seperate dental plan 21% do not cover 14% cover under a liberalized major medical plan
(a) Eligibility	46% have immediate coverage 33% have a waiting period; of these, 41% are 1 month 24% are 3 months 19% are 12 months 21% are 1st of the month following employment
(b) Cost	
(i) Employee Coverage	73% are employer-paid 25% involve cost-sharing; of these, 59% employee pay < 29% 38% employees pay 30%-49% 13% employee pay ≥ 50 2% are employee-paid
(ii) Dependent Coverage	49% are employer-paid 43% involve cost-sharing; of these, 42% employee pays 29% 38% employee pays ≥ 50% 20% employee pays 30%-49% 8% are employee-paid
(c) Basis of Coverage	92% base coverge on reasonable and customary charges; of these, 87% vary coinsurance by type of expense

Prevalence of Benefit Practices

1-500 Domestic Employees

HEALTH CARE (Cont'd)

(2) DENTAL (Cont'd)

(d) Coinsurance

	Preventive	Basic	Reconstructive	Restorative
< 50%	-	-	2%	5%
50% to 69%	1%	6%	25%	85%
70% to 79%	4%	6%	4%	4%
80% to 89%	28%	83%	65%	6%
90% to 100%	67%	5%	4%	-

(e) Deductible

74% have a separate deductible; of these,
57% are $50
30% are $25

(f) Waiver of Deductible

87% waive deductible for preventive care

(g) Maximums

94% have a separate nonorthodontic annual maximum; of these,
55% are $1,000 per year
14% are 1,500 per year
14% are $500-$750 per year

(h) Orthodontia

62% cover orthodontia; of these,
85% base coverage on 50% of reasonable and customary charges

	Prevalence of Benefit Practices 1-500 Domestic Employees
HEALTH CARE (Cont'd)	
(2) DENTAL (Cont'd)	
(11) maximums	86% have a lifetime orthodontic maximum; of these, 57% are $901 - $1,000 21% are $1,001 - $2,000 10% are $401 - $500
(3) VISION CARE	88% do not cover 10% have a separate plan 2% cover under a liberalized major medical plan
(4) PHYSICAL EXAMINATIONS (Program covering annual or biennial routine physical examinations)	51% provide
(a) Eligibility	60% limit eligibility to executives only 35% extend eligibility to all salaried employees 5% cover both executives and salaried employees but with different policies for each
(5) SPECIAL MEDICAL EXPENSE REIMBURSEMENT	10% have plan

	Prevalence of Benefit Practices 1-500 Domestic Employees
RETIREMENT BENEFITS	
(1) **PENSION PLAN**	75% have a plan
(a) **Eligibility**	50% have minimum age of 21 and minimum service of one year 16% have immediate eligibility 13% other 11% have minimum service of one year or less
(b) **Cost**	92% are employer-paid 8% require employee contributions
(c) **Vesting**	50% have full vesting after 10 years of service 22% have other types of graded vesting schedules 10% have graded vesting with 25% at 5 years and 100% after 15 years
(d) **Basis of Benefit**	78% are final average pay plans 20% are money purchase plans
(e) **Basis of Final Average**	82% use highest or final 5 years
(f) **Formula** (Final Pay Plans)	39% provide a uniform percentage of final average pay; of these, 30% provide 1.5-1.75% per year of service 24% provide 2% per year of service 24% provide 1.5% per year of service 17% provide a step-rate plans, where the percentage per year of service varies with compensation level 15% provide a flat percentage after a specified number of years of service 11% provide percentages that vary according to years of service; of these, the prevalent practice is to provide 2% per year up to 25 years and 1% per year thereafter

	Prevalence of Benefit Practices 1-500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(l) PENSION PLAN (Cont'd)	
(g) Covered Compensation (based on bonus paying companies)	30% credit bonuses as compensation
(h) Social Security Offset (Final pay plans)	59% have direct Social Security offset; of these, 52% offset 50% after 30 years 26% offset < 50% after 30 years 22% offset > 50% after 30 years
(i) Early Retirement	59% permit reduced early retirement pensions only 19% permit both reduced and unreduced early retirement pensions 19% are money purchase plans 2% permit unreduced early retirement pensions only
(j) Disability Provisions	51% allow service to accrue during disability 46% have an immediate disability pension
(k) Pre-Retirement Death Benefit	
(i) Death in Active Service Before Becoming Fully Vested	78% do not provide a benefit
(ii) Death in Active Service After Becoming Fully Vested	65% the REA death benefit is paid for by the plan
(l) Payment Provisions	
(i) Single Employees	83% provide life income to unmarried retirees 11% provide life income with 10 years certain
(ii) Married Employees	87% provide an actuarially reduced 50% joint and survivor to married retirees

	Prevalence of Benefit Practices 1-500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(l) PENSION PLAN (Cont'd)	
(m) Cost-of-Living Adjustments	34% have given COLAs
(i) Type of COLA	52% gave no COLAs on ad hoc basis 30% gave COLAs by plan provision 18% gave COLAs by plan amendment
(ii) Total Increase for 1/1/80 retiree as of 1/1/87	32% gave 20.1%-30% 27% gave 10% or less 17% gave over 40% 13% gave 10.1%-20% 11% gave 30.1%-40%
(n) Supplemental Executive Pension Plans	7% provide supplemental executive executive retirement plan (SERP) 4% provide excess benefit plans (designed to restore reduction due to TEFRA maximum) 1% provide a combination

	Prevalence of Benefit Practices 1-500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(2) CAPITAL ACCUMULATION	
(a) 401(k) Thrift/Matching Stock Purchase Plan	32% have plan
(i) Maximum Employee Contribution Matched by Employer	52% permit maximum contribution of 6% 15% permit maximum contribution of 5% 15% permit maximum contribution of 4% 12% permit maximum contribution of 3%
(ii) Employer Matching as Percent of Employee Contribution	86% match by a specified percentage; of these, 63% match 50% of the employee's contribution 14% match 100% of the employee's contribution 9% match 75% of the employee's contribution
(iii) Covered Compensation (based on bonus paying companies)	31% credit bonuses as compensation
(iv) Vesting	38% are full and immediate 32% are graded with full vesting based on years of service; of these, 72% full vesting occure after 5 years 21% full vesting occure after 10 years 7% full vesting occure after 1-4 years 24% are graded with full vesting based on years of class participation

	Prevalence of Benefit Practices 1-500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(2) **CAPITAL ACCUMULATION (Cont'd)**	
(b) Thrift/Matching Stock Purchase Plan	6% have plan
(c) 401(k) Profit Sharing/ Stock Bonus Plan	2% have plan
(d) Profit Sharing Reduction	16% have plan
(e) 401(k) Salary Reduction Only Plan	8% have plan
(f) Employee Stock Ownership Plan (ESOP)	1% have plan*

* 41% of the comparator organizations are stockholder companies.

Prevalence of Benefit Practices

1-500 Domestic Employees

(1) HOLIDAYS AND VACATIONS

(a) Total (Fixed and Floating) Number of Holidays Provided in 1986

49% provide 10-11 holidays
19% provide 12 holidays
18% provide 9-9.5 holidays
14% provide < 9 holidays

(b) Floating Holidays

48% provided floating holidays; of these,
44% provided 1
33% provided 2
12% provided 3

(2) VACATIONS

(a) Vacation Days

	Years of Service					
	2	5	10	15	20	Max.
10-12 days	75%	23%	2%	1%	1%	1%
13-17 days	17%	58%	52%	16%	8%	9%
18-20 days	5%	14%	39%	68%	64%	48%
21-24 days	2%	3%	4%	8%	8%	6%
25 + days	1%	2%	3%	7%	19%	36%

(b) Special Executive Vacation Schedule

68% do not provide executive vacation schedules
32% provide special vacation schedules for executives; of these,
64% provide a separate schedule
20% are based on the regular schedule with a minimum amount based on position level
12% provide the return schedule plus extra vacation time

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
(1) DEATH BENEFITS	
Basic Group Life Insurance	99% have a plan
Supplemental Group Life	65% have a plan
Dependent Group Life	45% have a plan
Group Survivor Income	11% have a plan
Basic Accidental Death	69% have a plan
Supplemental Accidental Death	18% have a plan
Voluntary Accidental Death	38% have a plan
Business Travel Accident	74% have a plan
Executive Group Life	19% have a plan
(2) DISABILITY	
Short Term Disability	96% have a formal plan
Long Term Disability	94% have a plan
(3) HEALTH CARE BENEFITS	
Hospital/Medical Plan	100% provide
Retiree Coverage	84% provide
Dental Coverage	86% provide
Vision Care	18% provide
Physical Examinations	78% provide
(4) RETIREMENT BENEFITS	
Pension Plan	90% have a plan
401(k) Thrift Plan/Matching Stock Purchase Plan	53% have a plan
Thrift Plan/Matching Stock Purchase Plan	9% have a plan
401(k) Profit Sharing/Stock Bonus Plan	6% have a plan
Profit Sharing/Stock Bonus Plan	12% have a plan
401(k) Salary Reduction Only Plan	10% have a plan
ESOP	5% have a plan

Prevalence of Benefit Practices

Greater than 500 Domestic Employees

EXECUTIVE PERQUISITES

Apartments, Suites, or Houses	8% provide
*Athletic Club Membership	18% provide
Chauffers	18% provide
Company Aircraft	25% provide
*Company Cars or Car Allowance	69% provide
*Country Club Membership	45% provide
Deferred Compensation Plan	32% provide
Directors and Officers Liability Insurance	58% provide
Employment Contracts	19% provide
*Excess Personal Liability Insurance	13% provide
*Executive Dining Room	18% provide
Executive Severance Pay Practice	24% provide
Executive Stock Bonus Plan	9% provide
Executive Stock Purchase Plan	5% provide
Front-end Bonuses	8% provide
Golden Parachutes	11% provide
Key Man Life Insurance	13% provide
*Lunch Club Membership	46% provide
Mobile Car Phone	13% provide
Mortgages (other than transfer) and Loans	28% provide
Paid Spouse Travel Expense	23% provide
Performance Shares or Units	14% provide
*Personal Financial Counseling and Tax Preparation Services	36% provide
*Personal Legal Services	4% provide
*Phantom Stock or Dividend Units	4% provide
Pre-Retirement Counseling Program	11% provide
Sabbaticals with Pay	3% provide
Special Education Program for Executives	10% provide
Special Parking	59% provide
Split Dollar Insurance	9% provide
Stock Appreciation Rights	5% provide
Stock Option Plan	63% provide
Waiver of Insurance Waiting Periods	19% provide

Percentages are based on the number of respondents to each perquisite practice.

* Items which are valued.

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
DEATH BENEFITS	
(1) BASIC GROUP LIFE INSURANCE	99% have a plan
(a) Eligibility	49% have immediate eligibility 34% have a waiting period; of these, 38% have 3 months 34% have 1 months 15% have 6 months 17% have 1st of the month following employment
(b) Cost	84% are employer-paid 15% involve cost-sharing
(c) Basis of Benefit	79% are based on uniform earnings multiple
(d) Covered Compensation (based on bonus-paying companies)	18% credit bonuses as compensation
(e) Amount of Benefit based on a uniform earnings multiple)	46% provide 2 times pay 30% provide 1 times pay 12% provide 1.5 times pay
(f) Maximums	66% have a maximum; of these, 42% have $100,000-$299,999 27% have $500,000 or more 21% have $300,000-$499,999 10% have $100,000 34% have no maximum
(g) Disability Benefit	94% continue coverage in the event of disability
(h) Retirement Provisions	35% make a one-time reduction on normal retirement date 34% cancel coverage 24% reduce benefit at retirement and make further reductions during retirement
(i) Cost of Retiree Coverage	87% are employer paid

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
DEATH BENEFITS (Cont'd)	
(2) SUPPLEMENTAL GROUP LIFE INSURANCE	65% have a plan
(a) Eligibility	51% have a waiting period 30% have immediate coverage 34% have 3 months 33% have 1 month 16% have 6 months 19% have 1st of the month following employment
(b) Cost	80% are employee-paid 16% involve cost-sharing 4% are employer-paid
(c) Basis and Amount of Benefit	48% are based on an earnings multiple that is the employee's choice 38% are based on a uniform earnings multiple; of these, 49% provide 1 times pay 26% provide 2 times pay 11% provide 1.5 times pay
(d) Covered Compensation (based on bonus-paying companies)	4% credit bonuses as compensation
(e) Disability Benefit	92% continue coverage in the event of disability
(f) Retirement Provisions	80% cancel coverage
(3) DEPENDENT GROUP LIFE	45% have a plan
(a) Cost	76% are employee-paid 21% are employer-paid 3% involve cost-sharing
(b) Basis of Benefit	96% are based on a uniform flat dollar amount
(c) Maximum Spouse Benefit	36% provide $10,000 or more 26% provide $5,000 26% provide $1,000-$2,000

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
DEATH BENEFITS (Cont'd)	
(d) Maximum Benefit Per Child	29% provide $1,000 for each child 25% provide $2,000 for each child 18% provide $5,000 or more for each child 11% provide $2,500 for each child
(4) GROUP SURVIVOR INCOME	11% have a plan
(5) BASIC ACCIDENTAL DEATH	69% have a plan
(a) Cost	88% are employer-paid 8% involve cost-sharing 4% are employee-paid
(b) Basis of Benefit	73% are based on uniform earnings multiple 13% are based on a flat dollar amount
(c) Amount of Coverage (For plans that are based on a uniform earnings multiple)	46% are 2 times pay 39% are 1 to 1.5 times pay 11% are 2.5 to 3 times pay
(d) Maximums	72% have a maximum; of these, 44% have $100,000-$299,999 20% have $300,000-$499,999 18% have $500,000 or more 18% have under $100,000 28% have no maximum
(6) SUPPLEMENTAL ACCIDENTAL DEATH	18% have a plan
(7) VOLUNTARY ACCIDENTAL DEATH	38% have a plan
(a) Cost	98% are employee-paid
(b) Basis of Benefit	86% are a flat dollar amount that is the employee's choice

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
DEATH BENEFITS (Cont'd)	
(8) **BUSINESS TRAVEL ACCIDENT**	74% have plan
(a) **Cost**	98% are employer-paid
(b) **Basis and Amount of Benefit**	44% are based on a uniform earnings multiple; of these 48% provide 4 to 6 times pay 24% provide 3 times pay 14% provide 2 times pay 38% are based on a uniform flat amount; of these 51% provide $100,000 13% provide $50,000 20% provide ≥ $200,000 11% provide $150,000 10% are based on a flat dollar amount that varies by earnings class 8% are based on a flat dollar amount that varies by job level
(9) **EXECUTIVE GROUP LIFE**	19% have plan
(a) **Cost**	83% are employer-paid 11% involve cost-sharing 6% are employee-paid
(b) **Coordination of Coverages**	60% offer Executive Life in addition to all other life coverages 21% offer Executive Life in lieu of the basic group life plan 15% offer Executive Life in lieu of all other life coverages

Prevalence of Benefit Practices

Greater than 500 Domestic Employees

DISABILITY BENEFITS

(1) **SHORT TERM DISABILITY**

96% have formal plan
4% are discretionary

82% are salary continuance plans
16% are a combination of salary continuance with sickness and accident insurance
2% are sickness and accident insurance only

(a) **Eligibility**

54% have immediate eligibility
46% have a waiting period; of these,
44% have 3 months
23% have 6 months
17% are 1 month

(b) **Salary Continuance Plans**

44% are based on a service schedule
26% are based on an accumulation of days
22% provide a uniform benefit
7% provide a combination plan

(i) Service Schedule

Number of Weeks of Full Pay (Service Related Plans)

Amount of Benefit	2 Years	8 Years	18 Years	Max.
2 Weeks or less	18%	1%	1%	1%
2.1-6.0 Weeks	55%	10%	3%	3%
6.1-13.0 Weeks	22%	48%	20%	18%
13.1-17.9 Weeks	2%	12%	5%	2%
18.0-25.9 Weeks	2%	15%	24%	8%
26 Weeks +	1%	14%	45%	66%

(ii) Number of Days Accumulated Per Year

45% accumulate 12 days
20% accumulate < 10 days
19% accumulate 10 days

(iii) Maximum Number of Days Accumulated

62% have a maximum; of these,
44% have a maximum of 60-120 days
32% have a maximum over 120 days
24% have a maximum of less than 60 days
38% have no maximum

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
DISABILITY BENEFITS (Cont'd)	
(2) LONG TERM DISABILITY	94% have a plan
(a) Eligibility	55% have a waiting period; of these, 28% have 12 months 26% have 3 months 16% have 6 months 5% have 24 months 34% have immediate eligibility 11% have 1st of the month following employment
(b) Cost	63% are employer-paid 20% involve cost-sharing 15% are employee-paid 2% varies
(c) Exclusion Period	66% begin LTD benefits after 6 months of disability 18% begin LTD benefits after 3 months of disability
(d) Amount of Benefit	91% base benefit on a flat percentage of pay; of these, 62% provide 60% of pay 20% provide 65-70% of pay 15% provide 50% of pay 9% base benefits on a percentage of pay that varies with earnings
(e) Covered Compensation (based on bonus-paying companies)	11% credit bonuses as compensation
(f) Maximum Benefit	79% have monthly maximums; of these, 32% are $3,000-$4,999 27% are $5,000 16% are $5,001-$8,000 14% are over $8,000 11% are < $3,000

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
DISABILITY BENEFITS (Cont'd)	
(2) LONG TERM DISABILITY (Cont'd)	
(g) Social Security Offset	47% offset by primary Social Security 35% directly offset by family Social Security 13% offset occurs only after LTD benefit plus Social Security exceeds a specified percentage of earnings
(h) Executive LTD	13% provide; of these, 52% provide Executive LTD to supplement basic plan benefits 36% provide Executive LTD to restore reduction caused by basic plan maximum

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE	
(1) HOSPITALIZATION/MEDICAL	100% have a plan
(a) Eligibility	56% have immediate eligibility 38% are 1st of the month following employment or following one full month of employment
(b) Costs	
(i) Employee	59% are employer-paid 41% involve cost-sharing; of these, 71% employee pays < 25% 29% employee pays 25%-50%
(ii) Dependent Coverage	65% involve cost-sharing; of these, 50% employee pays < 25% 42% employee pays 25%-50% 8% employee pays > 50% 32% are employer-paid 3% are employee-paid
(c) Plan Design	45% cover initial hospitalization and surgical charges at <100% of R&C 33% cover initial hospitalization and surgical charges at 100% of R&C 20% cover initial hospitalization charges only at 100% of R&C

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE (Cont'd)	
(1) HOSPITALIZATION/MEDICAL (Cont'd)	
(e) Surgical Benefits (Cont'd)	
(ii) Basis of Benefit	91% base coverage on % of R&C; of these, 55% pay 80% 31% pay 100% 9% have coverage based on a dollar schedule
(iii) Surgery After a Second Opinion	49% do not cover surgery after a second opinion at a higher coinsurance rate 20% will penalize if a second surgical opinion is not received 18% cover all surgery at 100% 13% cover surgery after a second opinion at a higher coninsurance rate than if a second opinion is not obtained
(iv) Outpatient Surgery	39% do not cover outpatient surgery at a higher coinsurance rate 35% do cover outpatient surgery at a higher coinsurance rate 26% cover all surgery at 100%
(f) Doctor's Visits: Office	97% cover doctor's office visits
(i) Eligibility	97% provide coverage for both employees and dependents

		Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE (Cont'd)		
(1) HOSPITALIZATION/MEDICAL (Cont'd)		
(d) Hospitalization Benefits		
(i)	Deductible	45% are subject to major medical deductible 11% have a separate hospital deductible
(ii)	Room and Board	50% pay 100% of semi-private rate 38% pay 80% of semi-private rate
(iii)	Maximum	57% have no maximum 36% have a maximum number of days 7% have a maximum dollar amount
(iv)	Miscellaneous Charges	94% have no separate maximum for miscellaneous charges
(v)	Doctor's Visits in the Hospital	90% base coverage on % of R&C; of these, 60% pay 80% 27% pay 100% 10% base coverage on a dollar amount per visit
(vi)	Psychiatric Care in Hospital	53% cover < 100% of R&C 24% cover 100% of R&C 23% cover 100% of R&C with a separate (from hospital) maximum
(e) Surgical Benefits		
(i)	Deductible	58% are subject to major medical deductible 1% have a separate surgical deductible

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE (Cont'd)	
(i) HOSPITALIZATION/MEDICAL (Cont'd)	
(f) Comprehensive Major Medical	
(ii) Benefit	97% base coverage on % of R&C; of these, 81% are 80%
(g) Out-patient X-ray & Lab Test	98% base coverage on % of R&C, of these, 51% pay 80% 38% pay 100%
(h) Skilled Nursing Facility or Extended Care Facility	66% covered < 100% of R&C 11% cover 100% of R&C 9% cover 100% of R&C with a separate (from hospital) maximum 14% have no coverage
(i) Emergency Accident/ Illness Benefit	40% have a separate provision
(j) Major Medical Coverage	
(i) Deductible	95% have a flat dollar deductible
- Individual	46% have $100 19% have $150 17% have $200
- Family	89% have a family maximum; of these, 33% have $300 21% have $500 20% have $200 12% have $400

Prevalence of Benefit Practices

Greater than 500 Domestic Employees

HEALTH CARE (Cont'd)

(l) **HOSPITALIZATION/MEDICAL** (Cont'd)

(ii) Coinsurance percentage	87% reimburse 80% of eligible charges
(iii) Stop Loss Limits (one company can have both individual and family out-of-pocket maximums)	99% provide out of pocket limits above which 100% of eligible charges are paid; of these, 80% are based on amount paid by individual: 32% have $500-$900 maximum 29% have $1,000 maximum 21% have $1,001-$2,000 maximum 12% have < $500 maximum 29% are based on amount paid by family: 37% have $1,000-$1,500 25% have $2,001-$4,000 21% have $1,501-$2,000 11% have $900 or less
(iv) Maximum	79% have a lifetime maximum; of these, 49% have a $1,000,000 maximum 21% have a $250,000 maximum 18% have no maximum
(k) Retiree Coverage	73% cover both early and normal retirees 16% cover neither 8% cover early 3% cover normal retirees

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE (Cont'd)	
(1) HOSPITALIZATION/MEDICAL (Cont'd)	
(i) Cost (Normal Retirees)	
- Retiree Coverage	57% are employer-paid 27% involve cost-sharing, of these; 65% retiree pays < 29% 18% retiree pays 30%-49% 17% retiree pays ≥ 50% 16% are employee-paid
- Dependent Coverage	41% are employer-paid 39% involve cost-sharing, of these; 61% retiree pays < 29% 20% retiree pays 30%-40% 19% retiree pays ≥ 50% 20% are employee-paid
(i) Prescription Drugs	87% cover as an eligible expense under major medical 7% cover under a separate plan 5% cover under both 1% do not cover

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE (Cont'd)	
(2) **DENTAL COVERAGE**	77% have a separate dental plan 14% do not cover 9% cover under a liberalized major medical plan
(a) **Eligibility**	44% have a waiting period; of these, 29% are 3 months 20% are 1 month 19% are 6 months 12% are 12 months 38% have immediate coverage 18% are 1st of the month following employment
(b) **Cost**	
(i) Employee Coverage	68% are employer-paid 30% involve cost-sharing; of these, 68% employees pay < 29% 17% employee pay 30%-49% 15% employee pay ≥ 50 2% are employee-paid
(ii) Dependent Coverage	51% involve cost-sharing; of these, 54% employee pays 29% 23% employee pays 30%-49% 23% employee pays ≥ 50% 41% are employer-paid 8% are employee-paid
(c) **Basis of Coverage**	85% base coverge on reasonable and customary charges; of these, 83% vary coinsurance by type of expense

Prevalence of Benefit Practices

Greater than 500 Domestic Employees

HEALTH CARE (Cont'd)

(2) **DENTAL (Cont'd)**

(d) Coinsurance	Preventive	Basic	Reconstructive	Restorative
< 50%	2%	4%	2%	7%
50% to 69%	2%	11%	35%	82%
70% to 79%	1%	9%	7%	3%
80%	23%	65%	49%	7%
90% to 100%	72%	11%	7%	1%

(e) **Deductible**

74% have a separate deductible; of these,
50% are $50
40% are $25

(f) **Waiver of Deductible**

83% waive deductible for preventive care

(g) **Maximums**

91% have a separate nonorthodontic annual maximum; of these,
58% are $1,000 per year
21% are $500–$750 per year
8% are 1,500 per year

(h) **Orthodontia**

74% cover orthodontia; of these,
85% base coverage on 50% of reasonable and customary charges

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
HEALTH CARE (Cont'd)	
(2) DENTAL (Cont'd)	
(ii) maximums	92% have a lifetime orthodontic maximum; of these, 44% are $901 - $1,000 23% are $701 - $800 16% are $1,001 - $2,000
(3) VISION CARE	82% do not cover 15% have a separate plan 3% cover under a liberalized major medical plan
(4) PHYSICAL EXAMINATIONS (Program covering annual or biennial routine physical examinations)	78% provide
(a) Eligibility	67% limit eligibility to executives only 23% extend eligibility to all salaried employees 10% cover both executives and salaried employees but with different policies for each
(5) SPECIAL MEDICAL EXPENSE REIMBURSEMENT	17% have plan

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
RETIREMENT BENEFITS	
(1) **PENSION PLAN**	90% have a plan
(a) **Eligibility**	44% have minimum age of 21 and minimum service of one year 25% have immediate eligibility 15% have minimum service of one year or less
(b) **Cost**	88% are employer-paid 12% require employee contributions
(c) **Vesting**	74% have full vesting after 10 years of service 13% have other types of graded vesting schedules 7% have graded vesting with 25% at 5 years and 100% after 15 years
(d) **Basis of Benefit**	83% are final average pay plans
(e) **Basis of Final Average**	77% use highest or final 5 years
(f) **Formula** (Final Pay Plans)	45% provide a uniform percentage of final average pay; of these, 52% provide 1.5-1.75% per year of service 27% provide 1.76%-2% per year of service 19% provide percentages that vary according to years of service; of these, the prevalent practice is to provide 2% per year up to 25 years and 1% per year thereafter 14% provide a step-rate plans, where the percentage per year of service varies with compensation level 11% provide a flat percentage after a specified number of years of service

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(l) PENSION PLAN (Cont'd)	
(g) Covered Compensation (based on bonus paying companies)	51% credit bonuses as compensation
(h) Social Security Offset (Final pay plans)	72% have direct Social Security offset; of these, 53% offset 50% after 30 years 31% offset < 50% after 30 years 16% offset > 50% after 30 years
(i) Early Retirement	47% permit reduced early retirement pensions only 46% permit both reduced and unreduced early retirement pensions 1% permit unreduced early retirement pensions only
(j) Disability Provisions	63% allow service to accrue during disability 34% have an immediate disability pension
(k) Pre-Retirement Death Benefit	
(i) Death in Active Service Before Becoming Fully Vested	86% do not provide a benefit
(ii) Death in Active Service After Becoming Fully Vested	72% the REA death benefit is paid for by the plan
(l) Payment Provisions	
(i) Single Employees	82% provide life income to unmarried retirees 7% provide life income with 10 years certain
(ii) Married Employees	88% provide an actuarially reduced 50% joint and survivor to married retirees

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(1) PENSION PLAN (Cont'd)	
(m) Cost-of-Living Adjustments	61% have given COLAs
(i) Type of COLA	47% gave no COLAs on ad hoc basis 37% gave COLAs by plan amendment 14% gave COLAs by plan provision
(ii) Total Increase for 1/1/80 retiree as of 1/1/87	25% gave 10.1%-20% 23% gave 10% or less 22% gave 20.1%-30% 11% gave 30.1%-40% 9% gave over 40%
(n) Supplemental Executive Pension Plans	23% provide excess benefit plans (designed to restore reduction due to TEFRA maximum) 13% provide supplemental executive retirement plan (SERP) 10% provide a combination
(i) Benefit Income Objective	58% specify a benefit income objective; of these, 32% are 41%-55% of final salary 26% are over 60% of final salary 22% are 60% of final salary 42% do not specify a benefit income objective
(ii) Benefits from Qualified Plan	85% include benefits under the qualified plan in meeting the benefit income income objective
(iii) Final Salary	59% use final or highest 5 years 28% use final or highest 3 years

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
[redacted]	
[redacted]	
(2) CAPITAL ACCUMULATION	
(a) 401(k) Thrift/Matching Stock Purchase Plan	53% have plan
(i) Maximum Employee Contribution Matched by Employer	56% permit maximum contribution of 6% 15% permit maximum contribution of 5% 12% permit maximum contribution of 4% 6% permit maximum contribution of 3%
(ii) Employer Matching as Percent of Employee Contribution	83% match by a specified percentage; of these, 50% match 50% of the employee's contribution 17% match 100% of the employee's contribution 13% match 51% - 99% of the employee's contribution 12% match 25% of the employee's contribution 12% match varies based on profits
(iii) Covered Compensation (based on bonus paying companies)	40% credit bonuses as compensation
(iv) Vesting	31% are graded with full vesting based on years of service; of these, 50% full vesting occurs after 5 years 24% full vesting occurs after 6-10 years 24% full vesting occurs after 1-4 years 30% are full and immediate 25% are years of plan participation

	Prevalence of Benefit Practices Greater than 500 Domestic Employees
RETIREMENT BENEFITS (Cont'd)	
(2) CAPITAL ACCUMULATION (Cont'd)	
(b) Thrift/Matching Stock Purchase Plan	9% have plan
(c) 401(k) Profit Sharing/ Stock Bonus Plan	6% have plan
(d) Profit Sharing Reduction	12% have plan
(e) 401(k) Salary Reduction Only Plan	10% have plan
(f) Employee Stock Ownership Plan (ESOP)	5% have plan*

* 66% of the comparator organizations are stockholder companies.

Prevalence of Benefit Practices

Greater than 500 Domestic Employees

(1) HOLIDAYS AND VACATIONS

(a) Total (Fixed and Floating) Number of Holidays Provided in 1986

54% provide 10-11 holidays
21% provide 12 holidays
15% provide 8 holidays
10% provide 7 holidays

(b) Floating Holidays

64% provided floating holidays; of these,
39% provided 1
34% provided 2
16% provided 3

(2) VACATIONS

(a) Vacation Days

	Years of Service					
	2	5	10	15	20	Max.
10-12 days	86%	31%	1%	-	-	-
13-17 days	13%	62%	69%	15%	4%	2%
18-20 days	1%	7%	27%	70%	67%	35%
21-25 days	-	-	2%	3%	6%	3%
> 25 days	-	-	1%	4%	23%	60%

(b) Special Executive Vacation Schedule

61% do not provide executive vacation schedules
39% provide special vacation schedules for executives; of these,
46% are based on the regular schedule with a minimum amount based on position level
37% provide a separate schedule
14% provide the return schedule plus extra vacation time

Appendix B

List of Comparator Organizations

1986 Hay/Huggins Benefits Comparison

Manufacturing, Transportation, Trade, Finance and Government

U.S. Participants with 1 to 500 Employees

Air-Shields Vickers
Allied Bank International
ALM
American Association for the Advancement of Science
American Bankers Association
American College
American Council of Life Insurance
American Gas Association
American Heart Association
American Institutes for Research
American Iron and Steel
American Public Transit Association
American Red Cross Greater New York
American Society of Civil Engineers
AMEV-American Security Insurance
Anchor/Darling Industries
Andrulis
Anser
Aris Isotoner Gloves
ASHRAE, Inc.

BABB
Baker Perkins
Bank Fund Federal Credit Union
Bank Marketing Association
Bank of the Commonwealth
Banner
Bariven
BATUS
Beaven Companies
Beram & Company, George
Berkshire Life Insurance
Boone County National Bank
Braden/AMCA International
Brim & Associates
Business & Technology Systems

Canaan
Carnegie Library of Pittsburgh
Catholic Health Association
Central Bank
Century Companies of America
Chase Clark Credit
Children's Aid Society
Chrysler Credit Corporation
Cincinnati Assoc for the Blind
City Bank & Trust
City of Rapid City (Fire & Police)
Community Federal Savings & Loan
Compuchem Laboratories
Congressional Budget Office

Cotton States Insurance
Credit Union League - California
CRST

Deak-Perera
Deseret Research
Dick Blick Company
Disston
Dynamic Systems

Edwards Baking
Eltech Systems
EMC Technologies, Incorporated
Episcopal Mission Society

Farm Family Insurance
Ferrero USA
First Amer Bank of MD
Fishkill National Bank
Frantz Manufacturing
Fruit Growers Express
First National Bank, Mexico MO

Galileo Electro Optics
Girls Scouts of the USA

Highlands Energy
Howe-Baker Engineering
Human Resources Research Organization

IBM-Endicott/Owego Employees Credit Union
ICL Inc.
Independence Health Plan
Indianapolis Life Insurance
Industrial Bank of Japan
Interstate
IU International Corporation

Jefferson Bancorp, Inc.

Kanawha Valley Bank
Kawasaki Motors Corp. USA
Kepner-Tregoe

Lanzagorta Group
Lavino Shipping
Leybold Heraeus Vacuum Products
Life Insurance Marketing and Research (LIMRA)
LMI
Los Alamos Technical Associates, Inc.
Lucas CAV Industries
Lutheran Health Systems

MacDermid
MAR
Mechanics Savings Bank
Medical Information Bureau

Mid-Atlantic Toyota Dis., Inc.
Midland Mutual Insurance
Midwest Research Institute
Modern Drop Forge Co.
Munich American Reinsurance
Mutual Broadcasting
Mutual Federal Savings & Loan

N. Dorman & Company
NACUBO
Nassau Educators Federal Credit Union
National Futures Association
National Gypsum-Austin
National Railway Labor Conf
National Restaurant Association
National Rural Utilities Cooperative Finance
National Council of the Paper Industry
Nebraska BC/BS
Nippendenso Illinois
Nippendenso of Los Angeles
North American Life & Casualty

Ohio National Life Insurance
Old American Insurance
Old National Bank-Evansville

PAKO
Pennsylvania Medical Society
Pentagon Federal Credit Union
Pioneer Savings and Loan
Pious XII Youth and Family Service
Plains Electric Generation and Transmission Cooperative
Poole (Gregory) Equipment
Pontiac State Bank
Public Broadcasting

Ragold
Regional Transportation Authority
Riss International
Rite-Hite Corporation

Schafer Associates (W. J.)
Security Savings Bank
Shipley Company
Sola Optical U.S.A.
Solar Energy Research Institute
State Department Federal Credit Union
Steiger Tractor
SunHealth

Time Life Books
Tower Federal Credit Union
Town of Palm Beach (Public Safety)
Trailer Train
Tricil Environmental

Underwriters Management Insurance (UMI)
United Way of Southampton Roads
United Way of Southeast Pennsylvania

Vallen
Versa Technologies
Volunteer Electric Cooperative

West Penn Motor Club
Wool Bureau

YMCA of the United States of America

1986 Hay/Huggins Benefits Comparison

Manufacturing, Transportation, Trade, Finance and Government

U.S. Participants with 501 or More Employees

AAL
Abbott Laboratories
Abbott Northwestern Hospital
Acacia Mutual Life Insurance
ADC Telecommunications
Adventist Health System-West
AEL Industries
Aerospace Corporation
AGA Gas
Air Products and Chemicals
Alabama Blue Cross/Blue Shield-Birmingham
ALCOA
Alexander & Alexander
Alexander & Baldwin
Allegheny Intermediate Unit
Allendale Mutual Insurance
Allied Chemical Corporation
Allied Corporation
Allis Chalmers
Alta Bates Corporation
Amerada Hess
American Chemical Society/Chem A
American Crystal Sugar
American Express
American Express-IDS
American Family Insurance Group
American Hospital Association
American Institute of CPA's
American Reinsurance Company
American Standard
American Sterilizer
American Systems
Amerifirst Federal Savings & Loan
Ameritech-Illinois Bell
Ameritrust
Amev Holdings
Anchor Hocking
Anchorage School District
Andersons, The
ARC America
Arcata Graphics
Archer-Daniels Midland
Arco Chemical
ARINC Research
Arizona Bank, The
Arkansas Best
Armco
Armstrong World Industries
Arvida Corporation
ASEA
Ashland Oil
Atlantic Aviation

Atlantic Richfield Company
Avery Products Corporation

Baltimore Aircoil
Baltimore Sun, The
Bank of New England
BankEast Corporation
Bankers Life and Casualty
Bankers Life of Nebraska
Baptist Hospital and Health Systems
Barber Colman-Environmental Sys
Barber Greene
Barclays American Corporation
Barclays Bank New York
Barclays Bank of California
Barnett Banks of Florida-Corp
Barry Wright
BASF-Fibers
Basin Electric Power Cooperative
Baxter Travenol
BDM Corporation, The
Bean (L. L.) Company
Becor Western
Beecham, Incorporated
Bell Atlantic
Bell Communications Research
Bell Helicopter Textron
BellSouth Corporation
Benefit Trust Life Insurance Company
Berol
Bessemer & Lake Erie Railroad
Best Products Company Inc.
Bethesda, Inc.
Betz Laboratories
Beverage Management Inc.
Binney & Smith
Bishop Clarkson Memorial Hospital
Black and Decker Mfg.
Blue Bell
Blue Cross & Blue Shield Associations
Business Men's Assurance Company of America
Business Men's Assurance Career Agents
BMC Industries
Bon Secours Health System
Borg Warner-Financial Services Group
Boston Edison Company
Bright Bank
Bristol-Myers
British Petroleum, North America
Brooklyn Union Gas
Brown & Williamson Tobacco
Brunswick Corporation
Buckeye Gas Products
Buell Industries
Bureau of Finance & Management
Burger King Corporation
Burlington Northern Railroad
Butler Manufacturing Company

C.A.C.I., Inc.
California & Hawaiian Sugar
Camcar - Illinois Division
Cameron Iron Works
Campbell Soup Company
Capital Cities-American Broadcasting
Capital Holding - CM
Cargill
Carle Foundation Hospital
Carrier
Carson, Pirie Scott Company
Carteret Savings & Loan
Castle (A.M.) & Company
Ceco Industries
Celanese-Virginia Chemical
Centel
Central Bancshares of the South
Central Life Assurance
Central Soya
CertainTeed Corporation
Chamber of Commerce of the U.S.
Charles Levy Circulating
Charter Medical
Chase Federal Savings & Loan
Chase Manhattan Bank
Chemical Bank
Cherry-Textron Fastners
Chesebrough-Pond's
Chicago & Northwestern Transportation
Chicago Board of Trade
Chicago Bridge & Iron Industries, Inc.
Chicago Title & Trust
Chipman-Union
Chrysler First Inc.
Ciba-Geigy
Cigna Corporation
Cigna Healthplan Inc.
Citibank, NA
Citizens Bank
City of Colorado Springs
City of Hampton
City of Los Angeles (Fire & Police)
City of Los Angeles (General)
City of Los Angeles (Water & Power)
City of Norfolk
City of Portland
City of Rapid City (General)
City of Richmond
City of Suffolk
CNA Insurance
Cole National Corporation
Colonial Bank
Colonial Life and Accident
Colorado Blue Cross/Blue Shield-Denver
Columbia Gas System
Columbia Hospital
Commercial Security Bank

Commercial Shearing
Commercial Union Insurance
Commonwealth National Bank
Community Mutual Blue Cross/Blue Shield
Computer Sciences Corp.
Computer Sciences Corp./Systems Division
Computervision
Connecticut Blue Cross/Blue Shield-North Haven
Connecticut Mutual Life Insurance
Consolidated Healthcare
Consolidated Rail
Continental Corporation
Continental Illinois Corporation
Continental Materials
Contraves Goerz
Cookson America
Copperweld
Country Companies
County of Lake
Covenant House
Cox Cable
Crane
Crompton & Knowles
Crowley Maritime Corporation
CSX
Curtis Mathes
Cyclops

Danly Machine Corporation
Daughters of Charity Health System-West
Dayton Power and Light
Dayton-Hudson
Dead River
Decision Industries Corp.
Delaware BC/BS - Wilmington
Deluxe Check Printers
Dennison Manufacturing-Executives
Deposit Guaranty National Bank
Dexter Corporation, The
Diamond Shamrock
Dick, (A.B.)
DiGiorgio Corporation
Dixie Yarns
Donaldson Company
Dow Chemical
Dow Corning
Duke Power
Duriron
Durr Fillauer Medical Inc
Dynalectron

EG & G Idaho
Elco Industries
Elkay Manufacturing
Elkem Metals
Empire Blue Cross/Blue Shield-New York City

Empire Savings, Building and Loan Association
Equibank NA
Equitable Trust Co., The
Erie Insurance Group
Evaluation Research
Exide Corporation

Factory Mutual Engineering and Research
Fairview Hospitals & Healthcare Svcs
Farm Credit Banks of Springfield
Farm Credit Services
Federal Express
Federal Home Loan Mortgage Corp.
Federal National Mortgage Association
Federal Reserve Bank San Francisco
Fidelcor, Inc.
Fidelity Mutual Life Insurance
Fidelity Union Life Insurance
First American Bancshares
First American Corporation
First Bank System - CM
First Data Resources
First Empire State Corp.
First Maryland Bancorp
First Mississippi
First National Bank Chicago
First Nationwide Bank
First Pennsylvania Bank
First Republic Bank
First Security Corporation
Fisher-Price Toys
Florida Blue Cross/Blue Shield - Jacksonville
Florida Power
Florida State Government
Florida Steel
FMC Corporation
FMC Indus Chem-Lithium
Fox & Jacobs
Fox-Stanley Photo Products
Foxboro Company, The
Friendly Ice Cream Corporation

Gallaudet College
GEICO
General American Life Insurance
General Electric
General Electric-Space Sys Div
General Foods
General Mills
General Public Utilities
General Shale Products
General Signal
Genicom Corp.
Genstar
Germantown Savings Bank
GHI Blue Cross/Blue Shield of Washington
Gibraltar Savings
Godfather's Pizza

Goldome
Gore (W. L.) & Associates
Gould-Computer Systems
Grainger (W. W.)
Grand Trunk Western Railroad-Corp
Graybar Electric
Great American First Savings Bank
Great American Insurance
Greyhound
Group Health Coop of Puget Sound
GTE
GTE-Communications Services

Hahnemann Medical College and Hospital
Hallmark Cards
Hamady Brothers Foods, Inc.
Hannaford Brothers
Hartford Hospital
Hartmarx
Health Care Service
Health Central System
Healthcare International
HealthWest
Heinz (HJ)
Hewlett-Packard Company
Hillcrest Medical Center
Hilti, Inc.
Hiram Walker
Honeywell-Info Sys-Non Incent
Honeywell-Process Mgment Systems
Hormel (George A)
Horton Memorial Hospital
Houghton Mifflin
Howard Johnson
Howard University
Huffy
Humana
Hunt Chemical Corporation (Philip A.)
Hunt Manufacturing
Hyatt Clark Industries
Hygeia Coca-Cola Bottling

Illinois Central Gulf Railroad
Illinois Power Company
Illinois Tool Works
Independent Life Insurance
Inland Steel
Insurance Services Office Inc.
Integon
Intermedics, Inc.
Intermountain Health Care
Iowa Blue Cross/Blue Shield-Des Moines
IPC
Itek

Jacob Engineering
Jefferson-Pilot Life Insurance
Jewish Child Care

John Hancock Mutual Life Insurance
Johnson (S.C.) & Son
Joy Manufacturing

Kaiser Foundation Health Plan
Kansas Blue Cross/Blue Shield-Topeka
Kansas City Life Insurance
Kansas City Power & Light
Kellogg
Kelly Services
Kerr McGee
Kimberly Clark
Knapp King-Size
Kroger

Lamb-Weston
Lawrence Livermore Laboratory
Lehigh Press
Leo Burnett Advertising
Lever Brothers Company
Levi Strauss
Liberty National Bank and Trust
Liberty National Life Insurance
Lincoln National Bank
Lipton, Thomas J.
Lincoln National Life Insurance
Long Island Lighting
Long Island Railroad
LTV Energy Products
Lucas Industries Inc
Lutheran Brotherhood

Mack Printing
Mack Trucks
Maine Blue Cross/Blue Shield - Portland
Manchester Memorial Hospital
Manor Care Inc
Marine Midland Bank
Mark Twain Bancshares
Mary Kay Cosmetics
Maryland Blue Cross/Blue Shield-Baltimore
Massachusetts Mutual Life Insurance
Massachusetts Blue Cross/Blue Shield-Boston
Matsushita, Incorporated
Mattel, Incorporated
May Department Stores Company
Mayflower
McGraw-Hill
MCI Telecommunications Systems
McKesson Corporation
Mead
Mellon Bank East
Mellon Bank West
Memorial Care Systems
Memorial Care Systems
Memorial Health Service
Memorial Medical Center California

Memorial Medical Center Florida
Memphis Light, Gas & Water
Mercedes Benz-North America
Merchants Bancorp
Merchants Insurance Group
Merck
Meridian Bankcorp, Inc
Merrill Lynch
Metropolitan Transit Authority-Metro North Commuter Railroad
Metropolitan Transit Authority-New Jersey Transit
Metropolitan Transit Authority-New York Transit
MetPath
Metropolitan Life Insurance
Michael Reese Hospital & Medical Center
Michigan Blue Cross/Blue Shield-Detroit
Michigan Consolidated Gas
Michigan Farm Bureau and Affiliate Cos
Michigan State Government
MidCon Corporation
Midwest Stock Exchange
Miles Laboratories
Milwaukee Metropolitan Sewage District
Minnesota Mutual Life Insurance
Minolta
Missouri Blue Cross/Blue Shield-St. Louis
Missouri Public Service
MITRE
Mitsubishi International
Modine
Monarch Capital Corp.
Montefiore Medical Center
Montgomery Ward
MONY Financial Services
Moog
Morgan
Morrison
Moses H. Cone Memorial Hospital
Motorola, Incorporated
MSI Insurance
Mutual Benefit Life Insurance
Mutual of Omaha Insurance

NASHUA
National Bank of Detroit
National Bank of Washington
National Can Corporation
National Gypsum
National Medical Hospitals
National Railroad Passenger Corp
National Supply
Nationwide Mutual Insurance Company
Navy Federal Credit Union
NCNB Corporation
NCR
Nebraska Public Power District
NEC Information System
New England Mutual Life Insurance

New Jersey Blue Cross/Blue Shield
New York Port Authority
New York Power Authority
New York Stock Exchange
Newport Steel Corporation
Nike
NIPRO
Nissan Motor Manufacturing USA
NKC
Norfolk Southern
Norfolk Southern-North American Van Lines
North Broward Hospital District
North Carolina Blue Cross/Blue Shield-Durham
North Carolina Baptist Hospital
North Mississippi Medical Center
Northern Indiana Public Service
Northwestern Bell Telephone
Northwestern Mutual Life
Northwestern National Insurance Co.
Northwestern National Life Insurance
Norton
Norwest Corporation Composite

Occidental Chemical
Ohio (Northwest) Blue Cross-Western Div.
Ohio Edison
Ohio Valley Medical Center
OKIDATA
Old Kent Bank and Trust
Old Stone Bank
Onbank
Overlook Hospital
Owatonna Tool
Owens-Corning Fiberglas
Owens-Illinois

Paccar Incorporated
Pacific Mutual Life Insurance
Pacific Resources, Incorporated
Pacific Telesis Group
PacTel Spectrum Services
Paper Converting
Peebles (W. S.)
Pendleton Woolen Mills
Pennsylvania Blue Cross of Greater Philadelphia
Pennsylvania Blue Shield-Camp Hill
Pennsylvania National Mutual Casualty Insurance
Pennsylvania Virginia Corporation
Pennwalt
People's Bank
Peoples Natural Gas
Peoples Gas Light and Coke Co
Pepsico
Pepsico-Frito-Lay
Pepsico-Pizza Hut
Perkin-Elmer
Perpetual America Federal Savings & Loan

Piedmont Natural Gas
Pillsbury
Pitney Bowes-Business Systems
Pittsburgh & Lake Erie Railroad
Pittsburgh National Bank
Plantronics
Portland General Electric
PPG Industries
PQ Corporation
Preferred Risk Mutual Insurance Co
Price (T. Rowe) Associates, Inc.
Price Brothers
Primark
Prime Computer
Principal Financial Group
Protective Life Insurance
Provident Life & Accident Ins
Prudential/Bache
Public Service Company of New Mexico
Puget Sound National Bank
Puritan-Bennett

Racal
Raymond Corporation
Reckitt & Colman North America
Recognition Equipment
Research Triangle Institute
Research-Cottrell, Incorporated
Rexnord
Reynolds Metals
Rhone-Poulenc
Richardson-Vicks
Roadway Express, Inc.
Rockford Memorial Hospital
Rockwell International-Allen Bradley
Rogers
Rouse Company
Royal Insurance Company
Ryder System

Saga Corporation
Sanders Associates, Inc.
Sandvik
Santa Fe Railroad
Santee Cooper
Sara Lee-Hanes
Schreiber Foods Inc.
Schroders Bank & Trust Co.
Schumacher & Company (F.)
Schweiber Electronics
Scott Paper
Sea First
Sears Roebuck-Merchandising
Securities Industry Automation
Segnode
Sentry Insurance
Sherex Chemical

Shipboard & Ground Systems
Siemens Medical Systems
Sierra Pacific Power Company
Sioux Valley Hospital
Society for Savings
Society National Bank
Solvay America
Sonoco Products
Soo Line Railroad
South Jersey Industries
South Suburban Hospital
Southeast Bank, N.A.
Southern Electric-Alabama Power
Southern Electric-Georgia Power
Southern Electric Services
Southern Pacific Railroad
Spring Valley Foods
St Louis Board of Police Commissioners
St Luke's Episcopal & Texas Children's Hospital/Texas Heart Assoc
St Luke's Hospital-Meritcare
St Mary's Medical and Health Center - Arizona
St Paul Fire and Marine
St Vincent Hospital & Health Center
Staley Continental-CFS Continental
Stanadyne, Incorporated
State Farm Insurance Companies
State of Arizona
State of Connecticut
State of Georgia
State of Maryland
State of Nebraska
State of New Jersey-Department of Personnel
State of North Carolina
State of Oregon
Statesman Group, The
Steamboat Ski
Stearns Catalytic
Steelcase Incorporated
Storer Communications
Stormont-Vail Regional Medical Center
Student Loan Marketing Association
Subaru of America
Suburban Propane Gas
Sun Chemical Company
Sun Health Corporation
Sun R & M
Sunday School Board of Southern Baptists
Supermarkets General
Susquehanna
Sutter Health System
Sverdrup Technology
Southwest Research Institute
Syntex
Syscon Corporation
Systems Research Laboratories

Talon
Tektronix

Tennesse Valley Authority
Terra Chemicals International Inc.
Texas American Bancshares-Comp
Texas Blue Cross/Blue Shield
Texas Department of Human Resources
Texas Instruments
Texas State Government
Thermo-Electron
Thomas Cook
TIAA-CREF
Timet
Timex
Timken
Tonka
Topps Chewing Gum, Inc.
Touche Ross & Company
Transamerica Corporation
Travelers, The
Travenol Laboratories, Inc.
Triangle Corporation
Triangle Publications

Uarco
UCCEL Corp.
UGI Corporation
Unigard Security Insurance Company
Union Carbide
Union Pacific-Union Pacific Railroad
Union Special
Unit Rig & Equipment Company
United HealthCare
United Services Life Insurance Co.
United Technologies
United Telecommunications
United Virginia Bank
University of Texas Health Science Svc
University Hospital of Cleveland
University of California
UNUM
Upjohn Company, The
US Life Corporation
USG
Utah Power and Light
Valero Energy
Valley National Bank
Vitro Corporation
Volvo White Truck Corporation
Wagner Electric
Warner & Swasey Company
Washington National Insurance Corporation
Washington Post, The
Washington Public Power Supply
Wesley Medical Center
West Virginia Blue Cross/Blue Shield
Western Forge
Western Publishing
Western Union
Westin Hotels

Weyerhaeuser Company
Wickland Oil
Wilder Foundation (Amherst H)
Wiley (John) & Sons Inc
Williams Brothers Engineering
Williams International
Williams-Northwest Pipeline
Wisconsin Physician Service
Wisconsin Public Service Corp.
Woolworth (F.W.)
Wrigley (Wm.) Jr.
Wyman Gordon

Zale
Zayre Corporation
Zenith
Zurich Insurance

3M Company (Minn. Mining & Mfg. Company)

1986 Hay/Huggins Benefits Comparison

Manufacturing

U.S. Participants with 1 to 500 Employees

Air-Shields Vickers
Anchor/Darling Industries
Aris Isotoner Gloves

Baker Perkins
Bariven
Braden/AMCA International

Canaan
Compuchem Laboratories

Edwards Baking
EMC Technologies, Incorporated

Ferrero USA
Frantz Manufacturing
Fruit Growers Express

Galileo Electro Optics

ICL Inc.

Kawasaki Motors Corp USA

Lanzagorta Group
Lavino Shipping
Leybold Heraeus Vacuum Products
Lucas CAV

MacDermid
Modern Drop Forge Co.

N. Dorman & Company
Nippendenso Illinois

Pako

Rite-Hite

Shipley Company
Sola Optical U.S.A.
Steiger Tractor

Time Life Books

Versa Technologies

1986 Hay/Huggins Benefits Comparison

Manufacturing

U.S. Participants with 501 or More Employees

Abbott Labs
ADC Telecommunications
AEL Industries
AGA Gas
Air Products & Chemicals
ALCOA
Allied Chemical Corporation
Allied Corporation
Allis-Chalmers
Amerada Hess
American Crystal Sugar
American Standard
American Sterilizer Co.
Anchor Hocking
Arc America
Arcata Graphics
Archer-Daniels Midland
Arco Chemical
Armco
Armstrong World Industries
ASEA
Ashland Oil
Atlantic Aviation
Atlantic Richfield
Avery Products Corporation

Baltimore Aircoil
Baltimore Sun, The
Barber Colman-Environmental Sys
Barber Greene
Barry Wright
Baxter Travenol
Becor Western
Beecham, Incorporated
Bell Helicopter Textron
Berol
Betz Laboratories
Beverage Management Inc
Binney & Smith
Black and Decker Mfg
Blue Bell
BMC Industries
Bristol Meyers
British Petroleum, N.A.
Brown & Williamson Tobacco
Brunswick Corporation
Buckeye Gas Products
Buell Inc.
Butler Manufacturing Company

California & Hawaiian Sugar
Camcar-Illinois Division
Cameron Iron Works
Campbell Soup Co.
Carrier
Ceco Industries
Celanese-Virginia Chemical
Central Soya
CertainTeed Corp.
Cherry/Textron Fastners
Chesebrough-Pond's
Chicago Bridge & Iron Industries, Inc.
Chipman-Union
Ciba-Geigy
Commercial Shearing
Computervision
Continental Materials
Contraves Goerz
Cookson America
Cooperweld
Crane
Crompton & Knowles
Curtis Mathes
Cyclops

Danly Machine Corporation
Deluxe Check Printers
Dennison Manufacturing-Executives
Dexter Corporation, The
Diamond Shamrock
Dick (A. B.)
Dixie Yarns
Donaldson Company
Dow Chemical
Dow Corning
Duriron

Elco Industries
Elkay Manufacturing
Elkem Metals
Exide Corporation

First Mississippi Corporation
Fisher-Price Toys
Florida Steel
FMC Corporation
FMC Indus Chem-Lithium
Fox & Jacobs
Foxboro Company, The

General Electric
General Electric-Space Systems Division
General Foods
General Mills
General Shale Products
General Signal
Genstar
Gore (W. L.) & Associates

Gould-Computer Systems
GTE
GTE-Communication Systems Corporation

Hallmark Cards
Hartmarx
Heinz Company (HJ)
Hewlett-Packard Company
Hilti, Inc.
Honeywell-Info Sys-Non Incent
Honeywell-Process Managment Systems
Hormel & Company (George A)
Houghton Mifflin
Huffy
Hunt Chemical Corporation (Philip A)
Hunt Manufacturing
Hyatt Clark Industries
Hygeia Coca-Cola Bottling

Illinois Tool Works
Inland Steel
Intermedics, Inc.
IPC
Itek Graphics and Composition Systems

Johnson (SC) & Son
Joy Manufacturing

Kellogg
Kerr-McGee
Kimberly-Clark
Knapp King-Size

Lamb-Weston
Lehigh Press
Lever Brothers Company
Levi Strauss
Lipton, Thomas J.
LTV Energy Products

Mack Printing
Mack Trucks
Mary Kay Cosmetics
Mattel, Incorporated
McGraw-Hill
MCI Telecommunications Systems
McKesson Corporation
Mead
Merck
Miles Laboratories
Modine
Moog
Morgan Corporation
Motorola, Incorporated

NASHUA
National Can Corporation
National Gypsum

National Supply
NCR
Newport Steel Corporation
Nike
NIPRO
Nissan Motor Manufacturing USA
Norton

Occidental Chemical
OKIDATA
Owatonna Tool
Owens-Corning Fiberglas
Owens-Illinois

Paccar Incorporated
Pacific Resources, Incorporated
Paper Converting
Pendleton Woolen Mills
Pennwalt
Pepsico
Pepsico-Frito Lay
Perkin-Elmer
Pillsbury
Pitney Bowes-Business Systems
Plantronics
PPG Industries
PQ
Price Brothers
Prime Computer
Puritan-Bennett

Racal-Milgo
Raymond Corporation
Reckitt & Colman North America
Recognition Equipment
Research-Cottrell, Incorporated
Rexnord
Reynolds Metals
Richardson-Vicks
Rockwell Intl-Allen Bradley
Rogers
Ryder System

Sanders Associates, Inc.
Sandvik
Sara Lee-Hanes
Schreiber Foods Inc.
Scott Paper
Sherex Chemical
Shipboard & Ground Systems
Siemens Medical Systems
Cignode
Solvay America
Sonoco Products
Spring Valley Foods
Stanadyne, Incorporated
Steelcase Incorporated
Sun Chemical Company

Sun R & M
Susquehanna
Syntex

Talon
Tektronix
Terra Chemicals International Inc.
Texas Instruments
Thermo-Electron
Timet
Timex
Timken
Tonka
Topps Chewing Gum, Inc.
Travenol Laboratories, Inc.
Triangle Corporation
Triangle Publications

Uarco
Union Carbide
Union Special
Unit Rig & Equipment Company
United Technologies
Upjohn
US Gypsum

Volvo White Truck

Wagner Electric
Warner & Swasey Company
Western Forge
Western Publishing
Weyerhaeuser Company
Wiley (John) & Sons Inc
Williams International
Wrigley (WM) Jr.
Wyman Gordon

Zenith

3M Company (Minn. Mining & Mfg. Company)

1986 Hay/Huggins Benefits Comparison

Transportation and Trade

U.S. Participants with 1 to 500 Employees

Blick (Dick) Company

CRST

Disston

Mid-Atlantic Toyota Dis., Inc.
Mutual Broadcasting

National Railway Labor Conf
Nippondenso of Los Angeles

Plains Electric Gen & Trans Coop
Poole (Gregory) Equipment
Public Broadcasting

Ragold
Riss International

Trailer Train

Vallen
Volunteer Electric Cooperative

1986 Hay/Huggins Benefits Comparison

Transportation and Trade

Participants with 501 or More Employees

Alexander & Baldwin
Ameritech-Illinois Bell
Andersons, The
Arkansas Best

Basin Electric Power Cooperative
Bean (L. L.) Inc
Bell Atlantic
Bell Communication Research
BellSouth
Bessemer & Lake Erie Railroad
Best Products Company Inc
Boston Edison Company
Brooklyn Union Gas
Burger King Corporation
Burlington Northern Railroad

Capital Cities-American Broadcasting
Cargill
Carson Pirie Scott
Castle (A.M.)
Centel
Chicago & Northwestern Trans
Cole National Corporation
Columbia Gas System
Consolidated Rail
Cox Cable
Crowley Maritime Corporation
CSX

Dayton-Hudson
Dayton Power & Light
Dead River
DiGiorgio Corporation
Duke Power
Durr-Fillauer Medical Inc.

Federal Express
Florida Power
Fox-Stanley Photo Products
Friendly Ice Cream Corporation

General Public Utilities
Grand Trunk Western Railroad-Corp
Greyhound
Grainger (W. W.)
Graybar Electric

Hamady Brothers Foods, Inc.
Hannaford Brothers
Hiram Walker

Illinois Central Gulf Railroad
Illinois Power Company

Kansas City Power & Light
Kroger

Levy Circulating, Charles
Long Island Lighting
Long Island Railroad
Lucas Industries Inc

Matsushita, Incorporated
May Department Stores Company
Mayflower
Mercedes Benz-North America
Memphis Light, Gas & Water
Metropolitan Transit Authority-Metro North Commuter RR
Metropolitan Transit Authority-New Jersey Transit
Metropolitan Transit Authority-New York Transit
Michigan Consolidated Gas
Midcon Corporation
Milwaukee Metropolitan Sant. Dist.
Missouri Public Service
Minolta
Mitsubishi International
Montgomery Ward
Morrison

National Railroad Passenger Corp
Nebraska Public Power District
NEC Information System
New York Port Authority
New York Power Authority
Norfolk Southern
Norfolk Southern-North American Van Lines
Northern Indiana Public Service
Northwestern Bell Telephone

Ohio Edison

Pacific Telesis Group
PACTEL Spectrum Services
Peebles (W. S.)
People's Natural Gas
People's Gas Light and Coke Co
Pepsico-Pizza Hut
Piedmont Natural Gas
Pittsburgh & Lake Erie Railroad
Portland General Electric
Primark
Public Service Co. of New Mexico

Rhone-Poulenc
Roadway Express, Inc.

Saga Corporation
Santa Fe Railroad
Santee Cooper
Schumacher, F. & Company
Schweiber
Sears, Roebuck-Merchandising
Sierra Pacific Power Company
Soo Line Railroad
South Jersey Industries
Southern Company Services
Southern Company-Alabama Power
Southern Company-Georgia Power
Southern Pacific Railroad
Storer Communications
Suburban Propane Gas
Staley Continental-CPS Continental
Subaru of America
Supermarkets General

Tennesse Valley Authority

UGI Corporation
Union Pacific-Union Pac Railroad
United Telecommunications
Utah Power & Light

Valero Energy

Washington Post, The
Washington Public Power Supply
Wickland Oil
Wisconsin Public Service Corp
Woolworth (F.W.)

Zale
Zayre Corporation

1986 Hay/Huggins Benefits Comparison

Finance

U.S. Participants with 1 to 500 Employees

Allied Bank International
American Association for the Advancement of Science
American Bankers Association
American College
American council of Life Insurance
American Gas Association
American Heart Association
American Institutes for Research
American Iron & Steel
American Public Transit Assoc.
American Red Cross Grtr New York
American Society of Civil Engineer
AMEV-American Security Insurance
Andrulis
Anser
ASHRAE, Inc.

BABB Inc
Bank Fund Federal Credit Union
Bank Marketing Association
Bank of the Commonwealth
Banner
BATUS
Beaven Companies
Beram & Company, George
Berkshire Life Insurance
Boone County National BAnk
Brim & Associates
Business & Technology Systems

Carnegie Library of Pittsburgh
Catholic Health Association
Central Bank
Century Companies of America
Chase Clark Credit
Children's Aid Society
Chrysler Credit Corporation
Cincinnati Assoc for the Blind
City Bank & Trust
Community Federal Savings & Loan
Cotton States Insurance
Credit Union League - California

Deak-Perera
Deseret Research
Dynamic Systems

Eltech Systems
Episcopal Mission Society

Farm Family Insurance
First American Bank of Maryland
Fishkill National Bank
First National Bank, Mexico MO

Girl Scouts of the USA

Highlands Energy
Howe-Baker Engineering
Human Resources Research Organization

IBM-Endicott/Owego Empl Cr Union
Independence Health Plan
Indianapolis Life Insurance
Industrial Bank of Japan
Interstate
IU International Corporation

Jefferson Bancorp, Inc.

Kanawha Valley Bank
Kepner-Tregoe

Life Insurance Marketing & Research Assoc.
LMI
Los Alamos Tech Assoc., Inc.
Lutheran Health Systems

MAR
Mechanics Savings Bank
Medical Information Bureau
Midland Mutual Insurance
Midwest Research Institute
Munich American Reinsurance
Mutual Federal Savings & Loan

NACUBO
Nassau Educators Federal Credit Union
National Council of the Paper Industry
National Futures Assoc
National Gypsum-Austin
National Restaurant Association
National Rural Utilities Cooperative Finance
Nebraska Blue Cross/Blue Shield
North American Life & Casualty

Ohio National Life Insurance
Old American Insurance
Old National Bank-Evansville

Pennsylvania Medical Society
Pentagon Federal Credit Union
Pioneer Savings and Loan
Pious XII Youth & Family Service
Pontiac State Bank

Schafer W. J.
Security Bank
Solar Energy Research Institute
State Department Federal Credit Union
SunHealth

Tower Federal Credit Union
Tricil Inc.

Underwriters Management Insurance
United Way of Southampton
United Way of Southeast Pennsylvania

West Penn Motor Club
Wool Bureau

YMCA of the United States of America

1986 Hay/Huggins Benefits Comparison

Finance

U.S. Participants with 501 or More Employees

AAL
Abbott-Northwestern Hospital
Acacia Mutual Life Insurance
Adventist Health System-West
Aerospace Corporation
Alabama Blue Cross-Blue Shield-Birmingham
Alexander & Alexander
Allegheny Intermediate Unit
Allendale Mutual Insurance
Alta Bates Corporation
American Chemical Soc/Chem A
American Express
American Express-IDS
American Family Insurance Group
American Hospital Association
American Institute of CPA's
American Reinsurance Company
American Systems Corporation
Amerifirst Federal Savings & Loan
Ameritrust
AMEV Holdings
Anchorage School District
ARINC Research
Arizona Bank
Arvida Corporation

Bank of New England
BankEast Corporation
Bankers Life & Casualty
Bankers Life Nebraska
Baptist Hospital & Health System
Barclays American Corp.
Barclays Bank New York
Barclays Bank of California
Barnett Banks of Florida-Corp
BASF-Fibers
BDM Corporation, The
Benefit Trust Life
Bethesda, Inc
Bishop Clarkson Memorial Hospital
Blue Cross & Blue Shield Assoc
Business Men's Assurance Career Agents
Business Men's Assurance Company of America
Bon Secours Health System
Borg Warner-Financial Services Grp
Bright Bank

C.A.C.I., Inc.
Capital Holding - CM
Carle Foundation
Carteret Savings and Loan

Central Bancshares of the South
Central Life Assurance
Chamber of Commerce of the US
Charter Medical
Chase Federal Savings & Loan
Chase Manhattan Bank
Chemical Bank
Chicago Board of Trade
Chicago Title & Trust
Chrysler First Inc.
Cigna Corporation
Cigna Health Plan Inc.
Citibank, NA
Citizens Bank
CNA Insurance
Colonial Bank
Colonial Life & Accident
Colorado Blue Cross/Blue Shield-Denver
Columbia Hospital
Commercial Security Bank
Commercial Union Insurance
Commonwealth National Bank
Community Mutual Blue Cross/Blue Shield
Computer Sciences Corp.
Computer Sciences Corp./Systems Div.
Connecticut Blue Cross/Blue Shield-North Haven
Connecticut Mutual Life Insurance
Consolidated Healthcare
Continental Corporation
Continental Illinois Corp
Country Companies
Covenant House

Daughters of Charity Health System-West
Decision Industries Corp.
Delaware Blue Cross/Blue Shield - Wilmington
Deposit Guaranty National Bank
Dynalectron

EG & G Idaho
Empire Blue Cross/Blue Shield-New York City
Empire Savings & Loan
Equibank NA
Equitable Trust Co., The
Erie Insurance Group
Evaluation Research

Factory Mutual Engineering & Research
Fairview Hospitals & Healthcare Svcs
Farm Credit Banks of Springfield
Farm Credit Services
Federal Home Loan Mortgage Corp.
Federal National Mortgage Assoc
Federal Reserve Bank San Francisco
Fidelcor, Inc.
Fidelity Mutual Life Insurance
Fidelity Union Life Insurance
First American Bankshares

First American Corporation
First Bank System - CM
First Data Resources
First Empire State Corp.
First Maryland Bancorp
First National Bank Chicago
First Nationwide Bank
First Pennsylvania Bank
First Republic Bank
First Security Corporation
Florida Blue Cross/Blue Shield - Jacksonville
Florida State Government

Gallaudet College
GEICO
General American Life Insurance
Genicom Corp.
Germantown Savings Bank
GHI Blue Cross/Blue Shield of Washington
Gibraltar Savings
Godfather's Pizza
Goldome
Great American First Savings Bank
Great American Insurance
Group Health Coop of Puget Sound

Hahnemann Medical College and Hospital
Hartford Hospital
Health Care Service
Health Central System
Healthcare International
Healthwest
Hillcrest Medical Center
Horton Memorial Hospital
Howard Johnson
Howard University
Humana

Independent Life Insurance
Insurance Services Office Inc.
Integon
Intermountain Health Care
Iowa Blue Cross/Blue Shield-Des Moines

Jacob Engineering
Jefferson-Pilot Life Ins.
Jewish Child Care
John Hancock Mutual Life

Kaiser Foundation Health Plan
Kansas Blue Cross/Blue Shield-Topeka
Kansas City Life Insurance
Kelly Services

Lawrence Livermore Laboratory
Leo Burnett Advertising
Liberty National Bank and Trust

Liberty National Life Insurance
Lincoln National Bank
LNC - Lincoln National Life Ins
Lutheran Brotherhood

Maine Blue Cross/Blue Shield - Portland
Manchester Memorial Hospital
Manor Care Inc
Marine Midland Bank
Mark Twain Bancshares
Maryland Blue Cross/Blue Shield-Baltimore
Massachusetts Mutual Life Insurance
Massachusetts Blue Cross/Blue Shield-Boston
Mellon Bank East
Mellon Bank West
Memorial Care Systems
Memorial Care Systems
Memorial Health Service
Memorial Medical Center California
Memorial Medical Center Florida
Merchants Bancorp
Merchants Insurance Group
Meridian Bankcorp, Inc
Merrill Lynch
MetPath
Metropolitan Life Insurance
Michael Reese Hospital & Medical Center
Michigan Blue Cross/Blue Shield-Detroit
Michigan Farm Bureau and Affiliate Cos
Midwest Stock Exchange
Minnesota Mutual Life Insurance
Missouri Blue Cross/Blue Shield-St Louis
Monarch Capital Corp.
Montefiore Medical Center
MONY Financial Services
Moses H. Cone Memorial Hosp.
MSI Insurance
Mutual Benefit Life Insurance
Mutual of Omaha Insurance

National Bank of Detroit
National Bank of Washington
National Medical Hospitals
Nationwide Mutual Insurance Company
Navy Federal Credit Union
NCNB Corporation
New England Mutual Life Insurance
New Jersey Blue Cross/Blue Shield
New York Stock Exchange
NKC
North Broward Hospital District
North Carolina Baptist Hospital
North Carolina Blue Cross/Blue Shield-Durham
North Mississippi Health
Northwestern Mutual Life

Northwestern National Insurance Co.
Northwestern National Life Insurance
NW-Norwest Corporation Composite

Ohio (Northwest) Blue Cross-Western Div.
Ohio Valley Medical Center
Old Kent Bank & Trust
Old Stone Bank
Onbank
Overlook Hospital

Pacific Mutual Life Insurance
Pennsylvania Blue Cross of Greater Philadelphia
Pennsylvania Blue Shield-Camp Hill
Pennsylvania National Mutual Casualty Insurance
Pennsylvania Virginia Corporation
People's Bank
Perpetual America Federal S & L
Pittsburgh National Bank
Preferred Risk Mutual Insurance Co
Principal Financial Group
Protective Life Insurance
Provident Life & Accident Ins
Prudential/Bache
Puget Sound National Bank

Research Triangle Institute
Rockford Memorial Hospital
Rouse Company
Royal Insurance Company

Schroders Bank & Trust Co.
Sea First
Securities Industry Automation
Sentry Insurance
Sioux Valley Hospital
Society for Savings
Society National Bank
South Suburban Hospital
Southeast Bank, N.A.
St Luke's Episcopal Children Hosp
St Luke's Hospital-Meritcare
St Mary's Hospital and Health Ctr - AZ
St Paul Fire and Marine
St Vincent Hospital & Health Center
State Farm Insurance Companies
Statesman Group
Steamboat
Stearns Catalytic
Stormont-Vail Medical Center
Student Loan Mktg Association
SunHealth Corporation
Sunday School Board of S. Baptists
Sutter Health System
Sverdrup Technology
SW Research Institute
SYSCON
Systems Research Laboratories

T. Rowe Price Associates, Inc.
Texas American Bancshares-Comp
Texas Blue Cross/Blue Shield
Texas Dept of Human Resources
Texas State Government
Thomas Cook
TIAACREF
Touche Ross & Company
Transamerica Corporation
Travelers, The

UCCEL Corp.
Unigard Security Insurance Company
United Health Care
United Services Life Co.
United Virginia Bank
University of Texas Health Science Svc
University Hospital of Cleveland
University of California
UNUM
US Life Corporation

Valley National Bank
Vitro Corporation

Washington National Corporation
Wesley Medical Center
West Virginia Blue Cross/Blue Shield
Western Union
Westin Hotels
Wilder (Amherst H) Foundation
Williams Brothers Engineering
Williams-NW Pipeline
Wisconsin Physician Service

Zurich Insurance

1986 Hay/Huggins Benefits Comparison

Government Participants

ALM

Bureau of Finance & Management

City of Colorado Springs
County of Lake
City of Los Angeles (General)
City of Los Angeles (Fire & Police)
City of Los Angeles (Water & Power)
City of Hampton
City of Norfolk
City of Portland
City of Rapid City
City of Rapid City (Fire & Police)
City of Richmond
City of Suffolk
Congressional Budget Office

Florida State Government

Michigan State Government
Mitre

Regional Transportation Authority

St. Louis Board of Police Admin.
State of Arizona
State of Connecticut
State of Georgia
State of Maryland
State of Nebraska
State of New Jersey-Dept of Personnel
State of North Carolina
State of Oregon

Texas Department of Human Resources
Texas State Government
Town of Palm Beach (Public Safety)

Appendix C

Numeric Results

1986 HAY/HUGGINS BENEFITS COMPARISON

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
TOTAL EMPLOYER PAID BENEFIT VALUE

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	7812	11889	16105	23008	27706	33293	37126	41010	44524	48346	56865	65072	79674
Q3	7222	10757	14473	19772	24952	28702	32392	36162	40763	43834	51181	58832	72882
MEDIAN	6316	9023	12354	17998	21668	25119	28284	31723	34819	38126	44886	51129	61727
MEAN	6476	9794	13426	17939	21815	25259	28232	31570	34322	37865	44668	51071	62725
Q1	5726	8694	11752	15384	18432	21172	23998	26700	29184	31710	38594	44470	54150
P10	4997	7540	10098	13435	15990	18906	20616	23233	25347	27624	32250	35944	44268

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID EXECUTIVE PERQUISITES

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	0	2100	6950	9050	9050	9050	9050	9050	9100	9300	10700	10700	11650
Q3	0	2000	5700	7800	7800	7800	8100	7800	7800	8230	8730	8800	9050
MEDIAN	0	1300	2100	5700	5700	5700	5700	5700	5700	5800	6700	6700	7700
MEAN	0	1253	2893	4656	5118	5564	5650	5676	5946	5990	6419	6531	6911
Q1	0	700	700	1100	2100	2800	2800	3270	3350	2800	3270	3270	3270
P10	0	165	630	600	630	700	700	630	630	700	700	700	700

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID DEATH BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	480	880	1157	1588	1893	2250	2432	3520	3744	3785	4265	5063	5852
Q3	312	510	681	947	1188	1391	1551	1738	1851	1994	2335	2647	2983
MEDIAN	199	296	432	571	725	870	1025	1156	1262	1350	1555	1798	1880
MEAN	246	434	612	830	1073	1236	1404	1591	1712	1824	2090	2303	2652
Q1	123	233	327	440	528	616	678	716	776	882	939	942	1048
P10	83	150	200	289	337	370	385	440	440	460	488	492	494

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID DISABILITY BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	444	914	1419	1949	2450	2911	3409	3914	4412	4760	5835	6937	8985
Q3	397	830	1291	1762	2232	2696	3111	3541	3988	4364	5365	6396	8219
MEDIAN	354	753	1174	1615	2041	2436	2892	3189	3575	3917	4789	5620	7197
MEAN	389	791	1165	1586	2001	2414	2882	3182	3554	3919	4787	5638	7298
Q1	328	685	1060	1424	1810	2196	2541	2879	3203	3512	4297	5054	6558
P10	290	545	827	1108	1402	1707	2011	2316	2620	2925	3568	4138	5441

1986 HAY/HUGGINS BENEFITS COMPARISON

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID HEALTH CARE AND DENTAL BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	3823	3823	3878	3910	4016	4057	4057	4122	4192	4192	4210	4210	4210
Q3	3428	3428	3431	3525	3540	3572	3572	3628	3629	3629	3629	3629	3629
MEDIAN	2886	2886	2886	2992	3003	3026	3026	3033	3033	3033	3033	3033	3033
MEAN	2837	2843	2858	2904	2959	2994	3000	3041	3050	3050	3057	3059	3059
Q1	2275	2275	2275	2280	2291	2341	2391	2396	2396	2396	2396	2396	2396
P10	1736	1736	1736	1772	1772	1778	1845	1845	1845	1845	1845	1845	1845

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID PENSION BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	1032	2211	3599	4872	6126	7544	8976	10274	11676	13051	16473	18283	22476
Q3	824	1793	2816	3799	4946	6102	7379	8395	9811	11027	13744	15922	18283
MEDIAN	617	1389	2201	3140	4107	5070	6104	7051	8014	8924	11276	13610	15980
MEAN	689	1478	2399	3313	4282	5232	6216	7107	8047	8985	11237	13220	15939
Q1	476	985	1652	2477	3327	4147	5029	5665	6466	7227	9273	11058	14316
P10	329	797	1316	1898	2434	2921	3407	3894	4381	4868	6085	7302	9725

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID CAPITAL ACCUMULATION

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	993	1905	2978	4256	5320	6384	7448	8512	9576	10640	13300	15960	21280
Q3	547	1093	1643	2560	3200	3840	4480	5120	5760	6400	8000	9600	12800
MEDIAN	400	800	1200	1920	2410	2892	3374	3855	4279	4735	5944	7132	9510
MEAN	463	919	1376	2176	2717	3258	3799	4340	4881	5422	6771	8121	10821
Q1	250	500	750	1249	1673	2010	2345	2680	3015	3350	4187	5025	6700
P10	125	250	375	600	1000	1200	1400	1600	1800	2000	2500	3000	4000

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID HOLIDAY/VACATION/CAFETERIA BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	1446	2888	3825	5059	6464	7723	9025	10445	11730	13036	16320	19584	26051
Q3	1229	2298	3541	4701	5877	7142	8400	9577	10886	12095	15000	18000	24000
MEDIAN	1075	2150	3234	4309	5424	6599	7594	8678	9763	10848	13560	16272	21696
MEAN	1130	2197	3288	4358	5476	6587	7697	8868	9963	11063	13806	16549	22036
Q1	990	1926	2934	3886	4904	5936	6948	7941	8934	9926	12408	14888	19784
P10	922	1843	2765	3686	4608	5520	6451	7373	8294	9216	11520	13824	18432

1986 HAY/HUGGINS BENEFITS COMPARISON

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID BENEFIT TOTALS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	8344	12476	16951	22421	28454	33254	37922	42038	46650	51384	62300	71846	89387
Q3	7696	11460	15404	20314	25388	30086	34195	39252	43080	46959	56363	65122	80703
MEDIAN	6962	10379	14051	18248	22330	26248	30111	34442	38391	42033	50969	58431	71919
MEAN	6999	10424	14143	18574	22705	26705	30470	34712	38344	41932	50526	58240	72227
Q1	6204	9301	12564	16369	19691	23133	26311	29957	33161	36313	43514	49613	62027
P10	5317	8443	11369	14649	17417	20357	22798	25942	28540	31185	37206	43019	52611

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID EXECUTIVE PERQUISITES

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	0	5700	5700	7000	8500	8900	9470	9800	10700	10800	12350	13300	15000
Q3	0	1300	2800	5700	5717	6450	7450	8265	8500	8665	9950	10055	11050
MEDIAN	0	1300	1200	2100	3150	5185	5700	5700	5700	6250	7148	7563	8350
MEAN	0	1759	2167	3149	3984	4539	5001	5529	6001	6332	7213	7631	8368
Q1	0	820	700	700	820	1250	1350	2100	3030	3700	4450	5130	5700
P10	0	650	500	500	600	600	630	650	700	765	1300	1300	1350

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID DEATH BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	530	893	1295	1753	2250	2710	3157	3669	4138	4676	5715	7030	8804
Q3	387	624	862	1175	1467	1755	2107	2430	2751	3076	3729	4306	5257
MEDIAN	263	390	537	678	851	990	1147	1301	1423	1560	1873	2149	2695
MEAN	307	510	721	954	1207	1469	1756	2025	2277	2538	3160	3716	4604
Q1	137	257	370	475	592	673	764	877	941	1028	1194	1337	1478
P10	86	156	229	298	372	439	479	544	599	629	680	713	806

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID DISABILITY BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	422	670	1335	1817	2280	2795	3226	3695	4150	4621	5761	6931	9064
Q3	293	818	1262	1719	2160	2620	3063	3501	3937	4366	5372	6386	8361
MEDIAN	364	735	1176	1595	2015	2432	2834	3237	3631	4025	4977	5900	7640
MEAN	362	730	1156	1568	1970	2385	2782	3175	3562	3946	4870	5776	7546
Q1	332	693	1058	1435	1807	2170	2528	2885	3234	3553	4408	5235	6847
P10	301	623	949	1279	1608	1937	2225	2537	2857	3163	3885	4615	6039

1986 HAY/HUGGINS BENEFITS COMPARISON

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID HEALTH CARE AND DENTAL BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	3954	3955	3977	4044	4144	4279	4330	4402	4530	4617	4710	4710	4710
Q3	3499	3509	3553	3605	3694	3793	3830	3928	3951	3964	3994	3997	3997
MEDIAN	2977	2981	3046	3043	3122	3181	3204	3275	3278	3294	3302	3309	3309
MEAN	2961	2871	2990	3005	3119	3190	3228	3303	3322	3342	3363	3367	3367
Q1	2457	2457	2476	2522	2557	2606	2619	2680	2682	2685	2687	2697	2697
P10	1987	1996	2015	2041	2060	2111	2130	2190	2201	2202	2202	2203	2203

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID PENSION BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	1003	2047	3135	4321	5362	6836	8105	9440	10720	11976	15235	17694	22495
Q3	798	1698	2696	3745	4836	5926	7007	8159	9280	10414	13149	15700	19602
MEDIAN	627	1360	2185	3092	4064	5061	6061	7120	8108	9096	11515	13915	16459
MEAN	650	1383	2190	3088	4042	4999	5967	6989	7963	8926	11346	13538	16706
Q1	482	1032	1676	2463	3302	4125	4949	5811	6670	7499	9493	11430	14448
P10	337	723	1189	1783	2434	3057	3703	4344	5013	5646	7252	8806	10864

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID CAPITAL ACCUMULATION

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	851	1701	2537	3580	4600	5520	6440	7360	8280	9200	11500	13800	18380
Q3	575	1150	1725	2652	3315	3978	4641	5304	5967	6608	8162	9750	13000
MEDIAN	425	850	1275	2000	2500	3000	3500	4000	4500	5000	6250	7500	9920
MEAN	484	962	1439	2213	2763	3312	3861	4410	4959	5507	6833	8160	10810
Q1	280	560	832	1496	1810	2172	2520	2880	3240	3600	4425	5310	7020
P10	175	350	525	954	1192	1422	1659	1837	2068	2295	2844	3330	4360

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
MANUFACTURING, TRANSPORTATION, TRADE, FINANCE, AND GOVERNMENT
EMPLOYER PAID HOLIDAY/VACATION/CAFETERIA BENEFITS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	1906	2646	3831	5085	6352	7693	9006	10491	11800	13120	16360	19584	26856
Q3	1398	2466	3594	4762	5968	7197	8400	9677	10886	12096	15080	18056	24000
MEDIAN	1218	2270	3330	4410	5504	6621	7700	8823	9917	10992	13680	16416	21888
MEAN	1239	2287	3358	4456	5569	6705	7827	8983	10100	11225	14000	16762	22284
Q1	1064	2013	3110	4147	5184	6213	7203	8249	9272	10280	12840	15344	20368
P10	979	1939	2909	3870	4840	5814	6771	7726	8707	9648	12000	14400	19200

1986 HAY/HUGGINS BENEFITS COMPARISON

U.S. PARTICIPANTS WITH 1 TO 500 EMPLOYEES
FINANCE
EMPLOYER PAID BENEFIT TOTALS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	7812	11909	16105	22614	28454	34162	38919	41725	45246	48346	56810	65627	80104
Q3	7249	10914	14883	19772	24903	28702	32609	37473	41140	44719	52389	60901	73584
MEDIAN	6589	10073	13602	17711	21727	25530	28624	32346	35744	38886	46266	53025	63825
MEAN	6339	10028	13829	18214	22203	25892	29071	32639	35745	39008	46670	52508	63892
Q1	5869	9094	12490	16198	19290	22727	25463	28214	30835	33530	40115	45504	56471
P10	5135	8048	10590	14206	16570	20207	22554	24311	26569	31267	36841	41299	49569

U.S. PARTICIPANTS WITH 501 OR MORE EMPLOYEES
FINANCE
EMPLOYER PAID BENEFIT TOTALS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	8204	12409	16860	23138	28717	32929	37847	42038	46630	51628	61568	71319	88350
Q3	7474	11462	15516	20801	25759	30107	34273	39080	42813	46904	56206	64813	80118
MEDIAN	6745	10276	14080	18450	22448	26537	30539	35144	38787	42634	51260	58998	71840
MEAN	6777	10292	14073	18736	22852	26738	30559	34822	38394	42049	50613	58195	72005
Q1	6099	9089	12387	16337	19610	23296	26933	30571	33670	36507	43649	50223	62691
P10	5462	8318	11284	14649	17336	20451	23057	26208	29045	32066	38200	44149	54165

GOVERNMENT PARTICIPANTS
EMPLOYER PAID BENEFIT TOTALS

	10000	20000	30000	40000	50000	60000	70000	80000	90000	100000	125000	150000	200000
P90	7693	10718	14465	19304	22953	26604	29697	32791	35884	38978	46500	53677	64601
Q3	6892	10048	13555	17958	20827	23952	27071	30502	33837	37171	44245	51013	59051
MEDIAN	6146	9682	12979	16391	19643	22675	25582	28374	30802	33563	39145	45197	53139
MEAN	6189	9475	12943	16497	19564	22345	25032	27996	30702	33446	39859	45474	53415
Q1	5528	8640	11724	14957	17618	20136	22653	25171	27685	30128	36150	39748	46311
P10	4782	7861	10848	13293	15937	18482	20995	23293	25469	27645	33347	36147	41455

Benefits Provided by the Government to Selected Reservists

Salary($000's)	1	2	3	4	5	6	7	8	9	10	11	12
Retirement	206	411	617	823	1029	1234	1440	1646	1852	2057	2263	2469
All Benefits	445	670	894	1119	1344	1569	1794	2018	2243	2468	2693	2918

1986 Hay/Huggins Benefits Comparison

Mean Employer Paid Benefit Value
By Supplemental Pay for Training Policy

	10	20	30	40	50	60	70	80	90	100
No Supplement	6440	9786	13224	18166	22153	25845	29155	32642	36153	39079
Full Civilian Pay	6772	10346	14094	18412	22610	26358	30162	34004	37913	41258
Other than Full Pay	6986	10493	14304	18760	22990	27118	30909	35153	38825	42538

Part D. Extract from the Description of Officers and Enlisted Personnel in the U.S. Selected Reserve

THE 1986 RESERVE COMPONENTS SURVEYS

The 1986 Reserve Components Surveys were a major source of data for analysis by the staff of the 6th QRMC and its supporting contractors.[1] This document provides an overview of the 1986 Reserve Components Surveys. It includes a discussion of survey research in the Department of Defense and the design used in conducting the present surveys. Information about the sample, data collection, response rates and the questionnaires is also provided.

A. Survey Research in the Department of Defense

In formulating manpower and personnel policy, the Department of Defense (DoD) relies on both administrative data and on survey data. Administrative data are personnel-related information collected from individuals, or maintained about them, primarily for record-keeping purposes. Such information is used in determining the types and amounts of military compensation, eligibility for various forms of health and program benefits, and performance assessments. These data are largely automated and readily available for policy research and formulation purposes.

Survey data collected in DoD include social characteristics, descriptive, economic, demographic, and behavioral information, as well as data about tastes, preferences, experiences, and projected behaviors. Survey data are currently collected from samples of individuals, using a range of methodologies. Data are most frequently collected using self-administered questionnaires distributed and collected individually or in group settings. They are also collected through personal and telephone interviews and as an adjunct to field experiments. Survey data can be used to supplement administrative data as well as to address issues which cannot be studied from the administrative data. Particularly if collected periodically and systematically, these data serve as a basis for assessing the response of military personnel to policy changes and for identifying areas for future policy action.

Each of the Services and the reserve components undertakes policy analyses using their own administrative data and data from surveys conduc[illegible] among their own personnel. In general,

such studies address Service- or component-specific issues. Issues which are cross-Service or cross-component in nature are addressed within the Office of the Secretary of Defense (OSD). Either such studies are conducted by OSD or a single service is designated to conduct a study on OSD's behalf.

The administrative data used to support OSD studies are less detailed than those available at the Service or component level, since the former are primarily used for policy formulation and assessment, while the latter are used for detailed personnel management as well as for policy purposes. Surveys conducted at the OSD level strive for a balance between data which will allow for cross-Service or cross-component policy analysis and data detailed enough so that they can also be used by the separate military services.

The 1986 Reserve Components Surveys (1986 RC Surveys) described below are the most recent examples of OSD surveys, developed and conducted with the cooperation of the reserve components and intended to provide data for both OSD and component-specific studies. In the case of the 1986 RC Surveys, the Coast Guard Reserve was included to ensure comprehensive coverage of all seven reserve components of the armed forces.

B. Background of the 1986 Reserve Components Surveys.

1. Purpose

In January, 1983, the Deputy Secretary of Defense mandated a survey of military families, who were increasingly recognized as important to the retention and preparedness of the armed forces. While each of the military services had previously conducted small-scale studies of Service-specific military families, a single consistent cross-service data set which could be used to study emerging family issues was not available. Concurrent with the requirement to create a data base for studying military families, DoD also had a need to assess the impact of a range of personnel policies implemented in the past few years. Because there was a great deal of overlap in the information needed for both purposes, i.e., studying family issues and studying a broad range of personnel issues, the two requirements were merged.

In preparation for that task, the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) [currently the Assistant Secretary of Defense (Force Management and Personnel)] established the Family Survey Coordinating Committee, a DoD-wide committee which assessed both information requirements and data sources within the DoD. Early in the deliberations of the Committee, it was recognized that major surveys of both the active and the reserve components were required. Recognizing the complexity of the undertaking, the Committee initiated

active force surveys but temporarily postponed the reserve components surveys. The 1985 DoD Survey of Officer and Enlisted Personnel (1985 DoD Member Survey) and the 1985 DoD Survey of Military Spouses (1985 DoD Spouse Survey), collectively the 1985 DoD Surveys of Officer and Enlisted Personnel and Military Spouses (1985 DoD Surveys), were thus conducted to meet the requirements for data from active-duty military personnel and their spouses.[2]

In February, 1985, the Deputy Assistant Secretary of Defense (Guard/Reserve Manpower and Personnel) [DASD(G/R M&P)] asked the Defense Manpower Data Center (DMDC) to act as his agent in the conduct of the 1986 Reserve Components Surveys. DMDC had acted in a similar capacity in the conduct of the 1985 active duty surveys. In addition,the DASD(G/R M&P) convened a special committee of reserve component representatives to focus on establishing the requirements for the surveys. The 1986 Reserve Components Surveys, described in detail in the remainder of this chapter, were conducted to meet the requirements for data from members of the reserve components and their spouses.

Together, the 1985 DoD Surveys and the 1986 Reserve Components Surveys provide data sets on the total population actively involved in the military way of life. The survey data collected from both of these major surveys can be used to study:

- The response of military personnel to changes in military compensation and benefits enacted in recent years;
- Factors affecting individual preparedness and retention of active-duty and reserve personnel;
- Projected behavior of military personnel in response to possible changes in personnel management;
- Differences in career orientations, attitudes, and experiences between members of different subgroups, e.g., occupational specialties, officers and enlisted members, minorities, men and women;
- The demographic, household, familial and other characteristics of military personnel, couples, and families, including special groups such as dual-career couples and single-parent families;
- The impact of military policies on aspects of military and family life such as residential arrangements, continuing education, and spouse employment;
- Family well-being, including economic issues facing military families; and

- Demand for, use and adequacy of programs providing family services.

In addition, data available from the 1986 Reserve Components Surveys can be used to address a variety of questions about National Guard and Reserve components members and families which heretofore have been the subject of limited or outdated research, broad stereotyping, and speculation. These include:

- Patterns of previous active and reserve component service;
- Financial issues that would face Guard and Reserve families in the event of mobilization;
- The interaction between the amount and forms of reserve compensation and career intentions;
- The relationship between civilian occupations and military occupations for members;
- Availability of medical and health coverage to reserve families from non-reserve sources;
- The impact of employer policies, practices and attitudes on member reserve participation; and
- The role of the family in reserve participation.

2. Previous Reserve Studies

The 1985 DoD Surveys and the 1986 Reserve Components Surveys (1986 RC Surveys) build directly on OSD-sponsored survey research conducted in recent years. The objectives of these surveys include a systematic examination of, and provision of policy-sensitive information about the military life cycle. The military life cycle includes both reserve and active force enlistment and reenlistment decisions, career orientations, responses to policies that affect military members and their households, and decisions to leave the military.

Beginning in FY 1979, several major life cycle surveys have been conducted. The 1979 DoD Survey of Personnel Entering Military Service and the 1981 and 1983 DoD Surveys of Applicants for Military Service focussed on enlistment decisions. The 1978/79 DoD Survey of Officer and Enlisted Personnel (1978/79 DoD Surveys) focused on the in-service population; i.e. the men and women on active-duty in the four Services. The 1985 DoD Surveys are closely related to the 1978/79 DoD Surveys both in subject areas and survey design.

Former studies of the reserve components include the 1979 Reserve Force Studies Surveys (1979 RF Surveys) and the 1984 Survey of National Guard and Reserve Members. The 1979 RF Surveys were administered to a cross-section of enlisted personnel and unit commanders in both the Army National Guard and Army Reserve. The purpose of the surveys was to collect data for the Office of the Deputy Assistant Secretary of Defense (Reserve Affairs) and the Army Guard and Reserve components to support policy research analysis on reserve force and manning problems. The study was limited to a sample of 441 Army National Guard and Army Reserve units, 219 for specialized case studies and 222 randomly selected. In each unit, questionnaires were administered to all junior and senior enlisted personnel and to the unit commanders. In addition, one questionnaire was filled out either by the unit commander or another unit member (generally the unit military technician) to report basic factual information about each sampled unit.

The 1984 Survey of National Guard and Reserve Members was conducted at the request of the Office of the Deputy Assistant Secretary of Defense (Reserve Affairs) and the Office of the Deputy Assistant Secretary of Defense (Military Personnel and Force Management). The purpose of the survey was to provide information on the attitudes and experiences of Selected Reserve members with regard to the military identification card system and other aspects of reserve service. The sample included 201 units. Within sampled units, all Selected Reserve members (including drilling members, Active Guard/Reserve or Training and Administration of Reserve members (AGR/TARs), and military technicians) were asked to complete questionnaires.

3. Brief Description of the 1986 Reserve Components Surveys

The 1986 Reserve Components Surveys (1986 RC Surveys) consist of three portions, two of reserve component members and the third of their spouses. The 1986 Reserve Components Survey: Selected Reserve Officer and Enlisted Personnel (1986 RC Member Survey) surveyed a sample of Selected Reserve unit members. Individual Mobilization Augmentees (IMAs), i.e., Selected Reservists who train with the active components, and military technicians, i.e., Selected Reservists who are also employed full-time in reserve units in a civilian capacity, were also included in the 1986 RC Member Survey. The 1986 Reserve Components Survey: Full-Time Support Officer and Enlisted Personnel (1986 RC AGR Survey) surveyed a sample of Active Guard/Reserve or Training and Administration of Reserve (AGR/TARs) members. Individuals in all seven reserve components (Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve and Coast Guard Reserve) were included in both the 1986 RC Member Survey and, where appropriate, in the 1986 RC AGR Survey.

As an additional part of these surveys, a follow-up of selected Army National Guard and Army Reserve units included in the 1979 RF Surveys was conducted. Of the 222 units randomly selected in 1979, 145 were still in existence in 1986. A census of approximately 13,000 enlisted members in these units constituted the 1979 RF Follow-Up portion of the 1986 RC Surveys. These units were included so that changes in personnel attitudes and attributes could be compared between 1979 and 1986. Members selected for the 1979 RF Follow-Up are included in the 1986 RC Member Survey population.

The 1986 RC Member Survey and the 1986 RC AGR Survey were administered to a sample of approximately 121,000 Guard/Reserve members (including about 13,000 in units previously sampled in 1979) in the United States and Puerto Rico. Five questionnaire versions were used: officer and enlisted members (including technicians and IMAs) (Forms 1 and 2); full-time support officer and enlisted personnel (Forms 3 and 4), and the commanders of units in the 1979 RF Follow-Up (Form 7).

The 1986 Reserve Components Survey of Spouses of Selected Reserve Personnel (1986 RC Spouse Survey) was a census of the spouses of all individuals sampled for participation in the 1986 RC Member Survey and the 1986 RC AGR Survey. A questionnaire was sent to approximately 75,000 spouses in English (Form 5) and Spanish (in Puerto Rico) (Form 6) versions.

All of the questionnaires contained a core group of questions similar to those used in previous DoD active and reserve surveys covering members' and spouses' characteristics and current experiences.

C. Survey Populations and Samples

The Reserve Components Common Personnel Data System (RCCPDS) as of 30 October 1985 was used to initially define the population on which the samples were based. In addition to the information used for sampling, RCCPDS contains other administrative data on Guard/Reserve members which were used in data collection. The 1986 RC Surveys contain three units of analysis: military personnel, spouses and couples.

1. Military Personnel

The population for the basic military samples of the 1986 RC Surveys consisted of Selected Reserve trained officer and enlisted personnel; i.e., individuals in the training pipeline were excluded. These personnel are included in the Selected Reserve strength of all reserve components. Therefore, the sample population was smaller by approximately 9 percent from the total population of the Selected Reserve. The basic stratification variable was reserve component. Within each

component, personnel were classified by reserve category (RCAT) as defined in RCCPDS, officer/enlisted personnel status and sex. The four reserve categories are unit members (RCAT = S), non-unit members or IMAs (RCAT = T), military technicians (RCAT = M), and full-time support personnel or AGR/TAR (RCAT = F). The final sample sizes were based on a compromise between the number of questionnaires needed for detailed analyses of special small populations and budgetary constraints. In most strata, the design provided for a 10 percent sample. The sample design also provided for larger sampling ratios of women, officers, Marine Corps Reserve and Coast Guard Reserve personnel. The final stratification scheme along with the sampling ratios is shown in Table 2.1. Within each stratum, a random sample of military personnel was selected with equal probability of selection using the sampling ratios shown in Table 2.1. The final sample sizes, by stratum, are shown in Table 2.2.

As indicated above, in addition to the basic sample, approximately 13,000 Army National Guard (ARNG) and Army Reserve (USAR) members of specific units from the 1979 RF Surveys were surveyed. These 145 units had been randomly selected and surveyed in the 1979 RF Surveys and were still in existence in late 1985. Table 2.3 shows the complete follow-up sample, in strata defined on the basis of unit size; i.e., following the classification used in the 1979 RF Surveys. The table shows 12,977 individuals were selected; 7,443 individuals in the ARNG and 5,534 in the USAR. However, some individuals in the ARNG or USAR are in <u>both</u> samples, that is, they were randomly selected as part of the basic sample and happened to be members of 1979 RF Follow-Up. The actual number of additional unique individuals sampled was 11,700: 6,707 in the Army National Guard and 5,013 in the Army Reserve. Put another way, there is an overlap of 1,257 individuals, 736 in the Army National Guard and 521 in the Army Reserve who are in both the basic 1986 RC Surveys sample and the 1979 RF Follow-Up.

2. <u>Spouses</u>

The 1986 RC Spouse Survey queried the total population of spouses of married military members who had been randomly selected for inclusion in the military portions of the 1986 RC Surveys. While the accuracy of marital status information in RCCPDS made this administrative data of limited use in selecting married members, it was possible to make a rough estimate of the total number of reservists who were married. It was estimated that approximately 75,000 individuals in the basic and additional samples described above would be married at the time of data collection.

Table 2.1 1986 Reserve Components Surveys Sampling Ratios for Military Members

Respondent Type	Reserve Component						
	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR
Unit Members (RCAT=S)							
Officer							
Male	0.10	0.10	0.10	0.40	0.10	0.10	0.60
Female	0.20	0.20	0.20	0.80	0.20	0.20	1.00
Enlisted							
Male	0.10	0.10	0.10	0.20	0.10	0.10	0.30
Female	0.10	0.10	0.10	0.20	0.10	0.10	0.30
Non-Unit Members (IMAs) (RCAT=T)							
Officer							
Male	-	0.10	-	0.40	-	0.10	-
Female	-	0.20	-	0.80	-	0.20	-
Enlisted							
Male	-	0.10	-	0.20	-	0.10	-
Female	-	0.10	-	0.20	-	0.10	-
Technicians (RCAT=M)							
Officer							
Male	0.10	0.10	-	-	0.10	0.10	-
Female	0.20	0.20	-	-	0.20	0.10	-
Enlisted							
Male	0.10	0.10	-	-	0.10	0.10	-
Female	0.10	0.10	-	-	0.10	0.10	-
Full-Time Support (FTS-AGR/TAR) (RCAT=F)							
Officer							
Male	0.10	0.10	0.10	0.40	0.10	0.10	-
Female	0.20	0.20	0.20	0.80	0.20	0.20	-
Enlisted							
Male	0.10	0.10	0.10	0.20	0.10	0.10	-
Female	0.10	0.10	0.10	0.20	0.10	0.10	-

Table 2.2 Basic Sample of Military Members Selected for the 1986 Reserve Components Surveys

Respondent Type	Reserve Component							Total Selected Reserve
	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR	
Unit Members (RCAT=S)								
Officer								
Male	3,175	3,345	1,872	976	935	584	890	11,777
Female	385	1,340	331	46	163	309	74	2,648
Enlisted								
Male	30,785	15,826	7,650	6,040	5,971	3,729	2,890	72,891
Female	1,408	3,164	899	224	777	852	300	7,624
Non-Unit Members (IMAs) (RCAT=T)								
Officer								
Male	-	795	64	208	-	651	-	1,718
Female	-	94	9	39	-	164	-	306
Enlisted								
Male	-	291	4	97	-	347	-	739
Female	-	42	2	13	-	85	-	142
Technicians (RCAT=M)								
Officer								
Male	531	96	-	-	187	77	-	891
Female	31	13	-	-	9	7	-	60
Enlisted								
Male	1,548	243	-	-	1,790	672	-	4,253
Female	141	29	-	-	162	55	-	387
Full-Time Support (FTS-AGR/TAR) (RCAT=F)								
Officer								
Male	277	280	164	76	92	15	-	904
Female	22	43	16	18	7	2	-	108
Enlisted								
Male	1,523	592	1,254	154	441	32	-	3,996
Female	188	191	89	34	110	11	-	623
Total	40,014	26,384	12,354	7,925	10,644	7,592	4,154	109,067

Table 2.3. 1979 Reserve Forces Follow-up Survey Sample

Reserve Component	Unit Size	Selected
Army National Guard	101-160	54
	41-100	2,174
	101-160	3,911
	161+	1,304
Subtotal		7,443
Army Reserve	0-40	270
	41-100	1,043
	101-160	1,863
	161+	2,358
Subtotal		5,534
Total		12,977

3. Couples

The couple data have been derived by merging survey information provided by married military survey respondents with that given by their responding spouses. A unique aspect of the couple information is the existence of married couples both of whom are Guard/Reserve members. It is clear that, with two distinct probabilities, either or both partners of any dual-Guard/Reserve couple could have been drawn into the military sample. If both partners were selected, both received "military" questionnaires to complete. In addition, both partners also received 1986 RC Spouse Survey questionnaires. Because the spouse questionnaire was sufficiently different from the member questionnaire, both partners were asked to fill out the spouse questionnaire. When only one partner was selected into the member sample, the couple was asked to complete one member and one spouse questionnaire between them.

D. Survey Administration and Response Rates

1. Administration

Data collection for the 1986 Reserve Components Surveys was the responsibility of component-specific administrative units, coordinated by the DMDC, ODASD(G/R M&P) and representatives from each of the reserve components.

Prior to the start of data collection, DMDC provided a contractor, National Computer Systems (NCS), with a tape of the military sample selected from the 30 October 1985 RCCPDS file. The tape contained two types of records. The first type, Record Control Number (RCN) records, defined the location of the targeted military sample. RCN records contained unit addresses for all military members in the survey, numbers of specific questionnaire variants sent to each location, and other information for survey control purposes. (The term "unit" in this context refers to an organizational element of the reserve components such as headquarters, a company or platoon.) The second type, individual records, contained information about each person to be surveyed at each unit. The information included name, Social Security Number (SSN), rank, questionnaire variant assigned to the individual, and the individual's home address. NCS used this information in producing field materials and in the survey tracking system designed for these surveys.

NCS mailed packages containing questionnaires and related materials directly to approximately 15,000 units in the U.S. and Puerto Rico. On the average, units had 7-10 survey participants. However, many units had only one or two survey participants, while other units (including the 1979 RF Survey follow-up units) had 50 or more survey participants. The survey packages mailed to units contained the following documents:

- Survey checklist;
- Printed roster identifying military survey participants and requesting spouse information and member address and information correction;
- Alternate return mailing labels for those expected to be absent during the survey administration;
- Member survey packets (including questionnaires with computer-generated member identification numbers and cover letters, in individually addressed envelopes/survey packets for each member survey participant);
- Spouse packets (including questionnaires with computer- generated spouse identification numbers and cover letters, in individually addressed envelopes/survey packets for each spouse survey participant);
- Administration instruction booklet; and
- Return mail packaging materials.

With minor variations resulting from component-specific organizational differences, the administrative procedures used for data collection were the same in each of the components. The basic process is summarized below:

- Prior to sending the survey package, a "heads up" letter was sent to the unit commander requesting the name of a point-of-contact (POC) to administer the survey as well as the POC's telephone number.

- Next, a survey package was sent to the POC or unit commander (if a POC had not been designated). When a survey package arrived at a unit, the POC was responsible for the following actions:

  - Reviewing, completing, and returning the Survey Checklist to NCS. The checklist allowed survey administrators to specify any deficiencies in the survey package shipment. They were required to complete same and return to NCS.

  - Reviewing, and completing the Survey Roster. Survey administrators reviewed the roster, indicated members who were still in the unit, those who are expected to be absent during the survey administration, and those married. They also verified home addresses and/or provided corrected home addresses and, for married members, provided the spouse's name.

  - Mailing Spouse Survey Packets. The mailing contained Spouse Survey packets addressed "to the Spouse of ..." for all members selected to participate in the survey, since information available prior to the survey was judged inadequate for data collection purposes. Administrators were instructed to destroy packets for unmarried members. For those married, the correct spouse name was to be substituted where possible for "to the Spouse of ..." and addresses verified and corrected where necessary. Corrected packets were then mailed to the home address by the unit point-of-contact -- not given to members to take home.

  - Separating Member Survey Packets and Returning Survey Roster. Using the Survey Roster, administrators were instructed to separate the Member Packets into groups of those who were no longer in the unit, those expected to be absent, and those expected to be present at either the next drill or the one following. The packets for

those no longer in the unit were to be destroyed. Packets were mailed to members at home if they were expected to be absent during the administration period. An alternate return mailing label was enclosed, so questionnaires could be returned directly to the contractor. Packets for unit members expected to be at either of the next two drills were held for administration. Annotated survey rosters were then to be returned to NCS.

- Administering Member Survey, Returning Completed Questionnaires and Questionnaires for Those Unexpectedly Absent During Administration Period. Questionnaire packets were distributed to members during the next drill following receipt of materials or, if any were absent, at the following drill. Units were expected to give time for members to complete the questionnaire during the drill. The survey administrator collected all completed questionnaires in sealed envelopes. After the second drill, completed questionnaires were packaged and mailed to the contractor.

To ensure that data collection procedures were being followed, the survey contractor monitored each stage of the process and sent follow-up letters and special reminders to unit points-of-contact. Follow-up letters were sent if checklists, rosters, and questionnaires were not received within a specified period of time after initial transmittal. NCS processed completed member and spouse questionnaires, as they were returned, by optically scanning, editing and coding responses onto computer tapes. Follow-ups (including a second questionnaire) were sent to the home addresses of those members expected to be absent from drills, and to spouses, if questionnaires were not received within a specified period of time.

Administrative procedures for individuals identified as IMAs (RCAT = T) were somewhat different. IMAs are programmed in significant numbers in only three components: Army Reserve, Marine Corps Reserve and Air Force Reserve. For the Army and Air Force Reserve samples, computer tapes listing the names, SSNs, and mailing addresses were sent to the Reserve Personnel Centers where the addresses were corrected and forwarded to NCS. Survey packets were then sent directly to their home addresses. In the Marine Corps Reserve, a survey package containing survey packets was sent to the Personnel Center in Kansas City. There, packet addresses were hand-corrected and mailed directly to the home addresses of IMAs and their spouses.

Data collection from spouses followed another scenario, one less complex than used for the member surveys. As indicated above, questionnaire packets were mailed directly to verified or corrected home addresses from units or from NCS or the Marine Corps Personnel Center in the cases of spouses of IMAs. Following the pattern of the member survey, spouses received an introductory letter and a follow-up letter from component-specific military leaders and, after several weeks, received a second questionnaire. While the units were responsible for mailing the initial questionnaire to the spouses, the follow-up activities were the responsibility of the contractor. Thus, if the unit had failed in following the procedures for the initial mailing, the second mailing insured that at least one questionnaire was sent.

Questionnaires to the 145 unit commanders in the 1979 RF Follow-Up were mailed directly to them by NCS, several weeks after the start of the main data collection activities. For this group, follow-up activities were handled by DMDC. Personal telephone calls were made to commanders from whom questionnaires were not received within a reasonable amount of time.

Throughout the data collection, ODASD(G/R M&P) was informed of the surveys'progress and asked to provide special assistance, e.g., resolving unit specific problems or contacting components who appeared not to be conducting the survey in a timely fashion.

2. Response Rates

As shown in Table 2.2, the basic sample selected for the military member surveys consisted of a total of 109,067 officer and enlisted personnel. Including individuals unique to the 1979 RF Follow-Up Survey, i.e. excluding those who were selected for both samples, a total of 120,787 were to be surveyed.

Data collection for the survey began in February 1986 with the mailing of the initial notification letters to units containing sampled individuals. Because of the dispersion of the sample, varying drill schedules, and the follow-up efforts initiated to improve response rates, the last questionnaires were not received by the survey processing contractor until June 1986. The majority of the questionnaires, however, were filled out in March and April 1986.

Data collection for the spouse survey lagged that of the member surveys initially by several weeks, since the first questionnaires were mailed by the unit. Follow-up efforts, however, lagged even more. The lag resulted from the reliance on verifications and corrections of spouse home addresses to arrive from military units. This delay in completing the initial mailing, combined with the requirement to send second

questionnaires to spouses who did not respond initially, meant that the last questionnaires for the spouse survey were not received until late July 1986.

One way to assess the response rates among military members is to compare the numbers of questionnaires mailed out with the final numbers received. Table 2.4 provides a complete set of member response rates, by stratum, and the frame count (i.e., the number in the population), the number selected, the number eligible, and the number responding. Table 2.5, an abridgement of Table 2.4, shows the same data by reserve component, for both officers and enlisted personnel separately and combined.

The unadjusted response rates shown in Tables 2.4 and 2.5 do not account for the fact that some individuals who had been selected for participation from the 30 October 1985 administrative files were no longer members of the unit to which the questionnaires were sent at the time of actual data collection. There are several reasons why this occurs. First, individuals may have totally separated from the armed forces, i.e. were no longer members of any reserve or active component. Second, individuals may have transferred from a reserve component to an active component. Third, individuals may have transferred within the reserve components to either another classification, e.g. individual ready reserve, to another component, or to another unit within their original component. Experience with the reserve components shows that a "losing" unit may or may not have information about the actual status of a "lost" member. For example, an individual may inform his unit that he is totally separating from the reserve components due to geographical relocation but may, in fact, rejoin another unit several months later. Thus, the administrative procedures specified that survey eligible members were only those who were unit members at the time of data collection. (Unit members who were absent during data collection were eligible to participate.)

As can be seen, the <u>unadjusted</u> response rates for all components, officer and enlisted personnel combined, except the Army, are over 50 percent. Since the Army components constitute a significant portion of the total DoD sample selected, (65 percent), its response rate lowers the (unadjusted) overall DoD total to 53 percent. As is usually the case, officer response rates were higher than those for enlisted personnel, with the overall DoD officer total (unadjusted) being 67 percent and the enlisted personnel (unadjusted) being 50 percent.

Table 2.4 1986 Reserve Components Surveys Response Rates for Military Members, by Stratum

Stratum	Sex	Reserve Component	Frame Count	Selected	Eligible	Responding	Unadjusted Response Rate	Adjusted Response Rate
		RCAT = F (AGR/TAR) Rank Group = Officer						
1	F	USAR	211	43	36	27	62.8	75.0
2	F	USAFR	9	2	2	1	50.0	50.0
3	F	ARNG	110	22	22	14	63.6	63.6
4	F	ANG	32	7	6	5	71.4	83.3
5	F	USMCR	24	18	11	10	55.6	90.9
6	F	USNR	80	16	14	12	75.0	85.7
7	M	USAR	2796	280	237	182	65.0	76.8
8	M	USAFR	146	15	15	14	93.3	93.3
9	M	ARNG	2803	277	268	187	67.5	69.8
10	M	ANG	924	92	91	79	85.9	86.8
11	M	USMCR	190	76	73	59	77.6	80.8
12	M	USNR	1632	164	145	106	64.6	73.1
		Subtotal	8957	1012	920	696	68.8	75.7
		RCAT = F (AGR/TAR) Rank Group = Enlisted						
13	F	USAR	1909	191	162	76	39.8	46.9
14	F	USAFR	102	11	11	9	81.8	81.8
15	F	ARNG	1914	205	191	124	60.5	64.9
16	F	ANG	1095	110	104	91	82.7	87.5
17	F	USMCR	167	34	32	24	70.6	75.0
18	F	USNR	888	89	81	44	49.4	54.3
19	M	USAR	5920	592	502	278	47.0	55.4
20	M	USAFR	311	32	31	21	65.6	67.7
21	M	ARNG	15315	1729	1611	1161	67.1	72.1
22	M	ANG	4415	441	431	384	87.1	89.1
23	M	USMCR	769	154	141	86	55.8	61.0
24	M	USNR	12540	1254	1107	586	46.7	52.9
		Subtotal	45345	4842	4404	2884	59.6	65.5

Table 2.4 (continued)

Stratum	Sex	Reserve Component	Frame Count	Selected	Eligible	Responding	Unadjusted Response Rate	Adjusted Response Rate
		RCAT = M (Military Technicians) Rank Group = Officer						
25	F	USAR	61	13	12	7	53.8	58.3
26	F	USAFR	31	7	7	6	85.7	85.7
27	F	ARNG	156	31	30	24	77.4	80.0
28	F	ANG	43	9	9	9	100.0	100.0
29	M	USAR	963	96	89	66	68.8	74.2
30	M	USAFR	762	77	73	58	75.3	79.5
31	M	ARNG	5323	531	494	406	76.5	82.2
32	M	ANG	1862	187	183	167	89.3	91.3
		Subtotal	9201	951	897	743	78.1	82.8
		RCAT = M (Military Technicians) Rank Group = Enlisted						
33	F	USAR	285	34	29	17	50.0	58.6
34	F	USAFR	542	55	50	42	76.4	84.0
35	F	ARNG	1430	157	135	83	52.9	61.5
36	F	ANG	1613	162	151	134	82.7	88.7
37	M	USAR	2430	323	278	162	50.2	58.3
38	M	USAFR	6713	672	650	525	78.1	80.8
39	M	ARNG	15518	1786	1671	1116	62.5	66.8
40	M	ANG	17900	1790	1738	1496	83.6	86.1
		Subtotal	46431	4979	4702	3575	71.8	76.0

Table 2.4 (continued)

Stratum	Sex	Reserve Component	Frame Count	Selected	Eligible	Responding	Unadjusted Response Rate	Adjusted Response Rate
		RCAT = S (Unit Members) Rank Group = Officer						
41	F	USAR	6849	1340	1124	724	54.0	64.4
42	F	USAFR	1545	309	282	226	73.1	80.1
43	F	ARNG	1938	385	324	220	57.1	67.9
44	F	ANG	813	163	154	125	76.7	81.2
45	F	USMCR	57	46	43	33	71.7	76.7
46	F	USNR	1668	331	276	206	62.2	74.6
47	F	USCGR	74	74	68	64	86.5	94.1
48	M	USAR	34271	3345	2804	2011	60.1	71.7
49	M	USAFR	5833	584	541	400	68.5	73.9
50	M	ARNG	31809	3175	2784	1959	61.7	70.4
51	M	ANG	9353	935	890	739	79.0	83.0
52	M	USMCR	2440	976	858	671	68.8	78.2
53	M	USNR	18755	1872	1629	1313	70.1	80.6
54	M	USCGR	1419	890	792	691	77.6	87.2
		Subtotal	116824	14425	12569	9382	65.0	74.6
		RCAT = S (Unit Members) Rank Group = Enlisted						
55	F	USAR	31687	4110	3178	1541	37.5	48.5
56	F	USAFR	8534	852	684	485	56.9	70.9
57	F	ARNG	14216	1660	1380	703	42.3	50.9
58	F	ANG	7773	777	690	520	66.9	75.4
59	F	USMCR	1117	224	172	103	46.0	59.9
60	F	USNR	9425	899	715	471	52.4	65.9
61	F	USCGR	1009	300	238	165	55.0	69.3
62	M	USAR	158767	19808	15272	7426	37.5	48.6
63	M	USAFR	37380	3729	3168	2245	60.2	70.9
64	M	ARNG	308589	36763	31648	17847	48.5	56.4
65	M	ANG	59[illegible]8	5971	5479	4366	73.1	79.7
66	M	USMCR	30255	6040	4980	3086	51.1	62.0
67	M	USNR	77747	7650	6224	3791	49.6	60.9
68	M	USCGR	9739	2890	2457	1788	61.9	72.8
		Subtotal	756016	91673	76285	44537	48.6	58.4

Table 2.4 (continued)

Stratum	Sex	Reserve Component	Frame Count	Selected	Eligible	Responding	Unadjusted Response Rate	Adjusted Response Rate
RCAT = T (Non-Unit Members; Individual Mobilization Augmentees) Rank Group = Officer								
69	F	USAR	470	94	80	58	61.7	72.5
70	F	USAFR	825	164	139	123	75.0	88.5
71	F	USMCR	48	39	37	27	69.2	73.0
72	F	USNR	44	9	8	6	66.7	75.0
73	M	USAR	7946	795	674	533	67.0	79.1
74	M	USAFR	6559	651	552	503	77.3	91.1
75	M	USMCR	520	208	203	165	79.3	81.3
76	M	USNR	659	64	54	42	65.6	77.8
		Subtotal	17071	2024	1747	1457	72.0	83.4
RCAT = T (Non-Unit Members; Individual Mobilization Augmentees) Rank Group = Enlisted								
77	F	USAR	419	42	36	15	35.7	41.7
78	F	USAFR	860	85	72	47	55.3	65.3
79	F	USMCR	62	13	13	6	46.2	46.2
80	F	USNR	12	2	2	0	0.0	0.0
81	M	USAR	2904	291	247	125	43.0	50.6
82	M	USAFR	3513	347	294	191	55.0	65.0
83	M	USMCR	483	97	76	28	28.9	36.8
84	M	USNR	41	4	3	1	25.0	33.3
		Subtotal	8294	881	743	413	46.9	55.6
		Total	1008139	120787	102267	63687	52.7	62.3

Table 2.5 1986 Reserve Components Surveys Response Rates for Military Members, by Reserve Components

Reserve Component	Frame Count	Selected	Eligible	Responding	Unadjusted Response Rate	Adjusted Response Rate
			Rank Group = Officer			
USAR	53567	6006	5056	3608	60.1	71.4
USAFR	15710	1809	1611	1331	73.6	82.6
ARNG	42139	4421	3922	2810	63.6	71.6
ANG	13027	1393	1333	1124	80.7	84.3
USMCR	3279	1363	1225	965	70.8	78.8
USNR	22838	2456	2126	1685	68.6	79.3
USCGR	1493	964	860	755	78.3	87.8
Subtotal	152053	18412	16133	12278	66.7	76.1
			Rank Group = Enlisted			
USAR	204321	25391	19704	9640	38.0	48.9
USAFR	57955	5783	4960	3565	61.6	71.9
ARNG	356982	42300	36636	21034	49.7	57.4
ANG	92574	9251	8593	6991	75.6	81.4
USMCR	32853	6562	5414	3333	50.8	61.6
USNR	100653	9898	8132	4893	49.4	60.2
USCGR	10748	3190	2695	1953	61.2	72.5
Subtotal	856086	102375	86134	51409	50.2	59.7
			Reserve Components			
USAR	257888	31397	24760	13248	42.2	53.5
USAFR	73665	7592	6571	4896	64.5	74.5
ARNG	399121	46721	40558	23844	51.0	58.8
ANG	105601	10644	9926	8115	76.2	81.8
USMCR	36132	7925	6639	4298	54.2	64.7
USNR	123491	12354	10258	6578	53.2	64.1
USCGR	12241	4154	3555	2708	65.2	76.2
Total	1008139	120787	102267	63687	52.7	62.3

Adjusted response rates, which take account of the administrative procedures, were calculated by comparing the sample selected as of 30 October 1985 with (a) the survey control files which reflect information received from units as to whether the reservists selected were still unit members when data were collected and (b) for units who did not provide this information, the 30 June 1986 RCCPDS administrative files. This comparison allowed for the identification of both those who do not appear on RCCPDS at all (i.e. were either no longer in the armed forces or had transferred to the regular components) and those who had made various transfers within the reserve components, e.g., changed component, unit, or transferred out of the Selected Reserve. Of the 120,787 individuals initially selected, 18,520 were in fact not eligible for the survey for the reasons noted above. Of these, 7,971 did not appear in RCCPDS in June 1986 and an additional 10,549 were in RCCPDS but at a unit different from the one at which they were selected for the survey, leaving an effective sample of 102,267.

As shown in Table 2.5, after the adjustments are made the overall response rate is increased to 62 percent. The final (adjusted) officer response rate was 76 percent. The enlisted response rate was 60 percent. Except for the Army components, officer response rates were about 80 percent and those for enlisted personnel were over 60 percent. It is likely that the greater mobility of Army personnel partly explains the lower response rates.

When subgroups of the sample are examined, as shown in Table 2.4, other differences are apparent. For example, among officers, the response rates ranged from a low of 74.6 percent for officers in units to 83.4 percent to officers who were IMAs. Among enlisted personnel, unit members had the lowest response rate, 58.4 percent, and military technicians the highest, 76.0 percent.

The calculation of response rates for spouses is somewhat more complex than that for military members. Unadjusted rates for members were defined as the ratios of the number of questionnaires received to the number mailed out. For military members, the contractor mailed out known numbers to each administrative unit; i.e. the number selected by DMDC. As discussed in Section D.1 above, the contractor provided units with the same number of spouse questionnaires as member questionnaires. Since we know that not all reservists are married, a calculation of unadjusted response rates for spouses in the same way as was done for members is meaningless. The appropriate "mailed out" number should be the number of questionnaires sent out by unit administrators to married members. This number, according to the procedures, should have been reported to the contractor on returned rosters. In fact, some unit administrators did not return rosters and others who

returned them did not indicate marital status next to every name. As a result, a determination was made as to the marital status of each reservist in the sample, using a variety of methods and sources.[3] These population estimates, by stratum, together with the number of spouses responding (i.e. questionnaires received) and response rates are shown in Table 2.6. A summary of these data is presented in Table 2.7.

Examination of Table 2.6 shows variation among various subgroups. Among the spouses of officers, the rates range from 49.3 percent among spouses whose mates are part-time unit members (RCAT = S) to 60.6 percent among the spouses of officers who are also military technicians. Among the spouses of enlisted personnel, spouses of unit members have the lowest rate, 34.2 percent, and spouses of military technicians the highest, 54.3. Within subgroups, there is variation both by component and by the sex of the spouse. In general, the response rates for female spouses are higher than those for male spouses and the response rates for the Air Force components are highest among the components.

Table 2.7 summarizes the response rate by component. For spouses of reserve officers, response rates for the Army components were the lowest. Rates for the Naval and Marine Corps Reserve were slightly higher. The response rates for spouses of enlisted personnel in the Army components and Naval and Marine Corps Reserve were also the lowest, and considerably lower than rates among spouses of officers. Since the Army components constitute the largest portion of the samples, their low response rates decrease the overall rates.

Examination by DMDC of all the information available on the data collection suggests several reasons for the low response rates to the 1986 RC Spouse Survey. First, we know that 31 percent of units did not return rosters, and that the majority of these were in the Army components. The number of questionnaires returned by spouses from units who did not return rosters was smaller than from those who did return them. This strongly suggests that a considerable number of spouses may never have received questionnaires from the unit; i.e., that administrative procedures were not followed. The response rate data presented in Tables 2.6 and 2.7 assumes that <u>every</u> eligible spouse received a questionnaire. This may not have been the case. Second, it appears that some administrators gave the spouse's questionnaire to the member to deliver, rather than mailing it to a home address in accordance with the instructions provided. We do not know how many of these questionnaires were never received by a spouse. Again, our response rate calculations assume receipt. This also may not have been the case.

Table 2.6 1986 Reserve Components Spouse Survey Response Rates, by Stratum

Stratum	Sex	Reserve Component	Population Estimate: Total Spouses	Eligible: Total Spouses	Responding: Spouse	Responding: Couple	Response Rate: Spouse	Response Rate: Couple
			RCAT = F (AGR/TAR) Rank Group = Officer					
1	F	USAR	100	23	10	9	43.5	39.1
2	F	USAFR	7	1	1	1	100.0	100.0
3	F	ARNG	28	10	3	2	30.0	20.0
4	F	ANG	22	4	3	3	75.0	75.0
5	F	USMCR	9	8	4	4	50.0	50.0
6	F	USNR	34	5	2	2	40.0	40.0
7	M	USAR	2519	244	139	130	57.0	53.3
8	M	USAFR	130	13	9	9	69.2	69.2
9	M	ARNG	2628	243	168	146	69.1	60.1
10	M	ANG	973	84	61	60	72.6	71.4
11	M	USMCR	152	63	38	38	60.3	60.3
12	M	USNR	1538	149	82	78	55.0	52.3
		Subtotal	8140	847	520	482	61.4	56.9
			RCAT = F (AGR/TAR) Rank Group = Enlisted					
13	F	USAR	974	88	26	24	29.5	27.3
14	F	USAFR	33	4	2	2	50.0	50.0
15	F	ARNG	830	91	47	38	51.6	41.8
16	F	ANG	645	65	37	34	56.9	52.3
17	F	USMCR	91	18	8	7	44.4	38.9
18	F	USNR	746	42	16	15	38.1	35.7
19	M	USAR	5014	477	192	170	40.3	35.6
20	M	USAFR	311	29	18	18	62.1	62.1
21	M	ARNG	13006	1439	883	777	61.4	54.0
22	M	ANG	3800	362	252	243	69.6	67.1
23	M	USMCR	520	102	45	36	44.1	35.3
24	M	USNR	10168	878	300	272	34.2	31.0
		Subtotal	36138	3595	1826	1636	50.8	45.5

Table 2.6 (continued)

Stratum	Sex	Reserve Component	Population Estimate: Total Spouses	Eligible: Total Spouses	Responding: Spouse	Responding: Couple	Response Rate: Spouse	Response Rate: Couple
		RCAT = M (Military Technicians) Rank Group = Officer						
25	F	USAR	26	5	3	3	60.0	60.0
26	F	USAFR	21	4	3	2	75.0	50.0
27	F	ARNG	99	15	12	10	80.0	66.7
28	F	ANG	30	4	4	4	100.0	100.0
29	M	USAR	870	88	48	44	54.5	50.0
30	M	USAFR	586	60	38	35	63.3	58.3
31	M	ARNG	4705	486	302	286	62.1	58.8
32	M	ANG	1576	166	124	118	74.7	71.1
		Subtotal	7913	828	534	502	64.5	60.6
		RCAT = M (Military Technicians) Rank Group = Enlisted						
33	F	USAR	97	11	6	5	54.5	45.5
34	F	USAFR	350	31	19	16	61.3	51.6
35	F	ARNG	639	88	33	28	37.5	31.8
36	F	ANG	745	74	42	40	56.8	54.1
37	M	USAR	2006	268	121	101	45.1	37.7
38	M	USAFR	5484	565	351	318	62.1	56.3
39	M	ARNG	12480	1483	855	729	57.7	49.2
40	M	ANG	14259	1478	983	934	66.5	63.2
		Subtotal	36060	3998	2410	2171	60.3	54.3

Table 2.6 (continued)

Stratum	Sex	Reserve Component	Population Estimate: Total Spouses	Eligible: Total Spouses	Responding: Spouse	Responding: Couple	Response Rate: Spouse	Response Rate: Couple
			RCAT = S (Unit Members) Rank Group = Officer					
41	F	USAR	3920	709	300	252	42.3	35.5
42	F	USAFR	750	149	79	71	53.0	47.7
43	F	ARNG	973	188	72	66	38.3	35.1
44	F	ANG	468	89	47	47	52.8	52.8
45	F	USMCR	34	25	11	11	44.0	44.0
46	F	USNR	1246	233	110	100	47.2	42.9
47	F	USCGR	63	57	43	42	75.4	73.7
48	M	USAR	26901	2629	1323	1187	50.3	45.2
49	M	USAFR	4916	492	316	255	64.2	51.8
50	M	ARNG	24426	2453	1376	1185	56.1	48.3
51	M	ANG	7682	764	506	458	66.2	59.9
52	M	USMCR	2097	804	445	401	55.3	49.9
53	M	USNR	16722	1584	894	841	56.4	53.1
54	M	USCGR	1309	774	520	486	67.2	62.8
		Subtotal	91507	10950	6042	5402	55.2	49.3
			RCAT = S (Unit Members) Rank Group = Enlisted					
55	F	USAR	11332	1647	275	223	16.7	13.5
56	F	USAFR	3918	422	130	116	30.8	27.5
57	F	ARNG	5484	682	188	153	27.6	22.4
58	F	ANG	3161	331	137	130	41.4	39.3
59	F	USMCR	373	97	19	14	19.6	14.4
60	F	USNR	5217	486	194	169	39.9	34.8
61	F	USCGR	540	150	63	54	42.0	36.0
62	M	USAR	92108	11199	3588	2934	32.0	26.2
63	M	USAFR	25075	2598	1211	1063	46.6	40.9
64	M	ARNG	184063	21712	9266	7509	42.7	34.6
65	M	ANG	41869	4119	2365	2186	57.4	53.1
66	M	USMCR	9735	2202	663	556	30.1	25.2
67	M	USNR	49385	4889	2180	1896	44.6	38.8
68	M	USCGR	6762	2040	1072	980	52.5	48.0
		Subtotal	439022	52574	21351	17983	40.6	34.2

Table 2.6 (continued)

Stratum	Sex	Reserve Component	Population Estimate Total Spouses	Eligible Total Spouses	Responding Spouse	Responding Couple	Response Rate Spouse	Response Rate Couple
RCAT = T (Non-Unit Members; Individual Mobilization Augmentees) Rank Group = Officer								
69	F	USAR	324	52	30	29	57.7	55.8
70	F	USAFR	633	108	54	53	50.0	49.1
71	F	USMCR	44	29	18	15	62.1	51.7
72	F	USNR	0	7	0	0	0.0	0.0
73	M	USAR	6811	666	355	336	53.3	50.5
74	M	USAFR	5639	554	330	324	59.6	58.5
75	M	USMCR	499	185	109	102	58.9	55.1
76	M	USNR	438	55	9	8	16.4	14.5
		Subtotal	14388	1656	905	867	54.6	52.4
RCAT = T (Non-Unit Members; Individual Mobilization Augmente) Rank Group = Enlisted								
77	F	USAR	287	22	6	5	27.3	22.7
78	F	USAFR	642	56	28	26	50.0	46.4
79	F	USMCR	69	11	4	3	36.4	27.3
80	F	USNR	0	2	0	0	0.0	0.0
81	M	USAR	2651	176	67	61	38.1	34.7
82	M	USAFR	2926	266	146	136	54.9	51.1
83	M	USMCR	341	81	18	15	22.2	18.5
84	M	USNR	54	1	1	1	100.0	100.0
		Subtotal	6970	615	270	247	43.9	40.2
		Total	640138	75063	33858	29290	45.1	39.0

Table 2.7 1986 Reserve Components Spouse Survey Response Rates, by Reserve Component

Reserve Component	Population Estimate	Eligible	Responding		Response Rate	
	Total Spouses	Total Spouses	Spouse	Couple	Spouse	Couple
Rank Group = Officer						
USAR	41471	4416	2208	1990	50.0	45.1
USAFR	12682	1381	830	750	60.1	54.3
ARNG	32859	3395	1933	1695	56.9	49.9
ANG	10751	1111	745	690	67.1	62.1
USMCR	2835	1114	625	571	56.1	51.3
USNR	19978	2033	1097	1029	54.0	50.6
USCGR	1372	831	563	528	67.7	63.5
Subtotal	121948	14281	8001	7253	56.0	50.8
Rank Group = Enlisted						
USAR	114469	13888	4281	3523	30.8	25.4
USAFR	38739	3971	1905	1695	48.0	42.7
ARNG	216502	25495	11272	9234	44.2	36.2
ANG	64479	6429	3816	3567	59.4	55.5
USMCR	11129	2511	757	631	30.1	25.1
USNR	65570	6298	2691	2353	42.7	37.4
USCGR	7302	2190	1135	1034	51.8	47.2
Subtotal	518190	60782	25857	22037	42.5	36.3
Reserve Component						
USAR	155940	18304	6489	5513	35.5	30.1
USAFR	51421	5352	2735	2445	51.1	45.7
ARNG	249361	28890	13205	10929	45.7	37.8
ANG	75230	7540	4561	4257	60.5	56.5
USMCR	13964	3625	1382	1202	38.1	33.2
USNR	85548	8331	3788	3382	45.5	40.6
USCGR	8674	3021	1698	1562	56.2	51.7
Total	640138	75063	33858	29290	45.1	39.0

DMDC analyses show that the demographic characteristics of members whose spouses returned questionnaires are the same as those of members whose spouses did not. Further, since respondents to the 1986 RC Member Survey and the 1986 RC AGR Survey reported the demographic characteristics of their spouses, DMDC was able to compare the demographic characteristics of spouses who returned questionnaires with those who did not. The analysis shows that they are quite similar. Similarity of emographic characteristics, however, does not mean that respondents and non-respondents would have similar attitudes and opinions. There is some evidence to suggest that non-respondents are more detached and indifferent to their mates' reserve participation. Thus, the data collected from spouses should be viewed as suggestive rather than definitive. In order to minimize misinterpretation, given the difference in response rates between components, initial reports based on the data from the 1986 RC Spouse Survey will not discuss individual reserve components. Rather, a general discussion of spouse issues for the reserve components in general is presented.

Finally, examination of Tables 2.6 and 2.7 shows that the response rates for couples are lower than those for spouses. These lower rates result from the administrative procedures which called for independent administration of questionnaires to members and spouses. A response on the part of a member was not a prerequisite for a spouse to receive or complete a questionnaire. In order for a couple to be included in the couple response rates, both the member and the spouse had to return completed questionnaires. What these data show is that for approximately 4,600 completed spouse questionnaires a matching completed member questionnaire was not received.

3. Weighting the Data

To allow time for questionnaire distribution and mailing of packages to units, a gap of several months was planned between sample selection and survey administration. Since questionnaires were sent to individuals selected by name, planning for the surveys could not readily make provisions for surveying new unit accessions between sample selection and survey administration. Further, as discussed above, provisions were made for forwarding questionnaires to individuals who would be absent during the period of data collection. As described in the section of the sample design, other technical considerations resulted in excluding from the sample individuals who were in the training pipeline (RCAT = U). This includes unit members awaiting or attending initial active duty for training and untrained Selected Reservists attending specialty training programs such as chaplain candidates, health, etc.

Because the sampling plan allowed for disproportionate sampling among subgroups in the DoD population, differential weights were required for the different subgroups. In addition, weights were required to adjust for the fact that the sampled subgroups did not respond to the survey in identical rates. When the sample of respondents was weighted, population statistics could be computed, indicating estimates for the population at a given point in time.

Inspection of the dates on which actual questionnaires were filled out indicates that the majority were completed in March and April 1986. However, in selecting a RCCPDS population to which weight adjustments would be made, the decision was made to use the 30 June 1986 file, since it would most likely reflect lag between changes in the field situation at the time of the survey and inclusion of those changes in the RCCPDS files. Weights were calculated separately for the basic sample and for the 1979 RF Follow-Up. A weighting procedure was then utilized in which the 1979 RF Follow-Up sample was combined with the basic sample's ARNG and USAR components. The final combined sample weights can be used to produce consistent estimates of the Selected Reserve trained population as of 30 June 1986. Table 2.8 shows the total component populations, by reserve category and by officer and enlisted status, for which inference can be made using the 1986 RC Surveys data.

E. The Survey Questionnaires

As noted above, the data requirements for the 1986 Reserve Components Surveys were developed by two groups of individuals: those concerned with broad issues of personnel management and those specifically concerned with family issues. In order to address both types of issues in a systematic fashion, the Deputy Assistant Secretary of Defense (Guard/Reserve Manpower and Personnel) established a committee consisting of representatives from each of the reserve components, as well as representatives from his office and DMDC technical experts. The Committee concurred with the conclusion reached at the time the 1985 DoD Surveys were designed, namely, that new information would need to be collected. The Committee also identified subject areas covered in previous efforts which would be important to reevaluate, as well as new areas for which survey data would be helpful.

An outline which consolidated all of the requirements was then circulated to all interested OSD offices and individuals. These included researchers who had utilized previous reserve survey data, especially the 1979 RF Survey, both within DoD and in other government agencies as well as Committee members.

Table 2.8 Relationship of Usable Questionnaires to Selected Reserve Population as of 30 June 1986
1986 Reserve Components Surveys

	Selected Reserve Component						Total DOD	USCGR	Total Selected Reserve
	ARNG	USAR	USNR	USMCR	ANG	USAFR			
Total Strength[1]	448,997	614,591	224,627	94,248	111,282	153,237	1,646,982	18,508	1,665,490
Total Trained Personnel[1]	394,378	258,964	129,300	35,897	107,449	74,251	1,000,239	12,350	1,012,589
Officer									
Generalizable Population[2]									
AGR/TAR	2,938	3,015	1,814	221	1,065	164	9,217	—	9,217
Mil. Technician	5,431	1,007	—	—	1,847	789	9,074	—	9,074
Unit Member	32,816	41,395	21,491	2,620	10,201	7,554	116,077	1,571	117,648
Non-Unit Member	—	8,667	850	629	—	7,330	17,476	—	17,476
Total	41,185	54,084	24,155	3,473	13,113	15,837	151,847	1,571	153,418
Number of Usable Questionnaires									
AGR/TAR	201	209	118	69	84	15	696	—	696
Mil. Technician	430	73	—	—	176	64	743	—	743
Unit Member	2,179	2,735	1,519	704	864	626	8,627	755	9,382
Non-Unit Member	—	591	48	192	—	626	1,457	—	1,457
Total	2,810	3,608	1,685	965	1,124	1,331	11,523	755	12,278
Percent of Generalizable Population Responding									
AGR/TAR	6.8	6.9	6.5	31.2	7.9	9.1	7.6	—	7.6
Mil. Technician	7.9	7.2	—	—	9.5	8.1	8.2	—	8.1
Unit Member	6.6	6.6	7.1	26.9	8.5	8.3	7.4	48.1	53.2
Non-Unit Member	—	6.8	5.7	30.5	—	8.5	8.3	—	8.3
Total	6.8	6.7	7.0	27.8	8.6	8.4	7.6	48.1	8.0

Table 2.8 (continued)

	Selected Reserve Component						Total DOD	USCGR	Total Selected Reserve
	ARNG	USAR	USNR	USMCR	ANG	USAFR			
Enlisted									
Generalizable Population[2]									
AGR/TAR	17,241	7,713	15,793	1,045	5,743	426	47,961	—	47,961
Mil. Technician	16,159	2,583	—	—	18,790	7,239	44,771	—	44,771
Unit Member	322,295	193,008	89,337	30,959	69,720	46,025	751,344	10,763	762,107
Non-Unit Member	—	4,485	46	415	—	4,493	9,439	—	9,439
Total	355,695	207,789	105,176	32,419	94,253	58,183	853,515	10,763	864,278
Number of Usable Questionnaires									
AGR/TAR	1,285	354	630	110	475	30	2,884	—	2,884
Mil. Technician	1,199	179	—	—	1,630	567	3,575	—	3,575
Unit Member	18,550	8,967	4,262	3,189	4,886	2,730	42,584	1,953	44,537
Non-Unit Member	—	140	1	34	—	238	413	—	413
Total	21,034	9,640	4,893	3,333	6,991	3,565	49,456	1,953	51,409
Percent of Generalizable Population Responding									
AGR/TAR	7.5	4.6	4.0	10.5	8.3	7.0	6.0	—	6.0
Mil. Technician	7.4	6.9	—	—	8.7	7.8	8.0	—	8.0
Unit Member	5.8	4.7	4.8	10.3	7.0	5.9	5.7	18.2	5.8
Non-Unit Member	—	3.1	2.2	8.2	—	5.3	4.4	—	4.4
Total	5.9	4.6	4.7	10.2	7.4	6.1	5.8	18.2	6.0

[1]Source: U.S. Department of Defense. Official Guard and Reserve Manpower Strengths and Statistics. Washington, D.C.: Assistant Secretary of Defense (Reserve Affairs). June 1986, page 1.

[2]The 1986 RC Member Survey and the 1986 RC AGR Survey. Differences between the sum of the generalizable populations from the surveys and Total Trained Personnel shown above are due to rounding.

1. Questionnaire Development

Following general agreement on content, DMDC prepared draft questionnaires. In constructing the questionnaires, special attention was paid to ensuring comparability, whenever possible, with previous military and civilian survey efforts. The most heavily relied on questionnaires were those from the 1979 Reserve Studies Surveys and the 1985 DoD Surveys.

Draft questionnaires were reviewed by the same groups involved in developing the data requirements and, after agreement was reached, the questionnaires were prepared by DMDC for pretesting.

The pretesting was conducted in iterative fashion; that is, problems identified in one pretest were corrected prior to the next. Correction generally involved modification of items or clarification of instructions. In some instances, however, the pretests identified subject areas which had been overlooked in assembling the data requirements. By the time the questionnaires were considered final, formal and informal pretests had been conducted with officers, enlisted personnel and spouses. Both officer and enlisted personnel participated in pretests at an Air Force Reserve Unit and Coast Guard Reserve unit in Richmond, VA, an Army Reserve unit at Ft. Meade, MD., an Army Guard Dental Unit in Iowa City, Iowa, a Naval Reserve unit in Baltimore, MD. and an Army Reserve unit in Boston, Mass. Full-time support personnel participated in pretests at Andrews Air Force Base, MD (DC Air National Guard) and in the Office of the Assistant Secretary of Defense (Reserve Affairs). The major changes resulting from the pretests are discussed below.

In the original planning, it had been assumed that separate questionnaire variants were needed for officer and enlisted personnel who are not unit members, i.e., individual mobilization augmentees (IMAs). Visits to the three components (Army Reserve, Marine Corps Reserve and Air Force Reserve) who utilize IMAs led to the conclusion that IMA issues were quite similar to those of unit members. Thus, IMAs could receive the basic member questionnaires. Codes preprinted on the questionnaires would, however, allow data from this population to be analyzed separately.

The pretest at the Army Guard Dental Unit in Iowa City, Iowa, highlighted the importance of addressing training issues in detail. Members were particularly concerned that the only time they got to practice their skills was during Annual Training. Questions dealing with training were expanded, including the addition of a question assessing the percentage of time spent working in the member's primary occupation.

The utilization of time, both training time and time required for meeting reserve obligations, came up in several Army National Guard and Army Reserve locations. To address these concerns, a question asking the number of unpaid hours (monthly) spent at drill locations was added.

The Naval Reserve pretest was especially helpful in clarifying differences in nomenclature between its members and members of other reserve components. One example is the use of the abbreviation ACDUTRA (Active Duty for Training) instead of Annual Training (AT) as used by most other reservists. As a result, in many place,the questionnaires provide for alternate terminology, e.g. Annual Training/ ACDUTRA and MOS/Rating/Specialty.

In developing the FTS-AGR/TAR questionnaire variants, DMDC relied heavily on the 1985 DoD Survey of Officer and Enlisted Personnel. A pretest conducted with FTS-AGRs of the DC Air National Guard, and discussions with several TARs, clarified differences between components utilizing FTS personnel, as well as differences between FTS personnel and active duty personnel in the regular components. For example, some National Guard AGRs had difficulty answering the questions that related to PCS moves, since the relocation process is different for full-time support members from that of active component members. Accordingly, the questionnaire was modified to account for the differences. Questions on career status were also modified to account for component differences.

For all membership categories, questions about military background presented problems, since some of the distinctions which are analytically important are difficult to communicate in a questionnaire. For example, initially FTS-AGR/TARs were asked how long they had served on active duty, followed by a question asking how long they had served in the Guard/Reserve. Individuals with prior active duty time, Selected Reserve time and FTS tours encountered problems. Attention to wording, question order and asking for estimates of time spent in different categories clarified some of the problems. Inspection of the data, however, indicates that not all problems of this type were resolved.

A pretest theme, one corrected in the revisions, was a sentiment that more questions should be asked about the interface between reserve obligations and benefits and civilian employment and benefits. Questions about loss of overtime pay at civilian jobs, medical benefits, and related issues were subsequently added.

As a result of all the pretests, the questionnaire underwent considerable refinements. Questions were deleted, added and reworded for clarity and simplicity so that

respondents would have little trouble in answering them. In the final iterations, comparability with previous research was reviewed and attention was paid to questionnaire length. Where question modifications were marginal in improving clarity, but where the modification would lose comparability, the original wording was restored.

The spouse questionnaire was also subjected to rigorous pretesting and underwent important changes from the initial questionnaire to the final one. In the initial versions, the spouse was asked many questions which assumed greater familiarity with the reserve components than proved to be the case. In the end, most of these questions were excluded and the questionnaire oriented more towards understanding what spouses knew, the types of information they would be interested in having, and detailed information about themselves.

2. Questionnaire Contents

A total of seven questionnaire forms were used in the data collection for the 1986 Reserve Components Surveys. For the member surveys, two nearly identical pairs were developed. The difference is primarily in terminology and in the inclusion of some items which pertain specifically only to officers or only to enlisted members. Form 1 was used for all officers, except FTS-AGR/TARs and Form 2 for all enlisted personnel, except FTS-AGR/TARs. Form 3 was for FTS-AGR/ TAR officers, and Form 4 for FTS-AGR/TAR enlisted personnel. Form 5 was used for all English-speaking spouses and Form 6 was a direct translation, into Spanish, for spouses who elected to use it in Puerto Rico. (The spouses in Puerto Rico received both an English and a Spanish version of the questionnaire in the same envelope.) A seventh form for the commander of the 1979 RF Follow-Up units was almost identical to that used in the 1979 RF Surveys.

1986 RC Member Survey. The first section of each of the regular member survey questionnaire (Forms 1 and 2), "Military Background," collected basic data such as reserve component, pay grade, number of active duty years, number of years in the reserve components and the different components in which the respondent had served. For Officers, procurement source was ascertained. Section II, "Military Plans," probed the respondent's future plans by asking the likelihood of staying in the reserves under current conditions, as well as under several hypothetical management options (e.g. an increase in drills and/or Annual Training), number of good years, plans to elect the Survivor Benefits Plan, plans for the next year, and participation reasons. Officers were asked about their current obligation, its completion date and if they intended to participate at the end of their obligation.

Section III, "Military Training, Benefits and Programs," asked the respondents how they were trained for their current Primary MOS/Specialty/Rating or Designator and the time spent working in that skill. Respondents were asked to assess the similarity between their civilian job and their reserve job. Respondents were queried about Annual Training, their Guard/Reserve earnings, educational benefits, unit training objectives, and their opinion on training, promotions, leadership, supervision and unit morale. This section also included special questions for military technicians, e.g., did they serve as technicians and, if so, how long they had been so employed.

Section IV, "Individual and Family Characteristics," focused on basic demographic facts such as sex, age, marital status, aspects of educational attainment, number of dependents and whether or not dependents were handicapped. Married respondents were asked to provide basic demographic data about their spouses, as well as information about spouse military participation.

Section V, "Civilian Work," included detailed questions about labor force participation, such as civilian occupation and industry, type of employer, hours and weeks worked in the previous year, and earnings. Questions dealing with the interface between civilian employment and reserve participation were included here, as well as questions about spouses' employment. Section VI, "Family Resources," asked the respondents about additional income sources, debts and monthly mortgage and the effects on their income should they be mobilized for 30 days or more.

The last section, Section VII, "Military Life," elicited attitudes toward time spent on selected activities, plus interest in receiving information on Guard/Reserve benefits and programs. The questionnaire conclude with a set of items measuring satisfaction or dissatisfaction with selected aspects of military life, e.g., pay and allowances, commissary privileges, retirement benefits, unit social activities, and the opportunity to serve the country. The final item measure overall satisfaction with participation in the Guard/ Reserve.

1986 RC AGR Survey. Like Forms 1 and 2, the first section of each of the FTS-AGR/TAR questionnaires (Forms 3 and 4), "Military Background," collected basic data such as reserve component, pay grade, number of active duty years, number of years in the reserve components and the different components served in. For officers, procurement source was ascertained. Section II, "Present and Past Locations," asked questions about the length of stay, expected stay, and problems encountered both at the present location and in moving to the location.

Section III, "Military Plans," probed the respondent's future plans by asking the likelihood of staying in the FTS program, number of good years, plans to elect the Survivor Benefits Plan, plans for the next year and participation reasons. Officers were asked about their current obligation, its completion date and if they will continue to participate following the end of their obligation.

Section IV, "Individual and Family Characteristics," focused on basic demographic facts such as sex, age, marital status, aspects of educational attainment, number of dependents and whether or not dependents were handicapped. Married respondents were asked to provide basic demographic data about their spouses, as well as information about spouse military participation. With minor differences, this section is identical to Section IV in Forms 1 and 2.

Section V, "Military Compensation, Benefits and Programs," asked about the benefits being received by the respondent, as well as the availability and level of satisfaction with a broad range of family programs. Section VI, "Civilian Labor Force Experience," and Section VII, "Family Resources," focused on the household's labor force participation and earnings, non-wage or salary sources of income, debts and monthly mortgage payments.

The last section, Section VIII, "Military Life," elicited respondents' perceptions of unit problems and unit morale. The questionnaire concludes with a set of items measuring satisfaction or dissatisfaction with selected aspects of military life, e.g., pay and allowances, interpersonal environment, retirement benefits, and overall satisfaction with military life.

1986 RC Spouse Survey. The spouse questionnaires (Form 5 in English, Form 6 in Spanish), consisted of five major sections. Section I, "The Guard/Reserve Community," collected information about the kind and size of community in which the household lived, transportation arrangements for the member, and information about the spouse's participation in volunteer activities. It also included questions about knowledge of and participation in Guard/Reserve activities and interest in information about benefits and programs for families in the reserve components.

Section II, "Family Military Experience," asked about the spouse's military background and the member's military background and career plans from the spouse's perspective. Section III, "Your Background and Family," focused on basic demographic facts such as sex, age, educational attainment, number of dependents and whether or not they were handicapped. Spouses with young dependents were asked about their child care arrangements.

In Section IV, "Family Work Experience," focused on the households' labor force participation and earnings, non-wage or salary sources of income, expenditures in military exchanges and commissaries, and debts. The section includes items on community social services and an assessment of family problems resulting from the member's reserve participation.

The last set of questions, Section V, "Family Concerns," asked about aspects of family preparedness, e.g., wills and life insurance, military services which might be utilized in case of mobilization/deployment of the member, and community social problems. It concluded with a set of satisfaction measures with various features of the member's participation in the Guard/Reserve and with overall satisfaction.

Respondents to all of the surveys were provided with the opportunity to make additional comments or recommendations on all topics, whether or not the topic was included in the questionnaires. For this purpose, a separate page was provided, without identification, but with space to indicate reserve component and status, i.e., enlisted or officer personnel or spouse.

1986 RC Unit Commander Survey. Form 7 was developed for administration to unit commanders in units included in the 1979 RF Follow-Up Survey. The major purpose of this effort was to collect information about characteristics of unit commanders and their opinions about both unit activities and environments so that changes since 1979 could be studied. The design necessitated, by definition, a questionnaire as close to that used in 1979 as possible.

Section I, "Unit Characteristics," Section II, "Unit Personnel," and Section III, "Unit Drill and Annual Training Activities," asked for objective data about the unit, as well as an assessment of personnel, training activities, equipment, and overall unit functioning. Section IV, "Your Guard/Reserve Activities," asked about time spent on various activities and an assessment of whether it was sufficient or not. Section V, "Your Opinions," addressed the unit commander's view of unit problems, priorities given to unit activities by headquarters, and a comparison of the unit in 1986 with its condition five years previously. Section VI, "Your Military Background," and Section VII, "Individual Characteristics," collected military and civilian demographic information similar to that collected from officers in the other survey questionnaires.

NOTES

1. This document is drawn from chapter 2 of Description of Officers and Enlisted Personnel in the U.S. Selected Reserve: 1986. That report was published by the Defense Manpower Data Center for the Office of the Assistant Secretary of Defense (Reserve Affairs) and the Office of the Assistant Secretary of Defense (Force Management and Personnel). The Research Triangle Institute with assistance of Decision Science Consortium, Inc., was the contractor for the report. The 6th QRMC report includes more complete data applying to the compensation and benefit programs applicable to reserve members and for responses from such groups as reserve health professionals and Active Guard and Reserve members than is included in the Defense Manpower Data Center Report.

2. A Description of Military Dependents Issues Based on the 1985 DoD Survey of Officer and Enlisted Personnel. By A.J. Bonito, Research Triangle Institute, 1986.

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3. Thus, "population estimate" in Tables 2.6 and 2.7 refers to the estimated total number of spouses in the reserve population. For a discussion of marital status in the 1986 RC Surveys see Appendix A. 1986 RC Surveys: Survey Weighting Methodology in 1986 Reserve Components Surveys: Selected Reserve Officer and Enlisted Personnel -- User's Manual and Codebook or 1986 Reserve

Components Surveys: Full-Time Support Officer and Enlisted Personnel -- User's Manual and Codebook.

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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

VOLUME I

NATIONAL GUARD AND RESERVE COMPENSATION

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VOLUME I

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AUGUST 1988

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6th QRMC Report

Executive Summary

Volume I: National Guard and Reserve Compensation

Volume IA: Compensation of Full-Time Support Personnel

Volume IB: National Guard and Reserve Retirement

Volume IC: Compensation in Support of Reserve Medical Manpower

Volume II: Compensation and Personnel Readiness

Volume III: 6th QRMC Supporting Studies

PREFACE

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This volume presents a systematic evaluation of the elements of compensation for reserve members to include those serving in a full-time status with the active components and those serving full-time or part-time in the reserve components. Although the primary focus is on compensation for reservists who are not serving in a full-time capacity, the context of the review is set by the military compensation system as a whole. There are three reasons why the totality of the military compensation system forms the context of the review. First, military careers commonly combine periods of active service with periods of reserve service. The effective and equitable treatment of these periods is required for the purpose of determining both active duty and reserve compensation levels and for calculation of deferred compensation. Second, there are numerous elements of compensation such as bonus programs, eligibility for separation pay, and application of dual compensation statutes that apply differently to reserve members who are serving or who have served on active duty, simply because of their status as reserves. Finally, compensation for inactive duty training is directly linked to active duty basic and special pays.

The full range of military compensation elements is covered. Separate chapters cover basic pay and related issues, allowances, and health care, disability and survivor benefits. In the case of the part-time reservist, compensation is received for military duty served in a context in which significant scheduling conflicts with civilian employment often affect total income and, too frequently, continued employment in the civilian job or service in the reserve. There are also significant considerations associated with tax provisions and reserve pay and expenses and the possibility of mobilization. These items become key compensation issues for many reservists and they are covered in a separate chapter.

Three issue areas were identified for separate analysis within the overall context of the review. The first area is compensation for members providing full-time support to the reserve components. Significant growth in full-time support to the reserve components has been required to achieve readiness objectives. Program growth has been accomplished primarily through placing National Guard and Reserve members on full-time duty to support reserve administration, training, and recruiting. This Active Guard and Reserve (AGR) force now

exceeds 65,000 members. Many compensation provisions affecting AGR members are the same as for reservists serving as part of the active components of the armed forces. In addition, however, new compensation issues have been raised with respect to the status and conditions of service of AGR members. The other major source of military full-time support is the military technician. About 65,000 military technicians provide full-time support as federal civilian employees of the Army and Air Force who also maintain a status as part-time Selected Reservists as a condition of their civilian employment. During the last decade, substantial questions have been raised over the relative cost-effectiveness of these two forms of military full-time support. Questions have also been raised about the extent to which compensation differences between members in the two statuses may result in conflicts and affect morale. These matters are summarized in Chapter 3 and set out in detail in Volume IA of this report.

The second issue, the reserve retirement system, was addressed separately within the context of the costs and benefits of reserve compensation. This was due in part to a statutory requirement to submit a separate report to the Congress on reserve retirement. The complexity of the system, its cost--which amounts to about one quarter of the cost of basic pay and compensation for inactive duty training--and its importance within the total force in attracting members with active component experience into the National Guard and Reserve also warranted separate treatment. An interim version of the report on reserve retirement was forwarded to the President of the Senate and the Speaker of the House of Representatives on March 23, 1988. The report is summarized in Chapter 9 and is published as Volume 1B of this report of the 6th QRMC.

Finally, a separate volume, Volume IC, addresses compensation in support of reserve medical manpower. Shortages of health care professionals have been a continuing problem for the military. Until recently, the primary concern has been to procure and retain the numbers of qualified health professionals needed to meet the health care requirements of the uniformed services. Significant incentives have been developed and implemented in response to this concern, and the history of special incentives for medical personnel is almost exclusively a history of incentives for those serving in the active components. Now, the DoD estimates that it has an overall shortfall of 7,100 physicians and 31,000 nurses. This shortfall is almost entirely in the reserve components. In the past, studies of the compensation of health professionals neglected reserve component needs, and studies of manpower and compensation in the reserve components paid little or no attention to health professionals. The DoD is now actively working to improve wartime medical readiness as the highest priority of the military health care system. The QRMC study of

compensation in support of reserve medical manpower results from this emphasis. The conclusions and recommendations of this review are included as Chapter 10 of this volume.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs, of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services, were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988) and the Reserve Center Commanders Conference (1987) were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard Association of the United States, National Military Family

Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis, and advice at every stage of the review.

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United States Army Reserve

Headquarters and Headquarters Company, 78th Training Division, Edison, New Jersey

694th Maintenance Battalion (HQ & 340th S&S Co), San Antonio, Texas

328th Personnel and Administration Battalion, San Antonio, Texas

5506th Dental Service Detachment, St. Louis, Missouri

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803d Medical Group, Boston, Massachusetts

United States Naval Reserve

USS Clifton Sprague (FFG16), Philadelphia, Pennsylvania

Patrol Squadron 64, NAS Willow Grove, Pennsylvania

RNMCB 21, NAEC Lakehurst, New Jersey

Naval Hospitals 119 and 219, Long Beach, California

Naval Hospital Newport Branch Medical Clinic - NAS South Weymouth, Massachusetts

Naval Reserve MED/DEN 0191, South Weymouth, Massachusetts

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156th Tactical Fighter Group, Muniz ANGB, San Juan, Puerto Rico

United States Air Force Reserve

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37th Aeromedical Evacuation Group, MacDill AFB, Florida

34th Aeromedical Evacuation Squadron, Kelly AFB, Texas

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Chapter 1. RESERVE MANPOWER IN THE NATIONAL DEFENSE

The ultimate purpose of all military manpower policies, and of the compensation system that supports those policies, is to recruit, train, and field a force capable of preserving the peace and protecting the vital interests of the United States and its allies. The men and women currently in the reserve are an integral part of that force. Since the proclamation of the Total Force policy in the All-Volunteer Force era, and particularly since 1980, greatly increased reliance has been placed on reserve members and units.

To help achieve the increased readiness associated with this reliance, unprecedented attention has been focused on compensation and benefits in support of reserve force manpower objectives. New bonus, stipend, loan repayment, and educational assistance programs have been authorized and implemented. Improved and expanded medical, incapacitation, and survivor benefits have been enacted and commissary privileges enhanced. These measures have been considered necessary to achieve manpower goals in a rapidly expanding reserve force and to provide adequate protection to reservists, who must meet Total Force readiness standards, employ state-of-the art weapons systems, and perform training and support missions throughout the world.

Scope and Objective of the QRMC Evaluation

The QRMC has been tasked by the President to perform a comprehensive evaluation of the benefits and costs of all reserve compensation programs. The military compensation system covers both regular and reserve members. Regular members are, by definition in law, on active duty. The service of reserve members, by contrast, ranges from extended active duty service in an active duty career path to part-time or intermittent service in the Ready or Standby Reserve.

The compensation of reserve members depends upon their duty status and, if serving on active duty, on the duration of service specified in their orders. As a result, within the military compensation system, the compensation of reserve members is considerably more complex than that of regular members.

The comprehensive study of reserve compensation can logically be divided into two broad categories. The first category is the systematic evaluation of the elements of compensation for reserve members to include those serving in a full-time status with the active components and those serving full-time or part-time in the reserve components. The latter category is particularly important, because significant growth in full-time support to the reserve components has been required to achieve readiness objectives. This growth was accomplished primarily through placing National Guard and Reserve members on full-time duty to support reserve administration, training and recruiting. This Active Guard and Reserve (AGR) force now exceeds 65,000 members. Many compensation provisions affecting these members are the same as for reservists serving as part of the active components of the armed forces. In addition, however, new compensation issues have been raised with respect to the status and conditions of service of these members.

The second category of study is the analysis of the way in which the levels and types of reserve compensation affect the ability of the reserve components to meet unit manning requirements for part-time reservists. The report of the Sixth Quadrennial Review of Military Compensation treats these two categories in Volume I and Volume II, respectively.

Reserve Forces in Historical Perspective

The 200th anniversary of the Constitution of the United States of America may serve as a reminder that the Constitution codified a military system that had roots in the English militia tradition and a century and a half of American colonial experience. The militia clause of the Constitution (Article I, Section 8, Clauses 15 and 16) provided for the continued existence of the militia.[1] The Constitution also provided very broad power to the Congress to raise and support armies (Article I, Section 8, Clause 12).

The Militia Act of 1792 served to implement the provisions of the militia clause of the Constitution. While inadequate with respect to providing the United States with trained military reserves to augment the regular forces, it was the only permanent legislation covering the organization of the militia until the twentieth century.

Purely federal reserve forces and the dual state militia and federal reserve status of the National Guard were enacted in this century. Beginning with the Dick Act of 1903 and continuing through the Act of June 15, 1933, which amended the National Defense Act, the legal framework for our current reserve forces was established.[2] At the end of this period, the National Guard of the United States had been created and

National Guard members were now at all times members of both the National Guard of their state and of a reserve component of the Army. The new statutes also created for the first time purely federal reserve forces and the Reserve Officers Training Corps (ROTC) program.

The Dick Act provided that the National Guard would be equipped through federal funds and conform to the organization of the Regular Army. It also established a requirement for 24 armory drills and a five-day encampment annually, and it authorized the assignment of Regular Army instructors to the National Guard.[3] The National Defense Act of 1916 required more training for the National Guard and authorized federal pay for drills and administrative work as well as for field encampments. The training requirement of 48 drill periods and 15 days of field training established for the National Guard in 1916 remains today the statutory minimum requirement for the Guard.

Reserve Forces Following World War II and Korea

Mobilization plans in place prior to World War II assumed a full mobilization of reserve forces and qualified civilian manpower; however, the actual sequence of events did not follow this planning scenario. In fact, active duty and National Guard forces were increased, and National Guard training time was expanded in 1939 and 1940. In 1940, mobilization of the reserve was approved and a peacetime draft enacted.

Nevertheless, similar mobilization plans were developed after the war. Even had more flexible mobilization plans for reserve forces been in place, however, these plans would have been difficult to execute, because the legal vulnerability to recall of reserve units and members was not differentiated by their training status. All reserves were equally vulnerable to mobilization, and unit and individual reserve training priorities were not clearly specified.

Within the newly formed Department of Defense, there was recognition that problems with existing reserve forces required immediate attention. Although the underlying legal structure of today's reserve system was complete by 1933, statutes setting out detailed and uniform mobilization, training, compensation, and personnel systems were not in place.

In November of 1947, Secretary of Defense James Forrestal directed a comprehensive study of the reserve components. The report was to include recommendations on how reserve components should be structured and organized to best carry out their missions. In addition, the study was to address the measures needed to eliminate disparities and inequities among the components.

The report of this study, issued in June of 1948, is known as the "Gray Report" after the chairman, then Assistant Secretary of the Army Gordon Gray.[4] The report called attention to the major defense responsibilities of the United States in the unstable postwar world and the extent to which the reserves were necessary to meet defense needs. It noted further that these reserve forces would have to be ready for immediate mobilization and deployment. The author assumed it unlikely that future conflicts would give the United States time for an intensive period of arming and training after mobilization and prior to initial combat.

At the same time, a major revision to the reserve compensation system was under consideration in the Congress and, on June 29, 1948, a nondisability retirement program for reserve personnel was enacted. The purpose of this new program was to encourage longer reserve service so that there would be a relatively large group of well-trained reserves available if needed for mobilization. The reserve retirement system has not been substantively revised since enactment. The 1948 initiative may be seen as the first step in the creation of a structured manpower, personnel, and compensation management system designed to meet readiness and training requirements of the reserve forces.

Many of the recommendations of the Gray Report dealt with the structure for training, compensating, and promoting reserve members. The report recommended a simplified structure common to all Services. This included dividing reserve forces into active and retired categories and categorizing the active reserve forces in accordance with the degree of required participation in training.

Also recommended were pay for all drill periods; the establishment of uniform appointment, promotion, and separation criteria for reserve members; and a standard system of benefits for reservists injured, disabled, or killed during training. To meet the training standards demanded by the mission and mobilization requirements to be placed on reserve forces, the assignment of full-time personnel, in particular Guardsmen and Reservists on full-time duty, was recommended. The report also addressed the problem of conflicts between increased training requirements and civilian employment. Standard and uniform policies were suggested relative to leave from civilian employment for reserve training.

The invasion of South Korea by North Korean troops just a few days short of two years after issuance of the Gray report underscored many of that study's conclusions. The manpower needs associated with the Korean War did not fit with a full mobilization strategy. In fact, time for training, deployment, and employment was limited, with the result that reservists who

were not being paid to train (and who had not trained since their release from active duty following World War II) were called in large numbers. They were also the first reservists in the combat zone. There was controversy as to whether those called first should have been reservists who were veterans of World War II, a group of relatively low-priority volunteer and inactive reservists within the Guard and Reserve structure.

Within a year after the start of the Korean War, in January of 1951, Secretary of Defense George Marshall announced a set of 39 long-range policies designed to provide for ready and effective reserve forces. These policies, expanded in number to 43, were formally set out in April of that year. Developed to a large extent from the findings and recommendations of the Gray Report, the new Department of Defense policies clearly set out the purpose of reserve forces and defined the seven reserve components.

These policies outlined a structure for the organization and administration of reserve affairs in the Department of Defense, including a Reserve Forces Policy Board in the Office of the Secretary of Defense and similar policy committees in each Military Department. The structure for the reserve forces followed the lines recommended by the Gray Report. The reserve forces were to consist of a Ready Reserve, made up of units and individuals available for immediate employment in any expansion of the active forces and subject to involuntary active duty for training not to exceed 15 days a year; a Standby Reserve; and a Retired Reserve. Reserve forces training categories, each with a training priority and minimum required training, were to be established along with a system of setting priorities for involuntary order to active service.

The Reserve Forces policies called for adequate and equitable promotion systems and stated that members in an inactive status would not be eligible for promotion. The Services were required to maintain adequate and current personnel records for all reservists, and a standard system of physical examinations was established. Policies for full-time personnel were also set out. All regular officers were, to the fullest extent practicable, to spend a tour with the reserve forces. Reserve officers and enlisted members were to be placed on continuous active duty in connection with the organization, training, and administration of the reserve forces.

Uniform Military Training and Service Act

The Uniform Military Training and Services Act was Enacted on June 19, 1951, during the Korean War, with the following purpose:

"First to raise immediately the manpower necessary to build and maintain an armed force [to meet] our minimum security requirement, and, secondly, to provide for the maintenance of an adequate force of trained reserves...."[5]

To achieve the first objective, every male 18 to 26 years of age was required to register for military service. Individuals in this group over age 18 1/2 were liable for service in the armed forces. In support of the second objective, all those inducted, enlisted, or appointed prior to age 26 were subject to a total military service obligation of eight years in the active and reserve forces. Young men who joined the National Guard before age 18 1/2, and who were satisfactory participants in the Guard, were deferred from induction. Upon completion of active duty, qualified members were to be transferred automatically to a reserve component. Although this provided for a flow of trained and untrained men into the reserve components, those components still lacked an integrated and adequate system for personnel, training, and compensation.

The Armed Forces Reserve Act of 1952

The Armed Forces Reserve Act of July 9, 1952, was the first of several major legislative initiatives of the 1950s and 1960s which, taken together, formed the basis for a reserve structure with much more rigorously defined systems for training, promotion, pay, and personnel. A clear hierarchy of mobilization priorities and vulnerabilities was also established. These initiatives were based in considerable part on the 43 defense policies of April, 1951.

The Act declared the reserve components to be "maintained for the purpose of providing trained units and qualified individuals to be available for active duty...in time of war or national emergency, and at such other times as the national security may require, to meet the requirements of the Armed Forces...during and after the period needed for procurement and training of additional trained units and qualified individuals." (66 Stat. 482).

The Act specified the seven reserve components, including the Army National Guard of the United States and the Air National Guard of the United States, and reaffirmed that it was essential to maintain and assure the strength and organization of the National Guard as an integral part of the first-line defenses of the Nation.

Established in law as a result of the Act were the Ready, Standby, and Retired Reserve categories, and the physical examination and recordkeeping requirements of the DoD Policies. Also included were requirements for a Reserve Forces Policy Board and for staffs in Military Departments and in the Services

to include positions for top-level civilian and military officials with specific responsibilities for reserve component affairs. The Act also contained provisions for full-time support of reserve forces by regular and reserve members.

Also following on the DoD policies, but set out in greater detail, were provisions for voluntary and involuntary active duty and release from duty. The establishment of uniform training and pay categories was mandated for all purely federal reserve components. These categories were to specify the types, degrees, and duration of training required. The new law did not, however, require minimum training for any category or establish penalties for nonparticipation. It did provide general authority to require up to 15 days of annual training for all reservists in an active status.

Finally, the 1952 Act set up a system of allowances for the purchase of uniforms for reserve officers. These allowances were payable when ordered to active duty and at certain other times, contingent upon satisfactory participation. The new law also established authority to provide enlisted members with rations in kind when performing inactive duty training for at least eight hours in any day.

Reserve Officer Personnel Act

DoD Policies and the Armed Forces Reserve Act required that adequate and equitable systems be established for the promotion of active status reservists. The systems were to be patterned, insofar as practicable, after the regular component systems. Before these systems were fully in place, however, the Reserve Officer Personnel Act (ROPA) was enacted on September 3, 1954 (Pub. L. 773, 68 Stat. 1147).

ROPA provided detailed statutory procedures for the promotion, precedence, constructive service credit, grade distribution, retention, and voluntary and involuntary separation of reserve officers. The legislation was based in large part on the officer personnel systems established for regular officers by the Officer Personnel Act of 1947. Congressional committees were concerned that the lack of a firm, adequate promotion system reduced the incentive for active reserve participation in peacetime and caused confusion and discontent following mobilization. The Korean experience had provided concrete evidence with respect to the latter concern. ROPA was an important part of the manpower, personnel, and compensation systems developed after Korea. For officer personnel management procedures, ROPA filled out the provisions of the Armed Forces Reserve Act of 1952. In so doing, it relied heavily on the structure provided by the earlier Act.

Reserve Forces Act of 1955

The Reserve Forces Act of 1955 reflected continued concern about reserve programs. Both the Congress and the Executive Branch issued major studies in 1953 and 1954, focusing on the status of reserve forces. A primary concern was that, under existing rules, reserve forces could not be maintained at the high state of readiness needed to meet immediate mobilization requirements. There was high attrition and low participation in training programs. Individuals who enlisted directly into the National Guard did not attend any form of initial basic training and only gradually acquired necessary military skills through drill and annual training attendance. The 1952 law required that consideration be given to the length and nature of previous service whenever the Ready Reserve might be mobilized in time of a Presidentially declared national emergency. However, there was widespread concern that lack of trained younger men would result in experienced veterans again being called first in any future emergency.

In January of 1955, President Eisenhower sent a message to Congress relative to military security, including recommendations for new legislation on both active and reserve forces. The bulk of the message dealt with new measures deemed necessary to strengthen reserve forces.

The House Armed Services Committee began hearings on these recommendations in early February. Prior to enactment six months later, the bill had been rewritten five times. During June, when the legislative progress had bogged down, President Eisenhower twice publicly stressed the need for new reserve legislation to strengthen the reserve forces.

The new law, enacted on August 9, 1955, reduced the military service obligation from eight to six years for individuals entering military service after its enactment. For these new members, however, it established for the first time an obligation to participate in reserve training. It also established enforcement measures to help ensure that participation requirements were met. The 1955 Act also provided for continuous screening of Ready Reservists under regulations to be prescribed by the President. This process was intended to ensure that members who could not be mobilized in an emergency would be transferred to the Standby Reserve, so that, during a mobilization, there would be no significant attrition in Ready Reserve units and members.

The original legislative proposal would have required completion of basic training by all new members who enlisted directly into the reserve components. Although this was not enacted, emphasis on special enlistment programs provided by the Reserve Forces Act of 1955 was credited with greatly reducing

the number of Ready Reservists who had not completed four months of active duty for training or the equivalent. It was estimated by the Department of Defense that, immediately prior to the 1955 Act, over half the members of the Ready Reserve had not completed basic training or the equivalent. By 1960, this number had been reduced to less than 5 percent.

Two special reserve enlistment programs were added in 1955:

- A two-year active duty program, subsequently codified as section 511(b) of title 10, United States Code.
- A draft deferment or exemption in exchange for enlistment in a Reserve program requiring three to six months of active duty for training or enlistment in a National Guard program with no active duty requirement.

The draft deferment/exemption program was repealed by Public Law 88-110 in 1963. The new law substituted a program that provided a draft exemption in exchange for a six-year reserve enlistment, with an initial period of active duty for training of not less than four months. This program was codified as section 511(d) of title 10, United States Code. Subsequent amendments revised the length of active duty for training required from four months to 12 weeks and modified the requirement to commence the training 180 days after enlistment, requiring commencement at 270 days. These changes, together with new service policies for training reserve enlistees, effectively eliminated the longstanding basic training problem.

Reserve Forces Bill of Rights and Vitalization Act, 1967

The last major piece of legislation affecting the basic manpower and compensation structure of the reserve forces was the Reserve Forces Bill of Rights and Vitalization Act of 1967. This Act created a Selected Reserve force within the Ready Reserve. A Selected Reserve within the Ready Reserve of the Navy had been established by regulation in 1958, and the Department of Defense had strongly advocated statutory sanction for a smaller reserve force in a higher state of readiness. In 1966, just over 50 percent of the total Ready Reserve was in paid training. The new Selected Reserve force was, for the most part, composed of members participating in paid training.

Under the new law, the organization and unit structure of the Selected Reserve was to be approved by the Secretary of Defense and, in the case of the Coast Guard Reserve, the Secretary of Transportation. Selected Reserve strength was to be authorized annually by Congress. Ready Reservists not in the Selected Reserve were administratively classified to the Individual Ready Reserve. Although priority status was now focused on the part of the Ready Reserve associated with immediate readiness, Ready

Reservists still had the same liability for call to active duty and, under the law, could be required to meet the same minimum training requirements.

Other important, if less dramatic, changes with respect to personnel and compensation were revised training requirements and the authorization of per diem for reservists. The Reserve Forces Act of 1955 had required (1) not less than 48 inactive duty training periods, and (2) not more than 17 days of active duty for training. The 1967 Act revised the latter requirement to not less than 14 days. It also mandated an initial period of active duty for training of not less than four months for reserve component enlistees without prior service who were qualified for induction. Training was to commence, insofar as practicable, within 180 days after enlistment.

The Act also included significant changes in the structure established for administration of the reserve components within the Department of Defense. A statutory position for a Deputy Assistant Secretary of Defense, requiring Presidential appointment and the advice and consent of the Senate, was established. The Act also created statutory authority within each of the Military Departments for an Assistant Secretary for Manpower and Reserve Affairs and for military chiefs of the Army Reserve and the Air Force Reserve.

Total Force Policy and the All-Volunteer Force

The Policy

On August 21, 1970, Secretary of Defense Melvin Laird directed the Military Departments to apply a Total Force concept to all aspects of planning, programming, manning, equipping, and employing Guard and Reserve forces. Increasing reliance and dependence was to be placed on the Guard and Reserve as a combat-ready part of the total force structure as active forces were reduced. In this manner the adequacy of total military capability could be maintained while reducing the overall cost of defense programs.

The Selected Reserve was now to be maintained as a force in being, able to deploy rapidly and to operate side-by-side with active force units in peacetime as well as when mobilized. Readiness objectives were directed toward the degree of mobilization and training readiness that had been intended in section 264(b) of title 10 as amended by the Reserve Forces Bill of Rights and Vitalization Act. Under the Act, the Secretaries of the Military Departments were required to provide personnel and materiel support enabling the Selected Reserve to meet the mobilization readiness requirements prescribed for them by the Joint Chiefs of Staff in contingency and war plans.

On August 23, 1973, Defense Secretary Schlesinger stated that the Total Force was no longer a concept but a "Total Force Policy which integrates the Active, Guard and Reserve forces into a homogenous whole." He recognized the progress that had been made but directed specific actions for achieving the readiness required by contingency plans.

The All-Volunteer Force

The 1970 report of the President's Commission on an All-Volunteer Armed Force (Gates Commission) indicated that the Commission "recognized from its first meeting the need for special attention to the problem of the reserve forces."[6] The Commission also recognized that the analysis of this problem suffered from a serious lack of data.

In 1971, the Assistant Secretary of Defense for Manpower and Reserve Affairs testified before the Senate Armed Services Committee that a special group had been formed to recommend changes needed with respect to the National Guard and Reserve to ensure readiness as reliance on the draft declined. He identified the following reserve compensation issues as under consideration:[7]

- Enlistment bonuses to attract enlistees without prior service and reenlistment bonuses to enlist personnel with prior service and to retain members of National Guard and Reserve units
- Provisions for medical, dental, and death benefits to Guardsmen and Reservists while in training or on active duty
- Provisions to permit early reserve retirement with retirement pay actuarially reduced--not to include, however, early qualification for medical, dental, commissary, and exchange benefits prior to age 60
- Reserve survivor benefit coverage for surviving dependents of Guardsmen or Reservists who die between transfer to the Retired Reserve and attainment of statutory retirement age

Legislative enactment in these areas was not to follow quickly; however, all of these initiatives except an early reserve retirement annuity have subsequently become law.[8]

The Gates Commission had tentatively concluded that a reserve force associated with a 2.25 to 2.5 million member active force could be maintained in an all-volunteer environment. The precipitous decline in strength (from 987,000 in 1970 to 788,000 in 1978) experienced by the Selected Reserve in the postdraft environment, however, caused widespread concern. Contemporary

analysis of this trend revealed that the manpower deficits varied markedly by component, being significantly greater for the Army Reserve and Marine Corps Reserve (and, to a lesser extent, for the Army National Guard). Also, heavy losses of draft-motivated members at the end of their first enlistment could have been expected to cause a drop in reserve strengths albeit significant increases in reserve accessions.[9]

The Total Force policy recognized that "reserve forces would take on an enhanced importance in an all-volunteer environment due to the smaller planned size of the active force and the diminished capability, without an operating draft, to rapidly expand the active force during mobilization."[10] Thus the decline in Selected Reserve strength experienced in the 1970s triggered significant, if belated, attention to reserve manpower issues. In 1976, President Ford directed a review of the effectiveness of reserve compensation in meeting manpower objectives. Among the more important results of the Reserve Compensation System Study, conducted in response to that direction and completed in 1978, was a program of Selected Reserve enlistment, reenlistment and affiliation bonuses. Increased management attention, greatly expanded recruiting resources, and the new bonus authorities combined with the higher continuation rates of volunteer enlistees to help reverse the unfavorable strength trends after 1978.

Current Status

During the 1980s there have been a series of significant improvements in reserve compensation, including substantial restructuring of benefits for members who are incapacitated in connection with reserve service and for survivors of members whose death is reserve service connected, and the 1985 implementation of the Montgomery GI Bill for the Selected Reserve. By 1984, Selected Reserve numbers had reached an all time high, surpassing the previous strength peak that had been achieved in 1959 when reserve service could qualify an individual for deferment from the draft. Selected Reserve strength has continued to grow as missions and roles for reserve forces expand, reaching a strength of 1,164,142 by the end of Fiscal Year 1987.

Missions of the Reserve Components

With the advent of the All-Volunteer Force, the scope, size, and criticality of missions assigned to reserve components have increased dramatically. Today, a substantial portion of the manpower and equipment of each of the Services is resident in their respective reserve components. In a number of cases, that manpower and equipment is the entire force structure assigned to a particular mission area; the mission has no other resources.

DoD policy is to maintain as small an active peacetime force as national security policy, military strategy, and overseas commitments permit.

Each year, the Reserve Forces Policy Board (RFPB), which has a statutory advisory role to the Secretary of Defense, collects data from the Services on National Guard and Reserve contributions to the Total Force. The figures in this section display the RFPB data as presented in its annual report for Fiscal Year 1987.

Each of the Services uses its reserve in a somewhat different way. Differing missions and weapons systems of the reserve components result in differing training and manpower requirements. In this respect, the seven reserve components differ from one another very significantly in many ways. This has implications for reserve compensation as divergent manpower requirements, and utilization implies the need for a compensation system sufficiently flexible to meet differing needs in a cost effective manner.

Army National Guard and Army Reserve

The personnel strength in the Army National Guard and Army Reserve now equals the size of the active component. Thirty-five Army unit types have substantial amounts, or all, of their resources in the Guard or Reserve, as detailed in Table 1-1. The mission areas assigned to the reserve are comparable to the percentage of unit types resourced by reserve components, as shown in the Table. Approximately 53 percent of the total Army structure is in the Army National Guard and Army Reserve. Combat divisions are manned 43 percent by reserve forces, combat nondivisional forces are 67 percent reserve, 67 percent of tactical support is reserve, reserve theater forces are 46 percent of the total, and 32 percent of all other forces are in the reserves.

Increased reserve participation in field exercises throughout the world reflects the Army's reliance on reserve forces. Reserve participation at the Army's National Training Center provides units with rigorous combined arms training under realistic scenarios. With approximately 70 percent of the total strength of the Selected Reserve, manpower issues in the Army's reserve components have received a great deal of attention. Army National Guard and Army Reserve units are found at several thousand locations throughout the United States, its territories, and possessions. The number of locations and units creates significant recruiting and administrative problems.

Differing missions and unit types in the Army National Guard and the Army Reserve result in differing manpower requirements. The combat-unit-intensive Guard relies heavily on enlisted

Table 1-1. Army National Guard and Army Reserve Contributions to the Total Army

Unit Types	National Guard Percent of Total Army	Army Reserve Percent of Total Army	Combined Percent of Total Army
TOW Light Anti-tank Infantry Battalion	100	0	100
Infantry Scout Groups	100	0	100
Heavy Helicopter Companies	100	0	100
Training Divisions and Brigades	0	100	100
Judge Advocate General Units	2	98	100
Railroad Units	0	100	100
Rear Area Operations Centers	100	0	100
Civil Affairs Units	0	97	97
Public Affairs Units	64	30	94
Pathfinder Units	46	46	92
Supply and Service Units	31	59	90
Psychological Operations Units	0	89	89
Maintenance Companies (General/Direct)	46	43	89
Infantry Battalions	74	8	82
Corps Support Groups, Headquarters Companies	17	62	79
Separate Brigades	66	13	79
Chemical Units-Smoke Generator	0	78	78
Engineer Bridge Companies (Non-Divisional)	48	29	77
Army Hospitals	11	65	76
Medical Units (Other)	24	49	73
Conventional Ammunition Companies	17	51	68
Combat Engineer Battalions/Units	43	24	67
Truck Companies	37	30	67
Military Police Companies (Non-Divisional)	46	20	66
Corps Signal Battalions	47	16	63
Armored Cavalry Regiments	57	0	57
Field Artillery Battalions	47	9	56
Major Logistics Units	22	31	53
Watercraft Companies	7	44	51
Special Forces Group	25	25	50
Mechanized Infantry Battalions	47	2	49
Armored Battalions	43	2	45
Petroleum, Oil, and Lubricant Companies	0	45	45
Combat Divisions	36	0	36
Medium Helicopter Companies	11	11	22

Note: Percentage determined by counting like-type units.

Data as of September 30, 1987.

Source: Reserve Forces Policy Board

accessions without prior service and has the highest percentage of its officer force in the lowest two pay grades of any component. Maintenance of a youthful, vigorous force is a high priority. Although relative youth and vigor are important in any military organization, the Army is highly dependent on the capability of the Army Reserve to provide critical combat service support functions in the earliest days of any war. Thus, compensation incentives and other programs to ensure training in critical technical skills are a high priority. Many of the compensations issues reviewed by the 6th QRMC deal with issues of primary concern to the Army.

Naval Reserve

The Navy structures its reserve in a somewhat different way. Naval Reserve units are divided into three categories:

- Commissioned Units - Units that are an organic whole, responsible for delivering a complete operational entity to the operational forces. These units often have peacetime missions and are manned by a combination of full-time support personnel and drilling Selected Reservists. Six percent of the total Naval Reserve is in this category.

- Reinforcing or Augment Units - Units that fill out the wartime manning level of active component commissioned units and operational staffs when necessary. These units generally are located in Naval Reserve Centers throughout the country and will operate during their annual active duty for training with their mobilization gaining command. Twenty-eight percent of Naval Reserve units are structured in this way.

- Sustaining Units - Units designed to contribute trained manpower for fleet and force support activities providing for replacement of active personnel reassigned to commissioned units on mobilization, as well as providing additional manpower for surge and sustaining capability of such activities. Sixty-six percent of the total Naval Reserve is composed of these units.

Table 1-2 outlines the Naval Reserve contribution to mission areas of the Navy by showing the percentage of units or personnel by purpose. The Naval Reserve has grown at a faster rate than any other reserve component in recent years. Location of Reserve Units at great distances from their gaining command and equipment, combined with the need for experienced technicians, creates training challenges that the Naval Reserve is striving to meet. Different problems are associated with full-time and part-time crews of the Naval Reserve Fleet. The QRMC analyzed several issues unique to the Naval Reserve.

Tables 1-2. Naval Reserve Contributions to the Total Navy

Unit Types	Reserve Percent of Total Navy
CONUS Based Logistical Airlift Squadrons	100
CONUS Based Fleet Composite (Service) Squadrons	100
Light Attack Helicopter Squadrons	100
Combat search and Rescue Squadrons	100
Mobile Inshore Undersea Warfare Units	100
Naval Control of Shipping (Military Personnel)	99
Cargo Handling Battalions	92
Military Sealift Command Military Personnel	85
Ocean Minesweepers	82
Special Boat Forces	66
Mobile Construction Battalions	65
Medical Support (Military Personnel)	58
Maritime Air Patrol Squadrons	35
Intelligence Personnel	35
Airborne Mine Countermeasures Squadrons	25
LAMPS Anti-Submarine Warfare Squadrons	21
Base Operating Support Personnel	19
Frigates (FFG-7s/FF-1052s)	16
Carrier Air Wings	13
Amphibious Warfare Ships	5

Note: Percentage determined by counting like-type units or personnel.

Data as of September 30, 1987.

Marine Corps Reserve

Marine Corps Reserve contribution to the Total Marine Corps is shown in Table 1-3. The Marine Corps Reserve is configured to augment and reinforce the active component through combat, combat support, and combat service support units. In addition to augmenting and reinforcing active units, the Marine Corps Reserve is designed to field a limited marine amphibious brigade and a division, wing, and force service support group. Several mission areas such as civil affairs and salvage are now totally reserve.

The enlisted force of the Marine Corps Reserve differs markedly from that of any other reserve component. Its members are much younger, with a median age of 23.1 years, and they are much less likely to have had active component experience. Thirty percent are in combat arms. Because of these and other

Table 1-3. Marine Corps Reserve Contributions to the Total Marine Corps

Unit Types[1]	Reserve Percent of Total Marine Corps
Civil Affairs Groups	100
Salvage Platoons	100
Force Reconnaissance Companies	50
Air/Naval Gunfire Liaison Companies	50
Force Service Support Group Military Police Companies	40
Tank Battalions	40
Beach and Port Companies	40
Heavy Artillery Batteries	33
Division Reconnaissance Battalions	25
Light Anti-Aircraft Missile Battalions	25
Infantry Battalions	25
Marine Air Control Groups	25
Marine Wing Support Groups[2]	25
Bulk Fuel Companies	25
Force Service Support Groups	25
Forward Area Air Defense Batteries	25
Aircraft Types[3]	
Light Attack Aircraft	30
Observation Aircraft	29
Aerial Refueling Aircraft	29
Electronic Warfare Aircraft	18
Helicopters	18
Fighter Aircraft	15

Notes: 1. Percentage determined by counting like-type units.
2. Reserve Wing Support Groups being reorganized into Marine Wing Support Squadrons to mirror active component support units.
3. Percentage determined by counting primary authorized aircraft.

Data as of September 30, 1987.

Source: Reserve Forces Policy Board

differences, some issues reviewed by the 6th QRMC, such as providing the Basic Allowance for Quarters to members without dependents when they are on short periods of active duty, would have a relatively greater impact on Marine Corps Reservists.

Air National Guard and Air Force Reserve

Air National Guard and Air Force Reserve units encompass a wide range of mission areas. Here again, some mission areas, such as aerial spraying capability, are totally supported by reserve assets. The total contribution of Air National Guard and Air Force Reserve units is displayed in Table 1-4.

Peacetime responsibilities are a significant aspect of both the Air National Guard and Air Force Reserve missions. Of the continental United States Strategic Interceptor Forces, which provide the 24-hour alert fighter interceptors throughout the country, 78 percent are provided by the Air National Guard. Seven out of every ten hurricane missions flown by Air Force WC-130 aircraft are assigned to the Air Force Reserve. Additionally, both components provide year-round theater airlift support to the United States Southern Command in Panama.

The very high level of day-to-day integration of active and reserve forces in the Air Force has been accompanied to a substantial degree by the integration of management and administrative systems. This integration, combined with a high level of full-time support personnel, has won the Air Reserve Forces a reputation for mission effectiveness and administrative efficiency that stands out among the reserve components.

Half the officers and 10 percent of enlisted members in the Air Force Reserve are Individual Mobilization Augmentees (IMAs) to active component units and headquarters. The inactive duty training requirement for IMAs typically involves only half the training periods required of unit members, thus creating a somewhat unique compensation environment. The peacetime integration of active and reserve force missions in the Air Force makes the typical two-week annual training period for reserve members atypical for many in the Air Reserve Forces, particularly in the case of aircrew members.

Coast Guard Reserve

Although not a component of the Department of Defense during peacetime, the Coast Guard Reserve is one of the seven reserve components specified in statute. Virtually all the Coast Guard Reserve units are designed to augment active Coast Guard units upon mobilization. Three deployable port security units and two deployable air squadrons are the exception. Within the Coast Guard, wartime deployment is primarily a reserve function, hence the formation in recent years of an Office of Readiness and Reserve at Coast Guard Headquarters. Table 1-5 identifies the percentage of total Coast Guard contribution provided by the Coast Guard Reserve.

Table 1-4. Air National Guard and Air Force Reserve Contributors to the Total Air Force

Unit Types	National Guard Percent of Total Air Force	Reserve Percent of Total Air Force	Combined Percent of Total Air Force
FLYING UNITS			
Aircraft[1]			
Aerial Spraying Capability	0	100	100
CONUS Strategic Interceptor Forces	78	0	78
Theater Airlift Aircraft	35	25	60
Tactical Reconnaissance	54	0	54
Tactical Air Support	40	0	40
Air Rescue/Recovery	14	24	38
Tactical Fighters	25	8	33
Weather Reconnaissance	0	28	28
Aerial Refueling/Strategic Tankers	18	4	22
Support Aircraft	19	0	19
Special Operations	11	17	28
Strategic Airlift Aircraft	4	6	10
Aircrews[2]			
Aeromedical Evacuation Crews	0	72	72
Strategic Airlift (Associate)	0	50	50
Tanker/Cargo (Associate)	0	50	50
Aeromedical Airlift (Associate)	0	30	30
NON FLYING UNITS[3]			
Aircraft Control & Warning	67	0	67
Combat Communications	67	0	67
Engineering Installations	67	0	67
Aerial Port	14	47	61
Combat Logistics Support Squadrons	0	60	60
Tactical Control	55	0	55
Civil Engineering Personnel	24	20	44
Strategic Airlift Maintenance Personnel	0	40	40
Medical Personnel[4]	8	15	23
Weather	15	1	16

Notes: 1. Percentage determined by counting primary authorized aircraft.
2. Percentage determined by counting authorized aircrews.
3. Percentage determined by counting authorized personnel.
4. Excludes aeromedical evacuation crews.

Data as of September 30, 1987.

Source: Reserve Forces Policy Board

Table 1-5. Coast Guard Reserve Contributions to the Total Coast Guard

Deployable Port Security Units (351 billets)	100
Port Safety & Security Forces (3,535 billets)	56
Small Boat Operational Shore Facilities (4,788 billets)	30
Command & Control (1,702 billets)	23
Repair/Supply/Research (1,126 billets)	21
Training Commands (320 billets)	15
Vessels (1,194 billets)	14
Air Stations (124 billets)	2

Note: Percentage determined by counting billets

Data as of September 30,1987

The Coast Guard relies heavily on its small (approximately 13,000 Selected Reservists) highly experienced reserve. With a median age of 36, the Coast Guard Reserve has the oldest enlisted force. Coast Guard Reserve enlisted members also have the greatest reserve experience, exclusive of any active component service, with an average of 8.6 years. The Coast Guard reserve also has a high level of congruence between the reserve and civilian occupation of its members. Twenty-two percent of its enlisted members are employed in the protective services in civilian life. Longstanding resource limitations have created a rather austere compensation environment for the Coast Guard Reserve, with very limited use of incentive programs and considerable unpaid duty.

Reserve Manpower Accomplishments and Priorities in the 1980s

As discussed earlier, the modern era of reserve force missions came into its own with the All-Volunteer Force (AVF) in the early 1970s. More missions were placed in the reserve, but in the AVF environment there was concern about obtaining the trained manpower to accomplish the task.[11] The 1980s have seen further new and expanded reserve missions together with significant improvements in equipment modernization, training strategies, and achievement of objectives for overall personnel strength. Table 1-6 shows the relative size of each reserve component, from 1970.

The successes in meeting reserve manpower objectives and improving the quality of accessions is attributable in part to the new bonus authorities. In addition, since 1981 significant new benefits and protections have been implemented for reservists and their families. These enhancements recognized the increased demands of reserve service. At the same time,

Table 1-6. Selected Reserve Strength by Component, FY 1970-87
(in thousands)

Fiscal Year	Army Natl Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air Natl Guard	Air Force Reserve	Coast Guard Reserve	Armed Forces Total
1970	409	261	128	49	90	50	17	1004
1971	402	263	130	47	86	50	15	993
1972	386	235	124	41	89	48	12	937
1973	386	235	126	38	90	44	11	930
1974	403	235	115	31	94	46	12	937
1975	395	225	98	32	95	51	12	908
1976	362	195	97	30	91	48	12	835
1977	355	189	90	31	92	50	12	820
1978	341	186	83	33	92	54	11	799
1979	346	190	88	33	93	54	12	819
1980	367	206	87	35	96	59	12	862
1981	389	225	88	37	98	62	12	910
1982*	408	257	94	40	101	64	12	975
1983**	417	266	109	42	102	67	12	1016
1984	434	275	121	41	105	70	12	1058
1985	440	292	130	42	109	75	13	1101
1986	446	310	142	42	113	79	13	1143
1987	452	314	148	42	115	80	13	1163

Source: Official Guard and Reserve Manpower Strengths and Statistics, 1982 & 1987 Summaries

* Reservists with required annual training, but not required to drill, added to Selected Reserve

** Naval Reserve TARs added to Selected Reserve

many reservists were being asked to train more intensely and for longer periods than ever before. To the extent that extended training results in increased time and schedule conflicts between reservists and their civilian employers and puts additional stress on family, community and personal obligations, the result may be increased turnover and reduced personnel readiness.

Members and their spouses participating in the 1986 Reserve Components Surveys were asked about their (or their spouse's) likelihood of staying in the reserve under three scenarios:

- The current training schedule
- The current schedule plus two extra four-hour drills per month
- The current schedule plus an additional five days of annual training

Analysis of responses indicates that, under either extended training scenario, both officer and enlisted retention would drop. RAND created a reenlistment supply model to predict, for enlisted members of the Army National Guard and Reserve, whether extended training time would affect the retention of some types of reservists more than others. RAND found that, for junior enlisted personnel, those who have been promoted faster, have some education past high school and are employed full-time are more adverse to the prospect of extended training time.[12]

Evidence of the effects of increased intensity of reserve training on member perceptions can be inferred through the comparison of the views of senior enlisted members in 45 units of the Army National Guard and Reserve concerning training readiness problems. Members of these 45 units were surveyed in 1979 and again in 1986. The two factors most likely to be considered a problem in 1986, and showing the greatest relative increase from 1979 to 1986 in the percent of members who considered the factor a problem, were "not enough time to plan training objectives and get all administrative paperwork done" and "not enough drill time to practice skills."[13]

This quantitative analysis of changing perceptions is reflected in the views of Guard and Reserve members and their spouses who added written comments in responding to the 1986 Reserve Components Surveys. Many indicated that they were being pushed close to the limit by the time and schedule demands of reserve obligations.

In addition to member perceptions of current demands of reserve service and their responses concerning the likely effects of increased training upon their continued participation, there is some empirical data concerning retention in units that have experienced extended training. Case studies of the first seven Army National Guard units to attend the National Training Center, which requires three weeks of annual training and extra drills and planning sessions for preparation, indicate that attrition increased both from the participating units and from the National Guard.[14]

In addition to the increased employer, family, and personal conflicts that may be associated with intensified or extended training, civilian income is lost by a substantial number of reservists, and this is not fully made up by military pay. This situation creates a compensation environment substantially different from that experienced by and relevant to full-time members of the uniformed services. This report addresses issues and initiatives that may improve the effectiveness of military compensation in the National Guard and Reserve environment.

Manpower Data in the Review of National Guard and Reserve Compensation

The 6th QRMC relied heavily on reserve manpower, personnel and pay file data. Throughout this report there are specific discussions of the difficulties encountered by QRMC work groups because of incomplete, inaccurate, or unavailable data. There are numerous indications that these data shortcomings are detracting from the effectiveness of day-to-day management as well as confounding analysts. Specific recommendations are included elsewhere in the body of the report. Accurate and complete manpower, personnel, and pay data is so essential to reserve component management, however, that a brief summary is included in this introductory chapter.

Reserve Components Common Personnel Data System (RCCPDS)

RCCPDS has been the official source for reserve component personnel strength since July 1975 and the official source for accession, loss, and reenlistment data since July 1976. It provides a standardized and centralized database of personnel information on all members of the reserve components. RCCPDS data was invaluable to the work of the QRMC; however, its use created major problems due to missing data and inaccurate data in both current and historical files.

The DoD has recognized the importance of RCCPDS data and its current shortcomings. In 1983 an initiative was begun to improve the system. In October of 1984, the Assistant Secretary of Defense for Reserve Affairs directed the establishment of a senior level Steering Group to oversee progress in this effort. Significant improvements have been made in the quality of the data and the database has been expanded. As noted elsewhere in the report, however, much critical data is still missing or deficient.

- **The 6th QRMC recommends that the RCCPDS database continue to receive high priority attention.**

Reserve Military Pay Record Extracts

Because of known deficiencies in the personnel data base (e.g. reserve component incentive program data) and unavailability of certain data from budget documents (e.g. data on special and incentive pay costs and recipients), the Defense Manpower Data Center began a project to develop an information file based on reserve component pay files early in 1986. This project was never fully successful. In some cases extensive computer programming was required to combine and array data to be suitable for analysis. In other cases, needed pay and retirement point data was collected and maintained at different

locations based upon the type of duty performed by the reservist. Therefore, it was necessary to determine from reserve pay files the total annual military earnings of the reserve members of most components.

The Defense Manpower Data Center receives quarterly magnetic tape extracts of retired military pay records (DoD Instruction 7770.1), and active component military pay records (DoD Instruction 7770.2), according to existing DoD Instructions. This procedure provides essential data for the evaluation of DoD programs and policies, interagency reporting, and actuarial purposes. Similar standard information is required for reserve military pay records. As discussed in the following chapter of this report, reservists serve in many different duty statuses and the duty status determines the compensation of the member. Moreover the duty is intermittent. Thus standard extracts of pay data from all reserve components are imperative to provide needed management and program data.

- **The 6th QRMC recommends revision of DoD Instruction 7720.2 "Magnetic Tape Extracts of Military Pay Records," to require that reserve component pay file data be furnished quarterly to the Defense Manpower Data Center on the same basis as presently required for active pay file data.**

Need for an Integrated Reserve Manpower Database

The data on reserve manpower available to and used by the 6th QRMC illustrates the potential for the use of integrated manpower data in increasing the effectiveness of reserve compensation. Analysis reported in Volume II of the QRMC report used manpower authorization files, RCCPDS data on grade and skill qualification and Army unit-priority schemes to identify the minimum number of soldiers, by specialty, that could be added to priority units to achieve targeting personnel readiness ratings. This implies the possibility that compensation initiatives targeted at the most critical skills and units and with appropriate conditions for use could result in substantial personnel readiness improvements within reasonable cost limits.

In its analysis, the 6th QRMC was able to overcome many systemic reserve manpower data deficiencies due to the availability of the comprehensive 1986 Reserve Components Surveys. For most components, survey data was superior to personnel and pay files for such items as annual military pay, inactive duty retirement points etc. With the increasing resources devoted to reserve forces and the extent to which the nation is dependent on their readiness, a plan for an integrated system of reserve personnel, manpower and pay data is required and should be a near term priority of defense managers.

Notes

1. The militia clause of the Constitution provides that "The Congress shall have Power...to provide for organizing, arming, and disciplining the Militia, and for governing such part of them as may be employed in the Service of the United States, reserving to the states...the Appointment of the Officers, and the Authority of training the Militia according to the discipline described by Congress."

2. Two accounts of these statutory provisions that complement one another in scope and detail may be found in Frederick B. Weiner, "The Militia Clause of the Constitution," Harvard Law Review, Vol. LIV, No. 2 (December, 1940), pp. 182-220; and Robert L. Goldich, "Historical Continuity in the U.S. Military Reserve System," Armed Forces and Society, Vol. 7, (Fall, 1980), pp. 88-112.

3. A "drill" is a period of inactive duty training. Originally, it was a weekly assembly of at least 1 1/2 hours. Today the minimum period is two hours and the DoD has established a four-hour minimum by regulation.

4. Department of Defense. Reserve Forces for National Security - Report to the Secretary of Defense. U.S. Govt. Printing Office, 1948.

5. Senate Armed Services Committee, Report No. 117, 82d Congress, 1st session, p. 1.

6. The Report of the President's Commission on an All-Volunteer Force. U.S. Govt. Printing Office, 1970, p. 97.

7. Department of Defense Commanders Digest, February 27, 1971, pp. 7-8.

8. As discussed in Chapter 5 of this report, a test of a Selected Reserve reenlistment bonus was authorized in 1977 and additional bonus authorizations approved in the late 1970s and early 1980s. Medical, dental, and death benefits were improved and standardized in the mid-1980s. In August, 1969 the Reserve Forces Policy Board had recommended an actuarially reduced reserve retirement annuity be paid at age 50 with 20 years of creditable service. The RFPB recommended that all retirement benefits, including commissary, exchange, and medical care be available on receipt of retired pay. Legislation to amend chapter 67 of title 10, United States Code, to authorize payment of reserve retired pay at age 50 was introduced in the 91st Congress (H.R. 8859). The DoD recommended deferment of action on the legislation pending completion of a review of the total military retirement system. Survivor benefits for surviving dependents of Guardsmen and Reservists who died after becoming

eligible for retired pay at age 60, but prior to reaching age 60, were enacted into law in 1978.

9. R.V.L. Cooper, Military Manpower and the All-Volunteer Force. The RAND Corporation, 1977, pp. 150-158.

10. J.R. Brinkerhoff, and D.W. Grissmer, "The Reserve Forces in an All-Volunteer Environment," in Bowen, W., Little, R. and Sicilia, G.T. (Eds). The All-Volunteer Force After a Decade. McLean, VA: Pergamon-Brassey, 1966, p. 209.

11. Total Selected Reserve strength fell from 925,000 in Fiscal Year 1972 to 823,000 in Fiscal Year 1976, an overall decline of 11 percent. This compared to a decrease in active force end strength of only 8.6 percent; 2.3 million in Fiscal Year 1972 to 2.1 million in Fiscal Year 1976.

12. David W. Grissmer, Richard Buddin and Sheila Nataraj Kirby. Improving Reserve Compensation: A Review of Compensation Related Personnel and Training Readiness Issues, The RAND Corporation, R-3669-FM&P/RA, Forthcoming, pp. 129-133.

13. Ibid. pp. 70-78.

14. Ibid. pp. 133-141. The research is reported in detail in David W. Grissmer and Glenda Nogami, "Retention Patterns for Army National Guard Units Attending the National Training Center," prepared for Battelle Columbus Laboratories under contract to U.S. Army Research Office, November 1986 (draft).

Chapter 2. THE STRUCTURE OF COMPENSATION FOR NATIONAL GUARD AND RESERVE MEMBERS

Overview

Regular members of the uniformed services are, by definition in law, on active duty. The elements of their compensation are based in large part upon the fact that they are, at least potentially, on a military career track. The service of reserve members, by contrast, ranges from those serving on active duty with the expectation or opportunity to serve until qualifying for an active duty retirement, to those whose service is strictly in a "part-time" capacity. While substantial numbers of reservists serve full-time, the great majority do not. There is a similar range of intensity of service for part-time members. Selected Reservists may be required to perform 48 or more inactive duty training periods and up to 30 days of active duty each year. Individual Ready Reservists, by comparison, must only fulfill a one-day annual reporting requirement. A much smaller group of Standby Reservists have no participation requirements, but remain vulnerable to mobilization during a war or national emergency.

The work of the 6th QRMC concentrated primarily on compensation for full-time and part-time reservists who serve and train in the reserve components. Although compensation for regular members was generally excluded from the study plan because of the direction to perform a comprehensive study of the costs and benefits of reserve compensation, the QRMC did not ignore the compensation of reserve members serving with the active components, since their status differs in some respects from regular members.

The compensation structure for reserve members depends upon their duty status and, if on active duty, the duration of service specified in their orders. For example, all reservists in an active status receive 15 retirement points each year--the equivalent of 15 days of active duty--for their membership. Members performing inactive duty training may receive pay, benefits, and survivor benefit protections for line-of-duty incapacitation or death, depending on the type of inactive duty training performed. Reservists serving on active duty have different entitlements and benefits depending on whether the duty is "for training" or "other than for training," and on the length of the period of duty. For example, members serving on orders that specify a period of more than 30 days accrued leave, and their dependents gain medical care entitlements and

benefits. Members ordered to active duty for a period of 140 days or more are eligible for Variable Housing Allowance payments. Reserve members may serve for two or more years of continuous active duty for training and yet not qualify as veterans for the purpose of obtaining a Veterans' Administration guaranteed home loan. This anomaly occurs because title 38 of the United States Code treats active duty for training differently from active duty for the purpose of veterans' benefits.

This complex system has evolved piecemeal in response to the demands of our national defense. Prior to the Korean War, the active duty service of reservists in peacetime was limited to relatively short terms. Service for a full active duty career in reserve status was not contemplated. For example, it was not until passage of the Act of February 21, 1946, that the first legislation was authorized providing for the nondisability retirement of reservists from active duty for length of service. This authorization was followed by extension of nondisability retirement to reserve officers of the Army and Air Force through the Army and Air Force Vitalization and Retirement Equalization Act of 1948 (Public Law 80-810). Nondisability retirement from active duty for enlisted reservists was authorized in 1958 for the Navy and Marine Corps (Public Law 85-583) and, in 1980, for the Army and Air Force (Public Law 96-343).

The QRMC study of reserve compensation entails a comprehensive review of the way in which specific elements of compensation are structured for reserve members across the range of statuses in which they serve. These statuses include active duty, active duty for training, full-time National Guard duty and inactive duty training. They include full-time duty in an active component, paid from active component military appropriations, whether in a career, specified term, or temporary status. They also include full-time duty paid from National Guard or Reserve personnel appropriations in support of the reserve components. Finally included is part-time duty involving active duty or inactive duty training, and reserve membership without participation in training activities.

There are variations in the elements and provisions of military compensation with respect to each of these statuses. Although a complete description of this complex structure was judged to be beyond the scope of the QRMC study, an understanding of this broader framework was necessary, both for a general understanding of the field under review and for analysis of specific inequities, inconsistencies and anomalies, and potential cost efficiencies. The following discussion is intended to provide this framework.

The Effect of Duty Status on Compensation

Active Duty

After Korea, the maximum number of regular officers authorized in law was well below the number of officers required to serve in the active forces. As a result, large numbers of reserve officers served on extended active duty, many with the hope of a full active duty career. These officers were drawn from a variety of sources--reserve officer commissioning programs, part-time reservists, and regular enlisted members who qualified for reserve commissions.

For these officers, continuation on active duty was subject to changing military requirements, however, and involuntary release after long service frequently resulted in hardship and inequity. New compensation provisions were enacted in response to this situation. In 1956, for example, a readjustment payment was authorized for reservists who, after having served continuously on active duty for long periods of time, were involuntarily released. The same law (Public Law 646) provided that a member within two years of becoming eligible for retired pay or retainer pay could not be released from active duty unless the release was approved by the military department secretary. Other examples of such provisions include the following: enlisted members who accepted a commission and then were released from active duty were entitled to be restored to active duty in the highest regular enlisted grade formerly held, and these reservists became eligible to retire at the highest grade in which they had satisfactorily served.

These separate provisions, relating to compensation of reserve officers on extended active duty with the active components, were based on the differing standings of reserve and regular officers with respect to promotion, separation, and retirement. The Defense Officer Personnel Management Act (DOPMA) of 1980 was intended to diminish these differences. In considering DOPMA, the Congress referred to the "anomaly of career active-duty reservists."[1] The House report noted that, although large numbers of reserve officers may serve on active duty and qualify for an active duty retirement, the law provided for differing treatment of regulars and reserves. The report noted specifically that reserve officers on active duty had no expectation of minimum time in grade prior to retirement or separation, and they could be released at any time subject to the needs of the service. Conversely, compensation provisions, such as dual compensation laws affecting the military retired pay of career officers who work for the federal government in a civilian capacity, were different for regular officers than for reservists.

As originally conceived, DOPMA would have resolved such differences by requiring an all-regular officer force after 9 to 11 years of service. This coincides with the considerations for selection for promotion to pay grade O4. Officers who were still reservists at this point would be tendered a regular appointment if selected for promotion to O4; they would be released from active duty if not selected after the second consideration. This feature of DOPMA was left to Service policy in the version of the Bill that was ultimately signed into law.

Nevertheless, DOPMA did make major changes affecting the management of reserve officers on active duty. It established a single active duty list for the career management of both regular and reserve officers. Promotion consideration and selection procedures are now uniform for active duty list officers and reserve officers on the active duty list are no longer considered by reserve promotion selection boards. Conversely, under DOPMA, reserve officers on active duty for training, those pursuing special short-term projects, and those on active duty specifically to develop reserve policies or to organize, administer, recruit, instruct, or train reservists were excluded from the active duty list. The rationale for this exclusion was that these officers were not on an active duty career path.

The DOPMA legislation served to reduce much of the turbulence and uncertainty that had been associated with the call to and release from active duty of reserve officers. In conjunction with the personnel management and compensation provisions already in effect, the result was generally more equitable treatment of reserve officers pursuing a career in an active component.

Full-Time Duty in Support of the National Guard and Reserve

Coincident with the consideration and enactment of DOPMA, much greater reliance was being placed on reserve members and units as part of the Total Force. Achievement of the increased readiness associated with this reliance required significant growth in full-time support to reserve units. This growth was achieved primarily through placing National Guard and Reserve members on full-time duty in support of reserve administration, training, and recruiting.

The great majority of this increase in full-time reserve members was in enlisted members of the Army National Guard, Army Reserve, and the Air National Guard. For all components, over 57,000 National Guard members and enlisted Reservists now serve on extended full-time duty in support of the reserve components. The majority of these new full-time members, particularly in the Army and Air Force components, were accessed from the ranks of part-time unit members. This created compensation issues

similar to those that developed in the 1950s and 1960s when reserve officers were needed for extended service on active duty. These issues are addressed throughout this report. A summary is contained in Chapter 3 of this volume.

The nature of the increase in full-time reservists also resulted in creation of a new duty status--full-time National Guard duty. There are now approximately 30,000 officers and enlisted members of the Army National Guard or Air National Guard who serve on full-time National Guard duty under section 502(f) of title 32, United States Code. This status was created to preserve the command and control structure within the National Guard. Members of the National Guard perform weekend drills, annual training, and some other training duty in State status rather than in federal service. Thus the command authority for these members rests with the State. In order to preserve and clarify peacetime command authority with respect to National Guard members who provide full-time support, the DoD developed legislation creating a new status, full-time National Guard duty, now defined in law as follows:

> Training or other duty, other than inactive duty, performed by a member of the Army National Guard of the United States or the Air National Guard of the United States in the member's status as a member of the National Guard of a State or territory, the Commonwealth of Puerto Rico, or the District of Columbia under section 316, 502, 503, 504, or 505 of [title 32] for which the member is entitled to pay from the United States or for which the member has waived pay from the United States.[2]

Although members on full-time National Guard duty are not in federal service, for the purposes of laws that provide benefits for members, their dependents, and their beneficiaries, full-time National Guard duty is considered active duty in the federal service. The one exception is that full-time National Guard duty is considered as active duty for training for the purposes of determining veterans' benefits. As a result, members serving in this status who are not veterans as a result of prior active duty are not eligible for all veterans' benefits. This is discussed in detail in Chapter 3.

Part-Time Duty

Active Duty for Part-Time Members: Part-time reserve members typically serve on active duty or full-time National Guard duty for two weeks annually. Many part-time reservists, including new entrants, those receiving additional formal training and those performing special work, however, serve additional periods

of active duty. Members of the reserve components may serve on active duty in one of the following five categories described in DoD Directive 1215.6.

- Initial Active Duty Training (IADT). IADT includes basic military training and technical skill training required for all entrants without prior service.

- Annual Training (AT). This is the minimum period of training that a reservist must perform each year to satisfy the AT requirements associated with his or her reserve component assignment.

- Active Duty for Training (ADT). ADT includes full-time attendance at formal specialized skill training, flight training, combat crew training, and professional development education programs intended to provide reserve component members with skills and disciplines necessary to support reserve missions. ADT orders provide for automatic reversion to inactive duty status when the specified period of ADT is completed. Reservists on ADT do not count against statutory endstrengths prescribed for the active components or for reserve component full-time support.

- Active Duty for Special Work (ADSW). ADSW is funded from military and reserve personnel appropriations and is used for projects supporting active or reserve component programs. Examples of these projects are study groups, boards, and support for training sites and exercises. Members on ADSW for more than 180 days are counted in computing active component endstrengths or reserve component full-time support endstrengths, dependent on the appropriation category from which they are paid.

- Active Duty (AD). Full-time active duty, other than ADT or ADSW, including full-time National Guard duty is authorized in support of reserve component missions. Members on active duty other than ADSW or on full-time National Guard duty for more than 180 days are counted against active or reserve component endstrengths as discussed above.

For purposes of pay, there is no distinction between the types of active duty. All personnel on active duty in a pay status are, as a minimum, entitled to basic pay, basic allowance for quarters (BAQ) (or quarters in-kind), and basic allowance for subsistence (BAS) (or subsistence in-kind). These three cash elements of compensation plus the federal tax advantage resulting from the nontaxable elements, BAQ and BAS, are known collectively as basic military compensation (BMC). In 1980, the BAQ element of compensation was broadened to include variable housing allowance (VHA) and the overseas station housing allowance; this expanded definition is referred to as regular

military compensation (RMC) and is codified in section 101(25) of title 37, United States Code. Every member on active duty is entitled to BMC but not necessarily to RMC. As an illustration, active force members living off base do not receive VHA if local housing expenses do not exceed certain levels. Reserve component members on active duty tours of less than 140 days are not entitled to VHA.

Inactive Duty for Part-Time Members: The majority of the military duty performed by most part-time reserve members is in an inactive duty training (IDT) status. IDT is generally defined in DoD Directive 1215.6, "Uniform Reserve, Training and Retirement Categories," as authorized and scheduled training performed by a reservist or member of the National Guard who is not on active duty or active duty for training.

IDT consists of regular training periods, assemblies or drills, or periods of applicable duty or equivalent training. Typically, it consists of training conducted monthly on a weekend, with two four- to six-hour drills per day. For each training period or drill, a member's basic compensation is 1/30 of the monthly basic pay of an active component member with the same pay grade and length of service.[3] Basic compensation does not include subsistence and quarters allowances, but many special and incentive pays authorized in chapter 3 of title 37, United States Code, may be added to IDT compensation. In the case of a member entitled to a special pay during IDT, the compensation for each IDT period is increased by an amount equal to 1/30 of the monthly amount of the special pay.[4] Although section 206 of title 10, United States Code, authorizes compensation for an IDT period of at least two hours, DoD policy prescribes a minimum four-hour duty period and limits paid IDT periods to two in any calendar day. Thus, as compensation for a four-drill weekend with two drills each on Saturday and Sunday, a member receives a total of 4/30 of the monthly basic pay of an active component member of the same grade and service longevity and 4/30 of any special pay to which entitled. As discussed in Chapter 1, the minimum number of regular IDT periods required annually is established by training category.

Additional IDT periods may be authorized for the purpose of improving readiness. These additional training periods fall into three categories. DoD Directive 1215.6 establishes policy for administering additional IDT periods as follows:

- Additional training periods (ATPs) for units, subunits, and individuals are to accomplish additional required training as defined by a unit's wartime mission. The number of these training periods shall not exceed 12 per fiscal year for any member.

- Additional flying and flight training periods (AFTPs) are authorized for primary aircrew members to conduct aircrew training and combat crew qualification training, to attain and maintain aircrew flying proficiency, and to sustain mobilization readiness. AFTPs shall not be in addition to ATPs. The number of AFTPs shall not exceed 48 per fiscal year for any aircrew member unless specifically authorized by the Service Secretary concerned.

- Readiness management periods (RMPs) are used to support the ongoing day-to-day operation of the unit, including unit administration, training preparation, support activities, and maintenance functions. The number of periods shall not exceed 24 per fiscal year for any member. These training periods shall be used only where sufficient full-time support personnel are not available for these duties. RMPs shall not be performed on the same day that another training period is being performed, and not more than one RMP shall be performed by an individual in one calendar day.

The combination of duty statuses outlined above for part-time members has assisted the reserve components to meet specific training objectives and Total Force mission requirements. It also creates situations in which the compensation status differs for members performing the same duty. When combined with the fact that reservists may perform duty with or without pay,[5] the range is broadened even further.[6] This flexibility is not without cost. One reserve unit visited by 6th QRMC staff indicated that an excessive amount of the administrative work done by full-time support personnel is devoted to managing the funds associated with these differing training statuses. In one component, the QRMC analysis was severely limited by the lack of complete military compensation costs for individuals or groups of individuals. This lack of information was due in large part to the fact that members were paid from different pay systems when performing in different duty statuses. Flexibility has also resulted in concern over possible abuse of the system. Since Fiscal Year 1979, paid equivalent training (pay for activities performed in lieu of a regularly scheduled training assembly or drill) has been limited to four IDT periods per fiscal year. This limit was the result of congressional concern that many equivalent training sessions were not equivalent in content or in quality to the missed training.

The Structure of the Reserve Components

Active duty and IDT for members of the reserve components is conducted within a structure only slightly modified from that initially set out in the Armed Forces Reserve Act of 1952. Regulatory implementation of the statute is provided by DoD

Directive 1215.6, "Uniform Reserve, Training and Retirement Categories," which provides official DoD and Coast Guard policies pertaining to management of members of the reserve components of the armed forces. This Directive establishes policy guidance for maintaining and reporting personnel data, designates uniform reserve component categories and training and retirement categories, establishes minimum training criteria for each category of the reserve components, and provides uniform planning policies and procedures for training reservists.

The structure and relationships of the numerous reserve categories and their mobilization responsibilities are complex. All National Guard and Reserve manpower is assigned to one of three reserve component categories as shown in Figure 2-1: the Ready Reserve, the Standby Reserve, and the Retired Reserve.

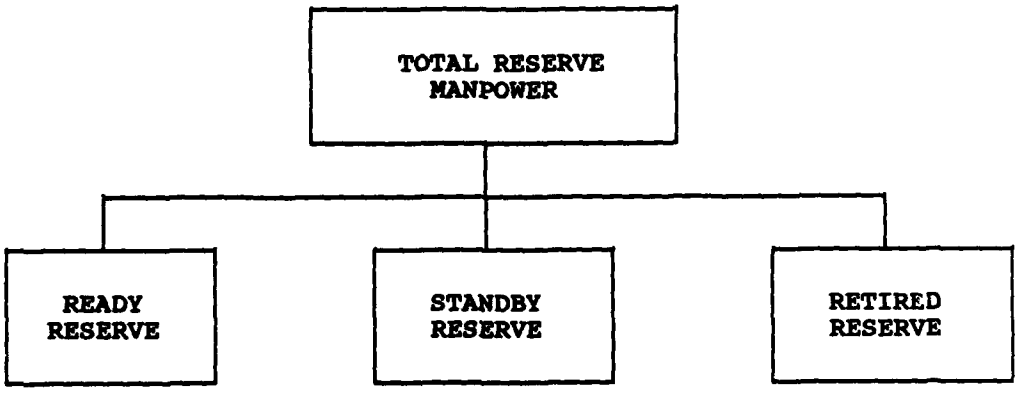


Figure 2-1. Reserve component categories

The Ready Reserve is comprised of military members of the National Guard and Reserve, organized in units or as individuals, liable for recall to active duty to augment the active components in time of war or national emergency. The Ready Reserve consists of three reserve component subcategories as shown in Figure 2-2: the Selected Reserve, the Individual Ready Reserve and the Inactive National Guard.

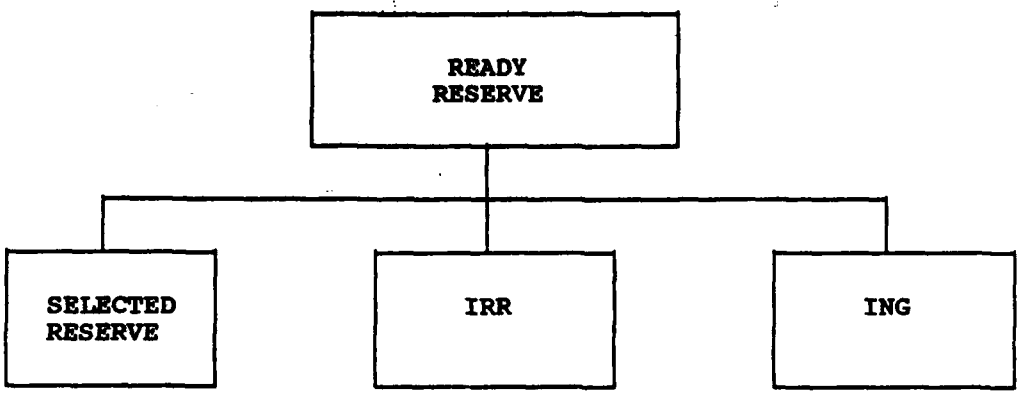


Figure 2-2. Ready Reserve subcategories

The Selected Reserve consists of units and individuals within the Ready Reserve that are designated by their respective Services and approved by the Joint Chiefs of Staff as so essential to initial wartime missions that they have priority over all other reserves. The Selected Reserve includes both full-time Active Guard and Reserve members (AGR/TAR) and part-time Guardsmen and Reservists.

- Selected Reserve Units are units manned and equipped to serve and/or train either as operational or as augmentation units. Operational units train and serve as units. Augmentation units train together but, when mobilized, lose their unit identity, being subsumed into an active unit or activity. Selected Reserve units include the following:

  - Part-Time Unit Members: Trained unit members who participate in unit training activities part time. These members are required to participate in 48 drill periods and two weeks of full-time training duty each year.

  - Active Guard/Reserve (AGR): Guard members or Selected Reservists who are ordered to active duty or full-time National Guard duty with their consent for the purpose of organizing, administering, recruiting, instructing, or training reserve component units.

Subcategories of the Selected Reserve are shown in Figure 2-3 and consist of the following:

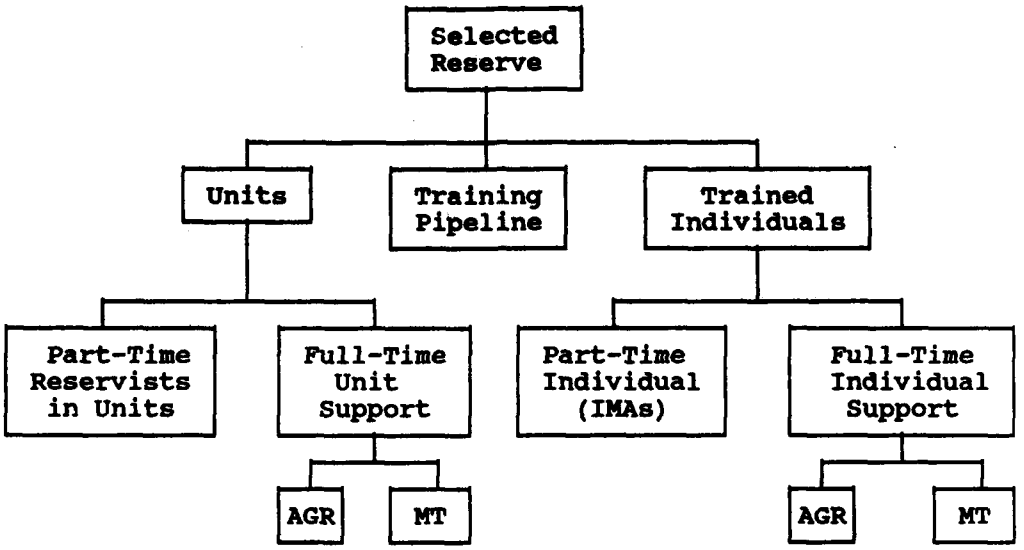


Figure 2-3. Selected Reserve subcategories

- Military Technicians (MT): Federal civilian employees who provide full-time support for administration, training, and maintenance to reserve units and support activities. These employees must maintain their status as part-time Selected Reservists; they are often referred to as dual-status individuals and are counted in the part-time unit member subcategory. Dual-status military technicians must be in mobilization positions and are required to meet the same drill and annual training requirements as other part-time unit members.

- Trained Individuals are members of the Selected Reserve who are assigned to an active-force organization. Trained individuals include the following:

  - Individual Mobilization Augmentees (IMAs): IMAs are trained individuals preassigned to the billet of an active component of the Selected Service System, or of the Federal Emergency Management Agency organization that must be filled on or shortly after mobilization.

IMAs train part-time with an active component unit in preparation for recall in mobilization. Some IMAs have the same participation requirements as unit members. Most, however, are required to participate in only 24 drill periods (this is the typical IMA training requirement in the Air Force Reserve) or only annual training (the typical pattern in the Army Reserve) each year.

- Individual Active Guard/Reserve (AGR/TAR): Individual Guard members or Selected Reservists who are ordered to active duty or full-time National Guard duty in an active component organization with their consent for the purpose of organizing, administering, recruiting, instructing, or training the reserve components. They are assigned in headquarters and support functions of both active and reserve components. Naval Reserve AGRs are identified by the acronym "TAR" for Training and Administration of Reserve.

- Individual Military Technicians (MT): Individual federal civilian employees who provide full-time support for administration, training, and maintenance in the Selected Reserve, not in a unit. These employees must also maintain their status as part-time unit members. All individual military technicians must be in mobilization positions.

The Individual Ready Reserve (IRR) and Inactive National Guard (ING) consist of Ready Reservists who are not in the Selected Reserve:

- The IRR is a manpower pool consisting principally of individuals who have had training and who have served previously in the active component, or in the Selected Reserve, and have some period of their military service obligation (MSO) remaining. In addition, there are some individuals in the IRR voluntarily, for hardship reasons or in special nonpay programs that provide a variety of professional assignments and opportunities to earn retirement points and military benefits. These individuals all have an obligation to complete either the MSO or a contractual agreement.

- The ING consists of National Guard personnel in an inactive status, not in the Selected Reserve, who are attached to a specific National Guard unit but do not participate in training activities. Upon mobilization, they would mobilize with their units. In order for these individuals to remain members of the ING, they must muster once a year

with their assigned unit. Like members of the IRR, all members of the ING have legal, contractual obligations. Currently, the ING is used only by the Army National Guard.

The Standby Reserve consists of individuals who maintain the military affiliation without being in the Ready Reserve, who have been designated as key civilian employees, or who have a temporary hardship or disability. These individuals are not required to perform training and are not part of units. The Standby Reserve is a pool of trained individuals who could be mobilized if necessary to fill manpower needs in specific skills. The number of reservists in Standby Reserve Status is decreasing, mainly as a result of DoD initiatives to emphasize accession and retention of personnel in Ready Reserve Status.

Within the Standby Reserve there is an active status list and an inactive status list. The former consists of Standby Reservists temporarily assigned for hardship or other cogent reasons; those not having fulfilled their statutory MSO; those retained in active status under certain statutory provisions; or those identified as "Key Personnel" and removed from the Ready Reserve because they are critical to the national security in their civilian employment.

Members on the inactive status list include those who are not required by law or regulation to remain in an active program and who retain the reserve affiliation in a nonparticipating status, and those who have skills which may be of possible future use to the Armed Force concerned. Members on the inactive status list may not train for points or pay and are not eligible for promotion.

The Retired Reserve comprises all reserve officers and enlisted personnel who receive retired pay on the basis of their active duty and/or reserve service as well as all members who are otherwise eligible for retired pay but have not reached age 60 and who have not elected discharge and are not voluntary members of the Ready or Standby Reserve. The composition of the Retired Reserve is discussed in detail in Volume IB of the QRMC Report.

Reserve Status, Compensation and Mobilization Priorities

Section 262 of title 10, United States Code, defines the purpose of the reserve components as allows:

> Provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency and at such other times as the national security requires, to fill the needs of the armed forces whenever, during, and after the period

needed to procure and train additional units and qualified persons to achieve the planned mobilization, more units and persons are needed than are in the regular components.

This language stems from the Armed Forces Reserve Act of 1952 which, as discussed in Chapter 1, provided the basis for a reserve system with much more rigorously defined training, promotion, pay and personnel systems than had previously existed. The requirement for uniform training and pay categories was first established by the Act, as was a hierarchy of mobilization priorities tied to the Ready Reserve, Standby Reserve, and Retired Reserve categories which were also established by the Act.

The training and pay categories discussed in the previous section deal with requirements for active duty and inactive duty training for National Guard and Reserve members in the differing categories. Just as the training and pay categories set the minimum training requirements for reservists, statutory provisions define the circumstances under which National Guard and Reserve members may be involuntarily ordered to active duty to meet national security needs.[7] Thus the training status of the National Guard or Reserve member sets the conditions under which the member may be involuntarily ordered to active duty (other than for training). In this sense it establishes a hierarchy of vulnerability to mobilization in time of crisis.

As noted earlier, a Selected Reserve was established within the Ready Reserve in 1967, and Ready Reservists not in the Selected Reserve were administratively classified to the Individual Ready Reserve. Under the statute, the Selected Reserve contains those units and members so essential to initial wartime missions that they have priority over all other reserve forces. The President may order as many as 200,000 Selected Reservists to active duty involuntarily for 90 days. The period of the call-up may be extended for not more than 90 additional days under the enabling authority (section 673b of title 10, United States Code).

This authority may be used whenever the President determines that it is necessary to augment the active forces for any operational mission. This authority may be considered the first tier of mobilization priority. No declaration of war or national emergency is required. Statutory limitations on this authority include prohibition of its use to suppress insurrection, enforce the laws of the United States, repel invasion, or provide disaster assistance. The President must report to the Congress, within 24 hours and in writing, the circumstances necessitating the action and the anticipated use of the reserves ordered to active duty. This authority was originally enacted in 1976. At that time it limited to 50,000

the number of Selected Reservists who could be ordered to active duty, and it limited the duration to 90 days. In 1980, the 50,000 limit was increased to 100,000. The current statutory provisions were enacted in 1986.

The second tier of the statutory mobilization priority affects all of the Ready Reserve (the Selected Reserve and the Individual Ready Reserve). The President may, upon declaring a state of national emergency, order to active duty as many as one million members of the National Guard and Reserve for up to 24 months. The enabling statute (section 673 of title 10, United States Code) requires the President to inform the Congress of the necessity for the involuntary order, the use of the forces ordered, and their performance.

Section 673 also contains a requirement that, in exercising this authority, consideration be given to the length and nature of previous service, family responsibilities, and essential civilian employment. These restrictions were included when the law was originally enacted in 1952. The restrictions resulted from concern over the fact that, in the Korean conflict, World War II veterans who were in the equivalent of today's Individual Ready Reserve were the first reservists to be called and to enter the combat zone. The language does sound archaic in today's all-volunteer reserve. In practice, the requirement to consider the factors specified in the statute is fulfilled by the continuous screening of the Ready Reserve mandated by Public Law 85-861 of September 2, 1958. The purpose of the later Act, codified at section 271 of title 10, was to ensure that there will be no significant attrition of Ready Reserve members or units during a mobilization.

The screening system, implemented by DoD Directive 1200.7, "Screening the Ready Reserve," is the primary means for ensuring that reserve members receive fair treatment and are evaluated on their mobilization responsibilities. On mobilization, all members of the Ready Reserve are considered immediately available for active service. DoD Directive 1235.10, "Mobilization of the Ready Reserve" (CFR 110), provides that no member of the Ready Reserve shall be exempt from mobilization, and it directs the Services to develop specific procedures to deal with ready reservists physically unable to mobilize. This Directive also recognizes the difference in priority and readiness required of the Selected Reserve and the Individual Ready Reserve. It sets a maximum reporting time of 24 hours from notification for the Selected Reserve and, for the Individual Ready Reserve, a requirement to report within 5 to 15 days as determined by Service procedures.

The condition setting the third tier of mobilization priority is declaration of war or of national emergency by the Congress. During such time, any reserve member may be ordered to active

duty for the duration of the war or emergency and for six months thereafter. The statute that provides this third tier authority (codified as section 672(a) of title 10, United States Code) also stipulates that reservists in an inactive status may not be ordered to active duty unless a determination is made that there are not enough qualified reserves in an active status or the Inactive National Guard (which is part of the Ready Reserve) in the required category who are readily available.

In summary, the statutory scheme sets out a priority for mobilization centering on three conditions: (1) Any operation or contingency, (2) A Presidential declaration of a state of national emergency; and (3) Declaration of war or national emergency by the Congress. Only Selected Reservists may be involuntarily ordered to active duty under the first condition; the second condition provides authority to order Ready Reservists involuntarily; and condition three applies to all reservists, but sets conditions on the involuntary order to active duty of reservists in an inactive status.

In practice, this scheme has been followed; although the existing statutory authorities were not used. Subsequent to Korea, there have been four instances entailing the involuntary order to active duty of units and members of the National Guard and Reserve in response to specific crises. In response to the Berlin Crisis in 1961, President Kennedy did not declare a national emergency (under which he could have mobilized up to one million Ready Reservists). Instead, he requested Congress to enact a Joint Resolution authorizing a mobilization of up to 250,000 members of the Ready Reserve. (The Joint Resolution was enacted as Public Law 87-117 on August 1, 1961, and implemented by Executive Order 10959 on August 10th.) The mobilization in October 1962 of 14,000 members of the Air Force Reserve in response to the introduction of Soviet missiles into Cuba was also ordered under specific enabling legislation. A Joint Resolution of Congress (Public Law 87-736, October 3, 1962) authorized the President, until February 28, 1963, to order any unit or any member of the Ready Reserve to active duty for not more than 12 consecutive months provided not more than 150,000 members of the Ready Reserve were thereby on active duty (other than for training) at any one time. The law was implemented by Executive Order 11058, October 23, 1962.

Two other mobilizations occurred subsequent to the 1952 establishment of reserve categories with an associated hierarchy of mobilization priorities and vulnerabilities. These mobilizations were also based on temporary legislation rather than on existing statutory authorities. The January 1968 callup following the Pueblo incident and the May 1968 Vietnam mobilization were both effected by Executive Order under the authority of Public Law 89-687 (October 15, 1966), which

authorized the President, until June 30, 1968, to order any unit in the Ready Reserve to active duty for a period of not to exceed 24 months.

These four involuntary callups all followed the substance of the statutory scheme, however, with all or the majority of those mobilized in each case being from the Selected Reserve or, in the case of the 1961 and 1962 callups, from the precursor of today's Selected Reserve.[8] The hierarchy of mobilization priorities parallels the minimum training requirements set out in the training and pay categories. Reserve compensation programs and limitations follow these hierarchies. Special bonuses, stipends, loan repayment programs, and insurance programs have been established for Selected Reservists. Separate bonus, stipend, and insurance programs are authorized for the Individual Ready Reserve. The size and value of the latter programs reflects the reduced training requirements and mobilization vulnerability of the Individual Ready Reserve. Such programs are not available for reservists who are in an inactive status; they may not receive pay or retirement point credit.

The pattern that emerges from this review is, in the judgment of the QRMC, reasonable, equitable, and consistent with the principles of military compensation set out in the Military Compensation Background Papers published by the Office of the Secretary of Defense.[9] This pattern is well described in the discussion of the subprinciple of "institutional benefits":

> The overall institutional benefits component of the military compensation system should be awarded according to the military value of the member to the Service. This sub- principle provides a guide to the recipients in regard to approximate levels of benefits. Many benefits, however, are (and should be) automatic in their entitlement, such as Dependency and Indemnity Compensation, Death Gratuity, and the group insurance programs. Nonetheless, the criterion of military value, including the possibility of mobilization or recall to active duty in times of national emergency, should govern the eligibility for and level of benefits to the various categories of beneficiaries.[10]

Although the general pattern of reserve compensation reflects this subprinciple, the QRMC found instances where specific cases did not. Recommendations for corrective action in such cases are included in the following chapters of this volume.

Notes

1. U.S., Congress. House, Committee on Armed Services, Report of the Committee on Armed Services to accompany S. 1918, 96th Cong., 2nd sess., Report No. 96-1462, 1980, p. 12.

2. 10 U.S.C. §10(42) and 32 U.S.C. §101(19), originally enacted as section 414 of Public Law 98-525.

3. Compensation of reserve members performing IDT is authorized by 37 U.S.C. §206, which reads in part: "(a) Under regulations prescribed by the Secretary concerned, and to the extent provided for by appropriations, a member of the National Guard or a member of a reserve component of a uniformed service who is not entitled to basic pay under section 204 of this title, is entitled to compensation, at the rate of 1/30 of the basic pay authorized for a member of a uniformed service of a corresponding grade entitled to basic pay, for each regular period of instruction, or period of appropriate duty, at which he is engaged for at least two hours, including that performed on Sunday or holiday, or for the performance of such other equivalent training, instruction, duty, or appropriate duties as the Secretary may prescribe."

4. It is important to note that only the basic amount and not the increased amount is technically compensation for IDT; this is important, for example, when determining the DoD contribution to the Military Retirement Fund or calculating the DoD or Coast Guard FICA contribution. The increased amount is not included when calculating these contributions.

5. Under 10 U.S.C. §683, any reservist may perform active duty with pay or, with the member's consent, without pay. Duty without pay is considered for all purposes as if it were duty with pay. 37 U.S.C. §206, which authorizes compensation for IDT, provides broad discretionary authority for promulgation of regulations specifying when compensation may and may not be provided for IDT. All statutory entitlement to IDT is qualified by language making such entitlement contingent on regulations and appropriations provided for IDT.

6. Thus for example, a reservist serving without pay may be placed on active duty instead of IDT to earn a retirement point that would otherwise be subject to the 60-point annual cap on IDT retirement points.

7. This does not include the call of members of the National Guard, not in federal service, to protect life and property and to preserve order and public safety under the order of state authorities. Each year such state duties involve several thousand members of the National Guard.

8. It is noted that service of National Guard or Reserve members on active duty pursuant to an order under 10 U.S.C. §§672, 673 or 673b activates provisions of law that authorize the President, during a time of crisis or national emergency, to suspend any provision of law relating to essential regular and reserve members without regard to their normal separation or retirement dates. Thus, unless separate statutory authority was provided, the availability of these essential "stop-loss" provisions would be contingent on the use of existing statutory authorities for the involuntary order of reservists to active duty.

9. Office of the Secretary of Defense, Military Compensation Background Papers, 3rd ed., U.S. Govt. Printing Office, June 1987.

10. Ibid. p. 9.

Chapter 3. COMPENSATION OF FULL-TIME SUPPORT PERSONNEL

Compensation of full-time National Guard and Reserve members employed in support of the reserve components was one of the reserve compensation programs reviewed by the 6th QRMC as a separate issue. As administratively classified by the Department of Defense, full-time support personnel include active component personnel (15,738), military technicians (61,651), Active Guard/Reserve (AGR) members (63,518), and civil service employees (18,333). The full-time support total of 159,240 (as of September 30, 1986) makes it readily apparent that this function requires an important segment of total defense manpower. As members of the Selected Reserve, paid from reserve personnel appropriations and accounting for four out of five full-time support personnel, military technicians and AGR members were the focus of attention. The review did not include the Coast Guard Reserve because full-time support in that component is provided by reserve program administrators who are members of the active component. This chapter summarizes the background, findings, and recommendations of the QRMC which are set out in more detail in Volume 1A of the report.

The objective of the full-time support program is to enhance the readiness of reserve forces, and this program is largely responsible for enabling these forces to perform the expanded missions they have been assigned under the Total Force policy. The cadre of military technicians and AGRs plays an especially important role in providing support at reserve unit level. Military technicians are full-time federal employees who are, as a condition of employment, active military members of the reserve component in which they are employed as civilians. They must enter active military service when called. AGRs are members of the Selected Reserve who have been called to full-time active military duty (180 days or more) for the purpose of organizing, administering, recruiting, instructing, or training the reserve components. "TAR" is the Navy acronym for a special category of AGR members whose career specialty is Training and Administration of Reserves.

During the past decade, many difficult questions have arisen about the growth, cost, force mix, program objectives of the full-time support program, and management. From a compensation perspective, two major questions have arisen:

- Should AGR/TARs and active component members receive essentially the same compensation, given the perceived differences in conditions of service between these two

groups? This question potentially affects all components, and it stems from the perception that the hardships associated with military service occur less frequently and with less severity in AGR/TAR service than in active component service.

- Are military technicians or AGRs the most cost-effective form of full-time support manpower? This question potentially affects the components of the Army and Air Force.

In reviewing these questions, the 6th QRMC operated from the premise that military compensation must support defense manpower policies that, in turn, support the military, strategic, and operational plans of the Nation. Therefore, conclusions and recommendations were sought that would enhance the readiness objective of the full-time support program. To understand and appreciate the complex nature of this relationship, a broad survey was conducted of full-time support program origins and personnel management as practiced in the six reserve components of the DoD.

Origin of the Reserve Component Full-Time Support Programs

The practice of providing full-time support to reserve components is not a new one. When the modern reserve forces began to evolve at the turn of the century, full-time civilian caretakers were hired to maintain the horses and supplies in National Guard units. During the same period, active component members were detailed to reserve units as instructors and inspectors. There is also a long tradition of calling reservists to full-time duty at the seat of government on so-called "statutory tours," to other tours of duty at state headquarters of the National Guard, and to intermediate military headquarters for the purpose of preparing and administering the policies and regulations affecting the reserve components. Descendants of all these programs exist in the reserve components today, encompassed by the term "full-time support" (FTS).

After World War II, it became apparent that the traditional concept of reserve forces constituted in the "civilian components" was inadequate to meet the challenges of modern defense requirements. The wartime experience had proven that reserve forces as organized and trained before the war simply would not be prepared for mobilization, deployment to an overseas theater, and employment in combat in a timely fashion and at the necessary levels of proficiency. To make matters worse, the Nation then as *now* strained under the enormous costs of large, peacetime military operational requirements and commitments. To make the most of scarce resources, the Total

Force policy was devised and adopted in the early 1970s. This policy calls for maintaining only the minimum essential active forces and for placing increased reliance on the reserve components, not only to provide forces to support a full mobilization in the event of war, but also to provide forces to be called upon in circumstances short of war. As a consequence, the Nation now also relies heavily upon operational support from its reserve forces in peacetime. Each of the reserve components has developed different approaches to this dual challenge within the context of their own specific requirements and missions; however, they all rely heavily on full-time support in one form or another to get the job done.

Army Full-Time Support Programs

The Army full-time support programs include both military technicians and AGRs. The use of technicians originated in the National Guard's system of unit caretakers and was expanded to include their employment in Army Reserve units after World War II. Military technicians provide unit support. Most are members of the units in which they work as civilians, although large numbers are employed as civilians in area support activities and in some headquarters elements that are not mobilizing units. Prior to the initiation and rapid expansion of the AGR program in the 1980s, full-time active duty reservists were generally employed in other than mobilizing units as recruiters or on statutory tours. Beginning with a military technician conversion test in FY 1978 and 1979, AGRs have been assigned in increasing numbers to provide unit support along with military technicians. All Army AGRs are managed as careerists.

Navy Full-Time Support Programs

The Navy relies primarily on TARs for full-time support of its reserve forces. In fact, the Navy pioneered the concept of reliance on uniformed, full-time active duty reservists to provide unit support. The forerunner of the TAR program was established in December 1945 as the CAD (Continuous Active Duty) program. The name "TAR" was applied in 1953 after implementation of the provisions of the Armed Forces Reserve Act in 1952. Thus, it predates by over a quarter-century the widespread use of AGR members during the 1980s in the Army's reserve component units and the Air National Guard. TARs play a key role as ship's company in the Naval Reserve Fleet. To keep Naval Reserve forces current with operations in the active fleet, TARs maintain a close association with the regular Navy. Among their other assigned functions, TAR officers routinely serve tours of duty with the regular Navy for refresher training. In fact, before FY 1983, TARs were members of the active Navy. They were transferred to the Naval Reserve in that year for personnel strength accountability and funded from

reserve personnel rather than from military personnel appropriation accounts to provide AGR program uniformity within the DoD. In addition to TARs, the Navy AGR program also includes other full-time reservists on statutory tours and on recruiting duty.

Marine Corps Full-Time Support Programs

Although the Marine Corps Reserve does use some full-time reservists, most of its full-time unit support is provided by active Marine Corps Instructor-Inspector (I&I) teams attached to Marine Corps Reserve units. The Marine Corps Reserve is organized as a division/wing team that mirrors the three teams composing the bulk of the Corps' active component manpower structure. The nature of the Marine Corps Reserve training mission and day-to-day operational requirements generally does not demand a large proportion of full-time members with relatively narrow, highly technical skills in long term, stable assignments. It is in this context that the active component provides full-time support for reserve units. The simplicity and flexibility of such a plan is self-evident. In addition to instructing and inspecting, I&I teams provide a natural means of coordination and liaison with active units. This assists the Corps as a whole in integrating the peacetime and wartime support provided by its reserve forces.

Air Force Full-Time Support Programs

When the Air Force was established as a separate service in 1947, its full-time support force had its roots in the National Guard's system of military technicians. Although the Air Force did experiment briefly with full-time active duty reservists in the Air Force Reserve (the Category R program), it ultimately has continued to depend primarily on technicians to provide most required full-time support. Both Air Force reserve components use AGR personnel for statutory tours and reserve recruiting duty, and the Air National Guard uses them in relatively small numbers for unit support. All full-time unit support in the Air Force Reserve is provided by military technicians. The full-time support programs in both Air Force reserve components have been highly successful.

Life-Cycle Management of Full-Time Support Personnel

There are significant differences in the full-time support (FTS) programs of the Military Departments. These differences emanate from the unique structure and functional needs of each component as developed over time, and they are reflected in both law and policy. Consequently, there are separate and distinct management procedures and force characteristics for each category of FTS personnel in each component. To form a

comprehensive perspective of these differences, a matrix was developed to display in general terms how each component's FTS program is structured. The matrix can be found in Table 2-1 in Chapter 2 of Volume 1A of this report. It shows the major differences both across the reserve components as well as among the various categories of full-time support personnel (military technicians, AGR/TARs, and active component members) within any single component.

AGR/TAR and Active Component Compensation

Should AGR/TARs and active component members receive essentially the same compensation, given the perceived differences in conditions of service between these two groups? This is the first of the two major full-time support compensation questions reviewed by the 6th QRMC. The complete analysis of the issue may be found in Chapter 3 of Volume IA of the report of the QRMC; a synopsis is provided below.

Full-time AGR (Active Guard/Reserve) members, including Navy TARs (Training and Administration of Reserves), are compensated under essentially the same pay and benefit systems as active component military members. Concern has been expressed about this situation, based on the perception that AGRs and TARs are not subject to the same rigors and hardships characteristic of service in the active military components. Most often mentioned among the hardships of the active component member are the frequent permanent change of station (PCS) moves brought about by changes in duty assignments and the family separations caused by remote overseas assignments or deployments aboard ship.

The 6th QRMC analysis entailed two major avenues of investigation: a comparison of conditions of service, and a comparison of the elements of compensation as they are paid to these two groups. The comparison of conditions of service included institutional policy and perspectives as well as perceptions of active and reserve component members about service conditions, using the results of the 1985 DoD Survey of Officer and Enlisted Personnel (active component) (1985 DoD Member Survey) and the 1986 Reserve Components Survey: Full-Time Support Officer and Enlisted Personnel (1986 RC AGR Survey). Results of the surveys are supported by available objective data in the Reserve Components Common Personnel Data System (RCCPDS). The 1986 RC AGR Survey provides the first available comprehensive reserve component data in this area; therefore, this analysis provides a new and unique perspective on the issue. The comparison of compensation elements was made to validate the hypothesis that their application is essentially identical for both groups.

Institutional Policies and Perspectives

The policies that govern conditions of service for individuals must be developed within statutory authority and congressional guidance. AGR duty assignments must be made to accomplish the reserve support functions specified in the law. National Guard members ordered to full-time duty under the provisions of title 32, United States Code, are not in federal service, and they generally serve in their home state. Guardsmen and Reservists ordered to active duty under section 672(d) of title 10, United States Code, may be detailed to other duties only for the specific purpose of periodic refresher training under the authority of section 678 of title 10; they may not be detailed to other duties simply to meet the requirements of the active component.

Within the DoD and the Services, the current, single compensation system for both groups is considered to be the only one that provides essential fairness to all members on active duty as well as the compensation needed to attract the quality of military members needed. While demands for duty overseas and at sea are recognized as being less frequent for full-time Active Guard and Reserve members, there is little or no perceived difference with respect to other aspects of service.

Comparison of Conditions of Service

Through the analysis of survey data and other supporting data, it has been possible for the first time to make across-the-board quantitative comparisons of many aspects of the conditions of service for active component members and AGR/TARs. As expected for the two most often-cited areas, frequency of moves and family separations, active component members do have the most rigorous service conditions, but the comparisons also depict a wide variation within and between components and reveal that a relatively high level of short-term separation from family is experienced by the AGR population.

Navy TARs appear very similiar to their counterparts in the active component with respect to conditions of service and satisfaction, but there are wide differences between members of other reserve components and their counterparts. When comparing officer and enlisted populations within components, the differences in conditions are often far greater than the corresponding differences between active component members and AGR/TAR members. Across the range of conditions of service, the results are mixed. Sometimes the advantage is with active members and sometimes with AGR/TAR members. The net result is a complex interaction of advantages and disadvantages within each component. Because the results are mixed, it would be especially difficult to devise a general formula to relate rigors of service to compensation rates on a rational basis.

Comparison of Compensation Elements

A systematic review of all compensation elements confirmed that compensation systems for active component members and AGR/TARs are essentially the same. However, equal application of compensation rules does not necessarily mean that compensation costs are identical for these two groups. The number of members drawing special pays, for example, was found to be higher on the active component side. Likewise, since enlistment, reenlistment, and other bonuses are paid by policy on the basis of service needs, AGR/TAR members do not currently receive such compensation even when the statutes authorize them. Finally, there are several types of allowances such as the variable housing allowance, family separation allowance, dislocation allowance, and hostile fire/imminent danger pay that are paid, all or in part, on the basis of exposure to a particular condition of service. Compensation elements that are related to conditions of service are inherently more efficient and equitable than any general remedy ever could be.

Four technical or structural differences were found in examining elements of active component and AGR/TAR compensation:

- VA Benefits for active component members and title 10 AGRs (those in federal service) differ from benefits for title 32 National Guard AGRs (those on full-time National Guard duty under state control).
- Entitlement to nondisability separation pay for regular enlisted members differs from that for AGR/TAR enlisted members.
- Entitlement to selective reenlistment bonuses authorized by Section 308 of title 37, United States Code, for regular enlisted members differs from that for AGR/TAR enlisted members.
- Educational benefit entitlements for active component members differ from those for AGR members.

Conclusions about AGR/TAR and Active Component Compensation

Although there are specific, measurable differences in conditions of service when comparing active component members and AGR/TARs, there is no rational basis for making a general corresponding adjustment in the compensation structure. Applying specific elements equally to each member on the basis of exposure to rigorous conditions appears to be an equitable and efficient approach to this issue. The compensation of active component and AGR/TAR members is essentially the same except for four technical or structural differences, two of

which should be changed: all AGRs should accrue veterans' benefits on an equal basis, and MGIB service educational benefits should be limited to the active duty program. Changes are not required in the other two areas; there is insufficient need to pay bonuses to attract AGRs at this time, and there is a continuing need for separation pay for active duty enlisted reservists.

Recommendations on AGR/TAR and Active Component Compensation

- The 6th QRMC recommends that there be no overall change in the way the compensation system structure accounts for differences in conditions of service between active component and AGR/TAR members, but that these four specific recommendations on structural and technical issues be adopted:
  - Develop remedial legislation to amend the United States Code so that members serving on full-time National Guard duty (other than for training only) have the same status, with the same consequences for title 38 purposes, as members who serve on active duty.
  - Make no change to current statutes which authorize separation pay for enlisted reservists but not for enlisted regular members. Given the existing state of AGR enlisted program management within the reserve components and the fact that enlisted members have typically left established civilian careers to serve in AGR status, the QRMC recommends that no change be made to existing legislative authority at this time.
  - Do not amend section 308 of title 37, United States Code, to authorize payment of selective reenlistment bonuses (SRBs) to TAR/AGR members until such time as a requirement for such authority can be demonstrated.
  - Amend section 2132, chapter 106 of title 10, United States Code, so that full-time active duty service as AGR members of the Selected Reserve can be credited only for use with the educational assistance program established under chapter 30 of title 38, United States Code.

Cost-Effectiveness of Military Technicians and AGRs

Are military technicians or AGRs the most cost-effective form of full-time support manpower? This is the second of the two major full-time support compensation questions reviewed by the

6th QRMC. It potentially affects the components of the Army and Air Force. The full analysis of this issue may be found in Chapters 4, 5, and 6 of Volume IA; a synopsis is provided below.

Background

During the past decade, much of the continuing controversy over full-time support for the reserve components has focused on the relative cost-effectiveness of using military technicians and AGRs to provide full-time support in the reserve components of the Army and the Air Force. If there has been a consensus about any aspect of the issue, it has been that additional full-time support is necessary to meet the increasing missions and responsibilities that have been assigned to these components. Congressional guidance has consistently stressed that a balance of cost and readiness (as a measure of effectiveness) should form the basis for decisions about the full-time support manpower force mix. However, each new budget cycle has marked another round in the debate on which category of full-time support manpower is the most cost-effective, and there have been no easy answers on either side of the equation.

The 6th QRMC analysis included a review of the historical development of the issue and an examination of prior work that has been done to measure and portray the actual compensation costs. Computer Based Systems, Inc. developed an automated cost comparison model for significant elements of military technician and AGR compensation costs as part of the study effort, and the results were used as the basis for objective comparisons in this report. Since compensation costs are intricately connected to manpower management systems, management practices for both military technicians and AGRs were reviewed. Available personnel information was examined, including manpower force structure data submitted by the Services or available in RCCPDS and other data files maintained by the Defense Manpower Data Center, results of the 1986 Reserve Components Surveys of Selected Reserve officer and enlisted personnel, and data provided in published reports or by Service points of contact. Reports prepared by elements of the Executive and Legislative Branches, such as the Congress and the General Accounting Office, were also reviewed along any with Departmental responses.

By the late 1970s, new missions and the need for increased responsiveness under the Total Force Policy had generated a basic requirement for more full-time support personnel in the reserve forces. Additional full-time active duty reservists had already been called to duty as recruiters after the 1973 transition from conscription to voluntary service in the Armed Forces; however, the need for additional support extended to the day-to-day operation of units as well. The requirement was especially great in the Army's reserve components, where

obtaining more full-time manpower to meet mission requirements was perhaps more important than whether the best choice of manpower was military technicians or full-time active duty members. Although "What kind?" has often overshadowed "How many?" in the debate over this issue, the need for growth has not been disregarded. Significant overall growth has been programmed by relative need in each component. In the four reserve components of the Army and Air Force, between 1979 and 1987, the combined strength of military technicians and AGRs grew from 66,068 to 108,377, or 63 percent. However, the increase in AGR strength during this period was 447 percent, while the increase in military technician strength was only 7 percent.

In the decade between 1968 and 1978, major concerns were raised about the cost and management of military technician programs, including concerns about the potential impact of unionization. Consequently, a series of studies and congressional actions occurred during this period, culminating in a military technician conversion test in 1978 and 1979 to determine the feasibility of recruiting full-time active duty reservists as an alternative source of manpower. After considering the results of the conversion test, the Congress originally decided to allow each component to program the full-time support mix that would best meet its own unique requirements. The Army components--and to a lesser extent the Air National Guard--planned to replace many of their military technicians with full-time active duty reservists (now known as AGRs). However, because the addition of large numbers of AGRs has not produced significant cost savings, some of the original concerns about military technicians (such as union activities) have not proven to be significant, and because of management problems with a mixed force, these plans have not been completed, and the Congress has maintained continuous restrictions in the form of technician strength floors, AGR strength ceilings, and a prohibition on converting occupied and vacant technician positions.

6th GRNC Cost Comparison Analysis of Military Technicians and AGR Members

In reviewing the historical record of full-time support personnel cost comparisons, the following precepts and general trends were identified:

- Manpower programming is based on costs to the government, not on benefit to the individual.
- To form a true picture of compensation costs, all significant immediate and deferred, direct and indirect costs must be considered.

- Because pay raises and other compensation system changes may alter relative costs, cost analyses must be updated periodically.

- The availability of accurate, integrated databases is essential to the computation of valid cost comparisons.

- Relative costs cannot be determined without establishing a linkage, such as military pay grade, as a basis of comparison. Such linkages may take the form of grade equivalency tables, service or component manpower organization classification guidance, or population averages.

- The more recent analyses show that AGRs generally cost more than general schedule military technicians but somewhat less than most wage board technicians. In addition, AGR officers are relatively more expensive than enlisted AGRs, and the relative costs of AGRs within enlisted, warrant officer, and officer categories increase with military pay grade as compared with military technicians.

6th QRMC Full-Time Support Cost Comparison Model

The 6th QRMC full-time support cost comparison model incorporates the above precepts and has produced up-to-date cost estimates reflecting compensation system changes since the last major analysis (conducted by Management Consulting & Research, Inc., published on May 24, 1985). It also advances the state of the art, where possible, using improved databases and procedures. The results provide the basis for 6th QRMC conclusions about the cost-effectiveness of military technician and AGR manpower from a reserve component compensation perspective. This model incorporates military and civilian income data for military technicians and AGRs, including data on reserve component, military and (if applicable) civilian grade, step and category, military specialty, marital status, and all elements of compensation: direct, indirect and in-kind. The basis of comparison selected for use was military grade, in view of the paramount importance of the military aspects of the functions performed. The following points summarize the model results:

- GS/GM military technicians have lower average annual costs than AGRs in most military pay grades and lower than average costs than wage board technicians in all military pay grades.

- In the military grades with the highest population strengths, wage board military technicians generally cost more than AGRs. In the more senior military grades, AGRs generally cost more than wage board military technicians.

- Costs increase more rapidly with military pay grade for AGRs than for military technicians.

- Although the three observations listed above are valid for all four reserve components, there are significant differences between these components. The difference between the average civilian grade held among military technicians at any military grade varies by as much as 3.4 civilian grade levels across the components. Air Force Reserve AGR and military technician forces cost more per capita than in other components because the AGR force consists largely of higher grade statutory tour officers and recruiters. The Air National Guard generally has the least difference between AGR and military technician costs while the Army Reserve has the greatest.

Cost Model Management Indicators

If hypothetical total program costs were the sole criterion for choice, the 6th QRMC cost comparisons (as well as the conclusion that AGRs should continue to receive essentially the same compensation as active component members) would generally support the use of general schedule military technicians over AGRs in the full-time support forces of the Army and Air Force reserve components. However, changing the force mix, either through program growth or through realignment, is not likely to produce significant savings since changes would occur only at the margin. Short-term savings are especially unlikely because members of the existing force would likely be protected from mandatory conversion of status, and few members could be expected to volunteer for any status change yielding less compensation. Because cost savings are not likely to occur, military requirements for meeting readiness objectives ought to be the governing factor in force mix decisions.

Cost Comparison Conclusions

Relative cost savings from using one form of full-time support rather than another will occur only at the margins as the result of program growth or realignment; thus, costs savings in the short term are very unlikely to result from any FTS force mix decision. Given the difficulties with compensation and other related problems of a mixed force with no clear delineation between requirements for AGR and technician positions, and given the fact that short-term costs (and probably longer term costs) will not be affected significantly by the choice of AGRs or technicians to perform full-time support, it seems apparent that

military requirements and effectiveness should be the primary consideration in force-mix decisions. This is consistent with congressional guidance indicating that the choice of manpower should not based on cost alone, but also requires consideration of "military requirements and other needs of the Department of Defense."

Full-Time Support Manpower Management

Once the costs of available forms of manpower have been determined, they must be examined in relationship to military requirements and other needs of the DoD before any determination can be made about which form of manpower is most suitable for a specific function.

To enable the 6th QRMC identify and understand the overall objectives of full-time support manpower objectives, each Service was asked to provide appropriate force structures for its reserve components. The Army and Air Force were asked to provide separate structures for military technicians and AGRs. These structures were to be based on three separate and distinct strength profiles. The first was a profile of the existing force as of September 30, 1986. The data array included strength by pay grade and years of service as in the standard RCCPDS report A8. The second was a steady-state structure for FY 1986 showing where the Service would like its reserve component(s) to be, and the third was a steady-state structure showing where the Service would like its component(s) to be heading assuming FY 1992 program strengths. The steady-state profiles were to include the basic force configuration required for the actual force, and they were to include additional flow dynamics and age distribution data as well. The 6th QRMC formed the following conclusions about the full-time support force structure profiles:

- Since the full-time support force structures produced for this review generally represent a new, single iteration effort, they should be viewed as a "first draft" rather than as a definitive statement of existing status and Service force structure objectives.

- Full-time support force structure analysis, if institutionalized, can provide a disciplined method for defining force structure objectives and requirements as a basis for improved active (as opposed to reactive) program management.

- **Efforts should be continued to improve full-time support manpower, personnel, and pay data integration so that it can be used more effectively in the analysis of manpower costs and personnel management issues.**

Friction between military technicians and AGRs in the daily work environment has existed since the inception of the AGR program. The individual problems that exist are generally attributable to the existence of two separate military personnel management systems for the performance of one set of functions. These systems are frequently seen by members as competitive rather than mutually supportive programs to the extent that some members feel a threat to their livelihood. Additionally, wherever there are differences between the two systems, they are normally a source of frustration for members in one category or the other.

According to members responding to the 1986 Reserve Components Surveys, friction continues to create tension in the Army's reserve components and in the Air National Guard. This friction manifests itself in several ways as another problematic aspect of mixing technician and AGRs in units. The compensation system has a direct impact in creating two sources of this friction. The first is pay inversion that occurs when a supervisor (typically a general schedule military technician) earns less pay than a direct subordinate (typically an AGR). The second is grade inversion that occurs when the level of responsibility, even supervisory relationship, may be reversed between daily work status and unit training when military technicians switch between their civilian and military position/status. There are other sources of friction: for example, active duty rules for duty hours differ from civil service rules, and promotion rules and opportunities differ. The result has been allegations of "politics" and favoritism on both sides by members of these two groups. This friction, much of which centers on compensation or compensation-related matters, tends to work against organizational effectiveness. It demonstrates that employing military technicians and AGRs in the same working environment in mobilizing units is not sound personnel management practice. Such practice specifically disrupts the very efficiency and organizational cohesiveness that compensation systems, grade structure, and other personnel management mechanisms are designed to promote. Although management can ameliorate some problems, it cannot eliminate the structural differences that are a root cause of friction between the two groups.

After examining the Army's reserve components full-time manning program in 1985, the General Accounting Office concluded that mixing technicians and AGR personnel in deployable troop units is not organizationally sound and detracts from effectiveness. A primary reason cited by the GAO was

compensation variances and perceived inequities between the two groups. The Department of the Army and the Department of Defense agreed with this conclusion and indicated to the Congress that they would implement a program to reduce such mixing, if necessary authority were granted. Congressional approval necessary to implement such a program has not been forthcoming.

Conclusions about Full-Time Support Manpower Management

Although the separation of military technician and AGR forces in mobilizing units is highly desirable from a compensation perspective, the means of achieving such separation is an equally important consideration. Plans to achieve separation should focus on improving combat readiness in a cost-effective manner as the fundamental objective. In achieving this objective, the QRMC analysis indicates that the following key points should be addressed:

- Mixed forces should be aligned to separate AGRS and technicians in their daily work environment or provide clear and separate career patterns. Any program of change should pay particular attention to existing commitments to and expectations of current members.

- The separation should not be based on the performance of "peacetime" and "wartime" functions. With few exceptions, both military technicians and AGRs should perform functions, applicable to both peace and war, that require individuals on a full-time basis for the efficient and effective accomplishment of mission objectives. Peacetime-only functions generally do not require a military status.

- Separation of the AGR and military technician full-time forces would be facilitated by clearer conceptual standards for delineating the difference between military technicians and AGRs. These cannot be formulated in absolute terms, but guidelines could be developed based on Service functional requirements and the characteristics of each force. Clearer role definitions, in addition to contributing to the development of cost-effective force mixes, would assist in allaying some of the animosity and counterproductive competition that exists between these two groups.

- Increased emphasis should be placed on the compatibility of military and civilian grade and position for military technicians. Associated with

each military technician position should be a specific range of military grade and skill within limits specified by the Service.

- Finally, opportunities for support system modernization should be sought in conjunction with force realignment. Obsolete systems and procedures employed in the support of reserve units are one of the major causes of data problems noted throughout this review. During the 6th QRMC unit visit program, full-time support personnel were observed to be overburdened with administrative work, much of which is no longer performed at the unit level in the active components. This obsolescence may also limit wartime capability. The full-time force should be organized in peacetime to provide support through the same up-to-date systems required to support their units in combat.

Chapter 4. BASIC PAY AND RELATED ISSUES

This chapter reviews basic pay for members of the National Guard and Reserve. For the purpose of the 6th QRMC review, compensation for inactive duty training (IDT) is included in the discussion of basic pay issues. Compensation for IDT, although technically not basic pay, is directly linked to basic pay. A detailed discussion of this linkage and its effects is provided in Volume II of the QRMC report. This chapter reviews several issues dealing specifically with or generally related to basic pay. These issues are the years of service in the reserve that are creditable in the computation of basic pay for military members (longevity credit), the computation of the travel time that is creditable for pay when a reservist is ordered to or from active duty, restrictions on dual compensation from reserve service and veterans' benefits, and deficiencies in the timeliness and accuracy of reserve pay. The use of the commissary by reserve members and their dependents is also addressed in this chapter.

Basic Pay in the Reserve Setting

Basic pay is the principal element of military compensation. With limited exceptions, all members on active duty receive basic pay. Retired pay for both regular and reserve members and compensation for inactive duty training performed by National Guard and Reserve personnel are directly linked to basic pay. The amount of basic pay to which a member is entitled is determined by the member's pay grade and length of creditable service.

The linkage of basic pay to compensation for IDT is set out at section 206(a) of title 37, United States Code. Reservists are entitled to compensation, at the rate of one-thirtieth of the basic pay authorized for a member of corresponding grade and length of service, when they perform IDT. Under the law, such training periods must be at least two hours in duration. By regulation, the DoD has extended this minimum requirement to four hours.

Significantly, the entitlement to compensation for IDT that is established in section 206(a) of title 37, is specifically subject to the availability of appropriations. This tracks to the provisions of section 683 of title 10, United States Code, which provides that reservists may be ordered to active duty or other duty either with the pay and allowances provided by law

or, with their consent, without pay. The source of section 683 is section 240 of the Armed Forces Reserve Act of 1952. That 1952 Act simply restated several longstanding provisions of law affecting compensation for duty performed by reservists. The intent was that duty without pay would be counted for all purposes in the same manner as duty with pay. This was to avoid administrative interpretations that duties performed without pay do not equally count for retirement and other benefits. Transportation and other allowances may also be provided for duty that a reservist consents to perform without pay.[1]

For a typical reservist (in pay grade E4 with over 4 years of creditable service, married and not receiving bonus payments), 90 percent of annual compensation from reserve service is basic pay or compensation for IDT which equates to basic pay. There is no evidence, however, that potential effects on part-time reserve members have ever been considered during the process of determining pay increases or when allocating of such increases among basic pay and other elements of compensation.

Under section 1009 of title 37, United States Code, whenever the base salary for federal civilian employees is adjusted upward, the President must make an upward adjustment in basic pay, basic allowance for quarters, and basic allowance for subsistence for members of the uniformed services. This adjustment, effective the same date as the adjustment in civilian base salary, must provide military members with an increase in each of these pays, an increase of the same percentage as the overall average percentage increase authorized for civilian employees.

The same section of the law authorizes the President to allocate the overall average increase, on an other than equal percentage basis, among these three cash elements. The President may reallocate in two ways:

- Percentage increases can be applied differentially to the elements of basic pay, BAQ, and BAS.
- Percentage increases in basic pay can be applied differentially to categories based on pay grade and years-of-service categories.

However, the increase in basic pay for any given pay grade and years-of-service category, after either or both reallocations, must be at least 75 percent of the basic pay increase that would have resulted from equal percentage increases to each element.

The reallocation authority has been used sparingly. Twice, in October of both 1976 and 1977, the President used his authority to reallocate part of the basic pay increase into the quarters allowance, but the pay grade and years-of-service provision has

never been used. The Uniformed Services Pay Act of 1981 provided for differential basic pay increases, but they were not made under section 1009 of title 37, United States Code.

In practice, the pay adjustment mechanism of section 1009 has frequently been bypassed by the annual National Defense Authorization Acts, and the reallocation authority has had limited usage. In a review of reserve compensation, the allocation of pay among these three elements of compensation is relevant, not because of its effects on the tax advantage and on the retired pay base, but because of the less obvious effect on reserve component members.

As noted above, for most reservists, basic pay or compensation linked to basic pay represents the bulk of their military compensation. Therefore, a greater allocation of any pay increase to allowances means that pay raises and the base for future increases are relatively lower for reserve members than for members on full-time duty. In the past, the impact on the reserve components of allocating pay increases among basic pay, BAQ, and BAS may have been overlooked; however, in keeping with Total Force policy, an evaluation of the effect on reserve compensation should be considered whenever differential allocation is contemplated.

For a great many of the specific reserve compensation issues analyzed by the 6th QRMC, there was evidence that the development of new compensation programs and the revision of elements of compensation for the uniformed services was undertaken without an assessment of whether and under what circumstances such compensation should be provided to reservists. The potential impact of new or revised compensation elements on reservists and on their compensation has often been overlooked. These shortcomings must be remedied in the interest of an effective Total Force compensation program.

- **The 6th QRMC recommends that formal procedures be established within the Departments of Defense and Transportation to ensure that the assessment of reserve component costs and benefits is evaluated as part of any proposal to revise military compensation.**

Longevity Credit

Background: The issue of the crediting of reserve component service when computing the basic pay of a member of a uniformed service (longevity pay) provides a recent example of a statutory revision that was made without a complete review of its effects on National Guard and Reserve programs and members.

The Career Compensation Act of 1949 established the system of basic pay and allowances in effect today. Under this system, the basic pay to which any member is entitled is determined by pay grade and length of service. Length of service is calculated under statutory provisions set out in section 205 of title 37, United States Code. Until 1985, length of service or "longevity" credit was provided for all enlisted service in a reserve component. Section 607(b) of the Department of Defense Authorization Act, 1985 (Public Law 98-525), amended title 37 to preclude longevity credit for time spent in a reserve component if that time was spent under an enlistment under section 511 of title 10, United States Code, prior to the member's actual entry on active duty.

The intent of the amendment, which applied to persons enlisted after December 31, 1984, was to preclude longevity credit for time spent in a Delayed Enlistment Program (DEP) of an armed force. The DEP is a Service-created program, in which an individual with no prior military service is enlisted in a reserve component of an armed force, pending later enlistment in the regular component of that armed force. The DEP was begun by the Marine Corps in 1963, and is now used by all Services. The DEP is an important recruiting and force management tool; first, to obtain a commitment from a person evidencing interest in becoming a member of an armed force and, second, to facilitate orderly scheduling of training for individuals recruited.

Under the DEP as implemented by the armed forces, persons recruited into the DEP are enlisted in the reserve component of the armed force for a period of up to one year; when they are later called to active service, they are discharged from the reserve component and immediately enlisted in the regular component of the armed force. While in the DEP, members are controlled by the recruiting command of the armed force, have no formal reserve status, duties, or obligations and are not counted in reserve manpower strengths. On reporting to active duty, members are enlisted in a regular component for a normal enlistment period.

Although the armed forces have relied on section 511 of title 10, United States Code, as authority for the development and implementation of the DEP, there is uncertainty as to whether this statute effectively authorizes the DEP. Because DEP members are not counted in reserve force strengths and are not required to perform further regular or reserve service if they elect not to enter on active duty, there is also concern over whether or not members of the DEP could be mobilized in a national emergency. The Services maintain that DEP members are subject to mobilization under section 672(a) of title 10, United States Code, because they are receiving credit toward fulfillment of their military service obligation during the time they spend in the DEP. The lack of personnel accounting

procedures and clear reserve status (they are not assigned to a training pay category as required by law for all reservists) makes the practical enforcement of such a mobilization order conjectural.

CBO Review: The 1985 legislation that terminated longevity credit for enlistment in a reserve component prior to entry on active duty was initiated in the Senate Armed Services Committee. The Committee report indicates that the rationale for the change was that granting longevity credit for the "nonproductive time spent in the DEP," where "the enlistee performs no military duties but is merely awaiting orders to report for initial training or active duty," resulted in substantial costs, but had "little, if any, positive effect on recruiting."[2]

The legislation implementing this objective, however, was technically flawed. First, while members in the DEP are enlisted in the reserves under section 511, they do not enter active duty under the provisions of section 511. Second, an unintended potential effect of the amendment as written was to deny credit also for time spent in the Delayed Entry Training (DET) program of the reserve components.

The DET program is similar to the DEP; it is used by the reserve components to enlist individuals into a reserve component and to accomplish unit training while the new enlistee is awaiting initial active duty for training (IADT). Members entering the DET program are enlisted under either section 511(a) or 511(d) of title 10, United States Code, which specifically authorize such enlistment. As is true of the DEP, the DET program is used as a recruiting and force management tool. Under the DET, however, the member is accessed into the reserve component and counted in reserve strengths. The member is under the control of the reserve component commander and, depending upon service policy, may attend drills.

The DEP and DET are used as recruiting tools and as personnel management tools to plan and schedule classes and use critical resources. Both programs enlist members into a reserve component, the DEP into a resource pool and the DET into a component billet. The Office of General Counsel has advised that specific legislative authority for the DEP should be sought, because 511(a) does not specifically allow for the enlistment of members into the DEP.

Although the authority of section 511 may not provide clear authorization for DEP enlistments, it does provide authority for the DET. With respect to the period after enlistment in the reserve and prior to IADT, it is important to remember that there has never been a blanket requirement in law that enlistees into the reserve with no prior service must perform IADT. An

IADT requirement did not become standard practice until the late 1950s. A variety of special reserve enlistment programs were authorized during this period, most of which provided some form of draft deferment. In 1963, a new subsection (d) was added to section 511, which provided that individuals under 26 years of age without prior service and qualified for induction could be enlisted for a term of six years of Ready Reserve service, which included an IADT period of at least four months. In 1967, the Reserve Forces Bill of Rights and Vitalization Act added a requirement that this initial period commence within 180 days after enlistment. In 1982, this was extended to 270 days. Some Services cite section 511(d) as authority for all such reserve enlistments. The practical effect of using section 511(d) is to limit time in the DET to 270 days.

The important point of this historical background is that reserve enlistees into the National Guard and the Reserve components of the Army and Air Force have always been required to commence training on enlistment. It has only been in the last 30 years that all enlistees into the National Guard who had no prior service were required by policy to attend IADT. Unlike the DEP, members of the DET are in a training category and may be required to train.

The unintended effect of the 1984 legislation was avoided in the immediate circumstance but a permanent resolution remains necessary. After contact with staff of the Armed Service Committees, the Deputy Assistant Secretary of Defense for Military Personnel and Force Management promulgated a policy memorandum to clarify the intent of the new section 607(b). This memorandum states that the "House and Senate Armed Services Committees (advised) that it was not the intent of Congress to deny credit in computing basic pay to members of the Reserve Components for time served in the Reserve component prior to initial active duty for training." The memorandum further states that, as a matter of personnel policy, this legislation (Public Law 98-525) refers only to those entering the regular component DEP. The DoD Office of General Counsel concurred in this memorandum on the premise that prompt action would be initiated, amending the wording of the statute to reflect the intended meaning. To date, these changes have not been enacted.

Because of the apparent disparity between the language and the intent of the statutory provisions concerning longevity pay, and because the criterion for denying longevity credit to those in the DEP (no military duties or productive work) does not apply to most members of the DET, the 6th QRMC concludes that legislation should be enacted to provide longevity credit for pay purposes, provided the member is authorized or required to train prior to IADT. Not all members enlisted into the DET have

a training requirement, however. The QRMC concludes that a DET member not authorized to attend drills or training prior to IADT should not receive longevity credit.

As discussed previously, the QRMC noted several deficiencies in statutory provisions pertaining to the DEP. Clear authority for the DEP and to order a member in the DEP to active duty during mobilization is not provided in statute, and amending legislation is required.

- The 6th QRMC recommends the following:
  - A proposal be developed to amend title 10, United States Code, to authorize the enlistment of persons in the reserve components of the armed forces for later enlistment, under a Delayed Entry Program, into regular components of the armed forces.
  - A proposal be developed to amend title 37, United States Code, to specify that, for the purposes of computing basic pay entitlements of persons enlisted under such Delayed Entry Program and under the existing Delayed Entry Training program, except when a member is required or permitted to participate in inactive duty training or active duty for training before beginning service on active duty or beginning an initial period of active duty for training, service prior to entry on active duty or active duty for training may not be counted.

The 6th QRMC staff estimates that enactment of the above recommendation will result in a reduction of approximately one million dollars annually in the budgets of the reserve components.

Reserve Pay Administration

Background: The issue of timeliness of pay surfaced to the 6th QRMC in several ways. First, this issue was frequently raised during the QRMC staff's visits to National Guard and Reserve units. During these visits, members frequently commented on problems with timeliness of pay. New members experienced this problem for pay earned upon initially joining a reserve unit, and other members had problems in receiving pay for short periods (30 days or less) of active duty for training that did not coincide with the unit's annual training period. Second, the issue was raised in written comments furnished by members and their spouses who participated in the 1986 Reserve Components Surveys, who frequently mentioned problems with the timeliness and accuracy of reserve pay. The written comments received from members and spouses echoed and expanded on the experiences related to the QRMC staff during the unit visit program. Written comments from members and their spouses

frequently made mention of the need for timely pay to meet family commitments and a desire for more dependable paychecks. A representative sample of these comments is included as Appendix A to this volume (pages A2 - A26).

During the course of the QRMC review, the Senate Armed Services Committee report on the National Defense Authorization Act for Fiscal Years 1988 and 1989 indicated that the Committee had received reports of significant problems with respect to the timeliness and accuracy of pay for members of the Naval Reserve. According to the Committee report, "these problems appear to be particularly severe for new members, including those transferring from active units, and for members receiving special and incentive pays or performing additional training."[3]

QRMC Review: All the Services use automated systems to compute and issue pay to reserve component members. These systems are designed to provide both timely and correct pay to members. Shown below are the average times between duty performance and issue of pay as reported by the Services:

Table 4-1. Average Number of Elapsed Days Between Completion of Duty and Receipt of Pay

Comp	Enlistee's 1st Drill*	Member for Drill*	Member for Annl Tng**	Member for Spec Tng**
ARNG	30-60 days	21-45 days	0-14 days	0-14 days
USAR	45-75 days	21-45 days	0-15 days	0-15 days
USNR	45-60 days	7-21 days	0 days	0-30 days
USMCR	10-20 days	10-20 days	0-14 days	0-40 days
ANG	12-15 days	12-15 days	0-15 days	12-15 days
USAFR	12-15 days	12-15 days	0-15 days	12-15 days
USCGR	30-90 days	15-30 days	0-21 days	0-21 days

* Computed as the number of elapsed days after Sunday of a 4-IDT period weekend until receipt of pay.

** Computed as the number of elapsed days after completion of annual training or special training (less than 30 days) until receipt of final pay.

Although these averages indicate that pay is typically provided in a relatively timely manner, the comments of members indicate significant deviations from the objective. It is clear problems that do occur can result in lengthy delays in receipt of pay. As the averages also show, none of the Services provides immediate pay upon completion of IDT (drills). For members who depend on this pay to meet family financial

obligations, a 15- to 30-day delay in receiving pay can be more than a serious irritant. In their civilian employment, most members are accustomed to receiving pay on a weekly or biweekly basis for the work period immediately ended. Similar pay systems are used for paying members of the active uniformed services and federal government employees. Thus it is easy to understand member and spouse complaints concerning pay delays, even though the delays may only be of two to three weeks and are the normal time interval for all other reservists. The majority of reservists received no civilian pay while performing their annual training. In the case of junior enlisted members, three out of four receive only their military pay while performing annual training. Many of these members are dependent on a weekly or biweekly paycheck to make ends meet. If pay for annual training is not provided immediately at the completion of such training, many experience hardship.

All reserve component pay programs are dependent upon the entry of certain member data, such as social security account number, pay grade, pay date, tax withholding information, etc., into their personnel and/or pay systems. Additionally, duty performed must be documented, and this information must be entered into the pay system before pay is computed and issued. From the comments of reservists, it appears that the lack of timely entry and transmission of data generates a number of the problems associated with pay delays. For instance, during the unit visits the members and commander of an Army Reserve unit complained that at least three to four months elapsed before new enlistees received their first paycheck. A member of a Naval Reserve unit stated, "I've been established with the (Unit designation) since September 12, '86. I have not missed a single drill and have yet to hear of any form of compensation. I have not been paid!" This comment was recorded on April 11, 1987. Officers of a Marine Corps reserve unit said that the pay system was so complicated that full-time support personnel spent 50 percent of their time on pay administration. Similar comments were received from Air Force and Coast Guard reserve members.

The effect of pay on the morale of reservists can be traced back to the time General George Washington commanded the Continental Army. General Washington, in an April 22, 1776, letter to the President of the Continental Congress, wrote: "The Militia which on my application were ordered to this place to keep possession until I should arrive with the Continental Troops, were obliged to return home without their pay, as there was not then Money sufficient in the Treasury for that purpose, and to answer the Exigencies of the Army; this occasioned great uneasiness among them and may be attended with very bad consequences, in case we should have occasion for their service on any future emergency."[4]

Although there have been studies of reserve members' attitudes concerning the amount of pay they receive, there has been no definitive research on members' attitudes concerning the timeliness of pay. Members' comments, described earlier, and recent initiatives by the Services to improve their reserve pay systems, suggest this is an area that can be improved. Improvements are in fact now being implemented in most of the Services. Some examples of such improvements are implementation of direct deposit to members' bank accounts by most services and the Naval Reserve's transition to twice-monthly issue of pay. Follow-up on the Senate Armed Services Committee's report indicates that the problems noted were not new. Their existence and significance was well recognized and had been the subject of several Naval Audit Service and GAO reports. The Naval Reserve has embarked on a three-year program to enhance the verification of drill performance through a new online Reserve Source Data System (RSDS). The primary concern at this point is how soon these improvements will be implemented. A similar system already exists for the Air National Guard and Air Force Reserve. The Army National Guard and Army Reserve are investigating the possibility of issuing pay twice monthly for reservists as a means of improving timeliness of pay.

The efforts of the Services to improve their pay systems is a significant beginning to improving the timeliness of pay to members. Along with these efforts, however, must be measures to ensure the timely accession of members into associated personnel systems and enhancements to the reporting of duty performance. The Naval Reserve's new RSDS is progressing in this direction, recognizing that all these factors are critical to providing timely pay. Only through the enhancement of all aspects of the reporting, personnel, and pay systems can individual reservists rely on dependable and timely pay.

The QRMC concludes that timeliness of pay is an issue of great concern to a number of reserve component members and spouses and that, although improvements are planned or in progress, significant problems remain. This issue is of utmost importance to retention. Comments about lengthy delays in initially receiving pay and the dependence on that pay to meet monthly family obligations are characteristic of member and spouse concerns. None of the Services pays members immediately upon completion of IDT. Instead, paychecks are normally mailed to members within 15 to 30 days. For new enlistees who must also be accessed into the personnel and pay systems, delays between 30 and 75 days often occur. Although pay for periods of active duty for training is somewhat more timely, delays of 14 to 40 days are sometimes experienced. There has been no definitive research on the way timeliness of pay affects members' morale or retention, but comments received during unit visits and from the 1986 Reserve Components Surveys indicate that delays in pay can be an extreme irritant. All Services should continue to seek

methods to reduce the time interval between members' performance of duty and their receipt of pay for that duty, and methods to reduce errors must be sought. In this endeavor, not just the pay system, but the accession of members to associated personnel systems and improvements to duty performance reporting must be considered. An ancillary concern is the ability of the reserve pay systems to respond to mobilization needs and integrate mobilized reservists into active pay systems quickly and efficiently.

- **The 6th QRMC recommends that a systematic audit of the timeliness of reserve pay in all DoD components be conducted by the Defense Audit Agency at the earliest practical date consistent with their audit program.**

Pay Entitlement for Reservists' Travel Time

Reservists called to active duty are entitled to pay and allowances for the allowable travel time going to and from active duty. This is a pay entitlement, set out in the DoD Military Pay and Allowances Entitlement Manual (DODPM). It is separate from any travel entitlement based on the Joint Federal Travel Regulations (JFTR). Executive Order 10153 deals with the computation of compensable travel time; Executive Order 10649 is an amendment.

Under the DODPM, compensable time is uniformly determined for travel to and from active duty tours of 30 days or less. However, reservists ordered to active duty for more than 30 days receive differing treatment when allowable time is computed. Under the existing Executive Orders, specifically section 1 of Executive Order 10649, travel time to the active duty location included as active duty is based on one of the following:

- For public transportation, actual and necessary schedules that most nearly coincide with the possible time of departure and arrival by the mode of transportation actually used.

- For private conveyance, public surface transportation time. If the private conveyance is specifically authorized, the travel time computed as active duty is calculated based on a rate of 350 miles travel per day.

Compensable time for travel from the last duty station to home under section 2 of the same order is based on "public surface transportation, without regard to the actual performance of such travel," unless private conveyance is authorized and used, in which case 350 miles per day is the basis. The Executive Order

also stipulates that travel by private conveyance will not be specifically authorized if the active duty orders specify a period of less than 90 days.

Because it was promulgated in 1955, a time when air travel was not the readily accepted mode, Executive Order No. 10649, in amending Executive Order 10153, specifically uses the term "public surface transportation." Although air travel has long since become well established, the outdated public surface transportation provisions of the Executive Order remain in effect. It appears that, in practice, calculations to determine the pay entitlement have been based on the JFTR rather than the DODMP. The JFTR provides that per diem and travel payments are based on the lesser of actual or constructive travel time. Clearly, however, the JFTR and DODPM must be consistent: a revision to the Executive Order is warranted.

- The 6th QRMC recommends that Executive Order 10153, as amended, be further amended to update and standardize computation of travel time for the purpose of pay and entitlement. Specifically, the Executive Order should specify that the lesser of actual or constructive travel time be used in the computation of allowable time. In addition, the restriction that limits specific authorization of private conveyance to active duty periods of 90 days or more should be removed from the Executive Order. This would eliminate any possible inconsistency in the calculation of compensable time for travel reimbursement. The current inconsistency has a potential for overpaying some reserve component members for TDY travel.

Dual Compensation

Background: Section 684 of title 10, United States Code, provides that reservists who are entitled to Veterans' Administration (VA) compensation may elect to receive, for their reserve duty, either the VA compensation benefits or the reserve pay, if they specifically waive VA compensation.

Section 3104 of title 38, United States Code, covers the prohibition against duplication of benefits or dual compensation, other than insurance, for any period that active service pay is received. This section requires the elimination of dual compensation by ensuring that not more than one award of pension, compensation, active service pay, regular or reserve retirement pay will be made concurrently to any person based on their military service.

Of the reserve component members who are paid for their reserve duty, some members (1.28 percent of the Selected Reserve in Fiscal Year 1986) also qualify for and receive VA compensation for disabilities incurred during prior active service. VA compensation for a 10 percent disability is $2.17 per day, and a 20 percent disability pays $4.27 per day. Veterans with ratings of 30 percent or more are entitled to additional allowances for dependents. An individual in pay grade E4 with over 4 years service currently earns $32.69 per day or drill period. Therefore, it would almost always be to the reservist/veteran's benefit to waive VA compensation.

Reservists may waive their VA pension, compensation, or retired pay for periods of training, instruction, other duty, or drills. A waiver may include anticipated or forecasted periods, and the VA disability compensation may be withheld based on that estimate. However, the member is entitled to a reimbursement from the VA if the estimated or forecasted number of days that the VA compensation is withheld exceeds the actual number of days of military pay that the reserve member receives.

The Defense Audit Service reported in June 1980 that about 80 percent of the active reservists who received VA compensation payments in Fiscal Year 1979 either were not requested to execute a waiver, or erroneously stated that VA compensation was not received. As a result of that report, DoD has annually matched computer tapes of reservists in a pay status with tapes of VA compensation recipients to identify the reservists required to submit waivers.

In 1982 over 70 percent of the 16,442 reservists entitled to VA benefits belonged to either the Army Guard or the Army Reserve. Of those members, the Army Finance & Accounting Center stated that more than 99 percent prefer to waive the VA benefits in order to receive their reserve pay entitlements. The Army recommended that action be initiated to change the current law and allow for a default waiver of VA disability compensation in lieu of military compensation. The Army recommendation was proposed because current statistics indicate that most reservists receive a greater financial benefit from their military compensation than from VA benefits.

The General Accounting Office (GAO) reported in November 1983 that VA compensation of $2.2 million had not been waived for about 65 percent of the paid reservists identified by DoD in July 1982. They also stated that the average reservist waives VA disability compensation of approximately $3.23 per day/drill for 63 days/drills per year. The GAO review of VA records revealed that compensation was not being correctly withheld when waivers were submitted. Poorly designed waiver forms caused

confusion and errors for both reservists and the VA staff. Additionally, VA personnel filed waivers without taking any action.

A Memorandum of Understanding (MOU) was initiated in the spring of 1984 between the Veterans' Administration, the Department of Defense, and the Department of Transportation. The MOU established an agreement for periodic data exchanges between the VA and DMDC to identify reservists in receipt of VA compensation payments. The December 1983 Reserve Components Common Personnel Data System tape and the December 1983 VA reconciliation tape were matched in June 1984 to determine the Selected Reserve members who were receiving VA disability benefits. As a result of this match, a total of 16,505 records of Selected Reserve members so identified was provided to VA in July 1984. In Fiscal Year 1985, 15,528 reservists were identified, with 7,628 not returning the waiver form. The Fiscal Year 1986 tape identified 14,909 Selected Reserve members as receiving VA disability benefits, and 9,121 waivers recorded as not received by VA. An analysis of the data by DMDC regarding the lower waiver return rate (37 percent for Fiscal Year 1986 compared with 51.5 percent for Fiscal Year 1985) resulted in a random sample of records being returned to VA for verification. The VA confirmed that analysis of the sample records resulted in their finding "a bug in the program to update their records." As of February 1987 there were still some VA data problems in existence; however, a "one-time" waiver form, developed by VA with DoD comments incorporated, is in the approval process and should eliminate some of the VA data recording problems.

On March 31, 1987, the Office of the Assistant Secretary of Defense, Reserve Affairs (OASD/RA), provided the following information to the Deputy Assistant Secretary for Reserve Affairs of each Military Department and the Chief, Office of Readiness & Reserve, United States Coast Guard:

> The DoD, Inspector General (IG) reported in 1983 that some members of the Selected Reserve are receiving VA disability payments in addition to their reserve pay. Individuals are not of course entitled to this dual federal compensation for identical time periods.
>
> Currently, the Veterans Administration is responsible for identifying these members and the Department is responsible for taking corrective action. It is our view that current procedures are not working and changes must be made.

In May 1987 the Inter-Service Financial Improvement Program (IFIP) with representatives from the Veterans' Administration, the Office of the Secretary of Defense, the Defense Manpower Data Center (DMDC) and each of the Service finance centers met

at the Air Force Accounting & Finance Center. They were tasked with outlining a plan stating how a VA-developed one-time submission waiver form will be processed. Implementation of this plan should improve procedures, but it will remain a complex operation.

Conclusion and Recommendations: Currently, the Veterans' Administration is responsible for identifying members and the DoD is responsible for taking corrective action. This means the DoD must stop payment of reserve pay entitlements if and when notified by VA. This split responsibility has not been effective. If the military pay (normally the larger sum) were the default entitlement, the split responsibility would be eliminated, and the VA could withhold VA disability benefits unless the member were to file a military compensation waiver through the VA.

Additionally, if action were initiated to change the current law, so that military pay becomes the default entitlement, then the IFIP plan mentioned above would be sufficient to provide the following: prevent dual compensation, provide appropriate checks and balances, improve recoupment of funds, and ensure recoupment into the proper appropriation. The workload would be negligibly increased for the VA and substantially decreased for each component within the DoD.

- The 6th QRMC recommends that section 684 of title 10, United States Code, be amended to provide that reservists may elect to receive for their duty either of the following:
  - The pay and allowances authorized by law for the duty they perform
  - If they specifically waive those payments, the payments to which they are entitled because of their earlier military service (VA disability compensation)

The result of such legislative action would be that, when a waiver is filed, the VA would withhold the required amount of compensation, based either on forecasted days or on the DoD tape of actual military pay. If a waiver is not filed, the VA could suspend disability compensation, thereby preventing dual compensation. This change would provide appropriate checks and balances, improved recoupment of funds, and recoupment into the proper appropriation, with a negligible increase in workload for the VA and a substantial decrease in workload for each component within the DoD. Additionally, this change would enable the VA to recoup prior years' payments for persons who may have "dropped out" of the reserve program, but did in fact draw dual compensation at some point in time. Section 3104 of title 38,

which covers the prohibition against duplication of benefits other than insurance for any period that active service pay is received, should remain unchanged.

Commissary Privileges

Background: Military commissaries were established by the Appropriations Act of 1866. Until 1949, each service made its own determinations concerning who was authorized to use its respective commissaries, thus commissary entitlement for reserve members varied by Service. As a result of hearings before the House Armed Services Committee in 1949, the Services adopted a joint commissary policy and regulation. With respect to reserve members, commissary use was tied to receipt of basic pay, and the new policy provided commissary privileges for those serving on active duty or active duty for training for periods in excess of 72 hours. Until recently, with only slight modification to provide commissary privileges to reservists who performed all required annual training in periods of less than 72 hours, this remained the policy.

The Department of Defense Authorization Act, 1984, directed the DoD to conduct a one-year test of expanded commissary shopping privileges for reserve component members. This test began in January 1984 and was extended until October 1, 1985. It allowed reserve members in three regional areas to use the commissary, at their convenience, one time for each day of active duty for training performed, but not to exceed 14 visits. The DoD report to Congress on this test indicated that by the end of the test period, as many as 28 percent of eligible members used the commissary privilege, resulting in a 4 percent increase in store sales.

The following information resulted from demographic data collected during the test:

Reserve members in the intermediate pay grades (E4-E7 and O2-O4) were more likely to use the commissary.

The families of National Guard and Reserve members participated in over 70 percent of the commissary visits made during the test. For many, it may have been their first opportunity to experience a tangible community related benefit of reserve service.

Guard and Reserve members and their families spent $108 on an average visit. The average varied, depending on who was doing the shopping. Members shopping alone spent $84 per visit; when accompanied by their families they spent an average of $123. The day of the week or the distance traveled to the commissary did not significantly affect the amount spent per visit.

About one-third of the visits were made on Saturdays. The remaining visits were fairly evenly distributed throughout the remaining days of the week.

National Guard and Reserve families that live more than 50 miles from a commissary are far less likely to use the commissary. While half of all Selected Reservists live more than 46 miles from a commissary, only 10 percent of the reserve shoppers in the test came from a distance of more than 50 miles. Twenty-five percent of the Selected Reserve population lives more than 100 miles from the nearest commissary, and only 2 percent of the test participants travelled this far.

When the 1986 Reserve Components Surveys were fielded, the test had been discontinued and the prior procedures for use of the commissary were reinstated. A survey question requested the respondents to indicate their level of satisfaction or dissatisfaction with several features of the Guard and Reserve. Dissatisfaction with commissary privileges was much more widespread than any other dissatisfaction. Thirty-seven percent of spouses, 41 percent of enlisted members and 51 percent of officers indicated that they were dissatisfied or very dissatisfied with commissary privileges. Written comments expressing dismay that the commissary test had been halted with no improved privileges forthcoming were among the most frequent provided by respondents.

The National Defense Authorization Act for Fiscal Year 1987 added a new section 1052 to title 10, United States Code, in response to these concerns, providing expanded reserve commissary privileges along the lines that had been authorized for the test. The new authority allows reservists to use an entitlement to the commissary, based on performance of active duty for training, at any time during the following year. A maximum limit of 14 visits per year is imposed.

DoD Directive 1330.17, Military Commissaries, was amended to implement the new privileges for reserve members effective March 30, 1987. The new policies and procedures for reserve member and dependent use of the commissary privilege provide the following:

The member will gain admission to the commissary by presenting his/her reserve components ID card and end of year Leave and Earnings Statement (LES) or other appropriate document as established by the respective services (the term LES will be used to refer to both the actual LES or any other document used in place of the LES.) The LES will be prepared from active duty for training (ADT) data as of December 31 of the preceding calendar year. It will show

how many days of ADT were performed during that year. Dependents will gain admission to the commissary by presenting the LES and a photo ID, such as a drivers' license.

QRMC Analysis: After reviewing the law and the DoD Directive, the QRMC found several actual and potential problems for reserve members using their commissary privileges. Several of these problems are caused by imprecise language in the law. Others result from the implementation procedures. These problems include the following:

- Annualized entitlement and identification difficulties
  - The authorizing legislation reads, in part, "...authorize the member to have one year from the date on which the member performs active duty for training to use a day of eligibility...." The DoD implementation did not strictly follow this provision. Instead, procedures provided that commissary privileges could be used at any time during the full calendar year following the year in which the qualifying ADT was performed. The practical consequence of this procedure was that some reservists had to wait nearly a year to use earned benefits, while others potentially had a commissary privilege for some time after they stopped active reserve participation. The former is of particular concern with respect to new members.
  - New members did not have any commissary privileges during the calendar year in which they entered a reserve component because they did not have a LES from the prior year.
  - The practical problems are significant, i.e. providing a method of identification that could be issued in a timely manner without excessive administrative workload; providing standard identification for all components; and providing identification that would be effective in precluding use by unauthorized persons. In response to problems in the field, the Principal Deputy Assistant Secretary of Defense (Force Management and Personnel) asked the QRMC to review reserve component commissary identification procedures and provide recommendations.
- Benefit reduction
  - Under the new law, commissary privileges are limited to 14 days annually. Previously, members were granted unlimited use of the commissary any time they were on ADT for a period in excess of 72 consecutive hours. A member performing more than 14 days of ADT could have earned more than 14 visits to the commissary under the

prior procedures law. This is a particular problem with respect to members, such as those who are part of the air defense alert crews of the Air National Guard, who perform a significant number of short tours of 4 to 30 days duration each year.

- The DoD authorized the new commissary privileges only for members of the Selected Reserve. This comports with the legislative history of the 1986 law but not with the clear language of the law; it creates a problem with respect to benefits for the Individual Ready Reserve (IRR) member performing ADT. Most members of the IRR who may have performed ADT prior to their transfer to an inactive status do not receive commissary privileges if transferred prior to receiving an LES. Also, many members of the IRR perform ADT, and under the initial DoD policy, do not receive commissary privileges. These limitations appear to be more restrictive than Congress intended.

Conclusion and Recommendations: The QRMC concludes that the expanded commissary privileges implemented in 1987 for members of the National Guard and Reserve are a much more effective means of providing this benefit than the system previously used. The method initially used for administering this benefit was complex and cumbersome, however. It was also inequitable because members who perform multiple periods of ADT could lose entitlement to commissary privileges based on the 14-day limit.

- The 6th QRMC recommends revision of DoD Directive 1330.17 to provide both the following:
  - Members of the Selected Reserve be authorized 12 visits to the commissary each year by virtue of their membership in the Selected Reserve.
  - Any reserve member on active duty for a period of 72 hours or more be authorized commissary use without penalty as to authorized annual visits.

The QRMC review of the procedures for identification of commissary entry concluded that two factors are essential: (1) The system must be the same for all reserve components. Lack of uniformity between the Services or their reserve components inevitably causes confusion at the commissary with resultant inconvenience for reserve members and families, and (2) the system must not place a significant burden on reserve unit administration.

The QRMC considered two primary alternatives for effective identification: (1) a ration card system and (2) a leave and earnings statements (LES) system. There are advantages to both, but the QRMC concludes that the ration card is more feasible in the long run because it is more direct and straightforward in application.

- The 6th QRMC recommends establishment of a ration card system and the use of ADT orders for admission to the commissary during training.

The QRMC estimates that the revised procedures for administration of the commissary privilege for reserve members would be cost neutral.

Notes

1. U.S., Congress. House, Committee on Armed Services, Hearings on H.R. 4860, 82nd Cong., 1st sess., 1951, p. 824; U.S., Congress. Senate, Committee on Armed Services, Report no. 1795 to Accompany H.R. 5426. 82nd Cong., 2nd sess., 1952, p. 30.

2. U.S., Congress. Senate, Committee on Armed Services, Report 98-500 to accompany S. 2723, Omnibus Defense Authorization Act, 1985, 98th Cong., 2d sess., May 31, 1984, p. 207.

3. U.S., Congress. Senate, Committee on Armed Services, Report 100-57, 100th Cong., 1st sess., p. 148.

4. The Writings of George Washington (from the Original Manuscript Sources), 1745-1799, U.S. Govt. Printing Office, March 1944.

Chapter 5. RESERVE COMPONENT INCENTIVE PROGRAMS

This chapter on Reserve Component Incentive Programs covers the three principal types of incentives available to the reserve components. They are Special and Incentive (S&I) pays, bonus programs, and educational assistance programs. For the Selected Reserve, each of these three forms of incentives play a distinctive role in helping the reserve components meet specialized and aggregate manpower requirements. While bonus programs are technically S&I pays, they are considered independently by the 6th QRMC because of their relative importance to the National Guard and Reserve.

Special and Incentive Pays

Special and incentive pays are compensation that members of the uniformed services receive in addition to their basic pay and allowances. Special pays provide compensation for specific types of career occupations requiring unusual degrees of responsibility. Incentive pays are intended to attract and retain personnel in specific skill areas that are considered hard to fill, and are often inherently dangerous, hazardous, or unattractive.

Background

In 1982, the 5th QRMC performed an extensive review of all S&I pays tracing the legislative history and congressional intent and ascertaining the numbers of individuals receiving these pays, along with their associated costs. The purpose of their review was to determine whether S&I pays were accomplishing the purpose for which they were established. The 5th QRMC evaluated each S&I pay to determine whether it was needed or should be eliminated, and, if needed, whether the pay should be modified. The 5th QRMC review was the most comprehensive study of S&I pays ever undertaken. The 5th QRMC analysis did not, however, include a review of the cost data and benefits of S&I pays within the reserve components, nor did they look at pays specifically designated for the reserves. The 6th QRMC was charged to perform a comprehensive review of the benefits and costs of all elements of reserve compensation. Using the comprehensive work of the 5th QRMC as a starting point, the 6th QRMC review of S&I pays completes that analysis by reviewing the operation of these pays in the reserve setting.

Legislative History

The earliest legislative reference to compensation for non-regular members of the armed forces may be traced to the Militia Act of 1792 and the Act of May 2, 1792. The Militia Act provided for the organization of a militia but imposed no requirement as to drills or musters. The Act of May 2nd made the first provision for calling forth the militia and provided that pay and allowances for the militia under such call would be the same as for troops of the United States.

Although this basic principle, i.e. providing the same pay for the militia (or, in this century, reservists) called or ordered to active duty as regular members receive, has been retained, pay for inactive duty training was authorized for the first time by the National Defense Act of 1916. This pay was authorized for National Guard members and, for enlisted members, was 25 percent of annual base pay of enlisted members of the Army, for attendance at not less than 48 drills of at least 1 1/2 hours duration. This system of payments was subsequently modified several times. In June 1920, "armory drill pay" was set at a rate of one-thirtieth of the basic pay for attendance at a regular drill period, subject to several restrictions and annual caps.

The one-thirtieth formula prevailed as the standard in 1948 when Public Law 460 of March 25, 1948, reorganized the provisions of previous statutes relating to inactive duty training pay for reserve forces personnel. This Act standardized inactive duty training pay for all reserve components and also authorized inactive duty training pay to Army Reservists. The Congress had previously authorized such pay, but only to members of the National Guard and the Naval and Marine Corps Reserves. In addition to authorizing this training pay for members of the Army Reserve (and Air Force Reserve), Public Law 460 extended entitlement to special pays to reserve members serving as pilots, radar technicians, and medical personnel for inactive duty for training periods when the standards specified by the Secretaries are met.[1] The 1948 Act also amended the Pay Readjustment Act of 1942, which initially extended special pay to personnel required to perform aerial flight, parachute jumping, glider flights, and submarine duty in connection with inactive duty for training (IDT).

The Career Compensation Act of 1949 refined and clarified the provisions of both the Pay Readjustment Act of 1942 and the Act of March 25, 1948, with regard to the special pay entitlement of reserve forces personnel. Section 501 of the Act extended the hazardous duty incentive pay entitlement to reserve forces personnel during periods of IDT whenever they were required by competent orders to perform any of the hazardous duties (contained in Section 204(a) of the Career Compensation Act) for

which active duty personnel could receive hazardous duty incentive pay. The legislative history provides no explicit rationale for extending entitlement to hazardous duty pay to reservists during IDT.

Special and Incentive Pays for Members of the Selected Reserve

Title 37, United States Code, authorizes more than 30 S&I pays to which selected members of the uniformed services may be eligible or entitled. These S&I pays have been authorized to help the uniformed services to meet specific manpower requirements. For this reason they often have very specific rules for determining eligibility and are not subject to easy classification. The following categorization and discussion is not intended to be definitive, but is felt to be most relevant to the review of reserve compensation.

Special pays serve to increase the ability of the uniformed services to attract and retain personnel in certain specific (critical) skills on active duty. Most special pays are applicable only to extended active duty members, although some have been extended to members of the Selected Reserve. Incentive pays, on the other hand, are of two types. First, certain incentive pays are related to specific skills or duties. These pays are designed to induce members to volunteer for special skills that involve duties that may be hazardous or unattractive and to encourage individuals possessing certain professional and technical skills to serve in the uniformed services. Examples of these are aircrew flight pay and parachute pay. Secondly, other incentive pays serve the purpose of attracting and retaining members for both active and reserve component service. Pays in this category consist of a variety of bonuses such as the enlistment, reenlistment, and affiliation bonuses. These bonuses are separately addressed in the next section of this chapter.

Entitlement to special pays is often contingent on whether a member is serving on full-time active duty, active duty for training, or inactive duty training. Historically, part-time members have not been eligible for most special pays since they have been developed to attract and retain members in the active components. Members receiving such special pays normally possess special or critical skills in specialties which are undermanned in the active components. Skills earmarked for special pays are typically those that are in high demand in the civilian sector and as a result command significantly higher civilian salaries.

Incentive pays differ somewhat from special pays in that they typically provide additional compensation to members who are performing duties that may be hazardous, rigorous o unappealing. The basic precept for entitlement to these pays is

that a member possessing such skills must meet specific performance standards before receipt of the incentive pay. Currently, entitlement to these incentive pays is applicable to both active and reserve members during active duty, ADT, and IDT. Tables 5-1 through 5-3 delineate each type of S&I pay and show when the statutory entitlement to these pays exists. The categories indicate the extent to which these pays have been tailored to meet special needs. Eligibility may depend on whether the member is regular or reserve, active component or reserve component, and on full-time active duty, ADT, or IDT. Even within these categories eligibility may be dependent on agreement to serve a minimum term of service, the total years of service completed by the member, and other similar factors. Members of the Selected Reserve possessing the required duty skills and qualifications and performing part-time duties are compensated, for each period of inactive duty training performed, at a rate of one-thirtieth of the rate authorized for active duty members. Reservists do not actually receive all pays for which a statutory entitlement exists. For example, reservists do not receive experimental stress pay or flight deck duty pay because reservists are not assigned to these duties.

Table 5-1. Special Pays and their Entitlements

	Full-Time Duty		Part-Time Duty	
Pay	Active Component	Reserve Component	Active Duty For Training	Inactive Duty For Training
Medical Officer Special Pay				
Variable	Yes	Yes	No	No
Additional	Yes	Yes	No	No
Board Certified	Yes	Yes	No	No
Incentive Special	Yes	Yes	No	No
Reserve Officer Medical Special Pay	No	No	Yes *	No
Dental Officer Special Pay				
Variable	Yes	Yes	No	No
Additional	Yes	Yes	No	No
Board Certified	Yes	Yes	No	No
Optometrist Special Pay	Yes	Yes	No	No
Veterinarian Special Pay	Yes	Yes	No	No
Diving Duty Pay	Yes	Yes	Yes	Yes
Certain Places Pay	Yes	Yes	Yes	No
Career Sea Pay	Yes	Yes	Yes	No
Responsibility Pay	Yes	Yes	Yes	No
International Military Headquarters Pay	Yes	Yes	No	No

* Member must have completed at least one year of active duty.

Table 5-2. Incentive Pays and their Entitlements

Pay	Full-Time Duty: Active Component	Full-Time Duty: Reserve Component	Part-Time Duty: Active Duty For Training	Part-Time Duty: Inactive Duty For Training
Hazardous Duty Incentive Pays				
Aerial Flight Pay				
Crewmember	Yes	Yes	Yes	Yes
Noncrewmember	Yes	Yes	Yes	Yes
Parachute Duty Pay	Yes	Yes	Yes	Yes
Demolition Duty Pay	Yes	Yes	Yes	Yes
Experimental Stress Duty Pay				
High/Low-Pressure Chamber	Yes	Yes	Yes	Yes
Acceleration/Deceleration	Yes	Yes	Yes	Yes
Thermal Stress	Yes	Yes	Yes	Yes
Flight Deck Duty Pay	Yes	Yes	Yes	Yes
Toxic Pesticides Duty Pay	Yes	Yes	Yes	Yes
Toxic Fuels/Chemical Munitions	Yes	Yes	Yes	Yes
Air Weapons Controller Duty Pay	Yes	Yes	Yes	Yes
Aviation Career Incentive Pay	Yes	Yes	Yes	Yes
Aviation Officer Continuation Pay	Yes	Yes	No	No
Submarine Duty Pay	Yes	Yes	Yes	Yes
Hostile Fire/Imminent Danger Pay	Yes	Yes	Yes	No

Method

The Department of Defense legislative contingency for the Fiscal Years 1988 and 1989 President's Budget contained a number of initiatives dealing with S&I pays. The DoD Program Budget Decision (PBD) on the legislative contingency included tentative funding for certain reserve proposals, but directed their reevaluation by the 6th QRMC prior to submission of a legislative proposal for clearance. Additionally, the Departments of the Army and Navy asked the QRMC to review other selected S&I pays and their application to members of the reserve components.

In order to determine whether the special and incentive pays authorized for reserve service are fulfilling the needs for which they were designed, the 6th QRMC initially attempted to determine the numbers of reservists, by skill, authorized to receive and actually receiving S&I pays. To accomplish this, each Service was requested to furnish aggregate data by Military Occupational Specialty (MOS), Air Force Skill Category (AFSC), or Navy Enlisted Classification (NEC) on the number of their reservists authorized to receive and receiving each S&I pay. The 6th QRMC intended to use this data to determine whether the Services were having problems with either recruiting or

Table 5-3. Other Incentive Pays and their Entitlements

Pay	Full-Time Duty: Active Component	Full-Time Duty: Reserve Component	Part-Time Duty: Active Duty For Training	Part-Time Duty: Inactive Duty For Training
Special Duty Assignment Pay	Yes	Yes	No *	No
Enlistment Bonus	Yes	No	No	No
Reenlistment Bonus	Yes	No	No	No
Selected Reserve Bonuses				
Enlistment	No	Yes	Yes	Yes
Reenlistment	No	Yes	Yes	Yes
Affiliation	No	Yes **	Yes	Yes
Prior Service Enlistment	No	Yes	Yes	Yes
Individual Ready Reserve Bonuses				
Enlistment	No	No	Yes	Yes
Reenlistment	No	No	Yes	Yes
Nuclear Qualified Officer Continuation Pay	Yes	Yes	No	No
Nuclear Qualified Enlisted Continuation Pay	Yes	Yes	No	No
Nuclear Career Accession Bonus	Yes	Yes	Yes	Yes
Nuclear Career Incentive Bonus	Yes	Yes	No	No
Overseas Duty Extension Pay	Yes	Yes	No	No
Engineer and Scientist Career Continuation Pay	Yes	Yes	No	No
Foreign Language Proficiency Pay	Yes	Yes	Yes	Yes

* DODI 1304.22 authorizes SDAP only for members serving on active duty in excess of 180 days.
** Military Technicians are not eligible.

retention of members with skills that are authorized S&I pays. Where shortages existed, alternative courses of action could be investigated, such as increased bonus levels, use of educational incentives, or possible revisions to the structure of S&I pays in the reserve setting.

The second data source was the Reserve Components Common Personnel Data System (RCCPDS). Through use of RCCPDS data, it was possible to identify members who possess specific skills and to compute continuation rates. The objective of this effort was to establish whether or not members receiving S&I pays tended to remain in the reserves longer than those not drawing such pays. The service finance centers were requested to provide financial data by specific types of S&I pays and the numbers of members receiving them. Finally, the 6th QRMC requested comprehensive pay tapes from the Army and Air Force, to provide actual pay data for members serving in the Selected Reserve. Although these tapes were part of another analytical effort (Full-time

Support), information was sought concerning the numbers of members receiving S&I pays by type, amount, and overall service outlays.

Unfortunately, the 6th QRMC encountered major difficulties in obtaining data on the numbers, cost, and use of S&I pays in the reserve components. Special and incentive pay costs are not separately identified in the detailed justification of estimates for reserve personnel as part of the budget submissions. From examination of service pay files, the 6th QRMC was able to determine that a member was receiving a special and/or incentive pay, but was unable to identify the specific pay (parachute pay, flight pay, etc.). The pay files did not permit identification of total amounts or number of members receiving specific pays. In the absence of definitive data, the 6th QRMC was unable to conduct an empirical analysis on the effectiveness of specific S&I pays; instead, it was necessary to address this subject from a more general perspective: whether the current construct of S&I pays is applicable to the reserve forces.

Analysis of Special and Incentive Pays in General

The 6th QRMC review revealed several differences in both philosophy and application when comparing the entitlement to S&I pays for members of the active components with the entitlement for reservists performing ADT or IDT. For example, reservists performing ADT generally are not entitled to special pays as depicted in Table 5-1. These entitlements are restricted to members serving on active duty or in an extended active duty status. Pays that fall into this category include a variety of special pays for physicians, dentists, veterinarians, and optometrists; special duty assignment pay; and a number of continuation and accession pays.

Generally, incentive pays are designed to attract members to skills that are inherently dangerous, rigorous, or unappealing. Members of the Selected Reserve who perform and maintain these skills are entitled to such pay during both ADT and IDT. A review of the legislative history of incentive pays did not reveal specific congressional intent to limit such pays to periods of active duty. However, unlike special pays, incentive pays are performance-oriented; that is, members possessing such skills must perform their duties and maintain specific levels of proficiency before being authorized to draw a particular S&I pay.

Reservists on ADT or IDT performing in certain specialties receive one-thirtieth of the basic pay rate authorized for active duty members for each period of duty performed. The 6th QRMC believes this rate of pay is both appropriate and consistent with the manner in which members of the reserve components are compensated. There are, however, two

compensation systems that pertain to members of the Selected Reserve; one that compensates reservists called to active duty or ADT with a pro rata share of basic pay and allowances as provided by law or regulation for each day of duty performed, and another that recognizes the part-time commitment of these members by compensating those who perform IDT at a rate one-thirtieth of basic pay for each period of instruction. Each period of instruction must be at least two hours long. The one-thirtieth rate serves the purpose of underscoring the part-time nature of a reservist's duties. There does not appear to be any compelling rationale to change the manner in which reservists are compensated.

During the 6th QRMC unit visit program, some reservists addressed the one-thirtieth rule and expressed dissatisfaction with the way the Aviation Career Incentive Pay (ACIP) program operates in the reserves. These individuals believe that reserve pilots should receive the same monthly ACIP rate received by active members because they must meet the same minimum proficiency requirements as their active duty counterparts. They further argued that reserve pilots often log more monthly flying hours than do their active counterparts. Army Reservists had a similar criticism regarding parachute pay, noting that some special forces reservists jump as often as their active counterparts (and in some cases more often) and for, reasons of equity, should receive the same pay. National Guard and Reserve members responding to the 1986 Reserve Components Surveys frequently raised similar issues when providing additional written comments. These comments are included in Appendix A (pages A-42 - A-53).

When Aviation Career Incentive Pay was created in 1974, Congress specifically legislated that this pay was compensation for members who committed themselves to a career, "on a continuing basis," in a field that represented a considerable investment on the part of the government. Changing this pay from a hazardous pay to a career incentive pay was intentional; Congress wanted to recognize retention problems in the active components and to induce members to remain on active duty.

Although full monthly pay for duty performed is not a new issue,[2] it points to a fundamental misunderstanding regarding incentive pays. The primary purpose of incentive pays is not simply to compensate members for undertaking occasional hazardous duties, but to serve as an incentive for undertaking a career that is, on a full-time basis, more hazardous than other service careers. It is apparent that this philosophy is not well understood by many members in the Selected Reserve, who look upon incentive pays as compensation for danger or exposure to risk inherent in their part-time military duties. This view is understandable. Nevertheless, the current compensation system provides a level of compensation relative to an

individual's participation and meets the criteria of being both fair and reasonable. There is no evidence that a revision to the amount and longstanding practice is needed to relieve recruiting or retention shortfalls.

Analysis of Specific Special/Incentive Pays

Diving Duty Pay

Section 304 of title 37, United States Code, restricted entitlement to Diving Duty Pay to officer and enlisted divers in receipt of basic pay who were assigned by competent orders to diving duty positions, and who maintained the required qualifications and performed diving duty. Therefore, members of the Selected Reserve serving on active duty or ADT were authorized Diving Duty Pay. However, reservists were not eligible for Diving Duty Pay during periods of IDT, because they were not entitled to basic pay. This restriction with respect to IDT is in contrast to other S&I pays paid to reservists during IDT (e.g. Parachute Pay, Flight Pay and Demolition Duty Pay). Until recently, this restriction in law precluded reservists from drawing Diving Duty Pay during drill weekends, even though they performed diving duties. Furthermore, members of the reserves serving in billets that require diving skills must meet the same criteria (formal training and maintenance of proficiency) as members of the active components.

The 6th QRMC review indicated that undermanning existed in the diving programs of the Navy, Marine Corps and, to a lesser extent, the Air Force. Most critical was the Naval Reserve, where only 38 percent of authorized diving positions were manned. Reasons for the reserve component shortfalls are varied. The extensive training and continued requalification required discouraged many reservists from entering the specialty because it conflicted with their primary civilian occupations. In addition, there is a high demand in the civilian labor market for diver qualified personnel. Review of the legislative history of Diving Duty Pay revealed no intent of the part of the Department of Defense or the Congress to limit this special pay to periods of active duty. It appeared, in light of the legislative history, that the exclusion of reservists from entitlement to Diving Duty Pay during IDT was an unintentional oversight. The 6th QRMC recommended that legislation be prepared to extend the eligibility for Diving Duty Pay to Selected Reservists performing inactive duty for training. Subsequently, section 624 of the National Defense Authorization Act for Fiscal Years 1988 and 1989 (Public Law 100-180) authorized the payment of diving duty pay to reservists during periods of IDT.

Special Duty Assignment Pay

Special Duty Assignment Pay (SDAP) is the only proficiency pay program authorized for current use by all the Services. Section 307 of title 37, United States Code, authorizes this additional monthly payment for enlisted members performing duties designated as extremely difficult or as demanding an unusual degree of responsibility in a military skill. SDAP is a retention incentive for enlisted personnel serving in a critical military skill specialty and an inducement to persuade qualified personnel to volunteer for certain duties outside their normal career field. It is paid to enlisted members who voluntarily perform authorized special duty assignments, such as recruiters, drill instructors, reenlistment NCO's, or other duties. SDAP ranges from $55 to $275 per month, and is paid only to members who are fully qualified in the skill for which SDAP is being paid and who are on active duty for at least 180 days.

SDAP is limited by statute to members performing active duty. By regulation, the Department of Defense has further limited SDAP to personnel serving on active duty for at least 180 days (DoD Instruction 1304.22). This restriction eliminates SDAP entitlements for reserve component members during annual training or other periods of active duty of 180 days or less. There is no statutory authorization for reservists performing IDT to receive SDAP.

Members authorized SDAP for active component service include those serving in the following duties:

ARMY:	Drill Sergeants Recruiters Guidance Counselors In-Service Recruiters Retention NCO's Classified Duties
AIR FORCE:	Recruiters Military Training Instructors Human Intelligence Interrogators Para Rescue Combat Controllers 1724th Special Tactics Squadron Joint Communications Unit at Ft Bragg

Navy:	Nuclear Series Recruiters Recruit Company Commanders Classifiers Operation Deep Freeze Hospital Corpsmen Underwater Welders Fire Control/Ordnance
MARINE CORPS:	Drill Sergeants Recruiters Security Guard Battalions Career Planners
COAST GUARD:	OIC of Floating/Ashore Units (E-9) Recruiters Special Agents (Intelligence)

Generally, the Services do not believe that SDAP is warranted as an incentive for service in these or other duties in the reserve. The major exception is the Army with respect to members of the Army Reserve performing duty as drill sergeants. The Army Reserve has had significant problems in meeting requirements for drill sergeants. The 6th QRMC analysis could not assess the extent to which SDAP would stimulate personnel to volunteer for and remain in drill sergeant positions. However, in the active Army where SDAP is authorized, the 4300 drill sergeant positions are manned at 100 percent with MOS-qualified soldiers. In comparison, drill sergeant positions in the USAR are manned at approximately 93 percent with only 51.2 percent fully qualified. Personnel turbulence (50 percent drill sergeant attrition) has been a major contributing factor in the low level of fully qualified drill sergeants. This is due in part to the fact that it takes up to five years to develop a reserve drill instructor (eligibility criteria plus completion of drill sergeant training).

The legislative history of SDAP indicates that Congress established this special pay to encourage qualified personnel to undertake duties outside their normal career field, requiring volunteers, and for which there is a manning shortage. No distinction is made between active and reserve components or duty except that the member must be entitled to basic pay. This only precludes payment to reservists for periods of IDT. Thus, Congress provided a high degree of flexibility to the Departments of Defense and Transportation in their employment of SDAP.

In addition to authorizing SDAP, the statute delegates broad authority to the Defense and Transportation Secretaries to prescribe the criteria under which members of that armed force

are eligible for SDAP. The QRMC review of both the legislative history and the FY 1985 Authorization Act Conference Report disclosed no specific congressional intent to differentiate between active and reserve service.

Previous evaluation of this proposal suggested that duties of reserve drill sergeants may not meet the criterion of "extremely difficult duty" when compared to their active duty counterparts. The statute uses these descriptors, but it also contains reference to duties "involving an unusual degree of responsibility." It is clear that Army drill sergeants, whether active or reserve, are required to be highly proficient in their military skills. Both active and reserve drill sergeants require the same specialized training, coupled with demonstrated performance. When reserve drill instructors report for their annual tour of active duty, they are required to be at the same peak of personal readiness as their active duty counterparts and must produce at a level of performance no different from that of the active force. The requirement that they maintain an exceptionally high degree of readiness often requires them to participate in additional training throughout the year, training that is not normally required of other reservists. Reserve drill sergeants also perform drill sergeant duties during periods of IDT.

The central issue with respect to Special Duty Assignment Pay is whether or not the nature of reserve duty is essentially equivalent to duty in the same military occupational specialties on extended active duty. Where the duty has or is perceived to have the same demands, eligibility for SDAP, not the size of payment, appears to be the central issue. In the specific case reviewed, the Department of the Army has concluded that the duties performed by reserve component drill sergeants and the conditions of their service are comparable to the duties and service conditions of active duty drill sergeants. Only the Army intends to use SDAP for reservists on short tours.

The QRMC concludes that the determination of SDAP eligibility for reserve members should be left to the discretion of the Military Departments based on their evaluations of the extent to which the specific duties, as performed by reservists, meet the stated intent of the law and their assessment of the relative effectiveness of SDAP in meeting specific reserve manpower objectives within budgetary constraints.

As in the consideration of Diving Duty Pay, the QRMC concludes that the statutory limitation of incentive pay to members in receipt of basic pay (i.e. performing active duty including ADT) is unnecessarily restrictive. The reserve pay and duty system is quite complex. The reserve components and reserve commanders use this complex but relatively flexible system to accomplish training and peacetime missions using reservists in a wide range

of duty statuses. It is not unusual for reservists to serve together for a single mission with some on active duty mandays, others on ADT, and still others in IDT status. In this environment, the authorization of an incentive which would be paid to the member serving on ADT but not to the member serving on IDT appears unnecessarily restrictive. There are, of course, very significant differences in ADT and IDT compensation involving travel, allowances, and retirement point credit. Notwithstanding these differences, it seems clear, based upon the unit visit program of the 6th QRMC and the analysis of comments from the 1986 Reserve Components Surveys, that members are quite sensitive to equity considerations in the incentive pay arena, even when the amounts involved are relatively small. As a general principle, the QRMC concludes that all incentive pays for duties which reservists perform should be authorized for payment for IDT. Implementation of such authorization would be based on Service evaluation of appropriateness and need.

- The 6th QRMC recommends:
  - Amendment of section 307 of title 37, United States Code, to authorize payment of SDAP to reservists during periods of inactive duty training.
  - Revision of DoD Instruction 1304.22, (Administration of Enlisted Personnel Bonus and Special Duty Assignment Pay Programs) to delete the restriction that limits payment of SDAP to members on active duty for 180-days or more.

The estimated annual cost is $1.5 million based on a payment of $28 to $125 for 9,979 members serving an average of 14 days ADT per year and 12 periods of IDT performing as drill sergeants.

Foreign Language Proficiency Pay

The FY 1987 Department of Defense Authorization Act established Foreign Language Proficiency Pay (FLPP) to provide a special incentive for members of the armed forces to become proficient, or to increase their proficiency, in a foreign language, thus enhancing the foreign language capabilities of the armed forces.

The authorization for FLPP included authority to pay FLPP to members of the reserve components for periods of ADT and IDT. Members called to active duty or ADT receive a prorated share of FLPP for each day of duty performed. Members of the reserve components attending IDT are entitled to one-thirtieth of the rate of FLPP authorized for active duty personnel for each regular period of instruction, training, duty, or appropriate duties associated with maintaining foreign language proficiency. At the request of the Department of the Army, the 6th QRMC

At the request of the Department of the Army, the 6th QRMC evaluated the merits of an alternative that would eliminate the one-thirtieth rate and provide a full month's FLPP to qualified reserve component linguists including those serving in the Individual Ready Reserve (IRR).

The current level of FLPP ranges from $3.33 to $13.33 for a drill weekend. This amount may be insufficient to attract and retain qualified linguists in the Selected Reserve. This possible insufficiency is of particular concern to the Department of the Army since its requirements for linguists are programmed to increase by more than 3,800 linguists by FY 1990. Fiscal Year 1986 manning data provided by the Army indicates that there is not currently a shortage of qualified linguists. The Army currently has 107 percent of the needed linguists, including members assigned to the Individual Ready Reserve. This makes the assessment of compensation revisions needed to support programmed expansion difficult.

Since FLPP is a new authority, there is no baseline from which to measure its effectiveness. Therefore, the possibility that the current rate of FLPP may be insufficient to attract and retain qualified linguists cannot be documented at this time. Payment of a full month's FLPP to both active and reserve linguists would, of course, be a major departure from the historical authorities provided for the payment of S&I pays to reservists (i.e. the one-thirtieth rate). In lieu of a major modification to the compensation system of reservists, the 6th QRMC concludes that no change to FLPP is warranted at this time. Consideration of other incentive programs or the use of additional training assemblies (ATAs) should be considered as a means of sustaining linguist proficiency and enhancing retention. Use of ATAs would serve to recognize the criticality of the skill and provide a greater monetary compensation to the drilling reservist. Other measures, such as larger enlistment and reenlistment bonuses, use of Special Duty Assignment Pay, and educational incentives, should be considered before a change which would be a major departure from the current system of compensation for IDT.

Hostile Fire and Imminent Danger Pay

At the request of the Department of the Army, the payment of Hostile Fire and Imminent Danger Pay (HFP) for IDT was evaluated by the 6th QRMC for its application to drilling reservists who are employed in civilian occupations in overseas areas. Because all the Services have drilling reservists overseas, it is conceivable that some of these members could be subject to the threat of physical harm or imminent danger when performing their reserve duties. However, entitlement to HFP is contingent upon entitlement to basic pay, so reservists are ineligible to receive HFP during IDT.

There is a possibility that a reservist performing IDT could become subject to hostile fire or could be subject to terrorism while on duty in a foreign area. However, since no such incidents have occurred, a legislative change appears premature. Should such a case occur, Secretarial authority could be used to change a member's duty status if warranted. Consequently, the 6th QRMC sees no justification for proposing legislation to cover circumstances that to date have never occurred and are remote and unlikely.

Unit Incentive Pay for Enlisted Selected Reservists

Unit Incentive Pay was an item in the legislative contingency in the DoD portion of the President's Budget for Fiscal Years 1988 and 1989. As discussed above a Program Budget Decision (PBD) directed that reserve compensation items included in the legislative contingency be reviewed by the 6th QRMC prior to submission of a legislative proposal to the Congress. This PBD included a proposed Selected Reserve Unit Incentive Pay. This initiative would authorize the payment of an incentive pay to Selected Reserve enlisted personnel who voluntarily affiliate and train with certain high priority units which are inadequately manned. It would permit payment of a $10 incentive pay per drill period for five drills per month. This Navy initiative was developed to help meet manpower needs for personnel assigned to the Naval Reserve Fleet (NRF) and for hospital corpsmen assigned to Marine Corps Reserve units.

Manning and retention problems among members of the Selected Reserve of the Naval Reserve assigned to NRF ships are of concern to the Navy. These problems have been attributed to two factors. First, reservists assigned to NRF ships experience many of the same hardships of sea service as members of the active Navy, but are ineligible during IDT for the Career Sea Pay available to active personnel. Second, reservists assigned to the NRF experience more arduous duty than most Naval Reserve participants, but receive no offsetting compensation.

Initially, the Navy adopted a policy of mandatory assignment to NRF ships to meet requirements. While mandatory assignment solved the manning problems in the short run, dissatisfaction among enlisted personnel resulted in high turnover rates and recurring readiness problems. During the period from July 1, 1986, to June 30, 1987, the turnover rate among reservists assigned to NRF ships exceeded 30 percent.

Crew instability heavily impacts upon the training readiness of the Selected Reserve in NRF ships. Historically, few enlisted members have remained onboard long enough to achieve full qualification in their mobilization billets. Nine west coast NRF ships, representing 748, or 27.6 percent, of the 2712 total NRF Selected Reserve billets report the mobilization

qualifications of the Selected Reserve. The nine ships of Surface Squadron ONE include five guided missile frigates, two frigates, one landing ship tank, and one salvage ship and are a relatively representative sample of ships by both type and length of service as NRF platforms. Among the 628 incumbents of their 748 billets, only 27.5 percent are fully qualified.

A "Naval Reserve Force Antisubmarine Warfare Frigate Manpower Study," prepared for Chief of Naval Reserve in 1983, predicted that increased compensation equal to one-thirtieth of the monthly Career Sea Pay per drill period could attract sufficient volunteers to increase manning on NRF ships by a minimum of twelve percent. The payment of $10 per drill period would exceed one-thirtieth of the monthly Career Sea Pay per drill period for which any Selected Reserve member of an NRF ship would be eligible. However, an enlisted member must be in pay grade E4 or above to receive Career Sea Pay. Therefore, members in pay grades E1 through E3 would receive no increased compensation if Unit Incentive Pay per drill period was equal to one-thirtieth of the monthly Career Sea Pay. However, a Unit Incentive Pay of $10 per drill period would dramatically increase the total compensation of the junior enlisted (non-rated and third class petty officer) personnel among whom turnover is the highest.

Selected Reserve billets presently constitute approximately 36 percent of the collective allowance of the NRF ships. Therefore an increase in manning of 12 percent would raise the overall manning of NRF ships by over four percent and produce a significant increase in their collective readiness rating for personnel.

The 6th QRMC initially explored other alternatives such as authorizing Career Sea Pay, enlistment or reenlistment bonuses, use of Special Duty Assignment Pay, and provision of authority to use unit bonuses. The provision of a Unit Incentive Pay based on a flat amount of $10 per drill period for enlisted member of all grades does have attractive features for application in the specific setting proposed by the Navy. The QRMC concludes that a Unit Incentive Pay could stabilize the Selected Reserve compliment of NRF ships, allow the training received during both drill weekends and periods of annual active duty to be concentrated on fewer Selected Reserve members, and produce platforms available for immediate service in the event of a national emergency.

- **The 6th QRMC recommends that legislation be prepared to permit the Secretary of the Navy to authorize payment, under a two year test program, of "Naval Reserve Fleet Pay" to enlisted Selected Reserve members serving on NRF ships.**

The QRMC believes the Navy should limit the test, if authorized, to the coast (or geographical area) where Naval Reserve ships have the lowest aggregate readiness (personnel and training), in order to isolate reductions in turnover rates and best ascertain any increase in readiness attributable to Naval Reserve Fleet Pay. The estimated cost of the test as recommended would be $1.6 million for each year of the proposed two-year test.

Sea Duty Service Credit for Members of the Selected Reserve

The Secretary of the Navy's National Reserve Policy Board recommended that legislation be developed to provide authority for Selected Reservists assigned to NRF ships to have their regularly scheduled drill days computed as sea duty toward sea pay credit. The Secretary of the Navy directed the Chief of Naval Operations to forward this issue to the 6th QRMC.

The 6th QRMC reviewed the Navy policy that limits granting sea duty service credit to Selected Reservists in the Naval Reserve who serve aboard Naval Reserve ships during periods of IDT. Currently, Selected Reserve crews serving aboard NRF ships accrue creditable sea duty time for purposes of Career Sea Pay only during ADT, not during periods of IDT.

Section 305a of title 37, United States Code, defines sea duty as "duty performed by a member while permanently or temporarily assigned to a ship, ship-based staff, or ship-based aviation unit, ... the primary mission of which is accomplished underway." No distinction in law is made between active or reserve personnel who may be assigned to the same ship. In fact, Selected Reservists in the Naval Reserve meet the same qualifications as their active counterparts; namely, they are permanently assigned to the NRF ship, perform duties aboard that ship, and the ship has been designated under regulations of the Secretary of the Navy as a ship whose primary mission is accomplished underway. Nevertheless, these individuals accrue creditable sea duty time only during periods of ADT. The Navy acknowledges that the existing system of sea duty computation may be inequitable, but has concluded that credit for sea duty time is linked by statute to eligibility for Career Sea Pay. This may be the result of language contained in the statute addressing the entitlement to basic pay.

The 6th QRMC review of the statute and implementing regulations (Department of Defense Pay and Entitlements Manual and SECNAVINST 7220.77B) indicated that the entitlement and rate for Career Sea Pay are dependent upon entitlement to basic pay and sea duty service. However, the legislation does not stipulate that accumulation of creditable sea duty service is dependent upon entitlement to basic pay. Only the actual payment of the special pay is tied to basic pay. Thus, the QRMC believes that members of the Naval Reserve who are assigned to

NRF ships and are performing duty during periods of IDT meet the "sea duty" criteria and they could receive credit for sea duty service for sea pay purposes. In order to resolve this ambiguity, the QRMC staff requested a legal opinion from the DoD General Counsel as to whether periods of IDT served aboard NRF ships by Selected Reservists of the Naval Reserve can be considered "sea duty service" for the purpose of determining rates of Career Sea Pay. The Office of General Counsel concluded that credit for sea duty for inactive duty training may be provided for by Navy regulation under the conditions set forth in title 37, United States Code. The Office of General Counsel opinion and supporting documentation are included as part of the working papers of the 6th QRMC (Volume ID).

General Findings - Special and Incentive Pays

Data for the reserve components is not currently available to properly identify and quantify the numerous S&I pays. Unlike the active components, which specifically program and budget for S&I pays, the reserve components factor S&Is into their reserve personnel programs. In addition automated reserve pay files do not contain sufficient data on S&I pays to track recipients or cost by type of pay. Consequently, no data could be provided to show, by skill type, the numbers of positions authorized to receive S&I pays or the numbers of members currently receiving these pays.

The 6th QRMC noted that financial data relative to S&I entitlements differs greatly, depending upon the component and the type of reserve status (IDT or ADT). For example, for IDT, the Army maintains accounting on the Joint Uniform Pay System (JUMPS-RC). Army accounting for ADT, by contrast, is maintained at the field or installation levels and data is reported only for specific entitlements such as Basic pay, Basic Allowance for Quarters, and Basic Allowance for Subsistence. Special and incentive pays are not specifically identified; they are combined into a pay category termed "other pays." Gathering meaningful data on S&Is would require an individual pay record audit to determine the type of incentive pay and the amount paid. Similarly, the Navy and Marine Corps capture data in total only, not by specific entitlement. Currently, the Air Force appears to be the only service with the capability to report S&Is at the detail level; however, producing this level of detail would require a major reprogramming effort that would take approximately six months to accomplish.

The Reserve Components Common Personnel Data System (RCCPDS) can identify, by military occupational specialty, individuals who potentially would be entitled to S&I pays. However, this system cannot verify that individuals possessing such skills are actually performing them (duty position) and cannot validate that a member is receiving a special or incentive pay. For

example, in the Army, a member coded as possessing a parachutist skill may not be receiving Parachute Duty Pay because the member is not assigned to a parachutist position. Other problems such as the multiplicity of skills possessed by a single member (secondary or tertiary specialties, coupled with skill prefixes and suffixes) make it extremely difficult to obtain reliable data.

Notwithstanding the scarcity of data on S&Is, the 6th QRMC supports the basic principle of compensating members of the reserve components in proportion to their participation through the one-thirtieth formula. S&I pays were created as career incentives to attract and retain active component members. Extending these S&I pays to reservists was intended to compensate members of the reserve components fairly and equally when they perform the same military duties as their active counterparts.

Finally, the 6th QRMC review noted that entitlement to certain S&Is is tied to the receipt of basic pay. This restriction appears to have an adverse impact on reservists who perform the same duties as their active component counterparts and should be eliminated.

While the effectiveness of S&I pays could not be determined in terms of their recruiting and retention effects, the QRMC believes that S&Is are necessary if the reserve components are to meet their manpower requirements. Furthermore, these pays serve to recognize the unique skill requirements placed upon the reserve components and act as an inducement for members of the Selected Reserve to become qualified and maintain their skill qualifications.

- **The 6th QRMC recommends the following general changes relative to special and incentive pays in the reserve components:**
  - **The each special and incentive pay for the reserve components should be identified in budget documents, with a separate line item for AGR and part-time personnel.**
  - **Financial accounting systems used by the Services should aggregate each S&I pay separately so that cost and recipient data can be specifically identified in an automated fashion.**

Reserve Component Bonus Programs

History of Bonuses

The National Guard and Reserve components use bonus programs as an incentive to induce persons to join a reserve component and to encourage those already in a reserve component to remain. These programs and others are intended to enhance readiness by meeting manpower requirements, particularly in the areas of critical skills and critical units, and to develop and maintain a pool of skilled, trained, and immediately available personnel and units to combine with active component forces in times of national emergency.

In the late 1970s, the Department of Defense introduced the use of Selected Reserve incentives as an "extraordinary measure" to correct severe manpower shortages that were most critical in the Army National Guard and the Army Reserve. Army Reserve component strength had dropped from 638,000 in 1973 to 527,000 in 1978. Initial attempts to solve the problem included such measures as increasing the size of the recruiter force and adding low-cost incentives to the reserve benefits package, such as survivor benefits, exchange privileges during weekend drills, and life insurance.

Despite these efforts, the strength of the Army's reserve components continued to decline. This decline raised serious concerns about the Army reserve components' viability in the All-Volunteer Force. In response to these concerns, Congress passed Public Law 95-79 on July 30, 1977, authorizing a test of a Selected Reserve Reenlistment Bonus to correct shortages in the skills or units most essential to mobilization capability. The Army began use of this incentive program with the reenlistment bonus test in Fiscal Year (FY) 1978. Since most reservists who were retained at that time extended their term for only one year, the program goals were to lengthen the term of commitment and increase the reenlistment rate. The RAND Corporation conducted the one-year test and then systematically followed the retention of the bonus group. Their subsequent evaluation indicated that the bonus had only a relatively small effect on reenlistment rates. The evaluation did find, however, a substantial difference in the term of service selected by individuals who reenlisted for the bonus and in their subsequent continuation rates.[3]

Continuing reserve manpower shortages prompted Congress to authorize additional incentive programs (enlistment bonus - 1978, affiliation bonus - 1980, Student Loan Repayment Program - 1981, IRR enlistment and reenlistment bonus - 1983, prior-service enlistment bonus - 1985, and the Montgomery GI Bill - 1985). The Student Loan Repayment Program is discussed later in this section and the Montgomery GI Bill is discussed in the

educational assistance section of this chapter. These programs have been important in enabling the Selected Reserve to increase its strength and the quality of its manpower resources. The new incentive programs, together with increased recruiting resources, have improved the quantity and quality of the Selected Reserve manpower.

Current Bonus Programs

As noted, the incentive program has grown over time. Actual expenditures for new and anniversary payments for reserve bonus programs in FY 1987 were $107.9 million. The six bonuses currently authorized for reserve component use are described below. These bonuses are currently authorized through September 30, 1990. Figures 5-1 through 5-5 depict the DoD budget, by component, for each bonus in constant 1978 dollars. **Note:** Each bonus graph has a different scale, designed to show the amount spent on that bonus by component. The graphs do not show the relative amount spent per bonus as compared to the other bonuses. Data for FY 1987 and prior years is historical, and data after FY 1987 is projected. Figure 5-6 shows a comparison of the DoD total for all bonuses for FY 1987 through FY 1989. Budget and bonus recipient information by bonus type and component is included as Appendix B. The budget data does not include Coast Guard Reserve information. The Coast Guard Reserve bonus program is a very small program with less than 100 recipients and less than $100,000 in payments. It has not been used since 1985.

Enlistment Bonus for Members of the Selected Reserve

Section 308c of title 37, United States Code, authorizes a bonus for individuals without prior service who enlist in the Selected Reserve. Any secondary school graduate who has never served in an armed force, and who enlists in the Selected Reserve for not less than six years, may receive an enlistment bonus of up to $2,000. The Army National Guard and Reserve and the Marine Corps Reserve use this bonus for critical skills and for designated units. Other reserve components use this bonus for critical skills only. Under the law, up to half the Selected Reserve Enlistment Bonus shall be paid upon completion of initial active duty for training (IADT), with the remainder being paid in periodic installments or a lump sum, as determined by the Secretary concerned. Cost data is shown in Figure 5-1.

Prior-Service Enlistment Bonus for Members of the Selected Reserve

Section 308i of title 37 authorizes a bonus to former enlisted members of an armed force if they enlist in the Selected Reserve for three or six years in a critical military specialty. These members must have completed their military service obligations

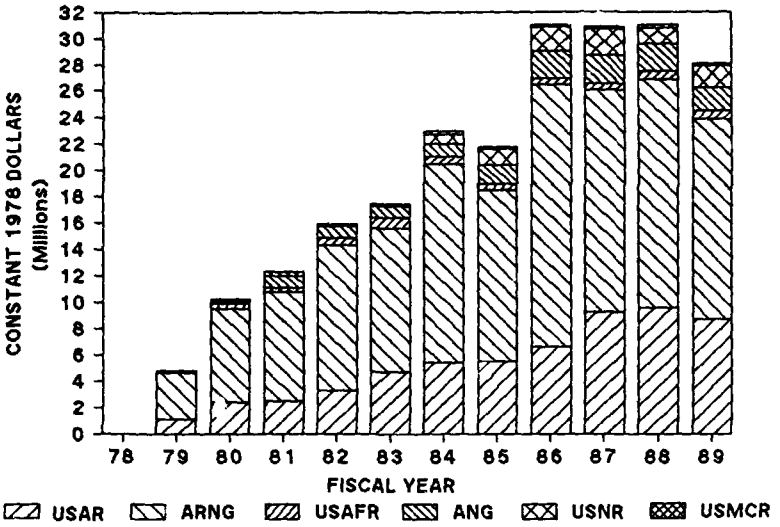


FIGURE 5-1. SELECTED RESERVE ENLISTMENT BONUS ACTUAL AND PROGRAMMED EXPENDITURES

but have less than 10 years of total military service, must have received an honorable discharge, must not be leaving active duty to enlist in a reserve component, and must not previously have been paid an enlistment or reenlistment bonus in a reserve component. Members may not receive more than one bonus under this section. For a three-year enlistment, the law provides payment of up to $2,500. This includes an initial amount not to exceed $1,250 and subsequent payments not to exceed $416.66 per year for the remainder of the enlistment. For a six-year enlistment, the law provides payment of up to $5,000, with the initial payment not to exceed $2,500 and subsequent payments not to exceed $416.66 per year of enlistment. The subsequent payments are dependent upon satisfactory completion of each year of the enlistment term. DoD policy limits the maximum bonus amount to less than that authorized in law. Under DoD policy, a member entering a three-year enlistment may receive not more than $1,500. This includes an initial payment of $600, with anniversary payments not to exceed $400 per year. For a six-year enlistment, a member may receive not more than $3,000. The initial payment may not exceed $1,200, and the anniversary payments may not exceed $400 per year. Cost data for the Selected Reserve Prior-Service Enlistment Bonus is shown in Figure 5-2.

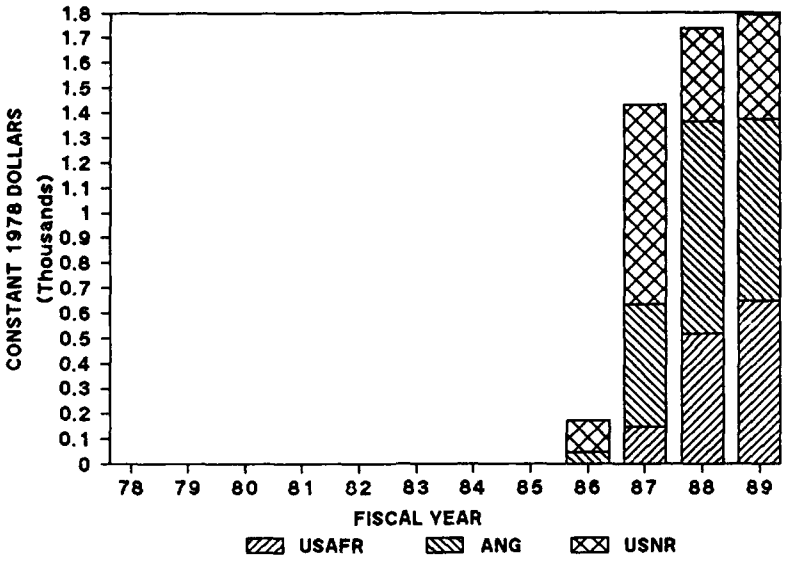


FIGURE 5-2. SELECTED RESERVE PRIOR SERVICE ENLISTMENT BONUS ACTUAL AND PROGRAMMED EXPENDITURES

Reenlistment Bonus for Members of the Selected Reserve

Section 308b of title 37 authorizes a reenlistment bonus for individuals with less than 10 years of total military service if they reenlist in the Selected Reserve in a designated military skill or unit for periods of three or six years. Members may not receive more than one bonus under this section. The payment schedule authorized in law is the same as the Prior-Service Enlistment Bonus schedule. For a three-year enlistment, the law provides payment of up to $2,500. This includes an initial amount not to exceed $1,250 and subsequent payments not to exceed $416.66 per year for the remainder of the enlistment. For a six-year enlistment, the law provides payment of up to $5,000, with the initial payment not to exceed $2,500 and subsequent payments not to exceed $416.66 per year of enlistment. The subsequent payments are dependent upon satisfactory completion of each year of the enlistment term. Again, a lower maximum bonus amount has been set by DoD policy. The limits and payment schedules are the same as those set by the Prior-Service Enlistment Bonus. A member reenlisting for three years may not receive more than $1,500. The initial payment may not exceed $600, and anniversary payments may not

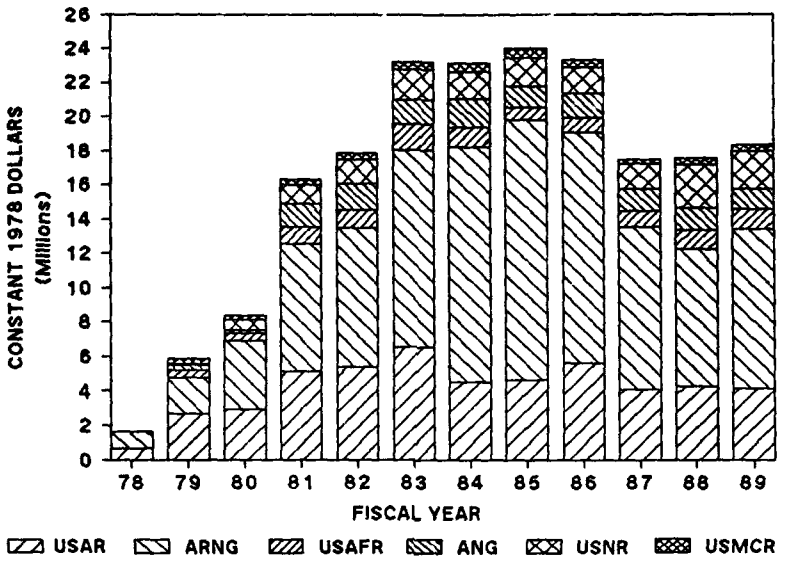


FIGURE 5-3. SELECTED RESERVE REENLISTMENT BONUS ACTUAL AND PROGRAMMED EXPENDITURES

exceed $400 per year. For a six-year reenlistment, the member may receive not more than $3,000. The initial payment may not exceed $1,200, and anniversary payments are limited to a maximum of $400 per year. See Figure 5-3 for cost information.

Reserve Affiliation Bonus for Members of the Selected Reserve

Under section 308e of title 37, members serving on active duty with less than 180 days of active duty obligation remaining, but who have a military service obligation upon release from active duty, may receive a bonus equal to $50 multiplied by the months of the military service obligation remaining. The member must be qualified in a military specialty as designated by the Secretary concerned, must have a grade for which there is a vacancy in the prospective reserve component, and must execute an agreement for the period of obligated reserve service remaining. If the individual has 18 or less months of obligation remaining, the Military Department Secretary may pay the bonus in a lump sum. If the individual has more than 18 months of obligation remaining, half the bonus is paid upon the execution of the agreement, with the remaining amount paid on

the fifth anniversary of the original enlistment or call to active duty. Figure 5-4 shows the cost information for the Selected Reserve Affiliation Bonus.

Bonus for Enlistment in the Ready Reserve other than the Selected Reserve

Section 308g of title 37 authorizes a $1000 bonus for a six-year enlistment in the Individual Ready Reserve (IRR) in a combat or combat support skill by someone who has not previously served in an armed force. The member must satisfactorily complete IADT. In FY 1984, the Army was authorized $1.2 million to test this bonus. Less than 500 members were enlisted directly into the IRR. Neither the Army nor any of the other Services is currently using this authority.

Bonus for Reenlistment, Enlistment, or Voluntary Extension of Enlistment in Elements of the Ready Reserve other than the Selected Reserve

Section 308h of title 37 authorizes a bonus to persons who reenlist, enlist, or voluntarily extend an enlistment in a combat skill or a combat support skill in the Individual Ready Reserve for three or six years beyond any other period of obligated service. The three-year bonus is $750, paid in equal annual installments. The six-year bonus is $1,500, with $500 paid upon reenlistment and the remainder paid in equal annual installments. The Secretary concerned may require the recipient to participate in an annual muster or active duty for training. Cost information is shown in Figure 5-5.

Figure 5-6 shows a comparison of the DoD total for all bonuses for FY 1987 through FY 1989.

Previous Studies of Bonus Effectiveness

Since the inception of the reserve incentive program, efforts have been made to measure its effectiveness. Analyses have focused in three major areas: surveys, field tests, and historical data. A recent report on recruiting and retention in the reserve components, prepared by the Office of the Assistant Secretary of Defense for Reserve Affairs (OASD(RA)), notes "that analytic studies of the factors influencing reserve accessions and retention are intrinsically more difficult to perform than are analyses of the factors influencing the active components."[4] For example, reserve units for the most part must draw their needed manpower from individuals living in a specific geographical area, whereas the active force can draw from the entire country. Therefore, the data required for analysis must include information on the supply of manpower at the local level as well as information on unit requirements.

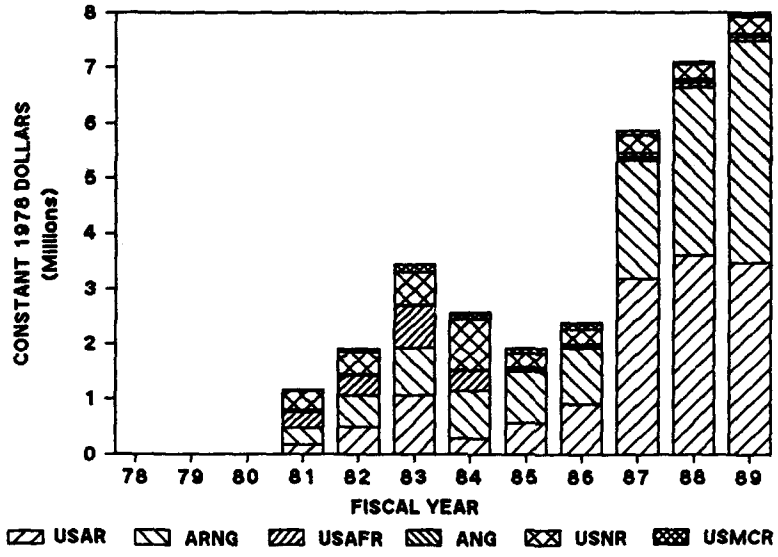


FIGURE 5-4. SELECTED RESERVE AFFILIATION BONUS
ACTUAL AND PROGRAMMED EXPENDITURES

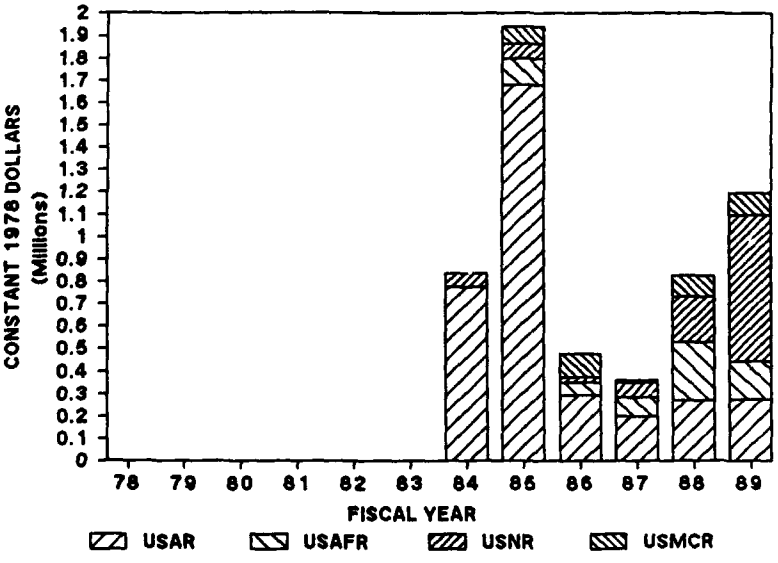


FIGURE 5-5. INDIVIDUAL READY RESERVE REENLISTMENT BONUS
ACTUAL AND PROGRAMMED EXPENDITURES

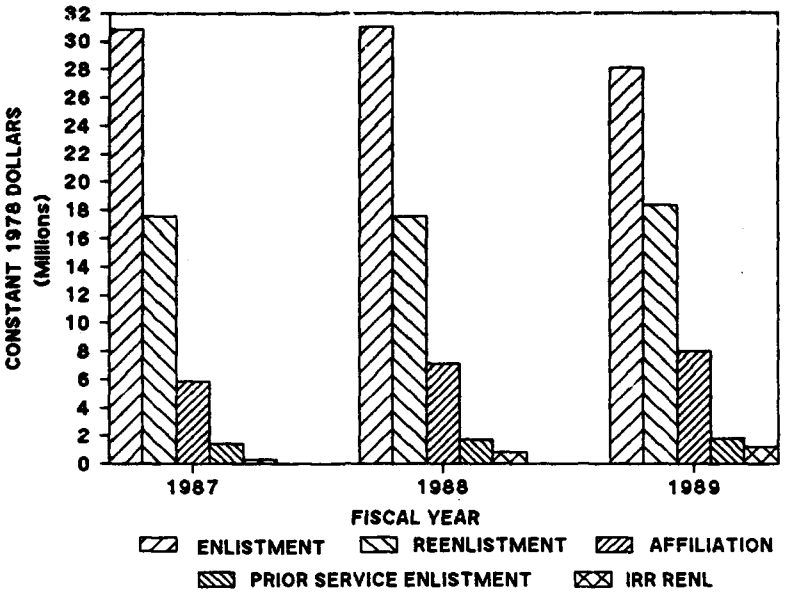


FIGURE 5-6. RESERVE BONUS COMPARISON
ALL DOD - ACTUAL AND PROGRAMMED EXPENDITURES

Unfortunately, much information of this type is lacking. In addition, compared with active component members, reservists are much more affected by events in their civilian lives. Reservists' continuation and reenlistment decisions are affected by changes in their marital status, employment status, and residence. As these variables change, their commitment to the reserves or their ability to meet reserve training requirements is likely to change. Finally, the reserve manpower system is a more open system than the active duty system, with a higher degree of lateral entry and reentry. An individual may disappear from a reserve roster only to enter another reserve component or Selected Reserve unit later.

Thus the analysis of the use of bonuses as an effective recruiting and retention vehicle in the reserve components is a particularly complicated issue. Since 1978, numerous studies have examined the question of bonus effectiveness for recruiting and retention; however, only a handful of these studies have looked at the reserve forces.

Some information is available concerning the attitude of potential enlistees. The Youth Attitude Tracking Study (YATS) is an annual survey that provides data about the propensity of young men and women to enlist in the active military and in the reserve components. YATS provides some information on the potential effects of reserve incentives on individuals with no current or prior military service. Results from the 1983, 1984, 1985, and 1986 surveys show that hypothetical incremental increases in enlistment bonuses and educational assistance increase the estimated likelihood of enlistment for individuals with a propensity to be members of the Guard or Reserve. Similarly, the U.S. Army Recruiting Command 1983 study, "The Measurement of High School Students' Attitudes Toward Recruiting Incentives,"[5] concluded that educational assistance was a more effective incentive to potential enlistees in mental categories I and II, whereas enlistment bonuses were more effective to potential enlistees in mental categories IIIa, IIIb, and IV.

The RAND Corporation has been heavily engaged in evaluating the effects of both enlistment and reenlistment bonuses. As mentioned before, the results from their study, "The Design, Administration and Evaluation of the 1978 Selected Reserve Reenlistment Bonus Test,"[6] showed relatively small differences in reenlistment rates when comparing the test and control groups. The length of term of service selected by individuals who reenlisted, however, was substantially different for the test group and the control group. Eighty-two percent of reenlistees in the test regions selected three- or six-year terms. Only 13 percent of the reenlistees in the control group selected the longer terms. RAND also found that, given an annual reenlistment choice, many members chose not to reenlist. However, the bonus incentive apparently encouraged recipients to honor the longer commitment they had incurred, thereby reducing attrition and resulting in higher strength levels. Their subsequent study, "Follow-up of Participants in the 1978 Selected Reserve Reenlistment Bonus Test,"[7] concluded that the longer term of service generated by the bonus increased total man-years of service. Additionally, it was found that, during the second, third, and fourth years after reenlistment, the difference in attrition rates remained at approximately 6 percentage points when comparing the test and control cells. RAND concluded that the principal effects of a reenlistment bonus were longer terms of service, higher quality recruits, and reduced attrition.

Studies by the United States Army Research Institute for Behavioral and Social Sciences (ARI) tend to support the RAND conclusions. ARI examined the effects of reenlistment bonuses on the Army. One study, conducted for the 6th QRMC, used an empirical Bayes analysis to estimate the increased length of service that can actually be expected as the result of the longer enlistment period for bonus takers. The ARI study,

included as Appendix C, concluded that reenlistment bonuses are useful for increasing the average reenlistment terms and therefore for increasing committed man-years of service (up to triple the man-years), and that bonuses also increase Army retention rates. The second ARI study, included as Appendix D, looked at educational incentives and higher reenlistment bonuses in relation to Army Reserve reenlistments. This study concluded that higher bonus amounts of $1,250 for a three-year contract and $2,500 for a six-year contract resulted in a 6 to 8 percent increase in reenlistment contracts.

As with RAND and ARI, other studies support the positive effects bonuses have on recruiting and retention. One such study on Naval Reserve affiliation found that veterans with Naval Reserve skills that were eligible for bonuses tended to affiliate at a higher rate than veterans with skills that were not eligible.[8] Another study on Naval Reserve affiliation found that naval veterans with prior service were responsive to pay, including bonuses, and that veterans were less costly to attract than personnel without prior service even after the payment of bonuses.[9] The study also found that affiliation bonuses may be more effective if the bonus payment level varies according to skill. However, as mentioned previously, the study also noted that analysis was hampered by the lack of quality data on the reserve forces.

Sixth QRMC Bonus Analysis

The 6th QRMC attempted to use personnel and payroll data in conjunction with the 1986 Reserve Components Surveys to estimate the extent to which the reserve incentive programs were effective in support of recruiting and retention objectives. The QRMC analysis was hampered by a lack of reliable personnel and pay data. Supporting analyses, conducted by the Services on their own programs, were not available. The Services were able to document the magnitude of their programs, both in terms of the numbers of bonuses paid and the personnel receiving them, but there was little analysis of their cost-effectiveness. In other words, the effects of alternatives and supplements to bonus programs, such as an increase in existing educational programs or the combined effect of educational incentives and bonus programs, were not being explored.

Another aspect that hindered analysis efforts was the number of available incentives. For example, in FY 1981, a new recruit could receive an enlistment bonus or educational assistance and, if eligible, entitlement to the Student Loan Repayment Program. Currently, an enlistee may be eligible for a bonus, the Montgomery GI Bill, Student Loan Repayment Program, and (in the case of the National Guard) state-funded educational assistance. Therefore, the effects of any one program become very difficult to assess.

In order to determine the effectiveness of bonuses, the QRMC created continuation rates for recipients of enlistment and reenlistment bonuses. The Services provided data listing the skills that were bonused and those that were not from 1981 to 1986. This information for selected skills was then cross-matched with the Reserve Components Common Personnel Data System (RCCPDS) to determine, by social security number (SSAN) and component, which individuals within that skill received and which did not receive bonuses in the specific time frame. The extent to which RCCPDS data was available limited the analysis to the USAR and the USAFR from 1983 to 1986. For each year ('83 through '86) USAR cohort groups at zero, three, and six years of service (YOS) and USAFR cohort groups at zero, four, and six YOS were chosen to highlight the enlistment bonus (zero YOS) and reenlistment bonus (three, four, and six YOS).

The zero YOS cohort includes all members with less than one YOS. The chosen control years of service approximate the reenlistment decision years for individuals. These cohort groups were then examined by SSAN at the beginning of each year and again at the end of each year to determine which individuals who started the year remained at the end. This provided cohort continuation rates for individuals in that fiscal year and YOS who received bonuses and for those who did not. The QRMC analysis assumed that bonused individuals included both those enlisting or reenlisting for a bonus and those receiving bonus anniversary payments for a decision made in previous years. By comparing the continuation rates of bonused skills (including within a bonused skill both those who received a bonus and those who did not) with continuation rates for nonbonused skills and with the reserve components' average, it was possible to estimate the relative effectiveness of the bonuses. Selection of the cohort groups by separate year made it possible to discount effects of the economy, of age, and of pay changes, highlighting the effects of the bonus.

Numerous problems with the databases hampered and constrained this analysis effort. Prior to 1982, RCCPDS did not include an incentive code and did not make it possible to identify the type of bonus an individual was receiving. This limited the analysis to four years: 1983 through 1986. Even though the database codes indicated whether or not an individual was receiving a bonus, the data was not reliable. As stated before, the only components with reliable data were the Air Force Reserve and the Army Reserve. Data for the other components was either missing or considered to be insufficiently reliable. Even in the case of the two components with relatively reliable data, there was a tendency for the post-1982 data to be miscoded. Miscoded data identified itself when numerous individuals in unbonused skills were coded as receiving a bonus, as in the case of USAR Chaplain Assistant and USAFR Turboprop Propulsion Mechanic shown in Table 5-4. In addition, in the Army, an individual could have

TABLE 5-4. Continuation Rates for Cohorts with Selected Skills, With and Without Bonuses

	FY 1983			FY 1984			FY 1985			FY 1986		
	RC	Bonus		RC	Bonus		RC	Bonus		RC	Bonus	
Cohort	Avg	Yes	No	Avg	Yes	No	Avg	Yes	No	Avg	Yes	No
USAR Cavalry Scout (19D)												
0 YOS	.70	.79	.59	.74	.76	.67	.81	.89	.63	.80	.70	.73
3 YOS	.66	1.00	.56	.70	.91	.49	.73	.69	.50	.69	.84	.51
6 YOS	.71	.88	.50	.72	.76	.61	.73	.78	.52	.68	.75	.46
USAR Chaplain Assistant (71M) - Nonbonused skill												
0 YOS	.70	.73	.64	.74	.62	.67	.81	.92	.73	.80	.73	.79
3 YOS	.66	.83	.52	.70	.69	.47	.73	.89	.60	.69	.75	.44
6 YOS	.71	.67	.55	.72	.63	.52	.73	.57	.53	.68	.71	.42
USAR Operating Room Specialist (91D)												
0 YOS	.70	.71	.66	.74	.75	.75	.81	.80	.79	.80	.85	.77
3 YOS	.66	.75	.57	.70	.73	.60	.73	.75	.68	.69	.70	.61
6 YOS	.71	.79	.57	.72	.82	.56	.73	.78	.45	.68	.58	.54
USAFR Aircraft Fuel System Mechanic (423X3)												
0 YOS	.83	.88	.75	.82	.89	.83	.85	.89	.79	.84	.69	.72
4 YOS	.73	.73	.40	.80	1.00	.54	.79	1.00	.69	.74	.78	.75
6 YOS	.79	.75	.70	.82	1.00	.74	.84	.67	.70	.79	1.00	.65
USAFR Aerospace Ground Equipment Mechanic (423X5)												
0 YOS	.83	.86	.75	.82	.73	.79	.85	.85	.88	.84	.77	.71
4 YOS	.73	1.00	.81	.80	1.00	.58	.79	1.00	.62	.74	.86	.62
6 YOS	.79	.82	.78	.82	.96	.66	.84	1.00	.80	.79	.50	.65
USAFR Turboprop Propulsion Mechanic (426X3) - Nonbonused skill												
0 YOS	.83		.50	.82		.78	.85		.82	.84		.95
4 YOS	.73		.71	.80		1.00	.79	1.00	.81	.74	1.00	.52
6 YOS	.78	.50	.75	.82	1.00	.77	.84		.70	.79	1.00	.54

Source: Reserve Components Common Personnel Data System

received a unit bonus and not a skill bonus. This was not identifiable in the database. Also, an individual could have received a bonus for a previous skill that was no longer the individual's duty skill. Although the bonus should have been terminated, this was not evident from the database and could not be determined.

Despite these problems, the 6th QRMC analysis does show generally positive effects from bonuses. Continuation rates for the cohort groups and selected skills (shown in Table 5-4) indicate that bonused members have better continuation rates than the reserve component average and better than unbonused

members with the same skill. The improved continuation is more apparent in the early years (zero-, three-, and four-year cohorts) than in the six-year cohort, where the effects of other incentives, such as retirement and higher pay, are more pronounced. Years with a continuation rate of 1.00 resulted from small cohort groups. Years with no continuation rate listed are years when, according to the database, no members received a bonus.

The rates may also highlight an "on again-off again" effect. This appears to occur when the starting authority is delayed by the annual Congressional authorization process or when Service decisions result in the bonus not being authorized again as the Services adjust the bonus eligibility lists for skill and unit eligibility. This is evident in FY 1985 and FY 1986, when the continuation rates tended to drop because the starting bonus authority was delayed, even though members currently receiving the bonus were not affected. This "uncertainty factor" indicates that bonused members are concerned with and react to the fact that their bonus may not be available when reenlistment time comes around.

The database problems encountered by the QRMC also plagued a forthcoming RAND study conducted, in part, in support of the QRMC. The RAND study deals with economic factors affecting the attrition of prior service members in the Army National Guard and Army Reserve.[10] Among other factors, RAND looked at the effects of reenlistment and affiliation bonuses. While RAND found a positive relationship between increased compensation and reduced attrition, results concerning the effects of bonuses were mixed. RAND did find that, for the Army National Guard (data was not available for the Army Reserve) the completion payment in the affiliation bonus does appear to reduce attrition. In part, the problems encountered by RAND were due to the difficulty of assessing bonus effects outside an experimental design. RAND also found that available reserve databases did not contain information concerning eligibility for or receipt of bonuses and this had to be estimated. Other gaps in reserve personnel data also confounded their analysis.[11]

A study of the effect of pay on the retention of active Navy veterans affiliating with the Naval Reserve was conducted for the QRMC by the Center for Naval Analysis (CNA) (study at Appendix E). As did RAND, the CNA study found that pay has a positive impact on retention. As with the other studies, however, CNA had difficulty in estimating bonus effects because of insufficient data to show which reservists actually receive bonuses. CNA did impute bonus pay, however, based on the analysis of individual characteristics and bonus qualification provisions used by the Naval Reserve during the period studied.

CNA concluded that bonuses affected both affiliation and retention in skills responsive to pay and, for those skills, can be effective and relatively inexpensive tools.

The QRMC also analyzed data from the 1986 Reserve Components Surveys in order to assess bonus effects. Analysis of the survey data indicates that both enlistment and reenlistment bonuses improve the length of terms of enlistment, as shown in Figures 5-7 and 5-8. Figure 5-7 shows that 95 percent of enlistment bonus recipients and 82 percent of reenlistment bonus recipients committed to terms of four or more years, contrasted with only 60 percent of unbonused members. As shown in Figure 5-8, out of the 283,347 members who enlisted for a four- to six-year term of service, 52 percent received a bonus. More significantly, the group having a four- to six-year term of service comprises 65 percent of all members. This indicates that bonus takers elect longer terms of service, either to qualify for a bonus or to maximize bonus earnings. Since bonused members have higher continuation rates than other enlistees, the end result may be reduced attrition, higher selectivity, and reduced costs in meeting manpower strength objectives.

One beneficial result of the longer terms of enlistment resulting from bonuses is the concurrent potential increase in man-years of service. As discussed earlier, RAND's reenlistment studies have shown an improvement of approximately 25 percent in continuation rates for bonused members over unbonused members. For Army and Air Force skills, a representative training cost is approximately $10,000 to train the individual to initial skill level qualification. Any avoidance of new training costs that a bonus can provide will more than offset the total outlay of the bonus, which in most cases is less than the $5,000 outlay for the maximum bonus. However, realization of the additional man-years of service is dependent upon the bonused individuals completing their obligation.

Another reason to conclude that bonuses contribute to longer enlistments comes from members' responses to survey questions about the extent that money contributed to a member's most recent decision to remain in the reserve. Comparison of responses of the pay grade groupings showed that, in their reenlistment decision, bonused individuals placed a slightly higher value on money to meet immediate expenses than did members not receiving bonuses. The most significant difference in the responses came from the E5 and lower pay grades, those most likely to be eligible for bonuses. These results support the view that bonuses attract individuals who would otherwise not enlist.

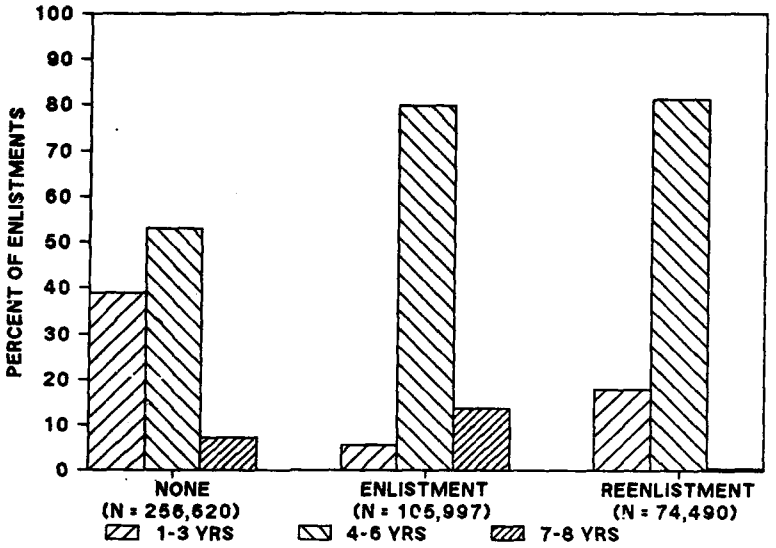


FIGURE 5-7. LENGTH OF ENLISTMENT BY BONUS STATUS AND TYPE
SOURCE: 1986 RESERVE COMPONENTS SURVEYS (N = 437,107)

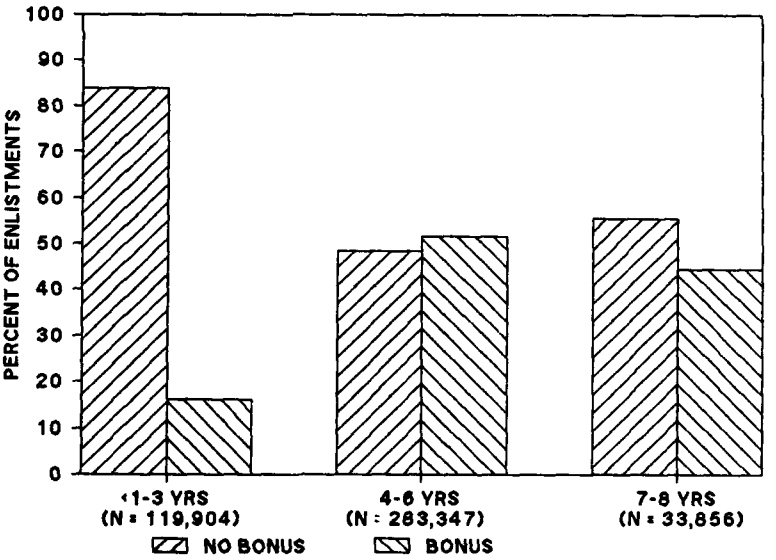


FIGURE 5-8. LENGTH OF ENLISTMENT BY BONUS STATUS
SOURCE: 1986 RESERVE COMPONENTS SURVEYS (N = 437,107)

The 6th QRMC did examine the cost of the reserve bonus program. Figure 5-9 shows the DoD total actual and programmed bonus costs (all bonuses, both new and anniversary payments) from their inception in FY 1978 until FY 1989. The data is expressed in constant FY 1978 dollars. Data for FY 1987 and prior years is historical; for years after FY 1987, data is projected. The total bonus program has grown from $1.7 million in FY 1978 to a projected $56.2 million in FY 1989 ($107.9 million in current year dollars). Figure 5-10 shows the growth in the numbers of bonus recipients over the same time period. In FY 1978 there were 2,108 recipients; the number of recipients is projected to grow to 247,415 in FY 1989. According to the Services, this growth has allowed them to better meet their strength requirements and to reduce shortfalls in skill and critical unit requirements.

Observing the continued growth in the use of the bonus program, the 6th QRMC examined the portion of members' pay that bonuses represented. The 6th QRMC selected the FY 1986 enlisted force with less than 10 years of service. Only the cohort with less than 10 years of service was used, because members with over 10 years are not eligible to start a new bonus. The QRMC determined the basic pay of this cohort and compared it with the basic pay of the bonus recipient cohort of the same year. Basic pay was used instead of Regular Military Compensation because it is consistent for all reserve and active members. Of the reservists (all DoD) receiving a bonus in FY 1986, the average bonus was 21 percent of average annual basic pay. In addition, 39 percent of reservists with less than 10 years of service were receiving a bonus. For the active components, the average bonus was 19 percent of average annual basic pay, and 19 percent of active component members with less than 14 years of service were bonus recipients. (In order to use comparable populations, the 6th QRMC used the active component enlisted population with less than 14 years of service, after which active members are ineligible for bonuses.) In essence, compared with the active components, the reserve components are paying bonuses to a larger proportion of their enlisted force, and they are paying at a slightly higher per capita rate, relative to overall basic compensation. However, the QRMC could not conclusively determine the cost-effectiveness of these bonuses for recruiting and retention because of the inadequate databases.

Special Bonus Issues

Selected Reserve Enlistment Bonus

Examination of the current bonus program structure brought to light numerous inconsistencies. The Selected Reserve Enlistment Bonus is designed to attract and retain an individual without prior service in the Selected Reserve. According to the reserve components, the attracting mechanism of the bonus is effective;

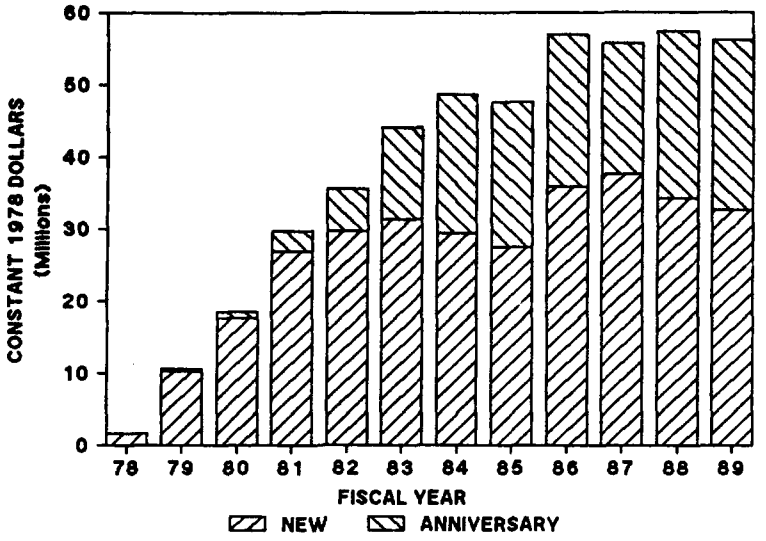


FIGURE 5-9. COST OF RESERVE BONUSES
ALL DOD RESERVE COMPONENTS - ACTUAL AND PROGRAMMED EXPENDITURES

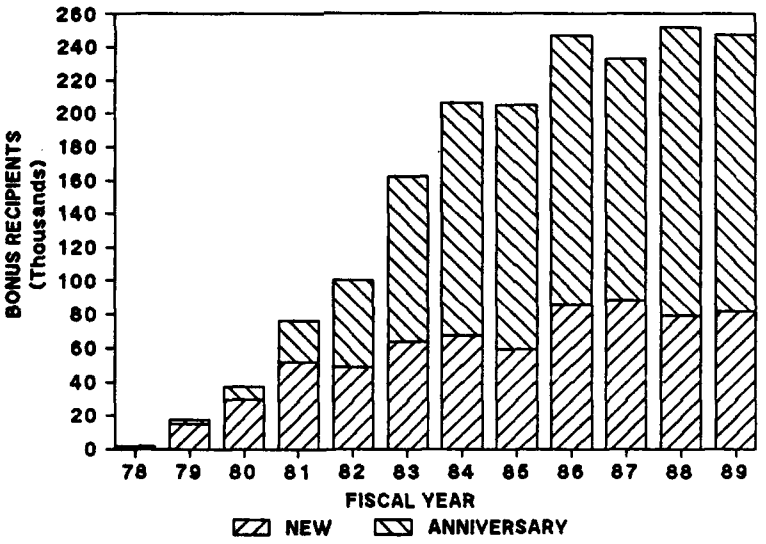


FIGURE 5-10. TOTAL BONUS RECIPIENTS
ALL DOD RESERVE COMPONENTS - ACTUAL AND PROGRAMMED RECIPIENTS

the components are generally meeting their recruiting requirements. However, the retention mechanism is not working as well as desired; the reserve components have high attrition rates among first-term enlistees. Active duty bonus studies have shown that the bonus is most effective if paid in a lump sum, with the largest amount possible paid up front. This rationale is reasonable in the active components, which have tight control over the bonused individual and whose enforcement of the bonus contract terms is relatively easier. This is not the case, however, with the reserve. According to the reserve components, it is not uncommon for an individual to enlist with a bonus, complete training, and fail to continue with the reserve service required under the contract. To prevent an individual from taking a large bonus up front and subsequently failing to complete the contract, the Army reserve components restructured their payment of the Selected Reserve Reenlistment Bonus in July 1986 to pay a smaller initial payment with larger anniversary payments. Prior to this restructuring, both the Army Guard and Reserve had a reenlistment ratio of three 6-year contracts to every 3-year contract. After restructuring the reenlistment bonus, the ratio has increased to 6:1 for the Guard and to 10:1 for the Reserve. Also, there is little or no recoupment action necessary for failure to honor the contract. The same approach could be used on the Enlistment Bonus.

As currently written in law, at least 50 percent of the Enlistment Bonus must be paid upon initial enlistment, with the remainder paid in periodic installments. Based on the Army's experience with the Reenlistment Bonus, it may be more advantageous and cost-effective to restructure the Enlistment Bonus, making it payable up to 50 percent upon initial enlistment, with the greater portion spread over the term of the enlistment to encourage members to stay and complete their contracts. This would avoid many recoupment actions: the individual would essentially receive the anniversary payments for service rendered instead of service promised. Appendix F contains an Army Research Institute working paper outlining the parameters for a reserve Enlistment Bonus experiment that would restructure the payment schedule to provide greater incentives later in the enlistment period. The test will allow a comparison of the cost-effectiveness of two experimental programs, each with different bonus amounts and different payout schedules, and will allow comparison of each experimental program with the current program. The differing bonus amounts will enable assessment of whether larger nominal skill bonuses will increase the total number of enlistments without prior service and channel people into the critical skills that are most difficult to fill. Results with the differing payout schemes will determine whether the bonus can be used to reduce attrition.

- **The 6th QRMC recommends that legislative authority be pursued to enable the Department of Defense to conduct a Selected Reserve Enlistment Bonus test in order to improve the effectiveness of the bonus.**

The test should be conducted for two years and be followed up for an additional four years. It appears most feasible for the Army to conduct the recommended test; however, providing the Department of Defense with general authority to test will allow flexibility to test an option within another Service, if it is deemed advisable. In addition to measuring the effects of the restructured bonus, the test should track the influence of the Montgomery GI Bill on new bonus recipients. The test would provide for a rate of payment up to a maximum of $5,000; however, the test should be conducted within the current budget authority. This may cause the Army to restructure the Enlistment Bonus as it applies to units, in order to fund the proposed modified skill Enlistment Bonus. Authority for the test should be pursued on an urgent basis to enable testing to begin as soon as possible, due to the current budget reductions and the declining youth cohort.

Selected Reserve Prior Service Enlistment Bonus

Another incongruence is in the Selected Reserve Prior-Service Enlistment Bonus. Currently, this bonus is paid to individuals with prior service who have completed their military service obligation (six years for those who first entered military service prior to June 1, 1984, and eight years for those who first entered after that date) but who have less than 10 years of total military service. This restriction was put in place when the service obligation was six years. With the current eight-year obligation, the bonus allows only a two-year window in which an individual must decide to enlist in the reserve. This limitation may be costing the reserve numerous potential enlistees. The 6th QRMC believes that a longer enlistment window would be beneficial and appropriate. Preliminary analysis, conducted by RAND, on the accession patterns of active component veterans into the Selected Reserve indicate that, for the Army, 25 percent of active duty separatees who are eligible for reenlistment affiliate with the Guard or Reserve within one year. By the end of the fifth year after separation, the percentage increased to 37 percent. By moving the latest year of enlistment to 14 years, which is consistent with the active duty bonus program, the reserves can expand the enlistment window for this bonus from two years to six years. While the numbers of accessions would be small for the group with over 10 years of service, the expanded authority could help meet needs in the very critical skills. Adoption of this recommendation would not require increases in service outlays.

- **The 6th QRMC recommends that the law be amended so that the eligibility window for the Selected Reserve Prior-Service Enlistment Bonus is extended to members with less than 14 years of total military service.**

Selected Reserve Reenlistment Bonus

- **The 6th QRMC recommends legislation to modify the Selected Reserve Reenlistment Bonus authority, extending eligibility for the bonus to members with less than 14 years of total military service.**

This change is justified by the additional flexibility it would give to the reserve components in their efforts to retain members in the most critical specialties. Also, of course, it would be consistent with the active duty bonus program. The restriction allowing only one bonus of this type per member should be retained. The authority could be implemented with no increase in total outlays. As with the Prior-Service Enlistment Bonus, the bonus payments for those with over 10 years of service would be limited to only very critical specialties.

Selected Reserve Affiliation Bonus

The final change recommended in the current bonus program is to amend the Selected Reserve Affiliation Bonus. Currently, a member who has less then 180 days of active duty remaining, and who agrees to affiliate with a reserve unit for the remaining military service obligation, may receive a bonus of $50 (statutory authority is a maximum of $75) for every month of military service obligation remaining. If over 18 months of obligation remain, half the bonus will be paid upon execution of the agreement with the remainder to be paid on the fifth anniversary of the original enlistment. With the average current enlistment of four years, this change equates to half being paid upon affiliation (at four years) and the remainder being paid one year later (on the fifth anniversary), with three more years of service still required. As with the Prior-Service Enlistment Bonus, this service obligation restriction was put in place when the military service obligation was only six years. With a six-year obligation, the remainder of the bonus was paid just before the expiration of the service obligation.

- **In order to re-link the bonus to the end of the service obligation and to provide a greater incentive for an individual to successfully complete the terms of the agreement, the QRMC recommends legislative modification of the current requirement to pay the remainder of the Affiliation Bonus at the fifth year anniversary by providing for payment of the remainder at the sixth anniversary of the original enlistment.**

Other Reserve Incentive Issues

Selective Reenlistment Bonuses for Training and Administration of Reserve and Active Guard/Reserve Personnel

The 6th QRMC evaluated extending active duty Selected Reenlistment Bonuses (SRB) to full-time Training and Administration of Reserves (TAR) and Active Guard/Reserve (AGR) personnel. Section 308 of title 37, United States Code, restricts eligibility of SRBs to enlisted members who reenlist in a regular component for a period of at least three years. TAR and AGR members, even though they are serving on full-time active duty, are not members of a regular component.

The Department of the Navy developed a legislative proposal to authorize the payment of an SRB to TAR/AGR reservists who satisfy the requirements contained in section 308 of title 37, United States Code, modified only to provide the SRB entitlement to full-time reservists. This proposal was forwarded to the Office of Management and Budget for advice as to conformity with the program of the Administration on March 17, 1986. The proposal was also included in the DoD Legislative Contingency Account in the President's Budget for Fiscal Years 1988 and 1989 in the amount of $15.8 million. Rationale for expanding the SRB to full-time reservists was based on manpower force structure increases required as part of the Navy's Surface Expansion Program. TAR end strength was programmed to increase approximately 25 percent through Fiscal Year 1992 and would include the introduction of seven critical ratings heretofore held only by active component Navy personnel. Given the critical designation of these ratings, and the fact that regular Navy personnel were eligible for an SRB, the Department of the Navy believed that TARs serving on full-time active duty and possessing these critical skills should also be authorized an SRB.

The 6th QRMC determined that an SRB was not needed because current retention rates among TAR personnel are extremely high. However, Fiscal Year 1986 retention rates contain more one- and two-year extensions than actual reenlistments. Shortages could develop in critical ratings unless retention remains at its present level throughout the next five years. In order to solve this problem and for the Navy to meet its end strength objectives, extensions need to be converted into reenlistments. If this cannot be accomplished and retention rates decline, some form of an SRB may be required. However, given the current high retention rates in the TAR/AGR community, the 6th QRMC concluded that the TAR/AGR SRB proposal could not be justified at this time.

Selected Reserve Student Loan Repayment Program

The General Educational Loan Repayment Program (section 2171 of title 10, United States Code, commonly referred to as the Student Loan Repayment Program) was first authorized as part of the Comprehensive Fiscal Year 1981 Educational Assistance Act on September 8, 1980. It was initially authorized as a one-year test to be conducted in Fiscal Year 1981. The program was designed to repay designated portions of outstanding educational loans that were made, insured, or guaranteed under Part B of Title IV of the Higher Education Act of 1965 and Part E of that Act after October 1, 1975. The following loans qualify for repayment under this program: Guaranteed Student Loans (GSL), Federal Insured Student Loans (FISG), Auxiliary Loans to Assist Students (ALAS), and National Direct Student Loans (NDSL) incurred after October 1, 1975. The Student Loan Repayment Program is available to enlisted personnel who meet specific enlistment criteria; the program is available in addition to any bonus for enlistment, reenlistment, or voluntary extension.

All DoD reserve components except the Marine Corps Reserve participated in the Fiscal Year 1981 test. The Naval Reserve and Air Force Reserve have not used the program since that time. The program was suspended in the Army reserve components in Fiscal Year 1982 and reinstated in Fiscal Year 198[illegible] The Army offers participation in this program to any member who meets the enlistment criteria, regardless of specialty. In Fiscal Year 1987, active components of the Army restricted participation in the Student Loan Repayment Program to critical skills. Extension of the restriction to members of the Army National Guard and Reserve is expected in Fiscal Year 1988. The Air National Guard restricts participation in the program to members in critical skills (bonused specialties qualify a member to participate).

Under this program, repayment of a loan is made on behalf of an enlisted member who enlists, reenlists, or voluntarily extends in the Selected Reserve after September 30, 1980. Loan repayment may be provided in addition to any other bonus. The qualifications for eligibility for the program are as follows:

- The member must have completed IADT.
- The member must be classified, through the Armed Forces Qualification Test (AFQT), as being in aptitude category I, II or III.
- The member must be a high school graduate, or in the case of certain enlistees, must be attending a secondary school and expect to graduate before entering the second phase of IADT under the split (alternate) training option.

- The member must remain in the same component of the Selected Reserve and in the same specialty for which the incentive was granted, unless excused under "convenience of the government" criteria.

The Student Loan Repayment Program provides benefits for each complete year of satisfactory service performed as an enlisted member after the loans are made. Payments to the promissory note holder begin on the first anniversary of the enlistment or reenlistment. The amount that may be repaid on an individual's qualifying loans, when totaled together, is 15 percent of the total outstanding loan balance (or $500, whichever is greater) plus annual accrued interest not paid by the Department of Education. Eligibility continues with every year of satisfactory service performed in the Selected Reserve. The total amount that can be repaid under this program cannot exceed $20,000 (a DoD imposed ceiling). The Army limits the amount of repayment to $10,000 for the period of initial enlistment. The remainder ($10,000), may be paid for a reenlistment period.

The largest user of this program in terms of total dollar amounts is the Army National Guard, followed by the Army Reserve. In Fiscal Year 1986, 4,314 payments were made to Army National Guard members for a total expenditure of $3.1 million, an average of $713 per payment. During the same period of time, 1,293 payments were made to USAR members, totaling $1.4 million, or an average of $1,034 per payment. The USAR reported that the minimum annual payment was $500 plus interest, with a maximum of $1,500 plus interest. Data was not available on the number of individuals who qualified for the maximum loan repayment.

The only other reserve component using this program is the Air National Guard, which had the highest percentage of members participating. In FY 1986, 1,963 members used this program at a cost of $1.5 million (an average of $779 per person) in new and anniversary payments. The Air National Guard, by not limiting loan repayments to a specific enlistment or reenlistment, reported annual payments ranging from $500 plus interest to $4,500 plus interest.

The cost data shown above, the small number of reservists enrolled in the Student Loan Repayment Program, and the wide variance in the size of annual payments (based on the size of the individual's loan rather than on National Guard or Reserve requirements) make the need imperative for improved information on program benefits and on the relationship between individual payments and component needs. Neither the Army nor the Air Force could estimate the current benefit of the program or the potential impact on recruiting or retention if this program were to be eliminated. Less than 0.5 percent of the 1.1 million Selected Reservists participate in this program. The low usage can be attributed to many factors. Of all the Selected Reserve

incentive programs, the Student Loan Repayment Program is the most difficult to manage because administration requires the coordination of the member, unit, lending institution, college or university, finance and accounting centers, and the Department of Education. The program does not appear to be understood by many recruiters or unit personnel; thus it is not marketed as effectively as other incentives are. In addition, some individuals have experienced lengthy processing time (3 to 36 months) which has resulted in defaults on loans.

Costs associated with this program during the period from FY 1983 to FY 1989 are reflected in Table 5-5.

The 6th QRMC concludes that the Student Loan Repayment Program needs to be justified on the basis of its use by service members and its cost. Because of low use, its impact on reserve accessions has been minimal. The program is expensive, on an annual per capita basis, when compared with the $2,000 six-year enlistment bonus, the $5,000 six-year reenlistment bonus, or the MGIB, which offers $5,040 for six years of participation in the Selected Reserve.

Table 5-5. Selected Reserve Student Loan Repayment Program Costs ($ Millions)

Component	FY83	FY84	FY85	FY86	FY87	FY88	FY89
ARNG	0.3	0.5	1.4	3.1	5.2	3.7	4.5
USAR	0.01	0.2	0.6	1.3	2.0	0.3	0.3
ANG	0.2	0.2	0.8	1.5	2.0	3.7	4.0

Source: President's Budget for Fiscal Years 1988 and 1989

- **The 6th QRMC recommends a thorough review by the Services of the program payment levels of the General Educational Loan Repayment Program for the Selected Reserve, as authorized under section 2171 of title 10, United States Code, in light of their manpower requirements. Maximum payment levels should be established on the basis of this review. The review should also determine the most effective method of coordinating the Student Loan Repayment Program with other reserve incentives. It is further recommended that participation in the program should be limited to critical or hard-to-man skills.**

Bonus Data and Program Evaluation

Finally, because the DoD reserve component bonus budget increases along with the number of members receiving a bonus, it is imperative that the Services and the DoD develop an accurate and reliable tracking and evaluation system. The lack of consistent and reliable data severely hampered QRMC analysis of the cost-effectiveness of the reserve bonus program. In addition, this lack of data has consistently restricted the ability of the Services and of military manpower research teams to assess the relationship between reserve compensation and bonus payments to the effectiveness of accession and retention programs. Although this lack of data may be due to complexities inherent in reserve service, lack of resources for reserve component research, and the relative newness of reserve incentives, it is still necessary to establish reliable data on bonus recipients for program evaluation.

Specific changes required include the capability to provide a periodic report on the effectiveness of reserve incentives in meeting reserve manpower strength and personnel readiness objectives. The lack of such capability to determine and periodically report on progress in improved unit and skill readiness resulting from the application of bonus programs should be remedied as a matter of some priority.

- **In order to apply reserve bonus programs with maximum effectiveness, the 6th QRMC recommends:**
  - **Continuing priority attention to the improvement of the quality and accuracy of the Reserve Components Common Personnel Data System.**
  - **Revision of DoD Instruction 7770.2, "Magnetic Tape Extracts of Military Pay Records," to require that reserve component pay file data be furnished quarterly to the Defense Manpower Data Center on the same basis as presently required for active pay file data.**
  - **Development of and periodic reporting of standard data displays on bonus programs for all reserve components.**

The capability to report personnel readiness impacts of bonus programs is dependent on reliable data on bonus eligibles and recipients in the Reserve Components Common Personnel Data System (RCCPDS). This data is presently required but the data reported is inaccurate and incomplete. Provision of quarterly reserve pay file information to the Defense Manpower Data Center (DMDC) is also needed. In conjunction with the RCCPDS information, pay file data will provide an integrated database for future bonus and other reserve compensation analyses. Finally, DMDC, the Office of the Assistant Secretary of Defense

for Reserve Affairs, and the Reserve Components should develop and report comprehensive data categorizing Ready Reserve incentive program participants by type of incentive, component, individual characteristics, and continuation rates by type of incentive. Appendix G contains an example of how such a data display might look.

The availability of this data will provide a basis for judging the cost-effectiveness of the reserve incentive programs. Combined with systems for reporting and tracking personnel readiness, this data can provide the basis for periodic OSD reports on the effectiveness of reserve incentives in support of personnel readiness.

Summary and Conclusions

Review of earlier studies and studies conducted for the QRMC by ARI, RAND, and CNA, show that bonuses for the reserve components are an effective and relatively inexpensive recruiting and retention tool. For reservists, the primary effects of bonuses are longer enlistment terms of service, longer committed man-years of service, reduced attrition, and higher quality recruits. These positive effects between increased compensation and reduced attrition result in the reserves being better able to meet their annual strength requirements. Longer-term effects are increased readiness and a better trained force, because members reenlist for longer periods.

Results of the 6th QRMC analysis support findings of prior studies. Examination shows that bonused skill cohorts tend to have higher continuation rates than unbonused cohorts and therefore lower attrition. However, after six years of service, bonuses tend to have less effect on the continuation rate. In addition, continuation rates appear to be affected by changes in the bonus program, as evidenced in decreased rates in years when the bonus authority was delayed.

Additionally, analysis of data from the 1986 Reserve Components Surveys indicates that both enlistment and reenlistment bonuses provide significant improvement in length of service. The longer terms of service, combined with higher continuation rates, should result in lower attrition and an improved ability to meet manpower strength objectives. Furthermore, bonuses provide a potential increase in total man-years of service. This potential gain in man-years should result in lower additional training costs for new enlistees (since fewer are required as members reenlist) and a higher quality force. However, the gain in man-years is dependent upon a member fulfilling the obligation incurred by the bonus.

Review of members' responses to survey questions concerning reasons for continued participation in the National Guard and Reserve showed that money for immediate expenses was a more important contributor to the decision to stay for bonused members than it was for members who did not receive bonuses. This supports the belief that bonuses provide an additional incentive to attract and retain individuals who would not otherwise enlist or continue in the reserve.

Although some anomalies exist in the reserve component bonus program, the program is essentially sound. Specific changes recommended with respect to individual bonus programs are intended to make the bonuses more productive at the current level of resource allocation. The QRMC recommends that legislative authority be pursued to authorize a test of a modified Selected Reserve Enlistment Bonus, reducing the initial payments and increasing the anniversary payments to provide a greater incentive to complete the contracted obligation.

Another recommended change would provide that the period of eligibility be lengthened, from less than 10 years to less than 14 years of total military service, for the Selected Reserve Prior-Service Enlistment Bonus and the Selected Reserve Reenlistment Bonus. This change is consistent with the active duty bonus program and increases the pool of potential reserve members in critical skills that might be targeted. Because an individual can receive only one of these bonuses, there should be no budget impact. In addition, members receiving these bonuses after the tenth year of service should be only those with very critical specialties.

Additionally, for individuals who receive the Selected Reserve Affiliation Bonus and whose remaining military service is over 18 months, the phase for final bonus payment should be changed. By moving the final payment to the sixth year after the original enlistment instead of the fifth year, the bonus is returned more closely to its original structure and provides a greater incentive near the end of the enlistment period.

The 6th QRMC also concludes that the General Educational Loan Repayment Program for the Selected Reserve must be justified on its use by service members, its cost, and the service manpower requirements. Because of low usage, apparent minimal impact on reserve accessions, and high per capita cost when compared to other incentives, the program requires a thorough review by the Services.

Finally, the lack of consistent and reliable data on reserve incentive programs severely restricts analysis of the cost-effectiveness and the accession and retention effects of these programs in relation to overall reserve compensation and manpower requirements. The Services and DoD must develop an

accurate and reliable tracking and eval ...der to evaluate the effectiveness of reserve i... ...pport of personnel readiness.

Educational Assistance Programs

Educational assistance programs have been used since World War II to assist veterans in their return to civilian life and to recognize their contribution to the nation. More recently, educational assistance has been demonstrated to be important as a recruiting incentive. The principal forms of education assistance have been the G.I. Bill programs administered by the Veterans' Administration and the Tuition Assistance program of the Department of Defense. Until recently those programs applied only to active service and active component members. The exception has been state-funded programs for members of the National Guard and, occasionally, the Reserve. These programs are identified in Appendix H to this volume.

Only recently have federal education assistance programs been authorized for reserve component members.[12] The Montgomery G.I. Bill for the Selected Reserve was implemented on July 1, 1985, and Tuition Assistance for members of the Army's reserve components has been paid since 1986. This section assesses these educational programs as part of the compensation package for Selected Reserve members.

Legislative Background

The first G.I. Bill educational benefits program was established in June 1944 to cover veterans who served between September 1940 and July 1947. Known as the Serviceman's Readjustment Act, the Act was based largely on the notion that those whose career or education plans were interrupted by conscription deserved some form of remuneration. Under this G.I. Bill, payments were made directly to educational institutions and could not exceed $500 per year for books, tuition, and fees. Veterans were also entitled to an additional $50 per month as a subsistence allowance. This particular form of benefit was chosen because it was thought to ease the transition back to civilian life.

Initially, this first G.I. Bill was not meant to provide an entitlement to all veterans but only to those who could demonstrate that their educational or training plans had been interrupted by compulsory military service. The original legislation was amended in 1945 to grant educational benefits to members who served a minimum specified term; a member no longer needed to demonstrate that education plans had been interrupted. The amended bill also authorized forwarding of benefit payments directly to the member.[13]

The Korean Conflict G.I. Bill took effect in August 1952 and covered members who served on active duty between June 1950 and January 1955. Like its predecessor, it eliminated direct payments to educational institutions and replaced them with an educational assistance allowance designed to meet both living and educational expenses. Under this bill, veterans were entitled to 1 1/2 months of benefits for every month of active duty service, not to exceed 36 months of benefits. A member was also required to commence education or training within three years after discharge and to complete it within eight years after discharge.

The post-Korean or Cold War G.I. Bill covered three different groups of veterans: peacetime, post-Korean veterans who served between January 1955 and August 1964; Vietnam Era veterans who served on active duty from August 1964 to May 1975; and post-Vietnam veterans who entered service before January 1977. This bill, which became effective on June 1, 1966, provided an educational assistance allowance of $100 per month for a maximum of 36 months, with the entitlement period figured at the same 1.5:1 ratio as the previous bill. Although there were some differences, this G.I. Bill contained features similar to the two previous bills: a relatively generous benefit, a long postservice period during which the benefits could be used, and broad discretion with regard to types of training that could be pursued.

The Vietnam Era G.I. Bill was replaced by the Veterans' Educational Assistance Program (VEAP) in 1974. Conscription had ended in 1973. The fact that mass entrants were part of the All-Volunteer Force (AVF) was the rationale for replacing the educational entitlement. The VEAP program was designed to meet two specific goals. First, it was to assist young men and women in obtaining an education they might not otherwise be able to afford; second, it would assist the AVF by attracting qualified men and women to serve in the Armed Forces.[14]

VEAP, unlike previous programs, was a contributory program: members who entered active service between January 1, 1977, and June 30, 1985, could contribute up to $75 per month, to a maximum of $2,700. The Veterans' Administration would add two dollars for each dollar contributed by the member. Therefore, those choosing to participate could accumulate up to $8,100 in educational benefits, $5,400 of which consisted of government matching funds. A participant who had contributed the maximum amount would draw $225 per month for 36 months. A subsequent change to this program allowed the service member to contribute up to the maximum ($2,700) in the form of a lump-sum payment.

This new program, which offered benefits of $5,400, was less attractive than the Vietnam Era G.I. Bill, which had offered benefits of over $12,000. As a result, the new program had an

adverse impact on the number of new accessions, particularly to the Army and Marine Corps. After the first year of the program, enlisted participation rates were 20.4 percent for the Army, 19.9 percent for the Navy, 7.9 percent for the Marine Corps, and 1.0 percent for the Air Force. By 1985, use of the program remained low. In the Army, with the highest participation, only 25 percent of new enlistees opted to participate. A possible reason for these low participation rates may be that members who received educational assistance payments could not also receive enlistment bonuses. As a result, many individuals chose the enlistment bonuses over the more generous educational assistance payments. Finally, the Veterans' Administration has indicated that, of members who were eligible, only 7 to 8 percent enrolled in the program and received benefits under VEAP, as compared with about 70 percent of eligible veterans who used some of their Vietnam Era G.I. Bill benefits.[15]

Given the poor recruiting results and low participation rates, the Fiscal Year 1981 Defense Authorization Act authorized the Services to conduct tests to determine what types of educational programs would best attract high quality graduates into military service. These tests authorized the use of supplemental educational bonuses ("kickers") ranging from $6,000 to $12,000; establishment of a noncontributory VEAP program; and establishment of a noncontributory Tuition Stipend, where enlistees received $1,200 per year in tuition assistance and a subsistence allowance of $300 per month for up to four academic years. The tests proved positive in attracting high quality graduates, but, a RAND Corporation study of the program concluded that the services should maintain a contributing program, and recommended that such a program should be targeted to hard-to-fill specialties.[16] In this way, program costs would be reduced, thereby creating a more cost-effective program than would a general entitlement available to all members.

Montgomery G.I. Bill Act of 1984

The new G.I. Bill program, initially entitled "The Veterans' Educational Assistance Act of 1984," was enacted in Public Law 98-525. The program consists of educational assistance for active duty service personnel (chapter 30 of title 38, United States Code) and for members of the Selected Reserve (chapter 106 of title 10, United States Code). Public Law 100-48, May 19, 1987, made permanent the new GI Bill and renamed it the Montgomery GI Bill (MGIB) Act of 1984.

Basic educational benefits under the active duty (chapter 30) program are funded and administered by the Veterans Administration. Participation in the chapter 30 program is only available to new entrants into the armed forces and requires that each new entrant agree to a nonrefundable reduction of $1,200 in basic pay ($100 per month for 12 months).

The law provides that a service member initially entering on active duty after June 30, 1985, is entitled to basic educational assistance benefits unless the service member declines participation in the MGIB. The following options are available to active duty personnel:

- Three years of honorable active duty service entitles an individual to $300 per month for a maximum of 36 months of full-time school attendance (or the equivalent thereof for part-time school attendance): a total of up to $10,800 in educational assistance.

- Two years of active duty service entitles an individual to a benefit level of $250 per month for a maximum of 36 months of full-time school attendance (or the equivalent thereof for part-time school attendance); a total of up to $9,000.

The Services may also provide additional benefits, known as "kickers" and funded by DoD, to qualified recruits who enlist for hard-to-fill occupational specialties. To date, only the Army and Navy have implemented this option.

The program is also available with a combination of active duty and reserve participation. If a member participating in the MGIB serves a two-year tour of duty and agrees to serve at least four years of continuous duty in the Selected Reserve, that member is entitled to $300 per month for a maximum of 36 months of full-time school attendance (or the equivalent thereof for part-time school attendance); a total benefit of up to $10,800. Under section 1416, education assistance may start immediately upon commencement of Selected Reserve service. This feature is known as the "section 1412" or "2X4" program and is part of the chapter 30 program for service on active duty. This program falls within the 6th QRMC reserve compensation review, inasmuch as it also provides an incentive for Selected Reserve service.

The MGIB broke important new ground as it provided the first educational assistance program for members of the Selected Reserve. This program serves to promote and assist the AVF and further recognize the Total Force policy and the role played by members of the Selected Reserve. Selected Reserve members must meet the following criteria to qualify for educational assistance:

- A member must enlist, reenlist, or extend the service obligation for a period of six years (on or after June 30, 1985).

- A member must possess a high school diploma or equivalent.

- A member must complete Initial Active Duty for Training (IADT) and serve as a member of the Selected Reserve for at least 180 days.

Individuals not eligible to participate in this program include the following:

- Those who have a baccalaureate degree
- Those currently receiving an ROTC Scholarship
- Members entitled to educational assistance under Chapter 30 of title 38 based on Section 1412

There are important differences between the Montgomery G.I. Bill as it applies to active duty personnel and as it applies to members of the Selected Reserve. First is the difference in eligibility. Only active duty personnel enlisting after June 30, 1985, are eligible for educational benefits under the MGIB. In contrast, all members of the Selected Reserve are eligible for MGIB benefits, providing they enlist or reenlist for the prerequisite term, have a high school diploma, and have served a specified period in their reserve component. Second is the difference in benefits. Active duty personnel cannot use their benefits until they have completed at least two years of active duty. In contrast, for new reservists, benefits can be used almost immediately. Once they complete the initial active duty for training and serve at least 180 days in the Selected Reserve, they are eligible to receive benefits under the MGIB. Third, the Selected Reserve benefit does not require any contribution from the member, while the active duty program involves a $100 reduction in basic pay for 12 months. Unlike its active counterpart (chapter 30), the chapter 106 program is entirely funded by DoD, and for members of the Coast Guard, by the Department of Transportation.

Under the program for the Selected Reserve, members who enlist, reenlist, or extend for a period of not less than six years after June 30, 1985, are entitled to educational assistance benefits at the following rates, not to exceed $5,040 in benefit:

$140 per month for full-time education
$105 per month for 3/4-time education
$ 70 per month for 1/2-time education

An individual is not entitled to receive both chapter 30 and chapter 106 benefits concurrently. Although it is possible to earn an entitlement to both, there is a maximum benefit period of 48 months for education programs administered by the Veterans' Administration for individuals entitled to more than

one program (Vietnam Era GI Bill benefits under chapter 34 of title 38; War Orphans Educational Assistance Act of 1956; and Hostage Relief Act of 1980, to name a few).

The legislative history of the MGIB indicates that its enactment had two primary purposes. First, the program was created to assist in the readjustment of veterans to civilian life following separation from military service. Second, and most important to the Selected Reserve program, the MGIB was designed to assist in the recruitment and retention of high quality personnel by the armed forces.[17]

The Value of the Montgomery G.I. Bill for the Selected Reserve

The traditional purpose of the G.I. Bill, assisting military members to transition to civilian life, is not relevant to a reserve force GI bill. Many reserve members are full-time employees in the civilian labor market. The primary function of an education program in the reserve forces is the significant incentive it provides individuals to join a reserve component and remain long enough to earn entitlement for educational benefits. This has the added benefit of developing more highly educated members with greater skills, but is clearly secondary to the recruiting and retention benefit to the Services.

The value of the MGIB with respect to an individual desiring an education is plainly evident. Monthly educational benefits, along with a part-time job, may enable those who otherwise cannot afford it to enroll in a full-time education program. Among MGIB participants in the enlisted reserve who have full-time jobs and less than five years of service, over 85 percent are participating at the full-time level. Further, users of the MGIB benefits are employed at full-time civilian jobs at close to the same rate as nonparticipants. For example, in the 1986 Reserve Components Surveys, 64 percent of members in pay grade E4 (the most populous pay grade) using the MGIB reported that they were also "working full-time in a civilian job" and/or "self-employed in own business," as compared to 70 percent of all Selected Reservists in pay grade E4. It should be noted that, even if the members who use this benefit decided not to stay, the MGIB provides to each of them the means for educational improvement. Additionally, it enables them to make a contribution to the country earlier than they could without educational assistance.

The value of a G.I. bill to the reserve forces can be determined by examining its impact in these three areas:

- Enhanced quantity and quality of accessions
- Improved retention of quality members in the reserve
- Improved effectiveness of reserve members

Quality and Quantity of Accessions

Data on the reserve forces is limited and the time since implementation is relatively short, but there are clear indications that the MGIB is having a positive impact on reserve accessions. Because eligibility for the benefit is limited to individuals with a high school diploma and the benefit attracts those interested in further education, the program is targeted to the high quality individuals sought by the reserve components.

One way to determine the importance of the MGIB to new recruits is by evaluating members in their early years of service. Over 10 percent of all second-year reserve enlisted members were attending school under the MGIB as of March 1987. (The second year of service was chosen because much of the first year is taken up by initial active duty for training, a requirement for MGIB eligibility, and because most members now in their second year joined after the effective date of the MGIB.) The Air National Guard, with 27 percent attending, had the highest percentage of its second-year enlisted members attending school under the MGIB. Of all second year participants, 87 percent are attending school full-time.

Retention of Quality Members

The MGIB has its primary draw with younger members. Ninety percent of the enlisted participants in the MGIB are under age 30, while only 56 percent of all enlisted members in the Selected Reserve are under age 30. Fifty percent of the participants are under age 22. Thus, the MGIB complements and balances the draw of other reserve benefits such as the retirement system, which has a greater effect in later years.

Educational benefits are generally important to new reservists. For example, in the 1986 Reserve Components Surveys, 57 percent of enlisted members with less than four years of service responded that using educational benefits was a major or moderate contributor in their most recent decision to stay in the reserve. A majority of members in pay grades below E4 responded in a similar manner. As can be observed in Figure 5-11, interest in educational benefits is substantial in the reserve enlisted force.

Limiting the analysis to those targeted by the MGIB (enlisted members with a high school diploma but no college degree) it can be seen that, regardless of the year of service, participants in the MGIB are more likely to remain in the reserves than their nonparticipating counterparts. Figure 5-12 shows the annual continuation rates (i.e., the probability that a member will still be in the reserve one year later) comparing MGIB participants (enlisted reservists with a high school diploma and

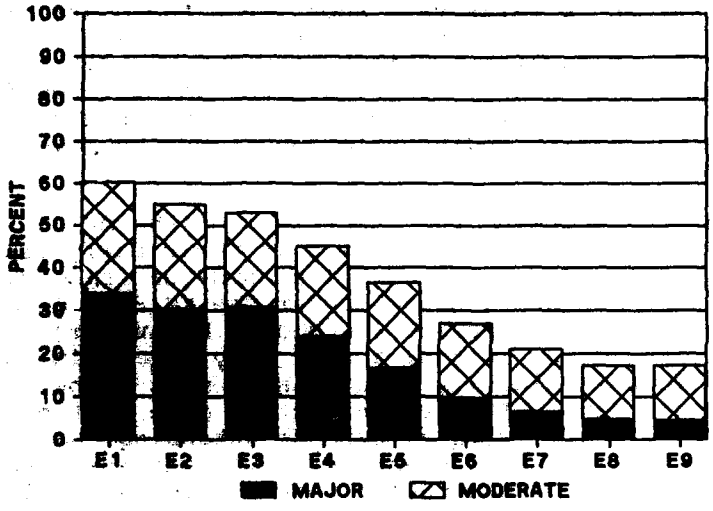


FIGURE 5-11. IMPORTANCE OF EDUCATIONAL BENEFITS (ALL COMPONENTS)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

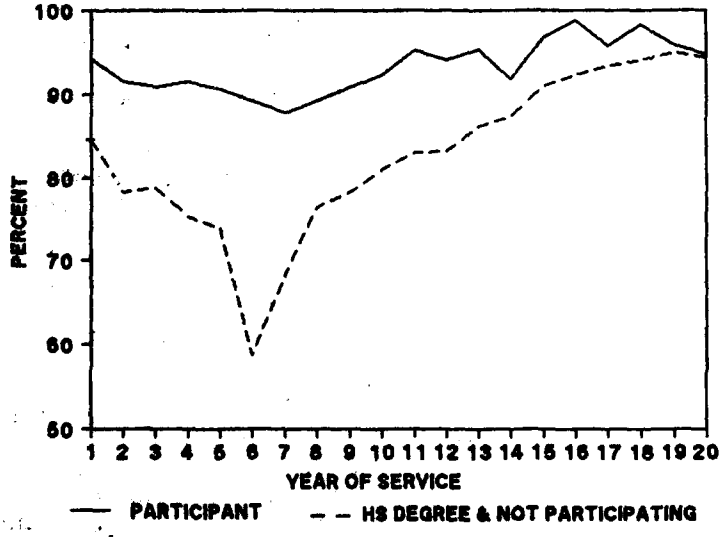


FIGURE 5-12. CONTINUATION RATE FOR MONTGOMERY GI BILL PARTICIPANTS (ENLISTED ALL COMPONENTS)

SOURCE: MGIB DATABASE Sep 1986 - Mar 1987

no college degree) with those who are not participating. The annual continuation rates were derived from data for the six-month period from September 1986 through March 1987. Overall, for these two groups, the continuation rate for MGIB participants is 15.2 percent higher (91.3 percent for participants as against 79.2 percent for nonparticipants). The difference is most dramatic for those completing six years of service: in this category, the MGIB participants have a 89.2 percent continuation rate while the nonparticipants have a 58.7 percent rate.

Limiting the analysis to members who committed for six-years since July 1, 1985, by further restricting the comparison to include only members eligible for the MGIB (high school diploma, no college degree, complete initial active duty for training, and a six-year commitment), the comparison still favors the MGIB. The continuation rate for members participating in the MGIB is 12.5 percent higher than for those eligible but not participating (91.3 percent versus 81.1 percent). The difference is primarily reflected among those in their first seven years of service and is quite large for those in their first four years of service. See Figure 5-13.

If these continuation rates are sustained during the first six years of service, the differences are even more striking. For example, out of every 1,000 new reserve members who have a high school degree but no college degree (non-MGIB and not eligible), 170 of them will complete six years of service; out of these eligible for but not participating in the MGIB, 321 of them will complete six years of service; and out of all new members who are participating in the MGIB, 578 of these will complete six years of service. In terms of reduced initial training requirements, the savings would be substantial.

About one out of every eight participants with four to six years of reserve service has at least two years of prior active duty. For the members in this group with a high school diploma and no college degree, the continuation rate for participants is 42 percent higher (86.9 percent versus 61.2 percent). Restricting the comparison to members who are eligible for the MGIB (and therefore have a six year commitment) yields an overall four to six year continuation rate that is 5.8 percent higher (86.9 percent versus 82.2 percent). If these continuation rates are sustained, the differences are, again, more striking. For example, for every 1,000 prior service reserve members with a high school degree but no college degree (non-MGIB and not eligible), 237 will complete the three-year period from four to six years of service; for members eligible but not participating in the MGIB, 552 will complete it; and, for prior service members who are participating in the MGIB, 653 will complete the three-year period. The Army Research Institute, in a study of the effect of the MGIB and of higher

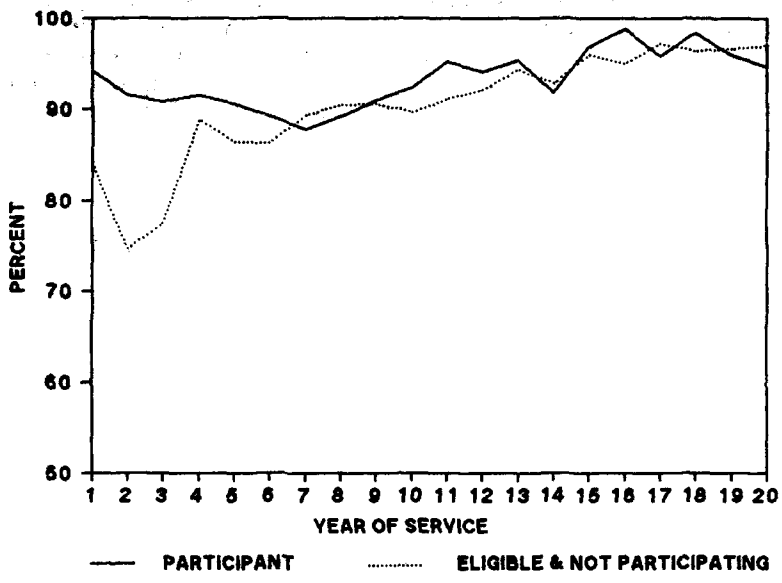


FIGURE 5-13. CONTINUATION RATE FOR MONTGOMERY GI BILL PARTICIPANTS (ENLISTED ALL COMPONENTS)

SOURCE: MGIB DATABASE Sep 1986 - Mar 1987

reenlistment bonuses on Army reserve component reenlistments, concluded that the MGIB increased the committed man-years of service for both the Army National Guard and the Army Reserve and resulted in a significant net increase in reenlistment contracts in the Army National Guard (See Appendix D).

These comparisons are not conclusive. In part, this is because we do not know whether the gain in retention will be sustained throughout the commitment of those participating in the MGIB. Also, the gain is not necessarily due exclusively to the MGIB. However, the comparisons strongly indicate that a reduction in attrition can be obtained from the commitment associated with qualifying for and participation in the MGIB.

Contribution to Effectiveness of National Guard and Reserve Members

Although not a stated objective of the MGIB, further education typically enhances the member's value to the reserve. Twenty percent of the enlisted MGIB participants have more than four

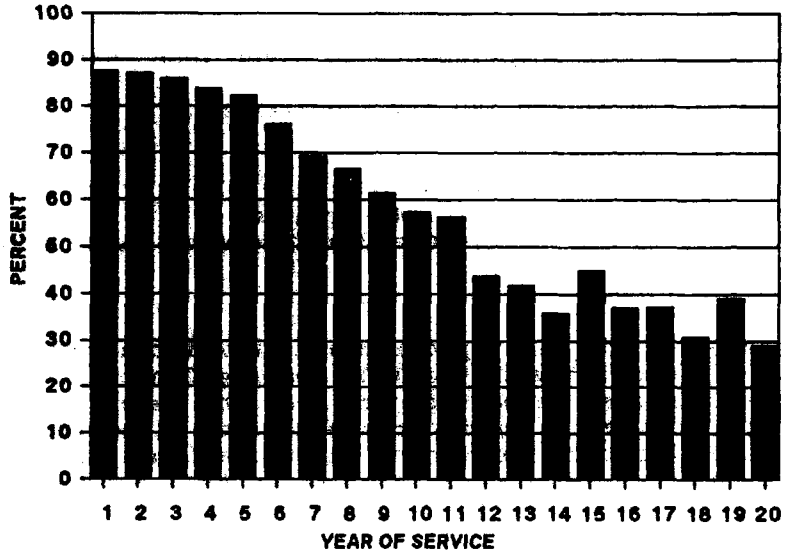


FIGURE 5-14. MONTGOMERY GI BILL - FULL TIME PARTICIPANTS (ALL COMPONENTS ENLISTED PARTICIPANTS)

SOURCE: MGIB DATABASE Mar 1987

years of service. As Figure 5-14 shows, the part-time options (quarter-time is not an option) are used most frequently by members with more than 11 years of service, whereas the full-time option is by far the most frequent option for members with less service.

A Closer Look at the MGIB

Although the MGIB has been in existence for a relatively short time, there have been suggestions of ways to increase its overall effectiveness.[18] Suggestions were made to a delegation from the House Committee on Veterans' Affairs during their field visits to a number of service training sites; suggestions included such recommendations as reducing the monthly payment contribution (active duty personnel only) to $50 a month for a period of 24 months instead of $100 per month for 12 months. For members of the Selected Reserve, suggestions for program changes included the extension of educational benefits for less than half-time attendance and the use of benefits for post-graduate education were requested. Given these desired changes, the 6th QRMC reviewed the MGIB program for the following:

- Possible modifications
  - Extending MGIB entitlements to include graduate education and vocational training

- Administrative changes
  - Extending MGIB entitlements to cover less than half-time attendance
  - Elimination of the 180 day requirement

- Potential problems
  - "2x4" program administration
  - Inequities of current "2x4" program
  - Eligibility for Active Guard and Reserve (AGR) members

Program Modifications

During the QRMC Unit Visit program and in written comments provided in conjunction with the 1986 Reserve Components Surveys, reservists expressed concern that the reserve MGIB can be applied only toward a baccalaureate degree. (Samples of these and other comments concerning the educational assistance program are included in Appendix A at pages A-42 - A-53.) Some reservists pointed out that participants in the active components can use their GI Bill for any educational program approved by the VA: vocational or technical training, graduate education correspondence studies, and apprenticeship on-the-job training. They also believe it is discriminatory to deny entitlement to educational benefits to an individual who already has a degree.

Survey statistics indicate that more than 126,000 officers and enlisted reservists (58,487 officers and 67,644 enlisted members) already possess a baccalaureate degree and are ineligible for educational benefits. Over 24,000 reservists (10,509 enlisted members and 13,858 officers) are currently attending graduate school.

The 1986 Reserve Components Surveys were used to determine the number of individuals enrolled in graduate studies, their years of service, and their reserve component. As suggested previously, the value of the MGIB to the reserve forces can be counted in terms of enhanced quantity and quality, improved retention and improved effectiveness of reserve members. For comparison purposes, data for officers and enlisted members enrolled in undergraduate, graduate, and vocational training programs is shown in Tables 5-6 through 5-11.

Note: In Tables 5-6 through 5-11, NPS stands for nonprior service and refers to members who entered the reserves with no previous military experience. PS stands for prior service and refers to members who have previously served in an armed force prior to their entry into the reserve.

Table 5-6. Year Group Distribution of Officers Attending Undergraduate Program (FY86) by Years of Service

YOS Group	ARNG %	USAR %	USNR %	USMCR %	ANG %	USAFR %	CGR %	TOTAL
Less than 6 NPS	20.0	39.8	0.0	0.0	8.2	59.5	0.0	23.6
Less than 6 PS	0.4	0.0	0.0	0.0	3.9	0.0	0.0	0.5
6 to 11	31.2	21.5	8.9	47.9	37.8	40.5	0.0	29.3
12 to 19	25.8	23.1	57.0	37.2	32.6	0.0	54.8	25.9
More than 19	22.6	15.6	34.2	14.9	17.5	0.0	45.2	20.7
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	5267	1618	79	94	389	79	31	7620

Source: 1986 Reserve Components Surveys

Table 5-7. Year Group Distribution of Enlisted Members Attending Undergraduate Programs (FY86) by Years of Service

YOS Group	ARNG %	USAR %	USNR %	USMCR %	ANG %	USAFR %	CGR %	TOTAL %
Less than 6 NPS	42.6	36.9	21.5	70.0	37.9	25.6	40.4	37.1
Less than 6 PS	10.1	16.4	16.3	5.6	10.8	13.7	6.6	12.8
6 to 11	26.1	31.4	41.5	13.6	27.7	38.6	34.5	30.7
12 to 19	15.4	11.5	14.1	6.4	18.8	17.6	16.9	14.3
More than 19	5.8	3.7	6.6	4.4	4.8	4.5	1.6	5.0
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	23951	21561	12947	5211	10535	9291	1606	85102

Source: 1986 Reserve Components Surveys

Of those enrolled in graduate programs, 50 percent of the officers and 44 percent of the enlisted members have more than 11 years of service. In early 1986, nearly 14,000 officers and 10,500 enlisted members were attending graduate school, representing about 9 percent of all officers and one percent of enlisted members.

The pattern is different for vocational training. Few officers (437, which is less than 0.3 percent) were enrolled, and 76 percent of the officers who were attending vocational training courses had more than 11 years of service. Only

Table 5-8. Year Group Distribution of Officers Attending Graduate/Professional Programs (FY86) by Years of Service

YOS Group	ARNG %	USAR %	USNR %	USMCR %	ANG %	USAFR %	CGR %	TOTAL %
Less than 6 NPS	16.5	16.9	7.0	1.4	10.8	13.9	2.4	13.5
Less than 6 PS	1.5	2.6	3.6	5.4	2.5	5.1	4.7	2.9
6 to 11	32.2	31.3	40.1	40.2	34.7	34.1	26.6	34.0
12 to 19	36.3	37.5	32.5	42.2	37.4	33.5	47.3	36.1
More than 19	13.5	11.7	16.9	10.8	14.6	13.4	18.9	13.6
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	2814	5365	2846	353	1016	1295	169	13858

Source: 1986 Reserve Components Surveys

Table 5-9. Year Group Distribution of Enlisted Members Attending Graduate/Professional Programs (FY86) by Years of Service

YOS Group	ARNG %	USAR %	USNR %	USMCR %	ANG %	USAFR %	CGR %	TOTAL %
Less than 6 NPS	24.3	19.0	11.2	43.1	13.6	8.6	27.4	17.7
Less than 6 PS	5.4	7.1	4.7	0.0	4.4	4.5	2.2	5.4
6 to 11	27.7	33.3	33.0	20.7	41.0	40.6	28.1	33.1
12 to 19	34.2	32.4	35.9	26.8	34.6	34.2	31.7	33.8
More than 19	9.0	8.2	15.1	8.5	6.3	11.8	10.5	9.9
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	2198	3239	1995	295	977	1472	333	10509

Source: 1986 Reserve Components Surveys

3 percent of enlisted members were enrolled in vocational training. These members are more evenly spread over the years of service than officers are; however, the highest level of participation is among members who have passed their initial reenlistment decision.

To be effective as a recruiting and retention tool, the MGIB should primarily appeal to members in the earlier years of service, generally those with less than 11 years of service. Interest by members with more than 11 years of service has a relatively small impact on retention because these members are

Table 5-10. Year Group Distribution of Officers Attending Vocational/Trade/Business Schools (FY86) by Years of Service

YOS Group	ARNG %	USAR %	USNR %	USMCR %	ANG %	USAFR %	CGR %	TOTAL %
Less than 6 NPS	0.0	0.0	0.0	0.0	36.1	0.0	0.0	2.3
Less than 6 PS	0.0	0.0	0.0	0.0	0.0	100.0	0.0	2.4
6 to 11	24.6	9.1	0.0	23.8	0.0	0.0	0.0	19.1
12 to 19	49.0	37.2	0.0	47.6	0.0	0.0	0.0	42.2
More than 19	26.4	53.7	0.0	28.6	63.9	0.0	0.0	34.0
Total %	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Total Number	382	121	-0-	21	36	14	-0-	574

Source: 1986 Reserve Components Surveys

Table 5-11. Year Group Distribution of Enlisted Members Attending Vocational/Trade/Business Schools (FY86) by Years of Service

YOS Group	ARNG %	USAR %	USNR %	USMCR %	ANG %	USAFR %	CGR %	TOTAL %
Less than 6 NPS	31.3	21.5	21.5	53.6	19.5	18.7	26.8	25.7
Less than 6 PS	8.8	12.7	20.6	7.5	5.5	5.3	6.0	11.2
6 to 11	30.3	37.6	33.0	21.3	30.7	7.4	23.4	32.4
12 to 19	20.4	20.7	16.2	12.7	31.9	35.4	36.6	21.7
More than 19	9.2	7.5	8.7	4.9	12.4	13.2	7.2	9.0
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	9338	8095	4056	903	2120	1857	265	26634

Source: 1986 Reserve Components Survey

already being encouraged to stay by the retirement system. In our evaluation, the percentage of people attending undergraduate, graduate, and vocational training, by years of service, is an indicator of the interest in each program. Table 5-12 summarizes participation by members in the following groups:

- Members with less than 6 years of service
- Members with 6 to 11 years of service
- Members with more than 11 years of service

Table 5-12. MGIB Participation by Years of Service

YOS Type of Program	Officers %	Enlisted Members %
Less than 6 YOS		
Undergraduate	24.1	49.9
Graduate (Proposed)	16.4	23.1
Vocational (Proposed)	4.7	36.9
6-11 YOS		
Undergraduate	29.3	30.7
Graduate	34.0	33.1
Vocational	19.1	32.4
More than 12 Plus		
Undergraduate	46.6	19.3
Graduate	49.7	43.7
Vocational	76.2	30.7

Source: 1986 Reserve Component Surveys

Over half the officers and 80 percent of the enlisted members attending undergraduate programs have less than 12 years of service. Some of the undergraduate attendance by members in the junior grades is by members whose accession was generated by the MGIB. This group is small, however, because the MGIB became effective on July 1, 1985, and such members would have had to join and complete IADT and be attending school when the survey was administered--the spring of 1986 (all within nine months).

A 1986 Army Research Institute survey of new accessions into the Army National Guard and Army Reserve provides some additional information on the relative importance of educational benefits for a college education as compared with benefits for vocational, technical or business school education. In rating how the importance to the enlistment decision of money for a college education or for vocational education in the enlistment decision, 27 and 25 percent of male enlistees into the Army National Guard and Army Reserve, respectively, indicated that they would not have enlisted except to get money for college. The comparable figures with respect to money for vocational education were 10 and 9 percent. The responses for both sexes by education level and, for USAR enlistees only, by test score category on the Armed Forces Qualifying Test (AFQT, 1980 norms) are shown in Table 5-13.

Table 5-13. Importance of Money for Education in Enlistment Decision by Educational Level

	High School Grad (including equiv)				Non-High School Grad			
	ARNG		USAR		ARNG		USAR	
Importance	College/Votech %		College/Votech %		College/Votech %		College/Votech %	
Not at all important	15.3	41.4	14.7	45.2	31.6	39.2	43.0	42.7
Would not have enlisted except for this reason	31.3	11.1	26.9	8.9	11.7	7.4	7.0	6.3

BY AFQT Score Category
(USAR Only)

	3B/4		3A		1/2	
	College/Votech %		College/Votech %		College/Votech %	
Importance						
Not at all	24.0	34.9	16.4	42.2	9.8	55.5
Would not	14.9	8.1	23.7	10.6	36.0	9.0

This data indicates that enlistees who are high school graduates or who have the highest AFQT test scores value money for a college education much more than they do money for vocational or technical education and value it more than do those who have not graduated or who score lower on the AFQT. Interestingly, the high school graduates and those with higher AFQT scores also value vocational education slightly more highly.

Viewed from the perspective of recruiting and retention, the foregoing data suggests the following:

- **Graduate-level education** - A graduate-level education benefit appears to have little potential for significant effect among enlisted personnel. Today, between 1 and 5 percent (depending upon component) of enlistees without prior service enter the Selected Reserve with an undergraduate degree. This percentage is unlikely to increase greatly even if graduate education were available under the MGIB. Therefore, extending graduate-level benefits to enlisted members would not yield significant

accession effects. Similarly, benefits would not be likely to have more than a marginal impact on retention; the primary draw of such coverage in the enlisted force would be among members with more than 11 years of service (44 percent), who are already likely to stay due to the retirement draw. Similarly, 50 percent of officers have more than 11 years of service. As for the contribution of graduate education to the effectiveness of reserve members in accomplishing their duties, it is questionable that the impact of graduate study would merit the added program cost. Although graduate education would be beneficial for most officers, it is not clear that the extension of the MGIB to cover graduate study would influence many more officers to enter graduate programs. It is likely that the primary use would be by members already committed to advanced education. The annual additional costs for this benefit would be $13.4 million.

- Vocational education - Unlike graduate study, vocational and technical benefits would appeal primarily to enlisted members. For members of the Selected Reserve, extending MGIB coverage to attendance at vocational courses is likely to yield greater retention benefits than extending coverage to graduate study. In relation to the costs of covering vocational and technical educational programs under the Selected Reserve MGIB, the benefits are unclear. The data indicates that enlisted members with less than six years of service participate in vocational training four times as often as they participate in graduate training. Conversely, 17 officers participate in graduate level programs for every officer who enrolls in a vocational training program. A vocational training benefit would clearly be more beneficial in attracting junior enlisted personnel with less than six years of service than would a graduate education benefit. The cost of extending the Selected Reserve MGIB program to cover vocational training is estimated to be $21.6 million annually.

Recruiting and retention effects are not, however, the only criteria by which to judge the merits of possible program modifications. Written comments completed by Selected Reserve members and their spouses during the 1986 Reserve Components Survey frequently raised the issue of equity. The following comment by an enlisted Selected Reservist is typical:

> Educational opportunities and benefits should be uniform. I received a Bachelor's Degree shortly after enlisting in the service and have earned a Professional License in two states since that time. I have never been eligible for any civilian educational benefits and the "new G.I. Bill" isn't worth the paper it is written on to me.

Although more enlisted members were attending vocational and technical training, it was the absence of a graduate education benefit that was mentioned most frequently. Interestingly, a member of spouses, reflecting on what they perceived as the relatively limited range of benefits available to reserve families prior to retirement at age 60, suggested that they would highly value educational benefits that could be transferred from the member to the member's dependents.

From a program analysis perspective, the equity argument is somewhat inconsistent. The Selected Reserve program differs from the active duty program in several critical aspects. Most importantly, in the Selected Reserve, the benefit is immediately available and is not limited to new entrants. Because the program does differ from the active duty program, it makes sense for the entitlement to differ also. This perspective is lost on most of those affected by current limitations on the scope of the MGIB benefits package for the Selected Reserve.

Conclusions on Program Modification

The 6th QRMC reviewed possible MGIB program changes relative to their potential effects on recruiting and retention. The evaluation was primarily limited to effects on members with less than 11 years of service, and in particular, members with less than six years of service because the highest attrition occurs among these individuals.

Given the data derived from the 1986 Reserve Components Surveys, the 6th QRMC believes that extending vocational and graduate training entitlements to members of the Selected Reserve would have a positive but modest effect on recruiting and retention. The added costs of these proposals ($13.4 million for graduate education and $21.6 million for vocational training) might be more effective, however, if used to enhance enlistment and reenlistment bonuses for critical military skills, and for specialties needed to meet the requirements of expanding missions of the reserve components.

Administrative Changes

The requirement to complete 180 days of service in the Selected Reserve for entitlement to chapter 106 benefits is felt by some to be a significant administrative burden and not essential to an effective program. Because every member must complete an initial period of active duty for training before receiving educational benefits, it is redundant to require the 180 days of service. This appears particularly relevant to personnel with prior service who, because of their former service, are not required to attend IADT. These individuals have demonstrated their retainability over a period of time and are considered deployable assets.[19] Information furnished by the Army indicates that 95 percent of those completing basic and advanced individual training already have more than 180 days of service. Elimination of the 180-day requirement would also significantly reduce administrative workload and help simplify the administration of the chapter 106 program.

- The 6th QRMC recommends that section 2132(b)(2) of title 10, United States Code, be amended to delete the requirement to complete 180 days of service in the Selected Reserve.

The 6th QRMC also reviewed the value of providing eligible reservists the option of using their MGIB educational entitlement for attending school less than half-time. Under Veterans' Administration rules, half-time attendance is defined as a minimum of six credit hours of course work. Even when enrolled and participating in the MGIB, members are not entitled to benefits if they take less than six credit hours. Although most participating reservists are attending full-time, there seems to be a definite need in the Selected Reserve for a benefit for less than half-time attendance. Active duty members participating in the MGIB on less than a full-time basis are compensated at an appropriately reduced rate, whereas members of the Selected Reserve must participate at least half-time to receive any benefit at all. Considering the competing demands placed upon the reservist (reserve duties, civilian employment, school, and family), it seems reasonable to extend the MGIB to cover attendance on less than half-time basis. Such a change would incur no additional cost for enrolled participants and minimal cost for additional participants. The annual cost is estimated at $1.1 million. This change would allow members to balance their priorities without penalty when they must pursue their education on less than a half-time basis.

- The 6th QRMC recommends an amendment to chapter 106 of title 10, United States Code, to provide educational benefits for less than half-time attendance.

The Section 1412 ("2X4") Program

Basic educational assistance for service on active duty under the MGIB is contingent upon three years of continuous service on active duty or, in the case of an individual whose initial service of active duty is less than three years, completion of at least two years of continuous active duty. Under the two-year program, members who enlist for two years of active duty are entitled to receive educational benefits totalling $9,000 ($250 per month for 36 months). The Army is the only service that offers a two-year enlistment option without a requirement for further service in the Selected Reserve.

The "2X4" Program extends this two-year option through a combination of service on active duty and service in the Selected Reserve. Under this program, a member who serves two years of active duty, followed by at least four years in the Selected Reserve, receives educational benefits totalling $10,800 ($300 per month for 36 months). Currently, only the Army and Navy offer this option and the Army and Navy programs differ somewhat in their application.

The Army offers a straight two-year enlistment option, so members are not required to opt initially for the six-year commitment (2 plus 4). Instead, those who enlist in the Army for two years of active duty and who then separate from active service may, up to one year after leaving active duty, decide to affiliate with the Selected Reserve for the prerequisite four additional years and thereby meet the eligibility requirements of the program.

The Navy program requires prospective members to contract initially for participation in the "2x4" program. All other components require three- or four-year enlistments that entitle members to maximum benefits under the chapter 30 program.

Comparing both programs and their corresponding benefits, the two-year enlistment option appears more attractive. For two years of service, a member is entitled to $9,000 in benefits. By agreeing to serve for four years in the Selected Reserve, benefits are increased by only $1,800. This appears to be a disproportionately small benefit to the time required. If there were only a "2x4" option, a member might well opt for such a program in lieu of serving a three- or four-year enlistment that provides the same amount of educational benefit. The 6th QRMC review suggests that benefits for the two-year option are disproportionate compared with those of the "2x4" option. Where only the "2x4" option is available, this is not a problem. Where a straight two-year enlistment is offered, however, the additional benefit to be gained by agreeing to the four years of Selected Reserve service is insufficient.

Table 5-14. MGIB and Benefits Current System vs. Suggested System

Service	Monthly Entitlement	Months	Maximum $ Value
Current System			
2 Yrs AD	$250	36	$ 9,000
2 Yrs AD with 4 Yrs SELRES	$300	36	$10,800
(Incentive for reserve service = $1,800)			
Suggested System			
2 Yrs AD	$300	24	$ 7,200
2 Yrs AD with 4 Yrs SELRES	$300	36	$10,800
(Incentive for reserve service = $3,600)			

Maximum Value "2X4" Program for either system = $10,800

It can be argued that, in each case, the additional $450 per year in educational benefits, plus the reserve compensation, plus any Selected Reserve incentives or state educational assistance programs, could make this an attractive option for the individual already predisposed to Selected Reserve service. As an incentive to attract additional active force separatees into the Selected Reserve, however, the additional $50 per month in educational benefits is somewhat limited.

An optional benefit formula would set the basic monthly entitlement at $300 and allow the months of entitlement to accrue based on months of service, i.e., one month of educational assistance for each month of active duty, and one month of educational assistance for each four months of Selected Reserve service. Table 5-14 compares the current system with this alternative.

The 6th QRMC concluded that this alterative would provide a greater incentive for a member to affiliate with a reserve component upon separation or to elect the "2x4" option initially, because the total dollar value of the entitlement would increase. Under this alternative, by reducing the benefit for active duty time, the benefit for Selected Reserve time increases from $1,800 in benefits to $3,600, while the combined value for the "2X4" Program remains constant. Since the alternative would result in a reduced benefit for those who serve only 2 years on active duty, it would be necessary to grandfather individuals currently in this program in event of a program change.

"2X4" Program Inequities

Enactment of an alternative that would base educational benefits on months of service would solve other problems associated with the "2X4" Program. Individuals who do not complete their contractual obligation in the Selected Reserve after successfully completing the second year of active duty receive varying benefits under the current "2x4" Program. Their treatment is due to one of the following situations:

- They are discharged for the convenience of the government.
- They are discharged or released due to service-connected medical disability or hardship.
- They are classified as unsatisfactory performers.

Currently, a "2x4" participant discharged from the service for the convenience of the government before completing 3 1/2 years of Selected Reserve service receives educational benefits based on active duty time (36 months of educational benefits at a rate of $250 per month or $9,000). However, an individual who is separated from the service for hardship or a service-connected disability during this same time period receives educational benefits on a month-for-month basis (i.e., 24 months X $300 = $7,200) plus one month's benefit for each four months served in the Selected Reserve. Table 5-15 reflects the entitlements for two individuals who serve on active duty for two years and join the Selected Reserve under the "2x4" program. Each member separates after 1 year: Reservist A for the convenience of the government (COG) or as an unsatisfactory performer and Reservist B for hardship/medical disability reasons.

Table 5-15: "2x4" ENTITLEMENTS

	Active Duty	With SELRES Option	Separation after One Year	Reason for Separating
Individual A	$9,000	$10,800	$9,000	Unsatisfactory performance/COG
Individual B	9,000	10,800	8,100	Hardship/ Medical

Greater compensation for someone discharged for the convenience of the government than for one who is discharged for medical or hardship reasons does not fulfill any program objective and is inequitable. This anomaly should be corrected.

- **The 6th QRMC recommends that sections 1413(a)(1) and 1415 of title 38, United States Code, be amended to base the accrual of basic educational assistance on the months of active duty service performed, deleting the $250 entitlement for two years of service and setting a monthly dollar entitlement of $300, the total entitlement to be dependent on the months of service performed. To prevent a reduction in benefit levels for members participating in the existing program, a grandfather provision should be included.**

Administrative procedures are especially complex for the "2X4" Program. There are already some 800 members who, upon separation from active duty and entry into the Selected Reserve, must be verified as participating members of the Selected Reserve. This verification, in the form of automated data, must be furnished to the Defense Data Manpower Center by the Services before a member can receive the higher educational benefits from the Veterans' Administration. When the Veterans' Administration cannot verify a member's eligibility, benefits are delayed or reduced to the $250 level. A need exists, therefore, for an interactive automated system that can furnish timely identification of eligibility to the Veterans' Administration for payment or benefits.

- **The 6th QRMC recommends that a DoD study group review the existing and prospective administrative problems associated with the "2X4" option. The study group should ensure that problem resolution is within the limits of reasonable administrative capability and resource expenditures.**

Active Guard/Reserve (AGR) Entitlements

Another inconsistency in the present law relates to entitlements of AGR members. These members potentially have eligibility for MGIB benefits under chapter 30 of title 38, United States Code, and chapter 106 of title 10, United States Code. This was clearly not the intent of the MGIB; the Selected Reserve benefit was specifically aimed at part-time members.

Full-time AGR members are also members of the Selected Reserve. These members qualify for chapter 30 active duty benefits if they initially enter active duty after July 1, 1985; and if enlisted for a period of six years, they are also entitled to Selected Reserve benefits. An individual who serves in the Selected Reserve may not receive credit for such service under both the chapter 30 and 106 programs simultaneously, however, but must elect the program to which such service is to be credited (section 1433).

A more significant concern is that the AGR has an entitlement that would not be available to an active component member in the same circumstances. The active duty educational program is applicable only to new entrants. Except in the case of the Navy's Tar Enlistment Program, relatively few AGRs enter AGR status without prior service. The active duty AGR, however, is eligible for Selected Reserve benefits without regard to prior service. This is inequitable: there is no evidence that it was intended that AGRs receive benefits in excess of those received by an active component counterpart or that Congress ever intended to include full-time AGRs under the chapter 106 program. To promote uniformity for all participants in the MGIB, active AGR members, like their active counterparts, should be afforded educational benefits under only chapter 30.

- **The 6th QRMC recommends amendment of section 2132, chapter 106 of title 10, United States Code, to limit benefits for the Active Guard/Reserve members to those authorized under chapter 30 of title 38, United States Code.**

Tuition Assistance Program

The Tuition Assistance Program was started following World War II to provide financial assistance to military personnel in the active components. The purpose of the Tuition Assistance Program is to enable members of the armed forces to develop educationally and professionally while in the service and to encourage them to continue their education after leaving the service.

In the Fiscal Year 1954 DoD Appropriations Act, Congress restricted the use of tuition assistance to military members below the grade of captain or naval lieutenant. The following year, Congress removed this prohibition but imposed a "payback" on all officers, requiring two years of active duty after completion of the program for which tuition assistance was received. No such payback was required for enlisted members.

Under section 2007 of title 10, the Secretary of a Military Department may pay up to 75 percent of the charges of an educational institution for the tuition or expenses of a member of the armed forces enrolled for education or training during off-duty periods. However, the following exceptions exist:

- For an enlisted member in pay grade E5 or higher with less than 14 years service, not more than 90 percent of the charges may be paid.
- For a member enrolled in a high school completion program, all charges may be paid.

- For a commissioned officer, no part of the charges may be paid unless the officer agrees to remain on active duty for at least two years after completing the training or education.

In 1983, because a large number of officers in the Army National Guard had not completed a college degree, the Army explored the use of the tuition assistance program for reserve officers to support their educational programs. The Army Judge Advocate General ruled however that, while there was no statutory prohibition against tuition assistance for reserve officers, as a practical matter, tuition assistance could not be provided to reserve officers because of the two-year active duty payback requirement of the law. The Fiscal Year 1986 Department of Defense Appropriations Act temporarily dealt with this limitation by providing a means to extend the Tuition Assistance Program to officers serving in the Army National Guard and the Army Reserve. The Act provided that tuition assistance could be paid if the officer agreed to remain a member of the Ready Reserve for at least four years after completing the training or education.

This temporary authority, applicable only to members of a reserve component of the Army, was continued and codified through a provision in the Fiscal Year 1987 National Defense Authorization Act. This provision further clarified the payback period by differentiating reserve officers serving on full-time duty (two-year payback after completion) from those serving in the Selected Reserve but not on full-time duty (four-year payback). The Act also stipulated that tuition assistance could not be used for pursuit of education beyond the baccalaureate degree. In addition, the Congress stated its intention that the authority be used only in instances where the MGIB was not available (less than half-time attendance). The new authority remained applicable only to the Army, and the Congress required a report on current Army policy with respect to educational requirements for commissioning and promotion.

Although the Services have the legal authority to provide tuition assistance to enlisted reservists not on active duty, the Army is the only Service currently doing so for reserve component members not on full-time duty. In Fiscal Year 1986, the Army extended the use of the Tuition Assistance Program to part-time reservists, both officers and enlisted members. This appears to be the first time tuition assistance has been offered to part-time enlisted reservists in any Service. Unlike the officers, enlisted members who use this program have no further service requirement as a payback for the assistance received.

In Fiscal Year 1986, a total of 4,941 Army National Guard and Reserve members, (1,976 enlisted members and 2,965 officers) used this program at a cost of $728,000. In Fiscal Year 1987,

over 25,000 personnel (20,730 enlisted members and 5,103 officers) used the Tuition Assistance Program. Expenditures during Fiscal Year 1987 totaled $6.04 million.

As noted earlier, members of the Selected Reserve who meet the eligibility requirements of the G.I. Bill are entitled to the following benefits:

$140 per month for full-time education
$105 per month for 3/4-time education
$ 70 per month for 1/2-time education

The MGIB as currently structured, however, does not provide educational assistance for attendance less than half-time. The Army is using the Tuition Assistance Program for some students who attend less than half-time. Army program rules preclude tuition assistance for those receiving MGIB benefits, but do not preclude payment to those who could be eligible through reenlistment or extension.

QRMC study of the current Tuition Assistance Program indicates that, if the MGIB were changed to provide educational assistance for attendance on less than a half-time basis, some members might receive less money than under the current program. This assumes that no changes are made to the current Tuit. n Assistance Program and that the MGIB would be modified to provide $35 per month for attendance "less than half-time."

The higher the cost per credit hour, the more advantageous it would be for the member to use the Tuition Assistance Program for less than half-time attendance (1 to 5 credit hours).

For example, a part-time student enrolled in a 3-credit hour course at the University of Georgia pays $61 per credit hour. The cost of the course would be $183. Using the Tuition Assistance Program, the government would pay $137.25 and the student $45.75. Assuming the same 3-credit course is taken at George Mason University, the cost per credit hour is $86 or $258 for the course. The government would pay $193.50 and the student $64.50. Finally, the same course at George Washington University would cost $330 per credit hour or $990. The government would pay $742.50 and the student $247.50.

If the MGIB were changed to allow for attendance on a less than half-time basis using the structure reflected below, the maximum benefit would be $35 per month for the duration of the course (usually 4 months).

Full-time	12 credit hours or more	$140
3/4-time	9 credit hours or more	$105
1/2-time	6 credit hours or more	$ 70
1/4-time	3 credit hours or more	$ 35

Under this structure, each student in the examples below would receive $140. Table 5-16 compares the Tuition Assistance Program with a revised GI Bill that allows for less than half-time attendance and highlights the associated costs for each.

Table 5-16: Comparative Costs - Tuition Assistance Program and MGIB

	Tuition Assistance Program		MGIB	
Course Fee $	Paid by Program $	Paid by Student $	Paid by Program* $	Paid by Student $
183.00	137.50	45.75	140.00	43.00
258.00	193.50	64.50	140.00	118.00
990.00	742.50	247.50	140.00	850.00

* The benefit to the government is presumably much greater with the MGIB because of the service obligation associated with this program.

Several observations can be drawn from this comparison. As education costs rise, the Tuition Assistance Program potentially becomes relatively more expensive. It should be noted, however, that there is no permanent authority for tuition assistance; it is based on authority flowing from the annual appropriation of funds by Congress. Unlike the MGIB, which provides an entitlement, funding for the Tuition Assistance Program is discretionary and thus its availability and benefit levels can be reduced or eliminated in the budget process.

As this report was being finalized, the Army announced that they were cutting in-service education benefits by more than $30 million effective January 1, 1988.[20] These reductions limit tuition aid payments for officers, warrant officers, and enlisted soldiers to 75 percent of tuition costs, with a cap of $80 per semester hour for undergraduate education. However, this limitation has not been imposed on either active AGRs or part-time members of the Selected Reserve.

- **The 6th QRMC recommends the following:**
  - **Benefits for part-time National Guard and Reserve members under the Tuition Assistance Program should be limited to members who do not meet the MGIB eligibility criteria for reasons other than failing to enlist, reenlist, or extend for six years in the Selected Reserve.**

- **Tuition Assistance authority for the reserve components should be extended in law to all the Services.**

- **The current statutory provision limiting Tuition Assistance to baccalaureate degree programs should be removed.**

Summary of Reserve Component Incentive Program Recommendations

The following is a summary of the 6th QRMC recommendations for the reserve Special and Incentive pay program.

- **Amend section 307 of title 37, United States Code, to authorize payment of Special Duty Assignment Pay to reservists during periods of inactive duty training and that DoD amend its own regulation (DODI 1304.22) to delete the current restriction that limits payment of Special Duty Assignment Pay to members on active duty for 180 days or more.**

- **Pursue legislative authority to permit the Secretary of the Navy to authorize payment, under a two-year test program, of "Naval Reserve Fleet Pay" to enlisted Selected Reserve members serving on Naval Reserve Fleet ships.**

- **Modify the Services' budgeting process so that each reserve component budgets for each Special and Incentive pay as a separate line item for full-time or part-time personnel, in the same manner as done by the active components.**

- **The financial accounting systems used by each Service should aggregate each type of S&I pay paid to members of the Selected Reserve and include such financial data on the quarterly military pay tapes to the Defense Data Manpower Center for merging with RCCPDS incentives information.**

The following is a summary of the 6th QRMC recommendations for the reserve bonus program:

- **Pursue legislative authority to conduct a two-year test of a modified payment schedule for the Selected Reserve Enlistment Bonus (section 308c of title 37, United States Code) in order to improve the effectiveness of the bonus.**

- **Develop a legislative proposal with these amendments:**

  - **Amend section 308i(a)(2)(A) of title 37, United States Code, to specify that the Selected Reserve Prior-Service Enlistment Bonus may be provided to members with less than 14 years (vice 10 years) of total military service.**

- Amend section 308b(a)(1) of title 37, United States Code, to specify that the Selected Reserve Reenlistment Bonus may be provided to members with less than 14 years (vice 10 years) of total military service.

- Amend section 308e(c)(2) of title 37, United States Code, to provide that payment of the second half of the Selected Reserve Affiliation Bonus be made on the date of the sixth anniversary of the original enlistment or call to active duty vice the fifth anniversary.

- A review be conducted of participation under section 2171(a)(2)(A) of title 10, United States Code, the General Educational Loan Repayment Program for the Selected Reserve (commonly referred to as the Student Loan Repayment Program).

- Pursue the following recommendations for data collection:

  - Continue priority attention to the improvement of the quality and accuracy of the Reserve Components Common Personnel Data System.

  - Revise DoD Instruction 7770.2, "Magnetic Tape Extracts of Military Pay Records," to require that reserve component pay file data be furnished quarterly to the Defense Manpower Data Center on the same basis as presently required for active pay file data.

  - Development of and periodic reporting of standard data displays on bonus programs for all reserve components.

The following is a summary of the 6th QRMC recommendations for the reserve Educational Assistance Program:

- Develop a legislative proposal with these amendments:

  - Amend section 2131(b), chapter 106 of title 10, United States Code, to provide educational benefits for less than half-time attendance.

  - Amend section 2132(b)(2), chapter 106 of title 10, United States Code, to delete the requirement to complete 180 days of service in the Selected Reserve as an aspect of program eligibility.

  - Amend section 2132, chapter 106 of title 10, United States Code, to limit benefits for the Active Guard/Reserve members to those authorized under chapter 30 of title 38, United States Code.

- Amend sections 1413(a)(1) and 1415, chapter 30 of title 38, United States Code, to base the accrual of basic educational assistance on the months of active duty service performed, deleting the $250 entitlement for two years of service and setting a monthly dollar entitlement of $300, the total entitlement to be dependent on the months of service performed. To prevent a reduction in benefit levels for members participating in the existing program, a grandfather provision should be included.

- Amend chapter 101 of title 10, United States Code, to limit the coverage by the Tuition Assistance Program to those reserve members who do not meet the MGIB eligibility criteria for reasons other than failing to enlist, reenlist, or extend for six years in the Selected Reserve.

- Amend section 2007(c)(1), chapter 101 of title 10, United States Code, to extend the Tuition Assistance authority for the reserve components to all the Services.

- Amend section 2007(c)(1), chapter 101 of title 10, United States Code, to delete the statutory provision limiting Tuition Assistance to baccalaureate degree programs.

- A review be conducted by a DoD study group of the existing and prospective educational assistance administrative problems associated with the "2X4" enlistment option (section 1412, chapter 30 of title 38, United States Code). The study group should ensure that problem resolution is within the limits of reasonable administrative capability and resource expenditures.

Notes

1. U.S., Congress. House, Committee on Armed Services, House Rept. 80-971, 80th Cong., 1st sess., p. 1-2.

2. The 3rd QRMC noted but made no recommendations concerning reservists' dissatisfaction with ACIP or parachutists rates of pay. See 3rd Quadrennial Review of Military Compensation Staff Studies, Vol IX, pp. 19-22.

3. David W. Grissmer and John R. Hiller, Follow-up of Participants in the 1978 Selected Reserve Reenlistment Bonus Test, The RAND Corporation, 1983, p. vi.

4. U.S., Department of Defense, Office of the Assistant Secretary of Defense (Reserve Affairs), Recruiting and Retention Resources for the Reserve Components, Report to the House and Senate Committees on Armed Services, 1985, p. 6.

5. Robert L. Kaplan and Patricia T. Harris, The Measurement of High School Students' Attitudes Toward Recruiting Incentives, U.S. Army Recruiting Command Report 83-1, (McLean, VA: The Rumson Corporation, 1983), p. 18.

6. David W. Grissmer, Zahava D. Doering, and Jane Sachar, The Design, Administration, and Evaluation of the 1978 Selected Reserve Reenlistment Bonus Test The RAND Corporation, 1982, p. vii.

7. Ibid. p. vi.

8. Beth J. Asch, Data and Preliminary Empirical Results for SELRES Affiliation Analyses, (Alexandria, VA: Center for Naval Analyses, 1986), p. 12.

9. Jean Fletcher, et. al., Enlisted Selected Reserves Analyses, (Alexandria, VA: Center for Naval Analyses, 1983), pp. 50-53, 64-68.

10. M. Susan Marquis and Sheila Nataraj Kirby, Economic Factors in Reserve Attrition: Prior Service Individuals in the Army National Guard and Army Reserve The RAND Corporation, forthcoming, pp. 14-15.

11. For example, RAND found that more than 30 percent of the personnel records for Army Reserve members were missing information as to whether the individual's previous military service was in an active component or was prior reserve service. Ibid.

12. An educational assistance enlistment bonus program was implemented by the reserve components of the Army, Marine Corps, and Air Force on December 1, 1978. This program provided a total of up to $2,000 to defray educational expenses. In 1980, the maximum was increased to $4,000 with not more than $1,000 authorized to be paid in any 12-month period. (Pub. L. 96-342). This bonus program was an important part of the total targeted bonus program of the Air Force and Marine Corps reserve components. New bonus authority under this program was discontinued with enactment of the MGIB.

13. U.S., Congress. Senate, Committee on Veterans Affairs, Final Report On Educational Assistance to Veterans: A Comparative Study of Three G.I. Bills, 93rd Cong, 1st sess., Senate Committee Print No. 18, July 1982.

14. Boeglis, K. J. Ferry, and W. Fischer, Mobilization Studies Report: The Efficacy of the Latest G.I. Bill, Research Requirement (Washington, D.C.: The Industrial College of the Armed Forces, March 1985).

15. Ibid. p. 15.

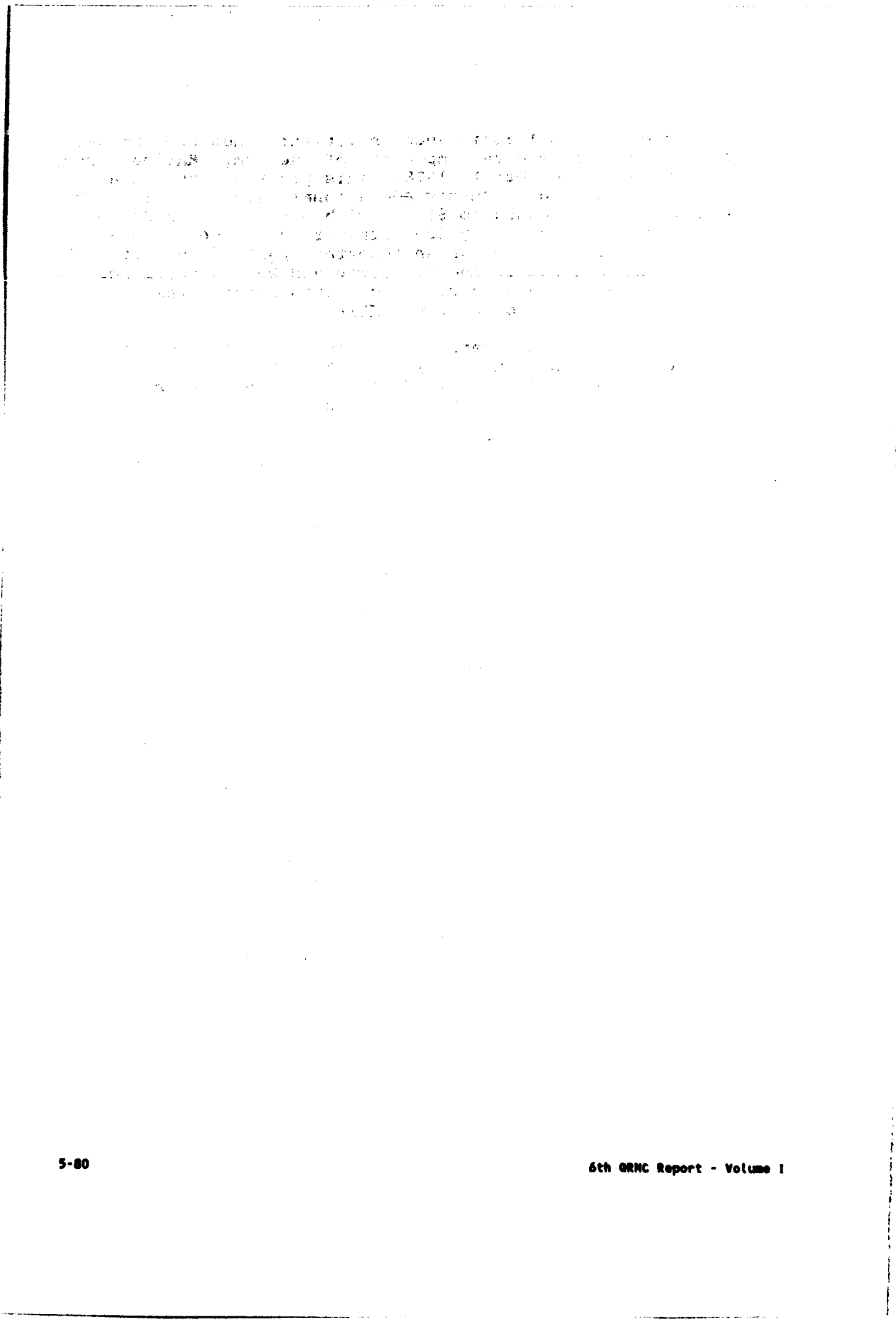
16. R. Fernandez, Enlistment Effects and Policy Implementation of the Educational Assistance Test Program, R-2935-MRAL The RAND Corporation, September 1982.

17. U.S., Congress. House, The New GI Bill - Its Implementation and Effectiveness: Trip Report to the Committee on Veterans' Affairs, House Committee Print No. 5, 100th Cong., 1st sess. 1987, p.2.

18. Ibid. pp. 2-10.

19. Individuals in the Army's Simultaneous Membership Program (SMP) would also receive benefits immediately. In the SMP, ROTC participants and cadets are also members of Army National Guard or Army Reserve Selected Reserve units. While SMP participants receive both ROTC and Selected Reserve benefits, they are not required to attend IADT and would not mobilize with their Selected Reserve unit.

20. Department of the Army Message, 121534Z Jan 1988, to All CMDS - Worldwide, Subject: FY88 ACES Funding Directions.



Chapter 6. ALLOWANCES

The authors of the third edition of the Military Compensation Background Papers found that there are over 40 separate pays and allowances in the military compensation system; if benefits are added, the total is nearly 70.[1] Most members, however, are only entitled to a few of the many separate pays and allowances. All members on full-time duty in the uniformed services are entitled to receive basic pay, basic allowance for quarters (BAQ) and basic allowance for subsistence (BAS) (or the in-kind equivalent of the quarters and subsistence allowances). When the federal tax advantage (which accrues from BAQ and BAS because they are not subject to federal income tax) is added, the total is the base level of compensation received by members on full-time duty. The term used to describe this base level is Basic Military Compensation (BMC). A closely related term, defined in law at section 101(25) of title 37, United States Code, is Regular Military Compensation (RMC). RMC differs from BMC in that it also includes any variable housing allowance (VHA) or station housing allowance and the federal tax advantage of these allowances. RMC is conceptually different from BMC in that not all members on active duty receive housing allowances in addition to BAQ. BMC is used to provide a general basis for comparison of military and civilian compensation.

As discussed in Chapter 4, basic pay and compensation for inactive duty training, which is directly linked to basic pay, represents the bulk of the military compensation for most part-time reservists. As discussed in Volume II of this report, this fact results in a distortion of the pay of part-time reservists relative to their active duty counterparts. The distortion occurs because compensation for inactive duty training is based on basic pay and reservists are not entitled to either BAQ or BAS when on inactive-duty training.

Selected Reservists spend a minimum of two weeks each year on active duty. Some spend significantly more time, performing frequent short periods of active duty for training or of active duty in support of active or reserve force missions. Entitlements for allowances often are dependent on the length of the active duty period being served. Other factors may also be important in determining entitlements, as well, such as whether or not the member has dependents. The remainder of this chapter discusses allowances. Housing, family separation, subsistence, and uniform allowances are reviewed and related issues pertaining to travel allowances, housing, and subsistence during inactive duty training are discussed. Finally, the QRMC

analyzes the feasibility of substituting an allowance in lieu of pay and allowances for members of the Individual Ready Reserve who fulfill their annual reporting requirement.

Housing Allowances

With brief exceptions, military officers of the United States have been provided quarters or a cash substitute. The Career Compensation Act of 1949 established the entitlement of all enlisted members serving on active duty to quarters or a cash substitute. For certain grades of enlisted members, this also applied to the provision of quarters adequate to house their dependents. This latter provision was subsequently extended to junior enlisted members as well. The QRMC review focused on two aspects of housing allowance entitlements for reservists: BAQ and VHA.

Basic Allowance for Quarters

The issue concerning BAQ for members on active duty for training arises from two concerns. This issue was originally raised by a congressional inquiry following a constituent's complaint that two single members of the same Service and same grade receive different compensation when performing identical missions in a temporary duty (TDY) status. The DoD response to this inquiry explained current procedures and indicated that the 6th QRMC would review the issue further. The second concern with respect to the BAQ surfaced during the unit visit program of the QRMC and in written comments provided by respondents to the 1986 Reserve Components Surveys. This concern centers on the fact that members without dependents do not receive BAQ during short tours of active duty while members with dependents do.

The current BAQ authority creates a disparity in entitlements for members in essentially identical situations in that reserve members with and without dependents are treated differently with respect to the BAQ when on short tours of active duty. A further result is that active and reserve component members without dependents are treated differently in essentially identical situations.

The disparity in treatment with respect to compensation results from the fact that section 401(d) of Executive Order No. 11157, "Regulations Relating to Incentive Pay, Special Pay and Allowances," defines the permanent duty station of members of the reserve components on active duty for training as the place where the training is being performed. This provision had its origins in Executive Order 10204, which was issued by President Truman in 1951 to implement section 302 of the Career

Compensation Act of 1949. The apparent intent of the provision was to set a standard that would apply to National Guard and Reserve members during their annual training periods.

As a consequence of this provision, reserve members without dependents do not receive a BAQ allowance when assigned quarters while on active duty for training. This is true regardless of the fact that they also must continue to maintain their permanent household. National Guard and Reserve personnel who have dependents do not lose their BAQ when they are provided quarters during active duty for training. This is because the government has not provided quarters for their dependents. It is only with respect to single members that this anomaly exists.[2]

In reviewing this issue, the QRMC first looked at the basic rationale for payment of a quarters allowance to reservists on short tours of active duty. It could be argued that the government has no obligation to help defray the permanent housing costs of reservists in their civilian community. Under the BMC concept, however, the BAQ is part of the base level of compensation for military members on active duty. This standard is an important one to reservists, both as a benchmark for mobilization income level and, during peacetime, as income replacement for lost civilian wages.

This latter point is critical because the majority of reservists simply substitute military income for civilian income when they are on active duty for training. The 1986 Reserve Components Surveys indicate that only 37 percent of Selected Reservists receive either partial or full civilian pay during their required annual training. Virtually no reservists receive civilian pay for active duty beyond 15 days annually. Further, 88 percent of reservists own or rent their homes and should reasonably expect a compensation standard that recognizes that these expenses continue through annual training and other short tours of active duty. This is a reasonable expectation, and one that applies equally to members without dependents and members with dependents.

Despite this standard, in determining eligibility for BAQ, reserve members without dependents are treated differently from either married reservists or their single counterparts on full-time duty. Treatment differs because entitlement to BAQ is based on the availability and use of quarters at the permanent duty station. This works to the disadvantage of members without dependents, since quarters are generally provided to these members during short active duty tours, thereby resulting in no entitlement to BAQ. As an example of the resulting pay differential, a member in pay grade E4 who has no dependents will receive $125 less during a 14-day annual training period than will an E4 with dependents. In the case of a single member

in pay grade O3 versus one who is married, the difference is $198. Both part-time reserve and full-time members without dependents are denied BAQ when assigned to government quarters at the permanent duty station. The difference is that the reservist incurs continuing housing expenses from a civilian residence during temporary periods of active duty. The full-time duty member assigned to quarters typically has no need to maintain off-base housing.

The reservist's situation is directly comparable to that of a single active duty member who is authorized to live off base and entitled to draw BAQ, but who is absent from his or her permanent station on temporary periods of sea or field duty. As a result of statutory and Executive Order changes made in 1985, active force members without dependents who are permitted to reside separately are no longer deprived of BAQ during temporary assignments to sea or field duty. These changes recognized that housing costs continue for such members when at sea or in the field. The same rationale applies to single reserve members whose housing costs also continue when they perform periods of less than 20 weeks active duty. Since the compensation system now provides that the single active duty member is not penalized by loss of the BAQ entitlement during temporary field or sea duty, the same principle is appropriate and applicable in the case of short-term reserve duty.

It is the inconsistent application of this principle with regard to active and reserve component members that resulted in this issue originally being surfaced for QRMC review. Two officers in the same grade, without dependents and maintaining apartments in the same city, were sent on temporary duty to perform a mission outside the United States. One officer was on extended active duty, the other was a reservist called to active duty for this special mission. While on temporary duty they were furnished quarters. Both received applicable per diem while in a travel status. The active duty member continued to receive BAQ. The reservist, however, because of the provisions of the current Executive Order, did not receive BAQ. The civilian housing expenses continued for both members, but only the member on extended active duty was compensated for these expenses.

The current BAQ provisions have a negative impact on a substantial number of Selected Reservists, most of whom have continuing housing expenses and experience a loss of civilian wages while on active duty for training. Seventy percent of members in pay grade E4 and below have no dependents and 45 percent of all members are without dependents. The 1986 Reserve Components Surveys indicate that members without dependents are more likely to experience escalating housing costs, because a higher percentage of single members rent than do members with dependents (43 percent for members without dependents compared

with 29 percent for members with dependents). Furthermore, 46 percent of members with dependents receive full or partial civilian pay during reserve duty, compared with only 21 percent of members without dependents.

There is no rationale for this difference in entitlements, which disproportionately affects those members whose attrition is most likely and most costly. The disparity could be corrected by designating the reservist's home as his or her permanent duty station for BAQ entitlement purposes for tours of less than 140 days active duty. For active duty tours of 140 days or more, permanent change of station rules apply, in keeping with Total Force standards.

Variable Housing Allowance

The second concern with housing allowances for reservists deals with the provision of VHA to reservists on active duty for less than 140 days. This allowance has been subject to recent statutory change. Individual reservists expressed their concerns with respect to VHA eligibility during unit visits and in responses to the Surveys.

VHA was first authorized in 1980 as a means of offsetting additional housing costs experienced by members assigned to high-cost areas. Public Law 96-343 of September 8, 1980, provided that members eligible to receive BAQ would receive VHA whenever the average housing cost in a specific area exceeded 115 percent of BAQ. Initially, the VHA entitlement was applicable to qualifying reservists during active duty tours, regardless of length. Because it was tied to the BAQ entitlement, the VHA entitlement increased the pay differential between reserve members with dependents and those without when they were performing required annual training or serving on other short tours of active duty.

In 1983, concern over cost growth in the VHA program resulted in a DoD proposal to eliminate the VHA entitlement for short-term reserve service. The DoD concluded that it was not consistent with the intent of VHA to pay VHA to reservists who were not subject to frequent reassignments or government-directed relocation to high-cost areas. The DoD proposed, therefore, that the law should be changed so that reservists on active duty for less than 140 days would not be entitled to VHA. As a result, the Fiscal Year 1984 DoD Authorization Act contained a provision that eliminated VHA for reservists ordered to active duty for periods of less than 140 days after September 30, 1983. This reduced the annual net income by 1 or 2 percent for a typical reservist at pay grade E5 with eight years of service.

The rationale for the change was based on the following assumptions:

- Reservists serving short tours of active duty are not subject to involuntary reassignment to high-cost areas.
- The housing expenses incurred by a reservist is based on the reservist's civilian employment, not on the military duties being performed; these expenses do not change simply because a reservist is called to a short tour of active duty.
- Individuals not provided government quarters may receive per diem, in addition to their pay and allowances, to cover additional costs; therefore, they do not incur additional living expenses.
- Under the Joint Federal Travel Regulations, 140 days is the minimum tour length considered to be a permanent change of station (PCS). Therefore, the 140-day requirement for entitlement to VHA is consistent with the intent of the law.

In 1985, the VHA program was substantially revised in order to better serve its intended purpose of compensating members with high housing costs. Congress restructured BAQ and VHA and intended that these combined elements be tied to the housing costs experienced. BAQ was to be set at 65 percent of national median housing costs for each pay grade and would be adjusted in accordance with the existing pay adjustment mechanism and reviewed periodically. VHA would be paid only when the local median cost of housing for a pay grade exceeded 80 percent of the national median housing costs for that pay grade.[3] Subsequent VHA payments would be tied to the housing consumer price index (CPI). Congress continued to expect that 15 percent of housing costs would be absorbed by the member and paid from compensation other than housing allowances.[4]

Consistent with concern over program growth, there were other changes to the VHA program designed to constrain costs and eliminate features characterized by Congress as "imperfections" or "windfalls." Under the 1985 revisions, members living in government quarters who received BAQ at the "with dependents rate" solely by reason of child support payments became ineligible for VHA. Members not provided quarters but receiving BAQ at the higher rate because of child support payments now receive VHA at the "without dependents" rate. Members in a travel status due to a permanent change of station are no longer entitled to VHA, because the additional expenses are compensated through travel entitlements. Finally, members are now required to document housing expenses; VHA payments in excess of actual

costs result in a reduction in VHA. No matter how inexpensive a member's housing costs are, however, there is no reduction of BAQ.

Although the 1985 revisions tended to obscure the basic rationale for VHA by concentrating on the formula described above, the legislative history of the VHA program would indicate that VHA remains a supplemental allowance, intended to help mitigate the financial burden members experience as a result of reassignments to high cost areas solely for convenience of the government. Reservists' permanent housing expenses are a function of civilian employment, not military assignment. Since variable levels of housing costs for reservists are not related to military assignment, we conclude that there is no justification for payment of VHA.[5] When ordered to active duty for periods of more than 20 weeks, VHA may be payable; this constitutes a permanent change of station. For duty of less than 20 weeks, additional housing costs are provided for by per diem entitlements.

Housing Allowance Alternatives

A variety of reserve housing allowance alternatives with associated savings or costs were considered by the 6th QRMC. A brief summary of the seven alternatives considered and the QRMC evaluation follows.

(1) Eliminate BAQ for all members on active duty for less than 140 days. This alternative would result in annual savings of approximately $190 million.

(2) Make no change to current housing allowance entitlements, an alternative that obviously results in no change from current costs.

(3) Provide an entitlement to BAQ for all members on active duty for less than 140 days with the exception of members without dependents on initial active duty for training (IADT). The annual cost of this alternative in estimated at $49 million.

(4) Provide an entitlement to BAQ for all members on active duty for less than 140 days. Under this alternative, members without dependents on IADT would receive BAQ, raising the costs to $108 million.

(5) Restore the VHA entitlement for all reservists who receive BAQ. This would cost $58 million per year.

(6) Provide an entitlement to BAQ and VHA for all members on active duty for less than 140 days with the exception of members without dependents on IADT. This alternative would cost $122 million.

(7) Provide an entitlement to BAQ and VHA for all members on active duty for less than 140 days. Annual costs would be $199 million under this option.

The impact of Alternative (1) would be a significant pay cut for approximately 55 percent of the Selected Reserve. Disproportionately affected would be junior personnel, for whom BAQ is a relatively high percentage of total active duty pay. This would surely adversely affect recruiting and retention as well as violate the longstanding principle of BMC. Alternative (2), i.e. no change, would perpetuate a major difference in compensation for members with and without dependents and between reserve and active component members performing identical duties. There is clearly no logical rationale for these disparities.

Alternatives (3) and (4) would provide a reasonable level of income replacement to all members during short active duty tours while appropriately recognizing that housing expenses continue during a time of lost civilian wages for more than half of Selected Reserve members. However, because of their ages, it is expected that many members performing IADT live at home and do not incur the continuing housing expenses experienced by older members. Alternative (4) could also create an inequity among different categories of members performing IADT by providing greater compensation for members on short IADT tours, who in many cases receive less technical skill training.

Alternatives (5) through (7) are, in the judgment of the QRMC, inconsistent with the intent of the VHA program. Furthermore, restoring VHA would, in the absence of other changes, primarily benefit members with dependents, thereby exacerbating the pay differential between members with and without dependents.

Conclusion and Recommendations

The 6th QRMC concludes that BMC provides an appropriate level of income replacement for reservists on active duty tours of less than 140 days. A further departure from this standard by eliminating BAQ for members with dependents could have a severe impact on retention and readiness. Although the formula for determining housing allowance entitlements has changed, the intent of VHA is to reimburse members for high housing costs incurred due to military reassignments. On this basis, reservists are properly excluded from entitlement to VHA during short tours of active duty.

With respect to BAQ entitlements for reserve members without dependents on active duty tours of less than 140 days, the QRMC concludes that the existing procedures are not reasonable or logical and that the disparate impact of the current system is primarily on members whose retention is most directly influenced by their current compensation.

- The 6th QRMC recommends that entitlement to BAQ be provided to all reserve members on active duty with the exception of members without dependents performing initial active duty for training. Implementation of this recommendation would provide an equitable solution to the current disparity in BAQ between reservists with dependents and those without dependents and between reserve component and active component members performing duty together. Concomitantly, it would provide an additional financial incentive to junior enlisted personnel, the category in which personnel turbulence dysfunctional to readiness has been the greatest. The QRMC concludes that this recommendation should be implemented by amending section 403 of title 37, United States Code, to provide that the reservist's home be considered as the reservist's permanent duty station for BAQ entitlement purposes when on active duty for less than 140 days.

Family Separation Allowance (FSA)

The purpose of the Family Separation Allowance is to reimburse, on average, members who are involuntarily separated from their dependents for the extra expense incurred as a result of separation, and to reimburse members who must maintain a home in the United States for their dependents and another home overseas for themselves for the extra expenses incurred by maintaining the overseas home.

There are two categories of family separation allowance, commonly referred to as FSA-I and FSA-II. FSA-I is provided for in section 427(a) of title 37, United States Code. FSA-1 is an amount equal to the basic allowance for quarters payable to members in the same pay grade and without dependents. This allowance is payable when both of the following conditions exist:

- The movement of the dependents to the permanent station or to a place near that station at government expense is not authorized, and the dependents do not reside at or near that station.
- Government quarters or government-provided quarters are not available for assignment to the member.

The allowance is payable in addition to any other allowances or per diem to a member of the uniformed services with dependents who is on permanent duty outside of the United States or Alaska.

The second type of family separation allowance (FSA-II) is provided for in section 427(b) of title 37, United States Code. FSA-II is a monthly allowance of $60, payable in addition to any other allowance (including FSA-I) or per diem under any of the following conditions:

- The member has a permanent change of station, the dependents do not reside at or near that station, and the movement of the dependents at government expense is not authorized.
- The member is on duty on board a ship away from the home port of the ship for a continuous period of more than 30 days.
- The member is on temporary duty away from the member's permanent station for a continuous period of more than 30 days, and the dependents do not reside at or near the temporary duty station.

On its surface, the law seems to provide the same eligibility rules and coverage for both the active and reserve components, but questions of interpretation have arisen that might expose an inconsistency between full-time and part-time members in their eligibility for FSA-I. Because reservists are not specifically mentioned in the law and because such terms as "permanent station" and "temporary duty" (rather than "active duty training") are used, the matter was raised by the DoD Military Pay and Allowances Committee during discussions in late 1964. As a result, a ruling was requested from the Comptroller General.

The Comptroller General opinion (#B-153192, April 2, 1964) stated that qualified reservists are eligible to receive both types of family separation allowance. The opinion pointed out that neither the Act nor the legislative history of the Act reflected any exclusion of reservists, so they were therefore considered as eligible. Central to this opinion was the determination that the training station to which the reservist is ordered, and where the duty is performed, would be considered the reservist's "permanent station" for purposes of FSA-I, when both of the following are true:

- The reservist is not authorized to move dependents to the station at government expense.
- The enforced separation from the reservist's family is for more than 30 days.

The opinion (except for the definition of "permanent station") relied upon the language of the Joint Travel Regulations (with regard to travel allowances) and Executive Order 10204 (regarding quarters allowance), and interpreted section 427(b)(1) in a manner consistent with them. The opinion created a new problem in that it created a new definition of "permanent station" by requiring that the duty station be considered as a permanent station when the length of the enforced separation is for more than 30 days. This is in direct contradiction to the long-established rule, reflected in the JFTR, that the length of time that distinguishes between TDY and a PCS is 140 days. Thus, for reservists only, for purposes of FSA-I only, there are circumstances where the period from 31-139 days has been included within the definition of a permanent change of station.

Under this situation, a reservist may be eligible to receive per diem as the result of being on TDY status under the JFTR while simultaneously being eligible to receive FSA-I, due to being considered as assigned to a permanent duty station as defined in the Comptroller General opinion. This is inconsistent with rules applicable to members on extended active duty, because the latter are not subject to the opinion that created the potential problem.

No evidence has been found that anyone has actually received a dual per diem and FSA-I payment as a result of the Comptroller General's opinion. It is quite possible that some reservists may have been entitled to FSA-I but did not receive it. With the expanded use of reservists to fulfill overseas missions, the likelihood of such eligibility is increased.

Implementation of the QRMC recommendation with respect to housing allowances will prevent this potential problem from resulting in unwarranted expense to the government. Amendment of the law to provide that the permanent duty station of the reserve member is the member's home would prevent any potential dual eligibility for payment of per diem and FSA-I to reservists.

Basic Allowance For Subsistence (BAS)

The statutory authority for BAS is contained in section 402 of title 37, United States Code. Enlisted members on active duty are entitled to BAS on a daily basis when rations-in-kind are not available or when permission to mess separately is granted. These provisions are equally applicable to enlisted reserve component members when on active duty, regardless of length or type of duty.

Reserve officers on active duty are entitled to BAS at all times on a monthly basis or at one-thirtieth of the monthly rate for each day of active duty or active duty for training, as are their full-time duty counterparts. The QRMC found no basis on which to recommend a change to the BAS for reservists on active duty.

Travel Allowances, Quarters and Subsistence During Inactive-Duty Training (IDT)

BAQ and BAS are not authorized for members who are not entitled to basic pay; thus National Guard and Reserve members performing IDT do not receive these allowances. It appears that, under the circumstances that existed when paid drill periods were first authorized, it was not anticipated that quarters or subsistence expenses would be incurred. Under modern circumstances, in which most monthly IDT includes at least four drill periods covering two 8-hour days, quarters and subsistence expenses become a concern.

The actual practices in place in the reserve components are complex and, in some cases, vary among the components. Member comments indicate that many believe that they should be compensated for travel, quarters, and meals. Some members clearly do not understand the rationale for the system, particularly when they see reservists in another component receiving benefits which they do not. Many are aware of the extent to which the Tax Reform Act of 1986 reduced their ability to claim these expenses on their federal income tax (this is discussed, with recommendations, in Chapter 7). The flexible use of duty status to meet specific training or Total Force missions also creates situations in which the pay status of members performing the same duty will be different. Thus a member placed on active duty will, dependent upon distance from the unit, be compensated under almost totally different provisions than the member on IDT.

Travel Allowances

When performing IDT at their normal training site, reservists do not receive travel expenses. Tables 6-1 and 6-2 shows the time from the reservist's home to the IDT site and the method of transportation for both officers and enlisted members.

As indicated, many reservists experience considerable travel time to IDT, with 19 percent of officers and 7 percent of enlisted members spending more than two hours in travel each way. In some cases, government transportation is provided, but this is never the prevalent practice even for members who must travel several hours to their IDT site. The rationale for no travel allowances in these circumstances is that the travel is

Table 6-1. Time From Home to Unit by Method of Transportation (Officer)

Percent of Total
(N = 143,675)

Time	Private Auto or Walk	Military Trans.	Public Trans.	Total
Less than 1 hour	63.5	*	0.1	63.7
1-2 hours	17.1	*	0.2	17.4
2-3 hours	8.4	0.1	0.3	8.8
3-6 hours	5.5	0.4	1.0	6.9
More than 6 hours	1.9	0.2	1.2	3.3
Total	96.4	0.8	2.9	

*Less than 0.1%

Table 6-2. Time From Home to Unit by Method of Transportation (Enlisted)

Percent of Total
(N = 794,862)

Time	Private Auto or Walk	Military Trans.	Public Trans.	Total
Less than 1 hour	79.6	0.3	1.2	81.0
1-2 hours	11.4	0.1	0.6	12.1
2-3 hours	3.7	0.2	0.2	4.1
3-6 hours	1.8	0.2	0.1	2.2
More than 6 hours	0.4	0.1	*	0.6
Total	97.0	10.9	2.2	

*Less than 0.1%

typically performed because the member has voluntarily elected to serve in the unit. In 1984, section 613 of the Department of Defense Authorization Act, 1985 (Public Law 98-525), amended section 407(a) of title 37 to authorize travel allowances for certain reserve component instructors who perform their IDT duties more than 100 miles from the reserve school to which they

are assigned and where IDT would normally be performed. A 1967 amendment to section 407(a) authorized travel allowances for reservists who perform IDT at a temporary training location.

Quarters

Although BAQ is not paid for IDT, reservists are entitled to per diem or reimbursement for actual lodging expenses when they are performing IDT at a temporary training site. There is no entitlement for such compensation at the member's normal training site, regardless of the availability of quarters in-kind. Provision of in-kind quarters varies by component. In all components except for the reserve components of the Air Force, reservists pay the service charge for bachelor officer or enlisted quarters even though they receive no reimbursement or per diem. National Guard and Reserve components in two Military Departments may occupy contract quarters at no charge.

Subsistence

Authority initially provided by section 244 of the Armed Forces Reserve Act of 1952 permits the Secretaries of the Military Departments to provide enlisted reservists with rations-in-kind during IDT periods that total at least eight hours in a calendar day. This provision is codified as section 402 of title 37, United States Code. There is currently no similar statutory authority to provide reserve officers with subsistence during IDT, although, until 1960, annual provisions of the Defense Appropriation Acts did authorize provision of rations-in-kind to officers.

In practice, subsistence during IDT is provided by three different methods: government mess facilities, government contracted meals, and a cash allowance in lieu of rations-in-kind. The latter method is used only by the Coast Guard Reserve on a limited basis. This authority was added by section 605 of Public Law 98-525 to meet the problem experienced by Coast Guard reservists whose IDT site varies from month to month and is seldom in the vicinity of a military installation with mess facilities.

Conclusion and Recommendations

As reserve component missions have become more demanding and complex, modifications to law and practice have been made to meet the needs of the reserve components. There is a tradeoff between flexible programs for travel, quarters and subsistence during IDT to meet the differing needs of the seven reserve components and increased standardization to preclude inequity to members in components with more constrained budgets. It seems clear that increased emphasis on uniform practice is desirable.

The QRMC concludes that one step in this direction should be made now. The Department of the Navy has developed a legislative proposal to authorize expenditure of appropriated funds to pay military transient housing service charges billed to reservists while performing annual active duty training or IDT. Statutory provisions preclude payment of quarters expenses for reservists on active duty for training when government quarters and messing are available; however, the Navy notes that these service charges were not used at the time the provisions were enacted. The QRMC concludes that clear statutory authority is required to provide that these service charges may be paid for reservists performing training.

- The 6th QRMC recommends that section 404 of title 37, United States Code, be amended to authorize the expenditure of appropriated funds to pay actual expenses incurred by reservists when they occupy Government housing while performing annual active duty for training or inactive duty training, whether at the normal or the temporary training site.

It is estimated that the annual cost of the enactment and implementation of this recommendation would be $3 million.

Uniform Allowances

When individuals enlist in an armed force, the government assumes an obligation to clothe (as well as feed and shelter) them during their enlistment. There is no comparable obligation with respect to officers.

Congress has, however, authorized the payment of uniform allowances to officers. Until recently, such allowances were payable principally to reserve officers, to reimburse them for expenses of procuring required uniforms and equipment.

Under present law (sections 415 to 418 of title 37, United States Code) and implementing regulations, members of the armed forces are entitled to the following clothing and uniform allowances for enlisted members and for officers.

Regular and reserve enlisted members, under DoD regulations issued pursuant to section 418 of title 37, United States Code, and Executive Order 10113, as amended, are authorized the following:

- An initial clothing issue
- An initial cash allowance for nonissue personal items for women

- An annual cash clothing replacement allowance for regular enlisted members
- Replacement in kind for all clothing items, based on fair wear and tear or useful life, for reserve enlisted members

Regular and reserve officers are entitled to the following:

- An initial uniform reimbursement or allowance of not more than $200 on being called to active duty or active duty for training
- A supplemental uniform maintenance allowance of not more than $100 for reserve officers each time they enter on active duty for more than 90 days, provided that they are not entering upon active duty within two years after completion of a period of active duty of more than 90 days, and they have not received an initial uniform reimbursement or allowance of $200 or more within the preceding two years
- A $50 Uniform Maintenance Allowance (UMA) for reserve officers as reimbursement for the purchase of required uniforms and equipment upon completion of each four-year period of satisfactory participation in one of the reserve components of the Armed Forces, provided they have not become entitled to a supplemental uniform maintenance allowance or reimbursement during the preceding four years

These rates were established by The Armed Forces Reserve Act of 1952, and have not been revised. It was recognized that these sums would not repay reserve officers for the entire amount of their expenses. These amounts were intended merely to alleviate hardship or defray expenses, because it was felt that the pay received by a reservist should absorb part of the expenses. Also, at that time junior officers (those with less than two years service) were paid at a much lower rate than officers with greater longevity.

Conclusions and Recommendations

Enlisted members are provided either replacement-in-kind for clothing or cash clothing replacement allowances. These procedures are, in our judgement, reasonable and equitable as they apply to part-time and full-time enlisted members.

The officer uniform allowances authorized are not fully consistent between part-time and full-time members. Elimination of the $50 Uniform Maintenance Allowance paid to reserve officers upon completion of each four-year period of satisfactory participation would provide more uniformity of entitlements. The $50 rate is so low that it has no positive impact on retention or morale, and there is no reason to

anticipate that elimination of this allowance would affect the officer force. Elimination would reduce considerable recordkeeping, and would free about $1.5 million for use in programs with greater readiness impact. With this change, active and reserve component officer uniform allowances would be more consistent.

- **The 6th QRMC recommends that the quadrennial $50 Uniform Maintenance Allowance be eliminated.** In order to ensure that a member just short of qualifying for this allowance would not be disentitled, an effective date one year after enactment is recommended.

Muster Allowance

Each person who becomes a member of an armed force serves for a total initial period of not less than six nor more than eight years. Current directives implementing this statutory military service obligation (MSO) prescribe an 8-year MSO. Members who have completed their active service or Selected Reserve obligation and who have not completed their MSO are transferred to the Individual Ready Reserve (IRR) pending completion of their MSO. Other members of the IRR serve voluntarily.

The IRR is part of the nation's pretrained military manpower resource. Its members are immediately liable for order to active duty in time of war or national emergency. IRR personnel would be used to bring active force and reserve component units to full strength and to replace initial combat casualties. A significant shortfall in junior enlisted members skilled in the combat arms resulted in priority attention to the IRR and in a series of initiatives to increase its size and viability. These initiatives included more stringent limitations on discharge from the IRR, extending the MSO from six to eight years, creating an IRR bonus program, testing direct enlistment into the IRR, and administrative efforts to improve personnel files and home address data on IRR members. These initiatives helped, particularly in increasing the size of the IRR, but they did little to ensure its readiness.

Because the IRR is so important to wartime readiness, many statutory and regulatory provisions have been established to ensure that members of the IRR understand their responsibilities and that the Services have complete, up-to-date records on IRR members, indicating any limitations on their availability for immediate mobilization and utilization and ensuring that members can be located and notified when they are needed. The law requires a system of continuous screening of IRR members to ensure there will be no significant attrition during a mobilization. It also requires that a current personnel record

be maintained on each member of the IRR and that IRR members be examined as to their physical fitness every four years and submit a certificate of their physical condition annually.

All Services have had difficulty in meeting these requirements. In an effort to improve this situation, the Army Reserve, in Fiscal Year 1986, began a program to order members of the IRR to active duty for one day each year. This trial program, based on a voluntary call to active duty, was designed with a goal of 5,000 participants. Approximately 6,700 members actually participated.

This Fiscal Year 1986 "muster" program tested the ability of the Army to contact its IRR members and to review and update their personnel and medical records and other vital data. After a detailed review within the DoD, it was determined that expansion of the muster program to call IRR members of all DoD Services is essential to meet the statutory and regulatory requirements necessary to the management of the IRR. The annual reporting requirement not only helps to ensure that IRR members can be located and called to active duty in a national emergency; it also aids in ensuring that IRR members clearly understand their status and responsibilities. With this program, members whose records identify them as no longer qualified for worldwide service can be discharged or transferred to the Standby Reserve or the Retired Reserve as appropriate; thus the IRR can reflect mobilization assets more accurately.

To support a programmed call of between 271,000 and 334,000 IRR members in Fiscal Year 1987, the military services requested funding of $61 million. Actual program costs, based on Service reporting requirements, were about $42 million. The DoD is committed to the IRR annual reporting requirement as a matter of policy. The cost of conducting the IRR muster remains a significant consideration.

During the muster of Fiscal Year 1986, a number of difficulties arose in attempting to compensate Army participants. These difficulties included the requirement to compute each member's pay individually and the inability to verify in advance such items as dependency status for BAQ and mileage allowances from home to muster site and return.

Because Congress and the DoD expressed an intent to continue the IRR recall program begun in Fiscal Year 1987, the Army proposed compensating members for the reporting period with a nontaxable flat rate allowance. The Army cited three advantages to the payment of an allowance. First, actual costs for paying IRR members could be reduced; second, administrative costs would be reduced; and third, member acceptance of the program would be improved because they could receive a check to cover their expenses at the time they were released from muster duty.

QRMC Analysis

The QRMC reviewed the concept of an allowance for the IRR annual reporting requirement. It reviewed the proposal from the perspective of compensation objectives and principles, and in terms of personnel and administrative costs. The QRMC assessed the objectives that an allowance should achieve and the benefits and entitlements that should accrue to a member who participates in the annual reporting program and receives an allowance.

Under current procedures, participating members are ordered to active duty and paid appropriate pay and allowances, including travel allowances, and credited with one or more days of active duty for retirement. Taxes, including FICA, are deducted. A matching FICA contribution (7.51 percent of basic pay) is made, and an amount equal to 26.4 percent of basic pay is transferred to the military retirement fund. If injured, disabled, or killed at the reporting site or while travelling to or from, the same entitlements and benefits accrue as for any member on active duty for a period of less than 30 days.

In this respect, there is no difference between the pay and allowances of IRR member reporting for the muster and a Selected Reservist performing a one-day active duty tour. In fact, however, there are significant differences between the nature of the duties required for these substantially different forms of military duty. The IRR member is not required to wear a uniform or meet service grooming standards when meeting the annual reporting requirement. There is unlikely to be a pay file for the IRR member; in the great majority of cases this will be the member's only direct contact with the military during the year. Viewed from the perspective of military compensation principles, it seems clear that most do not apply because the duty involves a maximum of one day each year. Moreover, there is no requirement for the member to exercise supervisory or other functions of rank. The primary objective of compensation for members participating in the annual reporting requirement is to provide adequate allowances for expenses associated with travel, subsistence, and scheduling conflicts.

The adoption of a fixed allowance for all members of the IRR who are subject to this one-day annual reporting requirement would save nearly 34 percent of basic pay, because no retirement accrual payment would be required and because the Services would not need to pay the employer FICA contribution on the basic pay. The elimination of these two very substantial payments is warranted because IRR members who are required to participate in the annual reporting requirement are those who do not otherwise participate in training. Thus very few members of this group will ever qualify for a military retirement. In addition, there would be no FICA employer contribution because allowances for expenses are not considered wages for FICA tax purposes. There

would also be significant administrative savings from a uniform nontaxable allowance in lieu of basic pay and allowances, travel allowances, and tax and retirement accrual deductions and contributions.

Current procedures vary for issuing pay and allowances to IRR members who fulfill the annual reporting requirement. Members of the Army IRR do not receive their paychecks until sometime after the muster. The Air Force, on the other hand, provides all pays, except for travel and per diem, upon release from muster duty. A muster allowance should improve the timeliness of payments to members. As long as members' expenses related to the muster are adequately covered, there should be no adverse reaction; improved timeliness and accuracy of payment should be favorably received.

To determine the appropriate amount of a muster allowance for IRR members, the QRMC developed the following criteria:

- The total costs of the allowance should not exceed the total costs of paying members one day's active duty pay and allowances plus travel expenses, nor should they increase administrative costs or burden.

- The allowance should be the same for all members; thus, the allowance would not be a simple weighted averaging of the rates from the basic pay tables. It should not draw its origin from these tables. In fact, a link to basic military compensation is inconsistent with the nature of the duties required and is unnecessary. Rather, a per diem basis is more suitable.

- The allowance should provide adequate reimbursement of the individual's travel expenses incurred in relationship to the muster duty.

- The allowance should recognize that individual members have little control over when or where they must report for muster duty, and this call will create varying degrees of disruption in these members' personal lives and employment.

- The allowance, while not an incentive to encourage members to fulfill an obligation, should be perceived by most as adequate compensation for meeting the annual reporting requirement for the IRR.

A comparison of the Fiscal Year 1988 costs and savings at varying levels of muster allowance, as opposed to the costs for active duty compensation, is displayed in Table 6-3. Cost savings would be similar in Fiscal Year 1989 and would increase in future years as the number of IRR members increases, assuming constant program criteria.

Table 6-3. Muster Allowance Costs and Savings

Allowance Amount	Allowance* Budget ($M)	RPA* ** Budget ($M)	Savings ($M)*
$50	$16.2	$44.7	$28.5
$75	$24.3	$44.7	$20.4
$80	$25.9	$44.7	$18.9
$100	$32.4	$44.7	$12.3

* Based on a programmed call of 323,500 members.
** Includes basic pay and allowances, travel pay, retirement accrual, and DoD FICA contributions.

IRR members are located throughout the United States and its territories. All are subject to recall. All the considerations above suggest that an objectively determined daily rate of compensation unrelated to pay grade of years of service is the most appropriate measure of reimbursement for expenses associated with IRR muster.

Similar considerations in other areas of federal compensation have resulted in location-specific rates of reimbursement for travel and subsistence expenses. In addition, area-wide averages have been developed for special types of federal compensation such as compensation for victims of terrorism authorized in section 5569 of title 5, United States Code.

Using a similar approach the average per diem rate for locations where IRR members muster, i.e. CONUS, Alaska, Hawaii, Virgin Islands, Puerto Rico, and Guam, as of June 1, 1988, is $81.30. This rate is comparable to what is currently paid and should be viewed by IRR members as just compensation for muster duty. Only individuals in the upper pay grades who would have to travel long distances would receive less monetary compensation than under an active duty pay system. In most cases, these members will be excluded from muster duty by Service policy because they typically participate voluntarily at other times during the year.

The recall of the IRR is estimated to be 323,500 members for Fiscal Year 1988. As shown above, the cost of an $80 allowance would be approximately $26 million compared to a cost of $45 million for active duty compensation for a one-day screening. Cost savings would be similar in Fiscal Year 1989 and would increase in future years as the number of IRR members increases.

Additionally, elimination of the administrative costs associated with the current system and would result in a savings of at least $861,750 in Fiscal Year 1988.

Travel expenses vary by individual according to the distance between the member's home and the muster site. The travel distance is influenced by the design of the Services' muster programs and policies for determining who must report. All of the Services' current programs are designed so that most members should be able to complete travel and screening within 10 hours. If muster duty were adopted into law, Service policies should preclude calling members to this duty when the reasonably expected travel and screening time exceeds 10 hours. Based on limited travel expense data gathered by the Services for the first half of Fiscal Year 1987, the average round trip mileage for IRR members reporting for muster duty is approximately 50 miles. Mileage reimbursement costs, per member, average $10.25.

The inconvenience imposed on IRR members by an annual reporting requirement will vary widely. Usually the day of the reporting period is scheduled on a weekend to minimize inconveniences caused by employment conflicts. This scheduling does not address the disruption to the many other types of activities persons may engage in on weekends. Members who reside in close proximity to the muster location may be able to complete their screening and return home in less than half a day, appearing to be inconvenienced the least. Other members who may have to travel more than 100 miles one way, while taking leave from other employment, would be inconvenienced greatly. In either case, however, the individual will have been deprived of the opportunity for some other full day's or weekend's activity.

For this reason, the compensation should include a premium. The premium simply recognizes, in aggregate, that the member was ordered to military duty at the cost of disruption and inconvenience to their otherwise civilian lifestyle. Premium pays in the civilian and government sectors range from 10 percent of normal pay for evening work, to 25 percent for Sunday work, to 50 percent for working beyond 8 hours per day or shift.

Considering the final criterion, it is useful to determine the average grade of members of the IRR. The average grades of IRR members for DoD and each Service are shown in Table 6-4.

Table 6-4. Average Grades of IRR Members

Service	Officer	Enlisted
Dept of Defense	O3.0	E3.6
Army Reserve	O3.1	E3.4
Naval Reserve	O3.4	E4.0
MC Reserve	O3.3	E3.7
AF Reserve	O2.1	E4.0

The daily basic pay and allowances for a member serving on active duty in pay grade O3 with four years of service is $93.91. This member's take home pay after deductions (assuming 15 percent federal income tax, FICA taxes, and average state income tax of 5 percent) would be $73.31. The daily pay and allowances for a member serving on active duty in pay grade E4 with over 4 years of service is $42.70--$33.53 after deductions. (All computations are based on pay rates in effect as of January 1, 1988.) A flat rate unrelated to rank would ignore this substantial difference in normal military compensation payable for one day of duty.

Generally, military basic pay and special/incentive pays are subject to income tax as compensation for services. On the other hand, the taxation of military allowances varies. Some allowances such as the allowances for quarters (BAQ, VHA, OHA, etc.) and subsistence (BAS and FSA) are excluded from income and not subjected to any income tax.

Other allowances are generally subject to income tax to the extent the allowance exceeds expenses associated with it. In circumstances where an allowance does exceed expenses, the individual taxpayer/service member is responsible for properly reflecting such amounts on the member's individual return.

For employment tax purposes (FICA), income tax considerations are replaced by concern for what is defined by statute as "wages." This employment tax base, for members of the armed forces, is limited to basic pay for members on active duty and compensation for inactive duty training that is comparable to basic pay.

Under current law, the proposed muster allowance would likely be considered taxable to the extent it exceeds ordinary and necessary expenses associated with muster duty. It would not, however, be considered "wages" for FICA tax purposes.

Unlike basic, special, and incentive pays, the muster allowance is unrelated to any specific pay grade, length of service or specialty skills. Another allowance with similar aspects is the Family Separation Allowance authorized by section, 427(b), of title 10, United States Code. Known as FSA-II, this allowance of $60 per month is intended to offset additional expenses and inconvenience associated with an aspect of military service -- in the case of FSA-II, family separation of 30 days or more. FSA-II is nontaxable. The muster allowance should also be nontaxable for similar reasons.

Although the allowance would provide members reasonable compensation for their expenses during muster duty, they should also be provided the protections of military service during this period. These protections can be categorized as medical, income, and survivor protections.

A member who incurs or aggravates an injury, illness, or disease while traveling directly to or from, or while at a muster location, should be entitled to the same medical and income protections to which a reserve member traveling to or from, or attending inactive duty training (IDT) would be entitled. This medical care would include immediate medical attention at government expense. When necessary, and approved through normal medical review channels, continued medical care through civilian, military, or Veterans' Administration medical facilities should be provided. Further, these individuals should be entitled to incapacitation pay and afforded the same opportunity for military disability compensation as other reservists who sustain injuries while performing or traveling to or from IDT.

The survivors of a member who dies of an injury, illness, or disease received or aggravated relative to traveling to or from, or performing muster duty, should receive the same benefits as a reservist who dies of injuries received while traveling to or from, or performing IDT. These benefits would include SGLI payment, unless the member elected not to be covered, death gratuity payment, casualty assistance, mortuary services, arrears of pay, and appropriate Veterans' Administration benefits, among others.[6]

Payment of an allowance would require amendment of titles 10, 26, and 37, United States Code. Title 10 would need amendment to define "muster duty" so that individuals of the reserve components could be involuntarily ordered to this duty for purposes of conducting the screening required by sections 271, 275, 651 and 1004 of title 10, United States Code. Amendment of title 37 would specify that members ordered to "muster duty" would receive compensation in the form of an allowance (in lieu of basic pay, allowances and travel). The Internal Revenue Code would need amendment to provide tax free treatment for the muster allowance.

Conclusion and Recommendations

We conclude that a fixed allowance equal to the average per diem rate for the geographical areas participating in the muster (currently $81.30) provides members with fair compensation for muster duty travel expenses as well as for personal inconvenience. An $80 allowance would result in savings of approximately $18.9 million in Reserve Personnel Appropriations in Fiscal Year 1988. Members ordered to muster duty should be

entitled, in addition to the allowance, to the protections normally afforded reservists while performing IDT. These entitlements include medical care for duty-related injuries, compensation during a period of duty-related injury, disability compensation for permanent duty-related injury, and survivor benefits.

- **The 6th QRMC recommends enactment of legislation to establish a new form of duty known as "Muster Duty," which would allow the Services to call reserve members to duty for one day annually for the required screening. Additionally, the 6th QRMC recommends that members called to muster duty be compensated with a nontaxable allowance of $80 that is indexed to average per diem rates, and that these members be entitled to the same medical, income protection, and survivor benefits as is a reserve member performing inactive duty training.**

Notes

1. Office of the Secretary of Defense, Military Compensation Background Papers, 3rd ed., U.S. Govt. Printing Office, June 1987, p. 19.

2. This issue is further confounded by the manner in which the Executive Order has been implemented in pay regulations. These regulations apply the rule that, for all members on active duty for less than 20 weeks, the member's permanent station is the training site. Thus a member who is without dependents on active duty (other than for training) to perform special work for either the active or reserve components is treated the same as the member on active duty for training. It would be possible to revise this administrative regulation so that members serving on active duty in support of Total Force missions (as opposed to active duty for training only) would be treated the same as members on extended active duty. In the current Total Force environment, however, many missions are performed by members while they are fulfilling their annual training requirements; thus the disparities under review would still exist in the majority of cases.

3. The 65 percent level for the BAQ was a reduction from a standard of 85 percent of the Federal Housing Administration median for housing expenses of comparable income groups, which was established in 1972. The standard established in 1985 for computing BAQ rates could be said to represent a reduction of 24 percent in the value of BAQ for reservists performing annual training or other periods of active duty of less than 140 days. During the years from 1971 to 1985, however, the 85 percent standard had not been applied. By 1985, 65 percent of national median housing costs was approximately equal to the BAQ rates then in effect.

4. It is noted that, since 1985, BAQ adjustments have lagged behind the housing CPI, and the VHA was frozen for one year. As a result, the housing cost absorbed from other compensation has increased to 20 percent.

5. Data from the 1986 Reserve Components Surveys indicates that 54 percent of enlisted reservists own their own homes. Comparison with active force housing costs reveals that reserve mortgage payments are lower. The median mortgage payment for a reserve enlisted member ranges from 52 to 80 percent of an active component counterpart's payment, depending on pay grade. For reserve officers, the range is 56 to 81 percent. This may be due to greater opportunity for stability in the housing market. Thus it does not appear that a revision to the existing rationale for the VHA program and system of determining entitlement for payment of VHA is warranted on the basis of actual housing costs experienced by reserve members.

6. The Veterans' Administration has determined that the cost of SGLI insurance, for a reserve member called to duty for one day, is $0.25. This cost may be paid by the member or the Service. The total SGLI costs for all members to be called in Fiscal Year 1988 would be less than $94,000. To maintain an allowance that is received in total by the member, and to reduce as much of the administrative burden as possible, it is suggested that SGLI costs for members serving on muster duty be assumed by the Services.

Chapter 7. CIVILIAN EMPLOYMENT, TAX AND MOBILIZATION ISSUES

Some reservists, primarily officers, serve with the active components. Others are on active duty or full-time National Guard duty to provide full-time support to the reserve components. The majority are part-time members of the Selected Reserve and, of these members, most have a full-time civilian job. Thus matters relating to the reconciliation of civilian employment and reserve duty schedules, the effect of reserve compensation on federal income taxes and the potential impact of involuntary mobilization on income are of very great importance to these reservists. A comprehensive study of reserve compensation must take these matters into account in order to capture the full scope of reserve compensation issues as they exist in the world of the majority of National Guard and Reserve members.

In Volume II of this QRMC report, data on the benefits and opportunity costs associated with participation in the Selected Reserve is systematically presented. This data shows that net income from reserve service can be substantially reduced by payment of taxes at marginal rates, transportation costs, and foregone civilian income. Foregone civilian income may be experienced during annual training or other active duty for training. RAND has calculated that, on average, enlisted members lose in the range of $400 to $525 annually from civilian paychecks while attending annual training. The military leave policies of civilian employers obviously have a major effect here: some employers continue civilian pay while the reservist is performing annual training duties, others make up the difference between military and civilian pay, while the majority of private sector employers simply provide the time off. Inactive duty training on the weekends may also result in foregone civilian income as members lose opportunities for civilian pay, including extra civilian pay or overtime, because of their reserve obligations.

Underlying the factors that significantly affect net income from reserve compensation for many National Guard and Reserve members is the more general problem of the potential effect of Selected Reserve participation on getting or keeping civilian employment. Hundreds of the written comments provided by members and spouses responding to the 1986 Reserve Components Surveys dealt with this issue, particularly within the context of the increased training and time demands associated with greater reliance on the National Guard and Reserve within the Total Force. Sample comments are in Appendix A (A-64 - A-100).

These features of the civilian environment affect personnel readiness in that they result in increased attrition, particularly among junior enlisted members, and make it harder to rectify shortfalls in skill training. As shown in Chapter 4 of Volume II of the QRMC report, it is very difficult to qualify reservists in new technical specialties when necessitated by changes in unit mission or equipage or by individual transfers. Difficulties stem in significant part from members' problems in getting time off from their full-time civilian jobs to attend formal skill training courses. Attendance at these courses typically results in added costs and scheduling problems for employers and increased likelihood of conflicts between job and reserve duties for members.

The QRMC analysis indicates that some of these environmental difficulties can be reduced or offset by direct compensation initiatives, particularly bonus programs that are targeted at priority units and at reducing skill qualification problems and skill mismatches. In addition, the QRMC looked at programs or initiatives that can potentially reduce the impact of some of the environmental features that discourage reserve service. In the following pages of this chapter are QRMC recommendations concerning statutory employment protection, tax incentives for employers of National Guard and Reserve members, FICA tax on compensation for inactive duty training, tax deductions for reservists, and protections provided by the Soldiers' and Sailors' Civil Relief Act that would aid mobilized reservists and their families.

Statutory Employment Protections

Over 80 percent of part-time enlisted members of the Selected Reserve and nearly 90 percent of officers are full-time or part-time civilian employees of public and private employers. Overriding the military compensation provided to these reserve members are the possible consequences which a member's reserve obligations may have for continued civilian employment. The relationship between civilian employment and reserve obligations is a complex issue that is covered in detail in Volume II of this report of the 6th QRMC.

The statutory employment rights discussed in this chapter are an important factor in this relationship; they set a clear minimum standard for employer conduct with respect to the reserve obligations of employees and of applicants for employment. The statute also provides a basic set of rights for reservists with respect to their current or prospective employers. Earlier studies have concluded that employment conflicts account for as many as one-third of unprogrammed losses to the Selected Reserve. Because statutory employment protections provide the underlying framework against which many

of these conflicts are set, the 6th QRMC has included statutory employment protections within its study plan as an element of reserve compensation.

Subsequent to the initiation of the QRMC review of this issue, an Interagency Committee was formed to recommend legislative changes in this area. The QRMC participated in the Interagency review, which includes representatives from the Departments of Labor and Justice, the Veterans' Administration and the Office of the Assistant Secretary of Defense for Reserve Affairs. Since the Interagency Committee is developing a detailed legislative proposal, the QRMC review and recommendations are focused on setting out the relationship between statutory employment protection and reserve compensation and service, outlining the deficiencies in the existing statutes and associated administrative and legal procedures, identifying the main issues in need of corrective legislation, and recommending general remedies.

Background

The basic right provided under the law is the right of reinstatement in employment following military service. Included in this basic right are the seniority, status, and rate of pay the employee would have had but for the performance of military service. Additional protections, benefits, and entitlements may also exist, but they depend upon a variety of factors, including the manner of entry into the military and the type of duty performed.

The first Federal statutory employment protections for members of the reserve components were enacted just prior to World War II. Separate statutes provided employment rights with the preservice employer of reservists serving in the land and naval forces on active duty as of August 27, 1940, and for persons drafted into military service on or after May 1, 1940. The essential idea behind these reemployment rights was summed up in the Senate testimony of Senator Thomas of Utah:

> If it is constitutional to require a man to serve in the Armed Forces, it is not unreasonable to require employers of such men to rehire them upon the completion of their service, since the lives and property of the employers as well as everyone else in the United States are defended by such service.

In 1942 those rights were extended, and volunteers were added to the groups of persons protected. In 1948, the basic protections were reenacted as part of the Universal Military Training and Service Act. In 1951, a comprehensive training provision was enacted, extending employment protections to trainees in the reserve components. Important provisions affecting reservists

were added in 1960 and, in 1968, discharge or denial of promotion or other incidents of employment because of reserve membership was prohibited. Protections were extended to cover discrimination in hiring in 1986.

Under the original scheme, the Selective Service rendered assistance to eligible veterans and the United States Attorney was authorized to file suit in the Federal District Court to enforce the law on behalf of veterans seeking reemployment with private employers. Assistance for federal employees was provided through the Federal personnel system. Following the end of the World War II draft, the authority to assist veterans was transferred to the Secretary of Labor. In other respects the statutory enforcement scheme remains the same. Since 1974, employment protections have been codified with the provisions covering veterans' benefits, and subsequent legislation has, in practice, been attached to veterans' benefits legislation.

Since the enactment of the basic statutory employment protections, these laws have been amended on several occasions and there have been several changes to related laws and programs, changes that have not been reflected in the employment protection statute. As a result of these revisions, the current law is a complex collection of provisions that are difficult to interpret, leading to much litigation and resulting in a body of questionable case law.

The Statute

Statutory construction: Serious problems with the effectiveness of existing statutory employment protections are directly related to the construction of the statutes. The law is complex and difficult to interpret, which leads to conflict between employer and employee concerning its meaning and requirements. Difficulties in interpretation have also resulted in a large body of confusing and often contradictory case law. The QRMC's review of the legislative history of the statute indicates that it has been amended piecemeal over the last 40 years. Numerous provisions were added over this period to modify the coverage of the law as the circumstances and nature of military duty changed and as gaps in coverage became apparent.

Distinctions between types of persons: Under the statute, employment protections are dependent upon distinctions among types of persons, such as draftees and volunteers, enlisted and officer, and Reserve, Regular, and National Guard. These distinctions are based in part on military manpower practices and requirements of the armed forces that are no longer relevant. The range of rights and obligations that are dependent upon these distinctions requires employers to make subjective valuations in granting rights on the basis of these distinctions. This is particularly troublesome, since the

valuation may be biased concerning military service, or based on inaccurate conceptions concerning the composition, missions, and training requirements of the Total Force. Many of the existing statutory distinctions are no longer warranted. The manner in which a person is called into a uniformed service and the classification of that person upon entry is not today a relevant feature in the employer/employee relationship.

Distinctions based upon types of duty: Just as many employment protections are dependent upon classifications of the person, they are further dependent upon the type of duty to be performed. Distinctions exist between active duty, active duty under mobilization orders, initial active duty for training, active duty for training, inactive duty for training, reporting for a preservice physical or other examination, full-time duty and full-time duty for training. As with distinctions between types of persons in current law, these distinctions providing different rights based on different types of military duty are based on outdated conceptions of the nature of the duty to be performed.

For example, reservists entering active duty (other than active duty for training) for any period of less than four years have 90 days within which to apply for reinstatement with their former employer. Reservists entering training duty (other than initial active duty for training in excess of 12 consecutive weeks) for any length of time must report for work at the next scheduled work period on the day following release (plus any time necessary to travel from the place of duty to the place of employment). Those who perform initial active duty in excess of 12 consecutive weeks or are mobilized for less than 90 days under section 673b of title 10, United States Code, have 31 days within which to apply for reemployment. There are further technical distinctions even within these categories.

These distinctions are unlikely to be of concern to employers. The most significant factor to the employer is the length of time the employee will be absent, so that the employer can plan for the absence and the reinstatement of the employee. Although the categories in current law relate to assumptions concerning the length of the prospective absence for members performing various types of duty, many of these assumptions are now obsolete due to changes in military manpower and training requirements and practices.

Limitations on absence for active duty: The current law presents several problems related to limitations on the length of absence for active duty within which employment rights are maintained. The overall limits are tied to the classification of the person, as discussed above. Thus there is no limit on the length of active duty that may be performed as a draftee while preserving employment rights. There are, however, limits

on the length of absence for military duty for volunteers and reservists. The same limits apply to both continuous active duty and to cumulative active duty with one employer. Although time limits only apply to the specific employer and only to active duty (other than for training), active duty performed as a draftee or enlistee is included in calculating the amount of active duty a reservist may perform and still retain employment protections.

Both enlistees in a regular component and reservists have a four-year limit, which may be extended under certain circumstances. In both instances, the exceptions that permit the extension create anomalous results. In the case of the reserves, the exceptions are so conditioned upon changing manpower statutes and executive orders that it is virtually impossible to determine at any particular time whether a reservist's absence due to military duty may be extended for as little as 90 days or as long as two years. Conversely, changes in statutes affecting veterans' benefits have apparently removed any limitation on the length of time a member of the National Guard may be absent and retain reemployment rights while serving on full-time National Guard duty.

Character of discharge: Another distinction controlling eligibility for employment protection is the character of discharge received. Draftees must receive a certificate of satisfactory service, enlistees in a regular component must be released under honorable conditions, others performing active duty must be relieved under honorable conditions, persons performing initial active duty for training must be released after satisfactory service, and persons performing active duty for training must be released from such training. Individuals released from active duty with uncharacterized discharges may not be covered by the law, even if the release is to inactive duty in a reserve component. Failure to produce a certificate because it has been lost, or because preparation or production of a certificate is not required, can result in the erroneous denial of rights.

Miscellaneous changes and obsolete references: The statute contains a number of obsolete references and miscellaneous provisions which unduly complicate the law. Examples include provisions for the extension of service limits for persons who would otherwise have exceeded them because of service on or before August 1, 1961, and references to delivery of assistance by offices that no longer exist. Protections relating to initial active duty for training are based on 12 consecutive weeks of training, but some Services utilize the split option and members of other Services may complete a 12-week equivalent in a shorter period of time. Jurisdiction to hear claims of

federal executive branch employees has been granted to the Merit Systems Protection Board, but this jurisdictional grant is not reflected in the statute.

Enforcement: Enforcement of the existing law in a timely and equitable fashion has become a major problem. The proportion of cases and problems associated with enforcement involving reservists has grown dramatically as the Nation has placed greater reliance on its reserve forces. The existing statutory enforcement scheme reflects the original intent of Congress to provide a returning veteran with an expeditious means of enforcing the right to reemployment. Enforcement continues to be limited primarily to claims arising from a failure to properly reinstate. Rights added since the statutory enforcement scheme was first established, such as discrimination relating to a reserve obligation, are difficult to investigate and prove, and violations may be independent of reinstatement.

Delays inherent in the investigation and prosecution of claims by reservists are of immediate concern to the armed forces because the individual's continued service may be contingent upon timely enforcement and meaningful relief. Reservists who believe that their only choice is between their reserve service and their full-time job must in most instances choose the latter. The absence of an enforcement presence that is meaningful to affected reservists must, therefore, be of great concern to the Department of Defense. Under the existing enforcement scheme, even in cases where extraordinary relief for the reservist seems to be warranted, it would be difficult to legally establish irreparable harm to the reservist and to coordinate support for the legal case among the affected interests, including the Department of Defense and the reserve component. An effective way to provide timely relief under the current statute has not been developed.

What may be the most serious problem with enforcement is the lack of balance in the law. The original right--reemployment--remains the primary remedy; and, in the event of a failure to comply with the law, the courts can then award other remedies such as back pay or expunction from a personnel record of all reference to unlawful discipline. Employers are generally unaware, however, that failure of the reservist to meet minor requirements of the law does not justify discharge, but the employer can invoke the usual sanctions for a similar offense.

Case law: At best, the considerable body of case law interpreting the employment protection statute can be characterized as contradictory and confusing. This can be traced to a variety of sources. First, because there is no enforcement authority short of Federal District Court, each claim not amicably resolved becomes a precedent. Consequently, a case that may have been decided in court for or against a

claimant based on a unique set of circumstances may later be resurrected and applied in unrelated circumstances.

Lack of definitions in the statute and changing terminology have resulted in case law definitions of terms that are unique to the statute. In some instances, these case law definitions prohibit practices that appear to be clearly sanctioned on the face of the statute. In other instances, they allow what the statute appears to prohibit. Other instances include case "law" that has been engrafted on to the statute, which the nonexpert reviewing the statute would have no reason to suspect existed. Lack of definition and lack of cross-referencing in a complicated statutory structure has resulted in cases being decided under sections of the law that are not applicable.

Neither the DoD nor the affected service component is a party to the action; only the employer and employee. As a consequence, facts, policies, and issues that may affect not only the individual case but may also bear on recruitment, readiness, and retention may not be presented at trial; errors may not be preserved for appeal; and issues peculiar to the military relationship that gave rise to the rights in the first instance may not be fully understood.

The case law problem permeates the statute. Under the case law, pensions (inadequately defined in statute) are defined as seniority, not benefits. This has the effect of creating a right to a private pension for military service from any employer with a pension plan. Aside from issues of congressional intent, such "case law" may contribute to pressures to limit the employment of reservists and to limit their absences if they are employed. The statute appears to assure the reservist vacation benefits as though there had been no absence, but case law permits the employer to dock the reservist the amount of vacation that would have been earned during a training absence. Although the statute states that the reservist will not be denied any incident or advantage of employment because of the reserve obligation, under the case law, group health insurance may be terminated during annual active duty for training, the right to apply for promotions and equal access to overtime opportunities to reservists may be denied, and compensation items such as perfect attendance bonuses, holiday pay, and similar benefits, may also be denied.

Coverage of federal employees: The employment protections in title 38 also apply to executive branch employees of the federal government. Section 2023(a) requires that the Office of Personnel Management (OPM) initiate implementing rules and regulations. OPM has recently proposed major revisions to these regulations to be published as part of chapter 353 of the Federal Personnel Manual.

Within the limitations of the regulatory authority of section 2023(a) of title 38, United States Code, the Federal Personnel Manual Chapter 353, as revised, after consultation with QRMC and other DoD representatives, restates the statutory employment protections of federal employees which will reduce a great deal of confusion. To the extent that the new Chapter provides current and accurate information on how to appeal adverse decisions to the Merit Systems Protection Board (MSPB), conflicts between covered federally employed reservists and their employers will be substantially reduced. However, the Chapter continues what is construed to be an inaccurate interpretation of the statute by directing agencies to weigh the needs of the military against the needs of the agency in granting absences to employees for reserve training.

In addition, there are statutory omissions that leave substantial numbers of federally employed or federally connected reservists without the protections apparently assured to them by law, and without informal assistance or access to decision-making processes afforded other employed reservists. These employees include legislative branch employees not falling within the specified exceptions of the statute, judicial branch employees generally, and employees of nonappropriated fund activities. Notwithstanding the fact that these excepted employees do not have access to federal MSPB assistance, because of their Federal status they are not generally afforded assistance, as a matter of custom, by the Department of Labor. Also, because the authority of OPM to issue regulations does not extend to rights as well as restoration, no guidelines have been issued to define or prohibit discrimination in hiring or employment.

Conclusion and Recommendations

The statute that provides employment protections for reservists is complicated and difficult to understand, creates opportunities for conflict between the employer and the reservist, does not uniformly apply to similar persons performing similar duty, artificially limits the availability of reservists with prior service to perform active duty other than for training, provides disincentives for employed reservists to attend training that is lengthy or for which orders arrive at the last minute, and does not provide for timely or effective enforcement. Progressive changes in the statute coupled with changing circumstances of duties have resulted in a law that no longer serves the original intent of Congress, i.e. to eliminate disincentives to military service by providing a speedy right to employment in a position for which the person has previously shown an aptitude. Therefore, the current law does not adequately serve the needs of the Total Force.

Because of the ongoing work on this issue of the Interagency Task Force, it appeared most useful for the QRMC to set out general recommendations for statutory revision to serve as a guideline for the development of legislation. Briefly, the recommendations would have the following effects:

- Revise, standardize, simplify, and update the law.
- Eliminate complex classifications.
- Create uniform classifications of service and rights.
- Standardize employment protections on length of absence.
- Cap employer costs.
- Cap cumulative military leaves of absence.
- Provide speedy, balanced, local arbitration.

These recommendations follow:

- The 6th QRMC recommends development of legislation to revise the existing system of statutory employment protections in accordance with the following guiding principles:

- General:

  - Recodify the law into a standard statutory structure, provide accurate section titles, a logical structure, and adequate cross references.

  - Standardize the terminology and provide statutory definitions.

  - Include an introductory section setting forth the purpose of the law and rules of construction to aid in providing uniform interpretation and application of the law.

  - Eliminate obsolete references and, where appropriate, preserve rights based upon those references through a savings clause.

  - Structure the law to provide uniform rights over a variety of circumstances so that it can operate under changing manpower programs without amendment.

- Classification and length of absence:

  - Eliminate the current classification of persons for employment protections and retain only minimum distinctions based upon whether the member has a military obligation and may be presumed to have been in military service long enough to be aware of his or her rights and obligations.

- Substitute one standard definition of military duty in place of the current multiple classification of duty for employment protections.
- Base eligibility and entitlements upon the length of the absence.
- Define the continuous service limits at five years, with exceptions for persons who are unable to obtain release through factors beyond their control (e.g. extended due to national emergency) and for those whose minimum enlistment for an initial military occupational specialty exceeds five years.
- Eliminate limits on cumulative service for reemployment with longevity. The law should, however, preclude the possibility of a reservist serving on several extended active duty tours with only days or weeks of intervening return to work for a private employer and still retaining reemployment rights.

- Clarification of entitlements:
  - Define the terms in the statute that accord the employee seniority, status, benefits, incidents and advantages, and promotions.
  - Redefine pensions and profit sharing plans as benefits rather than as perquisites of seniority.
  - Clarify that benefits are to be accorded to persons according to the rules and practices of the employer for any employee on leave of absence or furlough, except for absences of 30 days or less.
  - Permit employers to establish a cumulative cap of five years on seniority (other than longevity), pensions, and other benefits of employment that accrue over time for absences of 30 days or more.

- Clarify application to federal employees:
  - Extend protections to federal employees of federal corporations, employees of nonappropriated fund activities, and other employees of federal activities that are neither private or state employed.
  - Update the provisions relating to executive branch employees to reflect the jurisdiction of the Merit Systems Protection Board.

- Provide for regulatory authority and relief coterminous with the rights and obligations under the law.
- Clarify who is to provide assistance to eligible claimants and to what extent.
- Provide procedures for the prompt resolution of claims for all federal employees.
- Provide adequate cross-references to the provisions of title 5 and eliminate sections of title 5 that duplicate coverage.

- Administrative hearings and procedures:
  - Provide for local informal consideration of the claims of employees and employers arising under the law.
  - Provide for a hearing authority that reflects the community and interests involved, including the claimant's reserve component if applicable.
  - Provide the hearing authority mediative authority and powers to investigate and enforce its decisions, including authority to order employers to reemploy claimants pending any appeal.
  - Provide time limitations to assure speedy hearing of claims.
  - Provide for limited appeal to Federal District Court.
  - Provide for penalties, such as the award of special damages, costs, and attorney's fees (including the reasonable cost of a United States Attorney) to discourage unnecessary appeals.
  - Clarify and specify the responsibilities and limitations of the Secretary of Labor in providing assistance to persons with military obligations, in providing public information, and in issuing policy or regulations.

- Miscellaneous:
  - Modify the authority of the Assistant Secretary of Labor for Veterans' Employment and Training (ASVET) to include preferential employment assistance to members of the Guard and Reserve who do not otherwise qualify as veterans, either by providing that they are veterans for the purposes of such preferences, or by defining them as eligible persons (the next lower category of preference), and by including the National Guard and

Reserve components in the statement of purpose of the employment preference law (sections 2001, 2002 of title 38, United States Code). This modification would assist in reducing hardship to reservists who are unemployed, and it may reduce administrative costs resulting from pursuit of claims for reinstatement when the reservist would, in fact, prefer to be employed elsewhere.

- **Extend the nondiscrimination provisions to prohibit discrimination based upon any present, past, or potential military obligation. This would prohibit the current practice of some employers (mainly state agencies) of forbidding employees to join reserve components and would protect returning veterans who may be refused employment, not only because they are veterans but because of residual reserve obligations or potential for reserve affiliation.**

The QRMC recommendations would have no direct impact on the DoD budget. However, the recommended simplification and substantive changes to existing statutory employment protections may result in substantial savings for the DoD; the changes should reduce costs for recruitment and training that are associated with current reserve attrition resulting from problems with employers. Costs of administration for the Department of Justice, Department of Labor, Office of Personnel Management, Merit Systems Protection Board and Federal Court System should decrease if conflicts between employers and employees are decreased through clarification and simplification. No additional costs should be incurred if all National Guard and Reserve members are provided preferential employment assistance under the current system.

Employer Tax Credit

Generally, active members of the National Guard and Reserve are required to attend one weekend of inactive duty training monthly and 14 days of active duty training annually. The vast majority of Guardsmen and Reservists are also employed in a civilian occupation. As discussed above, these fundamental facts are the source of substantial conflicts that affect military readiness.

Although active participation in the reserves may be considered part-time employment for many purposes, it is substantially different from any other part-time activ Reservists are members of the armed forces at all times. They may be involuntarily activated in times of emergency. These features of reserve service impose actual and potential costs on

employers of reservists. Unfortunately, many employers reduce these costs by discriminating against members of the National Guard and Reserve.

Although efforts are made to reduce conflict, competing demands on a reservist's time from the military and from a civilian employer are unavoidable. These conflicts and their resolution are among the most important factors affecting reserve retention. In fact, conflicts between civilian employment and reserve component military duty account for approximately one-third of all personnel losses incurred by the National Guard and Reserve. These losses increase recruiting and training costs and reduce readiness.

From an employer's viewpoint, employee absences create problems. Work may have to be rescheduled or redistributed. Deadlines may be missed. Solutions may include such things as temporary help and/or overtime for other employees. All increase an employer's costs, reduce revenue, or otherwise affect profits. Not surprisingly, employees with substantial periods of absence are less desirable. It should be noted, however, that the reason for an absence has virtually no effect on these additional costs. When an employer has little or no control over when absences occur, the problems can become particularly aggravating.

Budget-minded employers seeking to minimize costs associated with employee absences might be inclined to reduce reserve participation among employees. Such discrimination may take many forms:

- Discrimination at hiring, where qualified reservists may be passed over for other, perhaps even less-qualified applicants.
- Failure to keep the reservist's job open until return from initial full-time training.
- Imposing costs on the reservist during the course of the enlistment term: these costs could take the form of forcing the reservist to use vacation time or take leave without pay during annual summer training, exhibiting an unwillingness to accommodate the reservist's schedule, passing over the reservist for promotions, smaller raises, etc.
- Causing difficulties at the time of extension or reenlistment by making clear that another term of service could seriously jeopardize the reservist's employment or chances of promotion.

All these forms of discrimination pose a serious threat to the ability and willingness of Guardsmen and Reservists to perform and to continue to perform their reserve duty. These actions are also contrary to our national commitment to a strong reserve as an integral part of the total defense force.

As discussed in the preceding section, federal statutes have been enacted to reduce discrimination against reservists and reduce unfavorable employment practices that penalize a reservist for absences due to military training. Chapter 43 of title 38, United States Code, prohibits employers from discriminating against reservists and requires employers to grant a leave of absence to accommodate military training.

From initial efforts in 1970, the DoD has developed an aggressive program to encourage employer support of the National Guard and Reserve. This program has grown from several hundred employers and professional and labor organizations to more than 3,000 community leaders nationwide. It involves multimedia public service advertising with a value of approximately $25 million per annum. This effort has paid important dividends, but 10 to 20 percent of reservists continue to experience significant employment-related conflicts and approximately one-third of total losses are attributable in major part to these conflicts. These continuing conflicts are exacerbated by financial disincentives to employers of reservists. Reducing these financial disincentives could go a long way toward reducing the impact of inevitable conflicts for a reservist's time.

Implementation of the recommendations in the preceding section of this chapter with respect to updating and simplifying statutory employment protections and providing a system of local arbitration of individual cases would, in the view of the 6th QRMC, help to reduce conflicts. These recommendations would be preferable to an alternative that would greatly expand the investigatory and enforcement function of the Department of Labor under title 38, United States Code. This latter approach has several distinct disadvantages. Today, the enforcement procedures under title 38 are slow, cumbersome, and expensive. More importantly, increased enforcement/monitoring does not reduce employer costs. In fact, increased investigation and enforcement are likely to increase employer costs, eroding employer support rather than enhancing it.

Since the major employer disincentive to employee participation in the reserve is additional costs and reduced profits, an offsetting financial incentive would appear the most appropriate remedial action in conjunction with updated statutory protections. There are, however, no funds or authorities to provide direct monetary incentives to employers who support participation in National Guard and Reserve

programs, nor could a program to do this be easily established. Since the DoD has no jurisdiction over employers and is not in a position to provide direct incentives, an indirect financial incentive, in the form of a tax credit to employers who support their employees serving in the reserve components, is a reasonable way to encourage support as a matter of national policy.

Tax incentives have been used to encourage employment in particular segments of the civilian work force. The Targeted Jobs tax credit (section 51 of title 26, United States Code), first enacted in 1978, initially provided a credit of 50 percent of the first-year wages and 25 percent of the second-year wages. While the Tax Reform Act of 1986 reduced the amount of the credit to 40 percent of first-year wages, unlike other credit and deductions, the Targeted Jobs credit was extended for three additional years.

A tax credit to employers who support National Guard and Reserve participation by their employees would reduce an employer's costs associated with employee absence due to participation in the National Guard and Reserve, thus reducing the disincentive to hire and retain reserve component members. Rather than address symptoms such as discrimination, a tax credit could significantly reduce or eliminate the reason for discrimination--additional employer costs associated with employee absence. It could potentially reduce the impact of employment conflicts, a major cause of attrition in the reserve components. A special subsidy or preference for a specific industry or section of the economy would not be created. The credit would simply reflect the overriding value to the Nation of employer policies that are supportive of the reserve service obligations of their employees. The credit would not override market-based resource allocations because it would apply to all employers, rather than a narrow sector. Without such an incentive, nonsupportive employers may gain undue advantage over supportive employers, since direct and indirect costs accrue to employers who actively support the National Guard and Reserve service of their employees.

Although the addition of a new credit would result in a modification to tax forms and instructions, it would not substantially affect the ability of the tax system to raise revenue. An easily administered credit with commonly understood concepts and unambiguous requirements will reduce any difficulties of tax administrators in auditing any claim for the credit.

With a new credit for employers supportive of the Guard and Reserve, tax receipts from employers may be slightly less. The cost of reserve forces, however, is significantly lower than comparable active component forces and this is part of the

rationale for the dramatic shift of missions and force structure from the active to the reserve components. Preserving this substantial cost-effectiveness and maintaining strong reserve forces requires innovative national action.

Given the significance of the reserve components as part of the Total Force and the inability to reduce the impact of employment conflicts to acceptable levels through cooperative volunteer programs and public service information, the tax credit approach should be tried. Voluntary programs aimed at encouraging employer support of the Guard and Reserve have been given priority attention within the DoD in recent years. Although these programs have helped, the added benefit of the proposed tax credit should greatly assist in improving employer support.

Recognizing the substantial role that employer attitudes and practices have on reserve readiness, legislative proposals granting a monetary incentive (in the form of a tax credit) to employers of reservists have been introduced in the 97th and 99th Congress and are a part of the DoD's Legislative Program for the 100th Congress. Each proposal is outlined below:

H.R. 1361 (97th Congress)

- credit instead of deduction
- 100 percent of amount paid less military pay and allowances
- summer annual training
- refundable (i.e. if no tax liability, cash to employer)

H.R. 3241 (99th Congress)

- credit and deduction
- 20 percent of amount paid and 10 percent of amount unpaid
- additional training
- nonrefundable
- annual maximum of $2,000 per member

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- credit and deduction
- 20 percent of amount paid and 10 percent of amount unpaid
- any training
- nonrefundable
- annual maximum of $2,000 per member

A detailed review of each proposal was conducted by the QRMC. The following is a discussion of common issues:

Training: Annual training is regularly evaluated by reservists and commanders as substantially more productive and rewarding than most other training experiences. This translates to increased satisfaction of reservists with their participation. Although an incentive could be provided only for absences due to annual training, conflicts with monthly weekend training also arise. The credit, therefore, should be available for any employment-related conflict.

Pay Practice: Employer pay policies regarding time off for military training vary substantially. Like many federal, state, and local government employers, some private employers (approximately 10 percent) grant military leave with full pay and benefits. Other employers (approximately one-third) permit military leave and pay the difference between military pay and allowances received during training and full-time pay normally received. About half of all private employers consider time off for military training to be an unpaid leave of absence. Although compensation paid for time off is a deductible business expense to an employer, civilian pay during periods of military training increases a reservist's overall satisfaction with participation in the reserve, thereby providing a substantial indirect benefit to the government.

These pay practices for time off for military training, as well as credit for military service, are considered substantial reasons why many members of the reserve components are employed by federal, state, and local governments. Excluding AGRs and military technicians, 35 percent of reserve officers, 27 percent of reserve enlisted personnel, and 28 percent of all drilling reservists are employed by governmental agencies.

The federal government's military leave policies support reserve participation and provide a model for private sector employers. While elimination of such practices may appear attractive in the short term, recruiting and retention difficulties that were the basis for enactment of such practices would surely increase. In addition, overall participation in the reserve would suffer in the likely event that private employers would provide less direct support of employees who are reserve participants. The overall impact of elimination of military leave for federal employees could be disastrous. This tax credit would encourage reserve military leave pay policies in the private sector similar to those in government.

A substantially greater credit (50 percent of any amount paid) should be available if an employer pays any amount during absence for military training. A substantially reduced credit (10 percent) should be provided to offset employer costs associated with time off, unrelated to amounts paid to the absent employee.

Employers: Small- and medium-sized employers suffer greater financial burdens, because a single employee who is a reservist is a greater percentage of a smaller total work force. Of course, as total work force size increases, individual reservists constitute a smaller percentage of the total. For the largest employers, reservists constitute approximately 2 percent of the work force. For these reasons, smaller employers should get full benefit of the credit. A dollar limitation on the maximum credit available to any one employer would reduce the total revenue loss of the credit and reflect the reduced amount of disruption and costs associated with the absence of a single employee in the work forces of the largest employers. A dollar limitation of $7,500 would affect only the employers with a work force greater than 700 employees.

Self-employed: Many reservists are self-employed and have recognized reduced civilian income due to reserve participation. This credit should be extended to the self-employed to reflect this "employer" cost. It should vary by the amount of self-employment income and reserve participation. Its amount should not be related to military pay grade or rank. Easily ascertainable facts such as self-employment income, days of active duty, and military pay and allowances would minimize any administrative complications.

Employment Rights: Title 38 of the United States Code provides employment and reemployment rights to reservists. The QRMC recommends revisions to these statutory employment rights, including a system of local arbitration. Implementation of the QRMC recommendations should be favored by both reservists and employers as less confusing, less time-consuming and more effective. It would serve to make all employers more aware of their obligations with respect to their reservist employees. A tax credit would serve to balance these obligations. Employers who deny or violate these rights, however, should not receive the credit (nor should reservists be permitted to manipulate this aspect of the credit). Accordingly, employers claiming the credit should be required to certify that they have not been the subject of employment rights litigation initiated by a United States Attorney under title 38, United States Code.

Refundability: A refundable credit can result in direct payments when tax liability is less than total credit. The Earned Income Credit is an example of a refundable credit. Like the Targeted Jobs credit and other business incentive tax credits, this credit should be nonrefundable.

Deduction: The credit should be in addition to an employer's normal deduction for wages paid. A credit in lieu of this normal deduction would inordinately inflate the revenue loss attributable to the credit.

Conclusion

The 6th QRMC concludes that an employer tax credit to enhance employer support for the National Guard and Reserve should be evaluated.

The 6th QRMC reviewed previous legislative proposals which recommended the provision of a tax credit to employers of reservists. The intent of all prior proposals has been to recognize the cost to employers of their employees' participation in the National Guard and Reserve, the value to the Nation of reserve service, and the significant dollar savings that can accrue through reduced conflicts between reserve service and civilian employment. The QRMC developed the framework for a tax credit which would have the following characteristics:

- **Provide a nonrefundable credit, in addition to an employer's normal deduction for wages paid, of 50 percent of any amount paid by the employer during the military leave of the reservist employee, and a credit of 10 percent of the reservist's salary for military leave uncompensated by the employer.**

- **Establish a limit of $7,500 on the maximum credit for any one employer.**

- **Include a credit for self-employed reservists.**

- **From employers claiming the credit, require certification that they have not been the subject of employment rights litigation initiated by a United States Attorney.**

Enactment of an employer tax credit would cause no increase in the budgetary requirements for the DoD. There would be a modest loss of revenue to the federal government resulting from a decrease in the amount of business taxes that would otherwise be due. Based on 574,000 reservists employed by private employers, average income levels, and current pay practices, the enactment of an employer tax credit which incorporated the above features would result in a tax expenditure of less than $100 million in Fiscal Year 1988.

Social Security Deductions for Inactive Duty Training

The Servicemen's and Veterans' Survivor Benefits Act of 1956 extended full Social Security coverage to all uniformed service members while on active duty or active duty for training, effective January 1, 1957. Coverage was not extended to reservists while on inactive duty training (IDT). Thus, a reservist pays FICA tax, and receives Social Security wage credits, on his or

her basic pay while on any period of active duty or active duty for training, but not during periods of IDT. The DoD, as a member's employer, must match all individual FICA contributions.

During the period of the QRMC study, the Administration proposed extension of full Social Security coverage for inactive duty training, and the costs of this initiative were included in the President's Budget for Fiscal Years 1988 and 1989.[1] The proposal was enacted into law as section 9001 of title IX of the Omnibus Budget Reconciliation Act of 1987 (Public Law 100-203).

IDT earnings were not originally included as earnings subject to FICA taxation for the sake of administrative inconvenience and because, based on the low earnings of reservists at the time military earnings were brought under FICA there would have been negligible tax return. In 1956, the Social Security ceiling was $4,200 and the contribution rate was 2 percent for employers and employees. The ceiling was only 14 percent higher than the average annual earnings of $3,678 in nonagricultural employment. By 1986, the ceiling had increased tenfold to $42,000 and the tax rate to 7.15 percent. Average earnings also increased, but only to about four times the 1956 earnings. The Social Security ceiling in 1986 was about 267 percent higher than average yearly earnings.

The collection of FICA taxes is no longer the administrative burden it was in 1956. Today the Services have automated pay systems that already make deductions for federal income tax and Serviceman's Group Life Insurance. FICA deductions for IDT pay could easily be introduced to the reserve components pay systems.

The immediate effect of enactment of the Administration's proposal to begin deducting FICA from IDT pay was a reduction in take-home drill pay of National Guard and reserve members. The 1988 FICA tax rate of 7.51 percent of gross IDT pay resulted in an 8.8 percent reduction in the IDT take-home pay of members in the 15 percent federal income tax bracket. (The FICA tax rate is scheduled to increase to 7.65 percent in 1990.) The net effect on a typical member in pay grade E4 was an approximate $10 reduction in monthly drill pay: a paycheck reduced from $114 to $104. The effect was to return a typical E4 to the January 1985 pay rates as reflected in table 7-1.

The effect of the FICA deduction on the net pay of members varies in relationship to their federal income tax withholding bracket. The higher an individual's tax bracket, the greater the percentage of decrease in net pay as a result of FICA taxation. For a member with no income tax withholdings, the reduction in net drill pay is equal to the 7.51 percent FICA tax. For a member in the 11 percent tax bracket, the reduction in net pay is 8.4 percent. The reduction is 8.8 percent for

Table 7-1. Annual IDT Net Pay Comparison

	Jan 85	Oct 85	Jan 87	Jan 88
IDT Pay*	$1,479	$1,524	$1,569	$1,601
FITW**	222	229	235	240
FICA	-	-	-	120
Net Pay	$1,257	$1,295	$1,334	$1,241

* Pays are for a member in pay grade E4 with 4 years service.
** Assumes a 15 percent tax bracket.

those in the 15 percent tax bracket, 10.4 percent for those in the 28 percent tax bracket, 11.6 percent for those in the 35 percent tax bracket, and 12.2 percent for those in the 38.5 percent tax bracket.

This reduction in reservists' paychecks could be expected to have a negative impact on member morale; however, the effect on recruitment and retention is difficult to assess. Changes to the administration of the Variable Housing Allowance (VHA) for reservists performing active duty for training resulted in a 3 to 4 percent pay reduction for members performing annual training in 1984. No impact on recruiting or retention was attributable to this pay reduction. The difference between the reduction that resulted from the loss of VHA and the loss that would occur for FICA tax is that members usually receive only one annual training paycheck each year, whereas they receive twelve IDT paychecks. Thus a member must remember what he or she received the previous year to compare the reduction in annual training pay but must remember only what he or she received the previous month to note the reduction for FICA.

The DoD and the Coast Guard must transfer to the Social Security Administration a FICA amount equal to that of the member. Some members whose combined civilian and military earnings exceed the FICA ceiling, currently at $43,800, will now receive a refund of all FICA taxes paid on the amount over the ceiling. Based on information furnished by the Social Security Administration's office of statistics, approximately 6 percent of reserve members will earn more than the FICA ceiling annually. Regardless of refunds to members, the DoD and the Coast Guard must contribute the full amount. Based on the Fiscal Year 1988 and 1989 Budget Request, the DoD's transfer payment to the Social Security Administration for IDT FICA contribution will be $125 million and $168 million, respectively.

Three types of benefits are available under Federal Old Age, Survivor and Disability Insurance (OASDI) for FICA contributions: a monthly retirement benefit payable as early as age 62; disability benefits if a qualified participant becomes

severely disabled and is unable to do other substantial work, and survivor benefits upon the death of a qualified participant. The amount of retirement, disability, or survivor benefit is based on the insured's status, which is determined by his or her age, FICA taxes paid, and the wage-earning time covered by the OASDI. The average monthly disability payment to an individual in 1985 was $638. For a family, the average was $956. The average monthly survivor benefit for a family of three was $1,190 in 1985. The maximum monthly retirement for an individual attaining age 62 in 1986 is $791.

Most members who qualify for and begin receiving Social Security retirement income will benefit from having IDT pay covered by FICA taxation. The extent of this benefit will vary, depending on the percentage of an individual's total FICA earnings derived from IDT pay. Also, using the information from the 1986 Reserve Components Surveys, it is estimated that 10 to 15 percent of the members of the Selected Reserve are students, unemployed, or working in situations not covered by OASDI. The disability and survivor protection offered by OASDI would be of value to this group because the entire year would be counted (four quarters per year instead of only the quarter in which annual training is performed) toward coverage. Based on expected military earnings for a member age 18 to 21, whose only FICA wages were derived from military earnings (IDT and annual training), the member should be qualified, by military earnings alone, for disability and survivors benefits after only one and a half to two years of service.

Conclusion

The 6th QRMC concludes that the enactment of statutory changes that subjected compensation for IDT to FICA taxation was appropriate, although the impact on reservists' take home pay is substantial and must be taken into account in assessing the potential impacts of other proposed reserve compensation changes. The original rationale for excluding inactive duty training pay from FICA taxation is no longer valid. The development of computerized pay systems, coupled with the increased FICA tax rate and ceiling and military pay increases, have resulted in a cost-efficient and effective means to deduct these now substantial revenues.

In 1988, the FICA deduction of 7.51 percent in members' gross IDT pay will result in a 7.51 to 12.2 percent reduction in members' take home drill pay. This reduction in net pay will probably have a negative effect on member morale, but the effect on recruitment and retention is difficult to assess.

The reduction in net IDT pay will be somewhat offset for members by increased deferred Social Security benefits. These benefits may be in the form of retirement, disability income, or

survivors' income. For approximately 10 to 15 percent of members who are not otherwise covered, FICA taxation of IDT pay may be their only means of qualifying for these Social Security protections.

Tax Deductions for Reserve Component Members

Prior to enactment of the Tax Reform Act of 1986, members of the National Guard and Reserve, as employees, were permitted to deduct expenses related to their military duties. In particular, expenses of travel and transportation to a drill site in excess of any reimbursement (considered an employee travel and transportation expense) were deductible as an adjustment to income. These deductions are made from gross income in arriving at adjusted gross income and have been described as "above the line" deductions. In addition, other duty-related expenses in excess of reimbursement (i.e. uniforms, association dues, etc.) were deductible as miscellaneous itemized business deductions. Total itemized deductions in excess of a standardized amount were subtracted from adjusted gross income to determine taxable income.

The Tax Reform Act of 1986 made substantial changes to the deductibility of employee business expenses:

- Employee travel and transportation expenses are only deductible as adjustments to income ("above the line") to the extent of reimbursements. Expenses in excess of reimbursements are only deductible as a miscellaneous itemized business expense.
- Miscellaneous itemized business expenses (including unreimbursed travel and transportation expenses) of an employee are only deductible to the extent that they exceed 2 percent of adjusted gross income.
- Only 80 percent of unreimbursed business meal/entertainment expenses are deductible and then only as a miscellaneous itemized business expense subject to a floor of 2 percent of adjusted gross income.
- The standard deduction has been increased for most taxpayers. This increase means that total itemized deductions must be greater before taxes are reduced.

Based upon 1986 Reserve Components Surveys information, over 81,000 reservists (54,500 enlisted and 27,100 officers) have one-way travel time from home to training site in excess of two hours. They represent 7 percent of the enlisted community and 19 percent of the officers.

A bill has been introduced in the 100th Congress (H.R. 2214) that would amend the Internal Revenue Code of 1986 with respect to certain deductions allowed to members of reserve units of the Armed Forces or the National Guard. In particular, this legislation would have the following effects:

- Permit travel/transportation expenses of reservists and National Guard members to be deductible as an adjustment to gross income (i.e. "above the line").
- Permit all other reserve-related expenses to be deductible as miscellaneous itemized business expenses without reduction by 2 percent of adjusted gross income.
- Eliminate the 80 percent limitation on meal/entertainment deductions incurred in connection with the performance of services as a member of the National Guard or Reserve.
- Apply a less strict standard of substantiation for expenses related to reserve duties.

This legislation, if enacted, would restore the full value of deductions for the travel/transportation expenses of reservists. In addition, it would provide preferential treatment for other reserve-related expenses. Under the Tax Reform Act of 1986, a performing artist employed by at least two employers whose adjusted gross income (without reduction for artist expenses) does not exceed $16,000 is accorded preferential treatment for deducting expenses "above the line".

Generally, reserve activities, like other military activities, are in the national interest. In principle, expenses related to these activities should be borne by the government. In reality, competition for scarce resources at all levels requires that some beneficial military-related activities be partially or totally unfunded. Permissive temporary duty military orders are a case in point. Although government funds are not expended for the cost of travel or transportation, absence from normal duties with pay not charged as personal leave can be considered partial funding of permissive activities. Expenses of travel, transportation, and attendance are borne by the individual service member. These military-related expenses are deductible by the individual service member for income tax purposes.

Uniformity of treatment accorded to similarly situated members of the reserve and active duty communities is fundamental to the Total Force. Preferential treatment is appropriate to compensate for fundamental differences between these two groups. This concept is reflected in the different tax treatment of retirement for participation in the reserve versus retirement for active duty service. Reservists performing less than 90 days of active duty are not considered "active participants" in

a retirement plan for purposes of determining the deductibility of a contribution to an Individual Retirement Account (IRA). Members on active duty longer than 90 days are "active participants." Active participants may only deduct a contribution to an IRA if adjusted gross income is below certain levels. Those not considered active participants may deduct the entire IRA contribution without regard to adjusted gross income. This differing tax treatment is consistent with the substantial differences in the types of service required and retirement available thereafter.

Conclusion and Recommendations

Unlike most members on active duty, the vast majority of participating reservists are full-time employees in the civilian economy. Reserve duty is secondary part-time employment. As with other employment, reserve-related travel and transportation expenses (including meals) are deductible (although not at full-value under current law). In addition, the expenses of transportation between civilian employment and reserve duties are deductible. Preferential tax treatment of these expenses is appropriate.

Other unreimbursed reserve-related expenses, it may be argued, are not substantially different from the unreimbursed expenses of members on active duty. On the other hand, these expenditures can represent a substantially larger percentage of annual compensation for military duty. In addition, the partial nature of reserve duty does not diminish all annually recurring expenses related to reserve activities. In fact, some expenses are greater because they arise infrequently.

The QRMC concludes that, within the context of Total Force policy, legislation permitting reservists to deduct unreimbursed reserve-related travel and transportation expenses (including meals) as an adjustment to income without reduction may be warranted. Further, all unreimbursed expenses related to reserve activities aid national defense, and their deduction appears to be warranted within the context in which reserve service is performed.

- **The 6th QRMC recommends that the Administration review the feasibility of amending the Internal Revenue Code in the following ways:**
  - **Permit unreimbursed travel and transportation expenses of drilling reservists to be deductible as an adjustment to gross income.**
  - **Permit all other reserve related expenses to be deductible as miscellaneous itemized business expenses without reduction by 2 percent of adjusted gross income.**

- **Eliminate the existing 80 percent limitation on meal/entertainment deductions incurred in connection with the performance of services as a drilling member of the National Guard or Reserve.**

Adoption of any legislation will not directly affect the Defense Department budget. The tax expenditure (revenue loss) of the QRMC recommendation is minimal.

Rental Rate in the Soldiers' and Sailors' Civil Relief Act

The purpose of the Soldiers' and Sailors' Civil Relief Act, as enacted in 1940, was to provide broad protection to persons while in military service. The Act is identical in substance with the original act of 1918. It provides for the temporary suspension of legal proceedings and transactions that may prejudice the civil rights of persons in the military service of the United States. The Act is applicable to all persons in military service on active duty with any branch of service. This includes members of the reserve components when on active duty. The Act contains adequate safeguards to prevent any person from taking undue advantage of its provisions.

Article III of the Act provides that proceedings for eviction or distress (i.e. the taking of personal property to secure the payment of rent) in respect to any premises occupied as a dwelling by the dependents of a person in military service, may be stayed for not longer than three months, provided the agreed rent does not exceed $150 per month. The $150 per month limit has not been raised since 1966.

The maximum rent for which protection was afforded under the Soldiers' and Sailors' Civil Relief Act of 1918, was $50 per month. In the Act of 1940, the amount was set at $80 per month. The Act was amended in 1966 to increase the rate to $150 because of the increase in rental prices over those in effect at the time of enactment in 1940.

The current law that establishes $150 per month as the maximum rental for which protection is afforded clearly results in significant limits on the number of families protected from eviction without court review. It appears reasonable to adjust the rate in peacetime to provide an adequate rate for peacetime service and to preclude the need for emergency legislative revision in time of war. The QRMC considered a number of alternatives:

- No change to the current amount. A proposal to change the Act would probably be given favorable consideration if mobilization occurs. This has been the historical pattern for legislative revision of the Act. The 1966 adjustment,

for example, was made early in the Vietnam War period.

- Establish a new dollar amount. Based on the change in housing costs, the rental rate today comparable to the $150 set in 1966, would be $410. To put this in perspective, the BAQ/VHA (with dependent) rate for a typical member in pay grade E5 is approximately $415. The typical housing cost for an E5 is $500. Based on these amounts, the $410 rental rate would protect approximately 25 to 30 percent of the members in pay grade E5. This alternative however, would almost certainly require future amendments to establish higher rental rates.

- Adopt an adjustable rate. Under this alternative, a reasonable rate would be an amount equal to the member's housing allowance (the members' BAQ and VHA). This alternative would alleviate the need for future adjustments in rental rates, and the amount would be reasonable for members in each pay grade if there is no change in the BAQ/VHA philosophy. For mobilized members, however, their rental rate will primarily reflect their civilian income. An amount set by their military housing allowance could be insufficient, but would still seem a reasonable and equitable standard.

- Amend the Act with no dollar limit. The amount would be as agreed upon by tenant and landlord. This would eliminate the need to determine the member's housing allowance, and the need for future adjustments in the rate. On the other hand, it does not provide a uniform amount, which could create problems in enforcing this provision. Also, not establishing a dollar limit could be viewed as unreasonable protection because it does not provide adequate safeguards to prevent service members who pay very high rents from taking advantage of this provision.

Recommendations

- **The 6th QRMC recommends that the Soldiers' and Sailors' Civil Relief Act be amended to establish in the law that the dependents of a member of a uniformed service on active duty may not be evicted from any premises occupied as a dwelling for which the agreed rent does not exceed an amount equal to the member's housing allowance (the member's BAQ and VHA) without the permission of a court.**

The BAQ and the VHA are the elements of the military compensation system designed to help members pay for their housing when the government does not provide quarters. BAQ is tied to national median housing costs, by military pay grade, and is designed to be maintained at a consistent level by periodic revisions to the rates. VHA was designed as a means of

defraying high housing costs experienced by members assigned to high-cost areas. BAQ, plus VHA in high-cost areas, is designed to provide evenhanded and equitable housing cost reimbursement entitlements, on the basis of pay grade, to active service families. Congressional intent is that BAQ, in conjunction with VHA, cover 85 percent of the housing costs of military members.

The recommendation of the QRMC would eliminate the unrealistic $150 maximum monthly rental rate prescribed since 1966 in subsection (1) of section 530, title 50 Appendix, United States Code, and would substitute the "with dependents" BAQ plus the VHA, if any, to which a member is entitled under chapter 7 of title 37, at the time of court action seeking eviction or distress. The recommendation is designed to remedy the shortcoming that flows from an outdated dollar sum fixed by law and is potentially prejudicial to persons in the active military service and their dependents. The recommendation would replace that fixed sum with an amount that is regularly updated under close congressional scrutiny to fairly reflect true housing costs faced by active duty military personnel.

Notes

1. This action was originally recommended in 1978 in the report of the Reserve Compensation System Study. Office of the Deputy Assistant Secretary of Defense (Reserve Affairs), Reserve Compensation System Study, Final Report, June 1978, pp. V104-V107.

Chapter 8. HEALTH CARE, DISABILITY AND SURVIVOR BENEFITS

The special obligations and the actual and potential hazards of military duty in service of the Nation are reflected in the health care, disability, and survivor programs established for military members and their dependents. Programs for the medical care of military members and provision for disabled members and dependent survivors are rooted in the early history of our nation. These programs have been revised and expanded over the years to meet current and developing needs. Today, Department of Defense programs combine with programs administered by the Veterans' Administration to support retired members, disabled veterans, dependents, and survivors. Although the fundamental basis for these programs remains the special character of military service, some program modifications, such as expanded dependent medical and dental care, have resulted in part from changes in the broader society.

Typically, program revisions have been the result of wartime experience. For example, after World War I, congressional debate over provision of an immediate death gratuity focused on whether the payment should be limited to regular members or should be provided to the survivors of non-regulars as well.[1] Today, the system of protections in place for members who die, or who are disabled in the line of duty while serving on extended active duty generally makes no distinction between regular or reserve status.

With respect to members of the National Guard and Reserve who serve on active duty for short periods or perform inactive duty training, the situation is much more complex. This complexity derives from the fact that reservists maintain a continuous military status as reserves of the armed forces but move in and out of a specific military duty status. Like other aspects of reserve compensation, entitlements depend upon the type of the duty and its length. For example, medical benefits and entitlements for dependents of reservists commence when a member is ordered to active duty (including active duty for training) for a period of more than 30 days.

Entitlement to the death gratuity mentioned above was extended in 1949 to survivors of Reserve and National Guard members who die during a period of active duty or inactive duty training. Unlike the controversy over this issue during congressional action after World War I, there was no dissent to the 1949 expansion. Nevertheless, significant gaps remained in the total

program of reserve entitlements and protections for reservists injured or killed, and benefits were not uniform among the reserve components.

Beginning with the Fiscal Year 1984 Department of Defense Authorization Act, a series of statutory changes have been made to provide adequate protection for reservists or their survivors when members are disabled or die as a result of their military service. A brief review of these changes may serve to illustrate how intermittent military duty status complicates the equitable treatment of part-time reservists who are incapacitated or die as a result of the performance of their reserve duties.

- In 1983, medical and dental care was authorized, appropriate for the treatment of an injury incurred or aggravated while traveling to or from inactive duty training. The treatment was authorized until such time as it was determined that further treatment would not materially improved the disability. Travel and transportation allowances incident to the treatment were also authorized. (Section 1012, Public Law 98-74).

- In 1984, medical and dental care was authorized for members of the reserve components who contract diseases or become ill during inactive duty training. (Section 631, Public Law 98-525).

- In 1985, medical and dental care in military medical facilities or under the CHAMPUS program was authorized for dependents of reservists who die from an injury or illness incurred or aggravated while on active duty for 30 days or less, or while on inactive duty training or traveling to or from such training. The effect was (1) to provide care in uniformed services medical facilities and through the Civilian Health and Medical Care Program of the Uniformed Services (CHAMPUS) instead of the comparable care which had been provided through the medical system of the Veterans' Administration, and (2) to cover survivors of reservists who died of illness or disease incurred or aggravated during inactive duty training. Previously, programs had covered only the survivors of members who died as a result of an injury incurred during inactive duty training.

- In 1986, uniform provisions were enacted covering disability and death benefits for reservists, or their survivors. In this new authority, medical coverage was provided for temporary disability resulting from disease or illness aggravated while traveling to or from inactive duty training. In addition, there was a major change to the authorization for pay and allowances for reservists temporarily incapacitated as a result of their training.

Under the new authority, members were entitled to pay and allowances while incapacitated as a result of an illness or disease incurred or aggravated during or while traveling to or from inactive duty for training. Also, for the first time authority was provided for such pay for a reservist whose incapacitation in the line of duty resulted in the loss of civilian income, even though the member was deemed able to perform his other military duties.

These new provisions reflected the very great changes that had occurred in the rigors and demands of training in the National Guard and Reserve. Forty years ago, much reserve participation was on an ad hoc basis at the discretion of the individual. As reserve forces have taken on a significant share of national defense responsibilities in the Total Force, reserve training is often integrated with the missions of active component units, so that the reservist receives training while conducting day-to-day missions. Reservists routinely participate with active component units in realistic arms training and field exercises at home and abroad and operate state-of-the-art weapons systems and equipment. To function in this demanding environment, Guard and Reserve members must meet the same standards for physical condition and evaluation as do their counterparts in the active components.

In this environment, it is essential that members and their dependents or survivors be afforded adequate protection in cases of death or disability in the service of their country. The 6th QRMC reviewed the existing scheme of medical, disability, and survivor benefits for National Guard and Reserve members in the light of these significant recent initiatives to extend these protections and make them uniform. Eight major issue areas were identified and reviewed in depth: incapacitation pay, benefits for dependents of incapacitated reservists, reserve members' eligibility for dependency and indemnity compensation, the death gratuity, group life insurance programs for reservists, eligibility for burial in national cemeteries, survivor travel to a member's burial, the survivor benefit program for reservists, and the authority to provide pay and allowances for reserve members undergoing medical evaluation. Discussion of these issues and the recommendations of the 6th QRMC follow in the remainder of this chapter.

Incapacitation Pay

Background: Incapacitation pay is monetary compensation (equal to pay and allowances) paid to reservists who are injured or who aggravate an illness or disease in the line of duty, during inactive duty training, during active duty for 30 days or less or while traveling to or from such duty. This pay is authorized in sections 204(h) and 206(a) of title 37, United States Code.

In November 1983, the Department of Defense Inspector General conducted an audit of incapacitation payments to reservists. This audit, which followed a congressional investigation conducted in 1979, reviewed 890 incapacitation cases. The audit found significant procedural and internal control problems within the Services and indicated that some reservists could be unduly enriched or suffer unduly because their continued civilian employment or their loss of civilian earnings were not considered in computing incapacitation pay. Based on the findings of the audit, the Inspector General recommended that the existing legislation be amended to allow recognition of civilian employment as a factor in determining the amount of incapacitation pay that a reservist receives.

As noted above, beginning with the Fiscal Year 1984 DoD Authorization Act, Congress has attempted to remove the statutory distinctions between members of the active and reserve components who are disabled or die as a result of injury, illness, or disease while performing their military duties or while traveling to or from those military duties. The authority to provide medical care for injuries occurring while traveling to and from inactive duty training was included in the Defense Authorization Act for 1984.

The 1985 DoD Authorization Act revised the authorization for medical and dental care for reservists who become ill or diseased during periods of inactive duty training. As a result, their care includes medical care for injuries sustained while traveling to or from such duty. In addition, this Act authorized medical care for Reserve or Guard members who aggravate preexisting diseases by performing active duty or inactive duty for training. Thus, for example, a member suffering a heart attack during a weekend drill would now be authorized medical care if it was determined to have been aggravated as a result of the training. The 1984 amendment did not, however, extend incapacitation pay entitlement to reservists disabled as a result of contracting or aggravating a disease during training for 30 days or less. Only disabilities from an injury incurred during such training were covered by entitlement to incapacitation pay.

In 1986, the DoD proposed revisions to title 10 and title 32, United States Code, to standardize authorized medical and dental care for all members of reserve components and make it uniform. The Reserve Forces Health Benefits Act proposed by DoD was incorporated, with modifications, in the National Defense Authorization Act for 1987. It contained two major changes to benefits affecting reserve component personnel. The new provisions revised disability and death benefits for reservists who are disabled while on inactive duty, active duty for 30 days or less, or traveling directly to or from that duty as a consequence of an injury, disease or illness incurred or aggra-

vated during the period, and it revised death benefits for the survivors of reservists who die under such circumstances. Under the new law, disability resulting from disease or illness aggravated during training now warranted incapacitation pay.

The new law also changed rules governing the circumstances under which reservists are entitled to military pay and allowances (incapacitation pay) while disabled as a result of reserve duty. Until November 1986, if a member of a reserve component was on active or inactive duty for 30 days or less and suffered a disability, the authority for continued military pay and allowances was determined by the ability of the member to perform normal military duties. Thus, if disabled reservists could perform their civilian jobs but not their military jobs, they could be paid for both during the period of disability. Until the passage of the 1987 National Defense Authorization Act, a person could remain disabled from their military duties and remain employed in the civilian community until such time as further treatment would not improve the medical condition. There was no statutory termination of incapacitation pay and, in many cases, incapacitation pay was paid for one or more years. On the other hand, should the same person be able to perform military duties but not the civilian job, there was no authority to provide any compensation. Because the military duty is only part-time, the financial consequence of such incapacitation could be severely detrimental to the reservist.

The 1987 Authorization Act corrected this inequity by authorizing pay and allowances, limited to a six-month period, to disabled reservists who are unable to earn income from civilian sources as a consequence of the disability. The maximum payment could not exceed the lesser of the demonstrated loss of civilian earnings or military pay and allowances. The demonstrated loss of civilian income would take into account any benefits received from a civilian income protection insurance plan. Members who could perform in their civilian jobs but could not perform their military duty could be paid for scheduled inactive duty training notwithstanding their inability to train.

The objective of the 1987 legislative change was twofold: First, to prevent reservists from "double dipping" by eliminating the possibility that a reservist could collect incapacitation pay (equal to active duty pay and allowances) and civilian pay at the same time. The second intent was to compensate reservists for lost civilian earnings (their primary source of income) due to a disability incurred or aggravated during active duty, active duty for training, or inactive duty for training, as recommended by the 1983 Inspector General report. Such compensation however, is limited to the full amount of pay and allowances to which the member would be entitled. The cost of incapacitation pay prior to the 1987

Authorization Act was estimated at approximately $27 million per year. Based on the 1987 legislative changes, the annual cost savings were estimated to be between $7 million and $11 million.

QRMC Review: With the passage of the 1987 Department of Defense Authorization Act, a reservist's eligibility for incapacitation pay and the amount to be paid are now determined primarily on the basis of the member's civilian employment and the amount of lost wages from that employment. The QRMC study plan identified the need to evaluate the adequacy of protections and benefits for reservists with respect to its support of personnel readiness requirements and the uniformity and adequacy of coverages. A review was conducted to determine whether the new system of compensating reservists for a qualified disease, illness, or injury is adequate or whether it needs to be refined in order to treat all reservists equitably.

After reviewing the historical data and the 1987 legislative changes to incapacitation pay, it became evident that certain reservists would be ineligible to receive more than the minimal pay authorized for the training periods they missed as a result of their disability. For example, students, housewives, seasonal workers and those not employed in the civilian community now qualify for very limited incapacitation pay, even if they incur a severe injury in the line of duty. This limitation is due to the fact that these groups of reservists have no civilian income. These members receive only the pay authorized under section 206(a)(3) of title 37, United States Code, which provides pay for a regular drill period that a member is unable to perform because of incapacitation in the line of duty. For the member employed in the civilian sector, incapacitation pay provides pay and allowances up to the amount of lost civilian wages not to exceed the military compensation to which the member is entitled. If there is no civilian income lost, no incapacitation pay is paid to a reservist (with the minor exception noted above to compensate for missed drills). Therefore, it could be argued that an inequity exists when reservists with no civilian income incur or aggravate an injury, disease, or illness while performing active duty or inactive duty for training.

The active duty disability system is based on the ability of a member to perform all military duties commensurate with their military occupation. If active members are unable to perform their military duties due to a medical condition, they are entitled to have their cases reviewed by their Service's Disability Evaluation System. The same is true for reserve members receiving incapacitation pay. If the incapacitation results in a permanent or potentially permanent disability, the reservist is also processed for disability retirement or separation pay. In the case of the temporarily disabled member, however, there is now a major disconnect: the member disabled

while on active duty orders specifying a period in excess of 30 days draws full pay and allowances, but the member performing duty of 30 days or less is subject to the new system and may be essentially without income.

Although distinctions, based on primary source of income, need to exist between benefits for reservists and members of the active components, there should be reassessment for the inequity allowing payment of disability income to reservists based on ability to perform the civilian occupation while basing active duty members' "disability income" on ability to perform military duties.

- **In order to ensure that reservists are justly compensated for illness, disease, or injury incurred or aggravated by military service, and to remove the inequity that now exists, the 6th QRMC recommends the following changes:**

  - **Compensation payable to a member of a reserve component incapacitated in the line of duty should be restructured to provide a common standard for compensation of members incapacitated while performing active duty or inactive duty or while travelling to or from such duty.** Under current law, members incapacitated while on active duty under orders specifying a period of more than 30 days, who are released from active duty while still incapacitated, receive compensation for their incapacitation under a different standard than do members similarly incapacitated who were not on active duty under orders specifying a period of more than 30 days. The new standard would provide full pay and allowances to incapacitated members except those who received earned income from nonmilitary employment or self-employment performed during a month in which they were entitled to incapacitation pay. (Earned income includes wages, salaries, professional fees, tips, and other amounts received as compensation for personal services actually rendered.) If a member received such earned income, the incapacitation pay would be reduced by the amount of the earned income. Income from an income protection plan, vacation pay, and sick leave would be included as earned income if the member elected to receive such income.

  - **A separate standard should be provided for reserve component members who suffer an injury, illness, or disease or the aggravation of an injury, illness or disease in the line of duty, and does not incapacitate them for their military duties but does incapacitate them for their civilian employment, resulting in a loss of earned income from nonmilitary employment or self-employment.** The amount of compensation for such

incapacitation would be the member's demonstrated loss of earned income, not to exceed the amount of military pay and allowances that would be payable during the period. By distinguishing between members who are not physically qualified to perform their military duties and members who are not physically qualified to perform in their civilian occupation, the statutory distinctions between reserve component members and active duty members are reduced, at the same time providing compensation for loss of civilian income for members who cannot perform their primary livelihood.

- The following limits should be established on compensation for incapacitated reservists: (1) the total amount of incapacitation pay for any period should be limited to the amount of pay and allowances provided by law or regulation for a regular member of the same grade and length of service; (2) the compensation period should be limited to a maximum of six months unless a specific determination is made that continuation is warranted in the interests of equity and fairness; (3) there should be no entitlement to compensation for incapacitation as a result of gross misconduct of the member; and (4) the payment of incapacitation pay should be under regulations prescribed by the Secretary of Defense or, in the case of the Coast Guard Reserve, the Secretary of Transportation.

Due to the recent implementation of the 1987 legislative changes, it is not possible to know how many reservists are physically unqualified for their military duties and would receive incapacitation pay but for their inability to demonstrate loss of civilian income. The 1986 Reserve Components Surveys indicate that approximately 20 percent of the reserve population is not employed. Therefore, using as a base the annual cost savings of $7 million to $11 million estimated to have resulted from the 1987 legislative changes, we estimate that providing incapacitation pay to reservists who are physically unqualified for their military duties, minus any civilian earned income, would cost a maximum of $2 million per year. These potential costs would be reduced by enactment of the QRMC recommendation to apply the rules for incapacitation pay, as they apply to those on active duty for 30 days or less, to those who receive incapacitation pay after expiration of their orders for a period in excess of 30 days. It is estimated that the annual cost of the QRMC recommendations would be approximately $1 million.

Benefits for Dependents of Incapacitated Reservists

During the course of the 6th QRMC review of incapacitation pay, a second weakness was uncovered in the current system. This weakness results from the fact that the reservist receiving incapacitation pay as the result of injury or illness related to duty other than active duty in excess of 30 days is not on active duty. As a result, the member's dependents do not have the same entitlements and privileges as the dependents of members on active duty. The practical effects of this distinction were demonstrated, during the QRMC review, in a 1987 case involving the hospitalization of members seriously injured in an aircraft accident. Some of the members who were hospitalized as a result of the accident were on active duty for more than 31 days (and remained on active duty while hospitalized). Other hospitalized members were on active duty for 30 days or less. Hospitalization was at a site over a thousand miles from members' homes.

As a result of the differences in military status of the injured members, their dependent spouses, who travelled to their bedsides at the military installation where they were hospitalized, received disparate treatment. The QRMC review found that, for members hospitalized and drawing incapacitation pay but not on active duty, existing authorities were sufficient to provide their dependents with access to base facilities, including commissary, exchange, and transient quarters. There is no authority with respect to medical treatment of the dependents, however, and this was a specific problem and source of confusion in this case. Further, the National Defense Authorization Act for Fiscal Years 1988 and 1989 (Public Law 100-180) contains a provision (section 615) that provides authority for the transportation of up to two family members to the bedside of a member who is serving on active duty, and hospitalized. This creates further potential for disparate treatment of the dependents of active and reserve members hospitalized as a result of injuries received in a military accident.

- **The 6th QRMC recommends the following:**
  - **Section 411h(a) of title 37, United States Code, should be amended to provide authority for the round-trip travel of not more than two dependents of a reserve member who is entitled to compensation for incapacitation incurred in the line of duty and who is hospitalized and seriously ill or injured. With this change, the dependents of seriously ill or injured reservists would be accorded the same benefit as the dependents of an active duty member in the same circumstances.**

- Section 1076 of title 10, United States Code, should be amended to provide space-available medical and dental care in facilities of the uniformed services, for dependents of reservists who are hospitalized in a facility of the uniformed services as a direct result of an injury, illness or disease incurred or aggravated while on active duty for 30 days or less, on active duty for training, on inactive duty training, or while traveling to or from. The purpose of this recommendation is to eliminate the disparate treatment accorded the dependents of reservists in receipt of incapacitation pay, as compared with the treatment of dependents of members on active duty, when the military sponsor is hospitalized. This care would be subject to the availability of space and facilities and the capabilities of the medical and dental staff.

The QRMC concludes that, in addition to the need, on their own merits, for the recommended medical care and travel benefits, the existence of these authorities would underscore and support the policy of providing installation support to dependents in the limited circumstances under discussion. No firm cost estimate could be established for the medical care and dependent travel authorities, because it is expected that the circumstances under which they would be provided will be quite limited. The medical care authorized would be limited to that provided in facilities of the uniformed services and the travel authority in the new law is limited to very specific circumstances and conditions; thus, the number of dependents who would meet the conditions of these benefits would be quite small. We conclude therefore that any budgetary impact of the medical and travel authorities would be minimal.

Reserve Members' Eligibility for DIC Coverage

Background: The purpose of Dependency and Indemnity Compensation (DIC) is to provide an annuity to the dependents of deceased service members and veterans who die from a service-connected or compensable disability. This compensation is partially to replace family income lost due to the member's death and partially to serve as reparation for that death. DIC is administered by the Veterans' Administration, which was especially created to administer the laws relating to the relief and other benefits provided by law for veterans, their dependents, and their beneficiaries.

For a reservist not on active duty (other than for training), DIC coverage is dependent upon the type of military duty being performed and the cause of death. The question of causality

becomes particularly important when a reservist dies due to an injury or disease incurred or aggravated while on inactive duty training.

Survivors of veterans who die after December 31, 1956, from a service-connected or compensable disability, may be entitled to receive DIC. "Service-connected disability" has the following definition in law:

> ...with respect to disability or death, that such disability was incurred or aggravated, or that the death resulted from a disability incurred or aggravated, in line of duty in the active military, naval, or air service." (Section 101(16) of title 38, United States Code)

A veteran is a person who died in, or who served in the active military, naval, or air service, and who was discharged or released under conditions other than dishonorable. The term "active military, naval, or air service," in the context of disability and death, includes active duty, any period of active duty for training during which an individual is disabled or dies from a disease or injury incurred or aggravated in line of duty, and any period of inactive duty training during which an individual is disabled or dies from an injury incurred or aggravated in line of duty. The term "active duty for training" includes authorized travel to or from such duty.

Another death benefit, the death gratuity (authorized by section 1475 of title 10, United States Code), has long been payable for death of members on active training duty or inactive training duty. It is also paid for death resulting from disease or injury incurred or aggravated while performing active duty training or while traveling to and from such duty, and for death resulting from injury incurred or aggravated while performing inactive duty training or while traveling to and from such duty that occurs within 120 days following release from the duty.

Statutory provisions relating to the death gratuity were amended by section 604 of Public Law 99-661 in 1986 to add death from illness or disease incurred or aggravated during inactive duty training or during travel to and from inactive duty training. This amendment was part of the same legislation that modified and made uniform the medical and incapacitation benefits for reservists, as discussed in the preceding section. No provision was made, however, to amend DIC coverage to provide protection consistent with the expanded coverage provided for payment of the death gratuity.

- **The 6th QRMC recommends legislative amendment to extend eligibility for DIC to survivors of reserve members who die from disease incurred or aggravated in line of duty while performing inactive duty training or while traveling to or from inactive duty training.**

The estimated annual cost to the Veterans' Administration extending DIC coverage as proposed would initially be quite small. The QRMC estimates that less than $400,000 in paid out benefits would be added each year. The pool of beneficiaries would increase over a 25-year period, at which time the number of survivors receiving DIC should stabilize at approximately 1,000. At that time the cost is estimated at $9 million per year.

Death Gratuity

Background: The death gratuity was first enacted in 1908 as a substitute for a life insurance program. The current death gratuity provisions were established by Congress in 1956, with the stated purpose of providing an emergency fund to assist the survivors of deceased members of the armed forces to meet their financial needs during the six- to twelve-week period immediately following a member's death and before other survivor benefits, if any, are made available. Current law provides for the payment of a death gratuity to the survivors of a military member who dies while on active duty or within 120 days following release from active duty if the cause of death is from a disease or injury incurred or aggravated while on active duty. Reserve component members are included within this eligibility while serving on active duty for training (ADT) or inactive duty training (IDT), or while traveling to or from such duty. The death gratuity entitlement is equal to six months' pay (basic pay and special and incentive pays) at the rate to which the decedent was entitled, with a floor of $800 and a ceiling of $3,000. These upper and lower limits, as enacted, actually ranged from 2.06 months' pay for the most senior officers to 10.26 months' pay for the lowest enlisted grade.

The upper and lower limits on the amount of the death gratuity have remained unchanged since their enactment in 1956, and, as a result of subsequent military pay raises, all grades now receive the maximum amount of $3,000. This is because six months of pay for all grades is now in excess of the $3,000 ceiling (six months of base pay for the lowest pay grade, E1, is $3,650).

Because the dollar range of the payable death gratuity has not been adjusted since 1956, the economic benefit that it provides to survivors of deceased service members has been severely eroded and no longer provides the financial assistance originally intended by Congress. This erosion of the death benefit has been addressed in previous compensation reviews.

The 5th QRMC recommended that the death gratuity be based on three months' basic pay, quarters allowance (BAQ and VHA), and subsistence allowance, to which the member was entitled at the time of death. The 5th QRMC also recommended that the floor and ceiling amounts be increased to $3,000 and $9,000, respectively, with the amounts to be reviewed and revised as needed every four years. The recommended change in the pay and allowance elements to serve as the basis for the death gratuity was intended to better reflect the compensation elements that typically support household expenses.

A subsequent DoD legislative proposal recommended increases in the floor and ceiling amounts similar to those recommended by the 5th QRMC. The DoD proposal also recommended a revision in the compensation elements on which the death gratuity was based.

Following the Newfoundland air crash of 1985, which resulted in the death of over 200 soldiers, Congress enacted Public Law 99-297 (codified as section 403(l) of title 37, United States Code), which provided an entitlement for dependent survivors to remain in government quarters for up to 90 days or continue to receive housing allowances for up to 90 days if they were not occupying government quarters. This added benefit partially offsets the erosion of the economic value of the death gratuity, although in its current form the law does not provide for immediate payment of the benefit.

It should be noted particularly that the authority to provide quarters or housing allowances is limited to <u>dependent</u> survivors, whereas the death gratuity may be paid to other immediate family members, such as parents or brothers and sisters, when the member does not leave any dependent survivors. In the view of the QRMC, this is preferable; it provides the benefits to the directly affected survivors who will experience the greatest immediate costs.

The DoD proposal submitted to the Office of Management and Budget for clearance in 1986 recommended the repeal of Public Law 99-297 and also recommended increases in the death gratuity, to a floor of $3,000 and a ceiling of $9,000. These amounts are related to the pay scales for pay grades E4 and O4, based on the fact that those grades had a higher number of deaths than any other single grades within the enlisted and officer categories, respectively.

<u>QRMC Review</u>: The Department of the Army requested that the QRMC review this entitlement in view of the recent legislative changes to the death gratuity, including the extension of eligibility for the death gratuity to reservists who die as a result of illness or disease while traveling directly to or from

inactive duty training. This review focuses on the adequacy of the immediate payment to the survivors of deceased military members and on the way in which it applies to the Total Force.

In the background discussion of this chapter it was noted that the increase in insurance coverage has partially been offset by the erosion of the economic benefit offered by the death gratuity. In 1956, the Serviceman's Indemnity Act provided a $10,000 benefit, which was paid in monthly installments (with interest for 120 months, for a total of $11,148). Today, the Servicemen's Group Life Insurance (SGLI) provides a maximum benefit of $50,000.

However, if one uses the Consumer Price Index to calculate the value of the current SGLI benefit compared with that of the Servicemen's Indemnity Act gratuity in 1956, it is seen that the benefit has actually increased by only 24 percent ($10,000 X (328.4/81.4) = $40,344; $50,000 = approximately 124 percent of $40,344). Moreover, SGLI is a group insurance plan, paid for by the service members with no cost to the government. The 1956 program was a "self-insurance" program paid for by the government.

SGLI has been available in addition to the death gratuity since 1965. (There was no serviceman's insurance program between 1957 and the 1965 implementation of the SGLI program). Also, there is no interaction or offset between SGLI and death gratuity benefits, and SGLI does not meet the immediate emergency fund purpose of the death gratuity.

If the floor and ceiling amounts of the death gratuity were adjusted upward to provide an economic benefit equivalent to that provided in 1956, the following amounts would be applicable based on current (1987) military pay scales and the original floor and ceiling amounts expressed in the number of months base pay each represented:

FLOOR - $608 (lowest pay grade) x 10.26 months = $ 6,238

CEILING - $5900 (highest pay grade) x 2.06 months = $12,154

There is another way of calculating amounts that would provide survivors with an economic benefit equal to that originally provided under the 1956 law. This method would be to calculate the value of the benefit in terms of current dollars. Using Consumer Price Index figure of 81.4 for 1956 and 328.4 for 1986 (the latest annual figure available.) The following current dollar amounts are calculated for the floor and ceiling:

FLOOR - $800 x (328.4/81.4) = $ 3,228

CEILING - $3,000 x (328.4/81.4) = $12,103

Under either method of calculation, the figures are roughly equivalent for most grades except the lower enlisted grades, which reflects an amount of $6,238 under the first method of calculation and $3,228 under the Consumer Price Index calculation. This difference occurs because it was necessary during the era of the All-Volunteer Force that the military pay for those lower grades be increased in order to compete with civilian wages.

As noted above, the purpose of the death gratuity is to serve as an emergency fund to tide survivors over for the period immediately following the death of a service member while the payments of other benefits (such as Social Security, Dependency and Indemnity Coverage, and SGLI) are pending. The death gratuity is in addition to, and not supplanted by, any of these other benefits.

The rationale for the recommendations of the 1986 DoD Proposal is, we believe, essentially sound. The immediate payment should be based on the compensation elements that typically support household expenses for the length of the period between the death of the member and the receipt of other survivor benefits. To increase the death gratuity to accomplish this purpose, however, would result in higher payments being made to all survivors, not just to surviving dependents, who usually suffer the costs associated with the member's death and the cessation of the member's pay.

Also, the law would have to be restructured in order for the payment to keep pace with the cost of living and consumer price increases in the future. All analysts who have looked at this issue in the past have concluded that a floor and a ceiling are desirable. These constraints seem logical because a straight multiplier against either the existing compensation elements or those previously proposed by DoD would result in a very wide range of payments. The floor and ceiling features of the entitlement, however, make a restructuring to keep pace with inflation technically difficult.

A review of the changes made by Public Law 99-227, indicates that, with slight modification, it could, in combination with the existing death gratuity, be reasonably close to three months of pay and allowances for junior members with dependents. For example, the basic pay, subsistence, and housing allowances for three months for a member in pay grade E5 with eight years of service would be $5,200. Six months' housing allowances plus the existing death gratuity would be $5,519.

By making the section 403(1) entitlement payable for six months instead of three and making the payment immediate, the objective of the prior death gratuity proposal could be achieved. This approach would also have the advantages of (1)

being indexed, (2) providing a higher payment to the surviving dependents with the greatest need, and (3) being less costly (because the additional pay would go only to dependent survivors, cost increases would be about 60 percent of previous proposals). It should be noted that, because the existing death gratuity would remain at $3,000, there would be a gradual reduction in the value of this payment over time. This seems reasonable in that administrative improvements should reduce the time between death and the payment of other benefits in the future.

Consideration of the Total Force application of the death gratuity indicated unwarranted differences. Currently, reserve members who die while in an inactive duty training (IDT) status do not receive payment of three months' quarters allowance. This is because they are not entitled to basic pay, which is a prerequisite for entitlement to the basic allowance for quarters. There is no logical difference in their status as compared with fellow reservists who die while performing annual training or other short periods of active duty.

The QRMC concludes, therefore, that the death gratuity system is defective in that it does not provide a means to adjust the amount of the benefit payable to the survivors of a deceased service member. As a result, the economic benefit of the gratuity was severely eroded between 1956 and 1987. In addition the death gratuity payment does not treat members uniformly regardless of duty status, and the differences that exist are not warranted by differing conditions of service or need.

- **The 6th QRMC recommends that Public Law 99-227 be amended to extend the current three months' housing allowance payment to six months, payable immediately or when quarters are vacated (with an offset for the time quarters were occupied). This allowance would be payable only to dependent survivors or on their behalf if the dependents are minors. This benefit would apply the same eligibility criteria as for the $3,000 death gratuity, including coverage for IDT, ADT, and travel to and from such duty. The QRMC recommendation would provide for benefits (depending upon pay grade) for those with dependent survivors, ranging from $1,986 to $5,592 which, with the existing death gratuity, would provide a combined benefit of from $4,986 to $8,592. Those whose survivors are not dependents would continue to receive only the $3,000 death gratuity.**

- **The 6th QRMC also recommends amendment of section 403(1) of title 37, United States Code to provide the same death gratuity to dependent survivors of all members who would have received a housing allowance at the "with dependents" rate had they been serving on active duty instead of**

inactive duty training at the time of their death. This will ensure that the death gratuity is applied in an equitable manner to all members of the Total Force.

The annual cost of the death gratuity has ranged from $7.7 million to $8.8 million in the past few years. If the floor and ceiling on the death gratuity were raised to $3,000 and $9,000, respectively, as recommended by the 5th QRMC, total cost (based on an average of 2,300 deaths over the 6-year period 1979-1985, uniformly distributed around the grades of E4 and O3 at the ratio of 87 percent and 13 percent, respectively, between the enlisted and officer grades) would be in the area of $13 million. This represents an increase of approximately $6 million over the cost under the current law.

If the death gratuity were to remain the same and the housing allowance payment was extended to six months as recommended by the 6th QRMC, the estimated cost of providing the housing allowance would increase from approximately $3.5 million to $7.0 million: an annual increase of $3.5 million. This would achieve the intent of both the 5th QRMC recommendation and of the most recent DoD proposal at approximately 60 percent of the cost, while increasing the benefit available to those who most need the immediate payment.

Group Life Insurance

Background: Since enactment of the War Risk Insurance Act of October 6, 1917, programs have generally been in place making life insurance protection available to members of the uniformed services at a reasonable cost. The one exception was the period between January 1, 1957, and September 29, 1965, when legislation establishing the Servicemen's Group Life Insurance (SGLI) program was enacted. The SGLI program has been amended several times since its establishment, and the maximum amount has increased from $10,000 to $50,000.

When established in 1965, SGLI was available only to members on active duty for more than 30 days. In 1970, SGLI was made available to reservists on active duty for less than 31 days or performing inactive duty training scheduled in advance. The program for reservists was modified in 1974, so that all Ready Reserve members scheduled for 12 inactive duty training periods a year were eligible to participate. Eligibility was also extended to reservists under age 61 who were eligible for receipt of reserve retired pay except for having reached their 60th birthday. The 1974 Act also created a new program of Veterans' Group Life Insurance (VGLI).[2]

As a result, the following categories of reservists are currently eligible for SGLI:

- Members on active duty under orders specifying a period of more than 30 days
- Members of the Ready Reserve who are assigned to a unit or position in which they may be required to perform active duty or active duty for training, and who each year will be scheduled to perform at least 12 periods of inactive duty training creditable for retirement under chapter 67 of title 10, United States Code
- Other reservists performing active duty for training or inactive duty for training, during the period of the training duty; and members of the reserve who are in the Retired Reserve; and members who would be eligible for assignment to the Retired Reserve upon application, who have not reached their 61st birthday and are not receiving retired pay but will be entitled to retired pay upon application at age 60.

In essence, continuous SGLI is available to reservists who have qualified for retired pay at age 60 and <u>most</u> members of the Selected Reserve within the Ready Reserve.

The following Ready Reservists are not eligible for continuous SGLI (unless qualified for retired pay except for being at least age 60):

- Certain Individual Mobilization Augmentees in the Selected Reserve
- Members of the Individual Ready Reserve (IRR)
- Members of the Inactive National Guard (ING)

In 1985, Public Law 99-166 extended eligibility for VGLI to members of the IRR and ING, that is to all members of the Ready Reserve not in the Selected Reserve. These members are now eligible for VGLI on a renewable five-year term basis, provided they remain a member of the IRR or ING throughout the policy term. Thus, all Ready Reservists, with the exception of Selected Reserve IMAs who have an annual active duty for training requirement but do not perform IDT, are eligible for either SGLI or VGLI coverage.

<u>ORMC Review</u>: Selected Reserve IMAs who must perform ADT but do not perform IDT in this category are subject to the same mobilization vulnerabilities as all Selected Reservists and may

be mobilized for up to 180 days at Presidential discretion. Other Ready Reservists are subject to involuntary mobilization only during a war or national emergency.

Currently there are approximately 13,500 Selected Reservists who are not required to perform inactive duty training. Ninety-seven percent are in the Army Reserve. About 10,000 of these members are eligible for neither SGLI nor VGLI (approximately 3,500 are eligible for SGLI as a result of their having completed 20 good years for reserve retirement).

Neither SGLI nor VGLI is now subsidized by the government. They are, in effect, self-sustaining group insurance plans that contract with outside civilian insurance companies to obtain insurance coverage. SGLI, which covers members with a lower median age, provides coverage for a very low group rate. VGLI participants constitute a much older group with much higher premiums.

The QRMC examined three alternatives to provide insurance coverage to this group of IMAs: (1) No change (leaving 10,000 Selected Reservists ineligible for SGLI or VGLI); (2) extension of VGLI to IMAs (this would be inequitable because of the much higher training requirement and greater mobilization vulnerability for all Selected Reservists), and (3) extension of SGLI to IMAs (this would provide equal eligibility for all Selected Reservists). The QRMC concluded that the most reasonable alternative was to provide SGLI coverage for all Selected Reservists to include the small group of IMAs presently excluded.

- **The 6th QRMC recommends that subchapter III of chapter 19 of title 38, United States Code be amended to provide full Servicemen's Group Life Insurance benefits on an equal basis to all members of the Selected Reserve.**

Eligibility for Burial in National Cemeteries

Background: The current provisions of section 1002 of title 38, United States Code, provide eligibility for burial in national cemeteries for the following classes of individuals:

- Veterans (including members of the uniformed services who die while on active duty)
- Reservists whose death occurs under honorable conditions while hospitalized or undergoing treatment at the expense of the United States for an injury or disease contracted or incurred under honorable conditions while performing active

duty for training, inactive duty training, or while undergoing that hospitalization or treatment at government expense

- United States citizens who served honorably with allied forces during a war in which the United States was engaged

- Members of ROTC whose death occurs under honorable conditions while attending or traveling to or from an authorized training camp or practice cruise, or while hospitalized or undergoing treatment at government expense for an injury or disease contracted or incurred under honorable conditions at camp, during a cruise, or enroute to or from a camp or cruise

- The surviving spouse and certain children of the above

- Such other persons as may be designated by the Administrator of the Veterans' Administration

Ready Reservists who are not veterans of prior active military, naval or air service are nevertheless considered veterans for the purpose of eligibility for burial in national cemeteries under the following circumstances:

- They die while hospitalized or undergoing treatment at government expense for injury or disease contracted under honorable conditions while performing active duty for training, inactive duty training, or traveling to or from such duty

- They are disabled or die from disease or injury incurred or aggravated in line of duty during or enroute to or from active duty for training

- They are disabled or die from injury (but not disease) incurred or aggravated in line of duty during or enroute to or from inactive duty training

QRMC Review: Under the current provisions, reserve members who have not met one of the above requirements, are not eligible for burial in a National Cemetery. In the view of the 6th QRMC, these provisions fail to recognize sufficiently the nature of National Guard and Reserve service in the Total Force.

- **The 6th QRMC recommends that all members of the Selected Reserve, plus reservists in any category who have completed the service requirements for eligibility for retired pay under chapter 67, United States Code, or who are in receipt of such pay, should be added to the list of persons qualified for burial in a national cemetery. Extension of this benefit to such members is clearly warranted. Their**

participation requirements, their mobilization vulnerability and the requirement that they be prepared to report within 24 hours of notification underscore the fact that today's Selected Reservists are continuous members of the Total Force. National Guard and Reserve members who have maintained a commitment to the armed forces for at least 20 years should also be afforded eligibility for burial in our national cemeteries as a reflection of the service they have voluntarily rendered their country.

The Veterans' Administration manages 110 national cemeteries in which it inters approximately 52,000 persons per year. National cemetery space is limited, an important consideration when efforts are made to add new classes of eligibles.

If members of the Selected Reserve, reservists who have completed all qualifications for reserve retirement except for being age 60, and members drawing reserve retired pay are made eligible for such burial, it is estimated that the number of burials would increase by approximately 365 per year. The total increase would represent only about 0.5 percent of the current number of annual burials in national cemeteries. The Veterans' Administration has estimated that implementation of the QRMC recommendation would increase the Veterans' Administration annual budget by approximately $123,000. This estimate is based on an estimated 500 additional burials per year, costing $246 each.

Funeral Travel Allowances for Survivors of Reservists

Background: The Department of Defense Authorization Act, 1986 (Public Law 99-145) provided discretionary authority for the Department of Defense to provide round-trip travel and transportation allowances to the dependents of members who die while on active duty for a period of 30 days or more so that they can attend the member's burial ceremonies. This authority was added after the Gander, Newfoundland, aircraft crash involving soldiers of the 101st Airborne Division of the United States Army.

QRMC Review: In providing discretionary authority for round-trip travel of dependents to attend burial ceremonies as discussed above, the Congress unintentionally created a situation where the Secretary of a Military Department might be faced with the dilemma of authorizing travel for the next of kin of members who had been on active duty under orders specifying a period of 30 days or more but not having authority to authorize such travel for dependents of members serving shorter tours.

In the National Defense Authorization Act for Fiscal Year 1987, the Congress passed a series of amendments that had been proposed by the Department of Defense as the "Reserve Forces

Health Benefits Act." The explicit rationale for this action was to "remove the statutory distinctions between members of the active and reserve components who are disabled or killed...in the performance of their military duties or while traveling to or from those military duties."[3] It appears that, contrary to this stated intent, the requirement that a member must be serving on active duty for a period of 30 days or more unintentionally created an unwarranted statutory distinction between active and reserve component members.

- **The 6th QRMC recommends that section 411f(a) of title 37, United States Code, be amended to provide transportation for survivors of deceased reserve members to attend the member's burial ceremonies identical to the authority now provided for survivors of members on active duty for a period of 30 days or more. The cost for this authority would be minimal. It has been estimated by the Army at $16,300 annually.**

Survivor Benefit Plan for Reserve Retirees

Background: Congress created the Survivor Benefit Plan (SBP) with enactment of Public Law 92-425 on September 21, 1972. The intent of this legislation was to provide an improved program of income protection for survivors of retired and retirement-eligible members of the uniformed services. Predecessor plans, such as the Retired Serviceman's Family Protection Plan (RSFPP) had failed to generate the degree of enthusiasm necessary to produce a reasonable level of participation. Lack of participation was attributed to a variety of reasons such as inflexibility, high cost, and complexity. Since 1972 there have been many refinements to SBP; the most significant amendment affecting reservists provided a means of income protection before becoming eligible for retired pay. Coverage for reservists under age 60 was established by Public Law 95-397 on September 30, 1978, and is known as the Reserve Components Survivor Benefit Plan (RCSBP).

As part of the Department of Defense Authorization Act of 1986, a number of revisions were made to SBP, the most important of which was a two-tier annuity adjustment to integrate the plan with Social Security. The two-tier approach to integration of the SBP with Social Security, replaced a Social Security offset method under which the offset was separately calculated for each annuitant. This change was generally positive with respect to active force survivors and retirees, but the effect on survivors of members in the reserve retirement system appeared to be unfavorable. The QRMC study plan thus included the evaluation of this aspect of SBP to determine whether further modification was warranted with respect to survivors of reservists.

The purpose of SBP is to provide survivors of military personnel who die after retirement eligibility with a reasonable level of income. The SBP annuity provides a payment of up to 55 percent of the deceased member's retired pay. Eligible members are active duty personnel with at least 20 years of active service, active force retirees, reservists with 20 years of qualifying service, and retired reservists. The following are eligible beneficiaries:

- Surviving Spouse or Former Spouse Only. Spouses become ineligible through remarriage before age 55. Eligibility may be reinstated if remarriage ends in death or divorce. Remarriage after age 55 does not affect eligibility.

- Children Only. A child must be unmarried, a dependent, and under 18, or must be under age 22 if attending a full-time education or training course. A child disabled before age 18 (or before age 22 if a full-time student) is eligible to receive an annuity for life.

- Spouse or Former Spouse and Children.

- Person with Insurable Interest. Members with no dependents may elect coverage for a person who has a bona fide financial interest in the continued life of the member.

The size of the survivor's annuity depends upon the base amount (in general, any amount between $300 and full monthly retired pay) chosen by the member. For members who initially become eligible for retirement after October 1, 1985, two levels of benefits are paid, depending upon the age of the widowed spouse or former spouse. Fifty-five percent of the base amount is paid to spouses until they reach age 62, after which the benefit level drops to 35 percent of the base amount. This two-tier system does not apply to eligible children. A further reduction of the annuity may result from entitlement to Dependency and Indemnity Compensation (DIC). As discussed earlier in this chapter, DIC is tax-free compensation provided by the Veterans' Administration when death (other than from misconduct) occurs on active duty or after release from active duty if attributable to an injury or disease incurred while on active duty. DIC is also payable when death occurs as a result of injury incurred during inactive duty for training. SBP payments are reduced by the amount of DIC received, and SBP premiums applicable to the amount of DIC are refunded to the surviving spouse. SBP annuities for children are not reduced by DIC.

SBP coverage is automatically provided to active duty members who have completed 20 years of active service and are married or have dependent children. This coverage is for the maximum base amount derived from the retired pay calculation and is provided

at no cost. Upon retirement from active duty, these members must make an election concerning SBP. This election is generally irrevocable except for loss or gain of eligible beneficiaries. Choices range from no coverage to maximum coverage of full monthly retired pay. There is a statutory requirement (section 1448 of title 10, United States Code) that the spouse must concur in writing for the member to elect no coverage, child-only coverage, or a base amount less than gross retired pay. Military spousal consent requirements are consistent with those of private sector and federal employee survivor benefit programs.

Reservists who complete 20 qualifying years for retired pay eligibility must make the SBP decision within 90 days of receiving their "20-year letter." Upon this notification of retirement eligibility, there are two basic choices available under the RCSBP. A reservist may choose to participate in SBP, electing either a deferred annuity or an immediate annuity. The result of this election of coverage before age 60 is a higher premium cost than that for the standard SBP. The other choice is to decline participation until receipt of retired pay at age 60, when an election to accept or decline coverage under standard SBP is required. Spousal concurrence is necessary to elect a base amount less than the maximum level or for child-only coverage, but no consent is required to defer election until age 60. The effects of choosing early coverage or not choosing it are described in the following three options available to reservists qualified for retired pay except for attaining age 60:

- Option A: Defer SBP election until receipt of retired pay at age 60 or later. Having deferred a SBP election, a reservist with dependents may not change that decision until becoming eligible for retired pay at age 60. At that time, unless declined in writing, the member is automatically enrolled in the standard SBP which has the same costs and benefits as that for active duty retirees. The risk inherent in this election is that if the reservist dies before reaching age 60, beneficiaries will not be eligible for an annuity under the SBP. Furthermore, survivors will not be eligible for such benefits as medical and dental care, use of commissaries, exchanges, and base recreational facilities to which they would otherwise have been eligible on the 60th anniversary of the deceased reservist's birth.

- Option B: Elect survivor annuity payment deferred until age 60 or date of death of member, whichever is later. This decision is irrevocable but loss of spouse will result in suspension of coverage. Upon remarriage the member may choose to reinstate coverage, if desired. Eligible survivors will be entitled to the medical and other

benefits that are available to dependents of a member in receipt of retired pay, as mentioned above. This eligibility commences on the 60th anniversary of the deceased reservist's birth.

- Option C: Elect survivor annuity payment beginning at time of death. In the case of death before the reservist reaches age 60, the annuity begins immediately. Eligibility for the associated benefits commence on the 60th anniversary of the deceased member's birth as in option B.

For active duty retirees and reserve retirees who choose option A (standard SBP at age 60), the cost of participation in the standard SBP for spouse-only coverage is fairly straightforward. Public Law 99-145, enacted on November 8, 1985, amended the SBP law to provide an indexing mechanism for the minimum base amount ($300). This threshold increases annually by the same percentage as active duty basic pay. Currently, the threshold is $324, which is subject to a 2.5 percent charge for SBP, amounting to very low cost minimum coverage. The cost for coverage above the threshold is 10 percent of the remaining base amount. Slightly more complicated is the relatively small cost of child coverage, which is calculated based on the ages of the member, spouse, and youngest child or on the ages of the member and youngest child, if child-only coverage is chosen.

Retired reservists who have elected coverage before age 60, the deferred or immediate annuity options, are subject to a cost structure that factors in the ages of the member, spouse, and children. The additional cost of coverage before age 60 increases the standard plan premium and also reduces the survivor's annuity. Coverage before age 60 (RCSBP) is entirely funded by members and survivors; the government does not share this cost burden.

SBP premiums will increase by the same percentage as does retired pay in the event of cost-of-living adjustments. Survivor payments also increase at the same rate so that the buying power of the annuity will not be adversely affected by inflation. It should be recognized that the true cost of SBP participation is somewhat less than the actual premium because premiums are deducted from gross retired pay for Federal tax purposes.

ORMC Review: Participation rates for nondisability active duty and reserve retirees are as follows:

	Active	Reserve
Officer	68%	84%
Enlisted	46%	82%

A comparison of the active versus reserve participation rates seems to indicate that reserve members find SBP more attractive than active force retirees. One possible explanation for this difference is the fact that reservists are subsidized to a greater degree than are active duty retirees. SBP was designed as a cost sharing plan. Congressional intent was that, for the program as a whole, the government share of the cost should approximate 40 percent, while premiums from retirees should fund 60 percent of the total cost of the SBP program. Current subsidy levels are as follows:

	Officer %	Enlisted %	Total %
Nondisability Retirees (excluding reservists)	34	53	44
Retired Reservists (age 60)	62	79	68
Disability Retirees	60	70	67
Death on Active Duty	100	100	100
Overall Group Subsidy	45	60	52

It is noted that the overall subsidy rate of 52 percent is in excess of the intended rate of 40 percent. Additionally, reserve retirees are subsidized at a much higher rate than nondisability active duty retirees. As mentioned above, the higher subsidy is not a result of election coverage before 60, for which their is no government subsidy. Two factors affect the subsidy rate: age at retirement and size of the base amount. Older retirees pay premiums over a shorter life span. Reservists are not entitled to receive retired pay until reaching age 60, and SBP reductions commence at that time. The active duty retiree will in most cases draw retired pay at a much earlier age and therefore have many more years of SBP premium payments than will the reservist.

The size of the base amount also has an impact because of the lower rate (2.5 percent) applied to the threshold amount which is currently $324. For a large base amount, the premium is

nearly 10 percent. Smaller base amounts result in a premium closer to 2.5 percent because the threshold amount is a larger proportion of the base amount. The government subsidy is much greater for the low-cost coverage. A comparison of average gross monthly retired pay for active duty and reserve nondisability retirees is provided below:

Average Monthly Retired Pay for Members Retired in FY 1987

	Active	Reserve
Officer	$2,098	$842
Enlisted	$1,035	$492

This illustrates the substantial difference in the relative size of possible base amounts for active versus reserve members which has a significant impact on subsidy rates. Since benefit levels are the same for active and reserve retirees, it would appear that reservists are getting equal benefits for lower cost.

For members who were retirement-eligible, retired, or had achieved 20 qualifying years before October 1, 1985, benefit levels vary for surviving spouses age 62 or older, due to integration with Social Security benefits. An offset method is used for calculating the annuity for these beneficiaries, who are also eligible for the two-tier system; the offset method allows them to receive the higher of the two annuities. A discussion of the Social Security offset is relevant at this point because this method of computing the annuity is more advantageous for reservists.

Prior to enactment of Public Law 99-145, survivors incurred up to a 40 percent reduction in SBP annuity, based on the value of Social Security wage credits earned during the member's active military service. For most active duty retirees, this offset is equal to the cap of 40 percent, resulting in a benefit level at age 62 of 33 percent of retired pay. Most reserve retirees, on the other hand, have an average offset of approximately 16 percent, resulting in a benefit level at age 62 of 46 percent of retired pay. Until January 1, 1988, reservists paid no Social Security tax on inactive duty training pay and therefore did not earn wage credits for a substantial portion of their reserve service. Their Social Security wage credits were earned predominantly from civilian employment. The two-tier system represents an effective offset rate of 36 percent, which is uniformly applied to survivors of both active duty and reserve retirees without consideration of type of earnings base, military or civilian.

Obviously, this new method of calculating survivors' benefits at age 62 is advantageous for active duty members but relatively less beneficial for reservists. This feature of the 1985 revisions to SBP is the cause of some concern on the part of reservists, who would prefer that the annuity not be subject to a standard offset when wage credits are earned from other than military service. There is a legislative precedent for this view. Prior to implementation of the two-tier system, Public Law 98-525, enacted on October 19, 1984, (known as the Thurmond Amendment) provided that there would be no Social Security offset if the SBP annuitant's Social Security benefits were based on his or her own earnings. However, the Thurmond Amendment was repealed before it became effective. Congress instead enacted legislation to eliminate any reference to a Social Security offset, with the intent of reducing the complexity, confusion, uncertainty, and negative perception associated with this method.

Furthermore, as stated in a DoD Office of the Actuary memo, "Prior to Public Law 99-145, reservists were receiving higher SBP benefits and paying lower SBP costs than active-duty retirees. The two-tier method reduced the Reserve SBP benefit to equal that of the active duty member. Currently, Reservists are receiving equal SBP benefits and paying lower SBP costs than active-duty retirees."[4] The lower costs referred to are directly related to the high government subsidy for reserve retirees. To reinstate the offset method for reservists would increase the subsidy rate from 68 percent to 76 percent, thereby further reducing the costs for this subgroup.

It should be noted that costs for coverage before age 60 (funded by the member and not considered as part of subsidy levels) were reduced because of the reduced benefit level. Increased benefit levels would therefore increase costs for coverage before age 60 for reserve retirees.

Although the two-tier system has a negative impact on reserve benefits, Public Law 99-145 also contains a provision that has a beneficial effect. The law provides that the low-cost portion of the premium formula be indexed to increases in basic pay, thereby maintaining the same proportion of the base amount subject to the 2.5 percent rate. Major beneficiaries of this action are active force enlisted members and most reservists, because of their relatively low retired pay.

There are both positive and negative aspects of the SBP and RCSBP programs. The 6th QRMC concludes that it would be difficult to justify a change to remedy an adverse feature for one particular subgroup without considering appropriate adjustments to cost levels to ensure that all participants are treated fairly.

The 1982 enactment of legislation concerned with protection of unremarried former spouses broadened the scope of SBP coverage and added a new dimension of complexity to a program that is already somewhat difficult to explain and comprehend. For the purposes of the QRMC review, an extensive discussion of the effect of a former spouse election is not warranted. Instead, the purpose of the QRMC review of this feature is to discuss an inconsistency created by the Uniformed Services Former Spouses' Protection Act, (enacted as Title X of the Department of Defense Authorization Act, 1983, Public Law 97-252). That Act extended military-related benefits to former spouses when certain conditions concerning marital status and length of concurrent marriage/creditable service are met. These benefits may include such entitlements and privileges as medical and dental care, and use of commissaries and exchanges. Unremarried former spouses of reserve retirees may be entitled to these benefits on the 60th anniversary of the deceased member's birth without regard to the member's SBP election.

This situation is clearly inconsistent with the statutory provisions governing benefits afforded the surviving spouse of a reserve retiree who dies before age 60 without electing SBP coverage. The surviving spouse in this case is not entitled to benefits because they are, by law (section 1076(b)(2) of title 10, United States Code), tied to the SBP election of a reservist. The Uniformed Services Former Spouses' Protection Act eliminated, for former spouses only, the requirement that the deceased reservist must have elected to participate in SBP in order for medical and other benefits to be available.

Previously, denial of these entitlements and privileges was based on the rationale that, without entitlement to retired pay, there is no entitlement to the benefits. It would appear that the provisions of the Former Spouses' Protection Act would serve as a basis for extending these entitlements and privileges to all unremarried surviving spouses of retired reservists who die before attaining age 60. This would eliminate the significant inequity borne by the unremarried widows and widowers of certain deceased reservists, as distinguished from the unremarried former spouses of deceased reservists. It would also eliminate what the QRMC concludes is an unintended nexus between SBP and other benefits normally available to survivors of active and retired military members.

The severity of the inequity is compounded by the fact that, under section 1448(a)(2) of title 10, a reservist under age 60 must make the SBP election within 90 days of the date on which the notification required under section 1331(d) of title 10 (20-year letter) is received. If the reservist fails to make an affirmative SBP election within the prescribed 90-day period, another opportunity to make an election is not afforded until the reservist reaches age 60. Thus, should the reservist fail

to make an affirmative SBP election within the 90 day period, and should the member thereafter die before reaching age 60, the unremarried widow or widower is effectively barred from access to uniformed services medical and dental care and related benefits, while the unremarried former spouse suffers no such impediment.

SBP is an important element of the compensation package and also one of the most complex and least understood. As a means of providing guaranteed income protection for survivors, it can be an integral part of a member's estate planning. The results of the 6th QRMC reserve unit visit program and the 1986 Reserve Components Surveys, however, reflect a widespread lack of information and knowledge concerning SBP. As an illustration, survey results indicate that 40 percent of married reserve enlisted personnel who have completed over 12 years of service but are not yet eligible for retirement lack sufficient understanding of the SBP to indicate their participation intentions. Overall, 40 percent of reserve officers and 45.5 percent of enlisted members indicated that they are either unaware of the SBP or do not understand it. Over 80 percent of Selected Reservists and 85 percent of their spouses expressed a high degree of interest in receiving informational materials concerning SBP.

Benefit levels, costs, linkage to other military benefits and individual financial and dependent circumstances must all be considered and weighed as part of the SBP decision making process. Although each service provides members RCSBP information and election forms upon issuance of the "20-year letter," these materials are limited in scope and often complicated. Reservists are forced to make a long-term decision within 90 days without much, if any, preparation. It might be helpful if there were SBP materials of general informational value available to reservists and beneficiaries, materials that place less emphasis on mechanical calculations and provide a clear and comprehensive overview of the program.

During the study of the 6th QRMC, the Armed Forces Information Service was preparing an RCSBP booklet that is essentially a reprint of Chapter II from The Retired Officers Association publication "Reserve Retirement Benefits." This publication will provide a good summary of the SBP/RCSBP program and its salient features such as indexing, COLA increases, and the tax advantage. The booklet would be an appropriate means for disseminating information to aid reservists in making an informed SBP decision and understanding the value of this benefit at an earlier point in the member's career.

The 6th QRMC finds that SBP participation rates for retired reservists are substantially higher than those of active duty retirees. The overall group subsidy rate for SBP, 52 percent,

exceeds the intended government subsidy rate of 40 percent. The subsidy rate for the nondisability active duty retiree subgroup is 44 percent while the rate for reserve retirees is 1 1/2 times larger or 68 percent; therefore reservists are receiving equal benefits at a lower cost.

Notwithstanding the relatively high SBP participation rate for retired reservists, the QRMC found considerable confusion and lack of knowledge concerning SBP, and a high degree of interest in receiving SBP informational materials.

During the course of the QRMC review, the QRMC Steering Committee requested that two additional issues be evaluated. The first was the feasibility of an option that would permit reservists electing RCSBP upon completion of 20 satisfactory years for retirement to change SBP coverage at age 60. The second was a proposal that would provide a flat 50 percent SBP annuity not integrated with Social Security. The QRMC did not recommend either of these options.[5]

- The 6th QRMC recommends the following:
  - That section 1076(b) of title 10, United States Code be amended to authorize medical and dental care in facilities of the uniformed services, subject to the availability of space and facilities and the capabilities of medical and dental staff, and CHAMPUS entitlement under section 1086 of title 10 (which applies to retired members and their dependents) for unremarried surviving spouses of retired reservists on the 60th anniversary of the deceased member's birth, without regard to SBP election.
  - That the services make maximum distribution of the RCSBP booklet to increase awareness and understanding of the program and to promote its use as a midcareer retention tool.

The QRMC anticipates that other benefits normally available to the surviving spouses of members and retired members such as access to commissaries, exchanges and recreation facilities would also be made available to the subgroup discussed in this recommendation. Implementation of the QRMC recommendation would cost an estimated $895,000 in the first fiscal year ($75,000 of this amount is the cost for surviving spouses of retirees who would reach age 60 in the first fiscal year after implementation).

Compensation for Reservists Undergoing Medical Evaluation

Background: This issue concerns the provision of military pay and allowances to reservists ordered to active duty for a medical evaluation to determine fitness for duty or retention in service. In 1986, the Department of the Army initiated a legislative proposal to provide authorization to call reservists who test positive for the HIV virus after initial screening to active duty for a medical evaluation to determine the status of the infection. This issue was specifically addressed in a DoD Program Budget Decision (PBD), dealing with the legislative contingency for the President's Budget for Fiscal Years 1988 and 1989. Then PBD directed that the QRMC review the proposal prior to its submission to the Office of Management and Budget for clearance as part of the legislative program of the Administration.

In 1965, the Comptroller General ruled (B-155974) "an enlisted reservist in an inactive status who traveled at his own expense incident to orders to report for 1 day of 'active duty for training' for the purpose of a physical evaluation to determine his fitness for retention in the Reserve may not have the compliance with orders regarded as 'active duty' for entitlement to pay and allowances where the member performed no active duty and none was contemplated; therefore, the member is not entitled to pay and allowances and point credit for retirement."

Similarly, in 1975, the Comptroller General ruled (B-181762) that "it has been held that the calling up of a member for the sole purpose of physical examination to determine his fitness for retention in the Reserve or for medical treatment when such examination or treatment is not incident to the performance of active duty, does not constitute 'active duty' for the purpose of entitlement to pay and allowances."

The specific purpose of the legislation proposed by the Army, was to provide authorization to call reservists who test positive for the HIV virus after initial screening to active duty for a medical evaluation to determine the status of the infection. This medical evaluation, referred to as staging, normally requires 7 to 14 days as an inpatient in a military treatment facility. Based on the Department of Defense program to test all active duty and reserve members, the Army proposed this legislation in order to confirm the accuracy of the initial test and to determine the severity of any related medical condition that may necessitate an administrative decision to discharge or retain a member in a reserve component.

QRMC Review: In accordance with current DoD policy, reserve members who test positive for the HIV virus will be retained in the Selected Reserve unless they cannot be used there because of assignment limitation policies established for military personnel with serologic evidence of HIV infection.

All Services now hold that a reserve member infected with the HIV virus incurred this condition while in the civilian community. Therefore, the condition existed prior to service and the government has no liability for a severance pay discharge, disability benefits, or treatment for the condition. The Army proposal deals strictly with the medical evaluation of a reservist and does not involve any type of treatment.

After review of the legislative proposal and detailed discussions with the individual Service representatives, the 6th QRMC concluded that the proposal has merit but is too narrowly framed. Review with the Services indicates that there are a variety of cases where such medical evaluation may be in the best interest of the Service. For example, the Air National Guard and the Air Force Reserve would use such authority to call pilots and aircrew members to active duty, should unusual or abnormal findings be encountered during a flight physical, in order for these members to undergo a specialized medical evaluation at Brook Aerospace Medical Institute. As with the HIV evaluation, the medical evaluation at Brook would take approximately five days to complete.

- The 6th QRMC recommends that authority in law be provided to recall a reservist to active duty for a medical evaluation with full pay and allowances. In the view of the QRMC, such law should be implemented in accordance with DoD and Military Department policies. The law should provide broad authority for medical evaluation when it is determined to be in the best interest of the Service in conformance with policies established by DoD and the Military Departments.

For HIV testing only (as contained in the legislative contingency) for Fiscal Year 1988, the additional cost to the government would be $745,000. For all Services, including pilots and aircrew, the cost for Fiscal Year 1988 increases to $863,000. The numbers and costs ($,000) are as follows:

	FY 88 Costs			FY 89-92 Costs		
	HIV	Other	Total	HIV	Other	Total
ARNG	279	0	279	698	0	698
USAR	186	0	186	465	0	465
USNR	87*	0	87	216*	0	216
USNCR	26*	0	26	65*	0	65
ANG	116*	67	183	181*	289	470
USAFR	51*	51	102	129*	223	352
USCGR	**	0	0	**	0	0
TOTAL	$745	$118	$863	$1,754	$512	$2,266

* = In legislative contingency, service does not plan to use.
** = Not in legislative contingency, service does not plan to use.

Notes

1. Office of the Secretary of Defense Military Compensation Background Papers, U.S. Govt. Printing Office, June 1987, p. 449.

2. Ibid. p. 447.

3. U.S. Congress. House Report on H.R. 4428 Committee on Armed Services, Report No. 99-718, p. 203.

4. Memorandum for Staff Director, 6th QRMC, March 1987.

5. The evaluation of these issues is set out at pages G-11 - G-40 of the Working Papers of the 6th QRMC published separately as Volume ID of the 6th QRMC report.

Chapter 9. NATIONAL GUARD AND RESERVE RETIREMENT

This chapter summarizes the 6th QRMC report on National Guard and Reserve Retirement which is published separately as Volume IB of the report. In addition to Presidential direction that the 6th QRMC conduct a comprehensive study of reserve compensation, there was a statutory requirement to study reserve retirement. Section 302 of the Military Retirement Reform Act of 1986 required the Secretary of Defense to submit a report on reserve retirement to the Congress, together with any proposals for modification of the system. The Committee of Conference on the Retirement Reform Act stated their intent that this review be conducted as part of the 6th QRMC, in conjunction with its overall review of reserve compensation.

The 6th QRMC analysis of reserve retirement was conducted from the perspective of the original objectives of the system and of these objectives in light of the subsequent evolution of the reserve components and of current and projected manpower requirements. Three major areas were identified for review: 1) the effects of the retirement system on manpower force structure; 2) the motivational effects of the retirement point system; and 3) technical issues that have arisen over time as the organization, missions, and support of the reserve components have changed. Reserve retirement was reviewed as an integral part of the entire reserve compensation system, with a focus on compensation as a force management tool.

History and Description of Reserve Retirement

A reserve retirement system was enacted in 1948 to provide a monetary incentive for continued membership and training in the reserve components. World War II experience had demonstrated the need for a large, well-trained, organized, and equipped reserve force, capable of immediate mobilization and deployment. A deferred income incentive was considered necessary to build and maintain the planned reserve component manpower structure.

The initial proposals for reserve retirement were modified several times before final enactment in June 1948. The system has remained essentially unaltered since enactment. Recent changes in law affecting the determination of the retired pay base in calculating retired pay (1980) and the indexing of retired pay (1986) have resulted in a significant reduction in the value of both active and reserve retirement benefits for new members who are affected by these changes.

Computation of Retired Pay

To be eligible to receive reserve retired pay, an individual must complete a minimum of 20 years of qualifying service and be at least 60 years of age. Retired pay is computed based on the basic pay scale in effect when the individual applies for retired pay at or after the age 60 minimum. Retired pay is calculated by multiplying the reservist's equivalent years of active service by 2.5 percent and multiplying the resulting fraction by basic pay. Equivalent years of active service are computed using a point system, in which retirement points are credited as follows:

- One point for each day of active service
- One point for each attendance at a drill or period of equivalent instruction
- Fifteen points per year for membership in a reserve component in an active status

The number of points that can be credited in a year are limited as follows:

- There is a 60-point annual limit on the total of all points awarded for drill attendance or equivalent instruction, or for membership in a reserve component.
- A maximum of 365 points may be credited toward retirement in any one year.

Subject to these limitations, years of equivalent active service are computed by totaling all points, including those earned in years when the minimum 50 points for a satisfactory year was not attained. This point total is then divided by 360.

Costs of Reserve Retirement

Since Fiscal Year 1985, military retirement has been funded on an accrual basis. It previously was funded on a current cost basis, and a single line in the DoD budget reflected the projected annual costs of retired pay. Under the 1984 law that created the accrual funding system, a military retirement fund was established in the Treasury. The fund receives monthly payments on accruing liabilities from the DoD and yearly amortized payments from the Treasury on the unfunded liabilities.

The DoD payments are a percentage of the total basic pay for members on active duty or in the Ready Reserve. This percentage of pay is contributed over the active career of new military

entrants in order to pay for all future retirement benefits of the group. Thus, under the accrual method of funding military retirement and survivor benefits, the future costs of military retirement must be taken into account in the formulation of service budgets and, consequently, in their manpower plans and policies. Since Fiscal Year 1987, the law has provided that two percentages will be determined: one for members on full-time duty with either the active or reserve components and one for members of the Ready Reserve who are not serving in a full-time duty status.

The future costs of reserve retirement and the relative value of retired pay for reservists vary, based on when the reservist first entered a uniformed service. Legislative changes to the system in 1980 and 1986 have created three categories:

- Members who joined prior to September 8, 1980, have their retired pay calculated as a percentage of the basic pay scale in effect when the member is first entitled to draw retired pay.

- Members who first entered on or after September 8, 1980, and before August 1, 1986, will have their retired pay calculated as a percentage of the average of their highest 36 months of basic pay. This reduces the percentage of pay that must be set aside in the Military Retirement Fund from 27.7 percent to 25.3 percent, a nine percent reduction.

- Members who entered on or after August 1, 1986, will have a change in the method of adjusting their retired pay to maintain its value against inflation. This further reduces the relative cost and value of reserve retirement. The percent of basic pay that must be set aside for this group is 22.8 percent, which is a total reduction of 18 percent from the system applicable to members who first entered service prior to September 8, 1980.

The percentage of pay that must be set aside for full-time active and reserve component members now entering service is 40.9 percent. To provide a perspective on the cost of reserve retirement relative to that of private sector pension and capital accumulation plans, the Hay/Huggins Company was asked to make a comparison using the same economic assumptions in both calculations. Their analysis concluded that the average cost of retirement benefits in the private sector is 13 percent of salary. Using the same economic assumptions, the cost of reserve retirement would be 18.8 percent of basic pay. Since basic pay, on which retired pay is calculated, is only about 70 percent of military compensation, it is not directly comparable to private sector salary. Multiplying the 18.8 percent of basic pay cost calculated by Hay/Huggins by 70 percent results in a

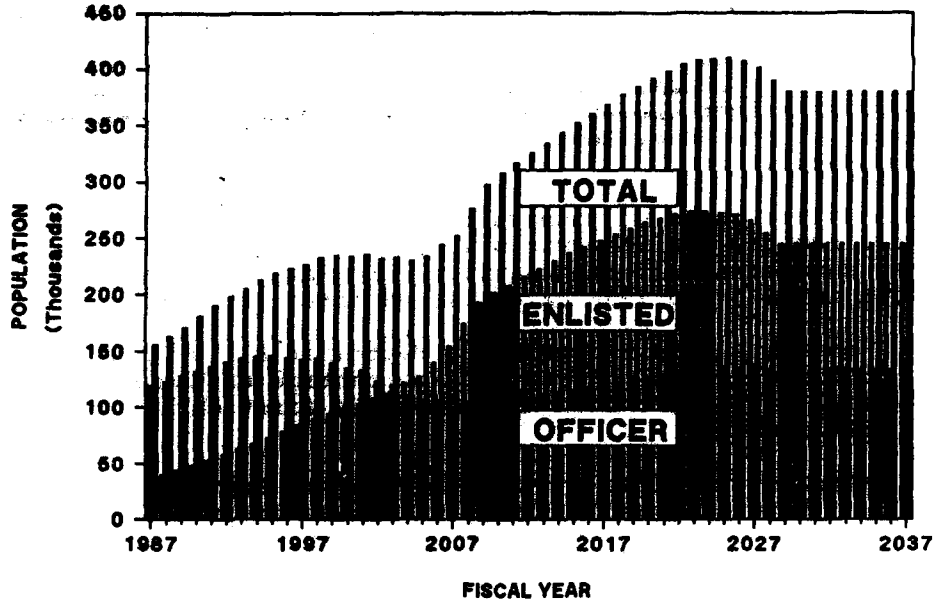


FIGURE 9-1. PROJECTED RETIRED POPULATION DRAWING PAY, 1987 TO 2037

cost of approximately 13 percent of pay for the reserve system, indicating that it is very close to average private sector plans in terms of cost.

In Fiscal Year 1986, 158,696 reserve retirees were paid $1.2 billion in retired pay. The average monthly entitlement was $697. The average retired pay for officers who retired (at or after age 60) in Fiscal Year 1986 was $762. The average retired pay for enlisted members first retired in that year was $428. Historically, the population drawing reserve retired pay has included about three officers for every enlisted member. This has led some to question the utility of reserve retirement as a retention incentive for the enlisted force. 6th QRMC projections, based on current continuation rates, indicate that the officer-to-enlisted ratio among those receiving reserve retired pay is rapidly changing and will result in a very different population of reserve members drawing retired pay. Figure 9-1 shows these projections.

The cost of reserve retirement must ultimately be related to the system's effects on the readiness of the reserve components and also to the value of that readiness to the national defense. Its relative costs can be compared to the cost and effectiveness of system alternatives.

QRMC Analysis

The objective of the QRMC analysis was to determine the extent to which the current reserve retirement system effectively supports service and reserve component manpower objectives and policies, and aids in achieving desired manpower force structures. There were three primary activities in conducting the analysis: assessment of the effects of the current system, comparison of these effects to those desired by the Services and their reserve components, and identification and evaluation of the costs and benefits of alternatives.

Data Sources

Primary data sources for the QRMC analysis included the Reserve Components Common Personnel Data System (RCCPDS), the 1986 Reserve Components Surveys (1986 RC Surveys), the QRMC unit visit program, and DoD Office of the Actuary retiree data and retired population and cost projections. The RCCPDS is maintained by the Defense Manpower Data Center (DMDC). It has been the official source of reserve personnel data since 1975. There have been continuing and well-documented problems with the accuracy and completeness of data on reserve personnel. These problems did impact on the QRMC analysis. Missing data or data of questionable validity with respect to creditable years for reserve retirement, total days of active service, and data on paid, creditable and total points were of particular concern. Nevertheless, the availability of extensive historical RCCPDS data, which was of generally good quality from 1981 forward, provided a sound base for the QRMC analysis. The report identifies areas where data problems limited confidence in the conclusions reached.

The 1986 RC Surveys provided heretofore unavailable data concerning reserve members and their spouses, much of it directly relevant to the analysis and understanding of reserve retirement. The Surveys were completed by 12,278 officers, 51,409 enlisted members, and 33,858 spouses, representing over one million trained members of the Selected Reserve and 640,000 spouses. With generally excellent response rates, the 1986 RC Surveys provided extensive demographic, household, and familial data on reservists, including occupational and civilian income information previously unavailable. Also, detailed information on patterns of previous active and reserve component service was available from the survey, largely offsetting weaknesses in the

RCCPDS in this area. Using survey data, it was possible to relate the strength and direction of reservist and spouse attitudes and experiences of reservists and their spouses concerning specific aspects of reserve compensation to their military status, background and demographic characteristics.

The 6th QRMC unit visit program was conducted during April and May of 1987. Its objective was to provide QRMC staff with firsthand exposure to the views of members at the unit level, in order to identify concerns and issues that might not otherwise surface and to help place the quantitative data from the 1986 RC Surveys in context. A detailed protocol was developed to ensure uniform visit procedures and conduct by unit visit teams and to minimize the extent to which the attitudes and opinions of team members might influence unit member responses.

The 1984 law that placed the funding of military retirement on an accrual basis also established an independent three-member DoD Retirement Board of Actuaries, appointed by the President. The Board is required to review valuations of the military retirement system, to determine the method of amortizing unfunded liabilities, to report annually to the Secretary of Defense, and to report to the President and the Congress on the status of the fund not less than every four years. The DoD Office of the Actuary provides all technical and administrative support to the Board.

The Office of the Actuary uses military personnel files maintained by DMDC and pay files of the Service Finance Centers as input data in conducting annual valuations of the military retirement system. Population and pay projections are generated by an actuarial projection model. The accuracy of all aspects of this model has been confirmed through two extensive audits. The 6th QRMC relied heavily on the Office of the Actuary for supporting data. Data concerning the future costs of the current reserve retirement system and of alternative systems is entirely based on Office of the Actuary projections using the economic assumptions approved by the Board of Actuaries.

Analytic Tools

The availability of tools for the analysis and evaluation of the costs, benefits, and specific effects of active component manpower and compensation policies and programs is many times greater than that of tools for analyzing reserve manpower. This is clearly a result of the paucity of research on reserve component manpower as compared to the active components. It is likely also a consequence of the relatively greater complexity of reserve manpower programs. All of the following characteristics of reserve manpower make its analysis particularly difficult: accession programs that combine significant proportions of individuals with and without prior

service, frequent lateral entry and reentry into the Selected Reserve, markedly different participation intensities among Selected Reserve programs, a wide range in the amount of prior active service possessed by current members (which affects the degree of investment in reserve retirement), and the fact that reserve service is not the full-time job of most members of the Selected Reserve.

A number of models and other analytic tools were developed by the 6th QRMC staff or through contract. Most important in that regard are two models developed by the RAND Corporation for the 6th QRMC. Part of this effort included the development of estimation and projection models that were capable of separately estimating future populations for part-time reservists, military technicians, and AGRs. This model is the RAND Reserve Policy Screening Model. The second part of the project was the development of a Reserve Dynamic Retention Model. This model creates retention rates by quantifying compensation, taste for military service, and random disturbances that affect continued service. The effect of retirement system and other compensation alternatives on retention rates developed by the reserve dynamic retention model can then be entered into the inventory projection model to estimate force structure effects of compensation alternatives. With the addition of alternative system costs, a systematic tool has been provided for the evaluation of the costs and benefits of retirement system alternatives.

The Effects of the Current Reserve Retirement System

The 6th QRMC began its study of the effects of the current system with the review of earlier studies. The most extensive previous review was conducted as part of the Reserve Compensation System Study (RCSS) from October 1976 through June 1978. The RCSS concluded that, for reserve forces, there should be greater emphasis on current compensation than on deferred compensation, and that the need for a retirement system for reserve members was much less apparent than for active force members.

The RCSS analysis concluded that reserve retirement was too costly, fostered an aging force, and was hindered by the lack of comprehensive planning and control relative to manpower force effects and retirement costs. The RCSS developed two preferred alternative reserve compensation systems. The first alternative included a number of modifications to reserve retirement, the cumulative effect of which would have been annuity reductions in the range of 20 to 35 percent. No retirement system was included in the second alternative, and the RCSS report states that a retirement system would not be recommended if it were possible to develop a new compensation system for reservists. A

Reserve Career Bonus, structured to provide an incentive for continued service through 30 years, was proposed in place of retirement. The RCSS study was completed at a time when there was greater concern with recruitment and early attrition than with retention, and its recommendations may have reflected this concern.

The 5th QRMC conducted a detailed analysis of the uniformed services retirement system but, by design, did not undertake a comprehensive study of reserve retirement. The 5th QRMC did find that a number of the RCSS conclusions were still valid, including the finding that reserve retirement results in a high flow of officers and a low flow of enlisted members to retirement.

As shown earlier in Figure 9-1, 6th QRMC projections indicate that the officer-to-enlisted ratio among those receiving reserve retired pay is rapidly changing. It is clear that reserve retirement is now a major factor in the retention of enlisted members with critical leadership and technical skills. The QRMC analysis indicates that an incentive for career reserve service is absolutely required to maintain the reserve components at required strength beyond eight years of service. Results of the RAND Reserve Dynamic Retention Model indicate that, with elimination of retirement as a career incentive, the Selected Reserve could not maintain its required manpower force structures and would lose critical experience. Although the analysis indicates that it is possible to replace retirement with current income incentives, it is uncertain whether this could be accomplished at less cost or with equal effectiveness in attracting and retaining high quality members with the needed experience. The model indicates that, in the absence of reserve retirement, retention in the midyears of service becomes a problem even with current compensation alternatives in place.

The QRMC looked in some detail at the relationship between reserve retirement and continuation trends in the reserve components. The retirement system retains needed manpower to 20 or more years of service. Once qualified for eventual retired pay at age 60, however, there is little economic incentive to discontinue active reserve service. Indeed, since continued service increases retirement points and retired pay at age 60, the reserve retirement system provides a strong incentive to remain in the reserve program beyond completion of the minimum years of satisfactory service for retirement eligibility.

The analysis of continuation rates in the reserve components indicates that reserve retirement works well as an incentive to draw qualified junior members into reserve careers and to attract members with active component service. The pull of reserve retirement is evidenced in continuation rates as early as five to seven years of service, and this pull gradually

increases through 20 years of service. There is a drop in the continuation rates at the 20-year point: however, they immediately increase again and remain high well beyond 30 years of service. Comparison with active duty continuation rates indicates that reserve rates are slightly lower through the first 20 years of service and much higher than active rates after that point.

In most of the reserve components the reserve manpower force has continued to age. The impact of this trend on the readiness of reserve components is difficult to assess. The Logistics Management Institute (LMI) conducted an analysis of the age distribution of reservists by military specialty. The LMI report indicates that, as of early 1987, members in age-critical specialties with the greatest demand for youth and vigor were only about two years older than their active force counterparts. Older members were in specialties where age is less critical. LMI did not, however, attempt to project the current force into the future.

As a benchmark against which to evaluate the effectiveness of current and proposed reserve compensation programs, the Military Departments and the Coast Guard were asked to develop manpower force structures reflecting desired continuation rates and force management practices for their reserve components. Considerations such as age of the force, promotion flow relative to length of service, training requirements, and skill levels relative to grade were to be balanced in the development of the desired structures. There are significant differences among the force structure profiles provided. In general, however, they indicate a desire to continue a higher percentage of the force from 6 to 20 years of service, with increased separations occurring after 25 to 30 years of service.

The age distribution of part-time reservists for all reserve components is currently being affected by a sizeable hump of members who initially joined the armed forces during the Vietnam War period. Members in the age cohort representing the peak of this hump were 40 or 41 in 1987, depending on component and on officer or enlisted status. It is clear that most reserve components will have to make and implement personnel policies to provide effective management of this hump over the next 10 years. A major concern of the QRMC was to assess what the manpower force structure will look like after this major hump passes through the system.

The RAND Reserve Policy Screening Model was used to assess future manpower force distributions. The projections indicate a continuing aging trend into the next century, with the trend stronger in the enlisted force than in the officer force. The

projections indicate a doubling, by the year 2000, of the percentage of the part-time Selected Reserve enlisted force with over 20 years of service.

Conclusions Concerning the Current System

The 6th QRMC analysis of the current system concluded that a retention incentive is necessary to maintain required manpower force structures, and personnel with needed leadership, technical qualifications, and experience. There are, however, current and projected manpower force management problems that are related to the effects of the current reserve retirement system. In the absence of personnel policies that set maximum tenure points or actively select out some members, the strong incentive for personnel to continue as long as possible contributes to an aging force. Associated problems of promotion stagnation potentially reduce retention prior to 20 years of service. The current system provides no flexibility in terms of compensation incentives that could offset these trends or deal with an increasing rate of involuntary transfers to the Retired Reserve; transfers that will likely be required as members who initially entered the military during the Vietnam Era complete 20 or more years of service.

Alternative Systems Analysis

The QRMC examined a number of alternatives to the current reserve retirement system. The development and assessment of possible alternatives was guided by several considerations that became design criteria for alternative systems. These are the resulting design criteria:

- The reserve retirement system must be fully compatible with the active duty retirement system, with active duty and reserve service creditable in either system.
- Reserve retirement should be sufficiently attractive to aid in recruiting members with prior active duty service, without being so competitive as to cause undesired attrition from the active components.
- An alternative system should be structured to support the accomplishment of reserve manpower objectives in the near term.
- Members who first entered a uniformed service prior to the enactment of any proposed alternative should be provided the option of electing the alternative system or remaining under the current system.

- An alternative system must be sufficiently flexible to meet the needs of all seven reserve components.
- There should be an incentive to continue to serve beyond 20 years, and the incentive should increase until 30 years of service.
- A means should be provided for replacing some percentage of lost reserve compensation for members who have qualified for retirement at age 60 but can no longer participate.
- Any alternative should be relatively simple in application, so that the modified or optional system can be readily communicated to and understood by reservists.
- Retirement system alternatives should be cost neutral or reduce long-term retired pay costs.

In addition to the development and examination of alternatives that would meet the above criteria, a review was conducted of earlier recommendations and suggestions for change to reserve retirement. These included reducing the value of reserve retirement, creating a penalty for those who cease active participation prior to 30 years of service, lowering the age of eligibility for reserve retired pay or providing a lump sum payment option before age 60, and eliminating reserve retirement altogether.

Increased Current Compensation in Lieu of Reserve Retirement

Using the RAND models it is estimated that an average increase of between 10 and 17 percent (depending on component) in after-tax pay would be required to offset the elimination of reserve retirement and hold accessions constant. When the DoD calculates its compensation costs of achieving the required after-tax increase, there would be a slight increase in the DoD budget even with the reduced accrual payments into the Military Retirement Fund. Federal outlays to pay for the retired pay of grandfathered reservists and the increased compensation for new entrants would increase until Fiscal Year 2033. Total excess cumulative outlays peak at over 29 billion 1988 dollars and are not recaptured until Fiscal Year 2053. These cost estimates represent a "best case" scenario, in that potential significant increases in accession and training costs have not been included.

While monetary costs are a major consideration, potential impacts on manpower force structures are also important. The QRMC analysis indicates that, in the absence of reserve retirement, retention in the midyears of service becomes a problem even with current compensation alternatives in place. Increased accession requirements result from the reduction in

career retention. Substitution of youth for midcareer experience is especially problematic in the reserve components. These projected effects might be reduced through the skillful targeting of current compensation alternatives, but the long-term ability to provide an incentive as stable and effective as reserve retirement is uncertain.

The QRMC concludes that current compensation alternatives would be more expensive than reserve retirement. Substitution of current compensation would reduce the proportion of members with very long service--a change that is warranted--but it would also be likely to reduce the proportion of members in midcareer, a change that would almost certainly impact on readiness.

Reductions in Value of Reserve Retirement

Although elimination of reserve retirement has serious drawbacks, it is possible that reductions in the value of the retirement, combined with current compensation alternatives, would achieve increased cost-effectiveness. The QRMC analysis indicates that such a change, however, would result in increased accession requirements. Initial entry training costs tend to overwhelm the relatively small savings that can be achieved from a more junior part-time force. Under this alternative, force distribution problems would remain, since members who have completed 20 years of service would still be likely to remain in active reserve service for as long as possible in order to increase their eventual retirement benefit. The QRMC concludes that this alternative would exacerbate the problems of the current retirement system while resulting in an increased DoD budget and increased federal outlays.

Actuarially Neutral Lump Sum Payment

Actuarially neutral means that, if you offer an early lump sum payment or a reduced early retirement annuity in lieu of an existing annuity, the present value of a lump sum payment or of a stream of early payments is equal to the present value of the payment stream of the old annuity. On examination, the actuarially neutral lump sum payment alternative had some positive features. There were overriding defects, however. First, this option appeared to be overly attractive, possibly conducive to early losses of personnel that the reserve components would want to retain. Second, the lump sum option would greatly increase outlays for military retirement if election of the option became possible.

Actuarially Neutral Early Annuity

An actuarially neutral early annuity was calculated and its effects examined. The principal defect found with this alternative was that the annuity amount represented a very high

percent of monthly drill pay for many members and, for some, would be twice the monthly drill pay. The more retirement points held by a member electing this option, the higher the payment. This would also induce unwanted losses, and the losses would be greatest among those whose point totals were higher as a result of past active duty or more intense reserve participation.

The QRMC made several attempts to adapt the actuarially neutral early annuity concept to an alternative providing a better fit with the established criteria. The most promising was a two-tier early annuity based on years of service rather than on the age of the member when the first tier of the early annuity starts. This two-tier system is the recommended alternative of the QRMC.

The Two-Tier Years-of-Service-Based Early Annuity Option

This alternative would provide an optional early annuity at any point after initial qualification for retirement through completion of 20 satisfactory years of service. This first tier would be a flat percentage of the retired pay base calculated under the high-three averaging method. The second tier would be at age 62. Election of the optional system would require a retirement point reduction. Retired pay before and after age 62 would be annually adjusted for inflation, based on the increase in the Consumer Price Index (CPI) minus 1 percent. A one-time catch up at age 62 is made to the first tier. The amount of the first-tier monthly annuity would be constant for all members in the same grade who elect the Two-Tier Option at the same years-of-service point, regardless of their age. While the Two-Tier system would be optional for all current members, it would replace the age 60 annuity for future entrants.

The QRMC assessment of this alternative indicates that its implementation would result in a reserve retirement system better able to support reserve manpower objectives. It would be capable of supporting objectives immediately after enactment and would be sufficiently flexible to meet the needs of all reserve components. The size of the first-tier annuity would not be large enough to discourage further paid participation or to attract active component members to the reserves who would not otherwise have separated.

The RAND Reserve Dynamic Retention Model designed to assess the probable impact of reserve compensation revisions indicates that more members would be likely to continue through 25 years of service, and that there would be somewhat lower continuation after that point. Accession requirements under the Two-Tier Option decline by about 1 percent.

Implementation of this option would initially increase outlays from the military retirement fund. These increased outlays would peak at just over $200 million, early in the next century. At the highest level this would represent less than a 1 percent increase in outlays from the fund. Long-term costs for reserve retirement would be substantially reduced. This reduction would immediately be reflected by a reduction of about $132 million per year in the DoD accrual payments into the fund. The system should be easily understood by most reservists. The specific provisions of the recommended alternative may be revised in the development of a legislative proposal. Many technical details necessary to integrate the Two-Tier Option with current law and policy also remain to be worked out.

Retirement Point System Analysis and Recommendations

As with the reserve retirement in general, the retirement point crediting system established in 1948 has remained essentially unchanged. Documentation on the original basis for some aspects of the point system is slight, however it is clear that the following objectives were achieved in the system as established:

- Active duty and reserve participation were both creditable for retirement.
- Individuals were to be credited on the actual level of their future participation.
- A minimum annual point standard was set for satisfactory reserve participation for retirement qualification.

The QRMC analysis reviewed the retirement point system from the perspective of current conditions of reserve service. A major change from 1948 is the much greater level of participation required and performed by today's reservists. This higher level of participation has resulted in concern in many quarters that the 60-point annual cap on points for inactive duty training is inequitable. Under the cap, members who perform the most inactive duty receive the same retirement credit as those who meet minimum training-pay category A requirements. In part, this is also an effect of the 15 membership points awarded each year. Data from QRMC unit visits and from the 1986 RC Surveys indicates that the 60-point annual cap on inactive duty training points is perceived by many members as inequitable. A comparative analysis of the point value for each day actually worked indicates that, even when credited at two points per day for inactive training, the probability is that the category A reservist will earn less retirement point credit per working day than the member on active duty.

An estimation of the probable effects of raising the annual point cap to 75 while eliminating the 15 membership points indicated that such a change would bring the active duty and reserve credit per working day much closer together. While the QRMC review was handicapped by the lack of verifiable retirement point data for most reservists, analysis of the existing system led to the following recommendations for change:

- Increase the annual cap on inactive duty training points from 60 to 75.
- Eliminate the 15 annual membership points.
- Reduce the number of points required for a satisfactory retirement year from 50 to 35 (with elimination of membership points this keeps the participation requirement for a satisfactory retirement year unchanged).
- Cap the number of retirement points that may be credited in one year at 360 instead of 365 (since the division in the formula for calculating equivalent years of active service is 360, this ensures that no more than one year of credit may be received for one year of duty).

The QRMC believes that implementation of the above recommendations would result in providing greater retirement credit for members who perform additional inactive duty training beyond minimum Category A training requirements. The retirement credit earned would not exceed the benchmark per working day for active duty credit. The QRMC proposal is judged to be cost neutral if implemented. Because of the inadequacy of current retiree point accounting systems and data, further review by the next QRMC is recommended.

Structural Issues

The QRMC also conducted a detailed review of structural and technical aspects of the reserve retirement system. The requirement to keep large numbers of reserve officers on extended active duty to meet national defense requirements after the Korean War resulted in several changes affecting reserve retirement. Similar changes are now required in response to the needs of the last decade; i.e. the requirement for significant numbers of enlisted members to serve on active duty in their reserve status to meet the needs of the reserve components for full-time recruiting, technical, and administrative support.

There are two results of the failure to update the reserve retirement system. The first is the complex, overlapping, and confusing structure in terms of which retired military members are categorized. The second is a number of unintended

inequities that have developed over the years. While some of these are superficial, others are quite substantive and can have a significant impact on individual members. As the active and reserve components become even more closely aligned, it is increasingly important for all provisions to work equitably in order to encourage both active and reserve service.

To achieve this objective, the 6th QRMC recommends the following:

- Legislation to simplify the regular and reserve retired structure. Laws that require the assignment of regular enlisted retirees to the Retired Reserve should be repealed as unnecessary and anachronistic. The Fleet Reserve and Fleet Marine Corps Reserve would be continued, but would not be accounted for as part of the Naval or Marine Corps Reserve.

- Amendment of section 688 of title 10, United States Code, to provide recall authority to the Secretary of Transportation equivalent to that possessed under this section by the Secretaries of the Military Departments.

- Revision of DoD Directive 1200.15 to eliminate the category of honorary retiree and provide that only members who are or will be eligible for retirement benefits be placed in the Retired Reserve in the future. Existing honorary retiree lists would be reduced by attrition and then discontinued.

- Legislation to provide uniformity between the Services and their active and reserve components with respect to the retired grade of enlisted personnel qualifying for active duty retirement. (NOTE: This change was enacted as section 512 of Public Law 100-180, December 1987.)

- Legislation to require continuous membership in a reserve component after receiving notification of completion of the years of service required for retired pay at age 60, in order to qualify for that pay.

- Legislative amendment to allow reserve enlisted members to receive years-of-service credit for inactive duty training points in the computation of active duty retired pay.

- Legislative amendment to update the provisions of the active duty retirement sanctuary for reserve members on active duty who have more than 18 years of active federal service.

- **Study of alternatives to provide a monetary benefit for reservists whose further participation is precluded due to their being found not physically qualified when the cause of the disqualification was not service connected.**

Nonpay Benefits for Retired Reservists

There are approximately 64,000 members of the Retired Reserve who do not receive retired pay but will be entitled to retired pay at age 60. These members, sometimes referred to as gray area retirees, have important benefits but are precluded from participating in military activities that are available to reservists in either an active or retired status. During the period between the point when they transfer to the Retired Reserve and the time when they begin to draw retired pay, some reservists feel shut out and cut off from their Service and the way of life to which they have devoted most of their working years.

The 6th QRMC examined the costs and advantages of extending certain benefits to retired reservists in the gray area. The QRMC concluded that expanded benefits for gray area retirees would recognize their long and dedicated service. After review of several options, the QRMC recommends that temporary lodging facilities, military exchange stores and services and Class VI/Package store privileges be extended to gray area retirees. The QRMC also noted that these expanded benefits would increase monies for nonappropriated fund activities and provide an incentive for members with more than 20 years of service to transfer to the Retired Reserve.

The Two-Tier Option to the current retirement system, if implemented, would effectively eliminate the issue of gray area retirees. Under the Two-Tier Option, the QRMC recommends that all Retired Reservists under age 60 who are receiving first-tier retainer pay or are eligible for retired pay at age 60 have the same benefits as members of the Selected Reserve. At age 60 all reservists receiving retired pay or first-tier retainer pay would be eligible for the same benefits as are all military retirees.

Air Force Concerns

In the course of the review of the QRMC report by the Military Departments, the Department of the Air Force (the reserve components of which are structured and manned somewhat differently than are the components of the other Military Departments) provided a statement of concerns with respect to certain QRMC recommendations. These concerns follow:

Two-Tier Years-of-Service Based Early Annuity Option. The QRMC concludes that the current system contributes to an aging force and causes promotion stagnation. The Air Reserve Forces are combat ready today for many reasons which include experience and stability. The forces are managed in such a way as to make promotion stagnation a minor issue. If it were a problem, the related dissatisfaction with reserve service would result in a decreased retention rate. Current retention rates are excellent. The early annuity option could make it attractive for the most experienced personnel to leave, causing a significant decrease in readiness. This could be especially significant if reserve force pilots began to separate after 20 years of service, certainly not an intended goal by management. The increased early outflow of reserve forces pilots would create more vacancies, which would in turn provide more opportunity for active forces pilots to affiliate with reserve units, exacerbating an already critical active pilot retention problem. The early annuity option may be especially detrimental to the IMA program. IMA positions are established by the Major Commands and are typically senior grades. Since IMAs typically receive less income from reserve participation than do unit members, a significant portion of our IMAs may find it attractive to take the early annuity thus causing a significant shortfall. Before any decision is made for an early annuity, these questions should be the subject of a thorough quantitative analysis, and perhaps the subject of a survey, to project possible effects on Air Force combat capability.

Second Tier of Annuity at Age 62. Current reserve retirement pay begins at age 60. Recommend age 60 vice age 62 be considered as an alternative to the Two-Tier Years of Service Based Early Annuity Option. The analysis and conclusion of this review is not contained in the final report.

Elimination of Membership Points. If membership points were eliminated, well over half of the Air Reserve Forces would take a corresponding reduction in retired pay. Few members in the Air Reserve Forces are authorized additional Inactive Duty Training Periods (IDTs). These periods are primarily used by aircrews to enhance their combat capability, but aircrews only represent 10 percent of the force. Unpaid IDT is unusual in the Air Reserve Forces and is not mission productive nor does it necessarily enhance combat capability. Any change in the retirement system of this magnitude is certain to have a negative impact on combat capability. We are concerned that the Reserve Components Surveys data which indicated many unpaid IDT points could be used to offset the loss of membership points is over stated. The specific question from which this data was extracted was ambiguous and provided great leeway for personal interpretation. It cannot be used as the basis to support the

recommendation. The elimination of membership points has not been quantitatively analyzed and may have an adverse impact on retention and combat capability.

Elimination of the Honorary Retiree Category from the Retired Reserve. Although the QRMC sees little value to the Honorary Retiree this category has a great deal of emotional appeal and is a positive public relations issue for the Air Force and has negligible costs. Recommend the category be retained but not interfere with any lists used for mobilization.

Finally, it has been stated numerous times that "Reserve Retirement is too expensive and needs to be cut." In 1987, the total DoD budget for reserve retirement was $958 million for a force of 1.1 million personnel in the reserve components. This is certainly not too expensive considering the Reserve Components contribute 25-30 percent of the Total Force warfighting capability. While it is important for the Department to constantly ensure the best capability for least cost, this does not translate directly to an "a priori" assumption that costs must be reduced.

Chapter 10. COMPENSATION IN SUPPORT OF RESERVE MEDICAL MANPOWER

Definition of the Problem

The highest priority of the military health care system is combat medical readiness. Although quality health care during peacetime may be the most visible aspect of military medicine, the primary mission is to support military forces in conflict. This mission requires trained personnel in sufficient quantity and with the right skills, ready to perform their duties when called. This chapter summarizes the report on compensation in support of reserve medical manpower which is published separately as Volume IC of the report.

Role of the Medical Reserve

In recent years, the reserve components have assumed an increasing portion of the combat medical support mission. The role of the reserve medical force is even more extensive when viewed as a percentage of the total manpower requirement. Today, the reserve components are counted on for 53 percent of required combat health care personnel. Fifty-five percent of medical officers, 76 percent of nurses, and 47 percent of enlisted health care personnel required for the world-wide combat mission must come from the reserve. By Fiscal Year 1992, 61 percent of required combat medical manpower is projected to come from the reserve components, which will then be providing 58 percent of the total required enlisted health care personnel. The Office of the Assistant Secretary of Defense for Health Affairs projects that the Services will then rely on the reserve components to provide 78 percent of wartime staffing for the critically short wartime physician specialties of anesthesiology, general surgery, and orthopedic surgery.

Factors Unique to Health Professionals

There are several factors that differentiate the military health professional community from other military members and contribute to the difficulties in attracting and retaining a reserve military health care force.

The role of military medicine is twofold: maintenance of medical readiness for war and provision of a viable health care system during peacetime. The simultaneous requirement for medical readiness places a tremendous strain on a fully-committed active component system. Given the life-and-death peacetime mission along with the need for

simultaneous training and equipping for war, the development of a strong medical reserve force is imperative. In retrospect, it is surprising that there has been so little concern with reserve component health professionals and their compensation. In part, the reason for this neglect may be that the benefit to the military or the reserve medical force was not sufficiently integrated into the institutional fabric of the military. The absolute necessity for health care professionals is clear during time of combat. Historically, during peacetime, concern with day-to-day missions has resulted in the neglect of the institutional benefit derived from retaining more health care professionals than are required for quality patient care for the immediate peacetime force.

Several health professions are among the highest paid occupations in the country. The basic pay structure of the military does not compare favorably with civilian income for these professions, which makes recruiting and retention difficult. Lending further complexity to the problem are the wide variety of specialties within each health profession, particularly within the field of medicine, that command incomes ranging over a very broad continuum.

The discrepancy between military income and the civilian income of some health professions has been well recognized over the last 40 years. The recruitment and retention of medical officers has been of concern ever since World War II. The greatest problem has generally been in specialties commanding the highest civilian incomes. Special and incentive pays and sponsored medical education have been used to meet this problem. Although the discrepancy between military pay and civilian income also exists for reserve component medical officers, no incentive pay program comparable to the active duty program has ever been developed for reserve health professionals. The only special pay for reserve health professionals is restricted to medical officers with prior active component service while serving on active duty for training. At maximum, this special pay increased the reserve income of eligible medical officers by an average of only $175 per year. Given the high external market competition for physicians, this sum cannot be expected to be an economic motivator in a decision to join or remain in the reserve. The principle of additional compensation for difficult-to-man specialties has not been applied to the reserve medical force.

For the reserve components, the other critical shortage of great concern has been for professional nurses. Military compensation, training opportunities, and work environment have generally been sufficiently attractive to meet the demand for nurses for the peacetime mission in the active components. The demand for nurses in the reserve components is significantly greater than in the active components, however. In fact, the

total reserve component shortfall for nurses, currently projected at 31,000, is more than twice as large as the total number of nurses serving in the active components. Despite the magnitude of the demand for nurses in the reserve, there has been no attempt, until very recently, to develop special incentives or training programs to make reserve service more attractive to nurses.

Determining the extent of initial and continuing training needed to assure that military health professionals are prepared for mobilization is a persistent problem. Health care professionals in the reserve components represent a pool of largely trained manpower. The primary skills of health professionals are not specific to the military; instead, they are universal medical skills in which the military member (with the exception of the trainee) is already trained and proficient. This poses two challenges unique to reserve medicine: the need to determine minimum adequate levels of training in military medicine and ancillary military skills, and the need to provide training that is individually challenging and meaningful to reservists already trained in their professions.

The time requirements of reserve participation may be especially burdensome for many health care professionals. Highly demanding schedules relative to the number of hours spent in the civilian job and, equally important, the frequent irregularity and lack of control over those hours, can make participation in the reserve more difficult than for the nonmedical reservist. Integration of military and civilian schedules may be of particular concern. These considerations have begun to be recognized. The first initiatives to improve wartime readiness in the medical reserve were aimed at more flexible training schedules to accommodate the demands of the work environment of the civilian health professional.

Historical Perspective

A look at trends in military medical manpower following the inception of the All-Volunteer Force in 1973 is helpful in understanding the shortfall of health care personnel that exists in the reserve components today. At worst, the problems in medical readiness have been severe, with military medicine potentially unable to support United States troops in combat. Recognition of the deficiencies in medical readiness, in both manpower and equipment, and efforts on the part of DoD and the Services have resulted in major improvements in manning levels of health care personnel and overall medical readiness. Medical readiness goals have not yet been achieved, however. Recognition of the priorities and requirements listed below has evolved during the years of the All-Volunteer Force. The

following concepts, along with implementation of programs and development of initiatives based on recognition of the concepts, have all been significant for achieving future preparedness:

- The priority of mobilization requirements in medical planning
- The requirement for a strong peacetime reserve medical force
- The need for standardization in establishing medical manpower requirements

The primacy of the medical readiness mission of military medicine may appear today as a clear and self-evident concept. This priority has not been clearly perceived in the past, however, nor has the institutional value of this priority been clearly established. Although all branches of the military are subject to the environmental pressures of budget cycles and manpower trends, perhaps none have been more pressed than the medical. The clear necessity of providing health care to active and retired members and their dependents assumed priority during the period after the Draft Era, when large numbers of health care personnel were leaving the military. Initiatives to attract and retain health care professionals were being developed to attract professionals in the health care disciplines to active duty in the All-Volunteer Force. During this period, the military medical departments entered a period of declining capability. Manpower deficiencies in the active components were accompanied by deficiencies in reserve manning and in mobilization equipment and supplies. During a time when it was already difficult to provide day-to-day care, the need to maintain medical readiness went largely unaddressed. As a consequence, the status of the reserve medical force was not a priority. Assessments conducted since 1978 have generally concluded that the United States would not be able to provide adequate medical support to combat forces in time of war.

By 1980, Congressional and Service initiatives had begun to stabilize the active duty health care population at an adequate level. In 1981, DoD efforts were turned toward correcting deficiencies in medical readiness; the reserve medical forces began to receive significant attention for the first time since World War II. A number of initiatives were undertaken, ranging from the establishment of DoD training policy designed to achieve peacetime medical readiness, to establishment of the general and flag officer Reserve Components Medical Council organized to review medical readiness issues and to recommend actions to increase the reserve medical readiness posture.

A significant problem in the achievement of personnel readiness in the medical reserve has been the establishment of wartime medical manpower requirements. This problem manifested itself in several ways. Until very recently, the Services did not focus on management of reserve health care professionals by specialty, which led to an imbalance in the strength of the reserve components; this strength did not mirror the mix of specialties required for combat. Achieving the correct mix of specialties for combat has now become a major emphasis of the DoD, and the Services have implemented recruitment and personnel policies that emphasize management by specialty and are targeted to the critically short wartime specialties within the reserve community.

The ability to attract reserve health care personnel has also been impeded by lack of agreement on the size and distribution of the shortfalls. Staffing ratios, casualty estimates, and evacuation policies make the development of requirements exceptionally difficult. A number of studies over the years indicate that planning, analysis, and management within the defense medical department has been impeded by inadequate data and information systems and by lack of standardization when reporting assets and projecting requirements. Perhaps the most important single effort in the establishment of a systematic method for determining defense medical manpower requirements was the development of the Medical Planning Module (MPM), a subsystem of the Joint Operation Planning System. The MPM is an automated program that predicts workload-related, hospital-based medical requirements based on varying combat scenarios. Among the requirements generated are hospital beds, blood/fluids, medical supply, and manpower. Manpower requirements generated by the MPM vary from standard requirements: they are derived from a workload perspective, whereas previous requirements were generated in consonance with individual Service force structure. The MPM, in combination with Service unique requirements, is now the official source of combat medical manpower requirements. There were a series of delays in widespread use of the MPM until 1986 when the DoD directed that the Services use the MPM in developing manpower requirements from Fiscal Year 1988 forward.

Development of Reserve Medical Databases

The newly developed emphasis on the reserve medical force, and the ability to make standard projections of medical manpower requirements through the MPM, focused attention on the need for improved management information systems for reserve personnel data. New database systems now enable comparisons of peacetime authorizations, wartime requirements, and actual unit manning levels as well as comparisons of skill qualification with unit position requirements, enabling assessment of readiness from a

perspective of skill qualification. An additional new database provides the capability to assess medical unit readiness on the basis of personnel and equipment criteria.

Fiscal Year 1988-1992 Defense Guidance

In Fiscal Year 1986, to ensure Service use of the MPM and to further the achievement of medical readiness, the DoD issued guidance to the Services with respect to medical readiness. The Fiscal Year 1988-1992 Defense Guidance, reflecting a strong Total Force emphasis on medical mobilization preparedness, included the guidance that the Services should establish reserve recruiting programs that would reduce, by 20 percent per year from FY 1988 through FY 1992, overall wartime shortages of nurses and physicians in the critically short wartime skills.

Details of the Shortfall

Based on total wartime requirements and incorporating Service yield estimates, the DoD estimates that it has an overall shortfall of 7,100 physicians and 31,000 nurses. Of the total physician shortage, 5,265 requirements are for physicians qualified in wartime specialties that are designated as critically short, including anesthesiologists, general surgeons, and orthopedic surgeons. The DoD has designated nurse anesthetists and operating room nurses, as well as all other nurses as critically short for wartime. The marked shortfalls observed for medical officers and nurses do not occur in other health professional disciplines. The shortage of enlisted health care personnel is also large, with the DoD reporting a shortage of 73,000 members in the health care skills.

The shortage in absolute numbers of reserve members who are qualified as physicians, nurses, and enlisted health care specialists is compounded by skill mismatches in which billets are filled by untrained individuals or members qualified in skills other than those required by their billet. Personnel readiness among medical units for the Army and the Air Force (the two components for which data was available) is lower than that for nonmedical units. Personnel shortfalls and skill mismatches are a significant cause of the low levels of personnel readiness of medical units throughout the reserve components.

History of Incentives for Health Professionals

Shortages of health care professionals have been a continuing problem for the military. Until recently, the primary concern has been to procure and retain the numbers of qualified health professionals needed to meet the health care requirements of the

uniformed services. This concern became particularly acute with the substitution of an All-Volunteer Force for the draft. Most studies and reviews conducted in the 1970s and 1980s neglected reserve health care professionals and enlisted health care personnel.

The history of special incentives for health care personnel is almost exclusively a history of incentives for those serving in the active components: regular active duty members and reservists on active duty for periods of one year or more. From the beginning of World War II through the beginning of the All-Volunteer Force, except for a brief period, medical manpower requirements were met primarily through the draft or draft-related programs. During this entire period (and particularly since the late 1960s) there have been a series of measures, with both direct and indirect compensation effects, designed to provide reasonable and more effective compensation and personnel programs for health professionals. In historical perspective, the net result of these measures has clearly been positive for active component medical manpower programs. These measures failed to consider reserve component members not on active duty, however, and in aggregate, may have actually reduced the ability of the reserve components to offer attractive personnel and compensation programs for health professionals.

Personnel incentives have been developed largely for their impact on the active component medical force. Special pays were introduced as a permanent component of military income for specific health care professions over 30 years ago. The special pay programs have been characterized by frequent change and growing complexity as needs and philosophy changed, but one factor has remained constant: recognition of the need to pay additional income to certain health professionals in order to meet active duty manning requirements.

The current special pay programs for medical and dental officers provide significant income above the basic pay and allowances. A medical officer with 10 to 12 years of service creditable for special pay purposes is, if board certified, potentially entitled to $21,500 in special pays. If qualified in a critically short wartime specialty, the officer may be eligible for an additional annual bonus of up to $8,000, depending on individual Service policy. The $8,000 limit for the additional bonus was removed for payments made from FY 1989 on, opening the way for payment of still larger bonuses to those qualified in the critically short wartime specialties. A dental officer with 18 or more years of creditable service for special pay purposes, if board certified, may be entitled to as much as $17,000 annually in special pays.

In addition, compensation related initiatives are in effect for the active components which have not been authorized for the reserve. For instance, since 1968, active component medical and dental officers in pay grades 04 through 06 have been excluded from the statutory limits on the numbers of officers authorized to be on active duty in those grades. From 1956 through 1980, both active and reserve medical officers were awarded constructive service credit for use in computing longevity credit for basic pay and in the multiplier used to compute retired pay. When this authority was repealed in 1980, this loss was offset for active duty medical officers by provisions included in the Uniformed Services Health Professionals Special Pay Act of 1980, which enhanced direct compensation incentives for medical officers. For reserve component health professionals, however, the new law added no new special or incentive pays; the loss in indirect compensation due to the repeal of constructive service credit for compensation purposes was real and lasting. The 1980 Defense Officer Personnel Management Act also restricted the use of constructive service credit for initial grade and future promotion credit for individuals appointed in the reserve, causing further difficulties for the reserve components in the appointment of health professionals.

Thus, when the DoD began to struggle with the issue of reserve medical readiness early in this decade, it did so after more than 30 years during which concern about compensation and personnel management of health professionals was almost exclusively concentrated on active component requirements.

Incentives and Education-Related Programs for the Reserve Forces

The military has historically employed two primary methods for meeting its requirements for health care professionals. These include additional income and a number of education-related programs.

Education assistance programs for health care professionals have long existed in the military. The active medical force has employed several programs since as early as World War II, ranging from sponsorship of training in the civilian academic environment to training in a health profession while on active duty. For many health care specialties, education assistance programs for active duty health care officers continue to exist today.

Only three incentive programs for reserve health care professionals exist in statute today, and two of those were enacted as recently as FY 1985. Since 1974, a special pay for medical officers who have had prior active duty has been paid for periods of active duty that are less than one year ($100 per month for those with at least one but less than two years of

prior active duty and $350 per month for medical officers with two or more years of active duty). It is payable for periods of active duty only; no entitlement exists for drill periods. This was the first special pay specifically authorized for reserve health care professionals; it remains the sole such entitlement today.

In the Department of Defense Authorization Act of 1986, to provide recruiting and retention tools to alleviate the significant shortage of critically short wartime specialists in the reserve, Congress authorized two incentives pertaining to education for health care professionals in the reserve. A stipend program was authorized for qualified medical officers and nurses in training in a critically short wartime specialty. Due to continuing concern over the magnitude of the medical manpower shortages, Congress modified and expanded the program in FY 1987. Significant changes were made to provide an option for participation in the IRR and to expand the eligible population to include third- and fourth-year undergraduate nursing students. In 1985, Congress also authorized a loan repayment program for medical officers and nurses qualified in the critically short wartime specialties.

In summary, in contrast to programs for the active components, incentive programs for reserve component health care officers is only a recent and piecemeal development. Statutory changes affecting compensation and personnel management of military health professionals over the past 40 years have largely ignored reserve component issues and requirements. The incentives enacted by the Congress in 1985, and modified and expanded in 1987, represent the only significant attempt to provide needed incentives for reserve component health care professionals during this period, even though shortfalls now identified in the community demonstrate the severity of the problem.

Noncompensation Programs and Initiatives

Any direct compensation or incentive program designed to attract and retain health professionals in the reserve must also consider the benefits, indirect compensation, and related factors functioning in the civilian and reserve environments. Individually or in combination, such programs have a significant potential for impact on the recruiting and retention of medical manpower. Complex interrelationships exist between direct incentive programs and indirect forms of compensation and environmental factors, and these have a direct impact on the effectiveness of incentive programs.

Important in this regard are personnel management programs for health care officers. The QRMC found that current programs do not provide sufficient flexibility with respect to health

professionals. Appointment grades for individuals with like experience and training should be standardized and provisions that would allow separate promotion consideration and timing for health professionals are needed. The Reserve Officer Personnel Management Act (ROPMA) proposed by the DoD would remedy most of these deficiencies.

Historically, efforts to enhance the attractiveness of service in the reserve for health care personnel have concentrated on areas other than direct compensation. As the role of medical readiness was identified and the requirement for a strong reserve medical force grew, new and flexible training programs were developed, tailored explicitly for health care personnel.

One of the first medical training programs developed was Continuing Health Education to Enhance Readiness (CHEER). It is DoD policy that reserve health care officers shall be afforded the opportunity to attend at least one health education course annually. Funding constraints, however, have generally been a limiting factor in enabling health care personnel to participate in continuing health education on an annual basis. Generally, the Services have problems in funding all officers for attendance at such courses annually.

The program has multiple benefits, including increased medical readiness through assisting health care professionals in maintaining and enhancing their professional skills and in meeting certification, recertification, and licensure requirements. There are additional benefits of attendance that extend beyond the immediate enhancement of individual and unit mobilization readiness. Health care officers are likely to value such training at or above the opportunity cost, or lost income during the period of absence from the professional job. Based on this high valuation of continuing education opportunities, many health care professionals perceive the opportunity to attend through the military as a benefit of reserve service. It may be of high value to those who could not otherwise attend such a course, as well as to those who would otherwise have attended, but whose opportunity cost has been reduced by attending through military sponsorship.

A strong additional impact may be made in the area of direct advertising. There is a very low level of awareness of reserve opportunities among the civilian health care community. When a health professional attends a civilian training experience, the reserve medical department obtains direct exposure to the very populations from which it seeks to recruit potential members. Further, there are strong indications that health professionals respond much more favorably when recruiting is conducted by professionals in their professional field.

The QRMC considered the feasibility of providing a guaranteed opportunity for all health professionals in the Selected Reserve to attend at least one health education conference or experience per year through the mandatory fencing of program funds. It concluded that a requirement for mandatory fencing was unnecessarily cumbersome and restricted management flexibility.[1] The QRMC concluded that a review of current program procedures is indicated in order to determine the effectiveness of Service programs implementing DoD Directive 1215.4 which governs the CHEER program.

Simultaneous with the development of training programs for reserve health care personnel, recruiting resources were increased and recruiting operations intensified. Those developments in the early 1980s now serve as cornerstones for current initiatives that are broader yet in scope. Experience during the 1980s has indicated that although increased success in recruiting brought unprecedented numbers of health care personnel into the reserve components, the length of stay for many was very short, indicating the need to make reserve service more attractive for health care professionals.

Recent strides have been made in another area with the increase of maximum age requirements for initial appointment and retention in the reserve. The National Defense Authorization Act for Fiscal Years 1988 and 1989 stipulated that professional applicants who are qualified in a critically short wartime specialty may qualify for initial appointment through at least 47 years of age. The Act also authorized the retention of health care professionals in the reserve until age 67. These recent age extensions should enable the reserve to recruit from the pool of physicians and nurses who, having reached a certain point in their careers or family life cycles, find that they have more time for additional activities.

The National Defense Authorization Act for Fiscal Years 1988 and 1989 also provided broader authority for the granting of constructive service credit for experience in the health professions, if that experience can be directly used by the Service concerned. This new authority is projected to have a beneficial impact on the recruitment of nurses for the reserve.

Although analysis and recognition of the role of direct compensation is imperative, it is equally important that efforts continue to enhance training programs, recruiting programs, and all aspects of personnel management. The analysis of survey and statistical data by the QRMC indicates that success in attaining medical readiness will not be achieved by exclusive concentration in either the compensation or noncompensation areas, but through policies and programs that incorporate both of these aspects of the reserve environment.

Attitudes and Environment of Physicians and Nurses

For both the recent past and the foreseeable future, rapid and sweeping changes are a hallmark of the United States' health care system. Scientific and technological advances have greatly expanded the potential of medicine. Demographic changes in the Nation's population, changing methods of financing increasingly costly health care delivery, and reorganization and structural changes in the health care system may all be expected to have major impact. Such major changes can be anticipated to affect the requirements for health professionals and in turn the supply of personnel entering the health professions.

There are recent trends in medicine and nursing that may have significant impact on the ability of the reserve to recruit. There are some indicators that physicians in the future may lose some of their economic advantage in the civilian market place, which might enhance the positive impact of well-designed reserve compensation programs on recruiting and retention. On the other hand, many leaders in the field of nursing say that the available number of professional nurses is diminishing, with potential for a serious nationwide shortage. Any resultant increase in nurses' wages may increase competition for the reserve. Amid this change, the reserve medical force faces its greatest historical challenge--that of achieving medical readiness during peacetime. Further, the reserve medical force is particularly sensitive to environmental changes in health care and employment practices of health professionals, due to the reliance of the reserve on the civilian community as its source of professional manpower. If the reserve is to be successful in achieving medical manpower readiness, it is clear that the reserve must employ compensation and personnel policies and practices that are developed in consonance with the civilian health care environment and that are flexible in the face of change.

The 6th QRMC identified several major trends and conditions that may have serious potential impact on the ability of the reserve to recruit and retain health professionals now and in the future.

Environment and Supply Trends

The American Medical Association predicts that the environment for the physician will be less economically advantageous in the near future. Many factors are contributing to this change, and a primary factor is the increasing supply of physicians which is projected by many to become an oversupply by the year 1990. A concomitant decrease is expected in the number of physicians entering the medical field as conditions surrounding medical school, residency, and medical practice become less desirable. Modes of alternative practice are increasing, with a trend away

from solo practice. All these factors tend to produce an environment less economically advantageous for the physician, but possibly conducive to greater success in attracting physicians to the reserve components through well-designed compensation programs.

The supply trends for civilian nursing professionals may be the opposite of those for physicians. Beginning in 1986, high vacancy rates for nurses in some areas of the country are beginning to result in increased wages and benefits. This may make the recruiting and retention of nurses potentially more difficult than it has been in the past. This is particularly true because much of the wage increase is targeted at individuals who are employed during evening, night, and weekend shifts, the same periods of time the reserve vies for participation of its members.

Student Indebtedness

The cost of tuition and overall educational costs, both at the baccalaureate level and particularly for medical school, have risen dramatically in recent years. This has been accompanied by increased borrowing, in higher amounts and at higher interest rates, to finance student education. This trend has resulted in increased levels of student debt. A study of the debt burden of graduates of several different health professions disciplines found that accumulated educational debt may be so great relative to anticipated earnings that repayment of debt may be very difficult for many graduates. The widespread existence of high student indebtedness can be used as a basis for developing attractive loan repayment programs for health professionals.

Malpractice Insurance

Professional legal liability is a significant problem nationwide. Many observers believe that there is a crisis in medical malpractice insurance because physicians leave active medical practice prematurely or refuse to treat certain high risk categories of patients because of the high risk of lawsuit and the escalating cost of malpractice insurance. This area has particular impact on the future of reserve recruiting of health professionals. The insurance industry now offers primarily claims-made insurance for physicians and increasingly for other health care disciplines. This type of insurance requires purchase of an extended reporting endorsement or, more commonly, "tail" coverage upon retirement, cessation of practice, or termination of insurance, in order to retain coverage for any future claims made for prior practice. The reserve health professional covered under claims-made insurance, if mobilized, would be required to purchase tail coverage if he wished to be covered for any claims brought against him for the previous period of private practice. The tail coverage often costs three

to four times the cost of the annual premium, which would require a very large lump sum insurance payment upon mobilization. This has potential for a highly negative impact on recruitment of health professionals into the reserve, a problem which has been recognized and is being addressed by the Office of the Assistant Secretary of Defense for Health Affairs.

Attitudes of Physicians and Nurses (Civilian and Reserve)

Through analysis of survey data, the 6th QRMC obtained important insights into the attitudes and motivations of reserve and civilian health professionals. It appears clear that compensation plays a major role for many health professionals both as a recruiting and a retention factor. This is particularly true for nurses, who consistently indicate that compensation is important in their decisions relative to retention in the reserve. The role of compensation for medical officers is less clear; according to reserve medical officers surveyed, compensation is less important in retention decisions. This fact, taken in tandem with relatively low levels of satisfaction with reserve compensation, makes it apparent that other factors are stronger motivators for many physicians who do remain in the reserve. Civilian physicians not in the reserve, however, indicate that higher levels of compensation would increase their interest in serving in the reserve. The QRMC concludes that enhanced compensation programs would make reserve service appealing to a broader percentage of the civilian health care population by expanding its appeal to individuals who would be more responsive to economic motivators than to other aspects of reserve service.

Attacking the Shortages of Physicians and Nurses in the Reserve Components

Since very limited data is available on compensation in support of reserve medical manpower, studies addressing active duty medical manpower were reviewed in detail to determine to what extent findings from these studies might have application for the reserve. Combining data from surveys conducted for the DoD by the American Medical Association and professional research organizations, surveys of reserve members conducted by the Services, and the 1986 Reserve Components Surveys, the QRMC analyzed demographic, economic, and attitudinal information relative to medical officers and nurses in the reserve components. This information was compared with similar information for nonmedical officers. Basic demographic factors and economic characteristics of physicians and nurses in the civilian sector were also identified. The characteristics of reserve physicians and nurses were then analyzed relative to

civilian health professionals who were not reserve members. Major trends in supply and demand for those professionals in the civilian sector were identified.

Based on these comparisons, the QRMC analyzed several compensation alternatives, projecting the impact on supply and cost for each option evaluated. The QRMC evaluated modification of the current special pay for reserve physicians on active duty for training. The program evaluated would provide for payment to all medical officers irrespective of prior service, payment at a flat rate of $450 per month, and expansion of entitlement to periods of inactive duty training. Segments of the stipend program for reserve physicians and nurses in training in the critically short wartime specialties were evaluated at the current rate. A modification of the current loan repayment program that authorizes annual payments in the amount of $3,000 was analyzed for increased annual payment levels ranging from $4,000 to $8,000. Incentive bonuses were evaluated in amounts ranging from $2,000 to $10,000. The impact of attendance at one health education conference or experience annually was also analyzed for health professionals in the Selected Reserve.

The options evaluated were not considered to be definitive or optimal values for inclusion in an incentive program. Rather, the values for the programs analyzed were selected from the range of reserve income observed in the database. The use of values that fall too far outside the range decreases the reliability of the projected estimates. Experimentation with various programs and additional data collection may show that there are other program values that have more optimal effect. The values and responses are offered as baseline estimates for use by planners in developing experimental test designs or compensation policy.

The 6th QRMC does not recommend the payment of all alternatives to all reserve physician and nurse personnel. In an environment of limited resources, the impact of incentive programs can best be maximized through effective targeting of incentives. The QRMC did evaluate the effect of incentives for broad categories of reserve physicians and nurses, including those qualified in specialties not currently classified as critically short wartime specialties, in order to estimate the relative responsiveness of different groups to economic incentives and the projected impact on the total supply of physician and nurse personnel and on budget resources.

Based on the projections of an econometric model, and given the specific alternatives and values analyzed, the QRMC estimated that implementation of the evaluated alternatives could potentially result in elimination of shortages for the Selected Reserve at the FY 1986 level over a five-year period both in the aggregate and for critically short wartime

specialties for both reserve physicians and nurses. In the aggregate, accessions generated by the alternatives would exceed shortages for the Selected Reserve.

Based on the QRMC projections, it appears that additional incentives would be required to eliminate the entire wartime shortfall for the Ready Reserve in a five-year period. The model projects that, at the program levels analyzed, a shortfall of anesthesiologists, orthopedic surgeons, and medical-surgical nurses would remain. It is emphasized, however, that empirical evidence on the effect of compensation initiatives is lacking. Therefore, it is far from certain that the effects of specific initiatives as projected in the model would be adequate to significantly reduce or eliminate the shortfall, even in the Selected Reserve. For this reason, the QRMC recommends a test program of incentives for medical officers and nurses and careful evaluation of the effects of the stipend and loan repayment programs.

Enlisted Health Care Personnel

There exists a significant shortfall of enlisted manpower in the health care skills in the reserve components today. The impact of the shortfall on the failure to achieve medical readiness is compounded by a low level of skill qualification among health care specialists. Yet it is important to differentiate between the readiness problem as it pertains to enlisted health care personnel and the manpower shortage of physicians and nurses. The nature of the problem regarding enlisted health care specialists is not unique among the reserve enlisted population, whereas the shortfall of reserve medical officers and nurses is unparalleled in size and is exacerbated by the unique aspects of their civilian employment.

The basic approach to the study of compensation of enlisted health care personnel was to determine manpower requirements and shortfalls and to compare recruiting, retention, and skill qualification success with that achieved in other military skills and units in the reserve components. To the extent that differences were identified, the approach was to determine whether the health care differed from the nonmedical population, and in what ways, and to discover whether any major variations occurred in areas where compensation policies might produce a beneficial effect.

The primary variances found for members in health care skills compared with other enlisted reservists were lower levels of satisfaction with reserve training, lower levels of skill qualification, and higher rates of unprogrammed attrition. With the exception of the forgoing differences, the QRMC found no

significant differences between health care specialists and other enlisted reservists that would be likely to require special compensation initiatives.

Although compensation programs do not directly address the training-related problems, they can have an indirect impact. Compensation may also indirectly affect levels of skill qualification if compensation is used in a manner designed to attract skill-qualified individuals into the reserve as trained manpower. Yet, whereas a compelling argument can be made for developing unique compensation and personnel policies for reserve medical officers and nurses, the data and information available does not indicate a need for special compensation instituted for enlisted health care specialists. Initiatives are required to address the manpower shortages and skill qualification problems in the enlisted health care skills, but these initiatives do not appear to warrant special compensation programs. The 6th QRMC concludes that initiatives with a positive impact on enlisted personnel readiness in general will have essentially similar beneficial effects on all enlisted health care specialists.

Summary and Recommendations

As a group, health professionals in the National Guard and Reserve have received comparatively little attention until recently. The QRMC study of compensation in support of reserve medical manpower objectives clearly indicates that planning and resources have been directed primarily at active component issues. Over the past 40 years, the immediate demands of maintaining an active duty medical force of the necessary size, quality, and experience have clearly served to divert attention from reserve issues. Although active component issues remain immensely important, the focus on wartime medical readiness as the primary mission of medicine in the military has served to highlight both the critical role of reserve medical manpower and the significant shortfalls that exist.

The history of both personnel and compensation initiatives for reserve health care professionals is extremely abbreviated. It has been recognized since World War II that health professionals as a group, and physicians and dentists in particular, could not be retained in military service in sufficient numbers without additional pay incentives. Personnel and compensation initiatives have served to make military service in the active components more attractive to the health professional. Until very recently, there were no comparable incentives for reserve health professionals.

The analysis and recommendations of the QRMC were conducted and developed within a period of intense concern with wartime medical readiness and reserve medical manpower. There were two new compensation initiatives which had been developed specifically as a first attempt to reduce identified wartime shortfalls of health professionals essential to the provision of combat-related medical care. These initiatives were 1) a program to repay educational loans for health professionals qualified in a critically short wartime specialty and 2) a stipend for specialty training in a critically short wartime specialty. These programs, included in the Department of Defense Authorization Act of 1986, were offered in return for Selected Reserve service.

As part of the DoD legislative contingency, the President's Budget for Fiscal Years 1988 and 1989 included a proposal to revise and expand the stipend program. The program includes these features: 1) addition of a reduced stipend in return for service in the IRR and 2) provision of a monthly stipend for undergraduate baccalaureate nursing students in the third and fourth years of training. This proposal was one of several legislative items referred to the 6th QRMC for evaluation before submission of a legislative recommendation to the Congress. The QRMC reviewed this proposal as part of the initial review of their study of compensation in support of reserve medical manpower. The QRMC developed alternatives to modify the proposed program. It was emphasized, however, that these alternatives were not based on analysis of the costs and benefits of the proposal, relative to other forms of compensation initiatives designed for reducing shortfalls in critically short wartime health care specialties in the reserve components. The QRMC Coordination Council subsequently agreed that the legislative proposal should be forwarded for clearance as part of the Administrations's legislative program. They also agreed that work on other alternatives should continue, because the revised stipend program would not be sufficient to solve the reserve medical manpower problem.

The essence of this proposal was enacted as part of the National Defense Authorization Act for Fiscal Years 1988 and 1989. The new law also extends the loan repayment authority until October 1, 1990, and corrected a technical deficiency by permitting repayment of nursing loans provided under Section B of title VII of the Public Health Service Act.

The Act contains three other measures designed to reduce shortfalls in reserve medical manpower: it authorizes extension of the retirement age to 67 years for health care personnel in the reserve; it prohibits setting the maximum age for appointment in the reserve at less than 47 years for health professionals in a critically short wartime specialty; and it authorizes the granting of service credit to all health

professionals for their health professions experience, if the experience can be directly used by the armed force concerned. The principal effect of this expanded authority was to authorize credit for experience for nurses who have not completed post-graduate training.

The existing combination of compensation and personnel initiatives has an impact on the supply of health professionals to the reserve components. The QRMC analysis indicates that, in combination, these initiatives are inadequate to reduce existing shortfalls at the rate specified in DoD program guidance. This analysis is based on estimated effects on supply. These estimations necessarily have used secondary measures rather than measures derived from actual compensation changes. It was not possible to work with actual compensation changes because the first significant changes were the initiatives included in the Fiscal Year 1986 Authorization Act, and there is insufficient data as yet with respect to their actual separate or interactive effects.

- **The 6th QRMC recommends continuation of the stipend and loan repayment programs; analysis indicates that these programs will help to reduce shortfalls in critically short wartime skills. It further recommends that accessions gained through these programs be carefully tracked with respect to their continuation and use in the reserve.**

The 6th QRMC also estimated the effects on supply of a range of compensation initiatives and of modifications to existing programs targeted at meeting Selected Reserve and IRR requirements for health professionals. It was not judged feasible to recommend a complete program of incentives until more empirical evidence concerning actual program effects was available.

The 6th QRMC recommends three initiatives:

- **A geographically limited experimental test program of an annual bonus for critically short wartime physician and nursing specialties. Since full implementation would require substantial outlays, assessment through a test is warranted.**

- **Revision of section 302(h) of title 37, United States Code, to increase special pay for reserve medical officers when on active duty for training, increasing pay from the current rate ($100 a month for those who have completed at least one but less than two years of active duty and $350 a month for those who have completed two or more years) to $450 a month without respect to previous active duty as a medical officer and to extend this pay to periods of inactive duty training (IDT).**

- **A review of current procedures for funding and ensuring compliance with DoD Directive 1215.4, which stipulates that health care officers shall be afforded an opportunity to attend one health education conference or experience on an annual basis.** QRMC analysis indicates that this is a cost-effective incentive that can assist in both attracting and retaining reserve health professionals.

The 6th QRMC also found that the provisions of current statutes for appointment and promotion of reserve health professionals were inadequate for the most effective personnel management of the numerous categories of health professionals. The statutes also result in unwarranted differences among the Services, differences that directly affect the compensation of reserve members.

- **The 6th QRMC recommends early consideration and enactment of the Reserve Officer Personnel Management Act (ROPMA), which includes provisions that will materially improve the management of reserve health professionals and provide the capability to treat reserve health professionals in all reserve components in a uniform and equitable manner.**

Notes

1. A minority view in favor of a mandatory requirement with fenced funding was expressed by the Reserve Components Medical Council (RCMC) representative on the 6th QRMC Steering Committee.

APPENDIX A: 1986 RESERVE COMPONENTS SURVEYS

All respondents to the 1986 Reserve Components Surveys were given the opportunity to comment at the end of the questionnaire, where the following prompt appeared:

> We're interested in any comments you'd like to make about Guard/Reserve personnel policies - whether or not the topic was covered in this survey. Do you have any comments?

Respondents also marked a coded response block, indicating whether or not they had filled out a comment sheet. This enabled the QRMC to determine the percentage of respondents, in various categories and with varying attitudes on major issues, who filled out comment sheets. By comparing the characteristics and attitudes of those who provided comments with those who did not, it was then possible to judge the extent to which those who provided comments were representative of all respondents.

Overall, one of four officers and one of every five enlisted members provided written comments. Senior members in both officer and enlisted categories were somewhat more likely to have provided comments. There were only slight differences between those who commented and those who did not; differences related to the sex of the respondent, their intent to stay in the reserve, or their overall satisfaction. Those dissatisfied or very dissatisfied with pay and benefits or with leadership or training were more likely to comment than those who were satisfied with these aspects of their service.

About one of every five spouses who responded to the survey provided written comments. Unlike the members, the percent of spouses who provided comments did not vary by the member's pay grade. Whether or not the spouse had previously served in the military did not affect the percentage who provided comments. Neither the participation status of the member--part-time unit member, IMA, military technician or AGR/TAR--nor the likelihood of the member staying in the reserve for a full career affected the rate at which spouse comments were provided. Spouses who were dissatisfied with the member's pay and allowances or with the member's participation in the reserve were about twice as likely to have provided comments than those who were satisfied, favorable or indifferent on these matters. About one out of five spouse comments was written by an individual who was

dissatisfied with their spouse's reserve pay and allowances. In aggregate, it appears that those providing comments were representative of the population surveyed.

Although the National Guard and Reserve members and their spouses who provided additional written comments appear to be generally representative of the population surveyed, the comments included in this appendix cannot be said to be representative. The process of screening over 20,000 comment sheets was systematic, however, and does provide additional insight into the issues being considered. QRMC staff members who had participated in the unit visit program read through the comments and used predesignated codes to identify categories of comments for subsequent review. Most of these categories related to compensation or other personnel issues affecting overall satisfaction with the Guard and Reserve. The coded comments were then reviewed, and representative comments on each subject recorded. There were a great many categories of comments related to compensation issues. Comments pertaining to full-time support, reserve retirement and medical compensation are provided in Volumes IA, IB, and IC, respectively. The five categories of compensation-related comments that follow are the other categories that were most frequently the subject of member and spouse comments and are presented in separate sections of this appendix:

- Timeliness and Accuracy of Pay
- Unpaid Duty
- Special and Incentive Pay and Educational Incentives
- Allowances and Travel Expenses
- Employment Conflicts and Concerns

Timeliness and Accuracy of Pay

Army National Guard

Officers

"TDY pay should be processed much faster. I would fire everyone at the finance office and start over. The last time I submitted a claim was Feb 2, 1986. As usual I haven't been paid as of this date."

"The National Guard advertises a College Tuition Assistance Program. We use this factor in recruiting personnel for our unit. The problem is that ARNG does not fulfill their obligation. In the 5 years that I was attending the university my college tuition was paid 3 times. In the past year, at least twelve people in my unit were attending college, only two of the twelve (tops) received tuition assistance. This issue has

produced many morale problems for our unit. This problem has existed for the period that I have been affiliated with the unit."

Spouses of Officers

"He has to take several trips to Ft. Polk a year. This would not be so bad, if it didn't take six weeks to get the pay for this. He usually has to take enough money for motel, gas and meals, and we can't recover these expenses for six weeks. At one time the guard furnished him a vehicle to drive on these trips, but not any more. He has to take our private vehicle."

"Why does it take so long to get paid? Drills take 2-3 months and extra FTTD takes 4-5 months."

"Its annoying that guard per diem checks are so slow in coming. My spouse has had to wait 3 months recently to collect on per diem due him. Mistakes on paper work seem to be the biggest problem. Clerks must not be following required guide lines on paper work."

Enlisted Members

"The only problem with the National Guard I've had is that I put in for my Educational Assistance Bonus in September 1985 and I still have not received it."

"I was complaining about my scheduled bonus it has not come yet, and it almost three months late. I would just love to get what I deserve."

"I feel the two month delay upon receiving my monthly check is not necessary and causes extra hassles for me."

"For whatever reason, pay problems are not handled in a quick, efficient manner. I have back pay coming from 1 1/2 years ago."

"Due to my rank and position I have a lot of unreimbursed expenses. My distance from the unit and cost of travel are not involved. I am talking about meals and quartering when on duty. Oftimes, Government meals are not available or impractical to attain due to mission requirements and location. Military Finance always deducts cost of meals if government meals are supposedly available. This seldom is true. The extra time required ir non pay status and weekend drill. Quartering is also additional expense that mounts on some occasions."

"Whenever there is a problem with pay it takes months (too long) to correct. (ex:) January pay still not corrected by end of May, even though I was told 3 times that it would be processed."

"If you don't get proper check, it takes forever to clear it up and sometimes you never get it."

"I did not get my bonus for the year of 1985."

"There are severe problems with BONUS payments; sometimes arriving up to a year late."

"I think all military pay that a soldier has coming for summer camp should be paid at the end of summer camp, not 6-8 months later."

"When I first enlisted 5 yrs ago I entered under the Educational Bonus ($1,000/yr for four yrs.). I have been able to obtain only the first payment of $1,000 which was 4 yrs ago. I have submitted the appropriate paperwork several times, talked to several individuals & have yet to see any of the remaining $3,000 of my bonus. With only 9 months left of my initial service time, I do not believe I will receive this money. This is a major reason I will not reenlist."

"The pay system for Guard/Reserve components needs change. I am already late for pay as much as Jan '86 and now March '86! One check takes two months for processing."

"Reenlisted in Oct 12, 85. It is now April 12, 86. I have not received any bonus, benefits, which was promised to me for reenlistment."

"The monthly military pay is not distributed correctly. I have not been paid for seven months. Someone should check the computer or survey the problem."

Spouses of Enlisted Members

"ADT pay very slow to come thru! Do not like to use and tie up house hold money - pay master does not seem consistent."

"There have been times that my husband has not been paid the full amount for the time spent at drill. They tell him they will make it up the next drill. He gets part of it. They will make it up the next drill. No more comes. We can't afford that as he doesn't get paid at work when he is at Guard."

"My husband has never received his (1985 November pay) for his monthly guard drill. He has turned this problem in to higher officials. He was told something would be done. As of now 5 months later, we still do not know about the check. I feel there should be better follow up on such lost checks because the men who have guard duty are required to be there on each drill or make it up."

"Took 6 months for re-up bonus check. Unit should always pay immediately after attending any military school, not a month later. Travel pay should be in hand, not a month later when you return home."

"I think National Guard should get their act together on their pay & paper work. My spouse went to Redstone in Aug. in 1985 and still has not been paid for travel as of April 1986."

"We depend on my spouse's monthly Guard check very much. It makes life extremely difficult and is very frustrating when for reasons unknown the check is shorted or doesn't arrive at all. My husband attends his drills and is proud to be part of the Guard, why can't the Guard do it's part?"

"We have not been paid for 3 months out of the past year!"

"There have been about 3 or 4 times my husband agreed to do some extra duty or over-time however you put it and was supposed to earn wages for this and since it takes a month or so to receive pay. Somehow my husband never received extra pay."

"My husband was told when he enlisted that he would receive a $2,000.00 bonus when he graduated or got his GED. He got his GED and never got his bonus."

Army Reserve

Officers

"I am extremely dissatisfied with the manner in which pay is handled at my unit. For example, I still have not received travel pay for AT in Sept of '85. It took <u>months</u> to receive <u>any</u> pay when I attended the Advance Course in Tx. I was also paid for 4 yrs. not 6 yrs. with no success at correcting the problem to date."

"The pay procedures are too complicated and too slow. I received Oct. 85 drill pay in Apr., 86 after I spoke a dozen time to unit finance technician. Sometimes the order for ADT is not coming correctly; the dates are shorter than actual duty and states the place is commuting distance while it is no, etc."

"I feel that the Army Reserves need to evaluate the ineffectiveness of their pay systems. All members entering the unit must wait 4-6 months to receive pay and sometimes longer. The unit pay personnel can only reply 'it is the computer system' and can not give adequate information."

"Pay for A.T. & basic not on time - waiting period 4-8 weeks."

"I have found through the years that the transition from active duty or active duty for training back to reserves resulted in pay/finance problems usually requiring 6 months or more to rectify. Loss of pay records and rotation of AD finance individuals responsible make the paper trail extremely difficult to follow. While on active duty because of pay restrictions (i.e. funding for ADT) I have been required to have as many as 5 different orders to continue be paid and remain on active duty. This required contacting ARPAC numerous times to follow up and insure amended orders were cut and sent."

"I feel that pay problems need to be handled in a more efficient and speedy manner. It recently took 18 months for me to get pay for a promotion. No one could tell me why it took so long to get processed at Ft. McPherson, GA."

"The pay system is often inaccurate and once errors are made, require a prolonged period of time to correct. In all, I have had problems getting paid for 6 drills and am even now missing pay from a drill 8 months ago and have not received per diem for active duty 5 months ago. Many other unit members have had problems with pay and this has figured highly in many members leaving or contemplate leaving the unit."

"Continuing pay problems."

"Pay system is not efficient. This is May 1986 and I am still trying to get paid for drill days in Sept. 1985."

"Pay is slow and gets screwed up 3 or 4 times per year."

"I am very dissatisfied with the pay procedures in the Army Reserve for Active Duty Training Pay. In 1985 it took, on the average, 62 days to receive pay for duty performed, this is calculated from the day the DA Form 1351 was submitted to the day the check was received. This caused a hardship in that I had to front the money for food, lodging, and travel which cost me 18% for two months, more importantly it tied up the money which could not be used for other living expenses. This was compounded by lateness in publishing orders which were usually received 2 to 3 days prior to the duty which prevented applying for advanced travel and per diem."

"I received my W-2 form from the Army. My husband and I file jointly. We had our income tax forms filled out by a CPA costing $60. I later received a revised W-2 form from the Army dated 28 Feb 86 after our forms were sent off. Now, it will cost an extra $60 to send in an amendment."

Spouses of Officers

"Upset by the disruption of the flow of money for time served due to problems with the finance system."

"Need a more efficient pay system - it takes too long to have pay problems straightened out."

"Part/most of my husband's AT time is broken into evenings & extra weekends. Most often there is extra mileage on these occasions plus the loss of family time. We give of this time & expense willingly so my husband may do the best job possible for the USAR - however checks are often received at least 8 weeks from the time he submits the orders - meaning at least 9 or 10 weeks (up to 4-5 months sometimes) before we are paid for those days. This is a lengthy time span and can be a frustration."

"I would like to see reimbursement for AT expenses received more promptly. Also, monthly paychecks received on a more regular basis."

"Pay changes stink!!! We waited 18 months for her last promotion pay to be made correct. She was not given her increase in pay during that time. We are still waiting for the adjustment for her AT pay last summer. We still have not been paid at the correct rate. (O-2 grade instead of O-1 grade.)"

"Extremely dissatisfied with the following:

1. Length of time taken to compensate people for promotion. My wife was promoted in May 1985, with the actual promotion taking place in December 1985 (due to backlog paperwork?) To this date, June 1986, she still is being compensated at a pre-promotion level and we are still awaiting backpay for those drills participated in since May 1985.
2. Length of time to reimburse personnel for expenses associated with special active duty requirements (i.e. school, seminars, etc.) My wife attending a seminar in early April 1986 and we finally were reimbursed for 'out-of-pocket" expenses 8 weeks later. In private industry this would be totally unacceptable."

"I would like to point out that on the average, since my wife has joined the reserves her paychecks has been late one month out of each year. During that month the check does not arrive at all, but is bumped into the next month. This is shoddy."

"As a result of my PCS, my spouse had to change USAR units. Since the time of our move, her payments for drills have been thoroughly screwed up. She drilled from Dec 84 to Jan 86

without a single payment. In Jan 86, I estimate that she was paid 1/2 of what she was owed. She still has not been completely paid for drills that go back as far as Dec 84."

"My husband serves with a small unit with excellent personnel, including the individual assigned payroll duties. Yet, there seems to be on-going and reoccurring problems with payroll. I believe there is a serious system problem. An army that can't pay its members, correctly and on-time, when we're at peach will likely have very very serious problems during war time. I know of one very talented reservist who left the Army Reserve because he received not one check for a six month period of service."

"I strongly object to the Reserve policy of reimbursing payment for lodging/rooms, airfare, rental cars, etc. Trips for the Reserves should not have to cut into family management income or necessitate using own credit cards for reimbursement at some unspecified date in the future."

"My husband has always gone beyond the call of duty, e.g., extra time, extra drills, vacation never a priority but active duty training & extra drills are the priority. And for this there have been 10 years of pay problems. You learn to accept this way of life but at times the delinquency of the pay for the time & expenses already incurred make it all very questionable."

"Delay in active duty payment has caused hardship because my spouse lost two weeks civilian salary for period of active duty. (Occurred 3 consecutive years)."

"We are concerned about the amount of time it takes to be reimbursed for expenses other than regular weekend drills. Also, a big concern is the delinquency in receiving notice by letter of 20 years participation in the Guard and Reserves. (We have waited 2 years and still have no letter.)"

"Some improvement is required for the timely repayment of expenses incurred on military trips. Waiting 3-6 months for the military to reimburse the service member for his cash outlay (+ interest charges) is ridiculous."

"Finance is particularly bad; you will probably get the money, eventually, but don't rely on a consistent monthly amount for budgeting purposes."

"Pay irregularities. This is especially true now (Oct 1985 to present) with a garnishment of wages ($800 plus interest) for travel pay we were given for an authorized PCS move while my husband was on active duty for training. We were due the money, and because they have no record of a $76 repayment we have been penalized the entire amount. Without, I might add, any prior inquiry from the military pay system. We were just informed

that the money would be deducted from my husband's regular drill pay until the entire amount was repaid. (Guilty until proven innocent.) We have spent no less than $50 in mailing and long distance phone costs, not to mention the time and aggravation, trying to resolve this issue. It is still not cleared up and may not be for some time. Other errors made in military pay and current mailing addresses have been an unnecessary nuisance as we have learned it takes months for errors to be corrected."

"The Army Reserve Pay System is in a perpetual state of confusion & error. One pay problem now goes unresolved for approximately 3 yrs. This produces a hardship on the family budget. One can never count on receiving a monthly pay or a correct amount for the monthly pay. To see this problem resolved would be a relief."

"Lack of sympathy & co-operation to get pay when leaving Active Duty. He does not get any income from his civilian employer when on military duty, so the Army check is critical. We've both had a lot of stress hoping all the paperwork would be pushed through in time."

"The problem is in how your pay system works. Because of an error somewhere along the line my husbands paycheck was made out & mailed to the wrong person. The check was voided and was not reissued for 3 months. We also did not receive any pay for 3 whole months. There is something wrong in a payroll system that does not allow for reissuement of a voided check, especially when the error was not ours. The private sector would not be allowed to get away with nonpayment of wages for 3 months."

"My only comment is that when my wife, a nurse, goes to another unit to work for a day or weekend (RST), she has had trouble getting paid (sometimes months late). If I worked somewhere temporarily for my [illegible]any and I was not paid till much later my wife would throw a fit."

Enlisted Members

"Pay is a big morale factor for us and when pay is stopped or other wise interrupted by administrative mistakes at posts other than reserve unit, it becomes a great deal stressful."

"Unit Administration staff is unsatisfactory! Personal problems that deal with higher echelons (ie AD/ADT pay) are not dealt with swiftly or effectively. Apparent 'snow jobs' by these higher commands are accepted by management and staff. A persistent questioning of the replies presents a pushy or attitude problem on the part of service personnel. At this time pay problems concerning myself and PLDC attendance are SNAFU. To summarize, personal problems are not swiftly solved unless they can be solved within the company limits."

"Army's pay policy is rather archaic. Difficult to get pay (2 months delay). Other branches of military don't seem to have that particular problem."

"On question number 123 the reason I'm dissatisfied is cause I haven't received my drill check for January 1986, plus most of the time the Army Reserve screws up my pay check."

"I feel that the pay system is too slow and outdated."

"Be sure that people are paid on time and the proper amount. We lose a lot of people cause pay was overlooked or orders were not paid enough attention to."

"Personnel administration at my unit is poor, due to a shortage of competent and qualified support persons at higher levels of command. For example, travel orders not being properly published, over 80% of the students attending the last ADT school were not paid at the completion of the school (this includes cadre) due to lack of orders."

"80% of the men have pay problems - of not getting paid. Some haven't been paid for over a year!"

"I just first received my first loan payment after a 1 1/2 year battle with my unit administrator and people at USAFAC. I don't believe the people at USAFAC tried to help me at all. Currently, I seriously doubt I'll ever receive it all."

"My military pay has been a real source of dissatisfaction. I have not been paid for all drills I have attended. I have talked to several others with the same problem. This needs to be investigated as it is a serious problem."

"I am dissatisfied with pay in reference to a unit member not receiving their pay on time, with know effective means of resolving the problem until the unit administration decides too."

"The new "credit-card" pay system is unwieldy, inefficient and terribly time consuming - to the detriment of training."

"My enlistment bonus after 3 years is still screwed up. I'm getting sick and tired of the run around I get in trying to resolve all my pay problem."

"I went to PLDC in Oct. and Nov. 1985 and did not receive any pay whatsoever. The orders were not turned in by the training officer."

"My wife and I are both members of the same unit. It took 4 months for my wife to receive the 1st pay which was incorrect. Realistic estimates of time to 1st pay should be given and this time should not be >120 days maximum."

"The time in receiving my educational bonus took awhile - I am still owed money from last year."

"The pay system does not work as efficiently as it could. It can brake down and takes way too long to correct any error. Being on a set income I can not afford any error."

"Dissatisfied with unit personnel files upkeep. Still trying to get 20 year letter, after 22 years of service."

"Extra money "NOW" is not a correct statement, it took me 9 months to get paid."

"Getting...sick of...coming out during the month and not getting paid."

"There is a serious problem I perceive at RCPAC with keeping retirement points straight."

"I'm very disappointed with the pay system. Before I went to basic the Army owed me a lot of money. I figured I would forget about it and start fresh. I returned from basic in Sept. & haven't been paid since. Nor have I received my bonus. I find it a major disappointment & I find it hard to leave my civilian job & show up for drills in which I don't get paid."

"I received an immunization shot prior to going to Germany with my unit. I had a allergic reaction to this shot, therefore I had to be rushed to the hospital. This happened to me in Aug 84, I was told the military would take care of all bills. It is now almost 2 year later and I am still receiving bills from the hospital. When I get these bills I take them to drill with me and they take the bill and tell me they will take care of it. Now the hospital is threatening to ruin my credit because the bill is not paid."

"I feel that the pay system should be more effective. I have had pay problem for the last three years."

"Pay problems such as receiving annual payment of reenlistment bonus four years in a row and then not receive it when due, not being paid from months on up to a year for drills etc., should be addressed."

"I also wish to bring to your attention the fact that there is much disappointment in the way which the units administrators, civilian and military, tend to problems such as re-enlistment, bonuses, back pay, school bonus reimbursements, cutting of orders etc."

"I feel we have a problem in reserve finance department. Sometime we don't get paid on time or don't get paid at all."

"The methods and procedures regarding pay are very unsatisfactory. I have been waiting for 18 months for an enlistment bonus."

"The only suggestion I have is that the unit could set up a better way to get your paycheck processed faster after you return from active duty. It took 6 months for me to get into the computer and receive my first check for drills."

"I'm very dissatisfied with the procedures for paying out the initial enlistment bonus program. I am yet awaiting my bonus. It was sent out in Aug., and got shoved around because no one in Finance knew how to handle the problem. And to make it worst they didn't notify my unit until it was 6 months late."

"The worst thing about the Army Reserve System is the fact that we have to wait 2 months to receive money for drills we did 3 months ago. Why are Reserve personnel paid thru a system which is always 2 months behind!"

"Also it take too long for newcomers to a unit to get paid."

"I am very dissatisfied with the unit administration. It is now mid-April 1986. I am still waiting to be paid for travel, food and lodging expenses I incurred in December 1985."

"I would like to make a comment about the procedure for pay at annual training. I feel that reservists should be paid while at AT and not have to wait until the individual returns to his/her home station and then send in orders for pay then have to wait another one to two months before receiving their checks."

"Pay - one of the most pressing problems we face. Our people are not getting paid. The unit is doing what is required but 6th Army cannot get the checks issued correctly and on time."

"Pay - this is an ongoing problem. Two things always seem to happen. (1) No pay for drill weekend. (2) Or partial pay for drill week-end. Pay problems have to be resolved during the week rather than drill week ends. This presents a problem for people who live 50-75 miles from drilling unit."

"I would like to see the pay system be handled a little different so we don't have to wait two months or more to start to get paid."

"...we can make to drill on time, surely, our hard earned check be on time."

"Out of 4 years of service, I have been paid the correct amount on time, maybe 6 months."

"Totally unhappy with military pay procedures. More often than not, we are not reimbursed fully for the monies spent during annual training and active duty training. The pay submittance procedures has many niches and small units do not have full-time qualified personnel available to assist in these matters."

"How come it takes so long to get pay when transferring from one unit to the next? I haven't been paid for 3 months. I know of others who haven't been paid in 6 months or more."

"The benefits become so entangled in paperwork & red tape that some of these people give up and quit the Reserves because of it."

"I am dissatisfied at receiving monthly checks a month late such as:

Monthly Drill	Check Received
14-15 Dec 85	3 Feb 86
11-12 Jan 86	3 Mar 86
8-9 Feb 86	2 Apr 86"

"I received an Airborne related injury at the beginning of Annual Training which resulted in a broken left leg. As of this date I have not received one cent of payment for said injury. I was off my civilian job for 2 months and was forced to use all of my built up sick time in order to meet my bills. The proper paper work was completed and sent in 4 months ago."

"Supposed to receive bonus for 6 yr. enlistment - 3 years have gone by and no bonus as of yet. Six packets of my records have been sent in and no word yet."

"The pay procedures are very unorganized in my unit. There are people who haven't received any pay in over a year. A lot of people, including myself, are due back pay from drills attended without pay and also bonus pay."

"Very dissatisfied with the pay system - appears to operate without competency ie finance often not aware of changing forms; pay problems often extend >1 year."

"The educational bonus should be separate from the monthly drill pay (ie. I turned in a school tuition bill for $1000.00. I received the check 5 months later and received only $800.00 of the $1000 and did not receive my pay for the month drill."

"In 20 years I have never seen anything so poor as the pay system this past year. This must be made a top priority to improve the system."

"Don't receive monies for RMA's, ADT, travel pay for more than year now."

Spouses of Enlisted Members

"Husband performs tasks/jobs for USAR on off duty time (i.e., weekends) at request of senior officers and then has miles of red-tape or months of waiting before receiving monetary pay earned. (Still waiting pay for August 1985.)"

"He has also had some pay problems - receiving pay for made-up meetings. It has taken over 6 months. to receive this pay even though the drill was made up the following week. This seems very unfair especially when you count on that money each month."

"There should be a provision made so that the reservist does not have to spend money out of his own pocket when he attends ADT at AT. The time is too long in filing and being reimbursed for the money being spent out of one's own pocket."

"The pay is bad & since coming back from active duty training his pay has been messed up for five months. He's received about 5% of the pay due him for his reserve duties, and keeps getting the 'run around'."

"I wish the Army would pay 'on time.' We haven't got a check for 2 1/2 months. Unfortunately, the bills are always 'on time.' The Army owes my husband about $1,800.00 for full-time work he put in, since he has no other job."

"...it takes an excessive amount of time to rectify pay problems, etc. - often several months at best. Frustrating!"

"...when he transferred from National Guards to Army Reserves someone got his papers messed up - resulting in his not getting paid for several Drill weekends. We are still trying to get all the back pay that was due to him. If one of his main objectives is to supplement his income with this Drill pay why is it so complicated to get paid?"

"For the most part, pay checks are issued for duty performed on a regular basis. However, when your payroll shop makes a mistake:

#1. It always shorts my wife's pay. (never an overpayment).
#2. It can't be fixed for at least 30 days because of Army 'precedent'.

Since we budget my wife's reserve income into paying our monthly bills, its more than an inconvenience when you make a mistake. We have to scramble to meet our obligations while you take your time meeting yours. If you want this spouse to feel better about his wife's involvement in the Reserves, you'll find a way to make your payroll unit more responsible when they make mistake."

"Wish someone would do something about my husband's pay problems."

"My most current complaint is pay. My husband is currently on AT home station. He has been told that he can expect to receive his pay up to 2 weeks after his AT is over. This makes it difficult to plan for this money. Since my husband's reserve pay always helps to pay bills, tuition, doctors, etc., the not knowing when the money is coming is hard."

"The only complaint I have towards the USAR is that it seems whenever my husband takes special schooling and donates more time and weekends, his pay is always late or his orders are lost. It always seems there is a lengthy delay."

"The problem is getting paid for some within a reasonable time. Sometimes we wait 2 to 3 months. The expenses checks are even longer getting to us. Sometimes his orders are not right and then he doesn't get the right pay. They make amendments to the orders and you still don't get the pay. We are still waiting for some that happened back in December 85."

"We also have had problems in the past with receiving the pay for the drills with the money arriving three months late which causes a lot of hardships."

"My greatest dissatisfaction with my husbands reserve experience is in the time it takes us to receive pay and reimbursement that is above or beyond his monthly drill pay. He went to an extra seminar in Nov of 1985 and was to be paid for the time and reimbursed for expenses. We have yet to receive that pay. All we get from people responsible for tracing why we have not received the check is - 'We'll fill out a form.'"

"The unit that he's with makes out a yearly drill schedule that changes within a month or two tops - he usually doesn't know until about a month in advance when his 2 week training is. Also...another problem is the ongoing problem with his pay & getting it. He's continually getting his checks late, getting the wrong amount of pay & it's taking years for them to try to catch up with his present pay grade. For example for two years he got pay as an E2 while he was an E3 & E4."

"I would like someone to check into the Payroll Department of my husband's unit. He has reported for 6 weekend trainings and 2 other nights, and has only been paid for 2 weekends. Also they promised him a bonus ($1800) to re-enlist. He re-enlisted for 6 years and we have received nothing. When he checked with the payroll department in his unit, they told him his name wasn't in the computer."

"I am very dissatisfied with the payroll personnel. I think you should insure that the proper military personnel are placed in their proper slots and that they know their job! We have had numerous problems with our pays and when it is a major contribution to our income, it puts us in a terrible predicament. There is 'no' excuse to have to wait six months or more for a payroll problem to be solved."

"I have no problem with my husband being in the reserve. The only complaint I have is the manner in which he is paid when asked to go to a school or etc. You are expected to use your own money and then be reimbursed. It usually takes too long to get reimbursed. My husband went to a school in Jan., it is now April and we still have not got paid."

"I did not appreciate the lax attitude the Army Reserve unit had/has with paying its members timely and properly."

"My husband flies and if the helicopter breaks or they have to go cross country he has to pay out of his pocket to stay someplace. They get reimbursed but that does not help when they start running low on money or when it cuts into family money to pay bills. They need to get a better system for this."

"Pay for mandays/RMA's/travel pay is horrible. If it is ever received at all it is only after continuous harassment of pay people, (unit technicians) & then is several months late."

"Additional training for the men is good but it can create a financial hardship when you must pay for transportation, housing, etc and then wait to be reimbursed."

"I don't like my husband being sent to school for and extra weekends a month and can't get paid for his time for months later."

"It would be very nice if the reserves would be a little more prompt with reimbursements, a year is a little long."

"I don't like having to wait 3 months for each paycheck!. It took too long to get the first one."

"I do wish the pay system could be improved. There are many months we are $1500-$2000 behind on pay and reimbursements. Pay that has to be taken out of our family savings account to pay months bills, because my husband has taken leave of absence from his civilian job and the Army doesn't pay him his wages until 2-3 months later for time he has put in with them."

"My husband was told upon enlistment that he would receive a promotion before they sent him to school in Virginia. This was in July, 1984. He didn't receive the promotion for nearly a year, and then it was another year before they paid him for his higher rank. They didn't pay him for his drill for Dec., 1984 or the two drills in March, 1986. It cost my husband money for gas plus his time for drills, then when he doesn't get paid, that puts us 'in the hole' financially."

"I'm very dissatisfied with the length of time the Reservist and dependents must wait before pay for special duty or annual training is received. I speak for my family and one other, it has created severe financial problems at times and if there were not a small savings account readily accessible it would have created a greater hardship."

"Pay problems are almost impossible to get straightened out. My husband went to two schools in August of 85. Because the orders were not done correctly he has still not been paid for the second week of schools, this is April of 86."

Naval Reserve

Officer

"Then there's the question of pay. It took eight months after affiliating with my unit to get my first paycheck. Eight months. I understand that's not unusual. It may not be unusual, but it is disgraceful."

"The Naval Reserve 'RESFIRST' pay system is too complicated, and does not work well due to the inability of those administering the system to keep up with the paperwork."

"I would advocate reimbursement for travel for reservists living over 50 miles from their drill site."

"Travel is paid for one ACDUTRA but per diem should be paid for any split ACDUTRA whether ACDUTRA is split in two or more."

"I would like to shed some thoughts on the Navy Reserves pay system/procedures. I fail to understand why a more serious stance has not been taken regarding reserve pay for new affiliates. I feel there is a serious problem with a system which allows these new reservists to wait up to six months and longer before he or she receives the first pay check from Cleveland. I do not believe there could possibly be a valid excuse for those occurrence. Most new affiliates come to the reserves from active duty tours where normal living expenses and debts have occurred. Many are still seeking careers in the civilian sector. As we all well know, mortgagors, banks, IRS and other creditors do not accept promises for payments without penalties. Therefore reservists who elect to give up time with family or friends to serve their country ought to be treated with more concern. It would be a far more fair system is new affiliates were given a cash advance and then if the need arises monthly deductions could be assessed to recoup any overpayments. Overall pay problems take low priority at your level, but in actuality it is a very high priority among drilling reservists."

"The few complaints that I do have are with agencies outside of the unit. The people conducting payroll have not been doing their jobs thoroughly. People are not getting paid or not at the correct rank/grade. NMPC and NRPC have a difficult time in obtaining and keeping necessary documents for service jackets/promotion."

"The Reservist pay system is unsatisfactory. Numerous SELRES I have been associated with during the past 11 months have experienced lengthy (6-10 months) to get into the complex pay system and get their pay for drills performed. Navy Finance Center in Cleveland is <u>unreachable</u> - they have admitted to my YN/PN personnel that they leave their phones off the hook and I believe them. I have tried to call, too. Pay problems beyond local control RESFORMAN command and PSD/NAVCEN level), along with the difficulty in reaching NRPC and NFC Cleveland is causing many SELRES to become very frustrated and unmotivated. They ask me why they have been drilling for 6-9 months without pay, and as the personnel officer, I can not give them anything but the Reserve salute as an explanation of the pay system. It needs fixing!"

"When initially joined the reserves it took better than 6 months to straighten out the paperwork. Might add that entailed a severe financial burden as I was in graduate school and not working."

"Reserve pay is adequate, however getting paid in a timely manner is most unsatisfactory. Often I have been owed significant sums of pay by the Reserves and through no fault on my part, the monies have not been paid for periods as long as a year. Often it takes this long to get pay problems corrected.

The pay system is not responsive to efforts to correct problems (whether the problem is a diary entry or administrative error). In my experience, my pay problems have not been isolated cases. Getting paid the correct amount in a timely manner is a problem through out the Naval Reserve. Furthermore, unless the individual Reserve member closely audits his pay each month to detect the errors, and then initiates long and time consuming efforts to correct the problems, the administrative system or disbursing in Cleveland (Navy), should never detect that a reservist has been shorted pay and initiate action to correct the under payment. Not only must the reservist meet all his military requirements, but often has to 'chase' his pay after he has earned it. Pay problems in the Naval Reserve are a cause of much frustration and dissatisfaction with the system."

"While the pay is satisfactory, processing leaves much to be desired. If, for any reason, a problem exists with pay, a minimum of four weeks passes before correction. This is compounded by the timing of the receipt. Often, the problem isn't known about until the pay voucher is received. If a correction is required by the time it is processed the cut-off for the next cycle has been passed, meaning resolution takes two months. For lower grade ranks/rates, the loss of pay is a severe financial blow, reducing morale and impacting on retention."

"My biggest single complaint is with the Naval Reserve Pay System. My pay checks have been incorrect 4 of the last 9 months and at one time over $2000 in arrears! This is unsatisfactory and many others have the same problem. The glitch seems to be in Cleveland at the Navy Pay Center. Perhaps we could pay locally like the ANG? If not, make the system and computer work!"

"Pay. The management of Navy Reserve drill pay by Navy Finance Center, Cleveland is atrocious. Despite careful preparation of pay slips at the Reserve Unit level and good support from our Reserve Center, the pay checks of nearly all our service members repeatedly come up short. Telephone calls and letters to Cleveland are ignored. The shortfalls in pay are the greatest detriments to morale that our unit faces. Does anyone out there care?"

"The Naval Reserve Pay system is a disgrace. We have had too numerous problems to list in our command. Pay problems have been prevalent for over a year on some selected reservists - caused members to quit and seriously affected the morale of our sailors. Problems seem to be centered around flight pay and drill cutoff dates and are compounded by an inability to reach anyone in Cleveland who is willing to work toward a solution. There needs to be standardization in drill cutoff/payment dates,

a "chain of command, or checklist" for solving pay problems, and representatives within the command (not PSD) who are willing to help us."

"Drill attendance is poor, primarily because many reservists end up going months without getting paid."

"I feel, that I am a very motivated Naval Intelligence Officer, I am dedicated and enthusiastic about the mission and assignments. However, when faced with the many frustrations encountered in the administration of the NRIP motivation is at times difficult to muster. For example, it took my having to travel to Washington D.C. to straighten out my pay problems (9 months without being paid) and for them to get my Base Pay Entry Date correct."

"Significant delay in pay, up to 6 months for officers, hinders recruiting and destroys retention of female officers, particularly nurses."

"I began drilling in a pay status in June '85. No one would work with me to discover what was causing my pay problems until 6 months had passed. (It takes 4-6 months to get an officer paid was the normal quote). I finally received pay in February. I would suggest a system of double checks - this is inappropriate for anyone - besides, the pay is still not correct."

"Pay problems go unresolved for months, even though addressed through proper channels."

"If the fleet was as snarled up as the personnel record keeping and pay system of the Naval Reserve, they would never have found Libya and probably would have bombed Israel. The present 6-8 months lag time in getting their drill pay started is a great discouragement to young officers in transition from a full time military to a civilian part-time military career."

Spouses of Officers

"As most families are on a tight budget, we are no different and when my husband gets called away for an extra weekend meeting that is out of our area and most of the time out of the state we are expected to pay the bill for his transportation, meals, rental cars, hotel room etc. This money has to come out of our monthly budget and we have at time had to wait up to 4 months for reimbursement for these expenses which is totally unsatisfactory. If these meetings are to take place then provisions should be made ahead of time so that the burden of these expenses are not carried by the family."

"Officers of reserve units are generally understaffed, unorganized, inefficient. I've found that very little is done unless my husband looks out for his own welfare - including financial difficulties. Drill chits are misplaced or lost altogether, often processed months later."

"If my husband is going to be separated from his family and is dedicated enough to devote his free time to the Naval Reserve, I feel he should be financially compensated - on time."

Enlisted Members

"Only one problem I have encountered, which to this day has not been resolved, is travel reimbursement for modified ACDUTRA. Since I am not in a disbursing rate I did not understand procedures in this matter and when asked for help did not receive a response that directed me to an acceptable solution. The outcome was that I paid my own fare to a training site. I cannot understand this."

"...if the reservist did not get a paycheck he will not find out why until after the reports are in; and he cannot get paid until the following month."

"My only negative comment is in regard to the payment of bonuses. Upon entering active reserves I contracted for an affiliation bonus. That was June or 1984 and since I had fewer than 18 months left on my six year obligation I should have received the bonus in October 1984."

"I spent 2 extra weeks on ACDUTRA in Subic Bay because of worker strike. Then only got paid for 5 of those days. Still waiting for new orders to come in to get the last 9 days pay. 6 other people in same boat. We extended to help USN out then get stepped on."

"For the last (many) months I haven't received any pay for my drill weekends. This situation is getting very old I would like it very much if this was worked on."

"We almost lost one man because he didn't get paid for six months."

"I have not been reimbursed yet for the travel and meal expenses I took care of myself on the last two weekends our unit went on! I can't afford to go on the one scheduled in 2 weeks if I don't receive a check very soon."

"The pay system is a poor excuse for pride and professionalism. They take months to correct mistakes they make. We end up waiting months to get paid. Get your act together, make the pay system simpler."

"When we have to rent vehicles and be reimbursed 6-8 weeks later causes a cash flow prob. as I don't earn funds to be tied up for the convenience of the government for such a long time."

"Pay problems for people just coming in is a joke. It shouldn't take 5-6 months to start getting paid."

"Due to mission requirements of a C-9 outfit, 1 or more pays special ACDUTRA is very common and getting paid for these orders takes 4 to six weeks. If RON is involved on these orders, advance per diem is impossible to obtain for SARs but TARs have it."

Spouses of Enlisted Members

"Is this a joke? My husband served in the Naval Reserves for over a year & received no pay."

Marine Corps Reserve

Officers

"Our pay system has one major flaw - we have to work at least 11 days at one site before that site can pay us; otherwise pay must come from Kansas City and if they don't pay attention it can take 30-90 days to receive a check - sometimes longer!"

"Pay problems are one of the main reason new Marines drop out, I know of at least 2 Marines who have entered reserve program an went 6 to 8 mo. before receiving pay. Due to lack of funds some Marines have been over 6 mo. before they even had utilities to ware. Lack of uniforms contributes to lack of motivation."

"Administration of Reserve Records for both pay and retirement credit aren't always accurate. Pay has improve significantly in the last 3-5 years in quantity and frequency. Keeping up with "good" years and retirement credits is extremely poor! The responsibility is wrongly placed on each individual reservists to correct or update records."

Enlisted Members

"I am very dissatisfied with the pay system. The amount we are paid for the time put in.... This also falls back on poor ability to pay what is due on time."

"The day the Marine Corps starts to issue paychecks on a regular basis instead of every six months...is the day I'll happily reenlist."

"The amount of pay is adequate. I just never get paid on time."

"I am very upset that I lost a bonus due to an administrative error and a change in military policy since I enlisted 3 years ago."

"The system used for paying mandays is pathetic. In April of 1985 I spent 2 mandays in Yuma, Arizona and I have yet to be paid for that. That is why on the questionnaire I answered no to the question concerning paid mandays."

"I have enjoyed the Marine Reserve for some time now. I was disappointed but not upset 3 or 4 years ago when I was not being paid due to a computer problem. I did not get paid for almost a year. The problem was finally resolved and I was paid but I understood the reason."

Spouses of Enlisted Members

"The reserve policy or situation I would like to comment on is the fact that the Marines are expected to be where they are assigned on time in presentable attire the whole bit and my marine is. Then come pay time. Nine times out of ten for one reason or another the pays are unavoidably late, incorrect etc."

"If you could make sure the reserve "might" get their checks on time: and with the right amount each time."

"...during his reserve weekends he doesn't get paid until way later - if possible the payment should be sent earlier to help out w/financial responsibilities."

"Also, why is it the reservists are always supposed to be there when they want them but half the time when they do get paid you always hear the line "THE CHECK IS IN THE MAIL!"

"The reservists' pay checks are often not distributed at the following drill. When this occurs, our financial commitments often cannot be met. A sincere effort to distribute these checks on a dependable schedule should be made."

Air National Guard

Spouses of Officers

"I feel that the people involved in payroll are very incompetent. There was a period of 8 weeks that my husband's paycheck did not come. This was only one time & the longest time. There were several other times one being 6 weeks. Two or three other times being 2 to 4 weeks late. This really put our family in severe hardships at these times paying bills & buying food for our family. I only hope that the lack of concern for

our families that the payroll personnel seems to have does not mar the respect that our children have toward our country, government, & military."

Enlisted Members

"I dislike receiving slow pay. I recently completed a formal training school at an active air force base. I had to wait after the completion of my school until my orders were submitted for payment. The orders were submitted after my return to my unit. I had to wait eight weeks for payment. I believe this is a disservice to anyone who is loyal and makes a good effort to do a good job!"

Spouses of Enlisted Members

"More prompt attention should be given to errors in pay for drill weekends. It should be unnecessary to have to wait as much as one month (maybe more) for a correction in pay and/or issuance of a new check."

"Sometimes my spouse is required to do drill other than the scheduled time, in order to do needed repairs to Aircraft. When this occurs, it takes 4-6 weeks to receive pay for those drills."

"I'd rather see the paycheck handled differently than by mail. This sometimes makes things hard when you depend on money for household expenses and live on a 2 week budget and the check is late because of the mail being late."

"On days that he flies additional flight training periods he drives 204 miles and spends 10 hours of that day to complete this and does not receive enough pay to cover these expenses. Not to mention wear and tear on our car."

"Active duty pay should be available upon return and/or release from active duty or on biweekly schedule when active duty period exceeds 14 days."

Air Force Reserve

Officers

"Delay in pay after a member participates can create serious problems - especially for personnel without a full time civilian job. The pay and orders system needs to be streamlined. We create our own problems with all the various pots we use to write orders and pay our people. RPA, School Tour, Prog Tour, UTA, Annual Tour and AFTPs all boil done to dollars required to accomplish the mission. I suggest we only have one or two

categories, e.g. Active Duty or Inactive Duty training and do away with numerous accounts. We have come a long way in the areas of pay and retirement since I joined the Reserves, and also in improved weapons systems."

"Takes to long to get paid for drill and annual tours. My pay is over three weeks after I performed duty."

"Surepay is fantastic! Thanks."

"The major dissatisfaction I have with military pay is the long delays I have experienced in being paid for annual tours. I go on an annual tour for two weeks each year. During this period I am not paid by my civilian employer. Yet the Air Force does not pay me on time either. I can expect to be paid about 6 weeks after my tour is over. This means that for a two week period I will not have any income at all, yet my creditors do not accept the fact that my military pay will impact my paying the mortgage, etc. (by the way, any delays only result in additional penalties and interest charges). The suggestion that we as Reservists should have a buffer built up for such an event is hard to do with the current high mortgages many of us pay. Even if I had savings that would cover this period of annual actual duty, it would then be a 'tax' I would have to pay to have the privilege to go on annual tour. The Army and Navy reserve is able to pay its reservists prior to completion of their annual tours. Why Can't the Air Force Reserve do the same? The only way I can afford to go on annual tour is for me to take my total ten days vacation earned each year and use it for annual tour. This means that I do not get to take a vacation at any time as I am either at work in my civilian job or on annual tour. Additionally, this creates a hardship for my family as the whole family pays for my not having a true vacation time I can use for family time. This will be the reason I will not spend one day past the earliest time I can 'retire' from the program. Further, I cannot recommend the reserve program to any one--the Air Force does not pay its bills on time. It is hard for me to give any time to the Air Force since my civilian employer is the one to whom I owe the most loyalty."

"Service accounting organizations should be more professional and responsive about paying salaries."

Spouses of Officers

"My husband is paid for each 3 days he does each quarter. But we always have to wait a year before we receive the pay for his two week tour of duty. He receives no pay for the days he misses his civilian job. He only generates pay if he is on the job and what he is paid for his reserve duty does not equal one

fourth of a civilian pay day. Therefore we are actually losing money to serve. The least the pay office could do is to pay promptly for each time period served."

"Payroll seems very slow in cutting checks in a timely fashion. The processing of paper work is erratic."

Enlisted Members

"My pay is being held for no reason. They owe me over $1,000.00 and we are ready to get evicted because of it."

"Pay checks not received on time."

Coast Guard Reserve

Enlisted Members

"I feel that the pay & records of pay for the Reserves is very inadequate, slow, poor."

"Pay and travel reimbursements are very slow to nonexistent."

"The pay situation for ADT is unreasonable. It takes several weeks after ADT is performed for individuals to receive pay. Several unit members have had to take out loans and pay interest on that loan before their check arrives. In addition proper BAQ entitlements are being sent to District but their seems to be at least a one year delay in BAQ validation."

"Inadequate pay - not paid on time - too long for pay when completing active duty."

"Pay problems should be taken care of more promptly."

Spouses of Enlisted Members

"I am certain that if a private business operated with the speed and efficiency of the pay offices for the Coast Guard Reserves, that private business would have been out of business almost before it started. My husband completed his first reserves drill in April of 1981, and did not receive his first paycheck until October of November of '81. We have endured such delays throughout his Coast Guard career and the situation has not improved."

"There have been numerous delays in getting paychecks and reenlistment bonuses. One year he did not get his W-2 from the Coast Guard until June! Would appreciate a more efficient recordkeeping system."

"We are very dissatisfied with the way the Reserve's pay is handled. We depend on the money to meet our needs and it is impossible to count on it being here when such needs arise. It does not arrive at any particular time and we can never be certain as to how much we will receive. My husband has been told he's been 'over-drilling'. He drills according to his orders. No more and no less. Still they (you) continue to foul up his pay."

"The only thing I don't like is when my husband goes on his two weeks duty, he doesn't get paid at the end of the two weeks. We go two weeks without a source of income and it puts a strain on us. We usually have to wait a couple of weeks before we get the check."

Unpaid Duty

Army National Guard

Officers

"I spend an average of 20 hours per month at my civilian job or at home preparing for Guard drills or other Guard requirements."

"Too much correspondence work for no pay. Specifically a. Advanced Course. b. CGSC."

"Drill time, Mandays, AT length & military benefits are not sufficient to satisfy our current & projected missions. Corresponding compensation & benefits are failing to cover the large amount of time needed to meet personal & unit needs."

Spouses of Officers

"Although I fully support my husband in his Army National Guard membership, there are a few problems involved. He gives more than that which is required of him by going on extra missions to benefit his unit and his country. Some of these missions involve travel to other states. Sometimes he is away for up to 3 weeks. This involves absence from work with arrangements for money for the family to live on while he is away. Much of his trip expenses; room, board, travel, etc., come from his pocket with the help of charge cards. Reimbursement takes too long to arrive, sometimes several months, and we pay the interest on our charges. It seems that we have to have enough extra money ahead of time in order for him to be able to go on his missions and for us to buy groceries and pay bills. There ought to be a better way."

"Too many meetings, etc., which often require out-of-pocket cost and no pay."

"I was upset to learn that after he became an officer, he was required to go in one additional evening before drill weekends w/o pay."

"My husband is the commander of an Army National Guard unit. I feel the Commander should be allocated more than 2 days per month - perhaps 5 days, with the other 3 days served on days of his choice. My husband is already putting in these days, he just isn't getting paid for it."

"For Guard activities during 1985, my husband was away for 2 mo. and approximately 2 weekends each mo. Only 50% of this time was required, he was paid for approx. 75% of the time, making 25% strictly volunteer. He missed one day of required drill as it happened to coincide with the birth of our daughter."

"If you were to provide more monetary gratification for the over-abundance of unpaid time my husband provides the Guard maybe his absence from home would seem more justifiable."

"Husband puts in twice as much time as paid for, much of it dealing with repetitious & seemingly unnecessary paperwork. We don't mind most of the sacrifices but this is getting ridiculous."

"I feel all mandatory time spent for the Guards should be paid including ATA's. For ATA's in our units more people are required to attend than what pay is authorized for - so they have to take turns being paid."

Enlisted Members

"Since I am a 97B4L MOS, the 97B training was all army. But the language was all civilian training. Almost all my utilization by the Army has been for language (#28). But despite the amount of time it takes me to keep up the language I am not paid for this. I am required often times to work in areas for which I am not trained or experienced. Such as constructing new quarters or revamping existing facilities which requires me to use skills I do not have. It is very frustrating and the quality of the work is sometimes poor which can amount to a safety hazard. Also even though required to do construction work I am not always given the tools or supplies to get the job done right. I have to make do or supply it myself. I am required to do paperwork, language study etc on my own time and it takes a considerable amount of time for which I am not paid, which is a source of frustration."

"I feel that to much time is asked of all men in this unit to work without pay or comp. time. I.E. preparing for IG Comet inspection. Time should be put into training objectives to get this done."

"The Ready Reserve is a part-time entity staffed by full-timers who commit their units to part-time activities that take full-time planning and preparation beyond their full-time capability. Therefore, in order to be a 'dedicated and respected part-timer' (not to mention a good NCO who accomplishes the mission and takes care of his personnel), I must be a 'temporary full-timer' (unpaid), not a part-time soldier."

"Spend a lot of extra hours that we don't get paid for. it very disappointing and time consuming."

"As a NCO we are spending more of our time at home on things. Training outlines, class, preparation, counseling forms, calling alert rosters, etc. that we don't have time for on drill weekends."

Spouses of Enlisted Members

"What really bothers me and my husband is that on several occasions this past year he has been sent a letter demanding he attends a week night meetings (without pay) with no excuses why he can't attend. This made it very hard for us plus I feel its unfair. My husband works 2nd shift plus his only nights off are Sunday and Monday, which means he has to take a night off without pay or if he calls in sick, he is ineligible to work over time for 10 days."

"My major concern with my husband's job is the ever increasing amount of time the job demands, both in the actual job and the training (schools). This year we have computed that he will devote a minimum of 22 weekends to the guards and there are always more that "pop up" throughout the year. This doesn't begin to count the many hours of overtime he gives the guards. I carry a picture in my wallet of him just so I won't forget what he looks like! The pay is good and we are thankful that he has the job. However the pay when divided by actual hours worked, is not nearly as fantastic as it sounds."

"Pay scale is too low for extra hours involved before & after drill."

"The only complaint I have is the fact that my (NCO) husband has to attend meetings with out pay."

"Guard members are often expected to give up Saturdays that are not drill days for such things as physical examinations, etc, without compensation."

"Neither overtime pay or time off is ever given for overtime on weekend drills. I think one or the other should be given to them."

"The biggest problem is the 15 or more hours a month required where there is no compensation, monetary or otherwise. This includes extra meetings & paper work required for drills & inspections."

"I don't think you should expect my husband to attain meetings he doesn't get paid for. It cost too much money for gas for him not to receive pay for these meetings."

"They require to much of his time without compensation, additional planning & training time."

Army Reserve

Officers

"When I was a manager of a national chain restaurant it was a requirement to pay anyone for time spent working there - whether it was required or permitted. Now that my reserve units' full-time manning has been cut back from 4 persons to 2, the officers and senior NCO's are being asked to come in on nights and weekends to do paperwork and other records maintenance. We have a sense of pride in keeping the unit in a condition that would be satisfactory to an IG inspection - so we come in and do it. It is my feeling as well as everyone else, that if we need to spend our time working for the unit - we should be paid for it."

"In general, officers, E-8 & E-9s, and some selected MOSs ie 71476Y, end up putting in a lot of extra time to the USAR program, most of which is unpaid. Most of this time is accomplished <u>administrative</u> actions, which are not accomplished at drills due to training. There should be a way to at least partially compensate members for extra time. Dedication only goes so far."

"I contend that satisfaction <u>is received</u> even though no pay is derived for the 25 plus hours per month I spend endeavoring toward USAR goals. When it gets down to trying to get paid for hours spent, the man-days RMA's ETA. ATA's with their associated paperwork/documentation is too cumbersome."

"Too many hours unpaid duty required and expected by US Army of its Reservists."

"I spend approximately 20 hrs. extra a month at the reserve center for which I do not receive any compensation. During this time I am working on other administrative duties and activities which cannot be preformed at drill. There are just to many

other demands placed on the soldier today to accomplish everything that needs to be accomplished at drill. No one comes to my home & works or repairs anything without being paid for it. Why should the officers, NCO's and enlisted men have to volunteer their time. Since it takes more time to do the assigned task than allotted then more man days or ATA's should be allocated. Paid drills should be one week end a month for training and one night a week to take care of administration duties. No compensation no work."

"Increased paperwork and increase in extra-duty (non-paid) has caused some conflict w/spouse and employer. Higher HQ has failed to realize that full time workers cannot drop their job at a moments notice."

"From my personal experiences and observations the reserve system has a lot of hard working and low paid people. The amount of time spent by some of these members halves or quarters their per drill pay easily."

"Question 35 asked about the number of extra hours spent at the drill hall. No where did you ask about the extra time spent at home in preparing for drill, doing administrative work or time spent doing correspondence courses or time spent completing courses like C & GS which most of us do in addition to attending drills."

"Would like to see a third day per month added to drill schedule. My section spent 450 man hours in the USARC between Oct 85 and March 86, less than half was paid. Need extra day to coordinate between sections and plan for training, as well as completing paperwork and reports, and conducting training."

Spouses of Officers

"My biggest complaint is the Friday night drill preceding the weekend. It's a 5 hr drive and he has to leave by 1200/noon - school is out at 3 00 pm. Also he is not paid for this extra day and it costs him 1/2 day of work. This is a horrible time commitment for a family to endure."

"I favor military pay for reserve units. In no way can it be said that the time and effort put into the non-pay unit is below that of the paid reservists. In fact, in my spouse's particular case the non-pay units take more work time than any previous pay units."

"Due to his position as a staff officer in his reserve unit, my husband already attends one additional four-hour drill the Friday before each regularly scheduled monthly weekend drill."

"My husband spends a lot of time in the reserve unit without receiving just compensation. The week-end drills are my biggest complaint as they invariably conflict with plans at home, but I understand that week nights do not allow enough time to complete activities."

"I am angry with the reserves. My husband puts in hours of work each week at home working on documents. He has even taken time from work to work on army documents. I resent the amount of at home work he is expected to do. Also some units expect officers to attend non-pay drills on a regular basis."

"My main complaint about my husband being in the Army Reserve is the amount of extra time he has had to spend at the reserve center to get work completed. His unit seems to always be under staffed in the personnel section and those officers are over worked and spend far too many personal and unpaid hours to try to keep up with the work load. These are hours in addition to drill weekends. At times I resent the time it takes him away from our family and the fact he is not earning extra paid for all the extra hours of work."

"I resent the frequency with which my husband has had to drill on Mother's Day. I also resent that administrative drills for which my husband does not get paid has turned into every Tues until retirement. These take priority over family plans and regularly cause him to miss important occasions such as children's concerts & games."

"I hate it! My husband is a group CO, drills a minimum of 20 hours per month and does another 20 hours per month of paperwork at home, not to mention extra one-on-one meetings, phone calls, etc."

"Our biggest dissatisfaction with the USAR at this time is that my husband is not getting paid for his monthly weekend drill. This is a lot of time for no financial compensation."

"My husband has been in reserves for 7-8 years and does not get paid because there is no slot for him at his rank. I think that there should be some other method or means of allowing him to attend meetings and to get some compensation for it."

"Unit commanders should be given extra pay or RST credit for time spent at the USARC doing paper work and having meetings. My husband is a physician, working long hours and is expected to give many hours as a unit commander. This is not conducive to good family life."

"My husband spends too much time at the reserve center, sometimes 3 weekends a month and at least 1 night a week. The weekends are for special training and visits to evaluate unit

activities. The time away from family is most important, but he also does not get paid for it. Should get paid for weeknight meetings before weekend drill."

"I do not feel it is reasonable to require education without 1) pay him for the time he spends in class and at least some compensation for out-of-class hours and 2) mileage and/or meals when attending these night schools. The Army Reserves is the only major employer I know which demands this education for the good of their officers ie. experience, knowledge and skill, yet is unwilling to pay for the members participation and ultimate successful completion. Regular service members are compensated for attending education programs because they attend the schools as their full time job. Reservists cannot - another double standard."

"My husband currently is on duty about 2-3 weekends a month as well as 1-5 weeknights a month. Much of the required paperwork, planning, etc. that must be done 'just to keep up' must be done at home with no pay. Often he meets the full-time staff personnel during his lunch hour to sign paperwork. He has been HHC Company Commander for 11 months, and was told his promotion to Captain would be forthcoming but higher up's seem to be dragging their feet. As I see it we have 'lost' the difference in pay for this time period even though he done what is required."

"Rumor has it the ATA and RMA funding is to be eliminated this fall and if the work load continues I will no longer continue to support my husband in his Reserve activities. I see no reason to work for free when so much waste goes on."

"I object to the number of 'required' but unpaid hours that my spouse spends at Reserve planning/organization meetings."

"My husband is a unit commander. He goes to drill Friday afternoon (65 miles away) and returns Sunday evening. He works at least one evening a week on Reserve work and training, sometimes more. But his paychecks have gone down in the last few months. He says there's no more training money. Why does the defense budget keep going up while Reservists' paychecks are going down?"

Enlisted Members

"I do not like having to use my vacation time to attend extra meetings that the Army does not pay me for."

"For those of us who must spend additional time to meet suspense items that occur throughout the month should receive some type of compensation. Examples are company 1st sergeants, operations sergeants and training NCO's. Myself, I have

attended 2 conferences in TY85-86, given by higher HQ. The 1st in Sept, on orders, but have not received pay; the 2d in March, orders were cut but not received. I attended and have yet to be paid."

"I am very happy with the Army Reserve. I am though not very happy about spending many extra hours @ my unit and not being paid for them."

"NCOs have to spend to much unpaid time, 12 to 16 hrs per month on admin nights. If the AGR program was used properly it would help reduce this force time."

"In order to qualify for promotion, soldiers in this USAR battalion are having to enroll and attend NCO development courses on non-drill weekends on their own time and without pay. Funds have been cut off for most additional tours."

"As a acting squad leader we are required to do many hours of extra work after drills are over plus two evenings each month, these extra hours are taken from our family time with no extra pay."

"Spend too much time preparing for drills at home and at the center preparing for week end drills in which there is no pay or compensation. If I knew 10 years ago what the reserves were coming to I would have gotten out. Too much paperwork."

"The USAR needs more RMA's for the amount of work done other than regular drill time. It is important to pay the people who are doing all the work."

"I accept fully that I must invest some extra, unpaid time, say a day a month, to fulfill my responsibilities as First Sergeant. However, administrative requirements - paperwork - have increased dramatically the last few years. In 5 years as 1SG I've never had a <u>functional</u> clerk. I competently delegate to the max (for NCOOP, etc) and still I must put in 2-5 days extra - unpaid - each month."

"I average about 50hrs a month to try and do my job, of this I get paid for 20hrs. Some of this time is at home and I know I can not get paid for that but the 50hrs still doesn't cover what is expected and I really laugh at "Good Part Time Job" and rather than seeing light at the end of the tunnel all I hear is more to be expected."

"There has been on several occasions when reservists have been required to attend classes (such as ANCOC) on their own time (conducted for several months on week-ends) without pay. This caused a great deal of stress and changes on several individuals and their families with-out compensation."

"Don't think you should have to attend 4-hour ATA training meetings in a nonpaid drill status in BDU's. Seems to be plenty of money elsewhere like Capstone Conferences and Cascom Reviews."

"Not enough money in the Reserve system for us to do our job properly. I put in too much required time & no pay!"

"No consideration is given to the fact that many extra hours are spent working for the government, without pay. Additionally, after working and extra 20-30 ADT days per year, it is often stated that because of unit mission requirements, we MUST give MORE time to the Army Reserve or leave the unit."

"More manday's should be allocated for extra drills during the month so service members can be paid for extra work they do between drills."

"Many senior NCO's and officers spend 20 hours or more of unpaid time to meet their units' administrative and training needs."

Spouses of Enlisted Members

"Sometimes my husband is required to stay longer than his usual time. I would not normally mind this, but we have only one car and [a baby with an illness requiring frequent emergency treatments] and it is sometimes hard for me to get ahold of my husband. This practice also seems unfair to the family in general. He is a full time student and works a part time job. As a family we miss having family time together. This extra time is demanded by the staff. The time is usually 4 extra hours of duty in one day (7:30 am - 10:00 pm). This requires a 30 mile drive from one base to another and the 4 extra hours are unpaid time with no travel pay."

"Has to spend too much time unpaid to get the job thoroughly completed before and after drills."

"I don't feel that my spouse should spend so much free time at Reserves without pay."

"My husband is always bringing home work to work on or type after his monthly meetings. It should be shared evenly with other enlisted officers. Cut down on after hours work or get paid extra for the work or job."

"We've been very unhappy about the extra time my husband has been forced to drill - weekends & AT. He's been drilling 2 full weekends a months and has to be at AT first and be the last to leave. He teaches the ANCO/BNCO classes & must be re-certified

to teach the new PLDC class - thus the extra time. He's hardly ever home! The money certainly isn't worth the extra time he's had to put in."

"At admin meetings prior to weekly drills one guy gets paid others don't. Either treat them equal or find another way to credit them with more than one point some get paid & points."

"My husband is a USAR instructor. I don't think its right for any instructor to give his or her free time. They have to give 96 hours of instruction, voluntarily, before they can get paid. I feel that any time, given to the USAR to teach and instruct other soldiers should get paid for."

"I feel any branch of service is a wonderful thing to have in the U.S. but I truly object when it comes to more than a once a month. Especially when a person is overloaded with work that has to be completed at home - with no extra pay. Or, Friday night meetings for "No Pay." I feel if you work very hard and always make drills, meetings, etc. you should be paid."

"Why do you advertise one week-end a month? What about all the administrative drills and extra weekends. Most of above stated duties performed without pay."

"My husband brings his work home & spends up to 20 hrs between drills doing paperwork, instead of spending time w/his family."

"The longer my spouse serves, it seems that he spends more and more time at the Reserve Center. Although, he only gets paid for his regular drills, he spends many hours at the Center preparing for and taking care of details concerning the week-end drills and A.T. This is time that is required by his Commander and time he gets no pay for. I realize someone has to do the planning, but when you put in overtime on a civilian job, you get paid for it. Sometimes you wonder what it's worth to be promoted to a higher rank. Sure, you get a higher pay grade, but you sure are required to give a lot of your own time free of charge."

"I feel the biggest problem we have is the Wed. night ADMIN meetings which my spouse must attend (50% of them are without pay). These meetings are almost always too long/late at night and seriously interfere with his civilian job responsibilities. Lack of sleep being a big factor."

"On Wednesday nights my husband get calls at work wanting him to do free hours for the unit. Now he puts in 60 hrs. a week as a truck driver. They just keep calling him. Also he doesn't mind going in for an hour or two but instead it can be anywhere from four to six hours and then he has to go to work the next morning."

"It is my understanding, if a Reserve is promised extra pay for extra work performed with-in his Unit said Reserve is to receive said pay. This does not happen. I feel this is not a professional way to treat enlisted men who are working in good faith with full expectation of receiving wages for wages earned."

"I am somewhat dissatisfied with the amount of time that my husband must spend at his unit without receiving extra pay."

"Now they are trying to tell him he as to take off work 1 night a month to attend a NCO meeting, which they don't know if he would be paid for it (they said if they had enough money, they would.) And they said it's mandatory he attends. Theirs now way he can take off work and loose his pay."

"My husband spends far too much of his own time on Reserve matters. He's at the Center nearly every Wednesday evening yet many of the meetings are unpaid. He shouldn't have unpaid drills (they take too much time away from the family) and if extra drills are necessary then he should be paid for them."

"Reservists should be paid and given credit for time spent throughout the week on administrative duties. My husband is a TM Sgt and he spends approximately 5 hours/week setting up drill activities and communicating with team members. Now that TM Sgts. plan drills there is more pressure and time requirements on them and less on staff personnel who are paid as full time employees. The team Sgts. also meet on Friday night/month in addition to drill weekend to finalize plans; this ties up two weekends/month."

"As the wife of a 1st Sgt USAR, I feel that my husband spends too much time in order to prepare for weekend drills. He spends at least 40 hrs per month with paperwork, telephone conversations with his men and, constantly having to solve everyone's problems (This is all done during evening hrs after having worked 8 hrs at a civilian job.) and is not compensated monetarily for all this extra work."

Naval Reserve

Officers

"I've spent approximately half of my 19 year career in non-pay status. While pay isn't my only incentive, it does make me feel like my abilities are valuable to the Navy. Efforts should be made to restructure officer billets to correct this."

"Average 4-5 hour week at home/work doing reserve related work."

"The Naval reserve needs to follow the lead of the Army and Air Force in having more pay billets for senior officers (O-5 and O-6 level)."

"We should develop a better method of providing for senior officer compensation. Whereas we accept "non-pay" status as a condition of long term affiliation, administration of these billets varies from place to place, is somewhat dependent on local 'politics,' varies from service to service and is basically unfair."

"Current policy in the Naval Reserve is to promote officers with their active duty counterparts. For those officers in warfare specialties such as Naval Aviation or Naval Flight Officer, the result is often being promoted out of a pay billet with a full 5 to 6 years ahead till retirement eligibility. At the same time those 'qualified men' are serving in VTU's, the other flying squadrons routinely have vacancies. It is also evident that the military (Navy) is struggling to retain a sufficient pilot (NFO force and is initiating changes to meet this need on the active duty side. The Navy should consider policy changes which would facilitate proper manning in our squadrons and to lessen the amount of 'non pay' years the average Naval Officer must serve to qualify for retirement benefits."

"The biggest disincentive to staying in the JAG Corps reserve program is the fact that members must expect to drill without pay one of every three years on the average."

"None of my civilian friends can understand why when I am promoted to Captain, (only one out of my OCS company) I am put into non-pay."

"The Reserve pay situation is sad for O-5 & above. Seeing 4 out of 5 Cdr's in a VTU doing very little is a waste of good manpower. The other services (except USCG) seem to have plenty of $ for drill pay. Incidentally, I am in drill pay status, so this isn't sour grapes."

"A major problem with the Naval Reserve is the fact that an Officer reaching the O-5 level cannot find a pay billet. Therefore, an Officer who performs well enough to be promoted to the O-5 level, promotes himself out of a pay billet. This is an extremely unfair situation for individuals who have served their country normally between ten and fifteen years. If the military cannot provide pay for an individual willing to participate, that person should have the option of early retirement. The Naval Reserve now forces an individual to perform work for no pay in order to obtain the 50 points for a satisfactory retirement year. This situation should be rectified."

"Besides ordinary working hours, our RESCEN is open 1 weekend/mo. plus 1 evening/wk (which conflicts w/one of my civic activities). Among our officers, I live closest to our NRC, & it is a nearly 60-mi. round trip. So, to do anything at the NRC requires giving up at least 1/2 a day of work, abandoning my civic activity for a week, or killing a large chunk of a weekend in addition to drill weekend, not to mention the $12 cost of the trip. To do something over the phone involves a lengthy & expensive toll call and takes a stationkeeper away from his or her switchboard duties."

Hours devoted to USNR-R - per month.

Pay Drills	=	Drills (UCU-pay) @ RESCEN =	Time at home USEA for USNR-R
16 hrs		12 hrs	12 hrs"

Marine Corps Reserve

Enlisted Members

"I don't mind the extra hours served, I do mind when everyone else goes home and I spend 6 to 8 more hours here and receive no pay due."

"Important - on this survey there is a question about pay for reserves and I answered it was well, but I'm basing this on a 8 hour work day. We usually work over 8 hours and we do not get paid for this overtime."

"I can't begin to tell you the number of hours he has spent taking care of Reserve paperwork after his regular job. He stops late at his civilian job to take care of Reserve business because (1) a 3 yr old & 4 mon. old at home is not conducive to getting anything done & (2) if I'm going to complain I'm more likely to do it then. Before he was in the Reserves I always thought he would spend one weekend/mon. drill & 2 weeks doing his ACDUTRA, no big deal. But the extra hours someone as 'dedicated' to the Reserves as my husband spends is almost intolerable."

Air National Guard

Officers

"Loss of training period preparation assembly (TPPA) mandays produced negative impact. Most supervisors work minimum 6 hours, unpaid, in preparation for UTA."

"In question 35 you ask how many unpaid hours are spent at the drill location but nowhere do you ask about unpaid hours spent elsewhere on unit related matters. I spend an average of 12 hours a month working at home on Guard matters."

Enlisted Members

"General lack of orientation for new members on how the military actually functions administratively. More realistic counseling should be given on the fact that the Reservist is expected to spend outside drill hours to accomplish training requirements."

Air Force Reserve

Officers

"Although I am not certain that all IMA's have this problem, in my organization each IMA must serve at least an additional 8 hours per month for points only in order to fulfill their personal responsibility to their active duty colleagues."

"I'd like to know why some Cat B reservists can only earn 'points' for unit administrative duties, whereas other Cat B, & all other Cat A reservists get PAID?!!"

Spouses of Officers

"We served for 11 years on active duty. Now that my husband is in the Reserves he is quite busy trying to balance two jobs. Basically he enjoys it but sometimes the Reserve people expect more time than my husband can give. He works for the Reserve many more hours than he gets paid for as it is, and yet there seems to be a pressure from higher ranking officers for him to give more."

"Until the last year, I had a very favorable attitude toward my husband's participation in the Reserves. Primarily because he enjoyed being a Reservist. However, this year he has become an OER officer and as a result is spending many evenings on the telephone as well as on my microcomputer preparing OER's for his unit."

"It seems like the amount of time spent at home on Reserve works increases on a monthly basis. This is reflected in time on telephone, written communication and research of topics for briefings. Although there is now a full time technician in the office it seems like the work load hasn't lightened. Little consideration seems to be given to the fact that there are continuing responsibilities of a civilian job. The pressures applied during weekend training and the added responsibilities during the month definitely detract from continuing with the

Reserves. It seems like the unit my spouse is in goes from crisis to crisis. There doesn't seem to be time to do the regular work because of ORE's, ORI's, MEI's and other related exercises. It is not a time to look forward to because of the time spent getting ready for UTAs and the catching up on the rest after the UTA's. Sometimes wonder if this commitment will only lead to an earlier grave."

Coast Guard Reserve

Officers

"I do a lot of my reserve work at home for no pay. Many of us 'donate' our time each month."

"I work a lot of extra time and I like it - but I would like to do most of this by govt travel, etc. than my own money."

Spouses of Officers

"This survey did not address question about additional non-pay hours spent by the Reservist in addition to his obligation to get the Reserve job done!"

"My husband works a civilian job to support our family, and although the Reserve monies are nice, even full-time pay would be inadequate to meet our necessary expenses."

"Recently the Reserve seems to demand a disproportionate percentage of our personal lives. Requiring officers to attend meeting scheduled during normal working hours at their own expense, moving assignment to lesser convenient locations and not providing for expenses in travel & lodging during required active duty periods away from home."

"My husband drills about 60 drills a year to get the work done. But by law can be paid only 48 drills. This law should be changed."

Enlisted Members

"If I do my 48 drills, plus 4 for mobilization drill, + 8 on the rifle range, I am doing a lot of extra time for no pay. This must stop.

"Mandatory drills should always be paid!!!"

"In addition to at least 15 extra hours spent at my drill site, I put in at least 5 hours at home on reserve related matters. "As Assistant Training Officer, I deal with problems that arise during the month pertaining to training and ADT for unit members, which I try to resolve over the phone with the District Office and this I do from home."

"I would like to see the annual paid drills increased above 48. With all work required to keep a unit running, especially in the Admin & training areas, preparing for District Inspections and keeping up with the workload for 60+ personnel, many persons donate 4-6 drills (unpaid) on an average, each year."

Spouses of Enlisted Members

"Both my husband and myself put in more than our required 4 drills a month. It is necessary for us to spend additional time at our reserve jobs. On an average, we each spend approximately 20 hours at home and at the unit (combined) on Coast Guard related matters. This time we give freely because we feel that it helps the unit function smoothly and there just isn't enough time to accomplish everything that needs to be done on our drill weekend."

"Must take days off from work so he can get his yearly physical and travel 100 miles round trip for no pay and loses a days vacation time."

Special and Incentive Pay and Educational Benefits

Army National Guard

Officers

"I would like to see equal flight pay in the reserve as in the active Army. I must fly as many hours, keep just as qualified and just as current, but I only get a fraction of the flight pay, even though I must come an extra night to gain my minimums."

"Flight pay for ARNG aviators is not valid. We have the same minimum requirements as active duty aviators, yet our pay is prorated. As we have the same requirements as the active duty aviators, we should receive full flight pay!"

"Flight Pay is inadequate as presently administered. Guardsmen must maintain the same status as active duty flyers, i.e. all month but get paid only for day's worked. Guardsmen should be paid full flying pay."

"Pilots should receive one full month of flight pay if they fly even one day in that month. The Regulars do this so why discriminate against the Guard."

Spouses of Officers

"Education benefits for spouses if military spouse isn't using them."

Enlisted Members

"Airborne jump pay for NG components is less than $20 per month. Considering that the number of jumps our unit makes in comparable to active airborne units and the risk of injury is precisely the same it is inequitable to pro rate jump pay for NG units."

"Airborne unit members should receive the full airborne duty pay because these people jump as often and sometimes more than active duty people who are getting the full stipend."

"The bonus for reenlistment should be looked at for people with more than 10 years. These people are important and should be offered a bonus for staying in and for the job done."

"I have a little over one year left in my current enlistment and would like to take advantage of the new G.I. Bill but I must extend for a little less than 5 years to be eligible and I would lose my reenlistment bonus if I extended. I am in a no win situation because I want to continue my college education but I don't want to lose my bonus."

"I am disappointed about the student loan repayment program. There is a small group of Guardsmen like myself that joined the guards in Oct 81 who are not eligible for the program. The program is there for the people who joined before this time and for the people who joined after that time. It seems unfair to me that this oversight should be corrected to include all Guardsmen who joined at that time (those few months in 81). The only reason that the program was withdrawn at that time was because the Army-Guard didn't have the administrative capacity to run the program."

"My main complaint is in the Educational Benefits. I was told that the state would pay my tuition. I made arrangements to attend a higher Educational School, signed for an extra year for my G.I. Bill and then received a letter stating all funds had been appropriated and that they might be able to get compensated if I paid the tuition. I did and sent the next semester's tuition application in. I did not receive reimbursement nor did I get the next semester's tuition. As a result I had to stop my education."

"Include Vo-Tech schools for financial aide under Educational Benefits."

"I am especially satisfied with the Educational Assistance Bonus and the new G.I. Bill (chap 106). Both programs have really helped me out."

"I believe that the policy of not giving assistance to students going for graduate degrees will seriously damage the quality of the National Guard."

"I wanted the educational benefits provided in the new G.I. Bill and thought I had applied properly to receive the $140 dollars additional income the G.I. Bill provides for. I had been told I had filled out all the proper forms which would qualify me for the Bill. I was informed in the mail two months later that I didn't qualify for the G.I. Bill because I hadn't filled out all the proper forms and the reason I hadn't filled out the proper forms was because my unit didn't have all the pertinent information, they hadn't been instructed on how the new G.I. Bill was to be applied for and as a result of their misinformation I lost time--two months of educational assistance at 140 dollars a month equals 280 dollars. Please when you start new programs give all information necessary to the units and train them in the proper procedures. Point two: After I found out all information I applied for the G.I. Bill the second time I was assured everything was done properly all the forms were signed and I was properly extended to a six year enlistment. I waited another two months, I hadn't heard anything about my application so I asked why I hadn't heard about it and was told that applications take four months to process (before anyone could receive any money). It's now been five months, I still haven't heard anything about the G.I. Bill. My question is why, in today's computer age, does it take so long to receive benefits promised to active, qualifying members of the National Guard?"

Spouses of Enlisted Members

"Why doesn't the spouse of the member have any access to the Educational bill. I know that my husband's plans for the next 5 to 7 years is not to attend college but mine are to do so. That means more than likely the benefits that he has is not going to ever be used."

"I think the educational opportunity should be extended beyond Bachelor's degree. My husband would benefit in his civilian employment with a Masters degree & we could use financial help in his obtaining it."

Army Reserve

Officers

"As we are required to maintain the same level of flying proficiency as our active duty counterparts - I think that we should be entitled to full flight pay."

"Would like to see educational benefits extended beyond basic educational level B.A."

Spouses of Officers

"From what I understand about the new GI Bill if you have a BS or BA or equivalent then you do not have any educational benefits. Consequently those of us who chose to get an education prior to entering the service get nothing while those who are doing the same job for the same pay do."

Enlisted Members

"USAR Drill Sgt, don't get pro-pay that Active Army get."

"Reenlistment Bonus - I was drafted in the Army in 1965. Joined the reserves in 1974, and have stayed all these years because I have enjoyed the reserve and the many different people I have come in contact with. I have never received a bonus, and wish the Army would do away with them. The government pay for drills and education, and this should be enough. Cut out the bonus, and see how many are in because they love the Reserves or because they love the money."

"Upset - I have always been a day late and a dollar short to be eligible for a bonus!"

"When I became member of the Army Reserve I was told that my college loans would be repaid, but no one in the Army told me that my AFQT had to be over 50, so I still have to pay my school loans."

"Being a member of a reserve airborne unit, which has airborne operations equal, if not more than active duty units, I feel our parachute pay should not be prorated. We should receive full pay due to our equal risk as active paratroopers. For jumping out of an aircraft in the middle of the night, with 200 pounds of equipment, an $8.00 pay is almost an insult."

"The new Reserve GI Bill is only beneficial to those who don't have a bachelor's degree. What about master's or PhD's?"

"Educational opportunities and benefits should be uniform. I received a Bachelor's Degree shortly after enlisting in the

service and have earned a Professional License in two states since that time. I have never been eligible for any civilian educational benefits and the 'New GI Bill' isn't worth the paper its written on to me."

"Veterans educational benefits do not cover graduate school which I would like to attend. Furthermore, if I want to get another B.A. degree it would not be applicable."

"The reserves made a big deal out of the new G.I. Bill benefits started in July 1985. (A) Very little preparation/information when program was started. (B) I signed up for six years and met all requirements. The Veterans Administration then proceeded to find ways to get out of paying me the benefits. I am changing professions at 40 yrs. of age and need assistance. I want to be a registered nurse and possibly a nurse officer. Previously used G.I. Bill benefits used and former college major - now prevent my receiving benefits that I signed up for in good faith."

"The educational benefits available to reservists are not usually known by reservists or enlistees. A better job of advertising the benefits should be explored; the same is true of benefits for re-enlistment."

"I feel the educational assistance at my present unit is in need of some dire reconstructing. I am currently enrolled in a correspondence course (91C) licenced practical nurse. As far as educational assistance at my unit, that's as far as I've gotten."

"Another problem is with the new GI Bill, information and forms are not getting to unit technicians. This is creating problems for and slowing up some people's education."

"The Army Reserve does not currently have any GI Bill benefits which cover educational opportunity beyond the undergraduate level."

"I think it is interesting to note that the Army and Reserves are always advertising their educational benefits in an effort to recruit more people. They also lead you to believe that they are very much in support of their people continuing their education. I am about to receive a degree in Mechanical Engineering. I have had nothing but problems from my reserve commander whenever I have asked to RST a weekend in order to prepare for exams. Yet, at the same time he expects me to be willing to put in extra time to make sure the unit WBC requirements are fulfilled. Because of the lack of cooperation I have had from the reserves while trying to go to school I cant help but be glad when my enlistment is over."

"I have not been given any information about the GI Bill and what education benefits there are, for being in the reserve."

"GI Bill (educational benefits) discriminates against those individuals with college degrees by disallowing benefits."

"Educational programs are non-existent for those with B.A's & above."

"Minimal information/co-operation from unit re: benefits (e.g., student loan assistance program)."

"Educational and medical benefits could be better and more clearly stated."

"Could you please send me all the information you have available about the new GI Bill. Through my experience of applying for the new GI Bill Educational assistance program, they have denied me any benefits and to my knowledge I am definitely eligible for the benefits."

"The Army offers no assistance for Reserve members to get master's. Your education program is no good to me since I have a undergrad degree and you will not pay off college loans. The Army should look into this matter."

"Extend the new GI Bill to include all forms of accredited educational pursuits (graduate, professional and vocation/technical schools). If the benefit remains the same, what difference does it make where people chose to apply it? In conjunction with this, the military should consider expanding the correspondence course programs into a broader, more liberal educational experience."

"I am trying to get the paper work filled out for the GI Bill school assistance program. No one here knows how to fill it out. I think that if it is going to be offered some one should know how to fill it out."

"Education Benefits - I am ineligible under current law since I already have a B.S. degree. I believe that enlisted personnel should not have this educational limit restrict them from education benefits."

Spouses of Enlisted Members

"When my husband joined the Army reserves he was given information about the educational benefits that was either misleading or completely false. Every time he asks questions, even now, he gets told different answers each time. Can someone please make it clear to everyone, recruiters especially, what the benefits are? Right now if he asked 5 different people who

should know the answers, he would get 5 different answers. And please try to do something about the 'misleading' tactics of recruiters!"

"I would like more written information on educational benefits for reservists."

"I really wish my husband's G.I. bill benefits could be extended and that there were some schooling benefits for spouses who would like to complete college."

To Whom it May Concern: why isn't there education benefits for the Reservist wife."

"Why is there no educational assistance (i.e. New GI Bill) for Graduate-level study?"

Naval Reserve

Officers

"Shortages follow policy. Flight officers are not leaving fleet. NFO's are simply being promoted out of billets and not being able to fly/get paid without waivers."

Spouses of Officers

"In my opinion, aircrew pay should be increased for extra efforts aircrews exert, talents they possess, risks they take, long hours, extra stress & more. The few extra dollars above & beyond the pay of the commissaryman or a yeoman isn't an equitable distribution of resources. Quite frankly, aircrew allowance is demoralizing in net effect in that it plainly reflects to what extent his efforts are valued."

Enlisted Members

"On educational assistance. When I first came into the Navy (in Sept '83), the Navy paid 75% of a person's tuition. In December of '83, the SAM program came into effect where the Navy changed it's policy of paying 75% to 4,000 for 4 yrs. I signed the contract under the 4 x 10 program, not the SAM program, so the Navy should still pay those of us that are under the 4 x 10 program (meaning paying the 75% of a person's tuition.) I plan on returning to school, and would like the Navy to pay for 75% of my tuition and not $1,000 per yr (tuition is $2200 at the selected univ. I chose)."

"I recently found out that my reserve benefits for education could only be used for undergraduate programs. I am planning on attending Veterinarian School at North Carolina State University

when I complete the required prerequisites. I know I would be able to use the money from the reserves if I could get it, so I feel the 'undergraduate level only' stipulation is not fair."

"Educational benefits should be extended to reservists seeking Masters and Ph.D. degrees, or who wish to take undergraduate courses in any area."

"It is my feeling that the US Naval Reserve has the right to discriminate against enlisted members that already have received their Bachelor's degree, not to be able to receive educational benefits for higher degree programs as enlisted members of the Reserve."

"In my opinion, aircrew pay should be increased for extra efforts aircrews exert, talents they possess, risks they take, long hours, extra stress & more. The few extra dollars above & beyond the pay of the commissaryman or a yeoman isn't an equitable distribution of resources. Quite frankly, aircrew allowance is demoralizing in net effect in that it plainly reflects to what extent his efforts are valued."

Marine Corps Reserve

Enlisted Members

"Better bonus for reservists if the reserves want better class people. Need more programs for reservists to adjust to civilian world, e.g. job replacement."

"Why does the Army National Guard have a better policy than the Marine Corps Reserve pertaining to: paying back student loans for higher education."

"I would like to stay in the Reserve and stay in school getting my Masters, but you can't use GI Bill for work beyond the undergraduate level. Why not? Please change this."

Spouses of Enlisted Members

"Sirs: I feel a greater effort could be made on the part of the reservists' C.O. to inform the reservist & their families of special services which are available to them. For example, my husband has been qualified for the New G.I. Bill for a year but it still has not been processed."

Air National Guard

Officers

"Flight Pay is inadequate as presently administered. Guardsmen must maintain same status as active duty flyer, i.e. all month but get paid only for day's worked. Guardsmen should be paid full flying pay."

"Pilots should receive one full month of flight pay if they fly even one day in that month. The Regulars do this so why discriminate against the Guard."

Spouses of Officers

"Educational benefits or really the lack thereof is non existent. You can't even get state benefits for my spouse."

Enlisted Members

"A lack of some form of Proficiency Pay for the highly trained technical fields."

"I already have a BA degree. I would like to receive educational assistance from the military for continuing my education but nothing is available because I am only a part-timer. If I were a Title 32 AGR I could get assistance to study for a Masters degree. I don't feel that is fair."

"As my responses to this survey indicate, I am continuing my education, but I am not receiving reserve G.I. benefits. I re-enlisted for six years to receive such benefits, but then learned that the program does not recognize non-residential programs even though they are properly accredited. I feel this policy should be reviewed and changed to more favorably reflect the educational needs of military members in all branches."

"The new GI Bill for Reserves is a good idea, but it should be extended for personnel wanting a master's or PHD Degree. I already have a B.A. Degree and can't participate in the program because it is only for undergraduate work."

"I would like to see service people, who have completed a four year college program (from Active Duty), be able to get additional educational benefits when serving in the Guard. Additional service should bring about additional benefits."

"I think the new GI Bill is great and long overdue. For a new recruit it is something I can't believe they wouldn't take advantage of. For a guy like me it has one serious problem and it is an annoying one. That problem is that it doesn't give credit for prior military service in the Guard/Reserve. I have

12 years in the Guard and now they tell me that in order to get GI Bill benefits I must sign up for and serve 6 more years. How about giving some credit for prior time in the Guard. We've earned it."

"Education assistance should be expanded to include graduate work."

"Reserve GI Bill should include Graduate School Assistance."

"I think that the new G.I. Bill should allow Guardsmembers who already have B.A. degrees to receive educational benefits in order to get another B.A."

"I have taken advantage of the new GI Bill education program. After the one experience I have been put through I will probably never attend school again. Being a new program, some answers were not available to my questions, i.e. do I need anything from schools I attended under the old GI bill? When I was told I would not receive any benefits until I had supplied information from my previous schools, I said okay. When I had to drop out during the semester, I figured okay, they weren't paying me anyway and the school would notify VA. VA then started sending checks. Called the VA, they would not believe me that I had dropped out of school and correct the records. The school either did not notify VA (as I requested at two different times) or VA didn't understand that I had dropped. I now have a notice from VA stating that my entitlement has been adjusted for the semester of school I attended and I have $300 in a savings account waiting for VA to ask for it back. No wonder the government is short of money."

Spouses of Enlisted Members

"The new GI Bill is one of the best benefits offered to the reserves - please don't let it be eliminated."

Air Force Reserve

Officers

"I feel crew members should receive full flight pay. After all, we fulfill the same flying requirements as our active duty counterparts who receive full pay."

"I am not happy having to fly 4 hr/month instead of 2 hrs./month. I would also like more pay for when I fly. I am satisfied with my pay for UTA."

"Additionally, Reservists on flying status maintain the same annual flight requirements and fly comparable (if not more) flying hours as active duty counterparts. Yet reservists are

paid a percentage of flight pay only when they fly on AFTP (or if on one of limited mandays) while active duty personnel on flying status receive a full month's flight pay as long as they maintain minimum requirements."

"Reserve pilots have to accomplish same proficiency requirements as active duty counterparts. Should be paid flight pay just as active duty and subtract flight pay when AFTP or manday is accomplished."

"The issue of flight pay has never seemed to be equitable - some crew members receive, others do not."

"Because we fulfill all the same training requirements as active duty pilots, we should draw full flying pay. Not 1/30 for each day we fly. After all we are taking the same risks."

"I would like to see some educational opportunities such as tuition assistance extended to officers. Those without prior service have no GI Bill and yet a Master's Degree becomes one of the squares to be filled for promotions. I would take advantage of such a program!"

Enlisted Members

"My job requires me to (a) be educated in a broad spectrum of information and (b) subject myself to high risk. When I report for duty in the evening to plan and execute a mission involving over-ocean flight, parachuting into a sometimes rough sea and swimming to a target in the dark I get paid approximately $3.00 extra for my trouble. A number of people have died in the line of duty in this AFSC since I've been around, including 3 people two days ago. I think some new consideration ought to be given to the idea of salary based on the job as well as on the rank. Pro-rated incentive pay is definitely <u>not</u> an incentive."

"My understanding of the GI Bill educational assistance benefits is that these benefits are not available to those already holding a 4yr+ college degree. This is a policy I strongly disagree with. I believe educational benefits pertaining to a civilian degree should be indiscriminate."

"Since I don't think I will continue my education I would like to see a change in the GI bill to say the spouse could use the benefit if I chose not to."

Spouses of Enlisted Members

"I feel that there should be more educational benefits that could lead to faster advancement in rank or possible officers training for those who chose."

"It would be more beneficial if there was more availability of educational benefits for me, my children, and my husband towards higher education."

Coast Guard Reserve

Enlisted Members

"Opportunities to use the G.I. Bill should be made available to holders of 4 year degrees."

Allowances and Travel Expenses

Army National Guard

Officers

"Not receiving a quarters allowance during A.T. periods or FTTD periods because I'm single with no dependents has been a burr in my saddle that has caused a blister. Those service members who have a dependent receive a quarters allowance."

"Facilities should be provided to personnel who travel over 50 miles to drill, for overnight use."

"The limitations put on getting two AFTPs in one day makes no sense at all. I drive too far (240 miles round trip) to get paid for just one AFTP per day."

"As a pilot I work 11 UTA's, 1 A.T., 3 S.F.T.S. (3 day) and 29 (soon to be 36) A.F.T.P.'s. This means 16 lost weekends, 10 workdays and (soon to be 36) nights---83 days EXTRA minimum!! In addition to the 200+ days I work on my civilian job. Have you guys considered time and a half for weekends? As an employer - I have to pay MY employees time and a half."

Spouses of Officers

"Why aren't guardsmen paid extra for traveling far from home for drill weekends?"

Enlisted Members

"I don't understand why married men make so much more than single men during annual training."

"I am very dissatisfied with the loss of the VHA program. It seems unfair that you should be punished just because your house is finally paid for."

"The demanding job we train for and the responsibility connected with these jobs deserves better compensation. Per diem rates do not nearly cover expenses incurred when traveling away from home, and many of the rules connected with travel are archaic and harassing rather compensative. E.g. No compensation for meals when flying on TDY although airlines do not serve a meal and you may be caught in a flight delay of 4 to 5 hours which could make you purchase (or go without) up to three meals in the day and not get reimbursed for them. (Present day cost of meals w/tips is much more than the current 10%,10%,20% compensation rates). Also ruling for military and technicians in travel status must be available government quarters within a given area of your TDY is in many cases, a waste of time, government gas, inadequate quarters and can in the long run be more expensive to the government than a local motel. These are just a couple examples of the need for change."

Spouses of Enlisted Members

"Sleeping quarters should be provided for weekend drills - my husband drives 100 miles to Natl G. & has to pay for motel."

"Why isn't there a monetary allowance for transportation to a unit if unit exceeds 100 or 50 miles."

Army Reserve

Officers

"At AT, as a single person, I receive only partial BAQ, which is an amount in the low two figures, which supposedly is to cover housing costs. My married friends receive a full allowance, which is a substantial tax-free amount. This is patently unfair. Like my married friends, I too must maintain a household (i.e., pay rent or a mortgage) when I am away for two weeks each year. My married friends are compensated, and well they should be, with a housing allowance. I am not so compensated. This quirk in the regulations costs me about $175 per year."

"I am a single officer without dependents and I am very dissatisfied with partial rate BAQ during AT. This practice is discriminatory and leads to poor morale and retention especially in the company grade ranks. I have 16 yrs of service & stay only for the retirement. If I were a younger officer with less of a vested interest I would resign my commission."

"Regarding out-of-pocket expenses while traveling in USAR status and during AT and ADT. Reservists are expected to foot an entire bill and be reimbursed at a later date (many times - much later!) Many young Reservists simply do not have these financial services. Therefore, they do not attend training

opportunities. Example: 2 weeks ADT; enlisted soldiers must pay for their meals in a military dining facility, payable at each meal. (This includes the PV2's.) Advances of military pay are discouraged by FAO's and the E-2 thru E-4 soldiers who need training the most cannot take advantage of the training opportunities. I have also seen many young officers run up their 'charge-it' accounts to $600-$700 to attend a USAR school for 2 weeks - spent only on basic necessities (transportation, meals, and motel due to non-availability at active military posts.) FAO's have decreased their workload considerably but not granting pay advances for Reservists on short ADT tours and the units continue to march with poorly trained young soldiers."

"It would be nice to see the Army help pay for travel expenses on a drill weekend. For example I travel about 450 miles and spend 2 nights in a motel every drill weekend. The Air Force Reserve helps pay these expenses, why can't the Army?"

Spouses of Officers

"My spouse uses own automobile to travel 100 miles a month to drill and miles each two-week active summer duty at own expense and I feel some compensation should be given for travel. In addition, as an officer he has to pay for his mid-day meals for which I feel he should be compensated."

"I think the Army Reserve is very slow in paying their reservists for travel costs. They are always months behind which is very unfortunate."

"The true problem with my husband's reserve unit is that it is 480 miles from here. By the time the airfare, rental car, hotel and meals are paid for we might see $50."

Enlisted Members

"Too much problem funding extra needed training or travel pay. I have received travel pay for AT only once in 14 years in USAR."

"I think that it is unfair that a man in the Army Reserve may draw BAQ on two week training if he was unmarried."

"When the annual drill is performed the single reservist should draw full BAQ as he has to pay his rent or mortgage while he is away - just like everyone lese."

"Guard/Reservist who travel great distances to attend drill should be reimbursed for travel over 50 miles."

"My duty station is approximately 160 miles from my home. We travel to and from without travel pay. Most of the personnel in my unit have to drive from 100 to 169 miles. They also don't receive travel pay."

"I travel 100 miles to drill and the unit does not reimburse me for motel expenses."

"When unit commanders require key personnel to come to admin meetings, personnel should be reimbursed for their expenses in getting there."

"Because I have to travel at least an hour to drill and then back to my home, I was wondering why it wouldn't be possible to submit a travel voucher (and expenditures) each month for expenses (travel, food, gas) to be sent in with our pay. Then at tax time there would be a printout for those personnel that do travel distances for tax reporting. At times I spend up to 8 hours between travel, eating plus returning to my home. So including 4 hours of drill, I spend 2-4 hours traveling without pay - until tax time. But for the enlisted, a monthly travel voucher would encourage enlistment and attendance."

Spouses of Enlisted Members

"There is only one thing that I do not understand and that is why reservists only can get extra money for being married at their annual training (summer camp)."

"I believe reservists should be bussed to meetings other than those held at unit unless otherwise fairly recompensed for travel expenses."

"In my opinion when the people in the reserves need to travel the individual units could use a 'petty cash' account to pay for expenses instead of putting the stress on the individuals traveling. I think in the long run everyone; government, units, and individuals, would save money."

"My husband's unit has been going to a camp to do work. What bothers me and my husband is, they have to find their own transportation up and back which is a 220 mile round trip. We should think the reserve center he attends should provide army vehicles for them to drive instead of them using their own gas which they are never reimbursed for."

"The major drawback to my spouse's drills are the location. He must travel 2-3 hours to and from drills. This cost money to get there, causes him exhaustion from travel."

"I feel that a type of travel pay would help a great deal. Perhaps a radius of a certain mileage, then so much a mile thereafter. My husband drives almost 500 miles a drill - this cuts into his drill pay. It would certainly help if he could be reimbursed for some of it."

"More pay or help pay for childcare while spouse is at Reserves. Pay for gas if they live more than 30 miles away from drill site."

Naval Reserve

Officers

"My main area of dissatisfaction is the cost of uniform maintenance. The Navy can't seem to make up its mind what they want their personnel to wear. This becomes a financial burden on me. The uniform allowance does not even come close to covering my expenses."

"The requirement to have infrequently worn uniforms can be expensive, such as the dress whites. Also, changing the uniforms is expensive for reservists."

Spouses of Officers

"Having to pay out of our pocket for <u>many</u> years for travel, meals & lodging for Reserve weekends and ACDUTRA, the rubbing of salt in the wounds is the <u>IRS</u> = disallowing mileage, expenses, taking away amounts. claimed and charging Int. & Penalties on top of taking back amounts. listed... Feel there should be Military Transportation allowed for Reservists for some Reserve Duty i.e., in place of having to drive weekend duty and further."

Enlisted Members

"I must give back 34% of the small wages I was paid for my military time. There is no compensation for the 84 mile round trip I make each drill day, uniform alterations done by professionals, drycleaning, etc., which I don't really mind. But it bothers me out of principal, that after paying my related expenses out of my pocket, I must also give back such a large portion of what little I was paid to serve my country."

"It is hard to leave money home for bills, food, etc. and take 2 or 3 hundred with yourself to get you by for 14 days. (This applies for persons not on per diem). Advance pay should be a new policy for enlisted."

"The clothing allowance for CPO's is very inadequate. With all the dress uniforms needed for Military Retirements and ceremonies, it doesn't cover 1/3 of the expense."

"When serving on ACDUTRA I feel single reservists (enlisted) should be entitled to BAQ even though they are aboard a ship, or at sea. This is because they, as civilians, are required, like active duty married personnel, to maintain a home. It's not an "optional" prerogative. (Active single duty personnel aboard ships should also be entitled)."

"I reside 385 miles (R/T) from my home to my reserve center. Each weekend that I have reserve training it costs me $20 for gasoline. My salary has been $101 for the drill weekend. It would greatly raise my morale if I could be reimbursed for travel expenses!"

"Travel expenses are 1/5 of my Naval Reserve paycheck. Unless compensation for travels is already a part of a reservists pay, I think it would be nice to have at least an percentage amount allotted in proportion to travel distance."

"I feel a reservist should be entitled to a 5 drill weekend (not actually paid for) when having to take off work and driving over 225 miles to a weekend function so they could use the (quote) (extra drill) to take off shortly after noon or at noon to get back plus still be paid for 4 drills or a formula of the Navy's liking."

"I drill in a small Reserve Center - I drive approx. 110 miles 1 way to drill. During winter months the mountain passes are dangerous and difficult to access. During those times I have to drive approx. 300 miles to get to drills safely. Current policies do not allow for re-scheduling these drills or abstaining from drills without effecting my drill status."

"I must drive at least 3 hours to attend drills. I would like to see this reflected in some way, i.e., pay, points. etc."

"WET weekends should be 5 paid drills vice 4 paid drills due to travel involved."

"While traveling as an aircrewman, I've noticed a tremendous difference in the amount of subsistance for travel between officer and enlisted. During a 6 month deployment, an ensign with very few years of service would be compensated two to four times more for travel expenses than an enlisted who has been in for many years. Why is there such a drastic gap between officer and enlisted travel pay? I understand, agree and respect the basic pay scale of officers and enlisted, but during travel, both ranks incur the same basic expenses and therefore do not agree with the per-diem gap."

Marine Corps Reserve

Officers

"Travel allowance, meal allowance, etc. for officers on drill weekends and ATDs."

"I lived over 400 miles from my unit and had to fly every month to drill. Yet I couldn't receive any reduced rates from the airlines."

"Dislike the round-about travel arrangements dictated by MTMC for Reserves going to ATD, particularly going from East to West Coast."

"More travel pay is needed for reservist to attend drills, especially for enlisted personnel. Many training and MOS problems result because reserves cannot afford to go to locations beyond local limits."

"Transportation to and from reserve should be covered at government expense."

"Money for transportation is not supplied from my home (800 miles) to my unit when I report for extended active duty. There are observed differences on this issue in other services."

Enlisted Members

"During A.T.D., reservists with dependents receive B.A.Q., while members who are single do not. This policy seems unfair for the following reasons:
1. My house payment, taxes, insurance, or rent do not stop merely because I am away for A.T.D.
2. My income is reduced during this period because I am at A.T.D. and not earning my full wages."

"The government-supplied motel for those of us living more than fifty miles from the Reserve Center is terrific. Thank you!"

Spouses of Enlisted Members

"Currently, reservists serving 2 weeks ATD's are not entitled to VHA. I feel these reservists should receive the full entitlements afforded the active duty Marines. In addition, if the spouse of the reservist is on active duty, then the active duty Marine must have his pay adjusted to BAQ and VHA w/o dependents while the reservist is on active duty. Considering that the reservist is not entitled to VHA, this situation

represents diminishing monetary returns for the Marines as a married couple, somewhat of a penalty for both Marines serving at the same time."

Air National Guard

Officers

"Guardsmen, whether married or not, are required to maintain their residence while on AD, ACDUTRA, or mobilized. However, they are not entitled to maintenance expenses (BAQ) if they are not married. This needs to be rectified, and I would appreciate any attention on this issue."

Spouses of Officers

"My husband's ANG base is located approximately 300 miles from our home. This causes hardship on our family due to his long travel hours, time away from the family, and travel expense. There is little left of his guard pay check after all deductions and expenses related to duty time are met. I would like to see provisions made to allow my husband to double up drill weekends so he could drill every other month for 4 days reducing travel time and expense."

Enlisted Members

"As a single person my gripe is housing allowance. For a single person to go TDY is a great monetary loss. I went on a mobility exercise and as a single person I received $4.20 for housing. This brought my total pay below a SSgt with dependent and far less time in service (I was a TSgt at the time). Perhaps this practice is okey for active duty where the single person resides on base, but for a Guardsman who has to maintain a home, this is grossly unfair and discriminatory. The married Guardsmen are also provided housing and yet they receive their full housing allowance because their spouse remains in their home. True, there may be no one in my home but I still pay rent or mortgage if I want a home to return to."

"My major complaint with the system involves per-diem. How can anyone in their right mind believe that an officer pays more for his meals than an enlisted person. A meal is a meal is a meal, and the cashier at the restaurant doesn't care a hill of beans what my rank is."

"When on training away from home station, we do not receive any housing allowance. Even though we are gone, we are still required to maintain housing."

"Reimbursement should be made when performing either UTA's or PT's during periods when no mess facilities are available."

"BASIC ALLOWANCE FOR QUARTERS - Eligibility continues to be denied. Eligibility is contingent on having dependents, rather than having rental/lease/mortgage expense. As a reservist, this creates a financial hardship during periods of active duty. Discriminates against single homeowners and anyone else who chooses not to be married and or have dependents."

"Traveling 120 miles one way to UTA I would like to see a travel allowance for my commuting costs."

"There should be no difference with per diem between officers and enlisted."

"I would like to see pay and allowances on per diem and BAS on UTA become more equal between enlisted and officer. Why do officers receive BAS on UTA and then have to pay for meals. Why not have them in same status as enlisted on UTA."

"My Guard does not have enough room to put up all the people from the largest nearby city which is 50 miles away. So they say they will only put up people who are 65 miles (air miles). Since no one flies here I don't think that makes any sense, do you?"

"Travel: Mileage reimbursement should be available when performing active duty for short tours when residence is beyond normal commuting distance (beyond 50-60 miles)."

"Overall satisfied with ANG. I have to travel 175 miles by passenger car to drill, would very much appreciated milage compensation included in drill payment check."

"I would like to see the per diem and travel regulations be the same for National Guard personnel as they are for the Regular Air Force. Example: I went to Langley AFB, Va. for 15 days annual training. Upon arrival, I learned there were no quarters available on base. I was put up in the contract quarters downtown. I was also told that under the flat rate per diem regulation, meals were considered not available when staying in contract quarters and subsequently drew $300.00 for meals. Upon completion of active duty, I filed a travel voucher and learned that I was not entitled to per diem just because I stayed in contract quarters. I was told that the National Guard did not come under the flat rate per diem regs. The bottom line is that I took the money and spent it for meals and later had to pay it back out of my own pocket. I was misled and mis-informed and had to repay $236.00 because of it."

"I dislike receiving slow pay. I recently completed a formal training school at an active air force base. I had to wait after the completion of my school until my orders were submitted for payment. The orders were submitted after my return to my

unit. I had to wait eight weeks for payment. I believe this is a disservice to anyone who is loyal and makes a good effort to do a good job!"

"My major complaint with the system involves per-diem. How can anyone in their right mind believe that an officer pays more for his meals than an enlisted person. A meal is a meal is a meal, and the cashier at the restaurant doesn't care a hill of beans what my rank is."

"I am a C-130 flight engineer. I drive 102 miles 3-4 times a week to stay current and qualified. For these days I only receive pay for additional flight training time for which an enlisted man receives almost nothing. If I was doing this as a civilian job a highly trained civilian would receive 10 times the pay."

"When on training away from home station, we do not receive any housing allowance. Even though we are gone, we are still required to maintain housing."

Air Force Reserve

Officers

"Reserve Clothing Allowance: Every four years we get $50 for uniforms. That averages out to $12.50 per year. You can't even buy a shirt for $12.50. Either go back to issuing uniforms for the enlisted ranks or raise the allowance."

"The BAQ entitlements for single and married people are extremely inequitable. I'm not talking active and reserve, I'm talking single and married. Currently, in peacetime, when we're doing our two weeks of active duty, single people, like marrieds, have a house or apartment to maintain and pay rent or mortgage. The married person, depending on his/her grade and number of dependents, may get anywhere from $213 to $636 for BAQ during those two weeks. The single person gets a paltry partial rate of $6.90 to $50.70 max for BAQ. If a war was on and we were mobilized, the reasoning would seem a bit more justified. But during peace time, when, in most cases, the married person is probably doing active duty at home station--or even if they are overseas--the same as I do, BAQ should be the same rate based on grade, not whether or not you're married. Now, if the person has dependents, they might get a bit more, but the rate should be the same otherwise, as the active duty rates are."

Spouses of Officers

"Belonging to a reserve unit requires some sort of commute for a majority of the members. Example leave Houston at 5:30 pm Friday - arrive at base 10:30 pm. Drill Sat & Sun. Leave

Sunday at 4-5 pm, arrive Houston 9-10 pm. In order to conduct any required business on base, he would have to take leave without pay on Friday and drive up Thursday pm because none of the offices are open on weekends i.e. - medical - I.D. desk etc... This is an inconvenience & I feel more should be done to accommodate reservists on weekends."

Enlisted Members

"Per diem inequity between officers and enlisted is another bad spot. As an enlisted aircrew member we get less perdiem for staying in the same quarters and eating at the same places as the officers especially when we have to live off base on TDYs because of lack of quarters. Per diem should not be based on rank because per diem is intended to support us at our home away from home. Also the reserve should get perdiem during our annual two weeks training."

"I ride the cactus flight from Luke AFT AZ to Norton CA. I am very dissatisfied on the way the whole flight is handled. The flight is never on time arriving and leaving. It interferes too much with my work schedule. We spend to much time in uniform. If the flight is not improved I will separate from the reserves at the end of my enlistment."

"My comment is on the topic of traveling to my unit. Presently I am attending university and it takes me roughly 6 hours to get to Dover AFB. The travel expense for me is much higher than the average person. I think that people who drive extended distances should be compensated in some way for example: It will cost me sometimes $30 for bus fare. Then approximately another $20 for the roundtrip ride to Dover. So that $50 dollars out of my E-4 UTA pay. Please, there has to be a better way getting to my base."

Spouses of Enlisted Members

"Why was the variable housing allowance (VHA) taken away from the reservists unless he performs 120 or more days of active duty. Due to this change money was taken away from us."

"My husband is a Tech Sergeant in the Air Force Reserves. He loves the time he spends on duty, he is a hydraulic repair specialist. My only gripe is the travel for him to report to duty. The Air Force used to have a plane pick his group up, fly them to their unit. Then they took that away. So my husband & the group he had flown with began a car pool - each only having to drive once every 4 months. Then, my husband's shop switched his weekend - even though they knew he car pooled with 3 people from other shops. Now, he must drive alone - 3 hours - every

month. My gripe is why did they do that when they knew he carpooled to save expenses. Now he has that long drive down & back alone, along with the car wear & tear & gas bill!"

Coast Guard Reserve

Officers

"Being required to commute in excess of 800 miles round trip to attend IDT/Drill is somewhat excessive."

Enlisted Members

"I travel 130 mi each way to drill site and to home. Military should pay for travel costs plus medical insurance for such travel. Also military should reimburse members for overnight housing & meals when unit site doesn't provide room & board where travel over 50 miles each way."

Employment Conflicts and Concerns

Army National Guard

Officers

"My civilian employer (which is a federal agency), including some bosses & coworkers, view the reserve work as a dodge, a vacation, some additional bennies that they don't have their hands into."

"I do see a problem with employers and families as extensive absences from home and work are required, i.e. Service school requirements that exceed two weeks. I could go on about this problem. But the point is that without a well defined immediate cause, the American public is not willing to accept long term absences by their employees and spouses."

"Most of the key personnel in my unit and units in our Battalion happen to be also key personnel in their civilian jobs. Therefore, weekend assemblies, which begin on Friday constitute a problem for them their employers as well as the unit strength report. Consequently, this situation originates a morale problem in the unit when the troop see that some of their leaders are absent once in a while, Fridays. The worst case takes place when a good leader has to decide to separate from the service in order not to jeopardize his civilian job. I strongly recommend you to take a look at this situation and eliminate M-5 drills. Instead, M-4 drills will serve to accomplish what needs to be done in a M-5 drill. Also, the absence problems on Friday, will be alleviated."

"The National Guard does not support its members in worker/ employer disputes. Many employers criticize and cause problems for guard members. This has hindered our recruitment and retention of unit members. The National Guard needs to make some policy in this area or if it exists, enforce it."

"Some requirements are getting heavier. AFTP's are increasing to the point that you must fly once/week in addition to weekend drills. Educational requirements, at no pay, take up at least one night per week. All this time is taken away from family, which could cause problems. Additionally, not enough concern is given to a person's civilian employment. Attitude is Guard first & civilian employment is treated in a secondary manner."

"There is an urgent need for military planners to realize the problems encountered by part-time Guard personnel in getting extra time off from their civilian jobs for military training. I believe most employers support the Guard, provided military time does not exceed one weekend per month, plus 15 days annual training. Any time off for military activities beyond that amount tends to jeopardize civilian jobs and disrupt family life. Federal law requiring employers to retain part time military personnel is not effective. If an employer is dissatisfied with an employee because of excessive military time, they will probably find some other reason to dismiss the employee to circumvent the law."

"The total force policy requires a total nationwide commitment to employer support. The current program is just lip service on the part of CEOs. First line supervisors and plant managers find subtle ways of pressuring the NG member. This creates a great deal of stress and often forces the guardsman to choose between putting food on the table or continuing national guard service."

"If the increased time spent on IDT's is to become a reality, business personnel must be given tax breaks or other tangible incentives to hire or maintain guardsmen in the employment force. No business person will maintain a liability such as a guardsman, loose him for a longer period of time, hire a replacement and take the guardsman back doubling his payroll etc.. However, I do agree with the need for longer training periods."

"My employer does not like the Guard. They do not support the Guard and do not want me in the Guard."

Spouses of Officers

"Although my husband enjoys his time in the National Guard, and even though I give him all of the support and cooperation I can, it has been a major source of stress in our family. He has

been constantly hassled at work regarding time off to attend drills and other Guard activities. This is not official policy, of course, as my husband is a state employee. His supervisor simply has a negative attitude about the National Guard and often intentionally makes things difficult. I have heard this from other state employees in the Guard as well. Therefore, I feel that much more needs to be done in the way of public relations/employer relations."

"I wish there were laws governing employers harassing their employees because they have duty in the Ntl. Guard. There should be a better system in which a Ntl. Guard member could go through to get his employer off his back (so to speak). There should be some tough laws, that when an employer breaks them, he is fined heavily. I know the Guard has a process to go through but it is not effective."

"Civilian families don't mind giving up one weekend per month but we cannot forget to take into consideration the fact that the individual could probably have worked overtime and made more money at 1 1/2 times his normal civilian pay so by working for the Guard for a weekend, he lost money that would have gone to support his family."

"Also, medical benefits are not very clear or good. During a 6-month tour, our civilian benefits were dropped, military ones not available, and upon my husband's return to his full-time job, we had a period of no coverage as we had to complete a waiting period before our old coverage went back into effect. This makes for a dangerous & expensive situation. We would definitely hesitate to have my husband take another tour of that nature."

"Annual training is a money losing prospect. His pay is not equal to even his daily (ongoing) overhead at his private (civilian) job. As he is self employed, this equals negative cash flow."

"Three weeks is asking too much, for ACDUTRA, of a civilian employer and a voluntary reservist."

Enlisted Members

"There is no effort made by ARNG in accommodating my work schedule with the Veterans Admin. I work for the VA, and we receive only 15 days military leave per year. How do you people think we make up the additional drills, if not through sick-leave, vacation time or just with not showing up for work, and putting our families bread & butter in jeopardy. I have tried talking to Army legal people, all I get is the same reg's about how the NG has priority. This is the area of greatest concern."

"Would like to see a better an stronger protection plan for Guard personal from employer that make it hard on us in the Guard. Some employers threaten to fire you and will not work with you. Many have got out because of this."

"A concern I have is employer support. In this area, if you are Guard landing a civilian job is impossible. We need stronger laws against those who discriminate against Vietnam Vets as well as present Guard members."

"The Guard interferes greatly with my civilian occupation. As a police officer I work all weekends, and to get the time off is very tough to get, especially on three day drills in the field. I have been working it out for 2 years and am going to try to work it out for two more to the end of my enlistment. At which time it is probable that I will get a discharge. The Guard I enjoy, but the effect on my civilian job is dangerous to myself and fellow police officers."

"I think we should make more money because when we go off to summer camp I don't get paid on my job. I lose every time I go to summer camp."

"I am a College Student and have been looking for a part-time job for several months. My employment record, and qualifications for most part-time jobs is very good. I have had a lot of interviews, but with 10% unemployment in this area NON - Guardsmen have an advantage. I like to tell employers I am in the guard up front, but this really hurts my chances. If your education benefits are cut very much, I'll have to get out, and find a job so I can afford school."

"Even as I write, my supv. at the U.S. Postal Service, is trying to force me to bid on a midnight tour which he says will not conflict with my mil. duty. I would get off at 0630 on Sat. mornings and be at my base at 0700 with no sleep."

"I lose some pay while at Annual Training (I make more working civilian job)."

"During Annual Training, particularly, I lose money. I am paid the single, non dependent pay schedule at AT; my employer, a private corporation, does not make up the difference between my low pay at the AT and the pay I would receive if at my civilian job. Considering the amount of hours I spend on duty at At and considering the extra duty expected of the member - admin nights, correspondence courses, the compensation is not enough."

"One thing that does concern me is not related to reserve policies and activities. It has to do with employers, and employees, who are not guard members. They feel that the guards

are a waste of time and money, they will not admit that they discriminate against guardsmen, or veterans, but they will hire a non-service member before they will hire a service member. Many fellow guardsmen I have associated with feel that they are discriminated against. Employers, though, are very careful not to say anything about the national guards when dismissing an employee during 'seasonal' employment but they will not rehire that employee when work picks up again. They will hire a non-service member to replace him. Of the 4 employers I have worked for in the last 8 years, 2 support the ARNG, one openly criticizes the guard, and my last employer will not commit himself one way or the other, although 1 out of 24 of his employees is a guardsman. I would like to be 'rehired' by my last employer but he is very 'evasive' whenever I try to talk to him about job possibilities. He 'cites' the 'lack of work' as the reason I have not been rehired and at the same time, hires other people who are not licensed to do work that I am licensed to do."

"A better national program to make employers aware of the pride that most 'Guardspeople' take in their week-end drills & MOS & the importance of these people being able to get off for drills & other exercises that benefit the defense of the U.S. & help they give in emergency situations to local communities."

"Pass a law that states that no employer should harass or release any employee before or sometime after, for annual training."

"I would like to know how the employer got away with making me work on the nights of drill weekends."

"It seems to me that local governments would work with employees & pay them for Guard Reserve time as the Federal Government."

"One thing that I think the Guard should do is let employers know the importance of Reserve components. There are always problems with employers due to leave from work because of drill meetings."

"My employer, the U.S. Postal Service, does not offer revised schedules to attend drills which causes me to use a large amount of annual leave. This is very unsatisfactory. I think a governmental body such as the U.S. Postal Service should show more understanding to people serving their country."

"I take my 2 wk vacation with pay for my two weeks A.T."

"More emphasis should be placed on developing good Public Relations on the local level with the employer community."

"I think the Guards/Reserves should have more Headquarters support when it comes to being harassed by employers and should make more effort to stop it!"

"I would like to see more positive command influence from the state level to help teachers in public schools who are on 12 month contracts deal with administrators who insist on use of vacation time for A/T."

"The guard has been an excellent source of additional income, particularly since I am currently unemployed. I did, however, lose my job as a Quality Control engineer in July of 85 due to a management staff reduction. I was informed of my termination on the day following AT-85. Although I cannot prove it, I believe my guard status was a factor in me being included in the staff reduction plus I believe it is also hindering my current reemployment efforts."

"Greater protection for Res/NG from adverse action by employers should be written into Federal law. My supervisor through past and recent comments has made it quite clear that being on ADT for more then 2 weeks would be a career mistake. This has resulted in me not being able to go on my unit's 5 week ADT to Honduras."

"I use my vacation because my employer along with many others will not give us military leave with pay. I think they should. In my shop alone out of 1500 employees there are only 5 guardsmen employed. I don't think it would break the company to pay us for proudly serving our country."

"Too much time spent with NG activities with little support from federal laws to protect civilian employment (i.e. this year I did 2 annual trainings and a 2 week NCO school for career progression.)"

"There appears to be the starting of a backlash on National Guard service. Most employers were going along with the 48 drills etc. but with the added drills and training requirements, more members are being pressured by the employers. If training time is extended, some manner of protecting the Guardsman must be provided to insure employment is not effected."

Spouses of Enlisted Members

"The times he is sent for conferences elsewhere in the US and so is put on ADT and thus loses a day of pay but is actually gone from us for one more day due to travel. This also causes loss of civilian pay. The supposed reasoning is budgeting considerations."

"If I were my husband's boss, I'd find any excuse to fire him. I feel the Guard takes advantage of employers. The amount of time he spends at Guard, added to any vacation time and sick leave, adds up to a lot of time. I would be surprised if his fellow workers have not complained."

"I think that the employers of some of the ARNG members should be notified regularly of their responsibilities to the ARNG members. My husband for one is being harassed on the job for his weekend drills. Ex: forced to do 10 times more work the following Monday after his drill weekend because 'he had the weekend off and being denied one of his regular days off because he had the weekend off.' Or being denied a yearly vacation because 'you had your 2 week vacation to play Army.' That's what tips the scales for us what almost makes it a burden. Its a shame to because he is proud of what he does in the ARNG. And he can't just up and quit his civilian job because of 6 mouths to feed."

"My only problem with the pay scale is during annual training. My husband has to take one week off our family vacation to make up for the pay loss of his regular job."

"My husband's civilian employer is a tyrant to work for. He treats all the employees like dirt and lies and creates personality problems for people he doesn't like. Last year when my husband was on annual training he claimed I couldn't do the work(I was the fastest assembler in the place) and fired me to get back at him because he knew he couldn't fire my husband for his Guard work."

"I do not like the idea of requiring more schooling at the families expense. We can't meet our expenses on his guard pay &it always hurts us financially for him to go for extra training. It would be much easier if the civilian employers were required to pay employees when they miss work for training or schooling for military purposes."

"This so called 'part time' job in the guards for 'extra' money is now losing our family more money every month. He's tried the union at work & other ways to solve this but no luck."

"During times when there are 3 day drills (Fri, Sat, Sun) my husband sometimes is required to use an ill day or vac day, or off with no pay) for Friday. He rotates shifts and is not allowed to change shifts at work. I think this is unfair. Civilian jobs should be made to make allowances for allowing guard members to change shifts, etc. in order to attend drills."

"Dissatisfied with employers in civilian job market's perception that spouses experience from ARNG does not count as 'tangible experience.' In other words my spouse's participation in ARNG has not helped him to obtain a good job."

"This survey may do some good, but not at what is the real problem, that being that it's not taken serious, and regular employers don't like letting them go for guard duty. We see those TV advertising to join the Guards & that they are serving our country and their employer support them. That's not true. If it came down to his regular job or Guard, Guard would have to stop we can't loose any more jobs because of Guard. Funny thing is that he really likes Guard."

"My husband is suppose to complete subcourses so he can keep his current job. Also he needs to do them for any promotions. I know he would do better if sent to school for the particular info. he needs to know. If sent to school - if not on weekends - he gets hassles from his boss. I wish civilian employers were nicer when it comes to time off for Guard."

"My biggest concern about my husband's National Guard activities is that his civilian employer does not encourage his participation. Most of the time he has to work third shift at his job and then go to his drill. It is extremely hard on him - 16 hour days every drill weekend. I wish there were some requirement that employers must let Guardsmen off on drill weekends. Serving in the National Guard should be seen as an honorable service to our country. In some cases, it is not, however."

"My husband lost his civilian job when he returned home from 2 weeks annual training. We were led to believe this would never happen. We filed papers thru proper channels. The DOJ turned this case down. There is nothing to protect their civilian job while away at annual training."

"My husband's current, immediate, supervisor grudgingly grants him time off for his two weeks annual leave. After that to try and get one or two week for vacation time is impossible."

"I feel as though the summer two week pay could be improved because the family budget is deficient for those two weeks and this causes a great sacrifice. All employees does not pay salary or any benefit during the time he is away for camp. This is an area that needs some evaluating."

"My husband loves the National Guard so does my daughter and two son-in-laws. The problem they all face is with their places of employment not backing them. This is especially true of my

husband who is a policeman. They are trying as hard as they can to make him quit. There needs to be federal law passed to support the reserve units if they are to survive."

"Civilian employers sometime make it hard on ARNG's for missing time on job due to ARNG commitment. Legislature should provide protection laws for ARNG's in civilian."

"I think being in the Guards should help you find a job, not hurt your chances of getting one."

"On one occasion, my husband's enlistment in the guards has kept him from getting full-time employment. I feel civilian employers in this area are really not impressed if you are in the guards. They are concerned about who will replace you during the two-weeks of AT. Maybe if there was some type of benefit program available to the employees, they would be more willing to hire men who are active in the guard units."

"I feel the Friday nite drills should be omitted. People who work afternoons shouldn't have to take Fridays off. It really hurts the pay check, when you have bills & other obligations to meet. Sure you get paid for it, but two months later. It doesn't help on a weekly basis."

"We certainly would appreciate knowing and keeping the drill dates on yearly basis. My spouse rotates shifts and he tries to schedule vacation days on drill dates. Sometimes the drill dates are changed and this creates a problem."

"My husband has been at his new job for 7 months and this is the first boss who has objected to the 2 week drill and who is forcing my husband not to attend during the regular period of training."

"There needs to be a few more changes in the area of civilian employers. If you have guards during the week (part of the week) you have to use your overtime protection sheet. You are aloud so many a year and when you have guards you shouldn't be required to use your overtime protection sheet. Your employer should automatically protect your overtime if you are on guard duty."

Army Reserve

Officers

"As Commander, I spend a great deal of time to 'catch up' on requirements. My employer discharged me, stating off the record, because I spent too much time with the Reserves. Yet, it seems the full timers are running the Reserves. I am not certain what the repercussions are from this. Administratively,

it seems units should have 2 MUTAs/month - one to train, one to complete administrative requirements. Sometimes all the requirements seem overwhelming and burdensome."

"Over the past 3 years, I've applied for active duty schools & received time off from my civilian employer. Examples are as follows:
Orders for airborne school; 1 week of Ground, orders were revoked, return to home station.
Orders for secondary MOS. Misplaced threw chain of command, employer notified, comment; 'Thats the Army as usual.'
Orders to attend additional schooling: orders were cancelled for lack of funds. Employer was upset. This has happen 4 times.
ATA's & man days, needed during the year not used till the last 2 months. Was authorized 14. Need these mandays from Higher Headquarters earlier or when needed. Dealing with live ammo, these days are needed, everytime this situation occurs.
My employer is willing to cooperate but the admin part for orders & schooling is to the point of not, any more wise comments."

"While many employers verbalize support of the reserve program, it is often difficult to obtain more than 2 weeks for training. This fact is further complicated by the need to complete military education and also attend troop unit AT. Units are reluctant to grant ADT in lieu of AT. This makes it impossible for individuals to complete both requirements."

"Employer support is becoming non existent. In the last couple of years the U.S. Supreme Court has overwhelmingly ruled against the reservist and in favor of the employer. The intent of the law and the U.S. Supreme Courts opinions are two entirely different entities. New legislation must be passed to refortify the rights of the reservist. Benefits such as vacations, raises, seniority, hospitalization, promotion are being denied the reservist because of these rulings made by the U.S. Supreme Court. We need to protest the reservist rights with new and stronger legislation."

"Let's quit the lip service and make civilian employers support USAR trng time. A lot of my civilian employer bosses become resentful of my Reserve activities and punish me for being in the Reserves."

"A lot of people I know use their vacations for annual training. Your low ranking people dont get more than 2 weeks vacation. A lot of people will run into problems with employers. I know its a law to let us go but if it means having a civilian full time job or a part time army job, guess which one they will give up."

"No real support for Guard & Reserves by Government agencies... Only support because they are required to by law. This is prevalent in Govt."

"I am concerned that my civilian employer (Federal government) does not support the Reserves. We have had a positive employer support program but my boss is more concerned with our working overtime to improve her statistics. The employees derive no satisfaction from this. We are harassed into working overtime that we do not want or need. I have had to expressly point out the law to be granted my leave requests."

"In many instances the ARCOM is not responsive to the needs of individuals re: timeliness of orders for AT/ACDUTRA. Many employers want/need more than 30 days notice; in some cases orders are not received until after duty period has begun!"

"I see several members of my battalion hesitant to participate any more than they have to in training because their employers hold their jobs 'hostage.' This leads to situations where soldiers and the unit are pulled between either participating at AT, attending school to qualify for promotion, or leaving to 'secure' his main source of income. I believe employers need to be made more aware of what their workers give to the country & community in return for the time they need -and in turn, information should be made available to employers to recognize abuse of their cooperation."

"I have not had an ACDUTRA of less than 18 days and some as long as 28 days in the last 5 yrs. My employer recognizes only 18 days for A.T."

"Our unit - 33 personnel - lost 2 outstanding soldiers due to employer problems with 3 weeks for AT."

"We have got to do something about employer relationship problems."

"Civilian employers are beginning to be somewhat unfavorable toward the many hours required of Guard/Reserve participation. We need to pay attention to this situation."

"Employers are not really receptive to employees being in the reserves. Policies are stated in support; but supervisors are not receptive."

"Take away my double salary when on AT and forget me--I'm gone. My supervisor (Fed. job) claims that he is obligated only towards one AT tour/yr. If I propose a second tour (using M.L. balance or annual leave) he will deny leave. I feel he is wrong, but--if he feels that strongly--I best stay at home."

"I recently switched employers due to the anti-military attitude of my former employer. After 12 years of constant struggle and being black balled for taking two weeks off for each A.T. I finally had to make a new start with a new company. 'Reforger 86' - 26 days of training in Germany finally proved too much to overcome and was the main reason for having to switch companies. It cost me over $20,000 to attend the officer advanced course in 1982. This was the result of returning to a company whose attitude toward a military leave of absence was 'We have to let him go but we will make him pay for it.' The U.S. Government must stand behind the Reservists who want to complete the required military training. The Department of Labor has absolutely no power to defend a reservist and most corporations have the time and the money to outlast an employee in any legal battle. Please try to put some bite and strength into our laws to protect the reserve component members who try very hard to be good soldiers, good employees and good parents. We are constantly trying to make all parties happy but it is a difficult feat."

"As a Director of Personnel in two assignments I have surveyed many junior officers and enlisted persons. Most have difficulty with their private employers on AT/ADT."

Spouses of Officers

"I wish that more people -- senior commands and civilians alike -- would feel and show more appreciation for the very real sacrifices of time and energy made by the reserve officers. Leaving a business in which one is self-employed for two weeks is no minor matter! Nor is continually having to subordinate the wishes of the other members of the family to one's reserve commitment."

"The times he is sent for conferences elsewhere in the US and so is paid on ADT and thus loses a day of pay but is actually gone from us for one more day due to travel. This also causes loss of civilian pay. The supposed reasoning is budgeting considerations."

"Lack of employer support causes difficulties for my spouse. An aggressive Reserve PR program in which employers are automatically contacted might be helpful - a major undertaking; I know!"

"It seems to me that as a reservist progresses it is expected that the reserve program take priority over his civilian job which is usually the main support of his family. Many are times my husband spends the better part of his day at his civilian job dealing with Army Reserve business over the phone. There are times he must leave his office to make an unscheduled stop at the reserve center. My husband is able to deal with this

because he is the manager and his superior is in another part of the state, however, I can see how this is bound to be a problem with someone who's boss is in the same office. Even in my husband's situation there is no way that the quality of and the amount of time spent at his civilian job can help but suffer. While most men work hard and are proud to serve their country in the Reserves, I think the Reserve Program must keep aware that these men have other important aspects in their lives that must be attended to."

"My spouse works for the Federal Gov. and he has had more problems getting Reserve time off than those in civilian jobs. Our family has had to sacrifice a summer vacation together because he is only allowed 2 weeks off during the summer and must take this for reserves. It was not this way in the past and this will be the deciding factor in his leaving the reserves. Also reserves dates keep getting changed which cause problems for him at work changing his hours and those changes cause the family to make more sacrifices than they should. More consideration in scheduling needs to be made for those who do not work 9-5 Mon to Friday but rotate hours & days off."

"There is MAJOR conflicts with my husbands civilian job and time required with the Reserves - his civilian position must come first - his employer requires him to work late shifts even on his weekends for Reserves, therefore, he will work Fri, Sat, Sun back to back shifts with very little time - if any - for sleep. Also - time off for weekend Reserve duty is marked as 'Absent' in his personnel file - with no explanation - and that looks bad. His employer considers his weekend schedules for the Reserves a BIG hassle - the stress and fatigue is felt by both my husband and myself."

"I feel that the Army Reserve needs to improve their protection against a person who works for a state, in getting off work. To explain what I'm trying to say is, when my husband has to go off to different types of military schools, he sometimes has a hard time, or he will turn down the school, for fear he will be transferred in his department due to his leaving the department for the military training."

"No consideration or understanding is apparent for my husband's civilian job situation. That job is primary for all our family needs & cannot be jeopardized. He is in middle management in an industrial setting. He does not have the flexibility his unit sometimes assumes he has. An example is the time he'll be away this year because his Active Duty is extended so he can go down with the advance party. The reality for us is that we accept the negatives of this for the retirement benefits & to supplement our monthly income. This is my husband's part-time job. To blatantly expect a person to put this ahead of the commitments & responsibilities of his full-

time job & family obligations is unfair. I wish at times that some of the excessively enthusiastic 'weekend warriors' would acknowledge the different lifestyles & obligations of their fellow Reservists."

Enlisted Members

"I have been a Reservist for 6 years and have recently acquired a civilian chef's job. With this new job I am required to work weekends. Being the chef of a family restaurant I have no one to replace me while on Reserve drills, so I am leaving the Reserves--to keep this job! My days off are Mondays and Tuesdays, but my Commander tells me I cannot continually RST for those days (I wish I could so I can remain in the USAR). I feel the USAR does not care enough to help me remain!"

"I enjoy the USAR. But in Aug 1985 I changed jobs. I am now in the investment banking field, and it is very critical that I am at work the biggest part of the time that the "market" is open. Therefore I am going to transfer to the control Group. I can not afford to take off two weeks anytime. I have no problems with weekends. My pay has increased greatly and I don't want to jeopardize it.

"I was asked to go to a military school 2 mos ago. After I arranged to be absent from my civilian employment for 1 week I was informed that I might not know if the higher HQ would approve my slot at the school until 3 days before. The school was cancelled 2 days before I was scheduled to go and raised havoc with my civilian employer."

"I enjoy the reserves and my unit but my new position at my civilian job makes it difficult. My travel time was increased by 3 hours. The Company I work for does not compensate for wages."

"When I take off 1 day from my civilian job to accomplish 1 day of active duty I only come out ahead pay wise by $10.00 on military pay. Why would an E-4 even care about active duty pay when, if he has a job making $7.00 an hour, he is losing money each time he participates on active duty."

"The policy of changing drill dates and A.T. dates causes undue hardships on family and civilian employment. Especially short notification time. Also second shift employment causes me to use vacation time for civilian job to attend Friday night drills, which have been numerous in 85."

"I wish that <u>employers</u>, especially immediate supervisors, that have employees in the guard or reserve, someday understand that it is a benefit to the employer, and very important to support

the employees that are in the guard or reserve programs!... Some employers have the attitude, that you don't have to be in the guard or reserves, and make it hard for their employees."

"The majority of the FTM, AGR force lose sight of why they have a job. They could generally care less about the Reserve personnel."

"Our training schedule changes on a daily basis. The drill dates are given out for the year and then are changed several times before the end of the year. I plan my yearly schedule around the original dates given. When they are changed this puts a great burden on me, my wife, family, civilian job, and the people I work with."

"Getting alt. A.I.T. for College or tech school. I had (for 2 years tech school) over 16 days of absents because of reserve. This looks bad on my transcripts for which I'm embarrassed to send for job applications or when future employers check on references."

"My employer is supportive of my participation, but requires my orders for active duty in advance in order to process my leave and obtain the proper visas for Saudi Arabia. In 1985 it took me 7 months to arrange my active duty with the reserve liaison office in Germany, I spent almost $200 in international telephone calls, and I received my orders 3 days prior to my reporting date.... This year I mailed my request for active duty 3 months ago. I have not received any word on my request."

"As more hours are required to accomplish the duties, civilian job conflict becomes a bigger problem. I think a nation wide awareness program should be initiated to educate and inform civilian employers of the ever increasing importance of the reserves, as active duty forces are being cut."

"Regardless of what the leave might be, any employee who is expected to take two weeks, and usually more, off from work for military duty, is worth less to his or her employer. Add to this the soldier's potential to be called to active duty and the employer might find the person unreliable. Competence and reliability are just as important to a civilian career as they are to one in the military. Before requiring additional drills each month, or a third week of AT, remember that we make our livings at our civilian jobs, not from the military."

"The survey did not take into consideration the fact that some people lost money from employment due to military obligations."

"I had a good job in 85 and they called me 4 days before we left for AT and I could only give my boss 3 days notice witch made a lot of problems for me and everybody."

"Assurances from highest levels of Department of Defense to protect civilian job and employer refusal to honor reemployment rights or reservists."

"I am assigned to a USAR School Unit. I don't find out my AT assignment early enough to help my employer. I need to know at least 7-8 months in advance so we can reschedule the classes I teach at work. I take a fair size cut in pay by going to AT every year since I make less at AT than I would make at my civilian job (I get no pay from my civilian employer during AT)."

"Very dissatisfied that I have to take time from work to make drill time on Friday because of the three hour drive and the meals that I have to purchase. No military pay for work time lost. Very dissatisfied that I have to take time from work for such things as physicals, photo ID and DA and any type of test with no military pay."

"I am a federal employee (temporary 1yr) working for a military service. I recently requested leave without pay to attend Reserve duty (A.D.T.). My leave request was disapproved based on my temporary status. I am aware that federal law guarantees me the right to serve (38 U.S.C.). I know of some fellow reservists (also civil servants) who have been subjected to other forms of harassment for serving their country. I found the E.G.R. to be very helpful in addressing the above mentioned problem however, I think the DoD and the individual services should take affirmative action to keep this from happening in the future."

"At my present civilian job I am required to work weekends. When I attend my monthly drills, I have to miss scheduled work. My employer doesn't mind, because I am a hard worker with a good attendance record (only missing when I attend drill). Because of the difference in pay between my civilian job and my Reserve pay, I lose $20.00 each drill, $400.00 when I attend AT. This is a sacrifice I am willing to make. In recent weeks after 3 years of waiting on a list I finally had an interview at a Local Post Office for a job I and my family had been hoping for a long time, only to be turned down for the job because I am a Reservist. One of the day's I would have been scheduled to work would have been on Saturday's."

"A very serious conflict exists with civilian employment. I am located in a presently economic depressed area where jobs are very hard to find. A person cannot exist on reserve pay. We have lost 15% unit strength due primarily to civilian job conflicts. If the Reserve program is to continue in my area this must be addressed."

"I have been turned down for civilian promotions due to being a Army reservist. In no way can I prove this completely due to the cautiousness of my employer. However I have been indirectly informed that the reason they would not promote me is based on the chance of mobilization for long periods ie longer than 60 days. I am very proud to serve and feel some pressure should be placed on employers to abide by the law in reference to reservist laws to protect them."

"At my current pay grade, my Reserve service is financially disadvantageous, because I am in sales on partial commission and the more I work, the more I make. The only way I would consider remaining in the Reserves at the end of my current obligation, is to be commissioned as a Lt. in the USAR."

"One of the main problems we reservists have with more drill time is with our employers. They dont want to give us any time off now. More time will be nearly impossible to get off."

Spouses of Enlisted Members

"Question 68 - His reserve unit expects him to give up one day's pay in his civilian job (which is swing shift) to attend a MUTA5 drill."

"My spouse's civilian company in the past have said okay to 2 weeks ACDUTRA provided he return his Army check to them in order to receive his continued regular pay. Fortunately it hasn't been followed through, but if it had been, then it would have wound up <u>costing</u> my spouse to be an IMA. Somehow, provisions should be made to assure a Reservist does not lose salary (in total) to be on ACDUTRA."

"When my husband goes on 2 weeks training, his work place, gives a him bad time. When he comes home his work place give him low paying job again."

"Army pay and benefits do not compensate for the hard time he gets at work for messing up work schedules."

"Should be a better policy governing such situation. We are asking the employers to support the Guard and Reserve but it seems the Reserve is not supporting the employers' needs either, so how can we expect them to support the Reserve during their needs?"

"Well on one of his <u>normal</u> week ends (Reserve) he's there for 8 hours Saturday & 8 hours Sunday in a MUTA4, which allows him to work his week-end job. In a MUTA5 week-end which is from 6:30 pm Friday to 4:30 pm Sunday, it doesn't allow for him to work his week-end job (Fri & Sat) as a restaurant manager, for <u>only</u> 25% more pay, so in the long run we end up losing money."

"Very unhappy when a weekend drill starts on Friday & spouse loses 2 days of work over it."

"Another thing is that he's been given U's for missing reserve meetings because he had to work at his civilian job & a work conflict is unaccepted by the unit when state employers have to plow snow on some week-ends that's excused for them - but he can't get it excused."

"I have found my husband's involvement in the Reserves has caused him to loose two jobs. Many employers do not appreciate the two weeks off in the summer. If you do not get vacations this means they have to give you time off. My husband receives no time off. When he interviews for a position he lets them know he is in the Reserves and right away they become disinterested. It has been 4 years since he has graduated from college and I truly believe the Reserves is directly responsible for his inability to get a permanent position."

"...if required training/school attendance could be broken into 1-2 week intervals and spread out so as not to inconvenience his civilian employer with 4-6 week absences."

"My husband's employer doesn't like the military, so he has told him he will not have any promotions while he is in the reserves and that he will have to take his yearly vacation at the time he has annual training. He couldn't get the time off last year for it would have cost him his job. Any time my husband asks for any kind of military leave it's a hassle and it shouldn't be. There should be something we can do about this!"

"The Army has spent considerable time and money to train individuals. Now that they have valuable experience the Army seems to be going out of their way to drive them out. There are civilian employers threatening reservists in my husband's unit with dismissal but the Army will not back them up."

"There should be a sponsored campaign to encourage employers to provide reservists leave with pay during AT rather than causing them to use vacation time."

"...if required training/school attendance could be broken into 1-2 week intervals & spread out so as not to inconvenience his civilian employer with 4-6 week absences."

Naval Reserve

Officers

"Implementation of Annual Active Duty for Training continues to be a mess despite annual promises of improvement. Individuals who request ACDUTRA 5-6 months in advance are still

kept on pins and needles waiting for the orders and the travel materials....in my unit last autumn, the majority of the 12 people going overseas did not receive orders or tickets until within 72-48 hours before take-off. This is an unconscionable way to run an organization; military personnel and their families are stressed unnecessarily and the military person's relationship with his/her employer is strained beyond reasonable bounds."

"I feel that a reservist should be allowed to make up more than 4 drills due to an employment conflict. I had a situation where a high level manager at my company asked me to help solve some serious technical problems (on a DoD project) the Friday afternoon before a drill weekend. My commanding officer required me to use my make up drills."

"Military hops scheduled for early afternoon on the Friday before a WET. It's exceedingly difficult for most affiliates to get necessary time off from civilian work to comply with such flight plans."

"Legislation to provide for non-discrimination in <u>hiring</u> for Guard/Reserve is needed, and laws to provide greater rights to Guard/Reservists are needed and/or should be strengthened."

"I am concerned by the over-abundance of federal and state/municipal workers that comprise the reserves. Apparently, only the various governments make it worthwhile for their employees to participate in the reserves. Very few private industry employees participate, primarily due to employer attitudes regarding the reserves. Although there are statutes regarding the rights of reservists and their civilian jobs (U.S. Code title 38, chapter 43), as an attorney I see these laws being circumvented and out-right ignored constantly. The U.S. attorney and other agencies should take a hard-line on this subject and make a few examples of employers who violate these laws. More employee reinstatement to prior position is not enough; there should be punitive monetary sanctions imposed upon such employers in order to make them 'toe the line'."

"My employer allows ten days military leave. Twice I have had to be gone longer. Each time I lose a full days' pay for each day beyond the ten he allots to me."

"The Naval Reserve insistence on weekend-only drilling is a substantial burden, and poses the only real threat to my continued service. My civilian job requires me to work every other weekend. If a third weekend is then consumed by the Reserves, I am left with one weekend per month to spend with my family - not acceptable. I would gladly drill weekdays when my children are in school, but the Reserves are adamantly insisting that I either forsake my family or dis-affiliate."

"Because of my expanded responsibilities in the Naval Reserve due to promotions over the past seven years, I have had to devote more and more time between drills to get the job done properly. Thus, I have arranged my civilian employment so that I work less hours and get paid less money."

Spouses of Officers

I am very proud to serve our country as a Naval Officer's wife! It has been rough at times and inconsistent. Since my husband has been CO of his unit, we have had to deal with more pressures. I'm proud he's CO and a great one....But whenever he goes to a Navy Officer's Workshop, he comes home drained. He such a perfectionist and wants to do the very best. But there is an attitude in Washington to forget that these Reservists have other jobs other than being CO's. If he was to do <u>everything</u> they ask him to do 100%, then he would need to resign from his present job."

Enlisted Members

"ACDUTRA requests are required 3 to 4 months in advance of the requested dates. Why do we not receive our orders until 1 or 2 weeks prior? We need early confirmation to make plans for ourselves, families, and employers."

"The reserve policy/action which causes the most difficulty in my case is the uncertainty and late notification of ACDUTRA orders confirmation. My current ACDUTRA request was initiated five months ago; to date I have received neither confirmation or denial of requested dates. This situation is very difficult to explain to my employer who is at best luke warm on reserve participation."

"Why do I have to give the Navy 75 days notice of my request for ACDUTRA, but the Navy can't give me an answer sometimes two weeks before my reporting date. This puts a burden on my employer."

"Lead time required for ACDUTRA orders well before ACDUTRA. However, no confirmation or verification returned until the last minute. Orders canceled/modified at last minute which causes problems with civilian employer and civilian job.... Civilian employers are not impressed with the Navy's unique deployment needs when changes are made at the last minute."

"There always seems to be problems involved in the logistics of getting personnel to and from WET sites. There is it would seem no regard by the transportation office as to the problems involved with those of us that as reservists have a loyalty to an employer and are at times penalized by the Navy and their scheduling procedures."

"I got fired from a civilian job because I had to take off for 2 weeks ACDUTRA. I got NO support from the Dept. for employer support of the Guard and Reserve, and was told by the Dept. of Labor, Wash. D.C. that there was nothing they could do and that I had to PAY a civilian attorney myself and take it to court myself. It ended up costing me out of my own pocket for attorney fees, court costs and missed wages, plus I never regained my job."

"I would like to comment about the length of time for submission of ACDUTRA. I find that 75 days lead time is excessive. But the problem I have too often as a unit career counselor is not receiving T.D. orders until a week or days before it commences, after meeting the submission requirements."

"One other item which is getting very difficult to work. Reschedule Drills: we need to have more flexibility to reschedule drills, because of heavy work loads from civilian employers at times. If it comes down to it the Naval Reserve is only a second job, not the main bread supplier."

"The Navy wants 9 to 13 weeks advance for ACDUTRA orders. But yet orders most of the time come in only a few days before your scheduled departure. Why? I had to take a waiver one year because I re-submitted three times."

"When I served 2 weeks active duty in Seattle, Washington, in January 1985, I was fired on 2 jobs, with no protection of getting them back. There are laws on the books related to this, but no teeth in the laws to back up reenforcement."

"Since a major consideration as a member of Naval Reserve is additional income, what could be done to encourage employers to not force us to either use vacation (which gives us no vacation) or to take 2 weeks for ACDUTRA and not get paid from civilian jobs. In essence, we are penalized either way."

"Basically, I'm satisfied with the reserve program. The weekend drills are a big inconvenience for me personally as I work 3rd shift w/ Fri. and Sat. being the most crucial nights for me to be there. But that is a problem I deal with - I don't hold the reserve program at fault for that. It would be nice if I had an option for drilling other than a weekend."

"Through 1985 I was able to reschedule my drill weekend when I had a job conflict but I had to use a lot of deception because a job conflict is not grounds to reschedule a drill. New policies allow me only one reschedule per 12 month period. This has created quite a problem."

"My job as a federal employee sometimes requires me to work on a wkend. I usually know ahead of time and in the past could resched drills. The new rule limiting rescheds w/pay to 4 drills/yr is too restrictive. I have lost $300 this year as result and feel the 4 drill (1 wkend) limitation is too restrictive."

"I average $132.00 per month in the Reserves. To drill I must pay another MSW or MS level Psych to cover my duties. Therefore I spend $200.00 per drill weekend and it results in a $70.00 monthly cost to drill. During ACDUTRA I lose another $500 per week."

"If required ACDUTRA was increased 5 days (see question #20) then I feel some substantial and sustained assistance in convincing civilian employers of desirability in granting leaves of absence for 19 day periods/year would be required. 19 days is essentially one month loss of manpower to a civilian employer who also loses manpower to holidays, vacations, illness, civic duties, etc. Long military leaves of absence therefore make reservist employees less valuable, less promotable, create scheduling problems and jealousy among other employees and animosity as other's vacations are rescheduled during most desirable time of year for vacations."

"We have had, in the past, much confusion and many problems in the processing of requests for ACDUTRA, especially for orders to schools. The proper and timely processing of ACDUTRA requests is vital for retention and is extremely important to the individual member and his/her employer. It should be given the importance and care it deserves."

"People in small businesses can't just close the door and go to reserves. A small business must be making money every day. Since most of these people don't even handle money, they don't understand."

"As a firefighter, my work schedule is 24 hrs. on duty and 48 hrs. off. I know this effects a large number of reservists who are also emergency personnel all over the country. I would like to see a change of the reschedule policy for security and emergency personnel."

"On being paid by your civilian employer when going on military drill and ACDUTRA (policy change). When going on military drill for the weekend, the employer should be obligated to pay for the time you are gone, because people are having to take absence without pay when drilling. My employer is making employees who are in the military use their vacation time to go to drill and/or ACDUTRA."

"Since I have to work at least 2 weekends a month it becomes difficult at times to schedule my drill weekends. If the Naval Reserve would be more flexible and allow those reservists who have work conflicts the chance to reschedule drills without being penalized for rescheduling more than 4 drills per year. This unit has lost many veterans due to this policy. The reserves are secondary to our civilian jobs and careers."

Marine Corps Reserve

Officers

"How many reservists are working at a job that pays less than they are qualified for because employers will not hire them because of their military commitment?... It happened to me, I lost a job because my employer said I could not be gone for summer camp, even though he knew I was in the reserve when they hired me. This is a very serious and wide spread problem among reservists."

"Uncooperative employers, especially police and fire depts."

"Regular support personnel should receive instruction about the civilian job and family pressures with which the reservist must deal. This may make the regular support personnel more supportive and empathetic towards the reservist."

"The Reserve/Guard program has a great need of improvement in this area. As an officer I have had many men approach me with employer problems and I have had employer problems. Employers need some type of positive incentive to hire & retain Reserve/Guard members due to what employers view as a negative cost impact from reserve commitments. Employers have many methods of letting members know that they are unhappy or displeased with reserve commitments and that this will have a bad effect on the employee without running afoul of the limited protection laws on the books."

"As a commercial airline pilot I have to bid for days off. Having a specific weekend that I must drill usually means I end up with a much worse schedule than I would if the drill were more flexible. For example, having to bid for one weekend off usually means I don't get any weekend off - making it much more difficult to justify reserves to my family."

Enlisted Members

"I think that only one weekend a month is not enough for training. Yet without further employer support that is about all a person can get away with."

"If we had to spend 3 weeks at camp I think we would lose a lot of good people because of job conflicts."

"For my two weeks ATD I am forced to use my two week vacation from my civilian job. I am paid for the two weeks at ATD, but on the other hand, I have no vacation time left for myself and my family. Thank you."

"I received very little help when fired from my civilian job in 1984 because of my ATD.... Also the units don't try to help when civilian jobs or school interfere with drill."

"As a marine reservist, I feel that more information needs to be provided regarding rights and benefits available to me. I have been subject to some difficulty at work and I feel this is primarily due to my lack of information on regulations governing an employer's actions."

"In my search for a job I have run into a lot of resistance from potential employers about the possibility of being gone on certain weekends and for annual training."

"As far as civilian and government jobs they do not abide by "The Equal Employment" law. I have applied for such jobs and as soon as they see that you are in the reserves, your changes of employment are slim and none! (Past experience!)"

"I have been turned down from a number of full-time jobs because of my participation in the reserves. In my current job they will not give me full benefits even though I'm doing exactly the same work duties as my co-workers. I get paid much less, and have to use vacation days for the 2 weeks in the summer."

"I have found in almost everyone's case the pay for the annual two week active duty training is far less than what that individual would make for those two weeks in his (her) civilian job. This can encourage and lead to absentees for one reason or another."

"As compared to my civilian pay, my pay for a drill weekend (and ATD) actually causes me to lose money."

"Marine Reservists are not paid enough or soon enough while on ACDUTRA. It's a financial hardship on the marine and his family during this time. The fact is, most reservists aren't compensated by their employers during this time and financial obligations have to be made."

"I feel unsatisfied about the two days I have to take from work to come to drill, and not receive any pay from government or work to make up for this. I have a good job and make good

money. Each day I miss from work is very costly to me. And I work the week ends. The only way I could be satisfied about this, would be for the government to pay half of wages lost and employer to pay half."

"The survey did not cover the attitude of schools towards the Reserve. I attend a college that refuses to change a final test date to work around my Reserve duties."

"Working for the Dept of Corrections I receive per contract 17 consecutive days for ATD. For drill days I receive no benefits. I am allowed the week ends off, however it is without pay. I find this to be somewhat of a hardship due to finances. I lose money coming to drills. I would like to see some kind of Federal Law mandating employers to allow their employees the time off with some type of compensation."

"I would also like to see Reserves get improved educational bonuses and better, more advanced equipment."

Air National Guard

Officers

"I have felt pressure from employer regarding Active Duty Training time. Once was threatened that she would call the Governor stating she felt the Guard was the biggest rip-off for taxpayers. Then have been told that I could not go to inactive duty training and took steps to try to change the designated training date. Feel this is ironic since I am an employee of the Federal Government. Nevertheless pressure is being applied in Federal Agencies to reservists and this is unfortunate."

"Civilian employers have limited understanding of the Guard program and little appreciation for the citizen-soldier. The basis of this sentiment is the belief that military duty is an option not an obligation of citizenship. Because of this nationally accepted opinion and the notion that 'National Defense' is located somewhere in Europe or the Indian Ocean, civilian management has little motivation to do more than the legal minimum for their free enterprise system."

"I want to see more assistance from military authorities (Legal Dept.) in dealing with civilian employers who refuse to grant time off for military duties. My previous civilian employer fired me for taking an 18 month leave to qualify as an officer & attend navigator training. This public relations campaign with civilian employers is nonsense."

"I changed jobs this year and found many prospective employers stopped considering me for a job when it came out that I was a Guardsman. Although I work for a large corporation which

supports the Guard/Reserve my immediate supervisor is against my participation and my chances for promotion are diminished while I remain a member."

"In my unit a number of personnel are having civilian work conflicts - causing lower retention."

Spouses of Officers

"I regret to say that even though my husband is a Federal employee, there is a considerable amount of resistance to his participation in National Guard. His career progress may have been hindered as a result. Stronger protection must be provided for men who are willing to serve the military in this way."

"There are times when my husband is not able to put in flight hours because of lack of time due to his civilian job - and often I sense he is subtly penalized."

"My husband's guard drills have been viewed as a "problem" to his civilian job. He does not have weekends off and every month its' a real struggle to get off guard weekends. He gets it from both ends. His boss says he cannot give him every guard weekend off & the guard says he must attend [illegible] & every guard drill! It has hampered his promotion opportunities tremendously!"

Enlisted Members

"Military needs to protect their personnel's civilian jobs and stand behind them when they have trouble or problems with their civilian employer."

"I try to do a good job as an NCO but once in a while - only once in a while - there may be a conflict between my civilian job and the Guard, at which time I feel there is too much pressure applied to me."

"A better procedure should be developed to notify employers of active duty dates."

"More effort is needed in acquainting civilian employers with the importance of the Guard & Reserve. A very large percentage of employers resent letting employees off to attend summer camp and are continually trying to force, by any means possible, members to get out of the Guard or Reserve. Yes, there are laws to protect the member, but they are not enforced and really have no teeth. Over the years I have seen many excellent members forced by their employers to get out. We need new and better legislation and laws or incentives to get and retain valuable members."

"We need better laws to protect personnel while on duty with their component. Most civilian employers do not like for us to take time from our job to serve in our units."

"I would like to see a stronger push made to make employers aware of their responsibilities to Reservists. The "Support the Guard and Reserve" commercials soft soap the employers actual commitment to the Reservist. They should be made aware that there are laws covering an employees service in the Guard. I do not have this particular problem, however, when it does arise, the time is usually too late to make an employer aware of his legal obligation. It is too easy for him to find other reasons for letting an employee go."

"I joined thinking it would help in finding adequate employment (to support my family). Instead I find that many employers do not want to hire someone who has to have this time off."

"If I needed time off for Sat UTA I had to take of without pay or work overtime to make it up. Was just considered time off. For 1986 I have a new job with the county. I still take time off without pay but my new boss seems more in favor with military & guard."

"I do not appreciate taking shots on Sunday which cause absence from my civilian job on Monday. Flu vaccinations habitually cause absence from work at least one day. No one gives a hoot about how this affects my civilian job. This the primary reason for my separation in November."

"I presently work for a defense contractor on a major Air Force program. I have been passed over several times for promotion, and I also take a lot of harassment when I need a weekend off for drill."

"I work for a Government subsidized Research Laboratory. I feel that their pay treatment for reservists is by far not fair compared to that of the Federal Government an other smaller agencies. Being that most of the lab's money comes from the Government I feel we should be compensated equally. At present majority of Reservists at the Lab take vacation, but why should we be penalized our vacation when all federal agencies receive full pay while on military duty."

"The biggest problems I have about staying in the guard any longer than the end of my current enlistment is the loss of money while I do my two weeks of active duty each year. My company does not pay me while I'm away. It is time off without pay. The pay differential between my civilian job and military is $100.00 per day. This hurts, I have large expenses with children in college ect. at the time of enlistment the recruiter said I would be compensated the difference from my employer, I

didn't check it out until the time came for my two weeks of duty. There ought to be a law to help compensate a person for the difference in pay."

"Annual Tours have not been confirmed far enough in advance has made it hard to make plans regarding family & civilian job."

"Several questions discussed 'weekend drills' or 'weekend duty'. This was obviously a presumption that all Reserve or Guard members are able to perform required duty on weekends. This is not always true. In fact, except for extraordinary circumstances, all duty for my AFSC must be performed during normal Monday through Friday duty days. As a result, I must take annual leave from my Federal civil service job to perform the required training. This severely limits vacation time available to me and has a negative impact on my desire to continue in the Reserve program. Unless the Federal Personnel Manual, Chapter 630, Subchapter 9, is changed to allow more Federal Military Leave for monthly duty and/or Annual Tours, the increase of minimum requirements for monthly and annual training would have a significantly adverse impact on federal employees trying to fulfill Reserve commitments."

"I don't get paid for my 15 day drill. I must take military leave without pay. Drill weekends are sometimes difficult to have off."

"Out of 3 jobs (civilian work) the attitudes toward my leaving for 15 days annual training was almost out of the question. However I was permitted to leave."

"Here in Puerto Rico you can <u>not</u> find a civilian job if you say you are in the Guard/Reserve. This situation is the reason why most of the young people who finish studying do not stay in the Guard/Reserve even if they like it."

"It is very difficult to find an employer who will let you go to annual training, let alone hire you if you are in the Guard or Reserve. I understand that there are employers who are very pro guard/Reserve, however they are very few & far between."

"Be advised state police do not support Guard-Reserve activity and often times interfere with guard-reserve activities requiring legal assistance to resolve problems."

"I am now employed by the Dept. of Defense. For reasons of D.O.D's own they are making it impossible for me to remain in the Guard. I was a member of the Guard before going to work for D.O.D. I believe their practice at my job site to be somewhat unfair."

"I don't find that many of us are in the ANG for the money. I pass up overtime almost every weekend."

"Annual training has not been up to expectations in knowing when and where it will be each year at an early date which has caused some problems with civilian employer."

"We have a civilian supervisor who is anti guard, and would prefer that all base police were not in the guard units, and makes it hard on them, without stepping over the illegal line."

"Totally dissatisfied with the National Guard's ability at all levels to resolve a conflict with my full time job and National Guard duty. My problem was that I lived and worked 120 miles away from my guard unit. My job at the Post Office started at 12:30 AM Monday morning. The Postal Service would not allow me to take off monday morning in a leave without pay status. As a result I have to work a full day on national guard duty on Sunday then drive 3 hours and prepare to start another 8hr shift at my full time job."

"My only comment is it would greatly benefit us if the Bureau would start making more noise to our employers about supporting the Guard/Reserve i.e. (t.v. commercials, newspaper ads ect.) they don't fully understand what we do and frankly I'm tired of the comments & looks every time I need off for the military."

"We need to have a federal law that makes it a requirement that employees receive 2 weeks time from there civilian job without having to take vacation days to meet there military obligations."

"One of my biggest problems is having my employer change my work schedule to attend meetings. Something should be done legally, especially when it happens to be a federal agency."

"For my current civilian job the Guard has put a terrific strain my time as to went I must come to Reg. UTA's and annual training, I do not get paid to work somewhere else as some bigger companies will do."

Spouses of Enlisted Members

"I don't think that employer support is the problem (at least in our unit) that it's made out to be. I see very little - certainly not enough to warrant all the attention/expense/time devoted to the program."

"I feel that monthly active duty training days should be scheduled with technicians at least 6 months <u>in advance</u> to facilitate coordinating spouse's work schedule and dependent child care during overlapping of schedules."

"It costs my husband to belong because of time that has to be taken from his civilian job."

"My husband would be a lot happier and probably would stay in ANG if he had better relations with civilian job. The Post Office where he works does not cooperate with allowing time off during weekend drills. They won't change work schedule giving him a hard time about belonging to Guard unit. We can't believe a Federal Agency doing that and getting away with it."

"My main concern is the harassment my husband receives from his civilian job supervisor. Many nasty remarks are made concerning the time he spends with the Guards."

"Our school system allowed my husband to take military leave last year--but they have been quite vocal in the newspapers against people taking military leave during school days. Since there are many teachers in the guard--I assume--why can't the 2 week camp take place only the summer--unless there is an emergency taking place that would require immediate action?"

"My husband uses his vacation days to meet his military requirements, which means we get no vacation time as a family."

Air Force Reserve

Officers

"More effort needed to encourage employers to let reservists off for training. They need much more education."

"My military participation in the reserve program has not been favorably accepted by at least one Federal Agency (the Veterans' Administration). For my direct participation in a long term military school, I was selected upon my return for a PCS move to the most distant location management could pick. In order to keep from moving, I had to transfer from the agency and took a down grade in the process. A lot more folks need to be educated on the need for the reserve program and the necessity to participate."

"Requirement for attendance at unit training assemblies should be relaxed if the Reservist is able to complete training and currency objectives at other times available. This would cause fewer conflicts with civilian employment and achieve a more efficient use of Reservists time."

"My civilian & reserve job stretch me to the limit. I seriously believe my home life suffers due to my dedication to both civilian & reserve jobs. My civilian employer tolerates

the program. There are ways they can overlook me for more critical jobs in civilian life due to my absence for Reserve Training."

"Could utilize a comprehensive booklet for the civilian employer outlining the Reserve/guard forces, to give them a better understanding and to ensure their cooperation in allowing individuals to perform military duties - I get many, many questions at work. This also could prove useful as a recruiting tool. Possibly the military member could have his/her employer or supervisor to unit on a designated 'Employer day' where reservists can demonstrate mission duties followed by a social event at end of day as a thank you to the employer for his/her support of the mission."

"I have a very favorable employer situation: 21 days military leave allowed, which is not reduced by military pay; flexibility to get leave for mandays on short notice -- staying in this employment situation is a key consideration when compared to opportunities which may reduce my reserve status."

"Must use civilian vacation time to prepare for UTA's & attend conferences - this has caused problems with family activities. Some civilian supervisors have been very understanding of my reserve commitment, others have made life difficult (tried to prevent me from taking a leave of absence to attend a two week school.)"

"Although I have received 90% of my communications training (subsequent to my present employment) from the U.S. Air Force and have a related civilian occupation, none the less, I have had difficulties with my current district manager (not with my company), relating to my participation in the Guard and Reserves. Specifically, after having received management approval to attend a job related Air Force communications school at no cost to the company, my district manager advised me that I would not have a job when I returned if I attended the school. While corporate leaders are receiving accolades and the associated publicity for being good corporate citizens along with the 'Employer Support For the Guard and Reserves' Certificates in hand, there are those in middle and lower level management that do not share this patriotic tradition. These people are only concerned with meeting their own objectives. Thus, it would appear middle and lower management personnel ignore the company's policies regarding the Reserves. Even as I was going through this intimidation, a Reservist in another department of the company was given a military leave of absence of one year to go on active duty with the Air Force. When given the choice by my district manager to choose between a career with the company or the Reserves, I refused to give up either just because of one uninformed manager."

"Participation in the Reserve is not a plus in today's commercial environment since employers do not have replacement personnel to fill in for the Reservist."

"In the associate program, our active duty counterpart needs to understand that associate air crew must return from missions on time in order to keep civilian employers happy with the program, there is much friction between active duty command & control and associate air crews. A firm understanding of the program may help."

"Present drill policy is outdated and is only designed for those who work Monday thru Fri. It does not consider airline pilots without the seniority to have weekends off. It really is scheduled for enlisted personnel. To meet drills as scheduled I must give up part of my civilian pay."

"Seeing how grudging some employers are to give the Reserve/-Guard people time off for their schools & training it might help to add another day for UTA and 5 days for Annual Tour. We never do have time to complete the required training!!!"

"It is very difficult for me to get away from my business (lawyer) for 2 weeks of active duty training. When I do so, I am virtually precluded from any other sort of meaningful vacation. I would like to see some alternative to this. I am currently a category B reservist so only serve one UTA (2 4 hour periods) per month. It would be far easier for me to serve 2 UTAs (4 4 hour periods) per month which would still give me the required points for a good year. If there is a single reason why I may have to drop my reserve service it will be because I can not continue to meet my 2 week active duty for training requirement."

"During my 2 week ADT, my company lowers my pay by the amount I receive from the USAF."

"I have watched my training requirements increase (i.e. 3 day simulator prior to airplane check ride). My civilian job requires 85 to 90 hrs of flying a month so I end up with just 3 or 4 days off from any type of work. I had a trip with the reserves during my summer camp period. Active duty changed the day of the trip and expected me to drop my trip with my civilian employer. Drop my normal job for the convenience of the Air Force."

Spouses of Officers

"My spouse flies and I cannot justify the departure hours required of a crew that also works an 8-5 civilian job. How can these men and women possibly fly with a clear state of mind given take off hours are often midnight to 6:00 am."

"I am uncertain as to the cause but my husbands most recent civilian job appraisal was negatively impacted by 'his Air Force involvement'."

"As I read over the survey, I concluded that there are two things that make my husband's service more difficult. (1) The attitude of his civilian boss. My husband is considered a self-employed optometrist renting space in an optical center. However, the optical owner frowns upon my husband's absence for any reason (vacation, family emergency, military, etc.) He sees every absence strictly from a business point of view, a loss of revenue."

Enlisted Members

"During the course of this year I was attempting to gain employment with Municipal Fire Departments. At one department I was told by office personnel that I would probably not be hired due to my participation in the Reserves. I ended up being eliminated from the list during a phase that I passed with flying colors everywhere else. My complaint is this: during my hunt for assistance in dealing with such a blatant discrimination against the Guard/Reserve system I found little to no help in pertaining with our rights as a potential employee. If I were working for them then I would have had the ammunition needed to pursue legal action. I feel this needs to be addressed and corrected, perhaps also adding a lot more advertising for the Reserve and/or offer benefits to potential employers if they would hire guardsmen/reservists."

"I made a decision this UTA to request transfer to the Inactive Reserves until my enlistment terminates March 1987. My main problem is the increasing commitment being required in our unit that interfere with my civilian employment and my leisure time. I am a member of a CAM Squadron that is requiring Friday night UTA's, and overnight deployments on UTAs. More than this, not allowing me to 'pull' my 15-day Annual Training locally, but rather overseas, interferes too much with my civilian employment and livelihood."

"I work in Civil Service for the Air Force. I work at a depot level paint facility where we have rotating shift work & also rotating day's off. The Government wants employer's to support the Reserve & Guard units while the Government doesn't seem to work with Civil Service employee's in meeting their obligations. My day's off change every four weeks, this gives me actual weekends every 6 months. I can take leave without pay or annual leave to make my drills. I can't afford to lose the money taking leave without pay & if I use annual leave to make my drills I would end up with approx 3 days annual left at the end of the year for vacation. This also makes my leave record look bad and bad leave records prevent promotion & sometimes even

termination. I have served over 11 years in the Reserves but I can't place my civilian job in jeopardy to meet my obligations as a reservist. Within this organization their are approx 25 members of Reserve & Guard units. These people are all in a very bad position for the same reasons as myself."

Spouses of Enlisted Members

"Reserve unit should make more effort to contact and talk with employers to alleviate problems that reservists have. Or the government needs to make more laws to support the reservist to protect them with their employers."

"I believe that if the Reserve expanded the number of days of duty required of annual training and monthly drills, current and potential future employers will be less likely to hire a Reservist in a full time civilian job than a non-Reservist."

"The Air Force Reserve causes problems for my husband at his civilian job with the Air Force. On drill weekends he has to take annual leave or leave without pay to go to the drills because of shiftwork that prevents him from having every weekend off. There are times when he'll pull his reserve weekend and work up to 12 hours per day for 2 days and also work 8 hours graveyard shift on those 2 nights. That is not healthy! But, we cannot afford the take LWOP and taking annual leave is just not fair. The Air Force and civilian jobs, Federal or not, should work together on this major problem. There are a lot of Reservists and their families who must contend with this problem every month."

"While my husband enjoys the Air Force reserves his employer does not pay him for the time he is away from his civilian job attending UTA or annual training. He must take time without pay which is more than the Air Force pays and use up his family vacation time for 2 wks training. It would be good if employers were made by law to release employees from work time with pay for military obligations."

"When requiring reservists to report to UTA on Friday, some kind of policy or procedure needs to be made with employers so vacation time does not have to be used."

"My husband changed from a job with a major employer in Sacramento to one in another area. Since the change in the autumn he went from a very supportive environment to a totally NON-supportive environment. He is the only reservist in the facility, and they have told him they will not set any precedents by granting him special considerations in scheduling time off without pay to meet his reserve commitments. When UTAs

or trips fall on work days, he must use up his days off. Two times already in 1986 he has had 14 day stretches with no days off unless he used vacation."

Coast Guard Reserve

Officers

"If I was called up to active duty, I would probably lose my house. I couldn't afford any drop in pay! I am seriously thinking of quitting reserves because I make more money at my civilian job on overtime than at reserve. Especially important however, is that overtime at my civilian job then makes my 40 hours/week more enjoyable because I'm caught-up with my work and it helps my civilian promotion potential significantly!!"

"Provide some type of credit to civilian employers who employ reservist for attendance in federal training programs. This could be based upon the number of employees and hours spent in reserve status and the area of civilian employment. An example could be providing a position in a federal law enforcement school for an employee of a law enforcement agency that supports reserve attendance. Letters sent to the employer at the completion of a reservist ADT period thanking the employer for supporting reserve activities and describing some of the benefits available to the employer."

"As a taxpayer I find it outrageous that Federal government employees get full civilian pay while on ADT. This is unnecessary & a great opportunity to save money."

"My employer makes it know that he feels that he has a 'gun at his head' to allow reservists time off for drills and although he benefits from our military training, he unofficially holds back promotional, and job retention opportunities with prejudice toward reservists."

"I feel very strongly that the taxpayers are being 'ripped-off' by Federal employees (such as myself) who are able to draw both civilian and Reserve pay checks while on ADT. However, I assume I'm somewhat of a minority."

Spouses of Officers

"Be advised State Police do not support Guard-Reserve activity and often times interfere with guard-reserve activities requiring legal assistance to resolve problems."

Enlisted Members

"I have given up the opportunity to make extra money at another civilian part-time job so that I could serve with the U.S.C.G.R."

"Employer gives me time off without pay and I lose a lot of money. I would not be able to serve more than two weeks per year."

"My Federal Employer should be more cooperative with reservist and not feel as tho it were a part time job making extra pay. As I work a 5 day work week sometimes my off days are in the middle of the week, thus causing me to use my annual leave for my week end drills. My employer will change these days around for its benefit and could for the reservist but refuses to do so. It is also against the Federal law for an employer to charge refusal hours when a reservist cannot work overtime due to military drills. But, my Federal employer says this government authority is exempt from these Federal laws and that Federal laws and rights for reservists do not apply. I fail to understand a Federal law that is a law for all employer's except the Federal Government itself."

"Problem is to make known to our employer's and everyone else just how important the Reserves are to our country, so that they will understand when we have to take time off it is for a good cause, that it is not only for our country but for their country also."

"Because my Federal Police job interfered with CG duties I quit. They demanded to much of my time."

"The Reserve units that I've been in in the past, both Navy and Coast Guard, have had difficulty understanding and working around someone who works rotating shifts in their civilian jobs. By rotating shifts I mean working graveyards, swing shift and day shift with one or sometimes no weekends off."

Spouses of Enlisted Members

"My spouse's civilian boss has some trouble with reservists, due to an incident in which they were taken to court over firing someone, & they lost. The member did everything legally, but not tactfully...resulting in bad blood."

"All activities are scheduled on weekends. My husband and I are police officers and work weekends because of the need for high deployment. Everything planned by the reserves are for the officers who work 9 to 5 jobs and have weekends off."

"When CGR calls my husband for extra assignments (assignments other than monthly drills), many times the dates have been changed. This is upsetting. Because my husband contacts his regular employer re: leave date to fulfill his Coast Guard assignment. Then C.G.R. calls with changes in the date of the assignment, after my husband has already secured a leave date from his employer. Then he has to go back to his employer and change his leave dates around! I feel this is totally unnecessary."

"I strongly favor increasing ACDUTRA by 5 days in order to provide more extended, in-depth training. Congress, however, would first have to pass laws governing employers to allow for the extra time off."

"Last year my husband did his two weeks active duty, he had to wait till they mailed him his check - now he doesn't get paid from his regular job for his 2 weeks - he looses money besides because they never allow enough for food & travel, and then he can't even be paid for the time he served right after it. Now I'm the one who does the budget & I'm the one who worries how to pay these bills without any money coming in."

"I would like to know if it would be possible to pay more as a higher percentage of what the civilian pay is for the 2 weeks duty. We have found it a burden on us financially when my husband is away from his work for 2 weeks and we try to live on his military pay. It adds an extra burden having him gone and such a drain our us financially. We hate to have to use his vacation time every year for his guard. Is there anything that could be done to help reimburse this pay?"

"He works for federal agency as a Public Safety Officer and this also requires week-end work, he has a problem getting the agency to change schedule for him to ben off for his drill duty, if he is not scheduled to be off he must take annual leave (vacation) days which really cuts in to our family time or he must take <u>leave</u> <u>without</u> <u>pay</u>."

"My husband used to enjoy the Coast Guard, he always gave 110% and was pleased to be a member of the Reserves. After association with this unit and the attitude of his CO, he began to lose interest and finally just gave up wanting to go to drills. He made the best attempt he could to get to drills. His drills were scheduled on his only weekend off from work. He would get off at 6AM and then have to be at drills at 7AM, work till 3 or 4PM, come home, get a few hours sleep to be back to his regular job at 10PM. All he got from his unit was how come you can't make drills, how come you aren't coming, etc. etc."

Appendix B. SUMMARY OF READY RESERVE BONUS PROGRAMS

This Appendix includes summaries of the Ready Reserve bonus programs. Figures B-1 through B-50 provide a graphic display of cost data and total bonus recipient data by bonus type and component. The information was extracted from the Services' annual Justification of Estimates submitted as part of the President's Budget for fiscal years 1978 to 1989. Data for 1987 and prior years is historical; data after 1987 is projected. The appendix is divided into five sections, one for each of the five Ready Reserve bonuses used by the Services:

- Enlistment
- Reenlistment
- Affiliation
- Prior Service Enlistment
- IRR Reenlistment

Each page of figures is dedicated to a single component and contains two figures; the top figure is cost data while the bottom figure contains bonus recipient data. The data is displayed by fiscal year and shows both new and anniversary payments (current year dollars) and new and anniversary recipients. The stacked-bar arrangement in the figures provides both cost and recipient totals for each year.

Following the figures in each section are Tables B-1 to B-30 which display the data, by component and DoD total, used to develop the figures.

Enlistment

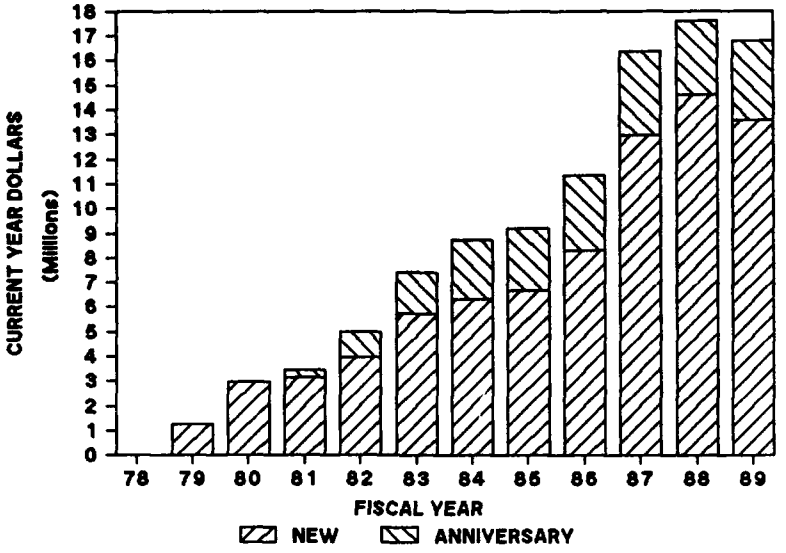


FIGURE B-1. ENLISTMENT BONUS - USAR

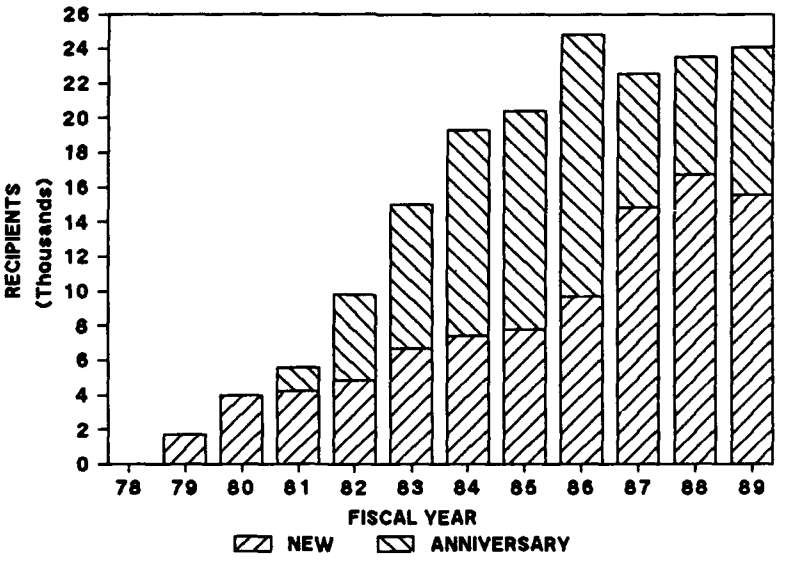


FIGURE B-2. ENLISTMENT BONUS - USAR

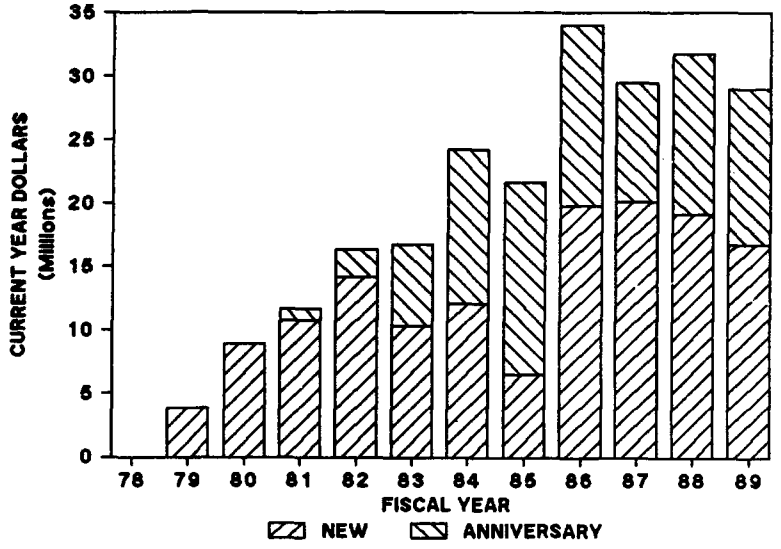


FIGURE B-3. ENLISTMENT BONUS - ARNG

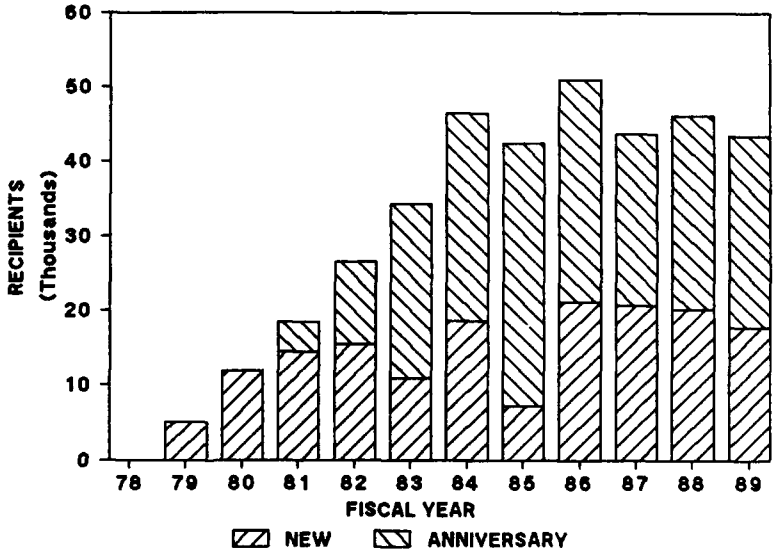


FIGURE B-4. ENLISTMENT BONUS - ARNG

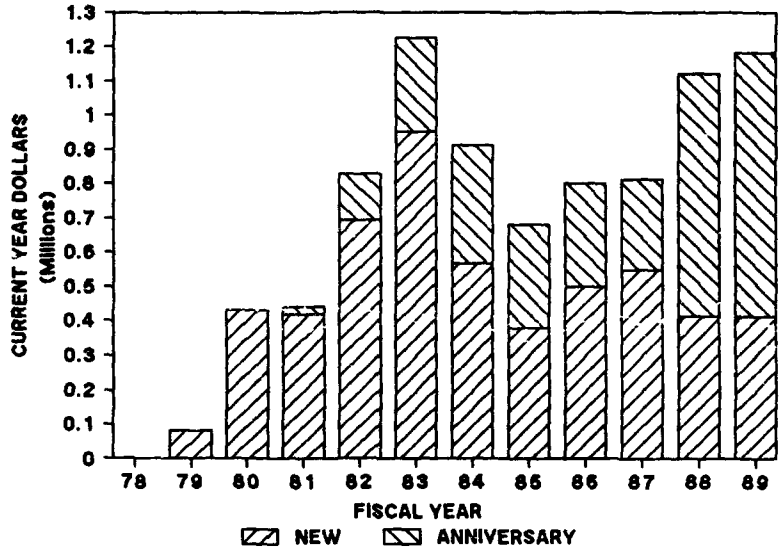


FIGURE B-5. ENLISTMENT BONUS - USAFR

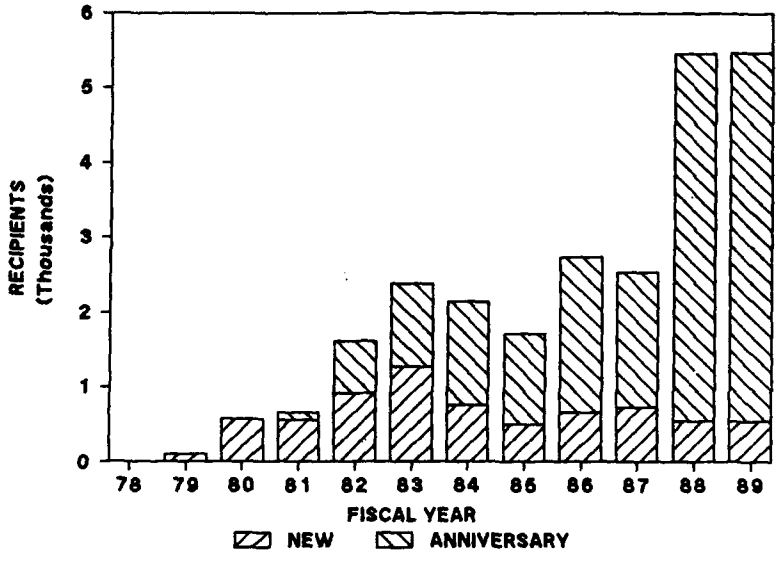


FIGURE B-6. ENLISTMENT BONUS - USAFR

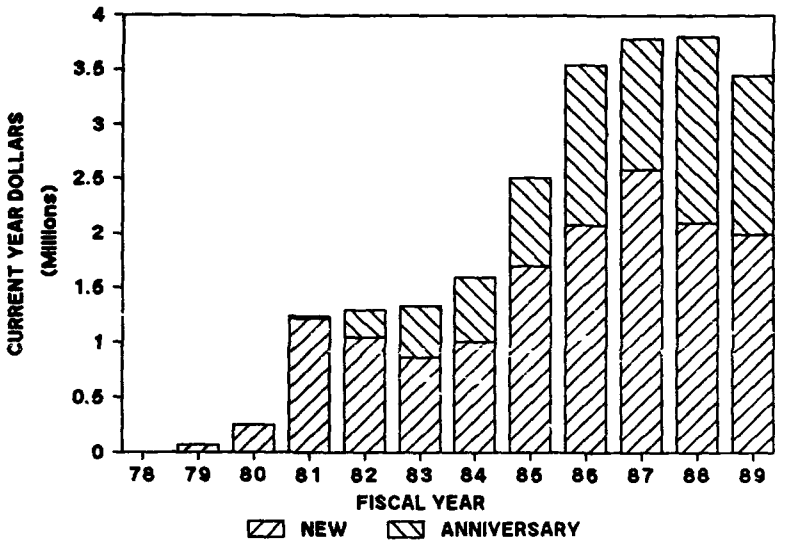


FIGURE B-7. ENLISTMENT BONUS - ANG

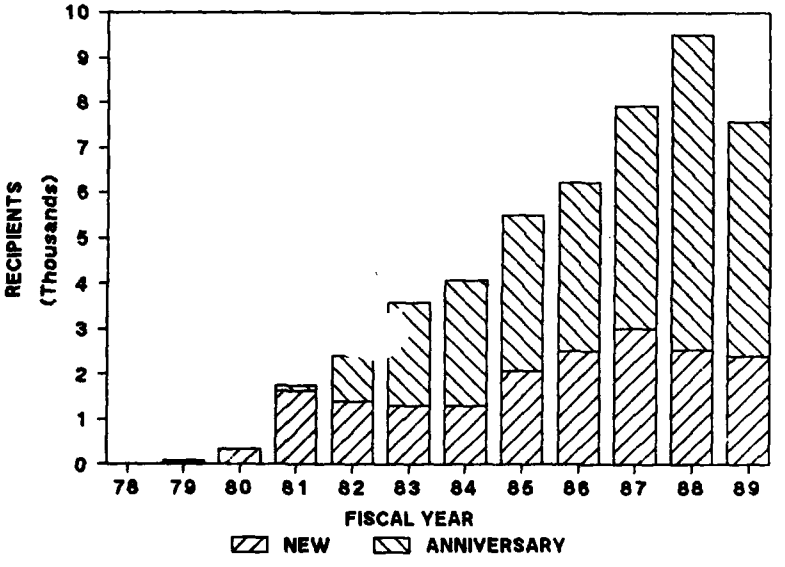


FIGURE B-8. ENLISTMENT BONUS - ANG

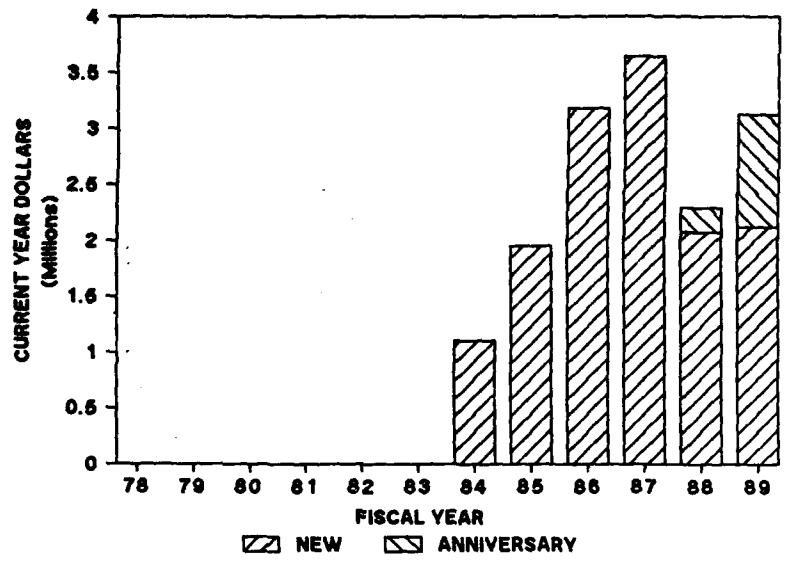


FIGURE B-9. ENLISTMENT BONUS - USNR

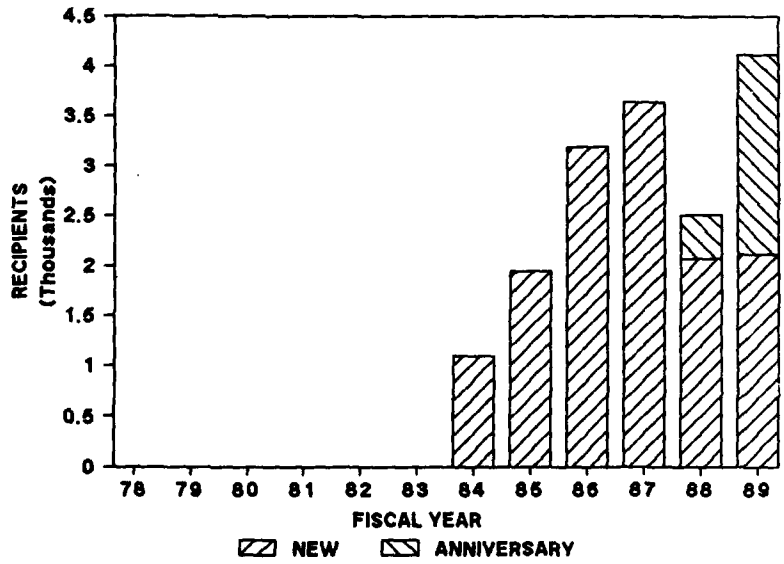


FIGURE B-10. ENLISTMENT BONUS - USNR

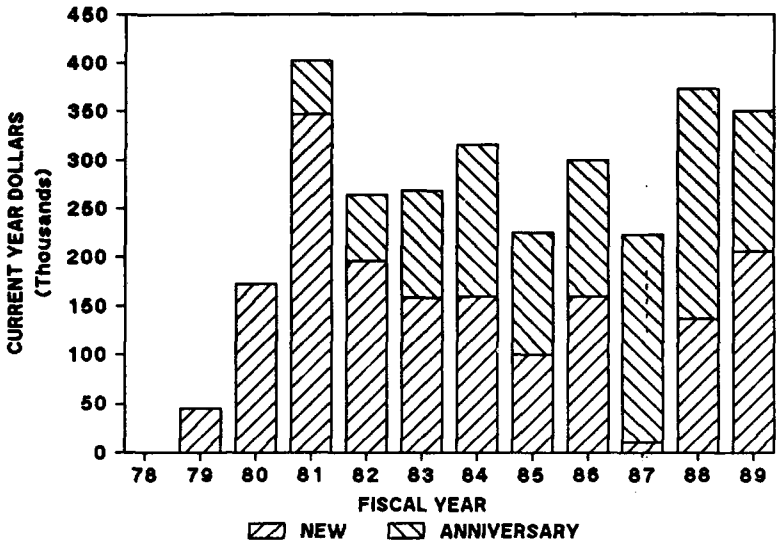


FIGURE B-11. ENLISTMENT BONUS - USMCR

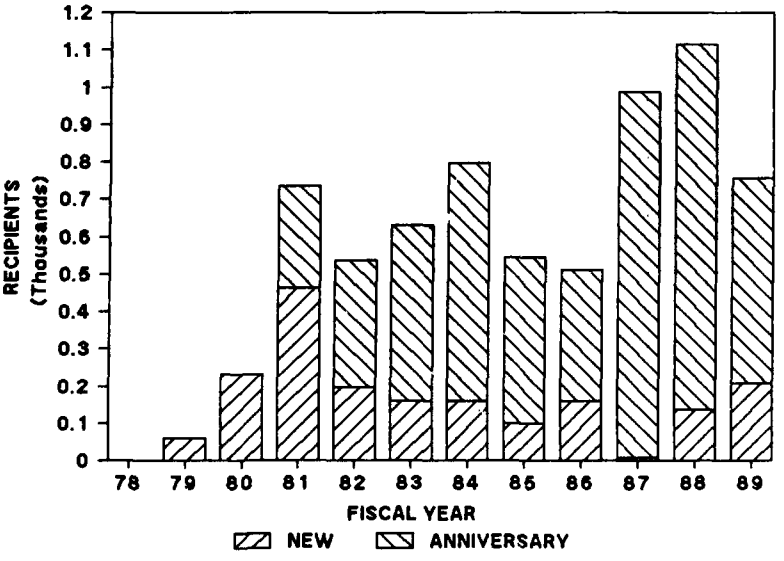


FIGURE B-12. ENLISTMENT BONUS - USMCR

Table B-1. Enlistment Bonus - USAR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	1275	0	1275	1700	0	1700
1980	2996	0	2996	3995	0	3995
1981	3155	275	3430	4207	1377	5584
1982	3972	992	4964	4815	4960	9775
1983	5700	1675	7375	6659	8375	15034
1984	6334	2379	8713	7417	11895	19312
1985	6662	2525	9187	7774	12625	20399
1986	8300	3030	11330	9684	15150	24834
1987	12962	3373	16335	14848	7718	22566
1988	14598	2988	17586	16721	6839	23560
1989	13584	3196	16780	15561	8507	24068

Table B-2. Enlistment Bonus - ARNG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	3875	0	3875	5167	0	5167
1980	8997	0	8997	11996	0	11996
1981	10820	822	11642	14426	4110	18536
1982	14184	2218	16402	15468	11090	26558
1983	10390	6405	16795	10937	23421	34358
1984	12125	12102	24227	18652	27742	46394
1985	6548	15141	21689	7169	35175	42344
1986	19876	14081	33957	21201	29848	51049
1987	20152	9342	29494	20841	22874	43715
1988	19160	12603	31763	20174	26022	46196
1989	16766	12246	29012	17746	25694	43440

Table B-3. Enlistment Bonus - USAFR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	82	0	82	109	0	109
1980	432	0	432	576	0	576
1981	419	22	441	558	108	666
1982	692	137	829	922	684	1606
1983	950	276	1226	1267	1105	2372
1984	569	344	913	758	1374	2132
1985	380	300	680	507	1200	1707
1986	500	300	800	667	2061	2728
1987	549	264	813	732	1805	2537
1988	413	707	1120	550	4905	5455
1989	413	768	1181	550	4928	5478

Table B-4. Enlistment Bonus - ANG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	71	0	71	95	0	95
1980	253	0	253	337	0	337
1981	1230	20	1250	1640	100	1740
1982	1050	250	1300	1400	1000	2400
1983	868	470	1338	1311	2268	3579
1984	1013	591	1604	1305	2788	4093
1985	1708	804	2512	2070	3448	5518
1986	2086	1462	3548	2542	3701	6243
1987	2594	1188	3782	3026	4901	7927
1988	2101	1700	3801	2547	6962	9509
1989	1996	1456	3452	2420	5171	7591

Table B-5. Enlistment Bonus - USNR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	1100	0	1100	1100	0	1100
1985	1954	0	1954	1954	0	1954
1986	3175	0	3175	3188	0	3188
1987	3641	0	3641	3641	0	3641
1988	2075	218	2293	2075	436	2511
1989	2120	1000	3120	2120	1999	4119

Table B-6. Enlistment Bonus - USMCR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	45	0	45	60	0	60
1980	172	0	172	229	0	229
1981	347	55	402	462	273	735
1982	196	68	264	196	340	536
1983	159	110	269	159	470	629
1984	160	156	316	160	638	798
1985	100	125	225	100	446	546
1986	160	140	300	160	352	512
1987	10	213	223	10	979	989
1988	137	236	373	137	978	1115
1989	206	144	350	206	551	757

Table B-7. Enlistment Bonus - DOD TOTAL

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	5348	0	5348	7131	0	7131
1980	12850	0	12850	17133	0	17133
1981	15971	1194	17165	21293	5968	27261
1982	20094	3665	23759	22801	18074	40875
1983	18067	8936	27003	20333	35639	55972
1984	21301	15572	36873	29392	44437	73829
1985	17352	18895	36247	19574	52894	72468
1986	34097	19013	53110	37442	51112	88554
1987	39908	14380	54288	43098	38277	81375
1988	38484	18452	56936	42204	46142	88346
1989	35085	18810	53895	38603	46850	85453

Reenlistment

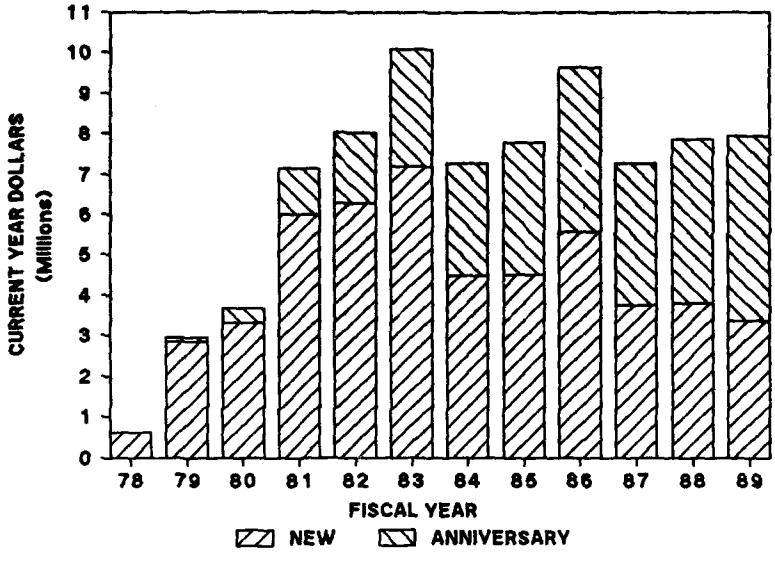


FIGURE B-13. REENLISTMENT BONUS - USAR

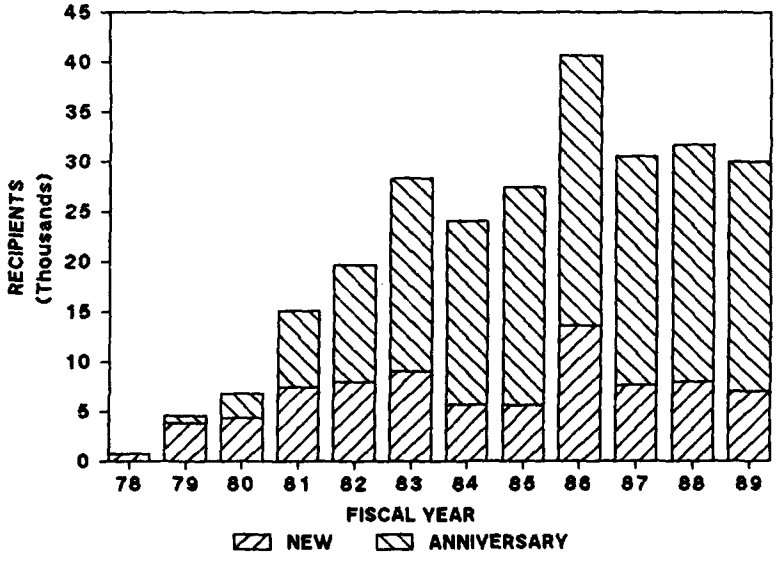


FIGURE B-14. REENLISTMENT BONUS - USAR

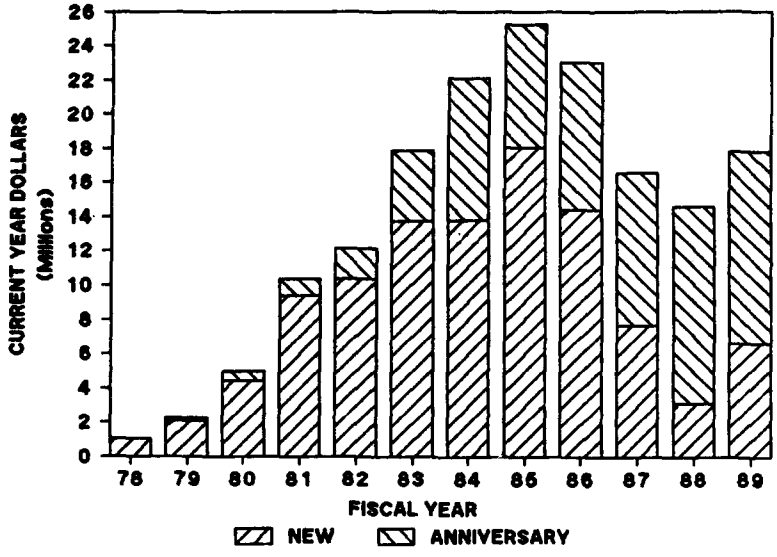


FIGURE B-15. REENLISTMENT BONUS - ARNG

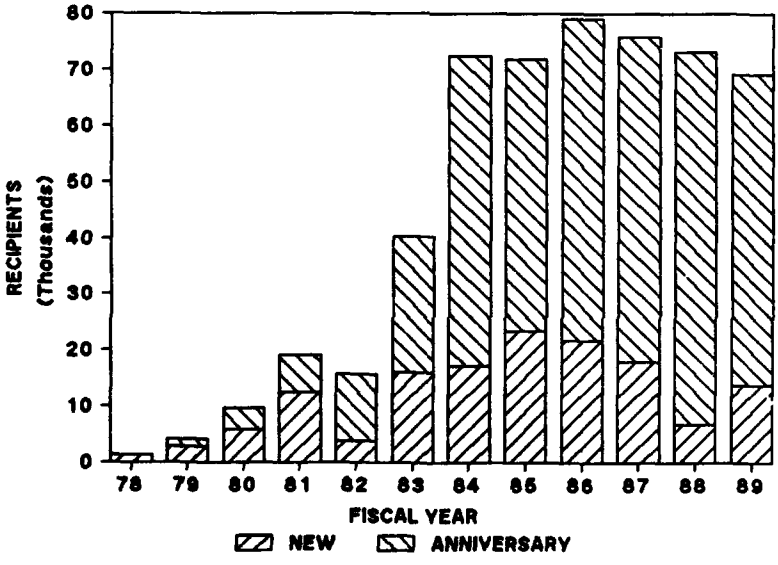


FIGURE B-16. REENLISTMENT BONUS - ARNG

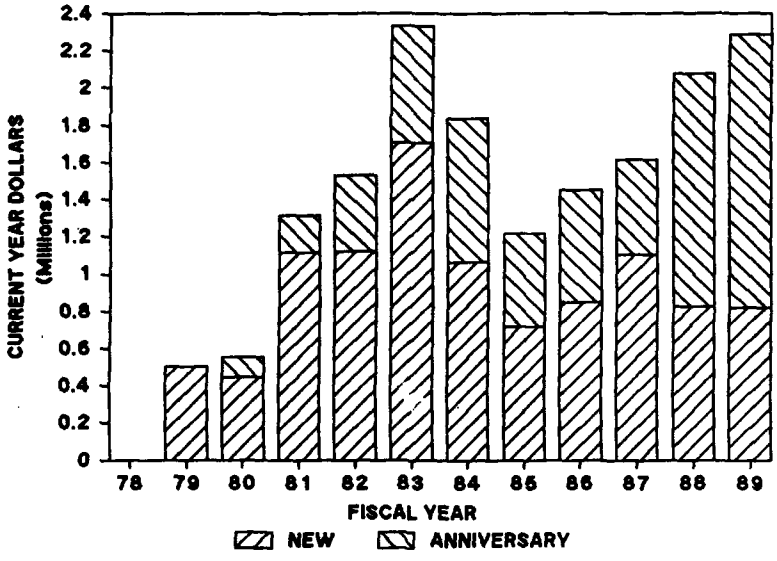


FIGURE B-17. REENLISTMENT BONUS - USAFR

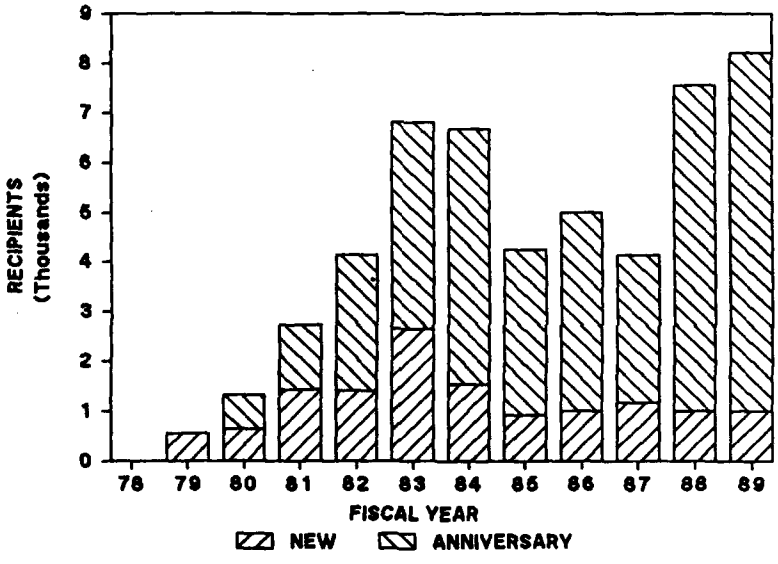


FIGURE B-18. REENLISTMENT BONUS - USAFR

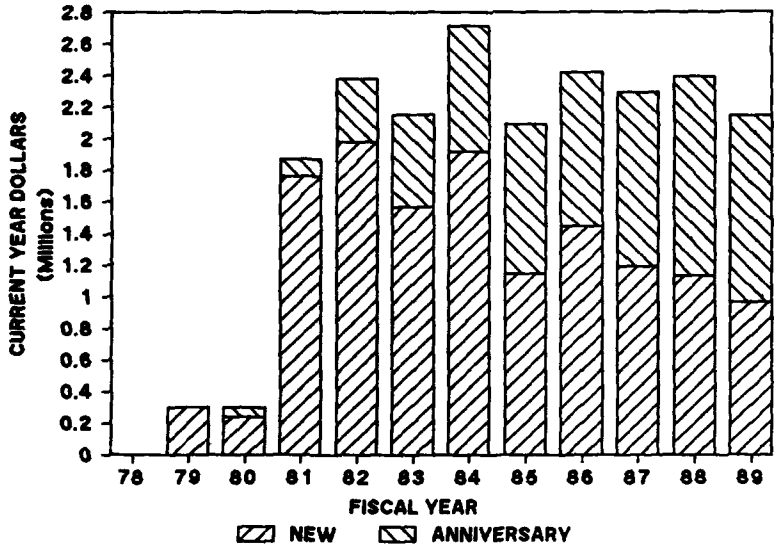


FIGURE B-19. REENLISTMENT BONUS - ANG

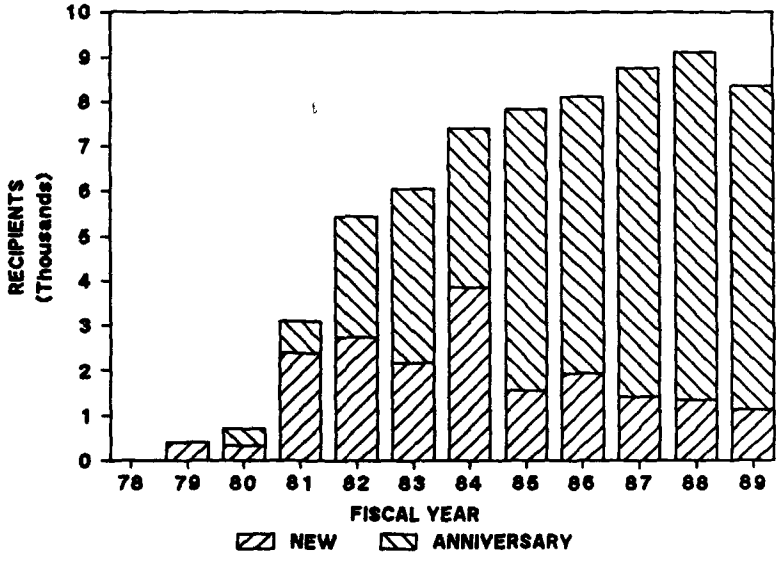


FIGURE B-20. REENLISTMENT BONUS - ANG

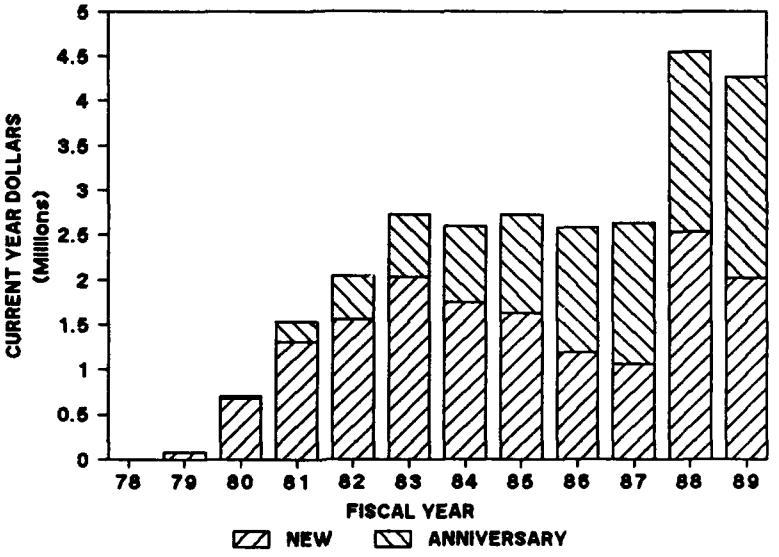


FIGURE B-21. REENLISTMENT BONUS - USNR

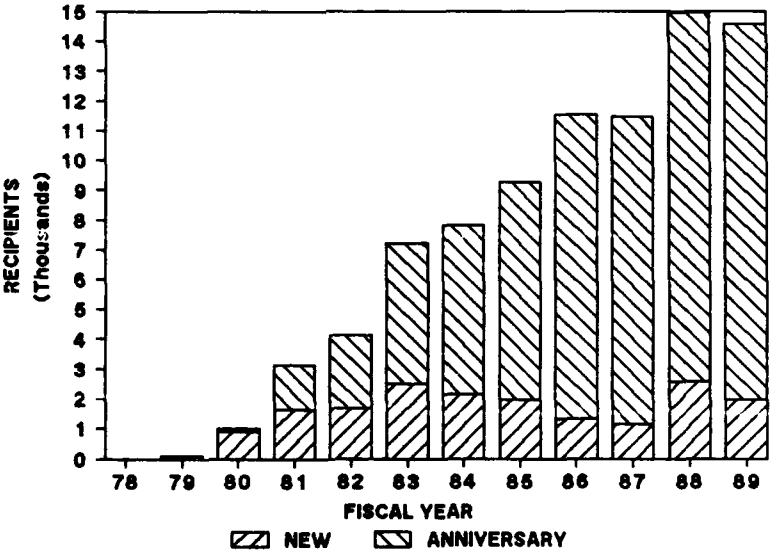


FIGURE B-22. REENLISTMENT BONUS - USNR

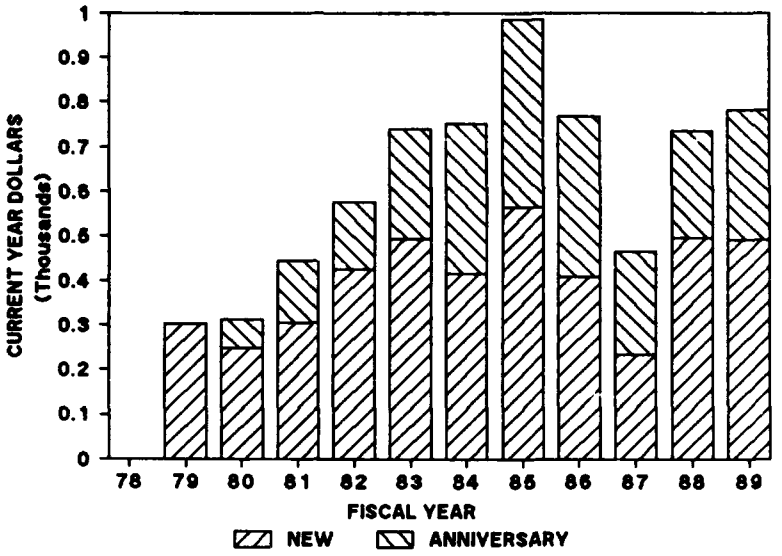


FIGURE B-23. REENLISTMENT BONUS - USMCR

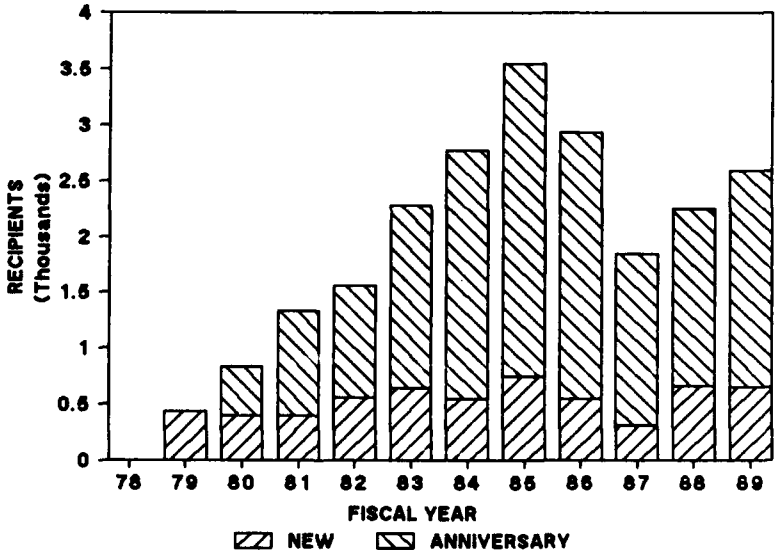


FIGURE B-24. REENLISTMENT BONUS - USMCR

Table B-8. Reenlistment Bonus - USAR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	622	0	622	796	0	796
1979	2850	112	2962	3808	748	4556
1980	3313	363	3676	4409	2420	6829
1981	6004	1145	7149	7482	7632	15114
1982	6280	1760	8040	7930	11733	19663
1983	7200	2900	10100	8989	19333	28322
1984	4505	2765	7270	5610	18433	24043
1985	4525	3280	7805	5635	21867	27502
1986	5600	4045	9645	13675	26967	40642
1987	3777	3498	7275	7660	22875	30535
1988	3805	4077	7882	7948	23801	31749
1989	3379	4576	7955	7057	22953	30010

Table B-9. Reenlistment Bonus - ARNG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	1032	0	1032	1312	0	1312
1979	2105	195	2300	2924	1300	4224
1980	4401	551	4952	5868	3673	9541
1981	9375	1003	10378	12500	6687	19187
1982	10357	1775	12132	3809	11830	15639
1983	13782	4090	17872	16020	24311	40331
1984	13839	8300	22139	17181	55333	72514
1985	18034	7252	25286	23445	48351	71796
1986	14448	8595	23043	21748	57297	79045
1987	7698	8866	16564	18000	57873	75873
1988	3102	11524	14626	6847	66439	73286
1989	6622	11218	17840	13780	55463	69243

Table B-10. Reenlistment Bonus - USAFR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	501	0	501	557	0	557
1980	449	104	553	625	695	1320
1981	1117	198	1315	1417	1320	2737
1982	1122	410	1532	1403	2737	4140
1983	1706	627	2333	2634	4176	6810
1984	1068	770	1838	1544	5133	6677
1985	720	500	1220	911	3334	4245
1986	850	600	1450	1000	3995	4995
1987	1106	513	1619	1165	2974	4139
1988	826	1252	2078	1000	6558	7558
1989	820	1470	2290	1000	7217	8217

Table B-11 Reenlistment Bonus - ANG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	300	0	300	404	0	404
1980	242	58	300	326	387	713
1981	1766	106	1872	2380	707	3087
1982	1978	405	2383	2747	2700	5447
1983	1568	584	2152	2167	3893	6060
1984	1918	796	2714	3867	3538	7405
1985	1149	941	2090	1562	6275	7837
1986	1449	968	2417	1950	6166	8116
1987	1196	1098	2294	1422	7323	8745
1988	1138	1256	2394	1353	7754	9107
1989	971	1174	2145	1154	7204	8358

Table B-12. Reenlistment Bonus - USNR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	75	0	75	100	0	100
1980	683	20	703	911	113	1024
1981	1316	222	1538	1656	1481	3137
1982	1566	474	2040	1666	2458	4124
1983	2025	708	2733	2501	4720	7221
1984	1748	847	2595	2145	5647	7792
1985	1634	1092	2726	1980	7282	9262
1986	1188	1405	2593	1338	10197	11535
1987	1057	1577	2634	1155	10286	11441
1988	2546	2004	4550	2564	12388	14952
1989	2021	2251	4272	1966	12616	14582

Table B-13. Reenlistment Bonus - USMCR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	303	0	303	437	0	437
1980	247	65	312	400	433	833
1981	305	139	444	399	931	1330
1982	426	150	576	557	1000	1557
1983	493	246	739	645	1639	2284
1984	417	334	751	545	2227	2772
1985	565	420	985	745	2799	3544
1986	409	358	767	545	2386	2931
1987	234	231	465	311	1540	1851
1988	497	239	736	663	1593	2256
1989	492	291	783	656	1941	2597

Table B-14. Reenlistment Bonus - DOD TOTAL

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	1654	0	1654	2108	0	2108
1979	6134	307	6441	8230	2048	10278
1980	9335	1161	10496	12539	7721	20260
1981	19883	2813	22696	25834	18758	44592
1982	21729	4974	26703	18112	32458	50570
1983	26774	9155	35929	32956	58072	91028
1984	23495	13812	37307	30892	90311	121203
1985	26627	13485	40112	34278	89908	124186
1986	23944	15971	39915	40256	107008	147264
1987	15068	15783	30851	29713	102871	132584
1988	11914	20352	32266	20375	118533	138908
1989	14305	20980	35285	25613	107394	133007

Affiliation

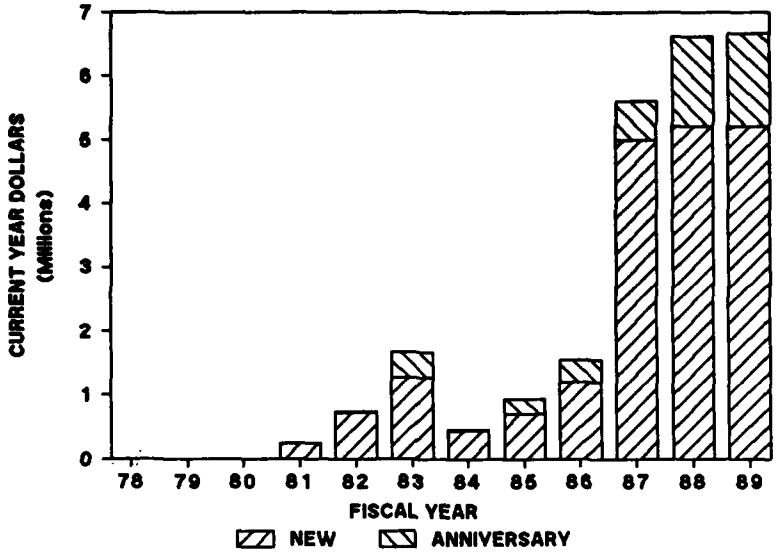


FIGURE B-25. AFFILIATION BONUS - USAR

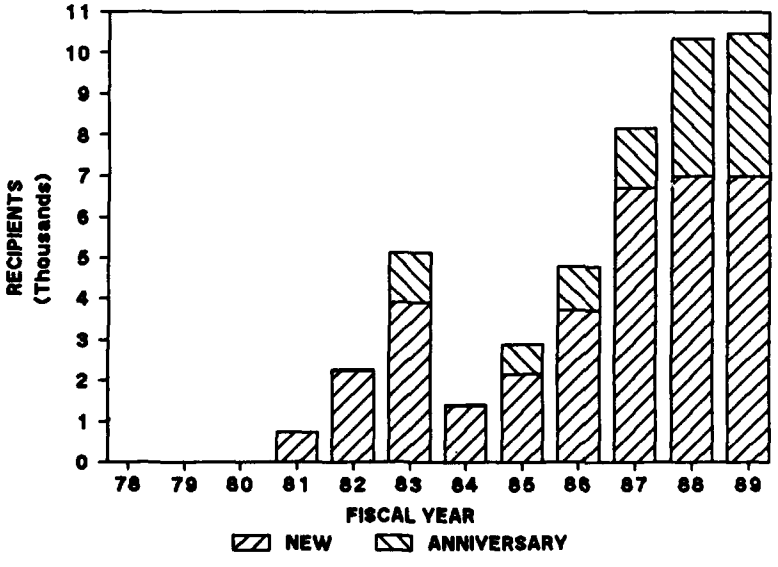


FIGURE B-26. AFFILIATION BONUS - USAR

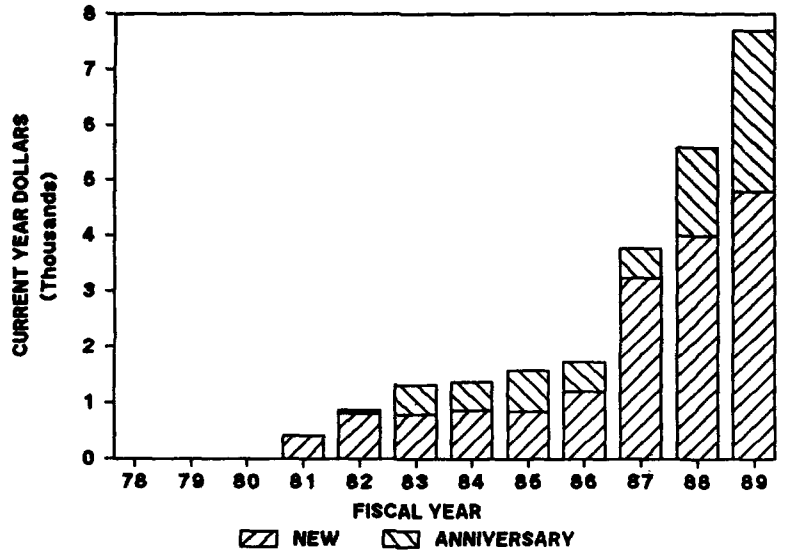


FIGURE B-27. AFFILIATION BONUS - ARNG

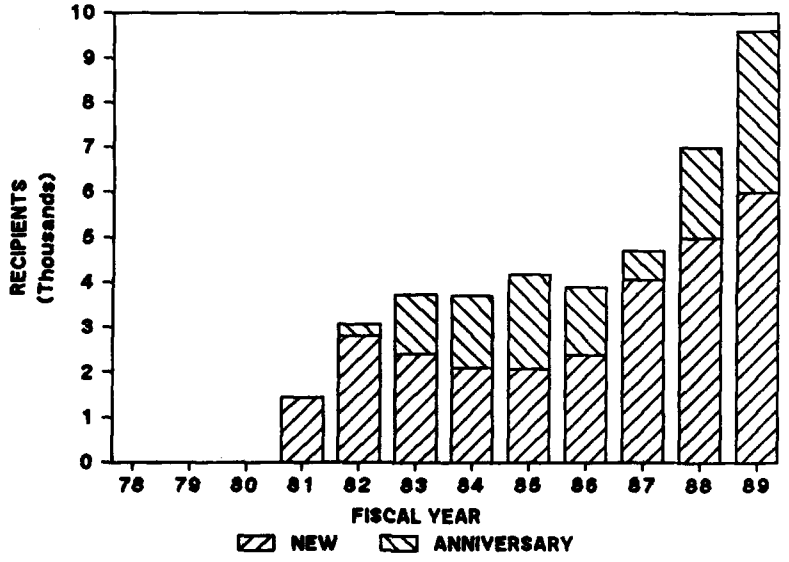


FIGURE B-28. AFFILIATION BONUS - ARNG

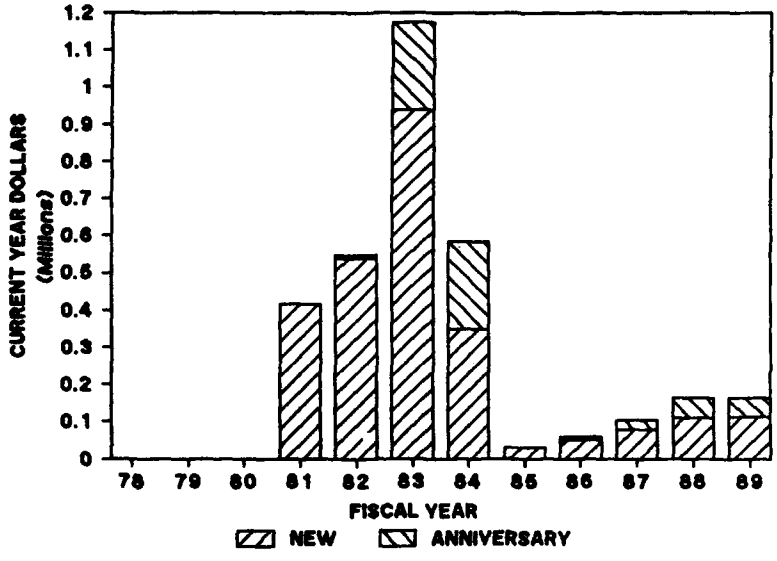


FIGURE B-29. AFFILIATION BONUS - USAFR

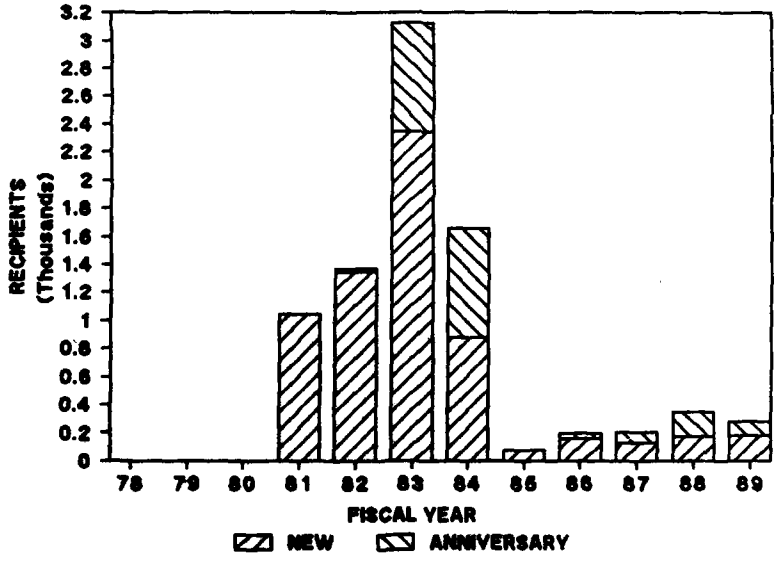


FIGURE B-30. AFFILIATION BONUS - USAFR

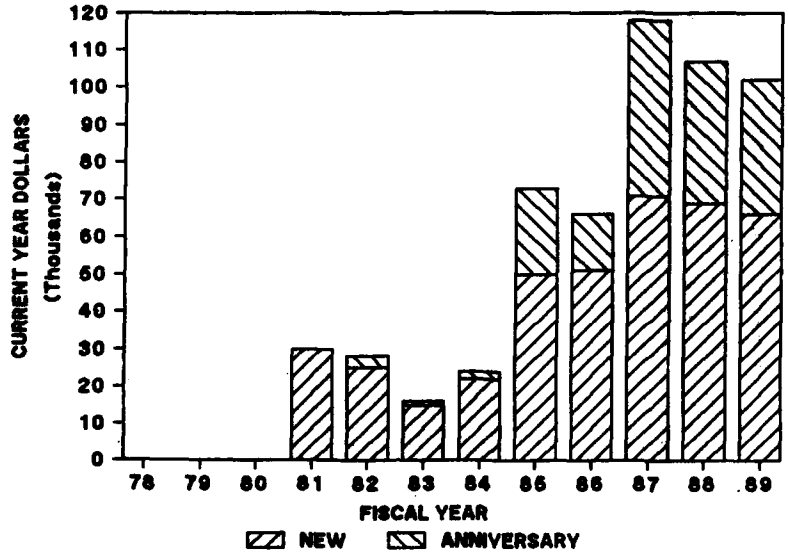


FIGURE B-31. AFFILIATION BONUS - ANG

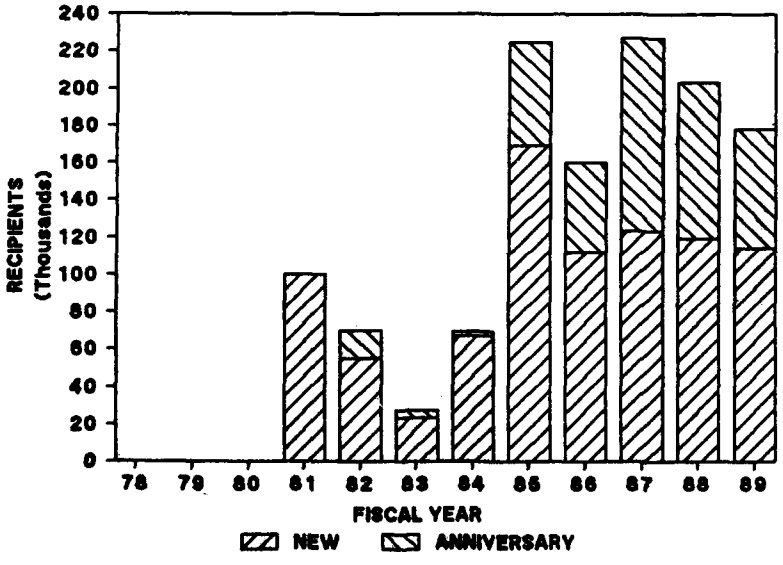


FIGURE B-32. AFFILIATION BONUS - ANG

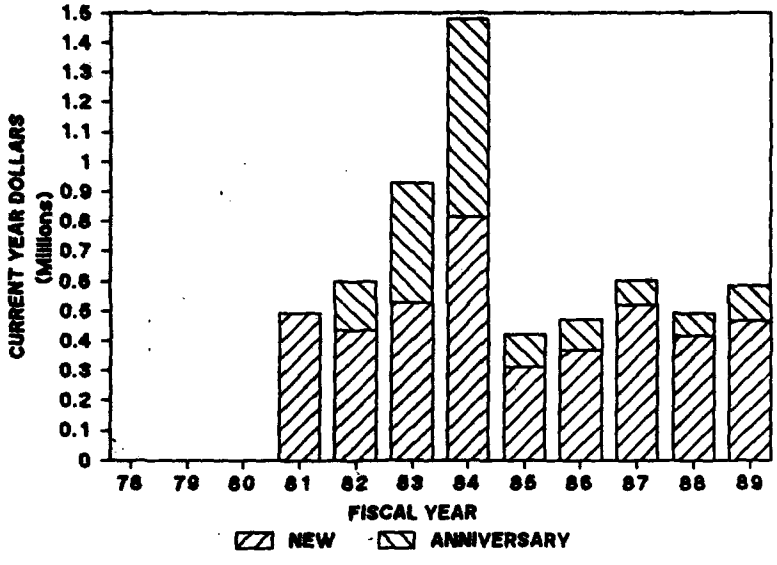


FIGURE B-33. AFFILIATION BONUS - USNR

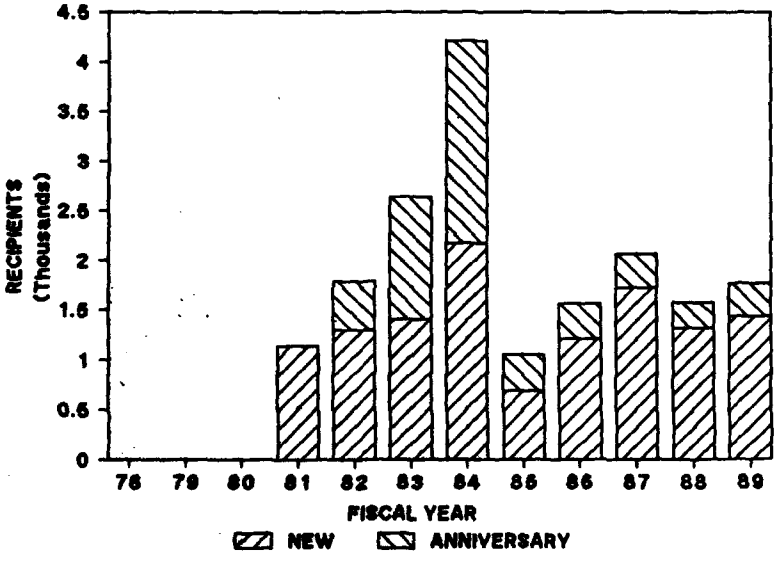


FIGURE B-34. AFFILIATION BONUS - USNR

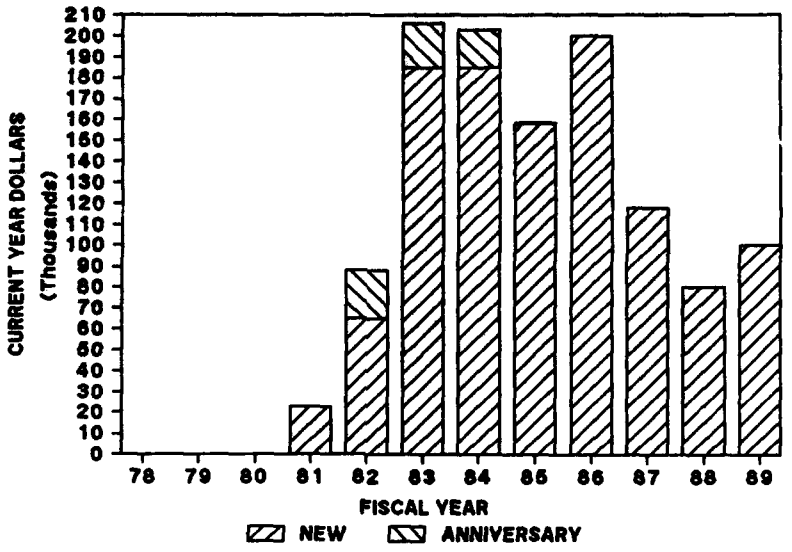


FIGURE B-35. AFFILIATION BONUS - USMCR

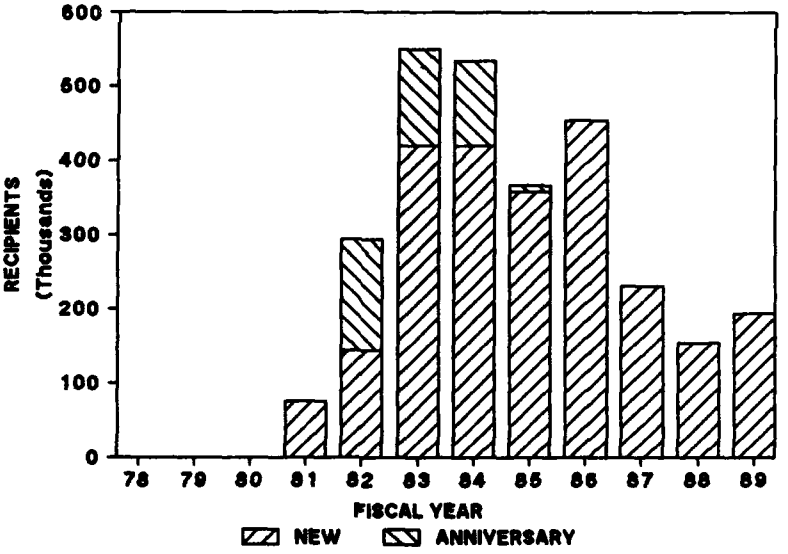


FIGURE B-36. AFFILIATION BONUS - USMCR

Table B-15. Affiliation Bonus - USAR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	238	0	238	736	0	736
1982	727	10	737	2237	31	2268
1983	1267	400	1667	3899	1230	5129
1984	450	5	455	1385	15	1400
1985	707	236	943	2175	726	2901
1986	1205	350	1555	3707	1077	4784
1987	4998	613	5611	6709	1467	8176
1988	5215	1402	6617	7000	3355	10355
1989	5215	1463	6678	7000	3500	10500

Table B-16. Affiliation Bonus - ARNG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	420	0	420	1448	0	1448
1982	818	50	868	2820	250	3070
1983	783	545	1328	2410	1331	3741
1984	862	520	1382	2102	1600	3702
1985	837	750	1587	2093	2083	4176
1986	1200	545	1745	2400	1514	3914
1987	3250	520	3770	4063	650	4713
1988	4000	1596	5596	5000	1995	6995
1989	4800	2892	7692	6000	3615	9615

Table B-17. Affiliation Bonus - USAFR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	417	0	417	1043	0	1043
1982	540	7	547	1350	23	1373
1983	940	234	1174	2350	780	3130
1984	350	235	585	875	783	1658
1985	30	0	30	75	0	75
1986	51	9	60	164	31	195
1987	80	24	104	130	79	209
1988	109	53	162	175	178	353
1989	112	53	165	180	100	280

Table B-18. Affiliation Bonus - ANG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	30	0	30	100	0	100
1982	25	3	28	55	15	70
1983	15	1	16	23	4	27
1984	22	2	24	67	2	69
1985	50	23	73	169	56	225
1986	51	15	66	112	48	160
1987	71	47	118	123	104	227
1988	69	38	107	119	84	203
1989	66	36	102	114	64	178

Table B-19. Affiliation Bonus - USNR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	494	0	494	1134	0	1134
1982	435	164	599	1300	489	1789
1983	529	399	928	1411	1228	2639
1984	815	665	1480	2173	2046	4219
1985	310	111	421	688	370	1058
1986	369	101	470	1213	350	1563
1987	522	82	604	1722	345	2067
1988	419	75	494	1324	256	1580
1989	469	114	583	1435	329	1764

Table B-20. Affiliation Bonus - USMCR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	23	0	23	76	0	76
1982	65	23	88	144	150	294
1983	185	21	206	420	131	551
1984	185	18	203	420	115	535
1985	158	1	159	359	8	367
1986	200	0	200	454	0	454
1987	118	0	118	231	0	231
1988	80	0	80	155	0	155
1989	100	0	100	195	0	195

Table B-21. Affiliation Bonus - DOD TOTAL

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	1622	0	1622	4537	0	4537
1982	2610	257	2867	7906	958	8864
1983	3719	1600	5319	10513	4704	15217
1984	2684	1445	4129	7022	4561	11583
1985	2092	1121	3213	5559	3243	8802
1986	3076	1020	4096	8050	3020	11070
1987	9039	1286	10325	12978	2645	15623
1988	9892	3164	13056	13773	5868	19641
1989	10762	4558	15320	14924	7608	22532

Prior Service Enlistment

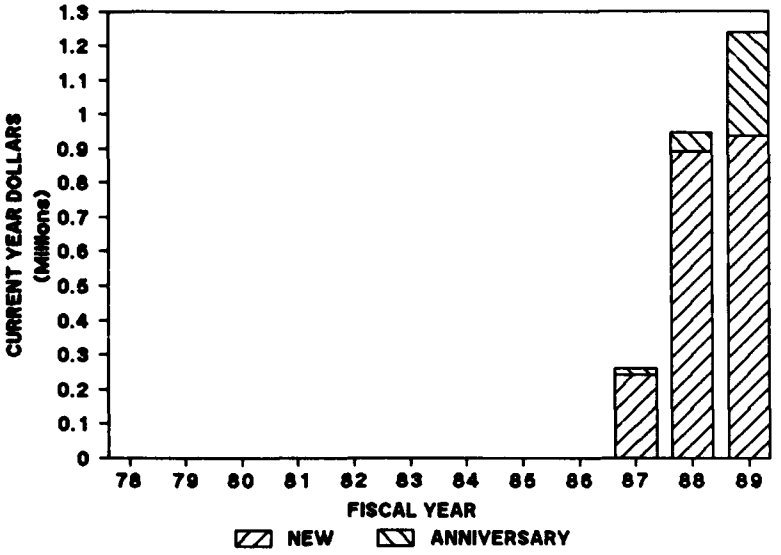


FIGURE B-37. PRIOR SERVICE ENLISTMENT BONUS - USAFR

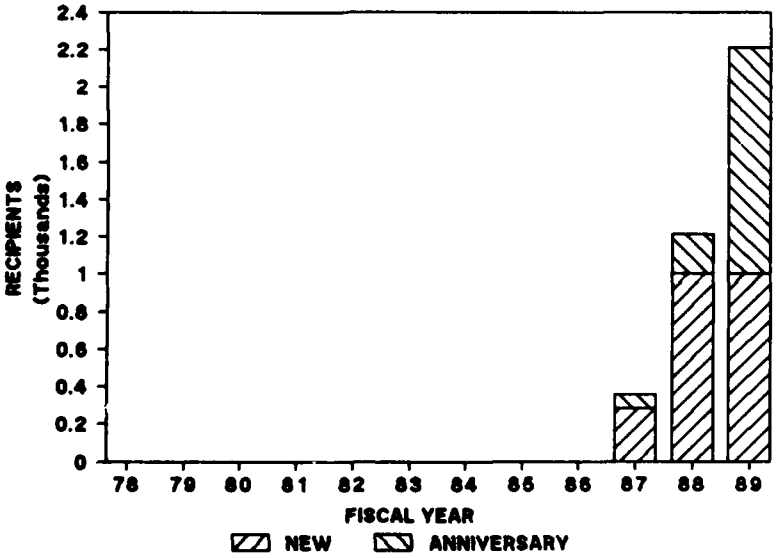


FIGURE B-38. PRIOR SERVICE ENLISTMENT BONUS - USAFR

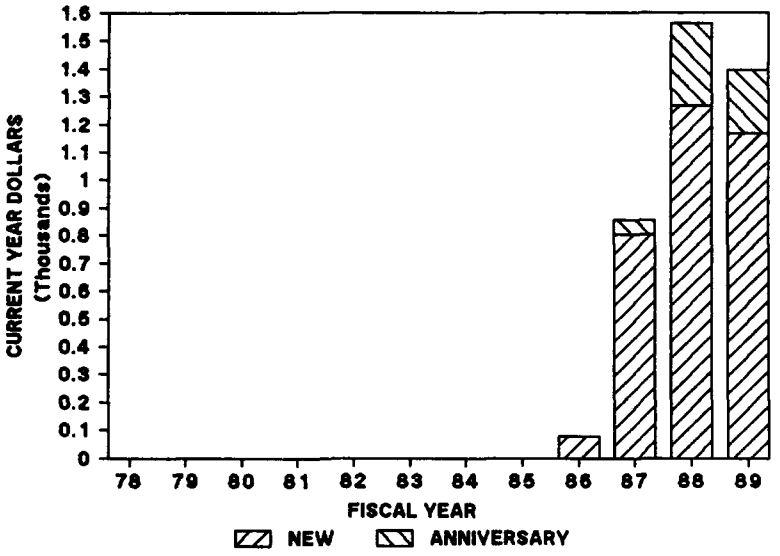


FIGURE B-39. PRIOR SERVICE ENLISTMENT BONUS - ANG

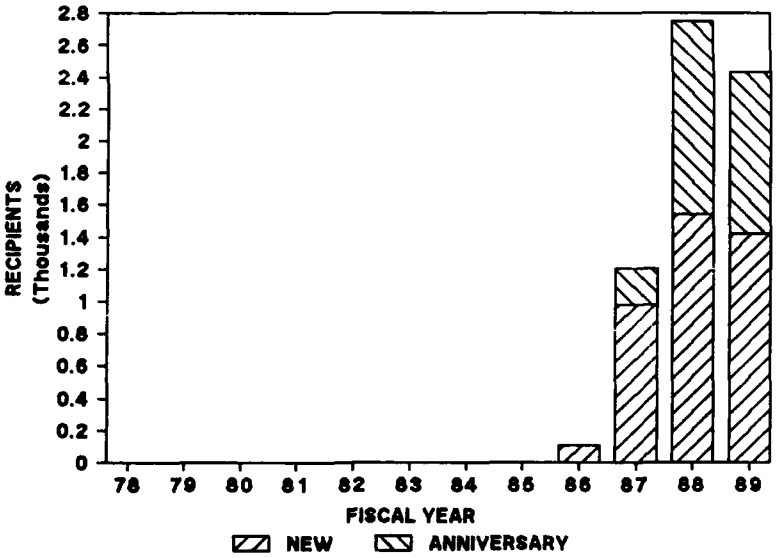


FIGURE B-40. PRIOR SERVICE ENLISTMENT BONUS - ANG

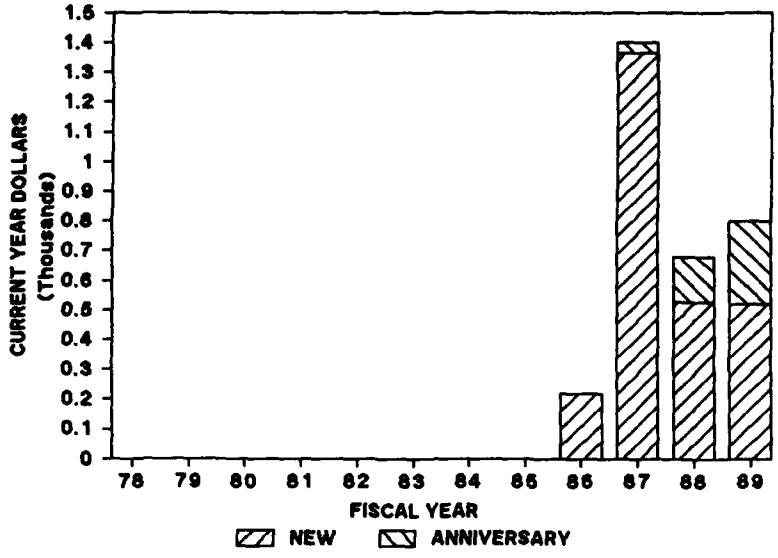


FIGURE B-41. PRIOR SERVICE ENLISTMENT BONUS - USNR

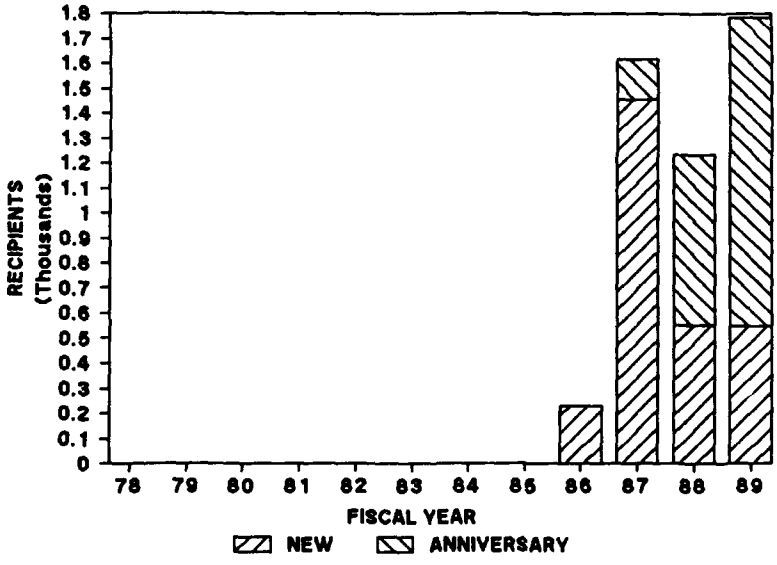


FIGURE B-42. PRIOR SERVICE ENLISTMENT BONUS - USNR

Table B-22. Prior Service Enlistment Bonus - USAFR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	0	0	0	0	0	0
1987	242	18	260	282	72	354
1988	892	53	945	1000	210	1210
1989	936	303	1239	1000	1210	2210

Table B-23. Prior Service Enlistment Bonus - ANG

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	80	0	80	110	0	110
1987	806	50	856	981	224	1205
1988	1268	293	1561	1542	1205	2747
1989	1169	227	1396	1422	1008	2430

Table B-24. Prior Service Enlistment Bonus - USNR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	218	0	218	231	0	231
1987	1364	37	1401	1458	161	1619
1988	527	155	682	555	680	1235
1989	520	280	800	548	1235	1783

Table B-25. Prior Service Enlistment Bonus - DOD TOTAL

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	298	0	298	341	0	341
1987	2412	105	2517	2721	457	3178
1988	2687	501	3188	3097	2095	5192
1989	2625	810	3435	2970	3453	6423

IRR Reenlistment

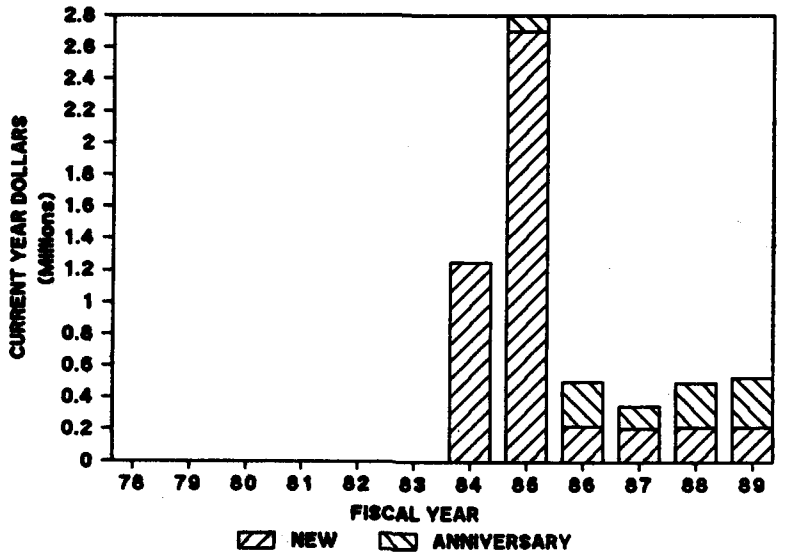


FIGURE B-43. IRR REENLISTMENT BONUS - USAR

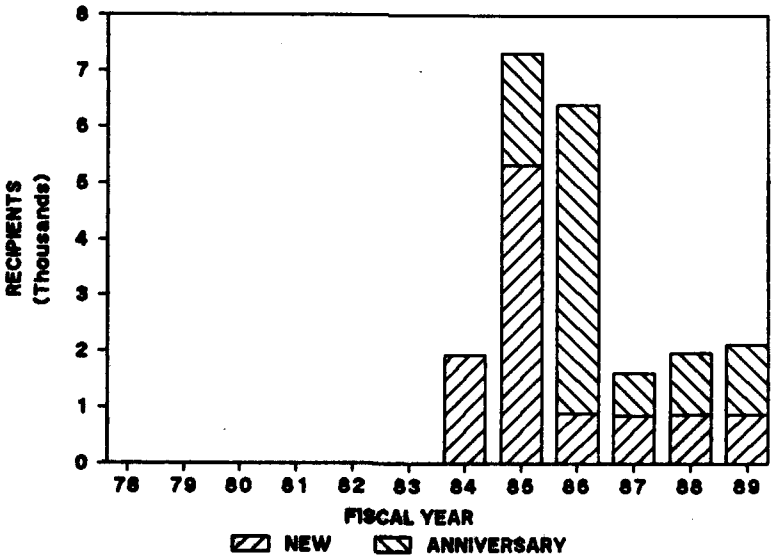


FIGURE B-44. IRR REENLISTMENT BONUS - USAR

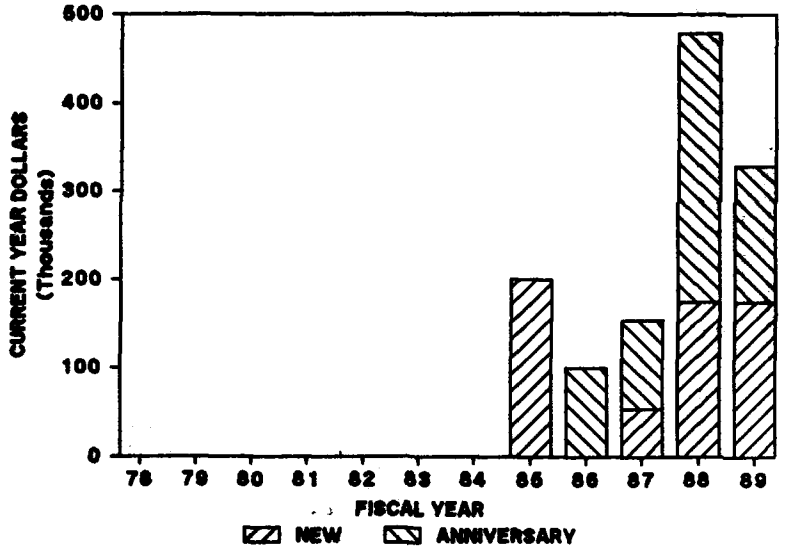


FIGURE B-46. IRR REENLISTMENT BONUS - USAFR

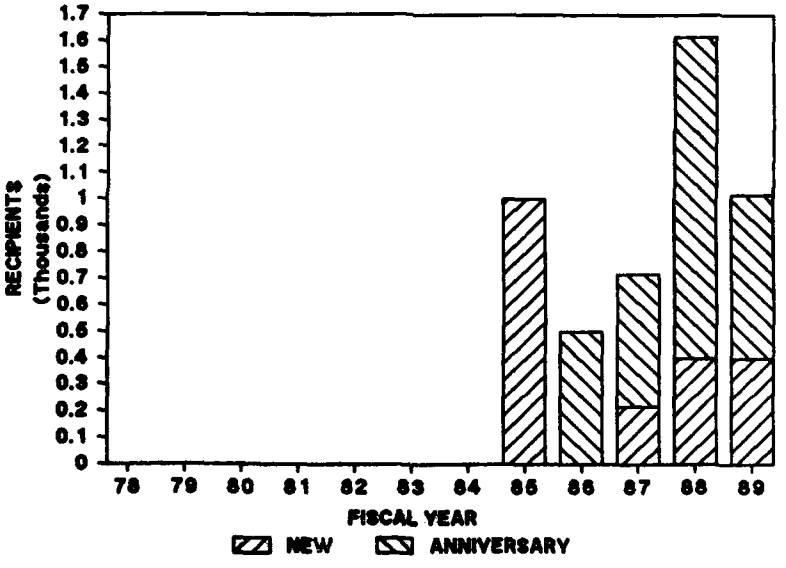


FIGURE B-46. IRR REENLISTMENT BONUS - USNR

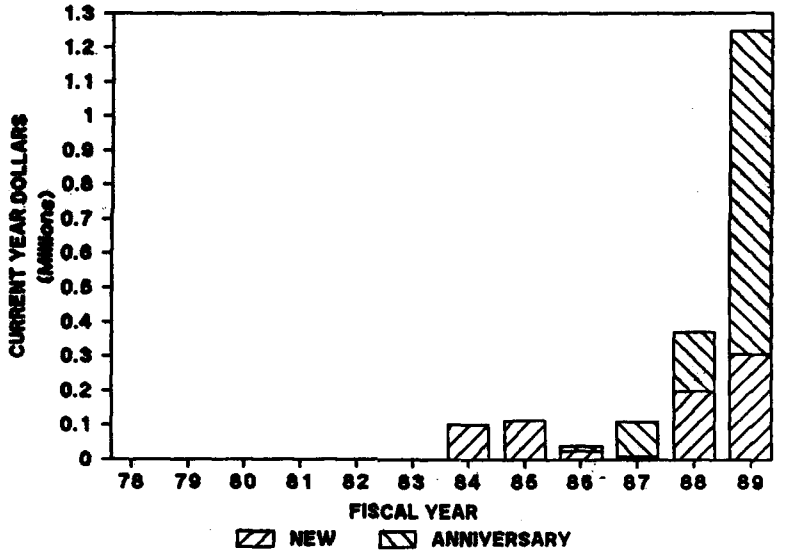


FIGURE B-47. IRR REENLISTMENT BONUS - USNR

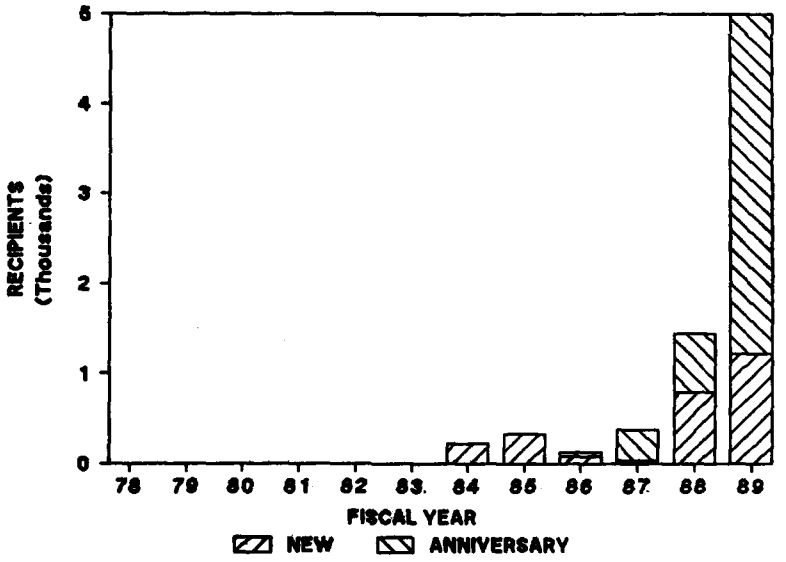


FIGURE B-48. IRR REENLISTMENT BONUS - USNR

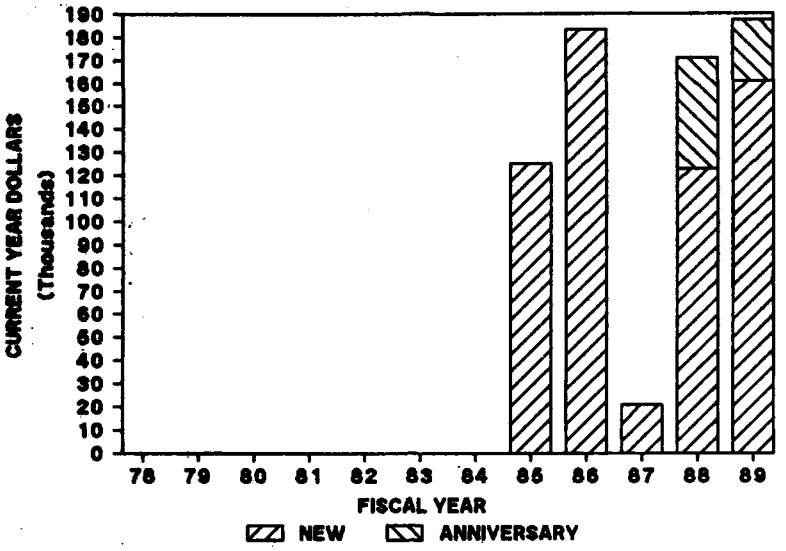


FIGURE B-49. IRR REENLISTMENT BONUS - USMCR

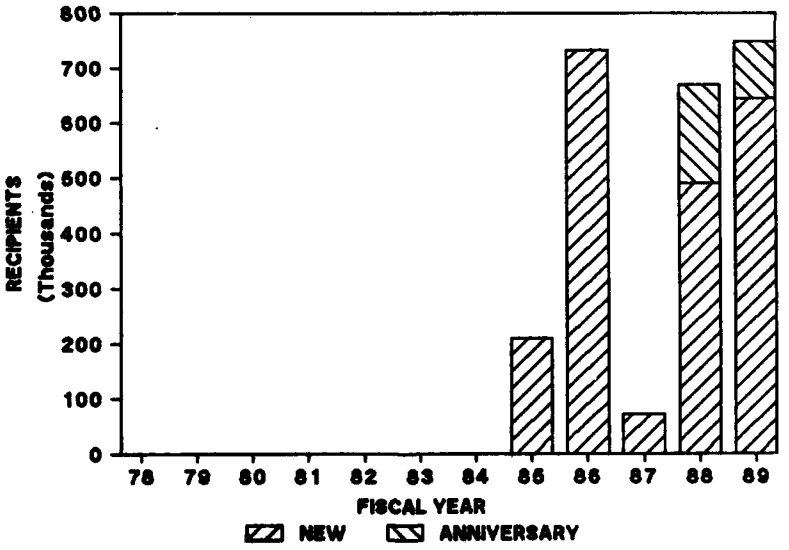


FIGURE B-50. IRR REENLISTMENT BONUS - USMCR

Table B-26. IRR Reenlistment Bonus - USAR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	1251	0	1251	1925	0	1925
1985	2700	100	2800	5323	1998	7321
1986	225	275	500	900	5500	6400
1987	212	138	350	848	760	1608
1988	219	276	495	875	1103	1978
1989	219	310	529	875	1242	2117

Table B-27. IRR Reenlistment Bonus - USAFR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	200	0	200	1000	0	1000
1986	0	100	100	0	500	500
1987	54	100	154	216	500	716
1988	175	304	479	400	1216	1616
1989	175	154	329	400	616	1016

Table B-28. IRR Reenlistment Bonus - USNR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	100	0	100	222	0	222
1985	112	0	112	338	0	338
1986	24	15	39	84	43	127
1987	10	100	110	40	346	386
1988	199	174	373	795	654	1449
1989	306	943	1249	1225	3772	4997

Table B-29. IRR Reenlistment Bonus - USMCR

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	125	0	125	208	0	208
1986	183	0	183	733	0	733
1987	21	0	21	70	0	70
1988	123	48	171	490	179	669
1989	161	26	187	644	104	748

Table B-30. IRR Reenlistment Bonus - DOD TOTAL

Fiscal Year	Payments ($000) New	Anniv	Total	Number of Recipients New	Anniv	Total
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	1351	0	1351	2147	0	2147
1985	3137	100	3237	6869	1998	8867
1986	432	390	822	1717	6043	7760
1987	297	338	635	1174	1606	2780
1988	716	802	1518	2560	3152	5712
1989	861	1433	2294	3144	5734	8878

Appendix C. EFFECTS OF BONUSES ON ARMY RESERVE REENLISTMENTS: AN EMPIRICAL BAYES APPROACH (ARMY RESEARCH INSTITUTE)

The Effects of Bonuses on Army Reserve Reenlistments: An Empirical Bayes Approach

Charles Dale

Technical Report 761

Manpower and Personnel Policy Research Group
Manpower and Personnel Research Laboratory

U. S. Army
Research Institute for the Behavioral and Social Sciences
October 1987

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The President's Sixth Quadrennial Review of Military Compensation placed special emphasis on reserve compensation. This paper was written in support of the Sixth QRMC. Empirical Bayes estimation techniques have been especially useful in applications where existing data bases have been small or incomplete. An empirical Bayes analysis of Army Reserve reenlistment data showed that bonuses increased committed man-years of service and that 6-year bonuses are most cost-effective than 3-year bonuses.

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Technical Report 761

The Effects of Bonuses on Army Reserve Reenlistments: An Empirical Bayes Approach

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FOREWORD

The Manpower and Personnel Policy Research Group of the U.S. Army Research Institute (ARI) performs research in the economics of manpower, personnel, and training issues of particular significance to the U.S. Army. Questions about the cost effectiveness of reenlistment bonuses have generated continuing interest.

Every 4 years the President establishes a Quadrennial Review of Military Compensation (QRMC) to study important military compensation issues. The Sixth QRMC has placed special emphasis on reserve compensation. This report was prepared as part of the Program Task in Recruiting and Retention of the ARI Manpower and Personnel Laboratory, under the 17 July 1987 memorandum from the Staff Director of the Sixth QRMC to the Commander of the Army Research Institute. In August 1987 the results of the report were briefed to the Sixth QRMC, which concurred with its findings. The ideas developed in this report have been used by the Sixth QRMC as part of its examination of the relative effectiveness of reserve incentive programs.



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THE EFFECTS OF BONUSES ON ARMY RESERVE REENLISTMENTS: AN EMPIRICAL BAYES APPROACH

EXECUTIVE SUMMARY

Requirement:

The U.S. Army Research Institute conducts research on manpower, personnel, and training issues of particular significance and interest to the U.S. Army. Every 4 years the President establishes a Quadrennial Review of Military Compensation (QRMC) to study important military compensation issues. This research was conducted in support of the Sixth QRMC. The relative cost effectiveness of 3-year and 6-year reenlistment bonuses is measured.

Procedure:

A relatively new statistical procedure called empirical Bayes was used to analyze the relative effectiveness of 3-year and 6-year reserve reenlistment bonuses. Adjustments were made to account for the fact that many reservists would have reenlisted even if there were no reenlistment bonuses at all.

Findings:

Reenlistment bonuses significantly affect the average length of commitment of reservists. In addition, reservists who receive bonuses tend to have lower attrition rates than those who do not, and 6-year reenlistment bonuses are more cost effective than 3-year reenlistment bonuses.

Utilization of Findings:

The results of this study may be used by the Sixth QRMC as part of its examination of the relative effectiveness of reserve incentive programs. The empirical Bayes method may also be applied to future research in which the existing data bases are small or incomplete.

THE EFFECTS OF BONUSES ON ARMY RESERVE REENLISTMENTS: AN EMPIRICAL BAYES APPROACH

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THE EFFECTS OF BONUSES ON ARMY RESERVE REENLISTMENTS: AN EMPIRICAL BAYES APPROACH

INTRODUCTION

The reserves have become an increasingly important part of the total Army (Enns, 1985), so the President's Sixth Quadrennial Review of Military Compensation (Sixth QRMC) will place special emphasis on reserve compensation issues. This paper was written in support of the Sixth QRMC. We examine here the role of Army Reserve reenlistment bonuses in determining the average reenlistment term, or "length of commitment" of reservists.

Army Reserve compensation issues initially gained attention after the end of the draft in 1973. Faced with increasing shortfalls in some areas and overages in others, in 1976 the President directed the Pentagon to undertake a comprehensive study of reserve compensation. That was the first time such a study was ever done (Department of Defense, 1978). Their report made numerous recommendations for modifications to the methods of paying reservists, but few of the recommendations were adopted.

In 1977 Congress authorized $5 million to evaluate the effect of bonuses on reenlistments into the Army National Guard and Army Reserve. Nonprior service reservists were offered bonuses of $1,800 for a 6-year reenlistment and $900 for a 3-year reenlistment. One-half of the bonuses were paid at the time of reenlistment and the remaining amount in $150 installments at the end of each obligated year of service. The Rand Corporation designed the bonus test and conducted a follow-up (Grissmer, Doering, & Sachar, 1982; Grissmer, Burright, Doering, & Sachar, 1982; Grissmer & Hiller, 1985).

Bonus payments were offered in six National Guard states and four Army Reserve regions. For each of those, a matching state or region was used as a control and did not offer bonus payments. A total of 15,000 guardsmen and reservists, each of whom reached the end of his term of service (ETS) in 1978, took part in the test and control states and regions. Researchers monitored the reenlistment decisions of all 15,000 and asked each to complete a questionnaire at the time of his decision.

The Rand study of the 1978 reenlistment bonus test concluded that bonuses had little effect on the reenlistment rates of reservists. That result was consistent with the results obtained by Kirkland, Raney, and Hicks (1984, p. 84), who surveyed reservists and found no consistent relationship between hypothetical reenlistment bonuses and intentions to reenlist. The Rand study did, however, find that bonuses significantly affect the average length of commitment of reservists. In addition, reservists who receive bonuses tend to have lower attrition rates than those who don't, indicating that bonuses might not increase the number of people reenlisting, but they would increase the number of committed man-years of service.

The Rand study concluded that without reenlistment bonuses there is little incentive for reservists to reenlist for more than 1 or 2 years at a time, even if their initial intention is to serve for a longer period. Subsequently, they may have marital or career changes that cause them to alter

their plans, so they do not serve in the reserves as long as originally intended. On the other hand, if reservists receive reenlistment bonuses they are more likely to honor their commitments, even in the face of unanticipated changes in their personal lives and careers. We can model this type of behavior using a relatively new statistical technique called empirical Bayes. The method is potentially very fruitful for using measured intentions to predict ultimate actions.

AN EMPIRICAL BAYES MODEL

There have been a number of attempts to predict the enlistment and reenlistment behavior of military personnel from their stated intentions. Orvis (1982) and Orvis and Gahart (1985) applied ordinary least squares (OLS) models to several sets of survey data. They concluded that there is a systematic relationship between a person's stated intent to enlist in the military and his actual likelihood of enlisting. Nord, Schmitz, and Weiland (1986) used logistic regressions and data from the National Longitudinal Survey (NLS), and concluded that intention to enlist, measured at age 17, was the best single predictor of actual enlistment.

In this paper we use a behavioral model developed by Morrison (1979), who modeled the relationship between intentions and actual purchases of consumer goods. We assume that when a soldier signs a reenlistment contract his length of commitment, or "stated intent" for a term of reenlistment can be modeled by a binomial random variable with $n = 6$ years and $p = I_t$, the expected duration of service, or "true intent," so that

$$I_s = \text{Binomial } (n,p) \tag{1}$$

Intuitively, this means that the soldier responds binomially--yes or no, which is equivalent to 0 or 1--for each year that he thinks about as a term for reenlistment. The model also specifies that the true intentions are drawn from a beta distribution with parameters a and b:

$$I_t = \text{Beta } (a,b),\ a \geq o,\ b, \geq o. \tag{2}$$

The bonuses are assumed to match the length of service commitment to the soldier's true intentions.

A considerable body of psychological literature over the last two decades has discussed the possibility that an extrinsic type of reinforcement (e.g., money) might cause a person to lose some of his intrinsic motivation for performing a task (Korman, 1974, p. 201). In that view bonuses might attract more soldiers who have a lesser "taste" for military service, and one might expect bonus recipients to have higher attrition rates than the control group. Our hypothesis is the simpler economic one--that without the bonuses there is simply no incentive to reenlist for more than 1 year, but if a soldier does get a bonus and reenlists for more than 1 year, he is then more likely to honor his commitment and the attrition rates will therefore be lower in the

bonus group than in the control groups. The empirical Bayes method is one way of choosing between the psychological and economic hypotheses of motivations.

The model specified by equations (1) and (2) "may sound strange" (Casella, 1985, p. 86), but different forms of it have been used and justified in marketing and psychology literature. For example, Kalvani and Silk (1982) used a similar model to determine the predictive validity of intention measures for purchasing durable and packaged goods. The compound distribution of I_s on I_t is called the beta-binomial, or negative hypergeometric distribution. The probability distribution for a reenlistment commitment of x years is given by (Kendall and Stuart, Vol. 1, 1969, p. 146):

$$h(x) = \frac{1}{n+1} \frac{B(a+x,\ b+n-x)}{B(x+1,\ n-x+1)\ B(a,b)}, \quad x = 0,1,2,\ldots,n \tag{3}$$

where

$$B(a,b) = \int_0^1 x^{a-1} (1-x)^{b-1}\, dx. \tag{4}$$

The mean of the distribution in (3) is

$$E(I_s) = \frac{na}{a+b}, \tag{5}$$

and the variance is

$$VAR(I_s) = \frac{nab(a+b+n)}{(a+b)^2(a+b+1)}. \tag{6}$$

Using equations (5) and (6) and the actual average value of stated intentions $\bar{I}_s$ we obtain the empirical Bayes estimate

$$I_t = \frac{a+b}{a+b+1} \bar{I}_s + \left(1 - \frac{a+b}{a+b+1}\right) I_s. \tag{7}$$

Arguments for the use of empirical Bayes models versus more traditional econometric models closely parallel the arguments for using standard Bayes models rather than maximum likelihood methods (see Kendall & Stuart, 1969, pp. 202-203). It should be noted, however, that empirical Bayes methods have been used successfully with data sets which are small and incomplete (Casella, 1985), and incomplete data sets are frequently encountered in studies of the reserves.

RESULTS

Solving equations (1) through (7) above using the Rand reenlistment bonus data we obtain a mean reenlistment time for the bonus group of 4.37 years, with a variance of 2.02. The values of parameters a and b are 4.46 and 1.67, respectively, so equation (7) becomes

$$I_i^t = 3.7568 + .1403 I_i^s \quad . \tag{8}$$

Equation (8) is the empirical Bayes estimate of a soldier's true length of reenlistment intention, based upon his stated intention.

The results of this analysis are summarized in Tables 1 through 3. Table 1 shows how the existence of a reenlistment bonus tripled the average length of commitment. Table 2 shows that bonuses not only increase the initial term of commitment, they also increase retention rates.

Several other interesting points are also illustrated in Table 2. The empirical Bayes estimate calculated from equation (8) is not close to the actual survival rate for soldiers who initially extended for only 1-year extensions. It is possible that an entirely different model might need to be specified for the soldiers who don't receive a bonus. On the other hand the empirical Bayes estimates, which were calculated for the bonus group, were remarkably close to the survival rates for 3-year and 6-year reenlistees. This lends support to the economic hypothesis that bonuses cause soldiers to react according to their true intentions, and that the negative hypergeometric model described previously gives a good picture of those intentions.

Note also that Table 2 shows the 3-year and 6-year reenlistees had higher survival rates in the bonus group than in the control group. This lends support to the view that bonuses cause soldiers to reenlist according to their true intentions, and that once committed they tend to honor their contracts, rather than have the same attrition rate as a group that did not receive bonuses. In this view the bonuses are really preventing "shrinkage," i.e., the difference between the control and bonus rates shown at the bottom of Table 2. Note that this is a very conservative estimate of the increased retention achieved by the bonuses, since the bonus group actually had a lower survival rate for 1-year extenders. Hence the bonus, not membership in the bonus group, was probably the cause of the higher retention rate of the 3-year and 6-year reenlistees in the bonus group.

The relative cost effectiveness of the reenlistment bonuses is shown in Table 3. Questions frequently arise as to how costly bonuses are, since many reservists would reenlist even without them. Table 3 is the cost of only the prevented "shrinkage" shown in Table 2, e.g., it assumes the bonuses bought only the difference between the 73.6% and the 81.1% survival rates of 6-year reenlistees. We were fortunate in this case to have actual survival rates available from the Rand bonus tests, so those rates were used in the cost-effectiveness calculations. If those data had not been available, we would have used the 76.7% figure, rather than the 81.1% figure in Table 2.

Table 1

Average Terms of Commitment

Reenlistment Bonuses Tripled the Committed Man-Years

Initial Reenlistment Decision	Army Reserve		Army National Guard		Totals	
	Number	Man-Yrs	Number	Man-Yrs	Number	Man-Yrs
Control Group:						
1-Yr	788	788	2,110	2,110	2,898	2,898
3-Yrs	244	732	94	282	338	1,014
6-Yrs	29	174	39	234	68	408
Totals:	1,061	1,694	2,243	2,626	3,304	4,320
Averages:	1.60 Man-Yrs		1.17 Man-Yrs		1.31 Man-Yrs	
Bonus Group:						
1-Yr	89	89	351	351	440	440
3-Yrs	244	732	315	945	559	1,677
6-Yrs	472	2,832	911	5,466	1,383	8,298
Totals	805	3,653	1,577	6,762	2,382	10,415
Averages:	4.54 Man-Yrs		4.29 Man-Yrs		4.37 Man-Yrs	

Rav Data Source: Grissmer, Doering, and Sachar (1982).

Table 2

Empirical Bayes Estimates

Reenlistment Bonuses Increased Retention Rates

Initial Reenlistment Decision	At Start of Experiment: % Reenlisting in Each Category Control Group	Bonus Group
1-Yr	87.5%	18.2%
3-Yrs	10.4	23.9
6-Yrs	2.1	57.9
	100.0	100.0

Initial Reenlistment Decision	At End of Third Year of Experiment: Number Remaining in Reserves Control Group	Bonus Group	Empirical Bayes Estimate
1-Yr	57.4%	45.0%	65.0%
3-Yrs	72.9	76.2	69.7
6-Yrs	73.6	81.1	76.7

Raw Data Source: Grissmer and Hiller (1985).

Table 3

Bonus Costs for Additional Man-Years

6-Year Bonuses Are the Most Cost Effective

Initial Reenlistment Decision	Reenlistment Bonus	Current Dollars	Inflation Adjusted	Current Dollars	Inflation Adjusted
3-Yrs	$900	$594,900	$575,135	$7,331	$6,747
6-Yrs	$1,800	$2,727,300	$2,580,729	$4,584	$4,337

"Inflation Adjusted" means constant 1986 dollars.

Costs in both current dollars and constant 1986 dollars, assuming a 4% annual inflation rate, are shown in Table 3. Bonuses for 6-year reenlistments are more cost effective than bonuses for 3-year reenlistments, possibly because the bonuses succeed in preventing reenlistment shrinkage from the most committed soldiers. In future studies an empirical Bayes estimate of the type shown in Table 3 may be used to project the survival rates of soldiers who accept reenlistment bonuses, which will aid in force structure projections.

CONCLUSIONS

An empirical Bayes analysis of the 1978 Army Reserve reenlistment bonus test shows that reenlistment bonuses are a useful device for increasing the average reenlistment terms, or "committed man-years" of service (Table 1). Bonuses also increased Army Reserve retention rates (Table 2). Six-year bonuses are more cost effective than 3-year bonuses (Table 3).

Empirical Bayes estimates have been especially useful in applications where the existing data bases have been small or incomplete. The Sixth Quadrennial Review of Military Compensation (QRMC) may find those techniques useful as they study the compensation structure of the reserve components.

The statistical methods used in this paper can also be applied to making projections based upon analyses that the Sixth QRMC makes using newly collected data. Measures of lengths of commitments can be used for planning reserve force structure sizes several years into the future. An analysis of reenlistment rates by mental category would be a logical next step. Much of the literature on reserves (Brinkerhoff & Grissmer, 1984) concludes that reserve enlistment and retention rates are largely dependent upon noneconomic factors which cannot be easily quantified. Thus any methods, such as empirical Bayes, which can cast light on the exact value of the quantifiable monetary benefits should be very helpful to policymakers.

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Appendix D. THE EFFECTS OF THE NEW G.I. BILL & HIGHER REENLISTMENT BONUSES ON ARMY RESERVE REENLISTMENTS (ARMY RESEARCH INSTITUTE)

Working Paper MPPRG 87-43

THE EFFECTS OF THE NEW GI BILL AND

HIGHER REENLISTMENT BONUSES ON ARMY RESERVE REENLISTMENTS

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AUGUST 1987

REVIEWED BY _____ APPROVED BY _____



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I. INTRODUCTION

The President's Sixth Quadrennial Review of Military Compensation (Sixth QRMC) has been studying reserve compensation issues. In this paper we examine the effects of the new GI Bill and higher reenlistment bonuses on reserve reenlistments. We conclude that those new benefits have increased the number of reenlistees, and also increased the number of committed man-years of service.

II. RESERVE REENLISTMENT INCENTIVES

There are two incentive programs examined here: the New GI Bill and the new reenlistment bonus program. The Army has been interested in measuring the effects of these new programs.

The New GI Bill began on 1 Jul 85. To be eligible for benefits, which could be worth up to $5040, a soldier must enlist, reenlist, or extend for up to a 6-year term. The New GI Bill replaced the previous educational assistance program which was targeted only to specific military occupational specialties and which paid benefits up to only $4,000. The two educational assistance programs are therefore not directly comparable, and some reservists who joined before 1 Jul 85 may be eligible for both programs.

Reenlistment bonuses were increased in July 1986. 3-year reenlistment bonuses were increased from $900 to $1250, and 6-year reenlistment bonuses were increased from $1800 to $2500. Because there was one year between the beginning of the New GI Bill and the increases in the reenlistment bonuses, it is possible to try to separate their effects.

Data for the reserves has typically been very difficult to obtain. We are fortunate here to have several continuous time-series, obtained from the Department of the Army, Office of the Deputy Chief of Staff for Personnel. These include monthly data, from July 1983 to June 1987, for total 3-year and 6-year enlistments in the Army Reserve and the Army National Guard.

Figures 1 through 4 show the monthly 3-year and 6-year reenlistments for Army Reserve and National Guardsmen. Figure 1, for example, illustrates how 6-year Reserve reenlistments increased with the inception of the New GI Bill, and increased further with the higher reenlistment bonuses. Some of the increased reenlistment terms appear to come from potential 3-year reenlistees, as shown in Figure 2.

III. ESTIMATING THE IMPACT OF NEW INCENTIVE PROGRAMS

We obtained some quantitative estimates of the effects of the new benefit programs by estimating two kinds of models. In the first type of model we considered the absolute number of 3-year and 6-year reenlistments. In the second set of models we considered the relative shares of 6-year and 3-year reenlistments.

For each type of model we examined three kinds of effects: autocorrelation, program effects, and environmental effects. Autocorrelation is a term that describes the fact that so many economic series move up or down together that it is difficult to determine whether cause and effect relationships exist. Generalized least squares (GLS) and the Cochrane-Orcutt procedure were used to correct for autocorrelation. We measured for program effects by running regressions of monthly reenlistments against dummy variables, one of which was set equal to 0 until the start of the New GI Bill

and equal to 1 afterwards (NEWGIBILL), and one of which was set equal to 0 until the start of the higher reenlistment bonuses and equal to 1 afterwards (NEWBONUS).

Environmental effects were measured by the unemployment rate. However, this term had the wrong sign. This is not surprising since reenlistments were rising as unemployment rates were falling, and in any case reservists typically are motivated by numerous factors, many of which are not easily quantified.

The dummy variables that were used in Tables 1 through 4 explained from 20 percent to 59 percent of the variation in reenlistment rates, as measured by the R^2 values. Not all of the dummy variables were statistically significant in those models, but they were in the ratio models which we will describe shortly.

Table 1 shows that from July 1983 until the start of the New GI Bill about 457 Reservists reenlisted each month. After the start of the New GI Bill, an additional 39 Reservists reenlisted each month, for a total of 496. After reenlistment bonuses were raised, another 203 Reservists reenlisted for 6-year terms, for a total of 699.

Some of the 6-year reenlistees were drawn from prospective 3-year reenlistees, as shown in Table 2. After the start of the New GI Bill, 3-year reenlistments dropped by about 45 contracts per month, which in this simple model approximately offsets the 39 contract gains shown in Table 1. Thus for Reservists, the net effect of the New GI Bill was simply to increase the committed man-years of service.

After the higher bonuses were started 3-year Reserve reenlistments dropped by 28 contracts/month (Table 2), but that was more than offset by the 203 contracts/month increase in 6-year reenlistments (Table 1). Thus the new

bonus program increased both total Reserve reenlistments and committed man-years of service.

National Guardsmen, on the other hand, had sharp net increases in reenlistments from both higher bonuses and the New GI Bill. Higher bonuses resulted in an increase in 6-year Guard reenlistments of 153 contracts/month (Table 3), and a decrease of 3-year Guard reenlistments of only 77 contracts/month (Table 4).

In contrast to the Army Reserve, in which the New GI Bill appears to have drawn 6-year reenlistees almost entirely from the pool of 3-year reenlistees, thereby increasing the committed man-years of service, the Guard received a large net increase in contracts from the New GI Bill. 3-year Guard reenlistments dropped by only 45 contracts/month (Table 4), while 3-year Guard reenlistments increased by 154 contracts/month (Table 3), a net gain of over 100 contracts/month.

Another analytical approach is illustrated in Tables 5 and 6, in which the dependent variables were 6-year reenlistments as a percentage of the total of 3-year and 6-year reenlistments. Using ratios may have eliminated the effects of some of the omitted variables, and the R^2 values do show that these models account for 71 percent to 78 percent of the variation in the ratios. Also, all of the explanatory variables are statistically significant.

Table 5 shows that from July 1983 until the start of the New GI Bill, the ratio of 6-year Reserve reenlistees to 3-year Reserve reenlistees was about 3 to 1, or 75.3 percent 6-year contracts. When the New GI Bill started, the ratio rose by 6.7 percent, to 82 percent, and the new bonuses raised the ratio another 8.1 percent, to slightly over 90 percent. Similar effects are shown for the National Guard in Table 6. (The corresponding tables for 3-year reenlistees are not shown because, except for he constant term, the

coefficients are equal and opposite in sign. For example, a 6.7 percent increase of 6-year reenlistments by definition means a drop of 6.7 percent in the ratio of 3-year Reserve reenlistments). For both the Reserve and National Guard, Tables 5 and 6 show how the New GI Bill and the higher bonuses increased the committed man-years of service.

IV. CONCLUSIONS

The results of this paper are summarized in Table 7. Higher bonuses resulted in a net increase in reenlistment contracts and longer committed man-years of service for both the Army Reserve an the Army National Guard. The New GI Bill increased the committed man-years of service for both the Guard and Reserve, and resulted in a large net increase in reenlistment contracts for the National Guard.

Figure 1

US Army Reserve 6-Year Reenlistments

Monthly Data

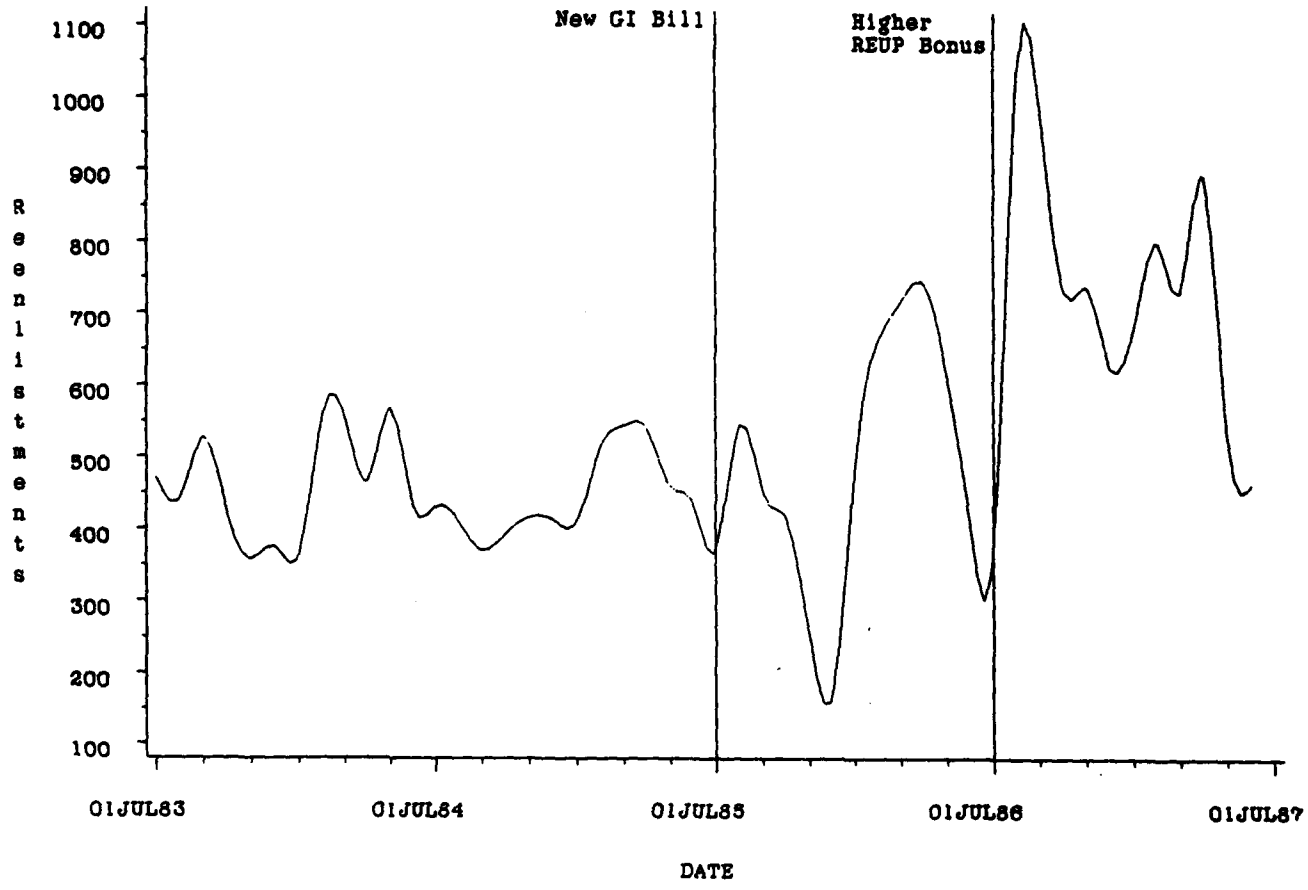


Figure 2

US Army Reserve 3-Year Reenlistments

Monthly Data

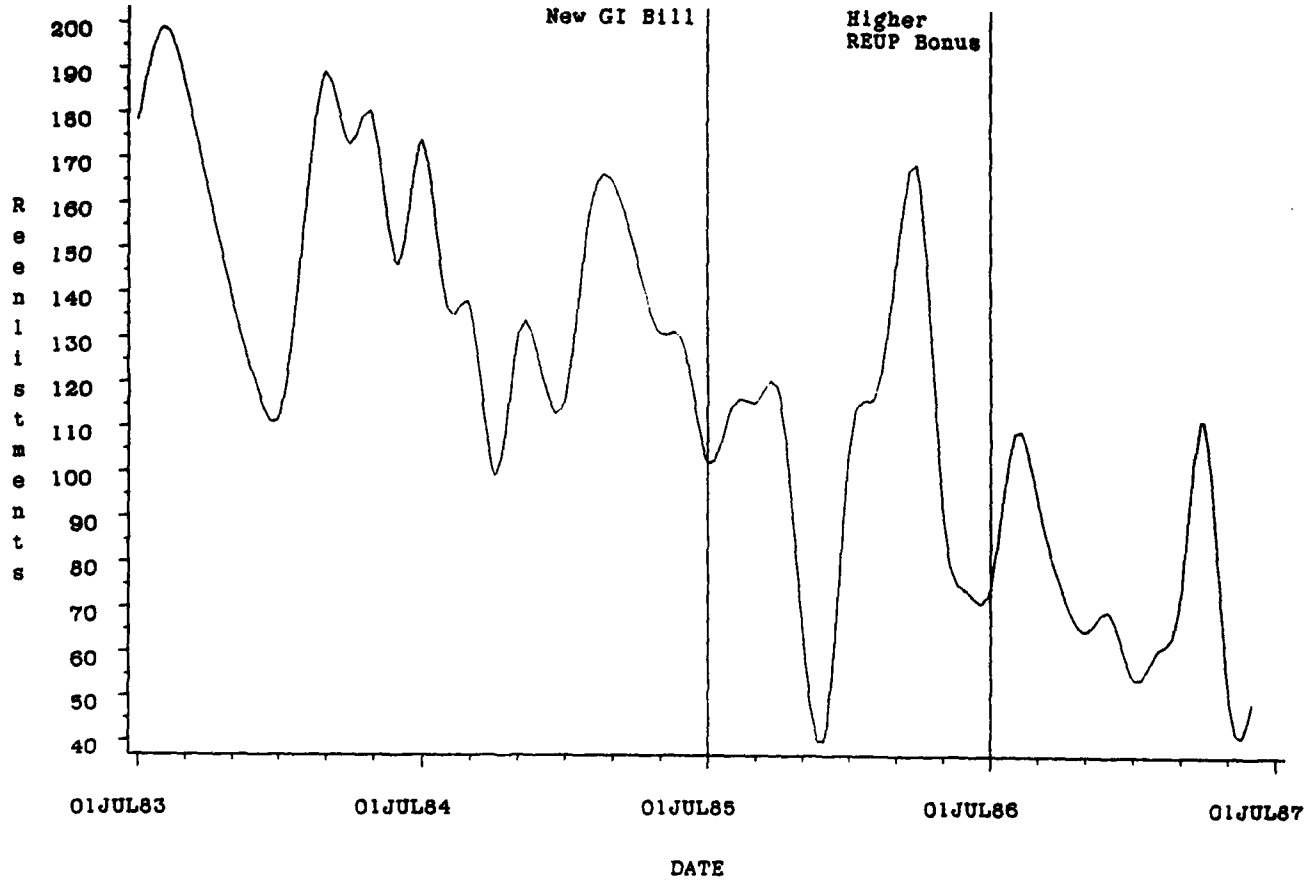


Figure 3

US Army National Guard 6-Year Reenlistments

Monthly Data

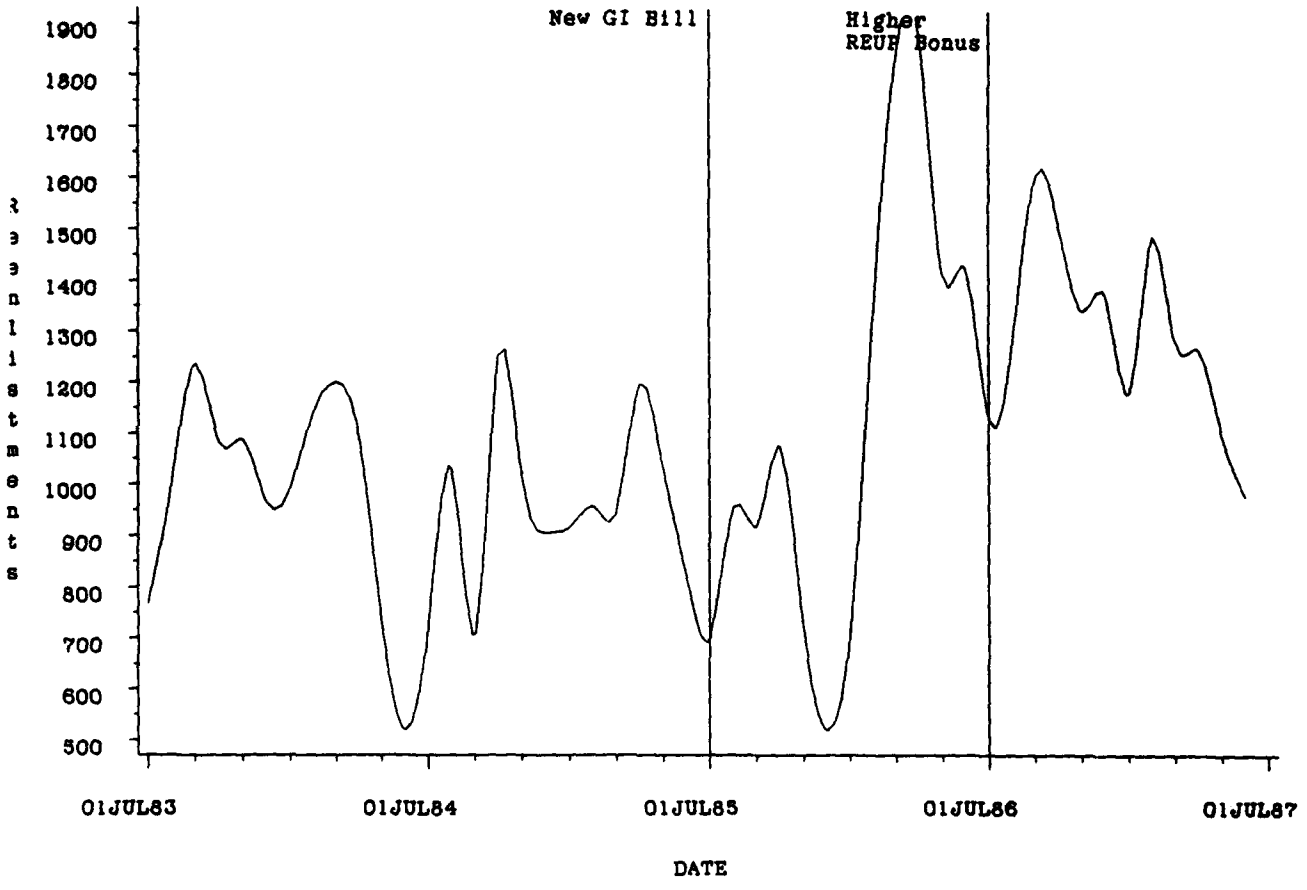


Figure 4

US Army National Guard 3-Year Reenlistments

Monthly Data

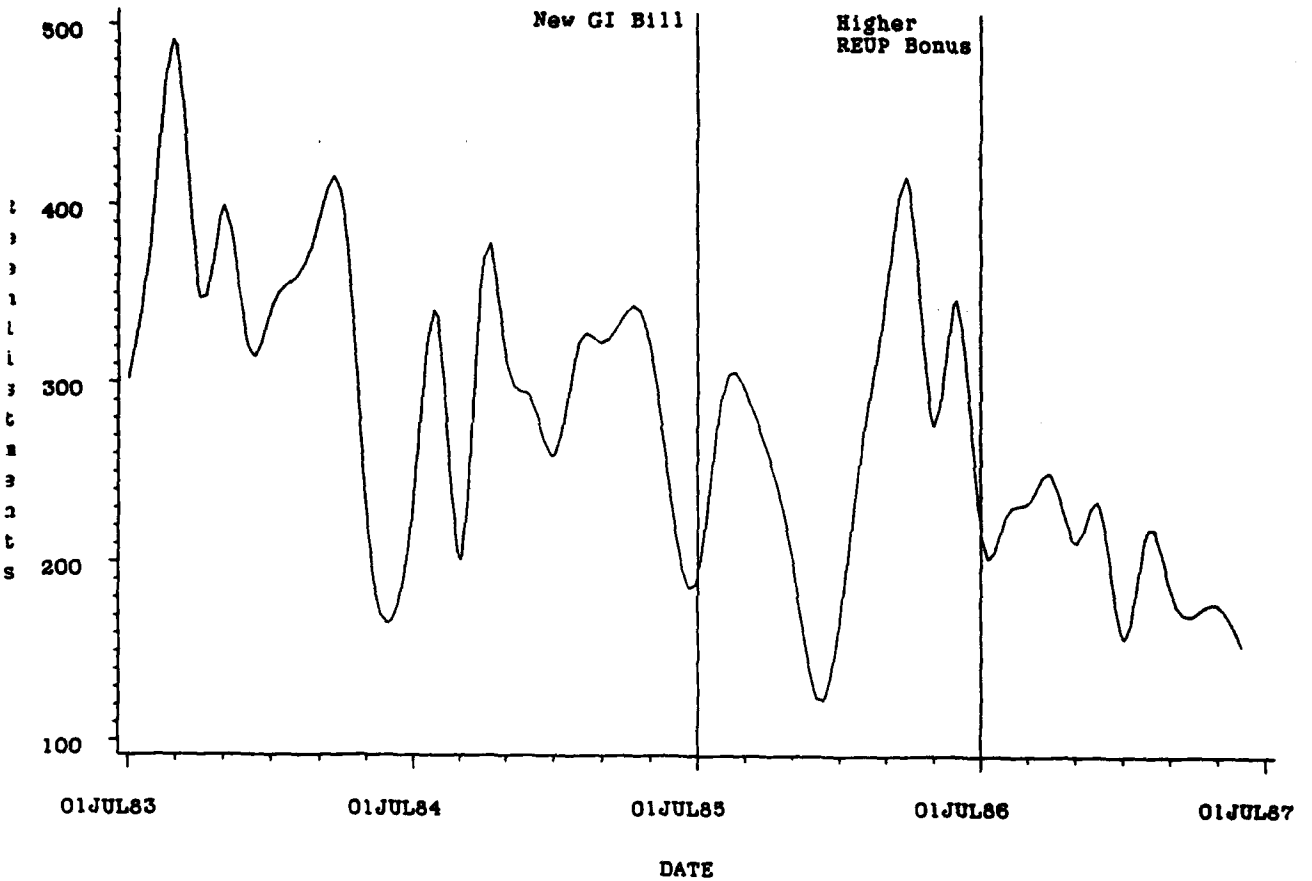


TABLE 1

GLS ESTIMATES FOR RESERVE REENLISTMENTS
ARMY RESERVE, 6-YEAR TERMS
MONTHLY CONTRACTS

VARIABLE	COEFFICIENT	T-RATIO
INTERCEPT	456.91	11.7 **
NEW GI BILL	38.88	0.6
NEW BONUS	202.80	2.7 **

R^2=.40

** Statistically significant at the .01 level.

TABLE 2
GLS ESTIMATES FOR RESERVE REENLISTMENTS
ARMY RESERVE, 3-YEAR TERMS
MONTHLY CONTRACTS

VARIABLE	COEFFICIENT	T-RATIO
INTERCEPT	148.94	17.1 **
NEW GI BILL	-45.35	-3.2 **
NEW BONUS	-28.23	-1.8 *

R^2=.59

* Statistically significant at the .05 level.

** Statistically significant at the .01 level.

TABLE 3

GLS ESTIMATES FOR RESERVE REENLISTMENTS

ARMY NATIONAL GUARD, 6-YEAR TERMS

MONTHLY CONTRACTS

VARIABLE	COEFFICIENT	T-RATIO
INTERCEPT	991.2	10.2 **
NEW GI BILL	153.8	1.0
NEW BONUS	152.6	.3

R^2=.20

** Statistically significant at the .01 level.

TABLE 4

GLS ESTIMATES FOR RESERVE REENLISTMENTS

ARMY NATIONAL GUARD, 3-YEAR TERMS

MONTHLY CONTRACTS

VARIABLE	COEFFICIENT	T-RATIO
INTERCEPT	318.3	15.2 **
NEW GI BILL	-45.2	-1.3
NEW BONUS	-77.0	-2.0 *

R^2=.34

* Statistically significant at the .05 level.

** Statistically significant at the .01 level.

TABLE 5

GLS ESTIMATES FOR RESERVE REENLISTMENTS

ARMY NATIONAL GUARD, 6-YEAR TERMS

PERCENTAGE OF TOTAL OF 3-YEAR AND 6-YEAR REENLISTMENTS

VARIABLE	COEFFICIENT	T-RATIO
INTERCEPT	.753	107.9 **
NEW GI BILL	.067	5.7 **
NEW BONUS	.081	6.0 **

R^2=.78

** Statistically significant at the .01 level.

TABLE 6

GLS ESTIMATES FOR RESERVE REENLISTMENTS

ARMY NATIONAL GUARD, 6-YEAR TERMS

PERCENTAGE OF TOTAL OF 3-YEAR AND 6-YEAR REENLISTMENTS

VARIABLE	COEFFICIENT	T-RATIO
INTERCEPT	.754	123.4 **
NEW GI BILL	.047	4.7 **
NEW BONUS	.061	5.4 **

R^2=.71

** Statistically significant at the .01 level.

TABLE 7

SUMMARY OF KEY IDEAS

IN TERMS OF TOTAL ENLISTMENTS:

BEFORE THE NEW GI BILL (1JUL 83 - 30 JUN 85):

— Army Reservists reenlisted for 6-year terms at the rate of 457 per month. They reenlisted for 3-year terms at the rate of 149 per month.

— Army National Guardsmen reenlisted for 6-year terms at the rate of 991 per month. They reenlisted for 3-year terms at the rate of 318 per month.

AFTER THE NEW GI BILL (after 1 Jul 85):

— An additional 39 Army Reservists reenlisted for 6-year terms each month, for a total of 496/month. 45 fewer Reservists reenlisted for 3-year terms, for a total of 104/month.

— An additional 154 Army National Guardsmen reenlisted for 6-year terms each month, for a total of 1145/month. 45 fewer Guardsmen reenlisted for 3-year terms, for a total of 273/month.

AFTER THE HIGHER REENLISTMENT BONUSES (after 1 Jul 86):

— An additional 203 Army Reservists reenlisted for 6-year terms each month, for a total of 699/month. 28 fewer Reservists reenlisted for 3-year terms, for a total of 76/month.

— An additional 153 Army National Guardsmen reenlisted for 6-year terms each month, for total of 1298/month. 77 fewer guardsmen reenlisted for 3-year terms, for a total of 196/month.

IN TERMS OF RELATIVE PERCENTAGES OF 3-YEAR AND 6-YEAR REENLISTEES:

BEFORE THE NEW GI BILL (Jul 83 - 30 Jun 85):

— Among 3-year and 6-year Reserve reenlistees, an average of 75% reenlisted for 6-year terms each month, and 25% reenlisted for 3-year terms each month.

— Among 3-year and 6-year National Guard reenlistees, an average of 75% reenlisted for 6-year terms each month, and 25% reenlisted for 3-year terms each month.

AFTER THE NEW GI BILL (after 1 Jul 85):

— Monthly 6-year relative Reserve reenlistments increased by 7%, to 82%. Relative 3-year Reserve reenlistments dropped to 18%.

— Monthly 6-year relative National Guard reenlistments increased by 5%, to 80%. Relative 3-year National Guard reenlistments dropped to 20%.

AFTER THE HIGHER REENLISTMENT BONUSES (after 1 Jul 86):

— Monthly 6-year relative Reserve reenlistments increased by 8%, to 90%. Relative 3-year Reserve reenlistments dropped to 10%.

— Monthly 6-year relative National Guard reenlistments increased by 6%, to 86%. Relative 3-year National guard reenlistments dropped to 14%

Appendix E. RETENTION OF NAVY VETERANS IN THE SELECTED RESERVE (CENTER FOR NAVAL ANALYSES)

(CNA)88-0827.09 / 14 April 1988

WORKING PAPER

RETENTION OF NAVY VETERANS IN THE SELECTED RESERVE

Peter F. Kostiuk
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NAVY MANPOWER PROGRAM
NAVY-MARINE CORPS PLANNING AND MANPOWER DIVISION

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Introduction

Increased emphasis on the importance and value of reserve forces has recently focused attention on effective ways to meet reserve manpower requirements. One of the major tools for assisting manpower planners to meet their required force structures at minimum cost is the use of targeted enlistment and retention bonuses. Previous CNA studies analyzed the effectiveness of bonuses on affiliation. [1] This study develops and analyzes a model of retention for reservists in the Navy Selected Reserve, complementing the previous affiliation analysis.

The study focuses on the retention behavior of Navy veterans because they are the largest single source of manpower for the Naval Reserve. The available data on veterans is also better and more prevalent, and most of the bonus programs in the reserves are designed for attracting veterans. Focusing on veterans will also provide a useful comparison to the existing studies of affiliation. Another reason for focusing on Navy veterans is that they are generally the preferred source of manpower for the Selected Reserve, having already obtained valuable training and experience while on active duty.

In keeping with the objectives of the Sixth Quadrennial Review of Military Compensation, the analysis concentrates on estimating the effects of pay on retention. Factors such as patriotism, training opportunities, and

[1] See CNA Research Memorandum 86-249, December 1986, by Martha E. Shiells.

leadership are not explicitly addressed, although they clearly are important. The statistical analysis necessarily focuses on the quantifiable aspects of retention, such as pay and personal characteristics.

An Empirical Model of Retention

The model developed and estimated in this study closely follows the analysis of affiliation decisions by Shiells. Models of reenlistment, such as those of Goldberg and Warner, [2] are inappropriate for studying reserve retention because there is no clear-cut reenlistment point. Although veterans affiliating with the Selected Reserve sign contracts, attrition from the reserves shows little relationship to formal contract expiration dates. This occurs because the association with the reserve is voluntary, and although the contracts are legally binding, in practice there is rarely punishment for those who fail to fulfill them. Lacking any relevant reenlistment point for studying reserve retention, the approach taken here is to examine the probability of remaining in the Selected Reserve for a specified period of time. Since retention is generally lowest during the first year in the reserves, a logical starting point is to analyze the determinants of retention during the first year. Alternative approaches using different time periods or based on the total length of time in the reserves (i.e., survival analysis of the length of service in SELRES) are not analyzed here, but are being explored in other CNA studies.

[2] CNA Research Contribution 476, "Determinants of Navy Reenlistment and Extension Rates," Dec 1982

The model is developed in terms of the utility, or value, that the individual places on service in the Naval Reserve versus alternative uses of his time. Once the reservist has decided to affiliate, the options are to remain in SELRES during the next year, or leave sometime during that year. To simplify the exposition of the model, it is assumed that the utility obtained from reserve association during the year can be expressed as:

$$V_S = W_S + \delta_S \tag{1}$$

where W_S is the financial return from reserve duty and δ_S represents the monetary equivalent of the non-pecuniary benefits from belonging to the reserves. Similarly, the utility from leaving SELRES is expressed as:

$$V_L = W_L + \delta_L \tag{2}$$

The subscripts S and L refer to those staying for the full year and those leaving, respectively. The specification explicitly leaves open the possibility that participation in the reserves may have an impact on an individual's civilian earnings, as well as result in different non-pecuniary benefits. The impact on civilian pay is allowed to account for the possibility that reserve obligations may interfere with civilian employment, such as the occasional need to forego overtime, travel, or other obligations.

The non-pecuniary benefits are assumed to be specified as:

$$\delta_S = \alpha_S^0 + \alpha_S^1 Z + \gamma_S \tag{3}$$

$$\delta_L = \alpha_L^0 + \alpha_L^1 Z + \gamma_L \tag{4}$$

where Z is a vector of personal and job characteristics that affect utility, and γ_S and γ_L are unobserved random effects, such as patriotism, civilian employment opportunities, and other non-quantifiable factors.

An individual will stay in the reserves for the full year if $V_S > V_L$; that is, if the utility from staying exceeds the utility from leaving. Put differently, the individual stays if

$$\gamma_S - \gamma_L > (W_L - W_S) + (\alpha_L^0 - \alpha_S^0) + (\alpha_L^1 - \alpha_S^0)Z => 0. \qquad (5)$$

Let P_S be probability that an individual stays in the Selected Reserve for at least one year. If $\gamma_S - \gamma_L$ is assumed to have a logistic cumulative distribution function, the probability of staying one year is obtained from:

$$\log(\frac{P_S}{1 - P_S}) = \beta_0 + \beta_1(W_S - W_L) + \beta_2 Z \qquad (6)$$

where the β_i coefficients are transformations of the α_i coefficients above.

Note that in this specification, there is no differentiation between reserve pay that comes from drill pay and that which comes from a bonus. It is assumed that from the viewpoint of the individual reservist, one dollar is worth one dollar regardless of what it is named. This approach is consistent with common sense and yields more precise estimates of pay effects. Since data on the civilian earnings of each reservist are not avilable, the estimation of pay effects is based solely on reserve earnings.

Data and Specification of Variables

The sample used in the analysis consists of Navy veterans who separated from active duty in fiscal years 1981 through 1985. Only first-term veterans are included, and all must have been eligible for reenlistment. Separations were identified from the Enlisted Master Record, along with personal characteristics and military records, such as rating, paygrade, and reenlistment eligibility. Enlistment and retention data were obtained from the Reserve Common Components Personnel Data System (RCCPDS). Information on bonus eligibility is provided from the series of RAMOS instructions used by COMNAVRESFOR to set enlistment goals and rating categories. Bonus eligibility is determined by an individual's rating and length of service, and the list of bonus ratings is regularly updated. Consequently, individuals with the same rating and length of service but different separation dates may not necessarily have the same calculated reserve pay.

As discussed above, the reserve pay variable used consists of the sum of drill pay and any affiliation bonus that the reservist qualities for. It is important to note that the imputed bonus pay is based on whether an individual qualifies for a bonus, not whether a bonus is actually received. For most of the sample period, there is insufficient data to determine which reservists actually receive bonuses. This indeterminancy may cause the estimated effect of pay to be understated.

The personal characteristics used in the analysis to control for differences

in civilian opportunities and tastes for the military are sex, race, education, paygrade, and marital status. The analysis by Shiells found that women and nonwhites were more likely to affiliate. It is possible that these behavioral differences may also affect retention, so controls for sex and race are included. Many studies of attrition in the military have found significant differences in retention between high-school-graduates and non-graduates, and a dummy variable is included to estimate this impact. Variables are also included to examine the data for retention differences by marital status.

Paygrade differences may also affect retention. Higher paygrade reservists may be more likely to remain because thay have demonstrated more ability or interest in Navy service. Inclusion of the paygrade may make it more difficult to estimate the effects of pay, however, due to the high correlation between paygrade and drill pay. For that reason also, a variable for length of service is not included, which is reasonably approximated by paygrade anyway.

Many reservists join the Selected Reserve while on active duty, while others do not enlist for several months. The retention behavior between these two groups may differ, if, for example, those who are out for an extended period of time consider their affiliation decision more carefully. Conversely, those joining immediately after separation may be more dedicated or eager to join, which would imply higher continuation rates. A variable, time since separation, is included to estimate whether differences in this length of time

have any impact on retention.

Although they are clearly important, the effects of duty assignment variables on retention cannot be estimated with the data available for this study. Incorporating duty variables, such as whether an individual is cross-assigned or In Assignment Processing (IAP, or not in a mobilization [illegible] introduces a bias into the estimates because this information is only available after a reservist has been in SELRES for a period of time. Hence the variables will tend to have positive estimates, even if the true impact is otherwise.

The Naval Reserve includes a large number of ratings among which retention behavior may differ. To examine these differences, the Navy ratings are segmented into eleven occupational groupings, each of which is estimated separately. This allows for variations in the effects of pay and other variables on retention. There is little reason to expect that hospital corpsmen (HM), for example, will respond the same way to pay changes as builders (BU) or seamen (SN). Table 1 lists the occupational groups used in the analysis, along with the ratings included in each. Sample characteristics by rating group are provided in tables 2A and 2B.

TABLE 1

Rating Groups By One-Digit Occupational Category

1	Seamanship	BM, GMG, QM
2	Electronic Equipment Repair	AQ, AT, AX, CTM, DS, ET, FT, MT, ST, TD, TM
3	Communications/Intelligence	AC, AW, CTI, CTO, CTR, CTT, EW, IS, OS, OT, RM, SM
4	Medical	DT, HM
5	Other Technical	AG, DM, EA, MU, PH
6	Administrative/Clerical	AK, AZ, CTA, DK, DP, JO, PC, PN, RP, SK, YN
7A	Mechanical Equipment Repair -Aviation	AB, AD, AE, AM, AO, AS
7S	Mechanical Equipment Repair -Surface	BT, CM, EM, EN, GMM, GMT, GS, IC, IM, MM, MN, OM
8	Craftsmen	BU, CE, EO, HT, LI, ML, MR, PM, SW, UT
9	Service/Supply	MS, PR, SH
10	Unrated	AN, CN, FN, SN

TABLE 2A

Descriptive Statistics By Rating Group

	1	2	3	4	5	6
Number of Observations	1,883	2,387	3,653	3,129	409	2,997
Continuation Rate (Percent)	49.7	59.8	54.3	61.5	58.9	55.2
Average Paygrade	4.3	4.8	4.6	4.2	4.5	4.4
Pay ($ 1986 Thousands)	2.1	2.1	2.1	2.1	2.1	2.0
Percent Nonwhite	17.5	9.7	19.5	19.0	10.3	25.5
Percent Female	4.0	6.4	16.7	30.0	35.9	42.9
Percent Non-graduate	23.7	9.3	11.1	7.9	8.1	11.0
Percent Married	31.7	31.6	28.9	37.5	35.7	37.2
Time Since Affiliation (months)	8.1	8.7	7.2	6.0	7.7	8.1

TABLE 2B

Descriptive Statistics By Rating Group

	7A	7S	8	9	10
Number of Observations	3,206	7,113	1,960	1,112	1,189
Continuation Rate (Percent)	47.8	51.4	50.4	53.8	49.9
Average Paygrade	4.3	4.4	4.6	4.1	3.0
Pay ($ 1986 Thousands)	1.9	1.9	2.1	2.0	1.7
Percent Nonwhite	24.6	19.4	8.7	25.3	35.4
Percent Female	6.0	4.0	3.7	17.2	10.3
Percent Non-graduate	15.2	14.8	15.1	15.2	24.7
Percent Married	31.4	31.1	33.8	32.3	26.7
Time Since Affiliation (months)	9.0	9.0	9.1	8.8	8.8

As can be seen in table 2, there is substantial variation in the average first year continuation rate among the rating groups in the sample. The highest retention group is Group 4, which consists of the medical ratings; the lowest retention is in Group 7A, Aviation Mechanical Equipment Repair. The rating groups also vary considerably in their typical demographic characteristics. Non-high-school-graduates are common within the non-rated category (Group 10), and least likely in the Medical field (Group 4).

Estimation Results

The regression results for Groups 1 through 6 are shown in table 3, while the remaining categories are in table 4. The estimates show that pay has a significant positive effect in 8 of the 11 rating groups. The rating categories that do not show a statistically significant impact of pay are Medical (Group 4), Service and Supply (Group 9), and Unrated (Group 10). Possible reasons for the lack of an estimated pay effect for these rating groups are the limited variation in pay within each group (especially the Unrated, which are all paygrade E-3 and receive no bonuses) and actual behavioral differences.

TABLE 3

Regression Estimates For Rating Groups 1-6

	1	2	3	4	5	6
Intercept	-1.997	-2.129	-2.082	-0.680	-2.269	-1.056
	(4.02)	(4.83)	(5.88)	(1.64)	(2.28)	(2.54)
Nonwhite	0.379	0.058	0.130	0.070	-0.123	-0.014
	(3.02)	(0.40)	(1.48)	(0.73)	(0.36)	(0.16)
Non-graduate	-0.419	-0.7697	-0.502	-0.594	-0.756	-0.499
	(3.66)	(5.22)	(4.57)	(4.39)	(1.96)	(4.12)
Female	0.220	0.352	0.565	0.271	0.649	0.314
	(0.91)	(1.96)	(5.94)	(3.22)	(2.86)	(4.01)
Pay	1.774	2.439	1.644	-0.268	3.964	1.639
	(2.29)	(2.75)	(3.00)	(0.43)	(1.97)	(2.31)
Paygrade	0.181	0.186	0.216	0.286	0.022	-0.009
	(2.24)	(2.47)	(3.49)	(4.36)	(0.11)	(0.13)
Married	-0.194	-0.068	-0.025	-0.021	-0.258	0.034
	(1.97)	(0.73)	(0.33)	(0.27)	(1.15)	(0.43)
Time since separation	0.021	0.020	0.023	0.013	0.038	0.027
	(4.70)	(5.17)	(6.57)	(3.27)	(3.44)	(7.21)
Log likelihood	-1,271	-1,557	-2,447	-2,054	-263	-2,016
Chi-square	67.5	102.6	143.0	63.9	27.6	89.1
Observations	1,883	2,387	3,653	3,129	409	2,997

Note: Absolute value of t-statistic in parentheses. The chi-square statistic is a test of the joint significance of the explanatory variables.

TABLE 4

Regression Estimates For Rating Groups 7A-10

	7A	7S	8	9	10
Intercept	-1.196	-2.054	-2.394	-0.976	0.841
	(2.64)	(7.38)	(4.86)	(1.40)	(0.56)
Nonwhite	0.090	0.176	0.083	0.091	0.113
	(1.06)	(2.83)	(0.50)	(0.63)	(0.89)
Non-graduate	-0.473	-0.587	-0.582	-0.777	-0.677
	(4.56)	(8.29)	(4.32)	(4.29)	(4.75)
Female	0.389	0.339	0.519	0.515	0.003
	(2.55)	(2.73)	(2.07)	(3.01)	(0.01)
Pay	-0.138	1.695	2.142	0.095	-1.878
	(0.14)	(2.76)	(2.72)	(0.08)	(0.65)
Paygrade	0.234	0.214	0.193	0.199	*
	(3.26)	(4.43)	(2.32)	(1.69)	
Married	-0.101	-0.096	-0.136	-0.057	0.065
	(1.30)	(1.83)	(1.37)	(0.43)	(0.48)
Time since separation	0.026	0.027	0.032	0.033	0.027
	(8.20)	(12.12)	(7.33)	(5.46)	(4.66)
Log likelihood	-2,163	-4,766	-1,308	-735	-801
Chi-square	112.5	322.7	101.9	64.8	46.0
Observations	3,206	7,113	1,960	1,112	1,189

Note: Absolute value of t-statistic in parentheses.
A * indicates that the variable was not included in the equation.
Note: Absolute value of t-statistic in parentheses. The chi-square statistic is a test of the joint significance of the explanatory variables.

The most important variables affecting first year retention are pay and education. Non-high-school graduates are significantly less likely to complete the first year of reserve duty than are graduates. While this result is similar to that found in active duty studies of attrition [3], it is nonetheless surprising that the effect remains so strong even after the sailor has successfully completed an active duty tour. (Note also that the sample includes only those eligible for reenlistment.) This analysis confirms previous findings that non-graduates are generally much less reliable recruits than graduates.

The effects of the other variables are generally mixed, with the estimates varying among rating groups. In most cases, higher paygrade results in higher continuation, even after controlling for the pecuniary effects of paygrade via the pay variable. Apparently, individuals leaving active duty with higher paygrades are better adapted to Navy life or have a significantly stronger preference for military service.

Sex also has a fairly strong effect in many rating groups, with women having higher continuation rates than men. Marital status, however, has little impact, indicating that the burden that reserve duty places on family life is not much greater for married people. There is little difference in continuation rates between whites and nonwhites in this sample. Delays between separation from active duty and reserve affiliation generally improve reten-

[3] See, for example, CNA Research Memorandum 86-192, "Early Attrition in FY 1985: The Effects of the Delayed Entry Program, Accession Month, and Enlistment Program," by Donald J. Cymrot. For an analysis of attrition in the Selected Marine Corps Reserve, see CNA Research Contribution 572, *Modeling Spikes in Hazard Rates*, by Dean Follmann, Matthew Goldberg, and Laurie May.

tion, perhaps because the reservist has spent more time thinking about the enlistment decision. Although always positive and statistically significant, the effect is relatively small. The estimated effect of time since affiliation indicates that it acts much like the Delayed Entry Program (DEP) does in active Navy recruiting–recruits who were in the DEP prior to accessing are less likely to attrit.

The impact of pay on retention is best shown in table 5, which gives the predicted effect on continuation rates of a $300 bonus. For most of the rating groups, the impact is sizeable, with predicted continuation rising by several points. [4]

[4]The standard errors of the predicted probabilities were calculated using the delta method described in C.R. Rao, *Linear Statistical Inference and Its Applications*, 2nd Edition, John Wiley and Sons, New York, New York, 1973, pp. 387.

TABLE 5

Predicted Effect of a $300 Bonus

Rating Group	Average Continuation Rate Without Bonus	Continuation Rate With Bonus
1	49.7	53.7
	(.012)	(.021)
2	60.2	65.4
	(.010)	(.021)
3	54.5	58.2
	(.008)	(.015)
5	59.7	68.0
	(.025)	(.047)
6	55.4	59.1
	(.009)	(.018)
7S	51.5	55.3
	(.006)	(.015)
8	50.5	55.4
	(.012)	(.021)

Standard errors in parentheses were computed using the delta method.

The estimated effects of pay shown in table 5 actually underestimate to a large degree the net impact of a bonus on SELRES manpower. The bonuses used by the Naval Reserve are actually affiliation bonuses, although as this analysis has shown, they also have an impact on retention. To evaluate the true impact of an affiliation bonus, the cumulative effects of the bonus on

both affiliation and retention must be taken into account. For example, this analysis of retention indicated that attrition of Hospital Corpsmen (in rating group 4) was unaffected by pay. However, previous CNA research showed that rating group to have affiliation rates that were strongly affected by pay. [5] Focusing solely on retention or affiliation may provide a misleading picture of the total effect of a bonus on achieving manpower goals.

A more complete description of the effect of a $300 bonus is provided in table 6. The table shows the estimated impact of a $300 bonus on the affiliation and retention rates of a notional group of 100 Navy veterans coming off active duty. The predicted effect of the bonus on affiliation and retention is shown for each rating group. As the table shows, there is substantial variation among rating groups due to differential responses to the bonus at affiliation time and differential responses to the bonus on retention. The rating groups also vary significantly in their average, or baseline, affiliation and continuation rates. For the Medical rating group 4, for example, a bonus has a strong impact on affiliation, but little effect on retention. The large number remaining after one year is attributable to the high baseline affiliation rate and the response of affiliation to the bonus. Rating group 5 shows no effect of the bonus on affiliation but a positive impact on retention. Rating groups 9 and 10, on the other hand, are insensitive to pay during both the affiliation and retention decisions.

[5] See CNA Research Memorandum 86-249, "Affiliation of Navy Veterans With the Selected Reserve," by Martha E. Shiells, Dec 1986.

The best indicator of the net effect of the bonus is provided by comparing the last two columns of table 6. These columns show the number of reservists left in SELRES out of a chort of 100 veterans coming off active duty. The difference between the two columns gives the estimate of the cumulative impact of the bonus on the number of reservists who remain in SELRES one year after affiliation. For example, in rating group 1, 13 out of 100 veterans coming off active duty would affiliate without the $300 bonus and 17 would join with it. Of those joining, approximately 6.5 would remain in SELRES after one year without a bonus and 9.1 would remain if there were a bonus. One way to interpret these results is to say that the Navy gets about two-and-a-half more sailors with one year of experience for a hypothetical $300 affiliation bonus program for rating group 1. [6]

These estimates may be used to calculate the additional costs of acquiring more Navy veterans. To use the example of rating group 1, the Selected Reserve got 4 more affiliations than they would have without the bonus, and an expected 2.6 more veterans with one year of SELRES experience. The total cost for this added manpower is approximately $5,100 (17 affiliations times the $300 bonus). If the goal is to have reservists with skills and at least one year of experience in SELRES, the average cost for the extra manpower is $1,961 ($5,100 divided by the 2.6 gained in retention). In setting policy, this cost estimate should be compared to the benefits of readiness or the

[6] This probably under-estimates the benefit to the Navy since the other one-and-a-half sailors are in the reserves for some period, although less than one year.

cost of getting the manpower from some other source. For example, if there are not enough Navy veterans, it may be necessary to recruit and train Sea and Air Mariners (SAMs) to fill the shortfall. If the recruiting and training costs for a SAM were greater than $1,960, it is more cost effective to use the bonus to attract Navy veterans. Since veterans are generally much better trained and qualified than SAMs, the overall benefit to the reserve forces is actually much greater due to the enhanced readiness of the units.

TABLE 6

Effects of a $300 Bonus on Affiliation and Retention

Rating Group	Number Affiliating		Number Remaining One Year	
	Without Bonus	With Bonus	Without Bonus	With Bonus
1	13	17	6.5	9.1
2	8	9	4.8	5.9
3	14	17	7.6	9.9
4	22	27	13.6	16.7
5	11	11	6.6	7.5
6	11	16	6.1	9.5
7A	10	10	4.8	4.8
7S	6	6	3.1	3.3
8	10	11	5.1	6.1
9	12	12	6.5	6.5
10	10	10	5.0	5.0

Note: Numbers refer to those remaining out of a hypothetical population of 100 Navy veterans. The effect of the bonus on affiliation is taken from CNA Research Memorandum 86-249, table 8, page 28.

Conclusions

This study has developed and estimated a model of retention of Navy veterans during the first year of duty in the Selected Reserve. The results show that pay has a significant positive impact on retention. The strength of the effect, however, varies by rating group. For ratings responsive to pay, affiliation and retention bonuses can be effective and relatively inexpensive tools for increasing retention. For ratings unresponsive to pay (the Medical, Service/Supply, and Unrated rating groups in this study), other mechanisms will be needed. One method, already used in the medical ratings, is to recruit non-prior-service personnel (NPS) instead of Navy veterans. NPS recruits have a mandatory drilling obligation, which results in higher retention. The lack of a pay effect for the Unrated group is probably due to greater importance of promotion and training opportunities for this category.

The results of this analysis also showed education to be an important predictor of attrition on the Selected Reserve. As in the regular Navy, non-high-school graduates are much more likely to leave within a short period of time.

Areas which would be fruitful for further analysis are examining the impact of assignment characteristics and the effects of the civilian economy. Assignment issues could be critically important since they affect readiness not only through retention but also through the quality of the match of billet requirements and individual skills. The effects of civilian earnings

and unemployment may also be very important, and further investigation of these variables should be undertaken.

A final area of investigation is to see if the decisions to affiliate and then to stay or leave are related. For example, individuals unlikely to join may also be unlikely to stay if they do join. This possibility may change the cumulative effect of the pay effects shown in table 6, since the bonus will tend to bring in more people that are unlikely to remain in SELRES, thereby diminishing the impact of the bonus on retention. Further investigation of this research topic should be a high priority.

Appendix F. DESIGN OF A RESERVE ENLISTMENT BONUS EXPERIMENT (ARMY RESEARCH INSTITUTE)

Manpower and Personnel Policy Research Group

Working Paper MPPRG 88-3

DESIGN OF A RESERVE ENLISTMENT BONUS EXPERIMENT

ROY NORD AND EDWARD SCHMITZ

February 1988

Reviewed by Charles D. Approved by Edward J. Schmitz

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DESIGN OF A RESERVE ENLISTMENT BONUS EXPERIMENT

The Army Reserve and National Guard rely upon enlistment bonuses for three principal objectives:

- o To increase the total number of nonprior service enlistments
- o To fill shortages in critical skills and units
- o To increase retention

The present enlistment bonuses are paid out according to the following schedule: 50% upon completion of initial active training, 25% upon completion of two years of TPU service, and 25% after completion of four years of service.

Presently there is a concern that the current skill bonus of $2,000 may be insufficient to achieve critical reserve and National Guard recruiting objectives. At the same time, it is believed that the current unit bonus of $1,500 is higher than necessary. This paper outlines the design of an experiment to compare the costs and effectiveness of alternative skill bonus programs, implemented in conjunction with a reduction of the current unit bonus levels.

Our current assumption is that the experimental programs will be implemented in conjunction with an across-the-board reduction in the unit bonus. This reduction will allow the experiment to be implemented for the same total cost as the present program. The experiment is <u>not</u> designed to test the effects of the reduced unit bonus, but rather to provide information on how to more efficiently design future skill bonus programs.

DESIGN OF TEST PROGRAMS

The experiment we propose is intended to test the effects of two skill bonus program variables:

- o different bonus amounts
- o different payout schedules

The different bonus amounts will be used to assess whether larger nominal skill bonuses will increase the total number of nonprior service enlistments and channel people into the critical skills that are most difficult to fill. The different payout schemes are an attempt to determine whether the bonus can be used to reduce attrition.

We propose a 3-cell experimental design to test the enlistment, skill channelling, and retention effects of two skill bonus levels and two payout schedules. Table 1 illustrates this design. The experimental bonuses would be paid for enlistment in selected difficult-to-fill MOS. Other MOS would still receive the current $2,000 skill bonus.

The design provides program variation in both the nominal amount of the bonus and the payout rate. Cell A is intended primarily to test the effect of an increase in the nominal value of the bonus. A purely symmetric design would require that this cell provide proportional increases in each of the three payout amounts. We propose instead to reduce the initial payment upon completion of training and increase substantially the additional bonus dollars at the two- and four-year payout periods for three reasons. First, because a strictly proportional increase would substantially increase the cost of the experiment. Second, it would be undesirable to create a bonus test that would dominate other MOS. It would be likely that the skill channeling effects of such a program would make it difficult to fill MOS that only offered the $2,000 bonus.

Finally, is likely that such a program would be ineffective and possibly detrimental for retention. Since attrition is perhaps the most significant problem faced by the reserves, only experimental programs that are likely to improve retention are considered. The A Cell would promote completion of the enlistment term by increasing the payments at the end of the second and fourth years of service.

Note that the experimental program will not apply to all bonus MOS in each cell. Applicants will, in effect, have a choice between the current program (for bonus MOS not in the experiment) and the experimental program. One effect

of this choice may be to encourage self-selection on the basis of discount rates, with individuals with high rates more likely to enter the non-experimental MOS. If high discount rates are associated with low retention, then we would expect to observe a decrease in retention in bonus MOS at current levels in this cell.

Cell B will further test a "pay as you go" plan. The bonus will be increased to a nominal value of $5,000, but it will be paid out in five increasing amounts that will begin upon the completion of the first year of service. The delay of payment until the completion of the first year is because of the high loss rate that appears to occur in the first year for the reserves. While 9 percent of reservists appear to attrit from training, an additional 11.4 percent fail to complete one year of service. Postponing the initial bonus payment until the end of the first year should increase the incentive for reservists to complete their first year.

The use of increasing payments throughout the first five years is designed to encourage bonus recipients to remain in the reserves and guard. Figure 1 illustrates the proportion of reserve and guard recruits who complete each year of service. Attrition remains high over the entire enlistment term. Therefore, a payment schedule with an increasing incentive to remain at each year is in direct agreement with the retention problems faced by the reserves.

We expect the program in Cell B to have a positive effect on all of the outcome variables. The key research issues with respect to this cell will be size of these effects relative to each other and relative to those produced by the other experimental program. One empirical question to be answered by the experiment is whether the A Cell experiment produces the desired result with a $3,000 bonus in three payments, or would the $5,000 bonus with five payments be required.

The economic cost of the experiment will be determined by four factors:

- o The payment amounts
- o The payment schedule
- o The government's discount rate
- o The probability of remaining in the Reserves.

Table 1 illustrates the expected present value cost of the alternative bonus programs. Cell A, providing fifty percent greater nominal benefits, would cost 21 percent more

than the current ARNG program, and 14 percent more for the USAR. Cell B, with 150 percent greater nominal benefits than the control cell, would cost 74 percent and 59 percent more than the current ARNG and USAR programs, respectively.

Note that these cost estimates assume that retention rates remain constant under the experimental programs, but do not account for the government's discount rate. Accounting for a government discount rate of 8% would reduce the above estimates by 12 to 20 percentage points depending on the Cell. Positive retention effects will, of course, increase these costs. However, any positive retention effects would be more than offset by reduced recruiting and training costs.

THE DESIGN OF THE EXPERIMENT

The cell sizes outlined in Table 2 are tentative. Precise determinations will require information about expected savings from the reduction of unit bonuses, and a final determination of the MOS to be included in the experiment. It is expected, however, that a minimum of 1,000 projected quality accessions will be needed in each cell.

In order to control for the National Guard, it is expected that both the Reserve and National Guard will offer the same bonus program in each area. Thus, the geographic boundaries of the experiment should conform as closely to states as possible.

The experimental MOS should also be as similar as possible for the two programs. If MOS differ between the Guard and the Reserve, they should still remain difficult-to-fill MOS in each.

EVALUATING THE RESULTS OF THE EXPERIMENT

Three kinds of measures would be used to evaluate the alternative programs:

- o Gross enlistments
- o Channeling effects
- o Retention effects

In order to evaluate the experiment, both geographic and time controls will be used. Figure 2 graphically illustrates the experimental design. Such a design permits an analysis of the effects of the test programs separate from any extraneous changes that may occur to test cells or over time.

The enlistment effects could be estimated through the following relationship:

E = f (Program, Cell, Year, X)

where E represented the number of enlistments, and X would be a series of characteristics related to recruiting, such as unemployment rate. FY88 could serve as the baseline period, in addition to the use of a geographic test cell. Thus, the experiment would assess the change in a measure for the experimental cell compared to the change in that factor for the control cell.

Similar equations could be developed for analyzing the effects of the test programs upon skill channeling and attrition. To estimate the impact of the experiment on MOS distribution, three groups of MOS would be analyzed:

Group 1-MOS with larger bonuses in cells A and B

Group 2-MOS that received the same bonus in all cells

Group 3-MOS that did not receive bonuses

Skill channeling will be measured as the proportion of enlistments selecting an MOS of a particular group. The channeling effect is measured conditional upon the number of enlistments. Hence, skill channeling is measured independent of any enlistment effect.

Two separate equations would be estimated for skill channeling. The first would be the effect of the programs upon the proportion of recruits in group 1, while the second estimate would be the impact of the experimental bonuses on group 2 MOS. The impact of the experiment on group 3 MOS could be derived from the first two estimates.

A similar analysis of the attrition effects could be performed after each year. The analysis could determine not only whether the experimental bonus payment schedules lowered attrition for the MOS where they were applied, but whether there was any increase in attrition in group 2 and 3 MOS due to self-selection effects.

The program effects on enlistment, channeling, and retention would all be measured separately. For example, the skill channeling effect would be measured independent of the market expansion effect. These separate impacts could be combined to create various indicators to assess total program effectiveness. For example, if a program increased gross enlistments by 5%, channeled a 20% greater share of enlistments into program MOS, and increased retention by 10%,

such a program would have:

- o increased enlistments by 5%
- o increased skill channeling by (1.05 * 1.2 = 1.26) 26%
- o increased critical skill retention by (1.05 * 1.2 *1.1 = 1.386) 38.6%

If an experimental program produced a 5% increase in enlistments, channeled 10% of the recruits out of group 2 MOS, and did not change retention, then the program would have reduced group 2 manpower by 5% * (-10%) = 5.5%. Other combinations of indicators can be created to analyze impacts of the experiment on total attrition, attrition from specific skills, and total manpower distribution.

OTHER ISSUES

The above discussion lays out the concepts behind the design of a Reserve/Guard enlistment bonus test. Many details remain to be determined, including:

- o The specific MOS
- o The geographic boundaries of cells
- o The administrative procedures of the test
- o The establishment of baseline data

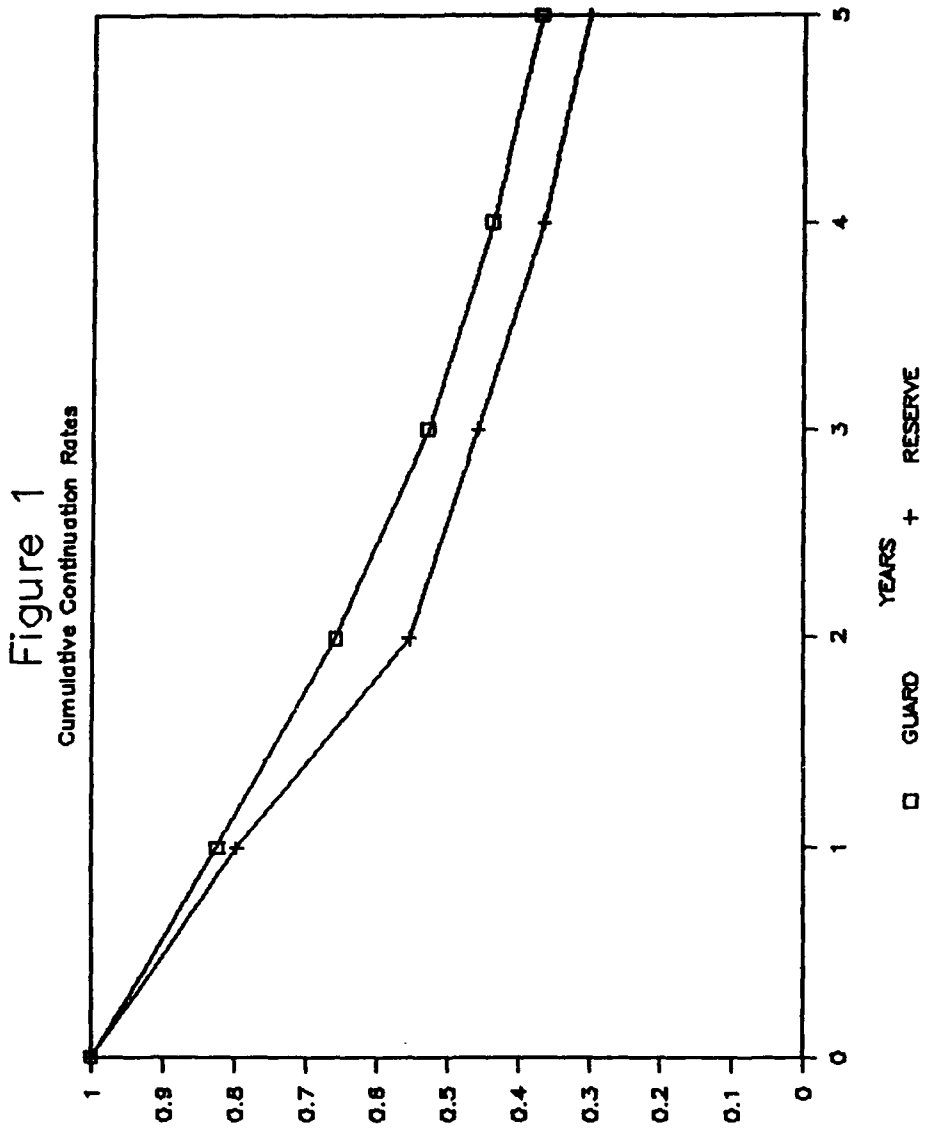
It is likely that unforeseen factors could also affect results. MOS may need to be added to or dropped from the bonus lists as the experiment proceeds. While this kind of change is not desirable, it could serve as additional evidence of skill channeling.

TABLE 1
ENLISTMENT BONUS ANALYSIS DESIGN

TEST CELL	FISCAL YEAR 1988		FISCAL YEAR 1989	
	MOS Bonus	Skill Bonus	MOS Bonus	Skill Bonus
CONTROL	2,000	1,500	2,000	1,000
CELL A	2,000	1,500	3,000	1,000
CELL B	2,000	1,500	5,000	1,000

TABLE 2
PROPOSED PAYOUT SCHEMES

PAYOUT AFTER --	CONTROL CELL	CELL A	CELL B
TRAINING	1000	500	0
1 YOS	0	0	500
2 YOS	500	1000	750
3 YOS	0	0	1000
4 YOS	500	1500	1250
5 YOS	0	0	1500
COST PER ARNG BONUS	1458	1770	2535
COST PER USAR BONUS	1370	1558	2181
ARNG COST AS % CURRENT	100%	121%	174%
USAR COST AS % CURRENT	100%	114%	159%
TENTATIVE CELL SIZE	75%	12.5%	12.5%


Figure 1
Cumulative Continuation Rates
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
1
2
3
4
5
YEARS
□ GUARD + RESERVE

Appendix G. RESERVE COMPONENT INCENTIVE PROGRAMS DATA REQUIREMENTS

New RCCPDS Recurring Report Requirements: Ready Reserve Incentives

1. Reference A-16 Report Format. Cumulative totals, ytd are to be used.

Ready Reserve
Incentive Program Summary
Participants
(All SR)
(All Incentives)

Incentive Program Code Bonus/Stipend Type	ARNG	USAR	USNR	USMCR	ANG	USAFR	TOTAL	USCGR
(A) Enlisted (PS-3 Yr)								
(B) Enlisted (PS-6 Yr)								
(C) Enlisted (NPS-6 Yr)								
(D) Enlisted (Conv from EA)								
(E) Reenlisted (SelRes-3 Yr)								
(F) Reenlisted (SelRes-6 Yr)								
(G) Reenlisted (IRR-3 Yr)								
(H) Reenlisted (IRR-6 Yr)								
(J) Affiliation (<= 18 Mo)								
(K) Affiliation (>= 18 Mo)								
(L) Stipend (Health Officers)(Old)								
(M) Stipend (Health Officers)(New)								
Subtotal								
Educational Incentive Type								
(A) Educational Assistance (non GI Bill)								
(B) Educational Assistance (Converted from EB)								
(C) Loan Repayment (Enlisted)								
(D) Loan Repayment (Health Officers)								
Subtotal								
Total								
Total Selected Reserve Strength (includes USCGR)								

2. Reference A-16 Report Format. Both Officer and Enlisted displays are required for "C" and "D" Loan Repayment Program incentives. Only Officer display is required for "L" and "M" Stipend incentives. Only Enlisted display is required for all other incentives. A separate page for each incentive type (as defined in report 1 above) is required.

Ready Reserve
Incentive Program Summary
By Incentive, by Month

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Officer													
ARNG													
USAR													
USNR													
USMCR													
ANG													
USAFR													
USCGR													
Subtotal													
Enlisted													
ARNG													
USAR													
USNR													
USMCR													
ANG													
USAFR													
USCGR													
Subtotal													
DOD Total													
USCGR Total													
Total Selected Reserve Strength (includes USCGR)													

3. Reference A-16 Report. Report to go back as far as possible, which may be to FY80.

Ready Reserve
Incentive Program Summary
By Component by FY

	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87
Officer								
Bonus/Stipend Type								
(L) Stipend (Health Officers)(Old)								
(M) Stipend (Health Officers)(New)								
Subtotal								
Educational Incentive Type								
(D) Loan Repayment (Health Officers)								
Subtotal								
Enlisted								
Bonus/Stipend Type								
(A) Enlisted (PS-3 Yr)								
(B) Enlisted (PS-6 Yr)								
(C) Enlisted (NPS-6 Yr)								
(D) Enlisted (COnv from EA)								
(E) Reenlisted (SelRes-3 Yr)								
(F) Reenlisted (SelRes-6 Yr)								
(G) Reenlisted (IRR-3 Yr)								
(H) Reenlisted (IRR-6 Yr)								
(J) Affiliation (<= 18 Mo)								
(K) Affiliation (>= 18 Mo)								
Subtotal								
Educational Incentive Type								
(A) Educational Assistance (non GI Bill)								
(B) Educational Assistance (Converted from EB)								
(C) Loan Repayment (Enlisted)								
Subtotal								
Total								
Total Selected Reserve Strength (includes USCGR)								

4. Reference X-3 Report. A separate page for each incentive type (as defined in report 1 above) is required. Subtotals are to appear at designated YOS lines, depending on incentive displayed, as follows:

past 6 YOS	Enlisted (NPS)
past 6 YOS	Affiliation (both reports)
past 6 YOS	Education Assistance
past 8 YOS	Affiliation (both reports)
past 10 YOS	Reenlistment (3 Yr)
past 10 YOS	Reenlistment (6 Yr)
past 14 YOS	IRR Reenlistment
past 20 YOS	Loan Repayment (enlisted)
past 20 YOS	Loan Repayment (officer)
past 20 YOS	Stipend (officer)

Ready Reserve
Incentive Program Summary
Continuation Rates/By Years of Service
By Specific Incentive
By Component

	Officers							Enlisted						
YOS	FY	FY	FY	1QTR	2QTR	3QTR	4QTR	FY	FY	FY	1QTR	2QTR	3QTR	4QTR
<1														
.														
.														
.														
.														
.														
.														
>40														
Total														

Total Selected Reserve Strength (includes USCGR)

5. Refer[illegible] A-6 Report. A separate page for each incentive type (officer and enlisted) (as defined in report 1 above) is required.

Ready Reserve
Incentive Program Summary
Personnel Profile - Sex, Ethnic and Race Statistics
By Incentive Type
By Component
(Enlisted)

		White		Black		Asian		Native American		Unknown		Total	
		#	%	#	%	#	%	#	%	%	%	#	%
Male:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												
	Subtotal												
Female:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												
	Subtotal												
Unknown:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												
	Subtotal												
Total:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												

Total Selected Reserve Strength (includes USCGR)

Ready Reserve
Incentive Program Summary
Personnel Profile - Sex, Ethnic and Race Statistics
By Incentive Type
By Component
(Officers)

		White		Black		Asian		Native American		Unknown		Total	
		#	%	#	%	#	%	#	%	%	%	#	%
Male:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												
	Subtotal												
Female:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												
	Subtotal												
Unknown:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												
	Subtotal												
Total:	None												
	Asian												
	Amer Indian												
	Hispanic												
	Other												
	Unknown												

Total Selected Reserve [illegible]ength (Includes USCGR)

6. *Reference A-8 Report.* *This new report will focus on years of service and not grade.* A separate page is required for each incentive (defined in report above) and for officers and enlisted. Incentive Type COdes (i.e., (A), etc.)

Ready Reserve
Incentive Program Summary
Personnel Profile - By Years of Service
By Bonus/Stipend Type
By Component
(Enlisted)

YOS	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)
<1										
.										
.										
.										
.										
.										
>20										
Subtotal										

By Educational Incentive Type
(Enlisted)

YOS	(A)	(B)	(C)
<1			
.			
.			
.			
.			
.>20			
Subtotal			

Total

Total Selected Reserve Strength (includes USCGR)

Ready Reserve
Incentive Program Summary
Personnel Profile - By Years of Service
By Bonus/Stipend and Educational Incentive Type
By Component
(Officer)

YOS	(L)	(M)	(D)
<1			
.			
.			
.			
.			
.			
.			
>20			
Subtotal			
Total			
Total Selected Reserve Strength (includes USCGR)			

Appendix H. SUMMARY OF STATE BENEFITS TO GUARDSMEN AND OTHER RESERVES (COMPUTER BASED SYSTEMS, INC.)

SIXTH QUADRENNIAL REVIEW OF

MILITARY COMPENSATION

SUMMARY OF STATE BENEFITS TO GUARDSMEN

AND OTHER RESERVES

Prepared for:

Col. Frank Rush, USAF
Staff Director
Sixth Quadrennial Review of Military Compensation

October 28, 1987

SUMMARY OF STATE BENEFITS TO GUARDSMEN AND OTHER RESERVES

INTRODUCTION

The purpose of this report is to summarize information on the state provided benefits offered to National Guardsmen and other reservists.

As a part of an incentive package, both Army National Guard (ARNG) and Air National Guard (ANG) members are provided a number of benefits by the states which they serve. In some cases, other reserve components are also given special benefits by their respective states. Because almost all of the special state provided benefits are available only to the ARNG and ANG members, this report will focus on the special Guard benefits rather than continuing to distinguish between the National Guard (NG) components and the other reserve components. The number of state benefits available to nonguard reservists is quite limited and will be mentioned only on the spreadsheet attachments.

The benefits provided to the National Guard member are of two main types: those that are available to Guardsmen only when serving on <u>state</u> duty, and those that are available to Guardsmen independent of participation in a <u>state</u> call to full-time duty.

The benefits that are available only while on <u>state</u> duty are often injury or death connected compensations. Many states provide Worker's Compensation (WC) for Guardsmen. Worker's Compensation covers injury and accidental death for the period of active duty in the service of the state. If death occurs during this period, some WC programs offer a broad package of benefits to surviving family members that include tuition for dependents, a monthly stipend, and other valuable compensations.

Separate from the WC benefits are the insurance policies that are offered by either states or the state National Guard Associations. The Guard Associations, membership organizations generally open to both ANG and ARNG reservists, offer a full range of services and benefits to their members. While these are not funded by the states, they add to the benefits package available to Guardsmen.

For the most part, the benefits provided by the state NG associations and those offered by the states for Guardsmen while participating in <u>state</u> active duty will not be assessed here. They are either not a state contribution or affect only the segment of reservists who are called into <u>state</u> active duty to alleviate emergencies and natural disasters.

Accordingly, the remainder of this report will address only those special benefits, funded by the states, which are available

to Guardsmen independent of involvement in state active duty. To assist the analyst, the benefits have been equated to dollar values which not only provides a common comparison unit, but also serves to display the benefits in a more meaningful way.

The selection of benefits was intended to group the most frequently offered incentives into five major categories. These categories are uniform allowance, state tax exemption, education benefits, automobile tag program and paid military leave for state employees. In addition, several miscellaneous benefits are also presented. The miscellaneous benefits were more difficult to cost and for the most part were omitted from this process.

REPORT FORMAT

This report presents the state sponsored benefits named above, through several formats. A brief narrative is provided describing the benefit and any assumptions that were made in order to assign a value to that benefit. The narrative descriptions are included within this document while the state by state breakdown of benefits are shown in spreadsheet or graphic attachments, specifically: Attachment A, Attachment B, and Attachment C.

Attachment A is a spreadsheet indicating the benefits provided by each state without assigning a dollar value to the benefit. This spreadsheet also indicates which of the benefits are available to Guardsmen and which are available to other reservists. In Attachment A, benefits available to Guardsmen are indicated with an 'X' or a brief description. Benefits available to other reservists are indicated with an 'XX'.

Attachment B is also a spreadsheet and represents benefits provided by each state with a dollar value assigned. This valuation is offered as an estimate of the representative value of a benefit and as such does not reflect an individual Guardsman's actual compensation from the state. Specific assumptions that are made in determining the value of a benefit are described either in this narrative or in the spreadsheet footnotes.

Attachment C is a color coded map of the United States. There are five categories of states coded based on the number of benefits offered by each state. This count and mapping of benefits by states is based on a compilation of only the benefits covered within this report and the count of the occurrence of these benefits for each state. No state was found to offer more than five or fewer than one benefit of those being tracked. This attachment does not assess the value of a set of benefits, but rather counts the variety of benefits each state offers.

DISCUSSION OF BENEFITS

Uniform Allowance

Ten states offer either an initial uniform allowance, an annual allowance, or both an initial plus an annual allowance to NG officers and warrant officers. The amount of the initial allowance ranges from $75 to $150 and is indicated on Attachment B with an 'I'. The amount of the annual allowance ranges from $25 to $100. Only one state, Hawaii, offers a similar benefit to enlisted members. Enlisted Guardsmen in Hawaii receive an allowance of $1.50 per day of annual training, drills and state active duty. These allowances are in addition to the Federal uniform allowances or benefits.

State Income Tax Exemption

Twenty states offer some tax savings to Guardsmen or other reservists. Tax benefits packages generally fall into two categories: those offered only to retired former Guardsmen which apply to their military pensions, and those available to active Guardsmen that apply to current military pay.

For cost benefit determination, two assumptions were made to establish a dollar value for the state tax benefit. First, each tax benefit was applied based on an assumed adjusted gross income of $25,000. And second, the military income was assumed to be equal to or greater than the maximum exclusion amount in order to illustrate the full advantage of the tax exemption benefit. An estimated value was then determined based on the 1986 state income tax rates.

Other state to state requirements are explained in the footnotes of Attachment B. The difficulties in determining the criteria for and value of tax exemptions may have led to omissions and errors in this data. For instance, the state of Vermont, not indicated as providing a tax break to reservists or Guardsmen, does, however, exempt all military pay for regular forces. The state also excludes reserve and NG pay received when the reserve member is serving in a full time position. This benefit was not included in Attachments A and B because the circumstances of eligibility are atypical and available only to a few reservists in special circumstances.

Education Benefits

Thirty states offer Guardsmen tuition assistance for college or vocational/technical schools. While this is the single most valuable benefit to the Guardsmen, there are often restrictions as to who is eligible for the funds. Many states provide benefits for four years only, while others offer money for undergraduate courses but not for graduate programs.

For the purposes of attaching a value to the education benefits, the maximum amount available is shown in Attachment B. Dollar values that are not footnoted represent the not-to-exceed amount provided by the state. For states offering 100%, 75% or 50% tuition waivers, the base amount of $1,500 is used as the 100% value. This relatively low amount is used because most states specify that full tuition is offered for state or state supported schools. Again, this is intended to be an estimate of the benefit's value.

Auto Tags

Thirty states offer an automobile license plate benefit to Guardsmen. The benefit is generally the offer of a distinctive National Guard license available free of charge, at low cost or at the regular state license plate cost. For the purpose of this summary, this benefit is estimated to be a $25 value. One state, Oklahoma, offers only a Reserves auto tag, but has no special NG plates.

State Employees Paid Military Leave

Forty-four states authorize paid leave for their Guardsmen when they serve on active duty. The number of paid military leave days authorized by the states ranges from 12 to 30 days per year. In some cases, extended state emergency leave is also paid for Guardsmen on state active duty. Consistent with other benefits discussed here, this special coverage for state active duty is not evaluated here.

The calculation of the value of this benefit is based on data from the 1986 Reserve Components Surveys. All state employed reservists responding to the Surveys were extracted and separated into enlisted and officer cells for each state (100 cells). From these populations, the mean civilian income was determined for each state. This calculation of the state employee civilian income mean was weighted to adjust for officer and enlisted salary variances.

Where the population for either the enlisted or officer cell for a state was less than ten, a footnote is listed. Beyond this notation, no attempt was made to analyze the reasonableness of the means. Once the mean salaries were determined, each was divided by 365 days and that amount was multiplied by the number of days of leave granted in each respective state. Other variances in this benefit are also noted in the footnotes of Attachment B.

Other Miscellaneous State Benefits

The above benefits are those that are most frequently offered by the individual states. In addition to these, there are a variety of benefits that are unique to one or two states. A few

of these will be mentioned here and are documented in Attachment A. With the exception of the state paid retirement supplements offered by Alaska, Michigan, North Carolina and South Carolina, no value has been attached to these benefits. Examples of these benefits are the following:

Benefit	Number of States
Exemption from jury duty	4
State Credit Union eligibility	4
Special purpose low interest loans	2
Tolls waived to and from Guard duty	2

SUMMARY

The full range of state provided benefits are shown in Attachment A. The occurrence of a benefit is noted with no attempt to quantify the value. Attachment B corresponds to Attachment A, but presents a dollar value where such a determination is possible. Attachment C is the coded ranking of each of the fifty states based on the number of benefits available.

The state sponsored benefits change frequently and are difficult to either pinpoint or evaluate. In general the benefits are available to those Guardsmen who are aware of them and utilize them. The Attachments document the availability and the value if used. No attempt has been made to determine the extent to which National Guard members avail themselves of the benefits or the cost of benefits to the states.

ATTACHMENT A

OCCURRENCE OF SELECTED STATE PROVIDED BENEFITS

STATE	UNIFORM ALLOWANCE OFFICERS & WARRANT OFF	STATE INCOME TAX EXEMPTION	EDUCATION BENEFIT	AUTO TAGS	STATE EMPLOYE PAID MILITARY LEAVE	MISCELLANEOUS STATE PROVIDED BENEFITS
ALABAMA		X	X	XX	X	
ALASKA			X			State military retirement
ARIZONA	X	XX	X		X	
ARKANSAS		XX		XX	XX	Exempt from jury duty
CALIFORNIA		X			X	Eligible for low interest home loans
COLORADO			X		XX	
CONNECTICUT			X		X	
DELAWARE	X		X		X	
FLORIDA	X			XX	XX	State mil ret to supplement Federal mil ret
GEORGIA			X	XX	X	Free drivers license with 20 years in NG
HAWAII		XX	XX		XX	Uniform allowance of 1.50/day for enlisted NG
IDAHO				X	X	
ILLINOIS		XX	X	X	X	Exempt from jury duty
INDIANA		XX		X	XX	Exempt from jury duty
IOWA				X	X	
KANSAS		X	X	X	X	
KENTUCKY	X	X	X	X		Exempt from highway tolls to/from NG duty
LOUISIANA			X	XX	X	
MAINE			X		X	
MARYLAND			X	X		Exempt from jury duty, tolls to/from NG duty
MASSACHUSETTS	X		X	X	X	
MICHIGAN		XX				State military retirement
MINNESOTA		X		X	X	

ATTACHMENT A

OCCURRENCE OF SELECTED STATE PROVIDED BENEFITS

STATE	UNIFORM ALLOWANCE OFFICERS & WARRANT OFF	STATE INCOME TAX EXEMPTION	EDUCATION BENEFIT	AUTO TAGS	STATE EMPLOYE PAID MILITARY LEAVE	MISCELLANEOUS STATE PROVIDED BENEFITS
MISSISSIPPI		X	X	X	X	
MISSOURI			X		X	Eligible for state Credit Union
MONTANA	X	X		X	XX	
NEBRASKA			X		X	
NEVADA			X	X	X	
NEW HAMPSHIRE	X			X	X	Eligible for state Credit Union
NEW JERSEY				X	X	
NEW MEXICO				X	X	
NEW YORK				X	X	
NORTH CAROLINA		X	X	X	X	State military retirement
NORTH DAKOTA		XX	X		XX	
OHIO			X		X	
OKLAHOMA		X		XX	X	
OREGON		X			X	Eligible for state Credit Union
PENNSYLVANIA			X		XX	Eligible for state Credit Union
RHODE ISLAND	X		X		X	
SOUTH CAROLINA		X	X	X	X	State military retirement
SOUTH DAKOTA			X	X	X	
TENNESSEE				X	X	
TEXAS				X		Eligible for low interest land purchase loans
UTAH				X	X	
VERMONT					X	
VIRGINIA			X	XX	X	

ATTACHMENT A

OCCURRENCE OF SELECTED STATE PROVIDED BENEFITS

STATE	UNIFORM ALLOWANCE OFFICERS & WARRANT OFF	STATE INCOME TAX EXEMPTION	EDUCATION BENEFIT	AUTO TAGS	STATE EMPLOYE PAID MILITARY LEAVE	MISCELLANEOUS STATE PROVIDED BENEFITS
WASHINGTON	X				X	
WEST VIRGINIA	X	X	X		XX	
WISCONSIN		X	X	X		
WYOMING			X		XX	

X Benefits available to members of the National Guards
XX Benefits available to the National Guard and other reserve components

ATTACHMENT 9

ESTIMATED VALUE IN DOLLARS OF SELECTED STATE PROVIDED BENEFITS

STATE	UNIFORM ALLOWANCE OFFICERS & WARRANT OFF	STATE INCOME TAX EXEMPTION	EDUCATION BENEFIT	AUTO TAGS	STATE EMPLOYE PAID MILITARY LEAVE	MISCELLANEOUS STATE PROVIDED BENEFITS
ALABAMA		(A) 238	1000	25	(21) 1410	
ALASKA			750			1200 pension @ 20yes, 500 bonus for re/enlist
ARIZONA	60/75I	80	250		1102	
ARKANSAS		360		25	899	
CALIFORNIA		(B) 90			1195	
COLORADO			(G) 1500		1075	
CONNECTICUT			(G) 1500		1209	
DELAWARE	50/100I		1000		1017	
FLORIDA	25/75I			25	(L) 1298	
GEORGIA			(H) 800	25	1011	
HAWAII		48	(G) 1500		(L) 1598	
IDAHO				25	(M) 883	
ILLINOIS		(C)100/(D)63	(H) 1500	25	950	
INDIANA		60		25	871	
IOWA				25	(30) 1525	
KANSAS		170	(H) 1500	25	(12) 884	
KENTUCKY	150I	20	750	25		
LOUISIANA			(G) 1500	25	875	
MAINE			(I)	25	(M)(17) 979	
MARYLAND			500	25		
MASSACHUSETTS	50		(G) 1500	25	(17) 1115	
MICHIGAN		(D)(E) 115				600 pension @ 20yes in MNG
MINNESOTA		(F) 595		25	(L) 972	

ATTACHMENT 2

ESTIMATED VALUE IN DOLLARS OF SELECTED STATE PROVIDED BENEFITS

STATE	UNIFORM ALLOWANCE OFFICERS & WARRANT OFF	STATE INCOME TAX EXEMPTION	EDUCATION BENEFIT	AUTO TAGS	STATE EMPLOYE PAID MILITARY LEAVE	MISCELLANEOUS STATE PROVIDED BENEFITS
MISSISSIPPI		250	1000	25	(L) 1295	
MISSOURI			(S) 1500		989	
MONTANA	5	(A) 324		25	(M) 947	
NEBRASKA			(J) 1125		(L) 1153	
NEVADA			750	25	(M) 1197	
NEW HAMPSHIRE	25			25	(M) 1050	
NEW JERSEY				25	1189	
NEW MEXICO				25	(M) 1504	
NEW YORK				25	(30) 2321	
NORTH CAROLINA		(A) 210/105	500	25	1022	600/1200 pension @ 20yrs/30yrs
NORTH DAKOTA		60	(J) 1125		(M)(20) 1308	
OHIO			(M) 1500		(M) 1944	
OKLAHOMA		90		25	(M) 1698	
OREGON		300			989	
PENNSYLVANIA			480		(L) 1428	
RHODE ISLAND	75		500		(M) 939	
SOUTH CAROLINA		(C) 240	500	25	884	600/1200 pension @ 20yrs/30yrs
SOUTH DAKOTA			(K) 750	25	(M) 633	
TENNESSEE				25	885	
TEXAS				25		
UTAH				25	1041	
VERMONT					(M) 927	
VIRGINIA			1000	25	(L) 1412	

ATTACHMENT B

ESTIMATED VALUE IN DOLLARS OF SELECTED STATE PROVIDED BENEFITS

STATE	UNIFORM ALLOWANCE OFFICERS & WARRANT OFF	STATE INCOME TAX EXEMPTION	EDUCATION BENEFIT	AUTO TAGS	STATE EMPLOYE PAID MILITARY LEAVE	MISCELLANEOUS STATE PROVIDED BENEFITS
WASHINGTON	50/100I				1080	
WEST VIRGINIA	100	348	(G) 1500		(30) 1469	
WISCONSIN		75	700	25		
WYOMING			(K) 750		(M) 1214	

STATE TAX EXEMPTION

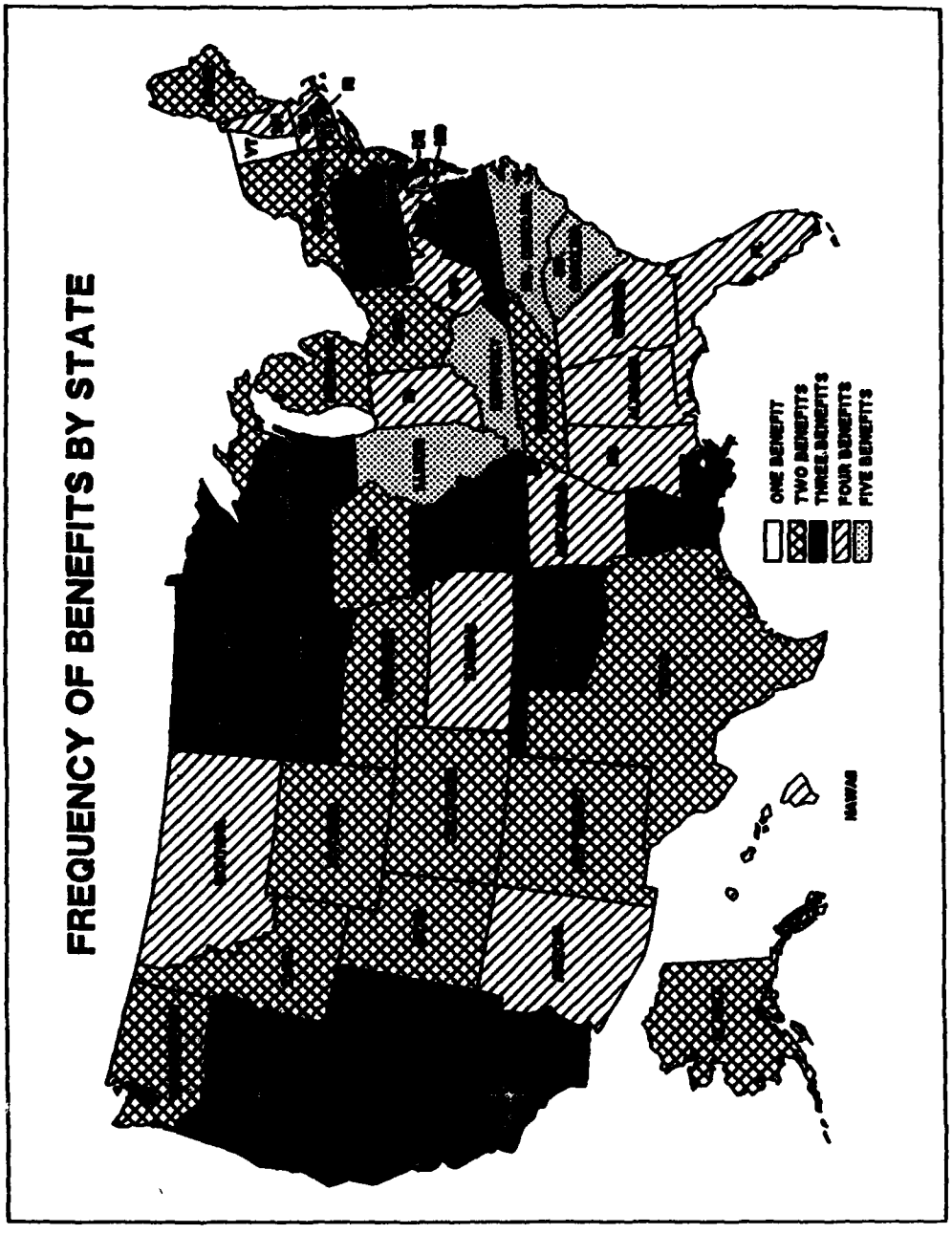
(A) Partial exclusion of Retired Pay only from state income tax
(B) Up to $1,000 of National Guard pay exempt from state income taxes for members earning less than $25,000
(C) All Retired Pay excluded, estimated to be $4,000
(D) Based on exclusion of all military income, estimated at $2500
(E) Exclusion applies to Enlisted members only
(F) Based on exclusion of $3000/in state and $2000/out of state military earnings

EDUCATION BENEFIT

(G) 100% of tuition waived at selected colleges in the state
(H) Tuition assistance available in exchange for NG commitment
(I) Tuition waived for vocational/technical schools after 10 years in NG, no value assigned
(J) 75% of tuition waived at selected colleges
(K) 50% of tuition waived at selected colleges

PAID MILITARY LEAVE

(L) State employees receive pay for 15 to 17 working days of military leave, converted to 22 calendar days for this calculation
(M) Value of benefit based on a sample size of less than ten officers or enlisted members
(N) State employees receive pay for 20 to 22 working days of military leave, converted to 30 calendar days for this calculation


FREQUENCY OF BENEFITS BY STATE
ONE BENEFIT
TWO BENEFITS
THREE BENEFITS
FOUR BENEFITS
FIVE BENEFITS
VT
NH
ME
HAWAII

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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

VOLUME 1B

NATIONAL GUARD AND RESERVE RETIREMENT

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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

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NATIONAL GUARD AND RESERVE RETIREMENT

AUGUST 1988

6th QRMC Report

Executive Summary

Volume I: National Guard and Reserve Compensation

Volume IA: Compensation of Full-Time Support Personnel

Volume IB: National Guard and Reserve Retirement

Volume IC: Compensation in Support of Reserve Medical Manpower

Volume II: Compensation and Personnel Readiness

Volume III: 6th QRMC Supporting Studies

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PREFACE

> Simply said, the purpose of an analysis is to provide illumination and visibility--to expose some problems in terms that are as simple as possible.
>
> --Lieutenant General Glenn A. Kent, USAF (Ret.)

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This volume is part of the report of the 6th QRMC. An interim version of this volume was forwarded to the President of the Senate and the Speaker of the House of Representatives on March 23, 1988, to meet the requirements of section 302 of the Military Retirement Reform Act of 1986. That statute required a report to the Congress on the reserve retirement system, together with any legislative proposals to modify the system.

The Military Retirement Reform Act of 1986, which applies to all entrants into the uniformed services after August 1, 1986, made sweeping changes to the value of an active duty military retirement. The Act reduced lifetime benefits by 17 percent from the system as modified in 1980 and by 27 percent from the retirement system that covers members who entered service prior to September 8, 1980. For the reserve retirement system, the benefit reduction for those who enter after August 1, 1986, was 18 percent. These changes were the result of direction from Congress contained in the Department of Defense Authorization Act, 1986 (Pub. L. 99-145). The legislation required the Secretary of Defense to submit a report, including draft legislation to reduce the accrual charge for the nondisability military retirement system by $2.9 billion for Fiscal Year 1986. The actuarial methods and assumptions to be used in calculating this reduction were those approved by the Department of Defense Military Retirement Fund Board of Actuaries for calculating the military retirement accrual percentage used in determining retirement fund contributions in the President's Fiscal Year 1986 budget.

The draft legislation, submitted by the Secretary of Defense, also included modifications to the reserve retirement system. To the extent that it was possible, these modifications paralleled the changes recommended for the active nondisability retirement system. The 1986 Act, however, limited modification

of the reserve retirement system to the method of adjusting retired pay. Further changes were deferred pending a comprehensive review of the reserve retirement system.

The congressional conferees on the Military Retirement Reform Act directed the Secretary of Defense to specifically review the reserve retirement system in conjunction with a review of overall reserve compensation, as part of the 6th QRMC. The conferees further stated, "the objectives of the reserve retirement system need to be evaluated and the system structured to support those objectives," and included a provision in the Act (Section 302) requiring the Secretary of Defense to submit a report on the reserve retirement system together with any proposals for a modification of the system.

The review of the reserve retirement system is included as part of the comprehensive review of the costs and benefits of reserve compensation, conducted by the 6th QRMC, in accordance with the President's direction. The retirement panel of the 6th QRMC systematically evaluated the problems associated with the study of reserve retirement, outlined objectives, and determined what analytical tools were needed and available. It was immediately apparent that the review of the reserve retirement system would encounter a major obstacle: the difficulty of gathering reliable current and historical data on reserve personnel. Less than seven years of relatively accurate and verifiable data was available on most Selected Reserve personnel. The Reserve Components Common Personnel Data System (RCCPDS), established at the Defense Manpower Data Center (DMDC), began accepting data in July of 1975, but experienced major difficulties integrating reserve component data reported through 1980. The RCCPDS continues to have reporting difficulties, but data quality has improved significantly since 1980. Even today, however, significant data elements that are critical to the analysis of reserve retirement are unavailable for most reserve components and the majority of reserve personnel. Certain data, such as the number of retirement points accumulated and the number of years of creditable service for retirement, is unavailable for over 80 percent of all reservists. Forecasting all of the implications for an incentive system, designed to promote service over periods in excess of 20 years, is quite difficult using seven years of incomplete data.

Developing valid models for analyzing the effects of policy changes on retention and force structure for the reserve components has been limited by the lack of reliable personnel data and by the relative paucity of reserve manpower research. The RAND Corporation put significant effort into developing a dynamic retention model for the reserve components, the results of which are used in this analysis. It will, however, take many years to develop the cohort data necessary to verify the model.

The major problem with modeling the reserve components stems from the open nature of personnel accessions in year-of-service cells. This situation is created by movements to and from the active components, movements between the levels of each reserve component, and movements between the reserve components of the various services. These problems can essentially be ignored in modeling the virtually closed personnel accession systems of the active components.

During the early stages of the review, it was apparent that the reserve retirement system was extremely complex. The systematic approach used to analyze the current system began with a comprehensive review of the history of the reserve components, the role of reserve forces in the defense of the United States, and the considerations that led to the initial proposals and 1948 enactment of a deferred income incentive for reservists. The development of the National Guard and Reserves was then traced over the 40 years since enactment of the retirement system. An effort was made to determine whether the current system had accomplished its objectives, and whether any or all of the original objectives remain valid for current reserve service.

When relating the analysis of the objectives of reserve retirement to the observed evolutionary development of the reserve components, three major areas were identified for review: 1) the effects of the retirement system on force structure; 2) the motivational effects of the retirement point system; and 3) the structural issues arising from both implemented and proposed modifications to the organization, missions, and support of the reserve components. Each element within these three areas was analyzed independently and then evaluated for its effect on the review area. Additionally, each area of review was assessed for potential effects on the entire system and on the other areas. Finally, the retirement system was reviewed as an integral part of the entire reserve compensation system, with a focus on compensation as a force management tool.

Based on a thorough review of the current reserve retirement system and input from the Services on the future direction of the reserve components manpower requirements, alternatives and modifications to the system were evaluated for potential inclusion in the report. Alternatives were selected for further analysis in terms of a specific set of guidelines based on a review of the current system, the projected manpower force structures of the seven reserve components, and analyses for cost-effectiveness. Although there are many possible solutions to the problems identified, the alternatives recommended as a result of this review are considered to be the most efficient, cost-effective and desirable means of producing the desired results.

Survivor annuity plans based on retired pay are part of the military retirement system and form an important part of the value of reserve retirement. Any major alternatives to the current reserve retirement system would also require modification of survivor annuities. The existing Survivor Benefit Plan (SBP) and the Reserve Component Survivor Benefit Plan (RCSBP) were evaluated by the 6th QRMC, but no attempt was made to develop SBP options for the reserve retirement system alternatives considered in this report.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs, of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services, were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988) and the Reserve Center Commanders Conference (1987) were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military

Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard Association of the United States, National Military Family Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis, and advice at every stage of the review.

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Contract/Technical Support

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Fairfax, Virginia 22031

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Research Triangle Institute
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Syllogistics, Inc.
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U.S. Army Research Institute for the Behavioral and Social Sciences
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Alexandria, Virginia 22333-5600

Defense Manpower Data Center
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Arlington, Virginia 22209

DoD Office Of Actuary
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Arlington, Virginia 22209

Units Visited

Army National Guard

2d Battalion, 116th Field Artillery, Lakeland, Florida

26th Aviation Brigade, 26th ID, MA ARNG, Camp Edwards, Massachusetts

Headquarters, Puerto Rico Army National Guard, and elements of the 192d Separate Infantry Brigade, San Juan, Puerto Rico

United States Army Reserve

Headquarters and Headquarters Company, 78th Training Division, Edison, New Jersey

694th Maintenance Battalion (HQ & 340th S&S Co), San Antonio, Texas

328th Personnel and Administration Battalion, San Antonio, Texas

5506th Dental Service Detachment, St. Louis, Missouri

21st General Hospital, St. Louis, Missouri

803d Medical Group, Boston, Massachusetts

United States Naval Reserve

USS Clifton Sprague (FFG16), Philadelphia, Pennsylvania

Patrol Squadron 64, NAS Willow Grove, Pennsylvania

RNMCB 21, NAEC Lakehurst, New Jersey

Naval Hospitals 119 and 219, Long Beach, California

Naval Hospital Newport Branch Medical Clinic - NAS South Weymouth, Massachusetts

Naval Reserve MED/DEN 0191, South Weymouth, Massachusetts

United States Marine Corps Reserve

H&S Company, 4th Tank Battalion, 4th Marine Division, FMF, USMCR - MCRTC, NAS Miramar, California

H&MS 41, Detachment B - MCAS El Toro, Santa Ana, California

4th Fleet Service Support Group - N&MCRC, Miramar, California

Air National Guard

143d Combat Communications Group, Seattle, Washington

156th Tactical Fighter Group, Muniz ANGB, San Juan, Puerto Rico

United States Air Force Reserve

514 Military Airlift Wing, McGuire AFB, New Jersey

702 Military Airlift Squadron, McGuire AFB, New Jersey

37th Aeromedical Evacuation Group, MacDill AFB, Florida

34th Aeromedical Evacuation Squadron, Kelly AFB, Texas

United States Coast Guard Reserve

1 Seattle (General Support) - NAS Sand Point, Seattle, Washington

Bellingham/Anacortes (General Support), Bellingham, Washington

San Juan Coast Guard Station, San Juan, Puerto Rico

EXECUTIVE SUMMARY

This volume is part of the report of the Sixth Quadrennial Review of Military Compensation (6th QRMC). Section 1008(b) of title 37, United States Code, requires that a review of compensation systems for members of the uniformed services be conducted not less than once every four years. On September 23, 1986, President Reagan directed that the 6th QRMC conduct a comprehensive evaluation of the benefits and costs of all reserve compensation programs. The review was initiated on January 1, 1987.

In addition to this requirement for a comprehensive study of reserve compensation, there was a statutory requirement to study reserve retirement. Section 302 of the Military Retirement Reform Act of 1986 required the Secretary of Defense to submit a report on reserve retirement to the Congress, together with any proposals for modification of the system. The Committee of Conference on the Retirement Reform Act stated their intent that this review be conducted as part of the 6th QRMC, in conjunction with its overall review of reserve compensation.

The 6th QRMC analysis of reserve retirement was conducted from the perspective of the original objectives of the system and of these objectives in light of the subsequent evolution of the reserve components and of current and projected manpower requirements. Three major areas were identified for review: 1) the effects of the retirement system on manpower force structure; 2) the motivational effects of the retirement point system; and 3) technical issues that have arisen over time as the organization, missions, and support of the reserve components have changed. Reserve retirement was reviewed as an integral part of the entire reserve compensation system, with a focus on compensation as a force management tool.

History and Description of Reserve Retirement

A reserve retirement system was enacted in 1948 to provide a monetary incentive for continued membership and training in the reserve components. World War II experience had demonstrated the need for a large, well-trained, organized, and equipped reserve force, capable of immediate mobilization and deployment. A deferred income incentive was considered necessary to build and maintain the planned reserve component manpower structure.

The initial proposals for reserve retirement were modified several times before final enactment in June, 1948. The system has remained essentially unaltered since enactment. Recent changes in law affecting the determination of the retired pay base in calculating retired pay (1980) and the indexing of

retired pay (1986) have resulted in a significant reduction in the value of both active and reserve retirement benefits for new members who are affected by these changes.

Computation of Retired Pay

To be eligible to receive reserve retired pay, an individual must complete a minimum of 20 years of qualifying service and be at least 60 years of age. Retired pay is computed based on the basic pay scale in effect when the individual applies for retired pay at or after the age 60 minimum. Retired pay is calculated by multiplying the reservist's equivalent years of active service by 2.5 percent and multiplying the resulting fraction by basic pay. Equivalent years of active service are computed using a point system, in which retirement points are credited as follows:

- One point for each day of active service
- One point for each attendance at a drill or period of equivalent instruction
- Fifteen points per year for membership in a reserve component in an active status

The number of points that can be credited in a year are limited as follows:

- There is a 60-point annual limit on the total of all points awarded for drill attendance or equivalent instruction, or for membership in a reserve component.
- A maximum of 365 points may be credited toward retirement in any one year.

Subject to these limitations, years of equivalent active service are computed by totaling all points, including those earned in years when the minimum 50 points for a satisfactory year was not attained. This point total is then divided by 360.

Costs of Reserve Retirement

Since Fiscal Year 1985, military retirement has been funded on an accrual basis. It previously was funded on a current cost basis, and a single line in the DoD budget reflected the projected annual costs of retired pay. Under the 1984 law that created the accrual funding system, a military retirement fund was established in the Treasury. The fund receives monthly

payments on accruing liabilities from the DoD and yearly amortized payments from the Treasury on the unfunded liabilities.

The DoD payments are a percentage of the total basic pay for members on active duty or in the Ready Reserve. This percentage of pay is contributed over the active career of new military entrants in order to pay for all future retirement benefits of the group. Thus, under the accrual method of funding military retirement and survivor benefits, the future costs of military retirement must be taken into account in the formulation of service budgets and, consequently, in their manpower plans and policies. Since Fiscal Year 1987, the law has provided that two percentages will be determined: one for members on full-time duty with either the active or reserve components and one for members of the Ready Reserve who are not serving in a full-time duty status.

The future costs of reserve retirement and the relative value of retired pay for reservists vary, based on when the reservist first entered a uniformed service. Legislative changes to the system in 1980 and 1986 have created three categories:

- Members who joined prior to September 8, 1980, have their retired pay calculated as a percentage of the basic pay scale in effect when the member is first entitled to draw retired pay.

- Members who first entered on or after September 8, 1980, and before August 1, 1986, will have their retired pay calculated as a percentage of the average of their highest 36 months of basic pay. This reduces the percentage of pay that must be set aside in the Military Retirement Fund from 27.7 percent to 25.3 percent, a nine percent reduction.

- Members who entered on or after August 1, 1986, will have a change in the method of adjusting their retired pay to maintain its value against inflation. This further reduces the relative cost and value of reserve retirement. The percent of basic pay that must be set aside for this group is 22.8 percent, which is a total reduction of 18 percent from the system applicable to members who first entered service prior to September 8, 1980.

The percentage of pay that must be set aside for full-time active and reserve component members now entering service is 40.9 percent. To provide a perspective on the cost of reserve retirement relative to that of private sector pension and capital accumulation plans, the Hay/Huggins Company was asked to make a comparison using the same economic assumptions in both calculations. Their analysis concluded that the average cost of retirement benefits in the private sector is 13 percent of

salary. Using the same economic assumptions, the cost of reserve retirement would be 18.8 percent of basic pay. Since basic pay, on which retired pay is calculated, is only about 70 percent of military compensation, it is not directly comparable to private sector salary. Multiplying the 18.8 percent of basic pay cost calculated by Hay/Huggins by 70 percent results in a cost of approximately 13 percent of pay for the reserve system, indicating that it is very close to average private sector plans in terms of cost.

In Fiscal Year 1986, 158,696 reserve retirees were paid $1.2 billion in retired pay. The average monthly entitlement was $697. The average retired pay for officers who retired (at or after age 60) in Fiscal Year 1986 was $762. The average retired pay for enlisted members first retired in that year was $428. Historically, the population drawing reserve retired pay has included about three officers for every enlisted member. This has led some to question the utility of reserve retirement as a retention incentive for the enlisted force. 6th QRMC projections, based on current continuation rates, indicate that the officer-to-enlisted ratio among those receiving reserve retired pay is rapidly changing and will result in a very different population of reserve members drawing retired pay. Figure X-1 shows these projections.

The cost of reserve retirement must ultimately be related to the system's effects on the readiness of the reserve components and also to the value of that readiness to the national defense. Its relative costs can be compared to the cost and effectiveness of system alternatives.

QRMC Analysis

The objective of the QRMC analysis was to determine the extent to which the current reserve retirement system effectively supports service and reserve component manpower objectives and policies, and aids in achieving desired manpower force structures. There were three primary activities in conducting the analysis: assessment of the effects of the current system, comparison of these effects to those desired by the Services and their reserve components, and identification and evaluation of the costs and benefits of alternatives.

Data Sources

Primary data sources for the QRMC analysis included the Reserve Components Common Personnel Data System (RCCPDS), the 1986 Reserve Components Surveys (1986 RC Surveys), the QRMC unit visit program, and DoD Office of the Actuary retiree data and retired population and cost projections. The RCCPDS is maintained by the Defense Manpower Data Center (DMDC). It has

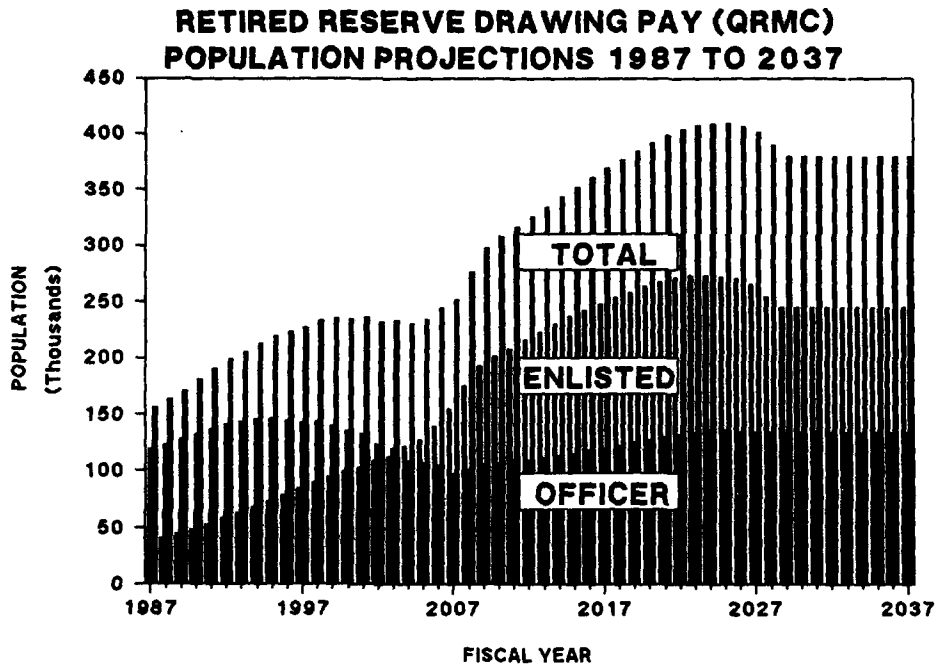


FIGURE X-1

been the official source of reserve personnel data since 1975. There have been continuing and well-documented problems with the accuracy and completeness of data on reserve personnel. These problems did impact on the QRMC analysis. Missing data or data of questionable validity with respect to creditable years for reserve retirement, total days of active service, and data on paid, creditable and total points were of particular concern. Nevertheless, the availability of extensive historical RCCPDS data, which was of generally good quality from 1981 forward, provided a sound base for the QRMC analysis. The report identifies areas where data problems limited confidence in the conclusions reached.

The 1986 RC Surveys provided heretofore unavailable data concerning reserve members and their spouses, much of it directly relevant to the analysis and understanding of reserve retirement. The Surveys were completed by 12,278 officers, 51,409 enlisted members, and 33,858 spouses, representing over one million trained members of the Selected Reserve and 640,000 spouses. With generally excellent response rates, the 1986 RC

Surveys provided extensive demographic, household, and familial data on reservists, including occupational and civilian income information previously unavailable. Also, detailed information on patterns of previous active and reserve component service was available from the survey, largely offsetting weaknesses in the RCCPDS in this area. Using survey data, it was possible to relate the strength and direction of reservist and spouse attitudes and experiences of reservists and their spouses concerning specific aspects of reserve compensation to their military status, background and demographic characteristics.

The 6th QRMC unit visit program was conducted during April and May of 1987. Its objective was to provide QRMC staff with firsthand exposure to the views of members at the unit level, in order to identify concerns and issues that might not otherwise surface and to help place the quantitative data from the 1986 RC Surveys in context. A detailed protocol was developed to ensure uniform visit procedures and conduct by unit visit teams and to minimize the extent to which the attitudes and opinions of team members might influence unit member responses.

The 1984 law that placed the funding of military retirement on an accrual basis also established an independent three-member DoD Retirement Board of Actuaries, appointed by the President. The Board is required to review valuations of the military retirement system, to determine the method of amortizing unfunded liabilities, to report annually to the Secretary of Defense, and to report to the President and the Congress on the status of the fund not less than every four years. The DoD Office of the Actuary provides all technical and administrative support to the Board.

The Office of the Actuary uses military personnel files maintained by DMDC and pay files of the Service Finance Centers as input data in conducting annual valuations of the military retirement system. Population and pay projections are generated by an actuarial projection model. The accuracy of all aspects of this model has been confirmed through two extensive audits. The 6th QRMC relied heavily on the Office of the Actuary for supporting data. Data concerning the future costs of the current reserve retirement system and of alternative systems is entirely based on Office of the Actuary projections using the economic assumptions approved by the Board of Actuaries.

Analytic Tools

The availability of tools for the analysis and evaluation of the costs, benefits, and specific effects of active component manpower and compensation policies and programs is many times greater than that of tools for analyzing reserve manpower. This is clearly a result of the paucity of research on reserve component manpower as compared to the active components. It is

likely also a consequence of the relatively greater complexity of reserve manpower programs. All of the following characteristics of reserve manpower make its analysis particularly difficult: accession programs that combine significant proportions of individuals with and without prior service, frequent lateral entry and reentry into the Selected Reserve, markedly different participation intensities among Selected Reserve programs, a wide range in the amount of prior active service possessed by current members (which affects the degree of investment in reserve retirement), and the fact that reserve service is not the full-time job of most members of the Selected Reserve.

A number of models and other analytic tools were developed by the 6th QRMC staff or through contract. Most important in that regard are two models developed by the RAND Corporation for the 6th QRMC. Part of this effort included the development of estimation and projection models that were capable of separately estimating future populations for part-time reservists, military technicians, and AGRs. This model is the RAND Reserve Policy Screening Model. The second part of the project was the development of a Reserve Dynamic Retention Model. This model creates retention rates by quantifying compensation, taste for military service, and random disturbances that affect continued service. The effect of retirement system and other compensation alternatives on retention rates developed by the reserve dynamic retention model can then be entered into the inventory projection model to estimate force structure effects of compensation alternatives. With the addition of alternative system costs, a systematic tool has been provided for the evaluation of the costs and benefits of retirement system alternatives.

The Effects of the Current Reserve Retirement System

The 6th QRMC began its study of the effects of the current system with the review of earlier studies. The most extensive previous review was conducted as part of the Reserve Compensation System Study (RCSS) from October 1976 through June 1978. The RCSS concluded that, for reserve forces, there should be greater emphasis on current compensation than on deferred compensation, and that the need for a retirement system for reserve members was much less apparent than for active force members.

The RCSS analysis concluded that reserve retirement was too costly, fostered an aging force, and was hindered by the lack of comprehensive planning and control relative to manpower force effects and retirement costs. The RCSS developed two preferred alternative reserve compensation systems. The first alternative included a number of modifications to reserve retirement, the

cumulative effect of which would have been annuity reductions in the range of 20 to 35 percent. No retirement system was included in the second alternative, and the RCSS report states that a retirement system would not be recommended if it were possible to develop a new compensation system for reservists. A Reserve Career Bonus, structured to provide an incentive for continued service through 30 years, was proposed in place of retirement. The RCSS study was completed at a time when there was greater concern with recruitment and early attrition than with retention, and its recommendations may have reflected this concern.

The 5th QRMC conducted a detailed analysis of the uniformed services retirement system but, by design, did not undertake a comprehensive study of reserve retirement. The 5th QRMC did find that a number of the RCSS conclusions were still valid, including the finding that reserve retirement results in a high flow of officers and a low flow of enlisted members to retirement.

As shown earlier in Figure X-1, 6th QRMC projections indicate that the officer-to-enlisted ratio among those receiving reserve retired pay is rapidly changing. It is clear that reserve retirement is now a major factor in the retention of enlisted members with critical leadership and technical skills. The QRMC analysis indicates that an incentive for career reserve service is absolutely required to maintain the reserve components at required strength beyond eight years of service. Results of the *RAND Reserve Dynamic Retention Model* indicate that, with elimination of retirement as a career incentive, the Selected Reserve could not maintain its required manpower force structures and would lose critical experience. Although the analysis indicates that it is possible to replace retirement with current income incentives, it is uncertain whether this could be accomplished at less cost or with equal effectiveness in attracting and retaining high quality members with the needed experience. The model indicates that, in the absence of reserve retirement, retention in the midyears of service becomes a problem even with current compensation alternatives in place.

The QRMC looked in some detail at the relationship between reserve retirement and continuation trends in the reserve components. The retirement system retains needed manpower to 20 or more years of service. Once qualified for eventual retired pay at age 60, however, there is little economic incentive to discontinue active reserve service. Indeed, since continued service increases retirement points and retired pay at age 60, the reserve retirement system provides a strong incentive to remain in the reserve program beyond completion of the minimum years of satisfactory service for retirement eligibility.

The analysis of continuation rates in the reserve components indicates that reserve retirement works well as an incentive to draw qualified junior members into reserve careers and to attract members with active component service. The pull of reserve retirement is evidenced in continuation rates as early as five to seven years of service, and this pull gradually increases through 20 years of service. There is a drop in the continuation rates at the 20-year point: however, they immediately increase again and remain high well beyond 30 years of service. Comparison with active duty continuation rates indicates that reserve rates are slightly lower through the first 20 years of service and much higher than active rates after that point.

In most of the reserve components the reserve manpower force has continued to age. The impact of this trend on the readiness of reserve components is difficult to assess. The Logistics Management Institute (LMI) conducted an analysis of the age distribution of reservists by military specialty. The LMI report indicates that, as of early 1987, members in age-critical specialties with the greatest demand for youth and vigor were only about two years older than their active force counterparts. Older members were in specialties where age is less critical. LMI did not, however, attempt to project the current force into the future. The LMI report is in Appendix J.

As a benchmark against which to evaluate the effectiveness of current and proposed reserve compensation programs, the Military Departments and the Coast Guard were asked to develop manpower force structures reflecting desired continuation rates and force management practices for their reserve components. Considerations such as age of the force, promotion flow relative to length of service, training requirements, and skill levels relative to grade were to be balanced in the development of the desired structures. There are significant differences among the force structure profiles provided. In general, however, they indicate a desire to continue a higher percentage of the force from 6 to 20 years of service, with increased separations occurring after 25 to 30 years of service.

The age distribution of part-time reservists for all reserve components is currently being affected by a sizeable hump of members who initially joined the armed forces during the Vietnam War period. Members in the age cohort representing the peak of this hump were 40 or 41 in 1987, depending on component and on officer or enlisted status (see Appendix C). It is clear that most reserve components will have to make and implement personnel policies to provide effective management of this hump over the next 10 years. A major concern of the QRMC was to assess what the manpower force structure will look like after this major hump passes through the system.

The RAND Reserve Policy Screening Model was used to assess future manpower force distributions. The projections indicate a continuing aging trend into the next century, with the trend stronger in the enlisted force than in the officer force. The projections indicate a doubling, by the year 2000, of the percentage of the part-time Selected Reserve enlisted force with over 20 years of service.

Conclusions Concerning the Current System

The 6th QRMC analysis of the current system concluded that a retention incentive is necessary to maintain required manpower force structures, and personnel with needed leadership, technical qualifications, and experience. There are, however, current and projected manpower force management problems that are related to the effects of the current reserve retirement system. In the absence of personnel policies that set maximum tenure points or actively select out some members, the strong incentive for personnel to continue as long as possible contributes to an aging force. Associated problems of promotion stagnation potentially reduce retention prior to 20 years of service. The current system provides no flexibility in terms of compensation incentives that could offset these trends or deal with an increasing rate of involuntary transfers to the Retired Reserve; transfers that will likely be required as members who initially entered the military during the Vietnam Era complete 20 or more years of service.

Alternative Systems Analysis

The QRMC examined a number of alternatives to the current reserve retirement system. The development and assessment of possible alternatives was guided by several considerations that became design criteria for alternative systems. These are the resulting design criteria:

- The reserve retirement system must be fully compatible with the active duty retirement system, with active duty and reserve service creditable in either system.
- Reserve retirement should be sufficiently attractive to aid in recruiting members with prior active duty service, without being so competitive as to cause undesired attrition from the active components.
- An alternative system should be structured to support the accomplishment of reserve manpower objectives in the near term.

- Members who first entered a uniformed service prior to the enactment of any proposed alternative should be provided the option of electing the alternative system or remaining under the current system.

- An alternative system must be sufficiently flexible to meet the needs of all seven reserve components.

- There should be an incentive to continue to serve beyond 20 years, and the incentive should increase until 30 years of service.

- A means should be provided for replacing some percentage of lost reserve compensation for members who have qualified for retirement at age 60 but can no longer participate.

- Any alternative should be relatively simple in application, so that the modified or optional system can be readily communicated to and understood by reservists.

- Retirement system alternatives should be cost neutral or reduce long-term retired pay costs.

In addition to the development and examination of alternatives that would meet the above criteria, a review was conducted of earlier recommendations and suggestions for change to reserve retirement. These included reducing the value of reserve retirement, creating a penalty for those who cease active participation prior to 30 years of service, lowering the age of eligibility for reserve retired pay or providing a lump sum payment option before age 60, and eliminating reserve retirement altogether.

Increased Current Compensation in Lieu of Reserve Retirement

Using the RAND models it is estimated that an average increase of between 10 and 17 percent (depending on component) in after-tax pay would be required to offset the elimination of reserve retirement and hold accessions constant. When the DoD calculates its compensation costs of achieving the required after-tax increase, there would be a slight increase in the DoD budget even with the reduced accrual payments into the Military Retirement Fund. Federal outlays to pay for the retired pay of grandfathered reservists and the increased compensation for new entrants would increase until Fiscal Year 2033. Total excess cumulative outlays peak at over 29 billion 1988 dollars and are not recaptured until Fiscal Year 2053. These cost estimates represent a "best case" scenario, in that potential significant increases in accession and training costs have not been included.

While monetary costs are a major consideration, potential impacts on manpower force structures are also important. The QRMC analysis indicates that, in the absence of reserve retirement, retention in the midyears of service becomes a problem even with current compensation alternatives in place. Increased accession requirements result from the reduction in career retention. Substitution of youth for midcareer experience is especially problematic in the reserve components. These projected effects might be reduced through the skillful targeting of current compensation alternatives, but the long-term ability to provide an incentive as stable and effective as reserve retirement is uncertain.

The QRMC concludes that current compensation alternatives would be more expensive than reserve retirement. Substitution of current compensation would reduce the proportion of members with very long service--a change that is warranted--but it would also be likely to reduce the proportion of members in midcareer, a change that would almost certainly impact on readiness.

Reductions in Value of Reserve Retirement

Although elimination of reserve retirement has serious drawbacks, it is possible that reductions in the value of the retirement, combined with current compensation alternatives, would achieve increased cost-effectiveness. The QRMC analysis indicates that such a change, however, would result in increased accession requirements. Initial entry training costs tend to overwhelm the relatively small savings that can be achieved from a more junior part-time force. Under this alternative, force distribution problems would remain, since members who have completed 20 years of service would still be likely to remain in active reserve service for as long as possible in order to increase their eventual retirement benefit. The QRMC concludes that this alternative would exacerbate the problems of the current retirement system while resulting in an increased DoD budget and increased federal outlays.

Actuarially Neutral Lump Sum Payment

Actuarially neutral means that, if you offer an early lump sum payment or a reduced early retirement annuity in lieu of an existing annuity, the present value of a lump sum payment or of a stream of early payments is equal to the present value of the payment stream of the old annuity. On examination, the actuarially neutral lump sum payment alternative had some positive features. There were overriding defects, however. First, this option appeared to be overly attractive, possibly conducive to early losses of personnel that the reserve components would want to retain. Second, the lump sum option would greatly increase outlays for military retirement if election of the option became possible.

Actuarially Neutral Early Annuity

An actuarially neutral early annuity was calculated and its effects examined. The principal defect found with this alternative was that the annuity amount represented a very high percent of monthly drill pay for many members and, for some, would be twice the monthly drill pay. The more retirement points held by a member electing this option, the higher the payment. This would also induce unwanted losses, and the losses would be greatest among those whose point totals were higher as a result of past active duty or more intense reserve participation.

The QRMC made several attempts to adapt the actuarially neutral early annuity concept to an alternative providing a better fit with the established criteria. The most promising was a two-tier early annuity based on years of service rather than on the age of the member when the first tier of the early annuity starts. This two-tier system is the recommended alternative of the QRMC.

The Two-Tier Years-of-Service-Based Early Annuity Option

This alternative would provide an optional early annuity at any point after initial qualification for retirement through completion of 20 satisfactory years of service. This first tier would be a flat percentage of the retired pay base calculated under the high-three averaging method. The second tier would be at age 62. Election of the optional system would require a retirement point reduction. Retired pay before and after age 62 would be annually adjusted for inflation, based on the increase in the Consumer Price Index (CPI) minus 1 percent. A one-time catch up at age 62 is made to the first tier. The amount of the first-tier monthly annuity would be constant for all members in the same grade who elect the Two-Tier Option at the same years-of-service point, regardless of their age. While the Two-Tier system would be optional for all current members, it would replace the age 60 annuity for future entrants.

The QRMC assessment of this alternative indicates that its implementation would result in a reserve retirement system better able to support reserve manpower objectives. It would be capable of supporting objectives immediately after enactment and would be sufficiently flexible to meet the needs of all reserve components. The size of the first-tier annuity would not be large enough to discourage further paid participation or to attract active component members to the reserves who would not otherwise have separated.

The RAND Reserve Dynamic Retention Model designed to assess the probable impact of reserve compensation revisions indicates that more members would be likely to continue through 25 years

of service, and that there would be somewhat lower continuation after that point. Accession requirements under the Two-Tier Option decline by about 1 percent.

Implementation of this option would initially increase outlays from the military retirement fund. These increased outlays would peak at just over $200 million, early in the next century. At the highest level this would represent less than a 1 percent increase in outlays from the fund. Long-term costs for reserve retirement would be substantially reduced. This reduction would immediately be reflected by a reduction of about $132 million per year in the DoD accrual payments into the fund. The system should be easily understood by most reservists.

- **The QRMC recommends the development of legislation which would provide an optional early annuity at any point after initial qualification for reserve retired pay with 20 years of qualifying service. The early annuity would be optional for all persons who were members of a uniformed service prior to enactment of the recommended change. The Two-Tier system would apply to all new members after enactment.**

The specific provisions of the recommended alternative may be revised in the development of a legislative proposal. Many technical details necessary to integrate the Two-Tier Option with current law and policy also remain to be worked out.

Retirement Point System Analysis and Recommendations

As with the reserve retirement in general, the retirement point crediting system established in 1948 has remained essentially unchanged. Documentation on the original basis for some aspects of the point system is slight, however it is clear that the following objectives were achieved in the system as established:

- Active duty and reserve participation were both creditable for retirement.
- Individuals were to be credited on the actual level of their future participation.
- A minimum annual point standard was set for satisfactory reserve participation for retirement qualification.

The QRMC analysis reviewed the retirement point system from the perspective of current conditions of reserve service. A major change from 1948 is the much greater level participation required and performed by today's reservists. This higher level of participation has resulted in concern in many quarters that the 60-point annual cap on points for inactive duty training is

inequitable. Under the cap, members who perform the most inactive duty receive the same retirement credit as those who meet minimum training-pay category A requirements. In part, this is also an effect of the 15 membership points awarded each year. Data from QRMC unit visits and from the 1986 RC Surveys indicates that the 60-point annual cap on inactive duty training points is perceived by many members as inequitable. A comparative analysis of the point value for each day actually worked indicates that, even when credited at two points per day for inactive training, the probability is that the category A reservist will earn less retirement point credit per working day than the member on active duty.

An estimation of the probable effects of raising the annual point cap to 75 while eliminating the 15 membership points indicated that such a change would bring the active duty and reserve credit per working day much closer together. While the QRMC review was handicapped by the lack of verifiable retirement point data for most reservists, analysis of the existing system led to the following recommendations for change:

- Increase the annual cap on inactive duty training points from 60 to 75.
- Eliminate the 15 annual membership points.
- Reduce the number of points required for a satisfactory retirement year from 50 to 35 (with elimination of membership points this keeps the participation requirement for a satisfactory retirement year unchanged).
- Cap the number of retirement points that may be credited in one year at 360 instead of 365 (since the division in the formula for calculating equivalent years of active service is 360, this ensures that no more than one year of credit may be received for one year of duty).

The QRMC believes that implementation of the above recommendations would result in providing greater retirement credit for members who perform additional inactive duty training beyond minimum Category A training requirements. The retirement credit earned would not exceed the benchmark per working day for active duty credit. The QRMC proposal is judged to be cost neutral if implemented. Because of the inadequacy of current retiree point accounting systems and data, further review by the next QRMC is recommended.

Structural Issues

The QRMC also conducted a detailed review of structural and technical aspects of the reserve retirement system. The requirement to keep large numbers of reserve officers on extended active duty to meet national defense requirements after the Korean War resulted in several changes affecting reserve retirement. Similar changes are now required in response to the needs of the last decade; i.e. the requirement for significant numbers of enlisted members to serve on active duty in their reserve status to meet the needs of the reserve components for full-time recruiting, technical, and administrative support.

There are two results of the failure to update the reserve retirement system. The first is the complex, overlapping, and confusing structure in terms of which retired military members are categorized. The second is a number of unintended inequities that have developed over the years. While some of these are superficial, others are quite substantive and can have a significant impact on individual members. As the active and reserve components become even more closely aligned, it is increasingly important for all provisions to work equitably in order to encourage both active and reserve service.

To achieve this objective, the QRMC recommends the following:

- Legislation to simplify the regular and reserve retired structure. Laws that require the assignment of regular enlisted retirees to the Retired Reserve should be repealed as unnecessary and anachronistic. The Fleet Reserve and Fleet Marine Corps Reserve would be continued, but would not be accounted for as part of the Naval or Marine Corps Reserve.

- Amendment of section 688 of title 10, United States Code, to provide recall authority to the Secretary of Transportation equivalent to that possessed under this section by the Secretaries of the Military Departments.

- Revision of DoD Directive 1200.15 to eliminate the category of honorary retiree and provide that only members who are or will be eligible for retirement benefits be placed in the Retired Reserve in the future. Existing honorary retiree lists would be reduced by attrition and then discontinued.

- Legislation to provide uniformity between the Services and their active and reserve components with respect to the retired grade of enlisted personnel qualifying for active duty retirement. (NOTE: This change was enacted as section 512 of Public Law 100-180, December 1987.)

- **Legislation to require continuous membership in a reserve component after receiving notification of completion of the years of service required for retired pay at age 60, in order to qualify for that pay.**

- **Legislative amendment to allow reserve enlisted members to receive years-of-service credit for inactive duty training points in the computation of active duty retired pay.**

- **Legislative amendment to update the provisions of the active duty retirement sanctuary for reserve members on active duty who have more than 18 years of active federal service.**

- **Study of alternatives to provide a monetary benefit for reservists whose further participation is precluded due to their being found not physically qualified when the cause of the disqualification was not service connected.**

Nonpay Benefits for Retired Reservists

There are approximately 64,000 members of the Retired Reserve who do not receive retired pay but will be entitled to retired pay at age 60. These members, sometimes referred to as gray area retirees, have important benefits but are precluded from participating in military activities that are available to reservists in either an active or retired status. During the period between the point when they transfer to the Retired Reserve and the time when they begin to draw retired pay, some reservists feel shut out and cut off from their Service and the way of life to which they have devoted most of their working years.

The 6th QRMC examined the costs and advantages of extending certain benefits to retired reservists in the gray area. The QRMC concluded that expanded benefits for gray area retirees would recognize their long and dedicated service. After review of several options, the QRMC recommends that temporary lodging facilities, military exchange stores and services and Class VI/Package store privileges be extended to gray area retirees. The QRMC also noted that these expanded benefits would increase monies for nonappropriated fund activities and provide an incentive for members with more than 20 years of service to transfer to the Retired Reserve.

The Two-Tier Option to the current retirement system, if implemented, would effectively eliminate the issue of gray area retirees. Under the Two-Tier Option, the QRMC recommends that all Retired Reservists under age 60 who are receiving first-tier retainer pay or are eligible for retired pay at age 60 have the same benefits as members of the Selected Reserve. At age 60 all

reservists receiving retired pay or first-tier retainer pay would be eligible for the same benefits as are all military retirees.

Air Force Concerns

In the course of the review of this volume of the QRMC report by the Military Departments, the Department of the Air Force (the reserve components of which are structured and manned somewhat differently than are the components of the other Military Departments) provided a statement of concerns with respect to certain QRMC recommendations. These concerns are set out at the end of this Executive Summary.

Summary and Conclusions

The 6th QRMC review of reserve retirement found that the system was unchanged in major part since its 1948 enactment. Legislative changes have, however, reduced the value of reserve retirement. The percent of pay that must be set aside to fund future retirement costs for members initially entering service on or after August 1, 1986, is 18 percent less than the percent of pay required for members who entered prior to September 8, 1980.

The QRMC assessed the effects of the current retirement system on reserve manpower, reviewed the system of crediting retirement points, and identified areas where technical or structural changes were required to make the system more effective or equitable. The QRMC found that reserve retirement was critically important to the retention of sufficient members with leadership and technical skills, and concluded that current compensation alternatives were unlikely to be less expensive or as effective.

The current system could be improved however, particularly through the revisions that would replace some percentage of lost reserve compensation for members who have completed the years of service required for reserve retirement and who can no longer participate. Alternatives were evaluated against a set of criteria and a Two-Tier Option recommended.

It was concluded that implementation of the recommended alternative would result in a reserve retirement system better able to support reserve manpower objectives. The alternative would result in increased near-term outlays from the retirement fund; at the highest level these would represent less than a one percent increase in total fund outlays. Long-term costs for reserve retirement would be reduced, and there would be

immediate savings in DoD contributions to the fund. Technical details necessary to integrate the recommend Two-Tier Option with current law and policy remain to be worked out.

The QRMC recommends modification of the system for crediting retirement points. The recommended changes are to increase the annual cap on inactive duty training points from 60 to 75 while eliminating the 15 annual points currently awarded for reserve membership. The number of points required for a satisfactory retirement year would correspondingly be reduced from 50 to 35. Also, the number of retirement points that may be earned in one year would be capped at 360, in order to ensure that no more than one year of credit may be earned in any one year. Due to the inadequacy of current data on retirement points, the QRMC recommends that these proposed modifications, if implemented, be reviewed again when better data is available.

Air Force Concerns

In the course of the review of the QRMC report by the Military Departments, the Department of the Air Force (the reserve components of which are structured and manned somewhat differently than are the components of the other Military Departments) provided areas of concern with respect to certain QRMC recommendations. These views follow:

The Two-Tier Years-of-Service Based Early Annuity Option. The QRMC concludes that the current system contributes to an aging force and causes promotion stagnation. The Air Reserve Forces are combat ready today for many reasons which include experience and stability. The forces are managed in such a way as to make promotion stagnation a minor issue. If it were a problem, the related dissatisfaction with reserve service would result in a decreased retention rate. Current retention rates are excellent. The early annuity option could make it attractive for the most experienced personnel to leave, causing a significant decrease in readiness. This could be especially significant if reserve force pilots began to separate after 20 years of service, certainly not an intended goal by management. The increased early outflow of reserve forces pilots would create more vacancies, which would in turn provide more opportunity for active forces pilots to affiliate with reserve units, exacerbating an already critical active pilot retention problem. The early annuity option may be especially detrimental to the IMA program. IMA positions are established by the Major Commands and are typically senior grades. Since IMAs typically receive less income from reserve participation than do unit members, a significant portion of our IMAs may find it attractive to take the early annuity thus causing a significant shortfall. Before any decision is made for an early annuity, these questions should be the subject of a thorough quantitative analysis, and perhaps the subject of a survey, to project possible effects on Air Force combat capability.

Second Tier of Annuity at Age 62. Current reserve retirement pay begins at age 60. Recommend age 60 vice age 62 be considered as an alternative to the Two-Tier Years of Service Based Early Annuity Option. The analysis and conclusion of this review is not contained in the final report.

Elimination of Membership Points. If membership points were eliminated, well over half of the Air Reserve Forces would take a corresponding reduction in retired pay. Few members in the Air Reserve Forces are authorized additional Inactive Duty Training Periods (IDTs). These periods are primarily used by aircrews to enhance their combat capability, but aircrews only represent 10 percent of the force. Unpaid IDT is unusual in the Air Reserve Forces and is not mission productive nor does it necessarily enhance combat capability. Any change in the

retirement system of this magnitude is certain to have a negative impact on combat capability. We are concerned that the Reserve Components Surveys data which indicated many unpaid IDT points could be used to offset the loss of membership points is over stated. The specific question from which this data was extracted was ambiguous and provided great leeway for personal interpretation. It cannot be used as the basis to support the recommendation. The elimination of membership points has not been quantitatively analyzed and may have an adverse impact on retention and combat capability.

Elimination of the Honorary Retiree Category from the Retired Reserve. Although the QRMC sees little value to the Honorary Retiree this category has a great deal of emotional appeal and is a positive public relations issue for the Air Force and has negligible costs. Recommend the category be retained but not interfere with any lists used for mobilization.

Finally, it has been stated numerous times that "Reserve Retirement is too expensive and needs to be cut." In 1987, the total DoD budget for reserve retirement was $958 million for a force of 1.1 million personnel in the reserve components. This is certainly not too expensive considering the Reserve Components contribute 25-30 percent of the Total Force warfighting capability. While it is important for the Department to constantly ensure the best capability for least cost, this does not translate directly to an "a priori" assumption that costs must be reduced.

However, you know as well as I that the Regular Army never won a war, except a few Indian wars. That isn't part of our democratic system. We believe in a small Regular Army--and I say that very sincerely and honestly--which should be a cadre of highly trained people to provide the "know-how" and leadership. We have got to have a force in being on M-day trained ahead of time, and by trained ahead of time I mean in all the skills that a large force needs. That means that you have got to have your civilian components, in strength, and you have got to have them thoroughly trained, alive, active, and vitalized. We think the program we have set up, for around 700,000 in the National Guard and around 860,000 in the Reserves will do that. We don't think we are going to get the people to implement it within either of these components unless we get universal military training; nor do we believe we are going to have the incentive to interest these youngsters in their commissions unless we have got some retirement features set up for them.

--MG Willard S. Paul, Director of Personnel and Administration, War Department General Staff, to the House Armed Services Subcommittee on Retirement, May 12, 1947

Chapter 1. RESERVE RETIREMENT

Historical Perspective on the Reserve Retirement System

The reserve retirement system, established in 1948 as Title III of the Army and Air Force Vitalization and Retirement Equalization Act, resulted from a recognition that the United States must maintain a large, well trained, ready-to-fight reserve force. The following factors exposed the urgent need to make such a reserve force reality: the recruiting and retention experience of the reserve components between 1919 and 1940, the mobilization efforts of the Armed Forces in preparation for World War II, and the realization that future wars would be fought on M-Day, not six months to a year later.[1]

Purpose of Nondisability Retirement for the Reserves

The concept of providing a nondisability retirement plan for reserve military forces is unique to the United States: no other country provides such a benefit to its military reserves. The United States is also the only major global power that relies on immediate deployment of reserve units to accomplish its military objectives. In 1948, the House of Representatives Committee on Armed Services detailed the purpose of reserve retirement as follows:

> The underlying purpose in writing this policy as to reserve components into law is that the retirement benefits will furnish an incentive that will hold men in the Reserve components for a longer period of time. It was stressed by practically every witness who testified on this feature of the bill that the most desirable type of Reserve was a reserve of men with accumulated training. It was also pointed out that the direct monetary emoluments payable to Reserve officers and men were so small that in many instances as the men grew older, became married, and took on family obligations, unless an additional incentive were offered them, they would drop their Reserve training. The reason for this policy is that we now realize that in the chaotic, explosive, and small world in which we live we must have a relatively large group of Reserves, well trained, and able to render help at once in the event of an emergency. We are hoping that the provisions offered in this bill, which to many of us seem liberal, will be an incentive well

worth working for. The result should be longer periods of service by Reserves and a larger and better trained force on M-day, should we be so unfortunate as to have another M-day.[2]

The intent of this legislation, and the sole purpose of reserve retirement, is to provide a monetary incentive for qualified reserve personnel to retain membership in the reserve components and continue their training.[3] At that time, it was the view of the War Department that both a reserve retirement system and universal military training would be necessary to implement current plans for the expansion of the reserve components. In retrospect, this view was unfounded. The Selective Service System, along with the advent of the Korean and Vietnam conflicts, provided sufficient incentive for reserve service that universal military training became unnecessary. Reserve retirement provided the required incentive for continued reserve service beyond minimum obligatory periods. The congressional view, that a deferred income incentive was necessary because of the small amounts of direct current compensation offered for reserve service, has been overcome by events of the past 20 years. With the advent of the All Volunteer Force near the end of the Vietnam Conflict, basic active pay levels were increased dramatically, with a corresponding increase in reserve compensation. These increases in current compensation counteracted in part the loss of the Selective Service System as an incentive for reserve service, but did not decrease the requirement for a deferred compensation incentive for continued service.

Organization of the Reserves

In order to understand the issues and reasons behind the enactment of the reserve retirement system, as well as the complex set of rules that govern the administration of the system, it is necessary to understand the nature of the reserve forces as they existed in 1948. It is also important to be aware of the evolutionary process that brought them to 1948 and continues to alter their nature today. The following sections provide a brief outline of the various reserve components and their immediate history prior to 1948.

The National Guard

Before 1948, the organized reserve force of the Army consisted primarily of the National Guard, which was established from the individual state militias under the Dick Act of 1903. The role of the National Guard was reaffirmed and codified under the Militia Act of 1908 and the National Defense Act of 1916, which also increased the number of authorized paid drills from 24 to 48 and required annual training from 5 to 15 days per year.[4]

The National Guard was confirmed as the primary reserve force under the National Defense Act of 1920. Its current status with a dual state and federal mission was created with the establishment of the National Guard of the United States by a 1933 amendment to the 1920 Act.

The Army and Air Force Reserves

Prior to the enactment of Public Law 80-459 (March 25, 1948) the Army Reserve was composed primarily of individual volunteers with limited participation requirements, and there was no authorization for inactive duty training pay. The 1948 law authorized the payment of inactive duty training (IDT) pay for the organized reserve, thus placing this Army reserve component on a par with the National Guard. This act also created the Air National Guard and the Air Force Reserve, incorporating all provisions of law relating to the Army National Guard and the Army Organized Reserve Corps.[5]

Naval and Marine Corps Reserves

The organized reserve of the Navy and Marine Corps, created in 1916, consisted largely of a pool of men with some naval experience who were paid a retainer to be on call in a national emergency. This system was to remain in effect until 1952, when the Armed Forces Reserve Act provided the statutory foundation for the present reserve system of the Armed Forces. The 1916 Act also established the Fleet Reserve and the Fleet Marine Corps Reserve. Both of these categories retained individuals from the regular enlisted force who had qualified for an active duty retirement but had not reached 30 years of service.

The structure of the Naval Reserve, except for the Fleet Reserve, underwent several changes between 1916 and 1952, but relatively limited participation was required from its members. Portions of the Reserve were authorized pay for inactive duty training (IDT): these were the Naval Militia (a part of the nonfederalized militia, and not the reserves) from 1916 to 1918, the Fleet Naval Reserve (not the Fleet Reserve) from 1925 to 1938, and the Organized Reserve, along with the Merchant Marine Reserve, from 1938 to 1952. All other Naval Reserve classes (except for the Volunteer Naval Reserve, which received no pay) received a small yearly retainer without regard to participation.[6]

Coast Guard Reserve

The Coast Guard Reserve was initially formed in 1939 as a volunteer organization of private boat owners (Pub. L. No. 76-152, 53 Stat. 854). The principal mission of this organization was to promote boating safety. In 1941, this organization was renamed the Coast Guard Auxiliary, and a new

Coast Guard Reserve, patterned after the Naval Reserve, was created by Congress (Pub. L. No. 77-8, 55 Stat. 9). The first reserve unit with paid training and a specific mission was established in 1950. The Coast Guard Reserve was established as a reserve component of the Armed Forces of the United States by the Armed Forces Reserve Act of 1952.

Basis for Reserve Retirement

At the conclusion of World War II, the Navy and War Departments realized that the United States could not maintain its current global position--nor could it meet its national defense requirements--without an expansion of the reserve forces and provisions for better training, equipment, and organization.[7]

It was evident that current compensation levels for reservists would neither retain the necessary numbers of qualified personnel nor enable the needed threefold increase in the National Guard and Organized Reserves. The National Guard of the United States, with more access to IDT funds than any other reserve component, had been able to recruit an aggregate total of only 200,000 officers and men between 1918 and 1940.[8]

The years between the World Wars provide excellent examples of the effects of economic cycles and federal appropriations on recruiting and retention for the reserve components in the absence of a retirement system. The affluent 1920s created severe recruiting difficulties for the National Guard, while endstrength was limited by appropriations during the depression years:

> Recruitment in the Guard rose and fell with the business cycle. During the prosperous 1920s men opted out in such numbers that it was necessary to recruit 6,411 new men each month to maintain level strength. Officers resigned at the rate of 25.3 percent of total officer strength, compared with 2.6 percent for the regulars. The Great Depression turned this around. In those lean times, a Guard private could earn on an average $54.15 a year if he regularly attended armory drills, plus $20.93 for summer camp. These were significant sums at the time.[9]

The required accessions during the 1920s represented an average annual turnover in excess of 43 percent. In contrast, reenlistment rates rose dramatically during the Depression years despite a requirement that Guardsmen perform one out of four drill assemblies in an unpaid status.[10] In addition to raising reenlistment rates, the Depression increased the number of available recruits, resulting in a marked improvement in the

quality of National Guard accessions without prior service.[11] Prior active service accessions continued to be virtually nonexistent.

Reserve officers commissioned after the end of World War I dropped out of the Organized Reserve at the rate of 10 percent per year between 1920 and 1930. Of the 127,000 officers commissioned through Reserve Officers Training Corps (ROTC) between World War I and II, almost 50 percent dropped out of the reserve prior to 1940.[12] The stabilizing effect of reserve retirement on midcareer retention rates over recently experienced economic and budgetary cycles is further discussed in Chapter 5.

The post-World War II plans for a threefold increase in the Guard and Reserve identified a need to attract prior active experience into the reserve components. Prior active component experience had always been difficult to draw into the reserve components, owing to the small size of the regular components and the lack of incentives to join the Guard and Reserve. At the conclusion of World War II, the economic outlook for the United States, as well as the social aversion to continued military service, was such that current compensation incentives were not enough to attract the required accessions. This pre-World War II retention experience, coupled with the poor postwar recruiting experience of the reserve components of the Army and Air Force, indicated the need for increased monetary benefits, and, potentially, universal military service, if the reserve components were to meet minimum manpower objectives.

Although universal military service or a draft would have solved problems of both the regular and reserve components for recruiting individuals with no prior service, it would not have solved midcareer retention problems or the requirement to attract prior active experience into the reserve components. Increases in current compensation would have attracted more recruits in the early years of service, but would not provide an incentive to continue in reserve service as civilian employment responsibilities and income rose. A reserve retirement system that required 20 years of service to vest, and allowed credit for prior active service, appeared to be the answer to these problems.

It was thus proposed that a deferred compensation system for the reserve components would provide the necessary monetary incentive to recruit and retain the reserve forces needed for national security. H.R. 663, a bill to provide retirement benefits for reserve officers and enlisted men, was introduced in the House of Representatives in the hope of securing this incentive. However, the House Armed Services Committee shelved

the bill and directed the War and Navy Departments, together with their reserve components, to prepare a single and inclusive package on military retirement.

The Initial Proposal for Reserve Retirement

The initial proposal for reserve retirement, introduced as H.R. 2744 on March 24, 1947, contained the following key provisions:[13]

- Age qualification - Entitlement to retirement benefits would begin at age 60.
- Duty qualification - Active federal service of three to four years would be required to qualify for retired pay. Much of this requirement would have been met by service during World War II.
- Pay - Retired pay would be computed from the pay table in effect at the time retired pay was granted. A retiree's pay would consist of the following:
  - Two and one-half percent of the active duty annual basic pay for the highest grade ever held, multiplied by the number of years of active federal service
  - One-half percent of the same base, multiplied by the number of satisfactory years of service other than active federal service

Through debate and compromise over the course of the next year, Congress, assisted by the War and Navy Departments, molded this initial recommendation into a reserve retirement system that has changed little in the 40 years since its enactment.

The main changes that were made to the original proposal resulted from concern over the requirement for active federal service: there was a desire to require service after the date of enactment, as well as concern that the proposed active federal service requirement would be a disincentive to reservists who could not afford to leave civilian employment for long enough to gain the required active federal service.[14] It was further argued that the system, as initially drafted, provided an extreme incentive for active duty members to transfer to the reserves solely to qualify for retirement.[15]

Concern over the active federal service requirement resulted in a recommendation to allow credit for drills and annual training toward the required active federal service. This recommendation eventually led to the development of a point system for tracking the service of the individual reservist, eliminating the need to distinguish between years of active

federal service and reserve service. The point system rewarded individuals on the basis of their actual service, providing an incentive to participate above minimum levels.

Another recommended change that was adopted required that the last eight years of qualifying service be in a reserve component. This requirement was introduced to ensure that individuals qualifying for reserve retirement had made a significant contribution to the reserves.

Resulting Qualifications for Reserve Retirement

The final solution resulted in the establishment of the following qualifications for reserve retirement:

- Twenty years of satisfactory federal service (defined as earning a minimum of 50 points per year), the last eight years of which must have been served in a reserve component
- Entitlement to retired pay at minimum age of 60 years
- No entitlement to military retired or retainer pay under another provision of law
- To be eligible for retired pay, an individual who was a reservist prior to August 16, 1945, must have performed active duty (other than for training) during specified periods during which the United States was at war or the Armed Forces were engaged in hostilities.

Computation of Retired Pay

Retired pay is computed based on the basic pay scale in effect when the qualified individual applies for retired pay at or after the age 60 minimum. Pay is calculated by multiplying the reservist's equivalent years of active service by 2.5 percent and multiplying the resulting fraction by the basic pay. Equivalent years of active service are computed using a point system. Retirement points are credited as follows (also see Table 7-2):

- One point for each day of active service or full-time duty
- One point for each attendance at a drill or period of equivalent instruction
- Fifteen points per year for membership in a reserve component in an active status

Some limitations affect the number of points that can be credited in a given retirement year:

- Points awarded for drill attendance or equivalent instruction and for membership in a reserve component are identified as IDT points. Only 60 IDT points can be credited per retirement year, regardless of the number that potentially could have been credited on the basis of actual IDT performance.

- A maximum of 365 points (366 in a leap year) can be credited toward retirement in any one retirement year. This ceiling was established by the Secretaries of the Military Departments under provisions of title 10, United States Code.[16]

Subject to these limitations, years of equivalent active service are computed by totaling all points, including those earned in years when the minimum 50 points for a satisfactory year was not attained. This total number of points is then divided by 360.

An individual retirement year begins on the first day of qualifying membership and continues for 12 consecutive months. For example, an officer commissioned on May 15 with no prior service would have a retirement year that extended from May 15 to the following May 14. Breaks in membership would require a recomputation of the retirement year.

How Reserve Retirement Differs from Active Retirement

Although the reserve retirement system parallels the active duty retirement system and the provisions of both provide an ease of transition from one system to the other, it was never the intention of Congress or the War and Navy Departments that reserve retirement should be comparable to active duty retirement. Other provisions of title 10, United States Code, make reserve retirement different from active retirement in the following ways:

- Years of service used to determine the final basic pay of an individual continue to accrue until the individual begins drawing retired pay, so long as the individual remains a member (including service on the retired list).[17]

- Retired pay is calculated based on the pay scale in effect when the individual reaches age 60, not the pay scale in effect at the time of transfer to the Retired Reserve.

- Military status is not required in order to apply for retired pay and associated entitlements and benefits at age 60.

- An individual qualifying for reserve retirement receives limited benefits before the age of 60 if that individual transfers to the Retired Reserve, goes on an inactive status list, or separates from the reserves. The major exception is the Reserve Components Survivor Benefit Plan (RCSBP), which becomes available immediately upon notification of eligibility to draw retired pay at age 60 (receipt of the "20-year letter"). The provisions of the 1978 RCSBP essentially furnished an "at cost" insurance policy to cover the member between completion of the years of service required for retirement and receipt of retired pay at age 60 when SBP applies for reservists in the same manner as it does for active duty retirees. RCSBP and SBP provide a lifetime indexed annuity and associated entitlements and benefits for a dependent survivor in the event of the death of a qualified member or former member.

- No provisions exist for vesting previous service for an individual who is unable to complete 20 qualifying years of service because of an injury not directly connected with service in the reserves. This difference between the active and reserve retirement systems occurs because a member serving in an active duty capacity is considered to be in service whether or not on duty. The active member would be denied disability retirement or separation pay for an injury or illness incurred off-duty only if it resulted from the gross negligence of the member as determined by a line-of-duty investigation.

System Modifications Since 1948

The current reserve retirement system, described above and codified in chapter 67 of title 10, United States Code, remains virtually unchanged since its enactment in 1948. The following minor changes (more remedial than substantive) have been made:

- The period of wartime active duty required of individuals who were members of the reserves before August 16, 1945, was expanded to include service during the Korean conflict (Pub. L. No. 85-704, 72 Stat. 702, 21 August 1958). This rule was again expanded in 1984 to cover service during the Berlin and Cuban Missile crises and the Vietnam Conflict (Pub. L. No. 98-94).

- Credit for continuous service in the federally recognized National Guard between June 15, 1933, and the date of a member's appointment or enlistment in the National Guard of the United States, as well as service as a naval aviation cadet between 1935 and 1942 was included for the purpose of determining eligibility for reserve retirement (Pub. L. No. 86-197, 73 stat. 425, 25 August 1959).

- A requirement was established in 1966 that each reservist completing 20 years of satisfactory federal service be notified of retired pay eligibility within one year. This required notification has become known as the "20-Year Letter" (Pub. L. No. 89-652, 80 Stat. 902, 14 October 1966).

- The effective date for entitlement to reserve retired pay was established as the date on which all statutory requirements for qualification are completed. Prior to this 1968 change, the effective date was the first day of the month following the month in which the retirement would otherwise be effective. This change was in response to the deaths of several reservists after their sixtieth birthdays but before the first of the following month, which prevented their survivors from receiving benefits (Pub. L. No. 90-485, 82 Stat. 751, 13 August 1968).

- Coverage under the Survivor Benefit Plan was extended to reserve members qualified for reserve retirement except for being under 60 years of age. This coverage was provided by the Uniformed Services Survivor Benefits Amendments of 1978 (Pub. L. 95-397, 92 Stat. 843).[18]

Virtually all other laws affecting military retired pay apply equally to reserve retired pay and active duty retired pay. "High-Three Averaging", applying to those entering the uniformed services on or after September 8, 1980, and the Consumer Price Index minus one percent retired pay adjustment provisions, which apply to entrants after August 1, 1986, resulted in a large reduction in the value of both active and reserve retirement. The 1980 and 1986 changes will eventually reduce the normal cost percentage for reserve retirement contributions to the military retirement fund from the current 26.7 percent to 22.8 percent. The 1986 change also reduced the retired pay multiplier for active duty retirees retiring with less than 30 years of active service. This change was not enacted for the reserve retirement system (see Chapter 3). This review of the reserve retirement system is a direct result of that exception, with the Congress directing DoD to review the current system and report on any recommended alternatives by February 1, 1988.

Summary

The reserve retirement system was enacted in 1948 to provide a monetary incentive for continued membership and training in the reserve components. The World War II experience demonstrated the need for a large, well trained, organized, and equipped reserve force, capable of immediate mobilization and deployment. The recruiting and retention of individuals with prior active component experience became a necessity. Recruiting and retention experience before World War II clearly indicated the susceptibility of reserve component endstrength and personnel profiles to economic cycles and federal appropriations. The incentive of a deferred income was considered necessary to build and maintain the planned reserve component manpower structure and smooth variations resulting from outside economic and budgetary influences.

The initial proposals for a reserve retirement system were modified several times before the final version was enacted by Congress in June, 1948. With a few minor exceptions, the system itself has remained unaltered since enactment; however, recent changes to the laws governing the determination of base pay for retirement pay calculations (high-three averaging) and to the applicable indexing (CPI minus 1) of all military retired pay have resulted in major reductions in the present value of reserve retirement for members affected by the changes.

The evolution of the reserve components and of their related missions over the past 40 years has resulted in a need for review of the reserve retirement system. The Sixth Quadrennial Review of Military Compensation (6th QRMC) was tasked with this review, and was required to determine the effectiveness of the current system. That review, along with proposed modifications and alternatives to the current system, is the subject of this report.

Notes

1. U.S., Congress. House, Armed Services Committee, Subcommittee No. 7, Retirement, Subcommittee Hearings on H.R. 2744, No. 169, H. Hearings No. 169, 80th Cong., 1st sess., 12 May 1947, pp. 3303-3325.

2. U.S., Congress. House, Committee on Armed Services Report No. 816 [to accompany H.R. 2744], H. Rept. No. 816, 80th Cong., 1st sess., July 9, 1947, p. 11.

3. Ibid., p. 9, and U.S., Congress. House, Armed Services Committee, Subcommittee No. 7, Retirement, Subcommittee Hearings on H.R. 2744, No. 169, H. Hearings No. 169, 80th Cong., 1st sess., May 12, 1947, pp. 3303-3325.

4. For more information, refer to Hylton-Greene, Renee and Captain Robert K. Wright, Jr., A Brief History of the Militia and the National Guard (Washington: Historical Services Branch, Office of Public Affairs, National Guard Bureau, July 1986), pp. 29-53.

5. For more information, refer to U.S., DoD, ODASD RA, Reserve Compensation System Study, Supporting Papers, Volume I, Basic and Special Pays, ODASD RA, RCSS Vol. 1, June 1978, pp. B1-B23.

6. Ibid.

7. U.S., Congress. H. Rept. No. 169, pp. 3303-3325.

8. Ibid., pp. 3304.

9. Mahon, John. History of the Militia and National Guard, New York, 1983, p. 175.

10. Colby, Elbridge. The National Guard of the United States: A Half Century of Progress, Manhattan, Kansas, 1977, p. 13.

11. Op. Cit., Mahon, p. 175.

12. U.S., Congress. H. Rept. No. 169, pp. 3453.

13. Ibid., pp. 3297-3299.

14. U.S., Congress. House, Full Committee Hearing on H.R. 3501, H.R. 2313, H.R. 3127, H.R. 2744, H.R. 3254, H.R. 3174, and H.R. 3851, No. 196, H. Rept. No. 196, 80th Cong., 1st sess., June 24, 1947, pp. 4892-4899.

15. U.S., Congress. H. Rept. No. 169, pp. 3360-3361.

16. This is not a statutory limit. The Secretaries concerned have established this cap on total points in one year in service regulations. The 6th QRMC, in this report and its final report, recommends a statutory 360-point total cap (see Chapter 7).

17. Essentially, this provides the reservist with creditable service for the purpose of computing basic pay after the date of transfer. For example, if a member in pay grade E8 transfers to the retired list with less than 26 years of service, but has more than 26 years (including service on the retired list) at age 60, then the retired pay is based on the pay of an E8 with more than 26 years of service (the current maximum pay grade E8).

18. As with active component members, SBP coverage is optional for members of reserve components. For reservists electing coverage, the reserve retired pay received at age 60 is actuarially reduced so that the reservist bears a portion of the cost of the coverage.

Chapter 2. CALCULATION AND VALUE OF RESERVE RETIREMENT

To provide a better understanding of the current reserve retirement system, this chapter provides examples of the calculation and value of nondisability retired pay for non-regular service. The examples are based on a reservist in pay grade O5 (Lieutenant Colonel, Commander) with 28 years of service at retirement, who turned 50 years of age in 1987. Differences in the amount of retired pay for other pay grades are the direct result of differences in the number of retirement points accumulated and the retirement base, not in the actual method of calculation.

The modal pay grade for reserve officer retirees is O5, with a current average accumulation of 3127 good retirement points (refer to Appendix B for an analysis of retirement point data). The modal pay grade for reserve enlisted retirees is E7, with a current average accumulation of 3057 good retirement points. Pay grade O5 was chosen as the basis for examples since 75 percent of reserve retirees currently receiving retired pay are officers.[1] Projections of future pay scales, including real wage growth and inflation, are based on the economic assumptions adopted by the DoD Retirement Board of Actuaries, unless otherwise noted (the DoD Actuary assumes 5 percent long-term inflation and real long-term military wage growth of 1.2 percent, for an average annual pay scale increase of 6.2 percent). Although it will be many years before high-three averaging and CPI minus 1 adjustments begin to affect most reserve retirees, the results of these modifications to the current system are shown as they would affect the example O5 for comparison purposes.

The Retirement Year

Each member of a reserve component has an individual retirement year that is used for determining satisfactory years of service and applying the various limits on the accumulation of retirement points. An individual with continuous reserve service has a retirement year that runs from the annual anniversary of the first enlistment or appointment in the reserve components to the day before that anniversary. For example, an officer with no prior enlisted service, who is appointed on May 15, will have a retirement year that runs from May 15 to May 14 of the following year. Once established, a retirement year remains the same unless a break in membership occurs. Transfer to an inactive status list does not constitute

a break in membership; however, separation or acceptance of a regular appointment or enlistment would cause a break in membership. If a break in membership occurs, the retirement year is adjusted to coincide with a new anniversary date established when membership is resumed.

The actual anniversary date of the retirement year is only relevant for applying limits on the accumulation of retirement points, and for computing years of satisfactory service in determining eligibility to draw retired pay at age 60. The retirement year does not otherwise influence the determination of years of service for basic pay, the years of equivalent active service, or the amount of retired pay.

Qualification for Reserve Retired Pay

A member of a reserve component must accumulate 20 years of satisfactory service to qualify for reserve retired pay. A year of satisfactory service is defined as a one-year period in which the member has been credited with at least 50 retirement points.[2] The one-year period is normally determined by the member's retirement year as defined above, but also includes one-year periods as a member of a regular component. The requirement is for 20 one-year periods of satisfactory service; a partial year of service in which the member is credited with 50 or more points is not a satisfactory year of service unless the individual remains a member for the full one-year period.

The law stipulates that the last eight years of qualifying service cannot be performed as a member of a regular component, the Fleet Reserve, or the Fleet Marine Corps Reserve. This limitation does not affect members of the reserve components serving on extended active duty. The eight-year requirement precludes individuals from transferring to a reserve component from a regular component and then qualifying for reserve retirement without substantial reserve service.

Members who are entitled to retired pay from an armed force or to retainer pay as a member of the Fleet Reserve or the Fleet Marine Corps reserve, under any provision of law other than section 1331 of title 10, United States Code, are not entitled to reserve retired pay. Although the law requires that individuals be notified when the above qualifications have been met (this notification has become known as the "20-year letter"), the final step in qualification for reserve retirement pay requires the individual to apply for retired pay and to reach 60 years of age.

Membership in a reserve component is not required at the time application for retired pay is made or after receipt of retired pay begins. This creates an anomaly in the reserve retirement

system that allows members to be discharged after receipt of the 20-year letter and apply for and receive retirement benefits at age 60. The Military Departments vary in their treatment of individuals who are no longer members and who apply for reserve retirement benefits. One Department grants retired pay and associated benefits to the civilian, with no restoration of grade or the privileges of the grade in retirement. Another transfers applicants, with their consent, to the Retired Reserve with all privileges of retired grade restored. The differences in the treatment of these nonmember applicants can result in unequal nonmonetary benefits for two members separating with similar careers.

Accumulation of Retirement Points

Retirement points, subject to the 60-point cap on IDT points and the 365-point cap on total points in any one retirement year, are accumulated by members through actual performance of active and inactive duty and through membership in the reserve in an active status (see Chapter 7 for a detailed description of the retirement point system). Members accumulate points in both satisfactory and nonsatisfactory retirement years, all of which, subject to the annual caps, count in the computation of retired pay.

Total point accumulations will vary greatly, depending on the number of years of active duty served and the level of reserve participation. All retirement points are posted to the record of the member as they are earned (membership points and credit for correspondence courses are posted at the end of each retirement year). The record is screened during the retirement pay computation process to determine the total number of retirement points that count for retired pay. The total of all creditable retirement points becomes the numerator in the formula that determines years of service for computing retired pay. In the examples that follow, the retirement point total is 3127, the average for retirees in pay grade O5 who first received reserve retired pay in 1986.

Years of Service in Computing Retired Pay

In computing reserve retired pay, there are three separate delineations of the term "years of service": 1) years of satisfactory service; 2) years of service for the purpose of determining basic pay; and 3) years of equivalent active service. The definition of "years of satisfactory service" is described above and is relevant only to qualification for retired pay, and not to the computation of retired pay.

In computation of reserve retired pay, each retirement point represents one day of equivalent active service. For the part-time reservist, who is paid on the basis of 1/30th of monthly basic pay for each period of duty, a year of equivalent active service has 360 days (12 months times 30 days). "Years of equivalent active service" for the reserve retiree is determined by dividing total retirement points by 360. The example O5 with 3127 points has the equivalent of 8.69 years (3127 / 360) of active service. The individual receives full credit for each year, or fraction thereof, of equivalent active service at the rate of 2.5 percent of the retired pay base at age 60.

The Multiplier

The multiplier is the percentage of the retired pay base that a reserve retiree is entitled to each month beginning at age 60. The percentage is 2.5 percent multiplied by the years of equivalent active service. In the example case, the multiplier is 21.7 percent (.217) determined by 8.69 (years of equivalent active service) times the 2.5 percent entitlement for each year of equivalent active service, [(3127 / 360) x .025 = .217]. The multiplier is then applied to the retired pay base to determine the monthly retired pay the reserve retiree will begin receiving in the month the retiree achieves age 60.

The Retired Pay Base

The retired pay base is the dollar amount to which the multiplier is applied to determine the amount of monthly retired pay. For reserve retirees who first entered military service prior to September 8, 1980, the retired pay base is determined by the final pay method. Final pay is the monthly basic pay for the highest grade held satisfactorily, as if the retiree were serving on active duty at the time of application for retired pay (age 60 or later). For the example O5, who is 50 years old in 1987, the final pay method will produce a retired pay base in 1997 (the year of eligibility to draw retired pay at age 60) of $6,840.00. The 1997 retired pay base in this example is the 1987 basic pay for an O5 with over 22 years of creditable service ($3,748.00), brought forward ten years to 1997 by compounding the assumption on pay scale growth of 6.2 percent approved by the DoD Retirement Board of Actuaries:

$$[(3748 \times (1.062^{10})) = \$6,840]$$

The above example of final pay illustrates several elements key to the determination of the retired pay base for reserve retirees. The final retired pay base is determined by the highest grade held satisfactorily,[3] and the actual years of

service creditable for the purpose of computing basic pay. Creditable years of service for basic pay are calculated from the pay entry base date (PEBD) of the member.[4]

Table 2-1 shows the 1987 pay table for military basic pay. Longevity increases in basic pay generally occur at two-year intervals for each grade; the exceptions occurring after three years of service rather than after two years for enlisted members between the pay grades of E3 and E7, and for commissioned officers between the pay grades of O1 and O3, and above O6. There are no longevity increases for any pay grade at 24 years of service, and the final increase for pay grades E7 through E9, W3 and W4, and O6 through O10 occurs at 26 years of service. The actual pay for pay grades O7 through O10 is presently capped by law at $6041.70 per month. Increases in the pay cap automatically raise the basic pay of members in these grades to the level of the new cap or the actual pay scale, whichever is lower. The retired pay base for these members is calculated from the capped amount.[5]

For example, a member on active duty in pay grade O5 with 18 years of service for pay purposes receives $3515 per month basic pay. An O5 with 20 years of service receives $3621 per month, and an O5 with more than 22 years of service receives $3748 per month. The last longevity pay increase for pay grade O5 is at 22 years of service.

Section 205 of title 37, United States Code, describes the computation of years of service creditable for the purpose of determining basic pay. This section provides for the credit of all service while on a retired list of a uniformed service, with the stipulation that such service may not be used to increase retired pay. However, in the case of an individual applying for reserve retired pay, the retired pay base for the final pay method is first calculated at age 60 on the basis of the basic pay the individual would be entitled to receive at that time if on active duty. Since retired pay was not calculated, nor was the member entitled to retired pay before the member's 60th birthday, service on the retired list counts in the computation of years of service for basic pay.

The net result of this rule is that reserve retirees transferring to the retired reserve without the years of service required for the last longevity increase in their highest grade held will almost always exceed the years of service required by the time they reach age 60. A member who is discharged after receipt of the 20-year letter, who then applies for retired pay at age 60, will have a retired pay base computed on the final pay for the highest grade held and the years of service that were creditable at the time of discharge, but using the pay scale in effect at the time of application for retired pay. This typically has little effect on former members whose retired

Table 2-1 Military Service Base and Longevity Pay (effective 1 January 1987)

Grade	Under 2	2	3	4	6	8	10	12	14	16	18	20	22	26
	Years of Service from the Pay Entry Base Date													
Commissioned Officers														
O10	5378	5568	5568	5568	5568	5781	5781	6224	6224	6669	6669	7115	7115	7559
O9	4767	4892	4996	4996	4996	5123	5123	5336	5336	5781	5781	6224	6224	6669
O8	4317	4447	4552	4552	4552	4892	4892	5123	5123	5336	5568	5781	6013	6013
O7	3587	3831	3831	3831	4003	4003	4235	4235	4447	4892	5228	5228	5228	5228
O6	2659	2921	3113	3113	3113	3113	3113	3113	3218	3727	3918	4003	4235	4593
O5	2126	2497	2670	2670	2670	2670	2751	2898	3093	3324	3515	3621	3748	3748
O4	1793	2183	2328	2328	2372	2476	2645	2794	2921	3050	3134	3134	3134	3134
O3	1666	1862	1991	2203	2308	2391	2521	2645	2751	2751	2751	2751	2751	2751
O2	1453	1586	1906	1970	2011	2075	2183	2266	2328	2328	2328	2328	2328	2328
O1	1261	1313	1586	1586	1695	1757	1821	1884	1970	1970	1970	1970	1970	1970
Warrant Officers														
W4	1697	1821	1821	1862	1947	2033	2118	2266	2372	2455	2521	2602	2689	2898
W3	1542	1673	1673	1695	1715	1840	1947	2011	2075	2137	2203	2288	2372	2455
W2	1351	1462	1462	1504	1586	1673	1737	1800	1862	1928	1991	2054	2137	2137
W1	1126	1291	1291	1398	1462	1524	1586	1652	1715	1778	1840	1906	1906	1906
Enlisted Members														
E9	0	0	0	0	0	0	1974	2019	2064	2112	2159	2201	2317	2542
E8	0	0	0	0	0	1656	1703	1748	1793	1840	1883	1929	2042	2270
E7	1156	1248	1294	1339	1385	1429	1475	1521	1589	1635	1680	1702	1817	2042
E6	995	1084	1129	1177	1221	1265	1312	1379	1423	1469	1491	1491	1491	1491
E5	873	950	996	1040	1108	1153	1199	1243	1265	1265	1265	1265	1265	1265
E4	814	860	910	981	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019
E3	767	809	842	875	875	875	875	875	875	875	875	875	875	875
E2	738	738	738	738	738	738	738	738	738	738	738	738	738	738
E1	658	658	658	658	658	658	658	658	658	658	658	658	658	658

Source: Title 37, U.S. Code.

Notes:

1) Amounts are rounded to the nearest whole dollar.
2) The maximum monthly rate of pay is capped at $6,041.70 by Sec. 5308, Title 5, USC.
3) Longevity pay increases for grades O1 w/6 YOS, O2 w/8 YOS, and O3 w/14 YOS apply to commissioned officers with more than 4 years of enlisted or warrant officer service.

pay is based on the final pay method of calculation, since the vast majority of reservists separate, retire, or transfer to an inactive status with more than 26 years of creditable service for computing basic pay.

The rule will, however, affect members who first entered military service on or after September 8, 1980. The retired pay of these members is calculated by averaging the highest 36 months of basic pay to obtain a "high-three average" retired pay base. The 36 months used in the calculation do not need to be consecutive. High-three averaging computes a reserve retiree's retired base using the arithmetic average of "the 36 months out of all the months the member was a member of a uniformed service [including service on the retired list] before becoming entitled to retired pay for which the monthly basic pay to which the member would have been entitled had he served on active duty those months was the highest."[6]

The application of high-three averaging for the computation of the retired pay base of reserve retirees has numerous implications. A reserve commissioned officer, other than a commissioned warrant officer, who transfers to the Retired Reserve is transferred at the highest grade satisfactorily held in the armed force in which the member is serving at the time of transfer. If the member is serving in a lower grade at the date of transfer, and the transfer occurs before the member's 57th birthday, the retired pay base will be averaged using the pay scales in effect between the member's 57th and 60th birthday, at the retired grade with the appropriate years of service. The example O5 transferred to the Retired Reserve with 28 years of service at 50 years of age in 1987. Using the assumptions of the DoD Retirement Board of Actuaries, the pay scale in effect for the O5 on January 1 of 1994, 1995, 1996, and 1997 would approximate $5710, $6065, $6441, and $6840 per month, respectively. Assuming that the birthday of the example O5 occurs on January 1st, the high-three average retired pay base would be $6072 calculated as follows:

[(((5710 x 12) + (6065 x 12) + (6441 x 12)) / 36)]

$6072 represents an 11.2 percent reduction from the final pay method. Assuming that the member's birth date is July 1st, the high-three average retired pay base would be $6260 calculated as follows:

[(((5710 x 6) + (6065 x 12) + (6441 x 12) + (6840 x 6)) / 36)]

$6260 represents an 8.5 percent reduction from the final pay method. This method creates certain effects due to use of the date of birth; these effects are discussed in Chapters 5 and 6.

If a member elects discharge rather than transfer to the Retired Reserve and is subject to high-three averaging, the retired pay base is calculated using the pay scales in effect for the high 36 months for which membership was retained, with no provision for intervening pay scale or cost-of-living adjustments. This would significantly reduce the retired pay base for an individual. If the example O5 was discharged on July 1, 1987, and then applied for retirement pay at age 60 in 1997, and was subject to high-three averaging, the retired pay base would be $3590 calculated as follows:[7]

[(((3748 x 6) + (3638 x 15) + (3533 x 9) + (3397 x 6)) / 36)]

This represents a 47.5 percent reduction over the final pay method. The above example assumes that the member was an O5 with over 22 years of service during the entire averaging period. If the member had received a promotion during the last three years of membership, the average would have included the number of months at the lower grade and pay scale, and would have resulted in a further reduction of the retired pay base. If the example O5 had separated with less than 25 years of service, the average would have included a number of months equal to the number of months less than 25 years of service, at the basic pay of an O5 over 20 years of service, thus reducing the final retired pay base.

High-three averaging will result in the use, for retired pay base computations, of the pay grade in which the member transferred to the Retired Reserve. This is true whether or not the pay grade in which the member transferred is also the highest grade held satisfactorily (with the exception of members promoted under section 1374 of title 10). This results from the fact that reserve retirees typically will receive the average pay in effect for the three years prior to their reaching age 60. This will be based on the pay grade held during those three years, whether they were in an active status or in the Retired Reserve.

The possible permutations for calculating the high-three average retired pay base are numerous. High-three averaging is a definite disincentive to discharge. For the majority of future reserve retirees subject to this rule, the retired pay base will be the average of the basic pay in effect for the 36 months preceding their 60th birthday.

Retired Pay

The monthly retired pay to which a reserve retiree is entitled upon application on or after the 60th birthday is the product of the retired pay base and the multiplier. For the example O5, monthly retired pay under the final pay method, using the

assumptions of the DoD Retirement Board of Actuaries, would be $1484.28 (1987 Basic pay of $3748 x 1.062^{10} = $6840 x .217). Under high-three, assuming continuous membership through age 60, a birth date of July 1, and pay scale increases on January 1 of each year that match the assumptions of the DoD Board of Actuaries, monthly retired pay would be $1358.42 ($6260 x .217).

Discounted to 1987 dollars by the assumed inflation rate of 5 percent, the 1997 monthly retired pay of the example O5 is worth $911.05 under the final pay method, and $833.95 under the high-three method. If the example O5 had been 60 years of age in 1987, holding all else constant, the monthly retired pay would have been $813.32 under the final pay method, and $779.03 under high-three averaging. The difference in the retired pay as adjusted for inflation and the retired pay as calculated in 1987 represents the implied real wage growth of 1.2 percent per year in the DoD Board of Actuaries' assumptions for the final pay method. In the high-three method, the difference is the result of the implied wage growth from 1987 to 1997, the actual wage growth from 1984 to 1987, and the actual timing of pay scale increases between 1984 and 1987 as opposed to the assumed annual increase on January 1 for the projected years.

In Table 2-2, the average monthly retired pay for reserve retirees first drawing retired pay (age 60) is shown by grade for fiscal years 1980 through 1986. The number of reserve retirees first drawing pay in each year and the average multiplier (percent of basic pay) are also provided for comparison purposes.

Adjustments to Retired Pay

For members who first became members of a uniformed service prior to August 1, 1986, current law provides that military retired pay is subject to annual cost-of-living adjustments. The index used for these adjustments is the consumer price index for urban wage earners and clerical workers (CPI-W), all items, United States city average, as defined and determined by the U.S. Department of Labor, Bureau of Labor Statistics. The index, by law, is applied to military retired pay on December 1 of each year, raising the retired pay by a percentage amount (adjusted to the nearest 0.1 percent) equal to the percentage increase in the average CPI for July, August, and September of each year, over the same three-month period of the previous year. The purpose of this adjustment is to maintain the current value of military retired pay with inflation.

For members who first became members of a uniformed service after July 31, 1986, who are already subject to high-three averaging, the annual adjustment is the percentage increase in the CPI as described above minus one percentage point (CPI minus

Table 2-2 Average Retired Pay for Title III Retirees First Drawing Pay (Age 60) in Fiscal Years 1980 Through 1986.

Fiscal Year:	1980			1981			1982			1983			1984			1985			1986		
	New Entrants	Avg Pay	% New Base	New Entrants	Avg Pay	% New Base	New Entrants	Avg Pay	% New Base	New Entrants	Avg Pay	% New Base	New Entrants	Avg Pay	% New Base	New Entrants	Avg Pay	% New Base	New Entrants	Avg Pay	% Base
O6	1,417	895	29.7%	1,296	889	26.4%	1,109	984	25.6%	970	1017	25.4%	1,031	1050	25.2%	858	1087	25.1%	792	1098	24.6%
O5	4,050	624	25.4%	3,762	616	22.4%	3,191	680	21.7%	2,702	694	21.2%	2,242	724	21.3%	1,688	762	21.6%	1,086	790	21.7%
O4	2,364	495	24.1%	2,547	481	20.9%	2,564	535	20.4%	2,373	543	19.9%	2,177	557	19.6%	1,676	577	19.5%	1,065	609	20.0%
O3	457	433	25.7%	521	420	21.1%	611	463	20.4%	534	453	19.2%	557	464	18.9%	471	479	18.7%	391	478	18.2%
O2	39	384	29.1%	31	351	23.8%	50	372	22.1%	23	369	21.1%	43	431	23.6%	32	423	22.3%	23	407	20.8%
O1	6	301	28.9%	9	358	30.8%	20	375	28.2%	8	319	23.1%	10	350	24.3%	5	353	23.6%	6	408	26.5%
Average	8,333	622	25.8%	8,166	603	22.5%	7,545	655	21.7%	6,610	666	21.2%	6,060	693	21.2%	4,730	724	21.2%	3,363	766	21.5%
W4	325	579	30.4%	321	575	27.1%	299	637	26.2%	253	650	25.7%	277	670	25.5%	283	694	25.4%	257	715	25.4%
W3	104	404	25.1%	133	414	23.0%	124	441	21.4%	101	458	21.4%	103	454	20.4%	72	473	20.4%	83	464	19.5%
W2	82	379	27.0%	64	386	24.6%	79	415	23.2%	54	445	23.9%	62	419	21.6%	35	435	21.6%	38	470	22.7%
W1	14	344	27.5%	11	379	27.1%	20	381	23.9%	22	333	20.1%	15	376	21.8%	13	408	22.7%	9	370	20.0%
Average	525	507	28.8%	529	508	25.7%	522	547	24.5%	430	563	24.2%	457	578	23.7%	403	623	24.1%	387	629	23.7%
Officers	8,858	615	25.9%	8,695	598	22.7%	8,067	648	21.9%	7,040	660	21.4%	6,517	685	21.3%	5,133	717	21.4%	3,750	752	21.7%
E9	361	498	30.6%	331	494	27.1%	398	540	25.4%	392	570	25.7%	442	579	25.1%	433	595	24.8%	442	593	24.0%
E8	613	398	27.3%	564	391	24.0%	698	447	23.5%	681	457	23.1%	744	460	22.4%	763	484	22.6%	690	487	22.1%
E7	1,231	347	26.5%	1,280	347	23.7%	1,425	386	22.6%	1,264	400	22.5%	1,395	406	21.9%	1,291	413	21.5%	1,260	421	21.2%
E6	319	249	25.9%	379	242	22.6%	455	284	22.7%	440	286	22.0%	532	285	21.1%	541	303	21.6%	580	303	20.9%
E5	77	200	24.5%	107	196	21.5%	135	228	21.5%	121	232	21.0%	120	248	21.6%	190	241	20.2%	155	256	20.8%
E4	9	147	21.7%	8	166	22.0%	10	167	19.5%	11	183	20.6%	20	169	18.3%	19	184	19.1%	22	183	18.5%
E3	0	0	0.0%	1	249	37.6%	0	0	0.0%	0	0	0.0%	1	110	13.9%	1	135	16.4%	1	101	11.9%
E2	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%
E1	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%
Average	2,610	363	27.1%	2,670	353	24.0%	3,121	397	23.1%	2,909	411	22.9%	3,254	415	22.3%	3,238	424	22.1%	3,150	428	21.7%
All	11,468	557	26.2%	11,365	540	23.0%	11,188	578	22.2%	9,949	587	21.8%	9,771	595	21.7%	8,371	603	21.7%	6,900	604	21.7%

Source: DoD Actuary - Valuation of the Military Retirement System and the DoD Statistical Report on the Military Retirement System, all volumes 1980 through 1986.

Notes: 1. All averages are weighted by pay grades.

2. All reserve retirees are assumed to have in excess of 26 YOS in determining the appropriate base pay for pay grade by year.

3. Averages were determined by working backward through the reserve retirement pay calculation using the average retired pay by grade for new reserve retirees drawing pay, and the pay scales in effect on January 1 of the given fiscal year.

4. Pay grades above O6 are not included, therefore totals are incomplete.

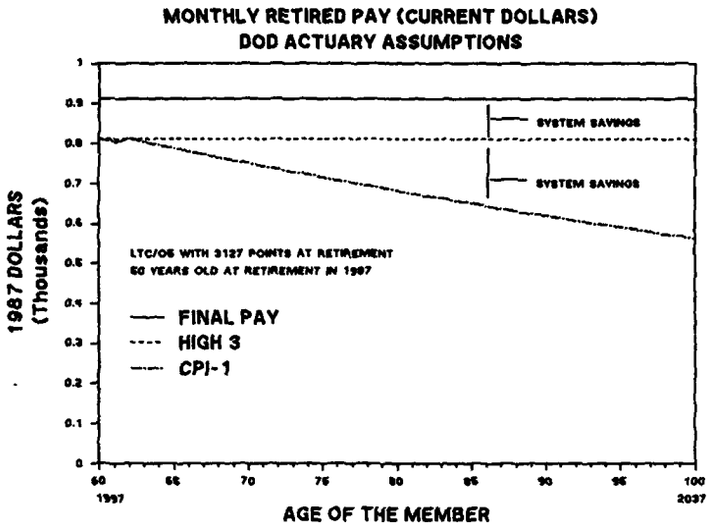
1). If the full percentage adjustment is 1 percent or less, members subject to CPI minus 1 receive no adjustment. Under the CPI minus 1 rule there is a one-time catch up to the full CPI adjustment at age 62. For most active duty retirees, this catch up, combined with the restoration of the reduced active duty multiplier, is substantial. For the reserve retiree, the catch up restores the retired pay to the current value of the retired pay granted at age 60, just two years prior. After age 62, all retirees subject to CPI minus 1 receive CPI minus 1 adjustments for life.

For those who first became members of a uniformed service after July 31, 1986, the CPI minus 1 adjustment and the reduced active duty retired pay multipliers are the result of enactment of the Military Retirement Reform Act of 1986. This third system of calculating and adjusting retired pay (as opposed to final pay and high-three) has been termed REDUX after the reduced active duty retired pay multipliers. Since the reduced multipliers do not apply to reserve retired pay (and would only affect reserve retired pay for two years if they did), this report refers to the system as CPI minus 1, except where a direct comparison is made with the active duty system. The effect of the adjustment process on military retired pay will be evident from the charts that are described in the next section of this chapter.

Comparison of the Three Current Reserve Retirement Systems

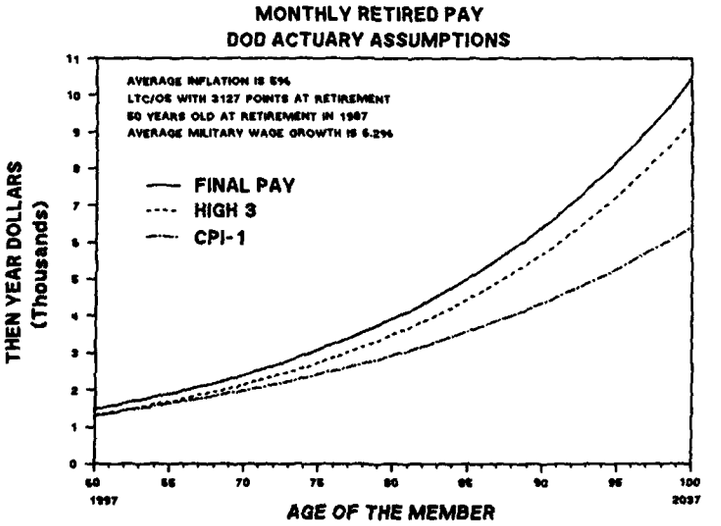
In order to provide an understanding of the long-range effects on reserve retired pay under the final pay, high-three averaging, and CPI minus 1 retired pay calculation systems, the retired pay of the example O5 will be traced from age 60 to age 100. For purposes of viewing the net value of reserve retired pay to an individual, assume an average life expectancy of approximately 80 years.

Figure 2-1 describes the value of monthly reserve retired pay for the example O5 in 1987 dollars. As described above, there is an immediate reduction of up to 11.2 percent (depending on the relationship of the member's birth date to the pay scale adjustment dates) for the high-three averaging method over the final pay method. The current value of the final pay and high-three averaging methods remains constant throughout the member's life, on the assumption that the member receives the full CPI adjustment each year (ignoring the lag effects of the actual adjustment mechanism). The results of the CPI minus 1 adjustment mechanism show the loss of current value associated with this system. From age 62 on, the member loses up to 1 percent of the current value per year, compounded by the number of years since the age 62 catch up.[8]



NOTE: PERCENTAGE DIFFERENCES IN THE THREE SYSTEMS ARE THE SAME FOR ALL MEMBERS REGARDLESS OF AGE, GRADE, YOS, OR TOTAL POINTS.

FIGURE 2-1



NOTE: PERCENTAGE DIFFERENCES IN THE THREE SYSTEMS ARE THE SAME FOR ALL MEMBERS REGARDLESS OF AGE, GRADE, YOS, OR TOTAL POINTS.

FIGURE 2-2

Although the adjustment mechanism results in net loss of current value of reserve retired pay over the years (assuming an average inflation rate above zero), the actual dollar amount will rise. Figure 2-2 displays the results of the three current calculation systems on the future dollar value of the monthly retired pay for the example O5, through the year 2037, or age 100. The graph is based on an assumption of 5 percent annual average inflation, and 1.2 percent annual real military wage growth (6.2 percent nominal rate) from retirement to receipt of retired pay at age 60.

Summary

Retired pay for reservists is dependent upon several factors that are part of the retired pay calculation:

- **Age.** The age of the member determines the pay scales in effect, from which the retired base will be calculated.
- **Highest grade held satisfactorily at any time during service.** This grade determines the pay scale used in the calculation of the retired pay base. (This may not be true for certain members subject to high-three averaging.)
- **Years of service creditable for basic pay.** This determines the basic pay for the pay grade (or grades, for some members subject to high-three averaging) used in the retired pay base calculation. For the majority of reserve retirees, the basic pay used is at the highest longevity step.
- **Total allowed retirement point accumulation.** When divided by 360, the total allowed retirement point accumulation results in the member's equivalent years of active service. The product of equivalent years of active service and 2.5 percent for each year or fraction thereof, results in the retired pay multiplier.
- **The Retired Pay Base.** The retired pay base is either the final pay in the highest grade held satisfactorily (with all earned longevity increases, as if the member were on active duty in the month preceding his 60th birthday); or the average of the high 36 months of membership. As previously noted, the averaging method results in dramatically different retired pay bases depending on whether the member is discharged or transfers to the Retired Reserve (see text). The product of the retired pay base and the retired pay multiplier is the amount of retired pay the member is entitled to beginning at age 60, adjusted annually by either the CPI or the CPI minus 1 method.

There are currently three separate retirement systems in effect for calculating the retired pay of reservists, depending upon when the member first entered a uniformed service. The systems are differentiated by the method of calculating the retired pay base and the retired pay adjustment mechanism. The final pay system, which now applies only to members who first entered a uniformed service prior to September 8, 1980, calculates the retired pay base from the final pay period prior to the member's 60th birthday. This member then receives the full CPI adjustment each year for life. The high-three averaging system applies to members who first entered a uniformed service between September 8, 1980, and July 31, 1986. High-three averaging calculates the retired pay base from the member's high 36 monthly pay periods of membership, and the annuity is adjusted by the full CPI each year for life. The CPI minus 1 system, which applies to new entrants on or after August 1, 1986, uses the high-three average to calculate the retired pay base, and the annuity is adjusted by the CPI minus 1 percent for life. Under CPI minus 1, the annuitant receives a one-time catch up to the full CPI adjustment that would have been made (absent the minus-1 feature) at age 62, two years after the start of the annuity.

Like the active duty retirement system, the reserve retirement system rewards members for their service (as determined by the equivalent years of active service). Unlike the active duty system, there can be considerable differences in the value of reserve retired pay for two members with similar careers. Because of limits placed on the accumulation of IDT points, two members with similar careers could have substantially different total point accumulations if one member performs work in an ADT status and the other in an IDT status. Because the reserve retirement system is age-based, two members with identical careers and differing only in age could perceive significant differences in the values of their reserve retirement, since one member would begin to receive the income at an earlier date. All things being equal, the value to each member would be the same at the same age. However, any age difference will result in a longer discount period for the younger member.

Notes

1. The ratio of reserve officer retirees to reserve enlisted retirees is changing. The number of reserve enlisted retirees per year currently exceeds the number of reserve officer retirees. This will change the officer/enlisted mix for reservists drawing retirement pay as these new retirees turn 60 years old. See Chapter 5 for an analysis of the current system and projections of the officer/enlisted mix receiving retirement pay.

2. Section 1332 of title 10, United States Code.

3. In the case of a member under final pay, the retired pay base is for the highest grade held satisfactorily at any time during service, regardless of the grade in which transferred to the Retired Reserve. Under high-three averaging, the retired pay base is computed on the 36 months out of all months as a member of a uniformed service, including service in the Retired Reserve, before becoming entitled to retired pay for which the monthly basic pay to which the member would have been entitled had the member served on active duty was the highest. See section 1407(c)(2)(B) of title 10, United States Code.

4. The PEBD is used to determine longevity credit for calculation of basic pay and generally is the first date of entry into a uniformed service, adjusted by any breaks in service (Section 205 of title 37, United States Code).

5. Comptroller General. letter decision, B-178170, May 17, 1973.

6. Section 1407(c)(2)(B) of title 10, United States Code.

7. The weights used to calculate the retired pay base in this formula represent the number of months under each of the pay scales that went into effect on January 1, 1984; January 1, 1985; October 1, 1985; and January 1, 1987.

8. The nature of compounding works such that the member loses only 0.96 percent the first year after age 62, and will have lost only 10.04 percent of the current value by age 72; however, 18 years later, at age 80, the member will have lost 18.8 percent of the current value, and 43.86 percent by age 100 after 38 years.

Chapter 3. COST OF THE CURRENT SYSTEM

In Fiscal Year 1986, 158,696 reserve retirees were paid $1.2 billion in retired pay. The average gross monthly entitlement was $697, with the average reserve retiree receiving $650 after deductions for survivor payments, dual compensation, and VA payments, but before taxes and other personal deductions.[1] Fiscal Year 1987 outlays to reserve retirees were approximately $1.27 billion, and Fiscal Year 1988 outlays are currently estimated at $1.375 billion (see Table 3-1).

Background

Since Fiscal Year 1985, military retirement has been funded on an accrual basis. Prior to Fiscal Year 1985, military retirement was funded on a current-cost basis, and a single line in the DoD budget reflected the projected annual costs of retired pay. Military retirees were paid directly from DoD appropriations. Section 925 of the DoD Authorization Act, 1984 (Pub. L. 98-94) established a DoD Military Retirement Fund in order to finance, on an actuarial basis, liabilities of the DoD military retirement and survivor benefit programs. The law established a fund on the books of the Treasury; the fund receives monthly payments from the DoD and yearly amortized payments from the Treasury on the unfunded liabilities. Payments to retired members are now made from the fund.

The DoD payments are equal to the normal cost percentage (NCP) times the total amount of basic pay paid each month for members on active duty and in the Ready Reserve. Technically, the normal cost is a single-level percentage of basic pay, derived using the aggregate entry-age normal cost method. This percentage of basic pay must be contributed over the active career of new entrants into the system in order to pay for all future retirement benefits of the group. Under the procedures in effect since Fiscal Year 1985, DoD payments into the fund are budgeted in the military and reserve personnel accounts of each service. Thus, under the accrual accounting method for funding military retirement and survivor benefits, the costs of military retirement must be taken into account in the formulation of service budgets.

Since Fiscal Year 1987, the law has provided that two normal cost percentages will be determined: one for members on active duty (full-time) and one for members of the Ready Reserve not serving full-time (part-time). The normal cost percentages are

Table 3-1 (P1) RESERVE RETIREMENT ONLY
PROJECTED COSTS ($ IN MILLIONS)

Fiscal Year	Basic Payroll	Normal Cost Ratio (Weighted)	Accrual Actual	Accrual 1988 $	Trust Fund Outlays Actual	Trust Fund Outlays 1988 $
1988	3072	0.261	802	802	1375	1375
1989	3221	0.257	828	789	1500	1429
1990	3384	0.255	863	783	1628	1477
1991	3548	0.252	894	772	1753	1514
1992	3708	0.250	927	763	1869	1538
1993	3948	0.248	979	767	2016	1580
1994	4200	0.246	1033	771	2186	1631
1995	4467	0.244	1090	775	2373	1686
1996	4749	0.243	1154	781	2582	1748
1997	5047	0.241	1216	784	2808	1810
1998	5363	0.240	1287	790	3052	1874
1999	5698	0.238	1356	793	3312	1936
2000	6052	0.237	1434	799	3590	1999
2001	6427	0.236	1517	804	3892	2064
2002	6824	0.235	1604	810	4233	2138
2003	7244	0.234	1695	815	4619	2222
2004	7689	0.233	1792	821	5040	2309
2005	8160	0.232	1893	826	5494	2397
2006	8660	0.231	2000	831	5997	2492
2007	9191	0.231	2123	840	6567	2599
2008	9755	0.230	2244	846	7180	2706
2009	10357	0.229	2372	851	7812	2804
2010	10998	0.229	2519	861	8460	2892
2011	11679	0.229	2674	871	9127	2971
2012	12404	0.229	2841	881	9827	3047
2013	13172	0.228	3003	887	10570	3121
2014	13989	0.228	3189	897	11361	3195
2015	14855	0.228	3387	907	12206	3269
2016	15774	0.228	3596	917	13108	3344
2017	16750	0.228	3819	928	14068	3418
2018	17787	0.228	4055	938	15086	3491
2019	18888	0.228	4306	949	16163	3562
2020	20058	0.228	4573	960	17257	3622
2021	21301	0.228	4857	971	18373	3672
2022	22620	0.228	5157	982	19551	3722
2023	24021	0.228	5477	993	20794	3770
2024	25510	0.228	5816	1004	22103	3816
2025	27091	0.228	6177	1016	23477	3860

Source: DoD Office of the Actuary. These Projections assume 5 percent long-term inflation, 6.2 percent nominal military pay scale increases, and 6.6 percent nominal interest on the Military Retirement Trust Fund. The Trust Fund outlays do no include projections of payments to survivors.

Table 3-1 (P2) RESERVE RETIREMENT ONLY
PROJECTED COSTS ($ IN MILLIONS)

Fiscal Year	Basic Payroll	Normal Cost Ratio (Weighted)	Accrual Actual	Accrual 1988 $	Trust Fund Outlays Actual	Trust Fund Outlays 1988 $
2026	28770	0.228	6560	1027	24916	3902
2027	30553	0.228	6966	1039	26423	3941
2028	32447	0.228	7398	1051	28019	3980
2029	34459	0.228	7857	1063	29691	4017
2030	36596	0.228	8344	1075	31450	4052
2031	38865	0.228	8861	1087	33294	4085
2032	41275	0.228	9411	1100	35229	4117
2033	43834	0.228	9994	1112	37259	4147
2034	46552	0.228	10614	1125	39391	4175
2035	49439	0.228	11272	1138	41632	4203
2036	52504	0.228	11971	1151	43988	4229
2037	55760	0.228	12713	1164	46468	4255
2038	59217	0.228	13501	1177	49080	4280
2039	62889	0.228	14339	1191	51834	4305
2040	66788	0.228	15228	1204	54742	4330
2041	70929	0.228	16172	1218	57815	4355
2042	75326	0.228	17174	1232	61064	4381
2043	79997	0.228	18239	1246	64503	4407
2044	84956	0.228	19370	1260	68147	4435
2045	90224	0.228	20571	1275	72010	4463
2046	95818	0.228	21847	1289	76108	4492
2047	101758	0.228	23201	1304	80459	4523
2048	108067	0.228	24639	1319	85082	4555
2049	114768	0.228	26167	1334	89998	4589
2050	121884	0.228	27790	1349	95225	4624
2051	129441	0.228	29513	1365	100790	4661
2052	137466	0.228	31342	1380	106713	4700
2053	145989	0.228	33285	1396	113021	4741
2054	155041	0.228	35349	1412	119742	4784
2055	164654	0.228	37541	1428	126905	4828
2056	174862	0.228	39869	1445	134539	4875
2057	185704	0.228	42341	1461	142676	4924
2058	197218	0.228	44966	1478	151351	4974
2059	209446	0.228	47754	1495	160598	5027
2060	222432	0.228	50714	1512	170454	5081
2061	236223	0.228	53859	1529	180957	5138
2062	250869	0.228	57198	1547	192148	5196
2063	266423	0.228	60744	1564	204067	5255

Source: DoD Office of the Actuary. These projections assume 5 percent long-term inflation, 6.2 percent nominal military pay scale increases, and 6.6 percent nominal interest on the Military Retirement Trust Fund. The Trust Fund outlays do no include projections of payments to survivors.

determined in DoD actuarial valuations using assumptions approved by the DoD Retirement Board of Actuaries, also established under the new law. The Board projects the number of military retirees, and the cost of associated benefits based on their assumptions,[2] for 100 years into the future.

Cost Comparisons With Reserve Retirement

There have been many attempts and much debate over how to make valid cost comparisons of the military retirement system with civilian pension plans. The approach of the 5th QRMC to this issue has proved valid and reasonable[3] and the 6th QRMC has used this same approach with respect to the reserve retirement system.

As explained in Chapter 2, there are currently three separate categories of reservists who will eventually draw reserve retired pay: members who joined prior to September 8, 1980 (the final pay method); members who joined on or after September 8, 1980, and before August 1, 1986 (high-three averaging); and members who joined after July 31, 1986 (retired pay adjusted annually by CPI minus 1 percent). Because of the different present values of these three systems, the Board determined (as of September 30, 1986) three separate NCPs for reservists: 27.7 percent for final pay; 25.3 percent for high-3 averaging; and 22.8 percent for CPI minus 1. The actual NCP used in any given fiscal year represents an average of the three NCPs weighted by the number of active reservists under each system. The actual NCP for 1987 was 26.4 percent.

The comparable NCPs for the military retirement system for full-time regular and reserve members (as of September 30, 1986) were 56.2 percent for final pay, 49.1 percent for high-three averaging and 40.9 percent for those who entered on or after August 1, 1986. The most reasonable comparison is one using the system that applies to new members. Currently then, 40.9 percent of the basic pay of members on active duty with the active or reserve components or full-time National Guard duty is transferred from the service personnel accounts to the fund, in order to cover the projected cost of future benefits. The comparable NCP that is transferred to the fund from the basic pay (including compensation for inactive duty training) of part-time reservists is 22.8 percent. Comparisons of the reserve normal cost percentage with normal cost retirement plans offered by civilian components are difficult for several reasons:

- Reserve basic pay represents only a portion of the actual compensation of a reservist (others are BAQ, BAS, special incentive pays, bonuses, and tax advantages). The normal cost procedures for civilian plans include a significantly higher percentage of total compensation.

- Retirement benefits are earned by reservists for work not compensated by basic pay, thus increasing the average percent required from those periods that are compensated.

- Interest assumptions on civilian retirement funds are generally higher than the assumptions of the Board. An increased discount rate will decrease the present value of benefits.

The Hay/Huggins Company was asked to derive the relative value of reserve retirement compared with that of private sector pension and capital accumulation plans. This comparison takes into account the differences in economic assumptions (interest rates, inflation, and wage growth only), and results in a normal cost percentage of 18.8 percent of reserve basic pay for reserve retirement as opposed to the 22.8 percent now used by the Department of Defense for new entrants into the reserves. Using the same assumptions, the average cost of retirement benefits, including capital accumulation plans, is 13 percent of salary. An extract of the Hay/Huggins report is included in this report as Appendix D.

Both the active and reserve military retirement systems are computed as a percentage of basic pay. However, basic pay is only about 70 percent of average military compensation. It is not representative, for comparative purposes, of salary levels in the public or private sectors. Starting with the 18.8 percent reserve normal cost calculated by Hay/Huggins, and multiplying it by 70 percent, results in a value of approximately 13 percent of pay for the reserve system. Thus, using reasonable and conservative assumptions, it may be concluded that the cost of the reserve retirement system is about the same as the cost of midlevel private sector systems.

Annual Costs of Reserve Retirement and Trends

Moving from the comparative cost of reserve retirement, and the percentage of basic pay that must be set aside to fund it, to the current and projected annual cost of the system, two separate measures are found: the annual appropriation in the DoD budget, and actual fiscal year outlays. The annual DoD appropriation (accrual cost) is the most appropriate measure since this amount represents the value of benefits accrued in the year. The trust fund outlays, although they represent actual dollars expended in a given fiscal year, are sunk costs; that is, they are a debt owed for past service, and not an expenditure for present service. Without reneging on past obligations, trust fund outlays can only be decreased in the long term. Changes made to the system today will not affect outlays until present reservists affected by the change reach eligibility to draw retired pay (currently age 60, creating a potential 40-year lag in effects). Modifications to the system

that affect current and new entrants, or new entrants alone, will affect the accrual to the military retirement fund immediately. The weight of the effect will increase proportionately with the percentage of current active members affected by the modification.

The projected costs of the current reserve retirement system, both to Department of Defense appropriations (accrual) and to the Treasury (trust fund outlays), for the next 75 years are presented in Table 3-1. The costs are presented in inflated dollars of the fiscal year, and then in 1988 inflation-adjusted dollars. Figures 3-1 and 3-2 present the same data in graphic format. The projections were prepared by the DoD Office of the Actuary, using the economic assumptions approved by the Board of Actuaries:

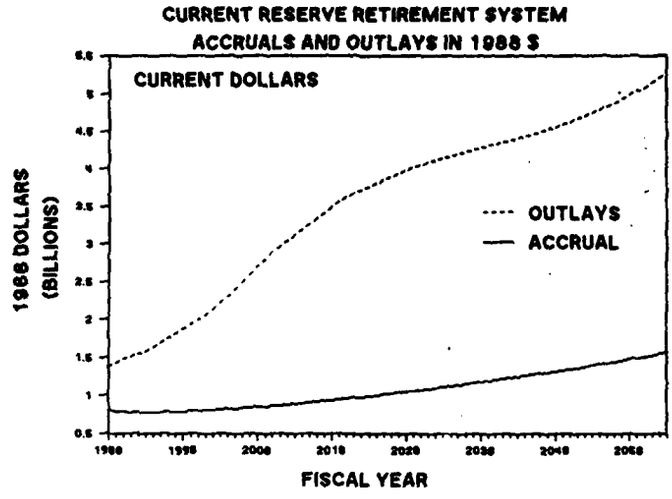
- Long-term annual inflation is 5 percent per year. Real military wage growth is 1.2 percent per year. Real interest on the trust fund is 1.6 percent per year.

The projections are made under the following personnel assumptions:

- Little or no growth in the reserve components.
- Current reserve component retention and decrement rates will continue.

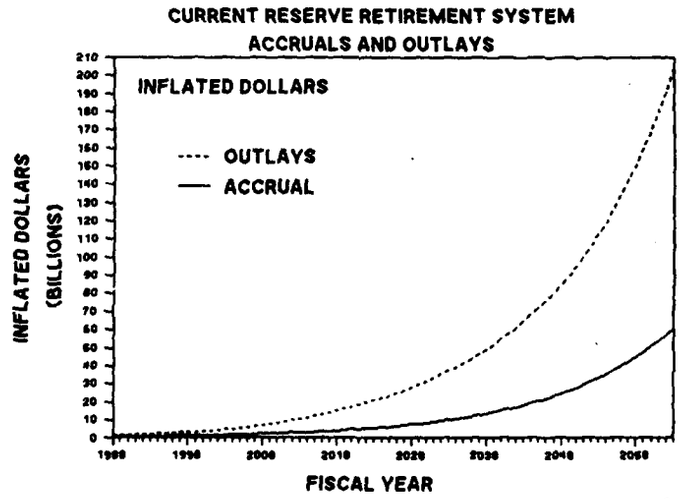
The actual costs, both in terms of accruals and outlays, are extremely difficult to predict. The economic assumptions regarding inflation and real military wage growth have not been realized in recent years. In fact, the inflation assumption would be valid regardless of actual inflation if military basic and retired pay were actually adjusted by the full CPI each year. However, in the recent past, military basic and retired pay have not been fully adjusted. Since 1972, when the Department of Defense reported that military pay and allowances had reached reasonably competitive levels for the first time in recent history,[4] military pay has been raised 143.2 percent, while the cumulative increase in the CPI from January of 1972 through January of 1987 has been 168.5 percent. Based on these figures, the geometric average annual military pay increase, 6.1 percent over the last 15 years, has resulted in negative real wage growth over the 6.8 percent average annual increase in the CPI. The nominal growth, however, is very close to the DoD Actuary's implied nominal rate of 6.2 percent per year.

The long-term average annual adjustment of retired pay at 5.2 percent per year (over the last 28 years) approximates the 5 percent inflation assumption in the projections. Further, the long-term average annual increase in the CPI approximates 5



LONG RANGE COST PROJECTIONS EXCLUDING SURVIVOR BENEFITS
SOURCE: DOD ACTUARY

FIGURE 3-1



LONG RANGE COST PROJECTIONS EXCLUDING SURVIVOR BENEFITS
SOURCE: DOD ACTUARY

FIGURE 3-2

percent. The net result is that the nominal economic assumptions of the DoD Board of Actuaries approximate the actual military pay scale and retired pay adjustments.

Retention assumptions affect projection of the number of personnel who will enter the reserve retirement system, along with their average pay grade. Further, assumptions regarding the average total point accumulations for retirees will alter average retired pay levels. Different assumptions regarding retention and levels of participation can produce major changes in the projected costs of reserve retirement:

- Holding constant the current ratio of officers to enlisted in the Retired Reserve, the projected cost of reserve retirement will increase or decrease in direct relation to the increase or decrease in the number of reserve retirees.

- Holding constant the number of retirees drawing pay, the projected cost of reserve retirement will rise or fall inversely to the ratio of enlisted retirees to officer retirees.

- The cost of reserve retirement will move in relation with increases or decreases in average participation levels that result in increased or decreased total retirement point accumulations.

- Combinations of the above factors can accelerate or decelerate the rate of increase or decrease in the cost of reserve retirement.

Figure 3-3 depicts the reserve retiree population as projected under the current retirement system by the 6th QRMC. The QRMC projection is based on personnel currently in the system who are eligible for retirement, personnel in the system with more than 20 years of service, and the current trend in retention rates for personnel with less than 20 years of service. For the near term (through Fiscal Year 2017), this projection represents the available pool of personnel who could retire. In the long term, (beyond 2017),the retention assumptions are obviously more uncertain. They are, however, based on the current force structure and retention rates. The QRMC model assumes minimal growth in Selected Reserve strengths.

The retiree population, as projected by the 6th QRMC, shows an annual growth in the number of reservists drawing retired pay, varying between positive 10 percent and negative 3 percent.

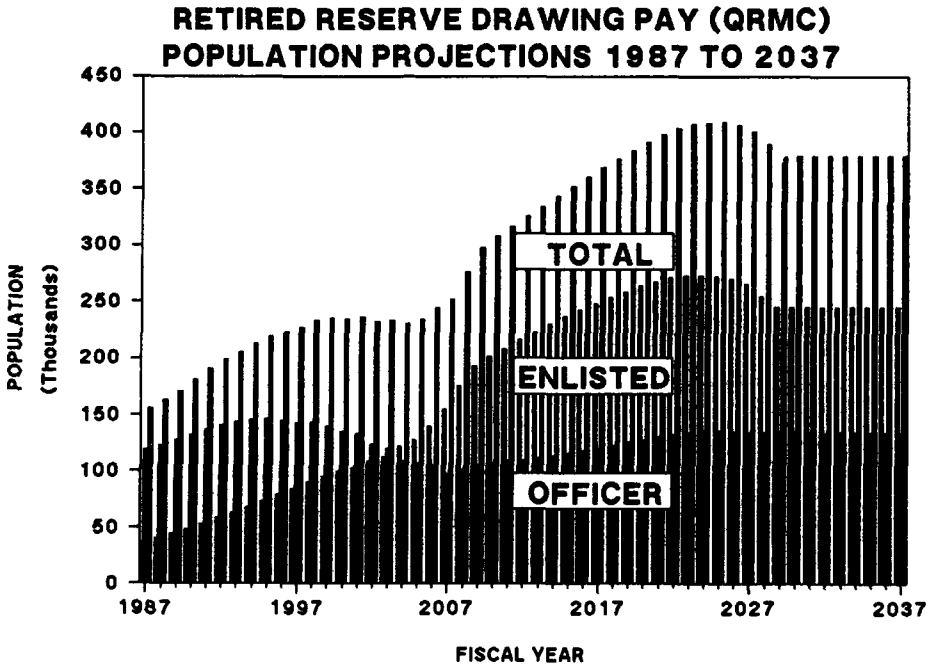


FIGURE 3-3

This annual growth rate projection is displayed in Figure 3-4. Figure 3-5 provides a projection in terms of the enlisted population as a percent of the officer population. The QRMC projection indicates a change in the percentage of enlisted to officer (almost 2 to 1 in the out years).[5]

The QRMC analysis of current trends in category A training and missions indicates that category A reservists are participating at far higher levels than they have in the past (see Appendix B) and are earning creditable retirement points at increasing rates. This trend will increase average total retirement point accumulations in the future, thereby increasing average retired pay levels. An increase in retirement point accumulations would result in somewhat lower savings than those implied by the QRMC retired reserve population projections.

Many factors affect future costs of reserve retirement. In this review, costing of alternatives to the current system was prepared by the Office of the Actuary, using retention rates and enlisted to officer ratios similar to those used to provide the

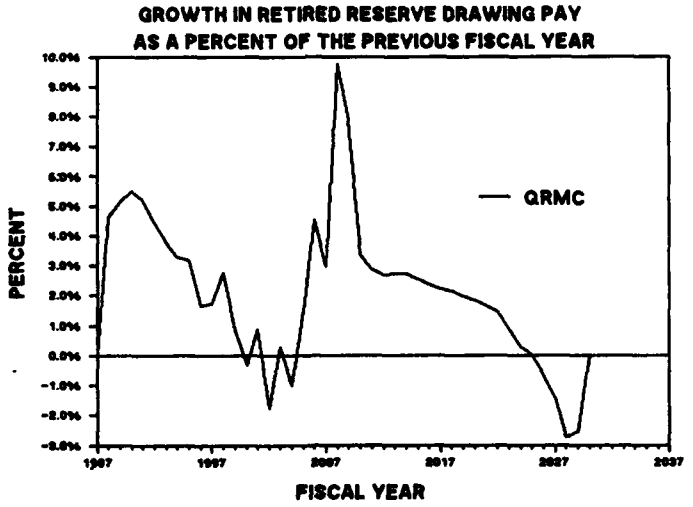


FIGURE 3-4

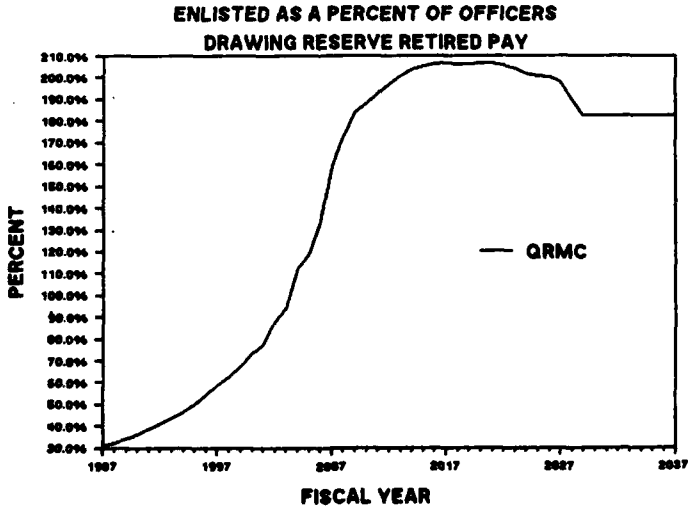


FIGURE 3-5

cost projections of the current system. By holding these ratios constant, the percentage change (delta) in costs of a recommendation or alternative to the current system will be a valid estimate of the actual differences in the costs of system alternatives under other assumptions.

Examining the Cost of Reserve Retirement

Ultimately the cost of reserve retirement must be related to the system's effects on the readiness of the reserve components, the value of reserve components in the overall force structure, and the value of a viable national defense policy. Therefore, the cost-effectiveness of the current reserve retirement system is relative to the cost of alternatives that accomplish the ultimate desires of the United States in providing for the national defense.

Following are some of the major areas for consideration in examining the costs of reserve retirement:

- Under an assumption that the current Total Force structure and missions are the minimum required to accomplish the objectives of present and near-term future national defense strategies, then any forced decrease in the active component structure or missions will necessitate an increase in the corresponding reserve component structure and missions. The associated increases in reserve component expenditures, including those for reserve retirement, are more than offset by the reductions in active component expenditures if the transferred mission can be accomplished in the reserve component.

- The cost of reserve retirement must be compared with the cost of maintaining the appropriate reserve component force structure in the absence of a deferred income incentive. During the period between World War I and World War II, in the absence of a deferred income incentive, retention beyond eight years of service suffered dramatically in the reserve components. The attraction to reserve service of prior active component experience was nonexistent. The Dynamic Retention model developed by the RAND Corporation for the Sixth QRMC projects that the elimination of retirement would dramatically increase accession requirements and associated costs.[6] The cost of reserve retirement is relative to the current compensation (increased basic pay, additional bonuses, etc.) required to boost accessions and retention, the value of the lost attraction of reserve service to members with prior active component experience, and the additional recruiting and training expenses that would be incurred due to a higher rate of personnel turnover.

- The cost of reserve retirement must be compared with the cost of viable deferred income alternatives that accomplish essentially the same results in order to determine whether the current system is the most cost-effective alternative.

- Finally, the costs of the current system must be compared with the costs of alternatives designed to impact differently on retention. These alternatives cannot be evaluated as independent alternatives either, if their impact creates a requirement for increased expenditures elsewhere or produces savings in other areas.

Summary

Reserve retirement is an integral component of the reserve compensation system. Both the Office of the Actuary and the QRMC project positive growth in the costs associated with the current system. The current value (in 1988) of required contributions to the trust fund covering the cost of future retirement benefits for reservists will increase slowly over the next 50 years, until it is less than two times the 1988 level.

A large portion of the cost of reserve retirement has already been incurred, and the effects of modifications to the current system may lag behind their enactment by as much as 40 years. Therefore, it is important to concentrate on the present value of future retirement benefits earned by currently active reservists and projected new entrants. These costs cannot be viewed in isolation, but must be evaluated as a component of military compensation, both active and reserve, and compared with the total of all costs associated with alternatives to the current system, and alternatives to retirement itself.

Notes

1. U.S. DoD, DoD Statistical Report on the Military Retirement System, FY 1986, p. 156.

2. A detailed presentation of the assumptions of the DoD Retirement Board of Actuaries and the DoD Office of the Actuary is available in the text of the annual report published by the DoD Office of the Actuary, titled Valuation of the Military Retirement System.

3. Report of the Fifth Quadrennial Review of Military Compensation, Appendix D to vol. 1A (Office of the Secretary of Defense: January 1984).

4. U.S. DoD, 1972 Annual Report on the Adequacy of Military Pay. The rise to competitive levels was precipitated by two substantial pay raises in November 1971 (14.2 percent) and January 1972 (5.4 percent) as the military prepared for the all volunteer force.

5. Report of the Fifth Quadrennial Review of Military Compensation, vol. I, (Office of the Secretary of Defense: January 1984), pp. VIII-28, VIII-33 to VIII-36. These trends differ from those projected by the 5th QRMC, and are likely due in significant part to the fact that an All-Volunteer reserve force results in a much higher percentage of first-term enlisted members who will be attracted into the career force, rather than by an increase in retention of career members per se. "A draft can more easily man a first-term force with higher quality personnel, but it does so at the cost of having fewer personnel to select for career manning." David W. Grissmer and Sheila Nataraj Kirby, Attrition and Retention in the Army Reserve and Army National Guard: An Empirical Analysis, RAND Paper, The RAND Corporation, March 1985.

6. See Chapter 5 of this report. The models also assume that the reserve components are willing to pay whatever the market demands in terms of accession bonuses to attract the additional accessions. The model cannot predict the extent of the impact on the future prior service/non-prior service mix in accessions.

Chapter 4. METHODOLOGY AND DATA SOURCES

Many studies are initiated after problems have been identified. The statutory provision initiating this review did not specify that there were problems with the current reserve retirement system, but directed a comprehensive examination. The primary objective of this portion of the 6th QRMC review was to determine whether the current reserve retirement system effectively supports service and reserve component manpower objectives and policies, and aids in achieving the desired reserve component manpower force structures. The QRMC believes that this objective is consistent with statutory and Presidential direction.

First, the impact of the current reserve retirement system on the reserve components was assessed. Second, a systematic review of the objectives of the current reserve system was conducted. Third, the relevant criteria were established for identifying and evaluating alternatives that promised to achieve the system objectives. Once alternatives were identified, they were examined for feasibility and then compared in terms of their effectiveness and cost. Last, the alternatives were tested and refined. Such an analytical approach, while simple in theory, is often not straightforward in practice.

The foregoing discussion broadly describes the methodology used in the review of the reserve retirement system. More specifically, the study advanced (by iteration or successive approximation) through the following stages:

- Assessment of the impact of the current reserve retirement system
- Identification of problems and potential shortfalls
- Establishment of criteria for selection and evaluation of alternatives
- Design and modification of selected alternatives
- Testing and evaluation of selected alternatives
- Selection of the alternative judged to be most cost-effective with respect to the achievement of manpower force objectives for all seven reserve components

The first stage of the study approach is addressed in this chapter. Stages two and three are discussed in Chapter 5. Chapter 6 details the final three stages.

Not unexpectedly, the analysis was not as tidy as these six stages might suggest. Collecting good data was difficult, alternatives did not always adequately promise attainment of objectives, and goals were sometimes conflicting or obscure. Seldom was a single attempt or pass at the problems enough. The analysis was a continuous cycle of identifying problems, collecting data, designing alternatives, building models, weighing costs, testing for sensitivity, questioning assumptions and data, re-examining the objective, opening new alternatives, and building better models. All of these steps were tempered by seeking the advice and good judgment of experts knowledgeable in reserve retirement and force structure management.

Assessing the Impact of the Current Reserve Retirement System

The review began with an attempt to assess the manpower force impacts of the current reserve retirement system. The effects of the current system had to be understood before those effects could be evaluated and presented. The important questions asked were these:

- Does the current reserve retirement system meet legitimate defense requirements, such as recall to active duty of some or all retired members in support of our national security objectives?
- Does the system support and complement force management requirements (e.g., necessary youth, vigor, and career development opportunities) of both the active and reserve components?
- Does the retirement system integrate effectively with the overall military compensation system?
- Does reserve retirement support the independent needs of the seven reserve components?

These questions expose the uncertainties with which the study is concerned: technical, economic, and operational uncertainties, as well as uncertainties about future environments. Not only were the present answers to these questions sought, but some theoretical assessment of the future answers was needed.

Sensible answers to broad questions typically require the assessment of a great many facts. First, data had to be gathered. Later, analytic tools were developed to begin the

process of assessing the impact of the current reserve retirement system. At the beginning of the review, many analytical tools were nonexistent. There were serious questions about the validity of available historical data prior to 1980 and the completeness of more current personnel data. The lack of data or of valid data was a persistent problem. This was to be expected, given the amount of data necessary to conduct the study and the problems associated with the collection and maintenance of reserve personnel data. As the review continued, additional valid data became available and more analytical tools were developed. The primary sources of data and their availability dates are listed below:

- Reserve Components Common Personnel Data System (RCCPDS) - Current and historical files
- 1986 Reserve Components Surveys - Fielded in the first half of 1986, with preliminary data available for analysis in May 1987
- Unit Field Visits - April and May 1987
- Service Force Structure Profiles - September 1987
- Department of Defense Actuary - February 1987 to completion

Just as important as the collection of data itself was understanding interrelationships of the data. The search for data can be endless, since in principle the uncertainties of most problems can never be completely eliminated. The proportion of effort devoted to data-gathering as opposed to theoretical analysis depends on the study and the time available. For this study, a great deal of care was taken to ensure the proper balance. Otherwise, much effort would have been wasted trying to apply sophisticated analytical techniques to inadequate data.

Reserve Components Common Personnel Data System

The Reserve Components Common Personnel Data System (RCCPDS) is maintained by the Defense Manpower Data Center (DMDC). This system was the chief source of historical data concerning reserve component personnel. The RCCPDS provides a standardized and centralized database of personnel information on all members of the reserve forces. Equally important, DMDC maintains complete historical RCCPDS files, providing an otherwise unavailable source of information for analysis. RCCPDS has been the official source for reserve component strength since July 1975 and the official source for accession/loss and reenlistment information since July 1976. The information provided by RCCPDS forms the basis for manpower planning, strength accounting, and

budgeting throughout DoD. Although RCCPDS data was invaluable, it was not without major problems. The DMDC cautioned the 6th QRMC about these problems in advance. In addition to problems with the reliability and validity of RCCPDS data, the fact that less than seven years of valid information was available presented a significant obstacle to analysis. In the case of data on reserve retirement, five years or less of information was all that was available in some cases. Although these shortcomings were of significant concern during the 6th QRMC analysis, the availability of the RCCPDS was a tremendous asset to the study. In final analysis, we have no doubt that the data available provided sufficient support for our analysis.

Major Observations from RCCPDS Data

The empirical data contained in the various data profiles was examined to determine significant trends and to determine the relationship between these trends and the current reserve retirement system. Although the identification of trends was based on only seven years of reliable historical data, the trends were clear. The seven years covered are clearly the most relevant to today's All-Volunteer Reserve Force. It is difficult, with limited time-series data, to fully assess the impact of an incentive designed to promote service over periods in excess of 20 years. Nevertheless, the data generally moved in one direction over all or the majority of the seven years available, and these years are of greater relevance to current and future conditions than is data from the 1970s, when draft-motivated reservists were still in the force. Establishing whether the trends identified are correlated with the current reserve retirement system was not a straightforward exercise; in fact, no single source of data alone could confirm these correlations. It is only when the available data is considered collectively that it is possible to establish a relationship between the current reserve retirement system and trends in the empirical data.

The most obvious observation made from RCCPDS data is a general increase in the average age of the Selected Reserve. This trend is clearly visible with respect to part-time Selected Reservists as well as in the case of military technicians. The increase is slightly more prominent for officers than in the enlisted force. It is also slightly more significant among the reserve components of the Air Force than in the reserve components of the other Services. An increase is observed not only in the mean average age but also in the modal age of part-time members. Although these observations are important, they must be placed in the context of past trends and future projections. Appendix C provides graphic depiction of these trends.

The profile of losses to the Selected Reserve reveals another important pattern. This profile shows that losses of retirement-eligible personnel occur primarily at four points:

- At 28 and 30 years of service for officers
- At ages 50 and 54 for officers
- At age 55 for both officers and enlisted
- At age 60 for both officers and enlisted

Under current personnel statutes, officers below pay grade O6 face mandatory transfer from an active reserve status when they have completed 28 years of commissioned service; officers in pay grade O6 are transferred at 30 years of service. The officer losses observed at 28 and 30 years of service seem to be the result of these policies.

Another peak in the number of members retiring can be observed at age 55. The peak appears in both officer and enlisted profiles. This peak corresponds with the point where members who are military technicians first become eligible for an unreduced civil service retirement.

Finally, the peak of losses occurring at age 60 corresponds, for both officers and enlisted members, to the age at which otherwise eligible reservists are entitled to receive retired pay under section 1331 of title 10, United States Code.

In the past five years, significant growth has occurred in Selected Reserve manpower. All components experienced growth in both officers and enlisted members. This growth equated to an increase of approximately 20 percent over 1983 levels.

Over the seven years of observable data, continuation rates of career members (those with six or more years of service based on their pay entry base date) in the Selected Reserve have increased. The combined DoD continuation rate has increased significantly for enlisted members over the past 10 years. Enlisted continuation has risen from an average of 69.8 percent in 1977 to its current level of nearly 87 percent.

Evaluation of RCCPDS Data

The data contained in the RCCPDS was the single most important source of historical data for the study. Although the reliability of this data is good, it is not without some problems. The validity of some data items is very poor, and these deficiencies did impact the QRMC analysis. Missing data and data of questionable validity with respect to creditable years for reserve retirement; total days of active service; and data on paid, creditable, and total points for reserve retirement were of particular concern. Nevertheless, the availability of extensive historical RCCPDS data provided an

invaluable resource for analysis, and clear trends can be precisely shown with respect to the average age of Selected Reservists and continuation rates.

1986 Reserve Components Surveys

In February, 1985, the Deputy Assistant Secretary of Defense for Guard and Reserve Manpower and Personnel [DASD(G/R M&P)] asked DMDC to act as his agent in the conduct of the 1986 Reserve Components Surveys (1986 RC Surveys). DMDC had acted in a similar capacity in the conduct of the 1985 active duty member and spouse surveys. The DASD (G/R M&P) convened a special committee of reserve component representatives to focus on establishing the requirements for the surveys. The 1986 RC Surveys were conducted to meet the requirements for data from members of the reserve components and their spouses.

Over 12,000 officers and about 52,000 enlisted personnel in all seven reserve components (representing the approximately 1,012,000 trained personnel in the Selected Reserve) responded to extensive questionnaires sent to them in the spring of 1986. In addition, questionnaires were provided to the spouses of all sampled members who were married. The questionnaires asked about military background, personal and family characteristics, civilian employment and economic status, perceptions of family and employer attitudes toward reserve participation, reasons for participation, and plans for remaining in the reserve components.

These were the first comprehensive surveys of members of the total Selected Reserve and the first major surveys of the spouses of reserve members. The primary goals of the surveys were the following:

- To provide detailed information on factors that influence the recruitment and retention of reservists possessing the qualities, experience, and skills needed in today's critically important National Guard and Reserve units

- To provide specific data to assist the investigation of the Sixth Quadrennial Review of Military Compensation

The 1986 RC Surveys consist of three portions: two portions to survey reserve component members and the third to survey their spouses. The 1986 Reserve Components Survey: Selected Reserve Officer and Enlisted Personnel (1986 RC Member Survey) surveyed a sample of Selected Reserve unit members. The sample included Individual Mobilization Augmentees (IMAs), Selected Reservists who train with the active components; and military technicians, Selected Reservists who are also employed full-time in reserve units in a civilian capacity. The 1986 Reserve

Components Survey: Full-Time support Officer and Enlisted Personnel (1986 RC AGR Survey) surveyed a sample of Active Guard/Reserve or Training and Administration of Reserve (AGR/TARs) members. Individuals in all seven reserve components (Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve and Coast Guard Reserve) were included in both the 1986 RC Member Survey and, where appropriate, in the 1986 RC AGR Survey.

The data collected from the surveys was used to study the following:

- The response of military personnel to changes in military compensation and benefits enacted in recent years
- Factors affecting individual preparedness and retention of reserve personnel
- Differences in career orientations, attitudes, and experiences when comparing members of different subgroups, e.g. occupational specialties, officers and enlisted members, minorities, men and women
- The demographic, household, familial income, and other characteristics of military personnel, couples, and families, including special groups such as dual-career couples and single-parent families
- The impact of military policies on aspects of military and family life, such as residential arrangements, continuing education, and spouse employment
- Family well-being, including economic issues facing military families
- Demand for, use, and adequacy of programs providing family services

In addition, data available from the 1986 Reserve Components Surveys was used to address a variety of questions about National Guard and Reserve component members and families, heretofore the subject of limited or outdated research, broad stereotyping, and speculation. These include the following:

- Patterns of previous active and reserve component service
- Financial issues that would face Guard and Reserve families in the event of mobilization
- The interaction between the amount and form of reserve compensation and career intentions

- The relationship between civilian occupations and military occupations for members
- The medical and health coverage available to reserve families from sources other than the reserve
- The impact of employer policies, practices and attitudes on member reserve participation
- The role of the family in reserve participation

Several questions on the surveys dealt more specifically with reserve retirement. They include the following:

- The likelihood of continuing in Guard/Reserve until retirement
- The contribution of retirement to the most recent decision to stay in Guard/Reserve
- The number of good years of service towards Guard/Reserve retirement
- The likelihood of continuing in Guard/Reserve until retirement if drills or annual training were increased

The general excellence of data available from the 1986 RC Surveys served to offset many of the shortcomings in the RCCPDS database. By linking the two data sources, a powerful tool for analysis was available to the QRMC.

In recent years the DoD has made significant progress in the development of survey data bases that can support policy formulation in defense manpower areas. The 1986 RC Surveys provided data on social characteristics, economic and demographic information and data on tastes, preferences, experiences, and projected behaviors. In the study of reserve retirement issues, this information, linked to the personnel data bases of the DoD, was particularly important for two reasons. First, the lack of any significant changes in reserve retirement in 40 years limits the ability to assess the impact of system changes, and second, retirement system changes do not lend themselves to experimentation.

The structure of the 1986 RC Surveys provided one basis on which to judge the impact of the retirement system in relation to current compensation incentives, educational benefits, promotion and job training opportunities, and several personal commitment and satisfaction motivations. Two separate regression analyses concluded that reserve retirement was the single most important factor contributing to retention in the Selected Reserve for part-time members. The significance of

this finding is underscored by earlier studies of DoD surveys that looked at the extent to which it is possible to predict actual behavior from survey data on intention to stay. These studies found that intentions data were closely and systematically linked to actual behavior and could be used in the analysis of continuation factors.[1]

In addition, the 1986 RC Surveys provided a means of identifying specific concerns and problems of National Guard and Reserve members and their spouses and a means of helping analysts in their interpretation of survey data. All survey respondents were provided an opportunity to provide written comments about Guard or Reserve personnel policies--whether or not the topic was covered in the survey. About one of every four or five respondents took advantage of this opportunity. The 6th QRMC staff reviewed these comments systematically although no formal content analysis was possible from available resources. The QRMC did, however, categorize members' comments into some 20 general categories and recorded representative comments. Representative comments of members and spouses on the subject of retirement are provided in Appendix K.

Major Observations from the Survey Data

Four percent of the enlisted members surveyed had already completed 20 or more qualifying years for reserve retirement. Another 51 percent indicated their intent to stay until qualified for reserve retirement. Eleven percent of the officers had already qualified for reserve retirement; another 54 percent expected to stay at least until qualified for reserve retirement.

Serving their country is a major contributor to the retention decision for 55 percent of enlisted members and 59 percent of the officers. Earning more credit toward retirement is a major contribution to the retention decision for 50 percent of enlisted members and 62 percent of the officers. For officers, credit toward retirement is the most important single factor contributing to continued service; for enlisted members, it is the second most important factor. No other single response approached this degree of importance as a factor contributing to continued service. There are differences between the components, but these differences are primarily the result of the average length of service and the mix of members with and without prior service. For example, only 22 percent of enlisted Marine Corps reservists say that retirement credit is a major reason for remaining in the Corps. This percentage is over 60 percent for enlisted Coast Guard reservists. Not unexpectedly, credit toward retirement tends to be the prevalent response among members with more than eight years of service and is an even more prevalent response among members with more than 11

years of service. Members with prior active service are almost twice as likely as those without prior service to identify retirement as a major factor.

Conclusions from the Survey Data

More than half of all those surveyed indicate their intention to stay in the reserves at least until they have completed the service necessary for retirement at age 60. Credit toward retirement was reported as the single most important reason for continued reserve service. Members with prior service are much more likely to have identified retirement as a significant rationale for their affiliation and retention decisions.

Unit Field Visits

The objective of the Unit Visit Program was to provide 6th QRMC staff members firsthand experience with problems and concerns at the local unit level. The visits were beneficial in providing the following:

- Increased ability to understand and interpret data from the 1986 Reserve Components Surveys
- Increased awareness and understanding of members' perceptions and concerns
- The identification of new issues or problems

The unit visit teams made eleven 2- to 5-day trips to 26 units between April 3, and May 18, 1987. Scenarios, unit formation, and issue information were recorded in individual trip reports. These provide a historical record as well as a basis for an overall perspective on the program and on the issues raised. In addition, trip members met during the week between each trip to discuss observations, perceptions, and new areas of concern derived from the previous visit. This provided a way to compare notes and promote a broader understanding of the prevalent issues and concerns.

The intent of the unit visit program was to allow unit members, in an uninhibited atmosphere, to identify the compensation issues that most concerned them. To achieve this objective a structure protocol was to developed to ensure that the approach would be standard for all units and that compensation topics would be systematically covered and recorded. Sixth QRMC staff members intentionally avoided suggesting issues for discussion by the unit members. General topics were introduced only to generate further discussion. As a result the unit visit program proved to be extremely beneficial.

Major Observations from Unit Visits

A total of 352 observations were compiled and coded in the following categories: major issue topic, minor issue, component and unit. Retirement issues were by far the most frequently discussed topic. Interest in this area was divided primarily into two key subtopics:

- The 60-point cap on IDT retirement points
- Early annuities and/or vesting of retirement benefits

The prevailing perception is that the 60-point cap on IDT retirement points is an unfair withholding of compensation for extra work performed. A more thorough discussion of this perception is included in Chapter 7.

Members evidence a widespread interest in receiving an early retirement annuity similar to that of active duty members. This desire for an earlier retirement annuity, or for the ability to vest credit earned toward retirement prior to the current minimum of 20 creditable years of service, was the most frequently mentioned change desired in the retirement system.

In general, members see no advantage to retiring immediately or shortly after qualifying for reserve retirement. The general perception is that a member choosing to transfer to the Retired Reserve as soon as eligible would not receive any substantial benefits prior to the benefits that begin at age 60. A further perception is that transfer to the Retired Reserve would result in the loss of drill pay currently being received and create an inability to earn further credit toward future retired pay.

The above perceptions are also frequently mentioned as the source of a second problem: promotion stagnation. Many members, young and old, feel that slow promotion rates are caused in large part by older members staying long past their minimum years of service for retirement eligibility, hindering the advancement opportunities for available unit positions. It is further believed that many older members would leave earlier if they did not have to wait until age 60 for retirement benefits. Members view the prospect of receiving benefits earlier and of having increased promotion opportunities as advantages of an early retirement annuity. In addition, many members believe that an early annuity would be consistent with retirement benefits received by their active duty counterparts.

The ability to vest credit earned toward retirement prior to the current minimum of 20 creditable years of service was also a pervasive theme during the unit visits. Some of the members recommending vesting plans had these motivations:

- A distrust in the system (that is, concern that DoD or the Congress would break faith and reduce or eliminate their current level of benefits prior to the time they reached age 60)
- A confidence that they could achieve a better rate of return if they personally directed the investment, for example in an IRA
- The desire to accumulate a nest egg to salvage some benefit if it became necessary to leave reserve service before qualifying for reserve retirement
- The concern that disability, if incurred outside of actual reserve participation and prior to qualification for retirement, would preclude retirement qualification

These are the retirement issues and perceptions that generate more concern and discussion than any other single category.

Although most members are very much aware of the retirement system and stress its importance, many have a limited or inaccurate perception of the amount of money they would receive, given the grade and years of service they expect to have when they retire. There is no such misperception concerning other benefits such as exchange privileges, commissary use, medical care, etc. Members seem to know more accurately which of these benefits would be available.

Evaluation of Data from the Unit Visit Program

The Unit Visit Program provided invaluable insights to the QRMC staff with respect to reserve retirement. The reserve members' perceptions served as part of the basis of the examination of the reserve retirement system. In addition, the insights and experiences were important in assisting the analysis of data from the 1986 Reserve Components Surveys. Comments expressed in unit visit discussions also appear frequently in the written comments from participants in the 1986 Reserve Components Surveys.

Reserve Manpower Force Structure Profiles

As part of the review of the reserve compensation system, each reserve component developed manpower force structure profiles. The 6th QRMC requested the Reserve Component manpower force structure data to use as a tool for evaluating, validating, and justifying reserve compensation programs. Each Service provided data for its reserve components on desired accession, attrition, and continuation rates over the course of a reserve career. The data was described in three separate force structures: Fiscal

Year 1986 Actual, Fiscal Year 1986 Steady-State, and Fiscal Year 1992 Steady-State (see Appendix F). These three force structures are interrelated in that they describe with some precision where the reserve components are, where they would like to have been, and where they would desire to be by Fiscal Year 1992. They became one benchmark for evaluating the impact of current reserve compensation programs, including reserve retirement. The three force structures are defined below:

- Fiscal Year 1986 Actual - This was the actual force configuration, by grade and year of service (YOS), as it existed on September 30, 1986.

- Fiscal Year 1986 Steady-State - This was a conceptual force profile that reflected desired continuation rates and force management practices. Unlike other force profiles, it is not bound by factors such as cost considerations (including current levels of reserve compensation programs), external economic conditions, and historical continuation rates. This force profile reflects continuation rates required by the Services in their reserve components to fulfill assigned missions. When defining these force structures, issues such as age of the force, realistic promotion flow relative to length of service, training requirements, and skill level compared to pay grade had to be carefully balanced.

- Fiscal Year 1992 Steady-State - This was a conceptual force profile constructed in the same manner as the Fiscal Year 1986 Steady-State force, with one exception: this steady-state force was be built at the Fiscal Year 1992 force strength as described in the POM 88. When completed, it reflected, among other things, service-desired changes in end strength, promotion, skill composition, and experience levels when compared to the Fiscal Year 1986 Steady-State Force.

The Services were asked to provide separate breakouts of these three force structures for AGR/TAR personnel, military technicians, part-time members not employed as technicians, and medical personnel. This data was used to compare how past and current distributions of personnel by grade and years of service has matched the desired requirements. AGR/TAR personnel were assumed to be primarily focused on potential qualification for active duty retirement, and thus their profiles were excluded from the examination of reserve retirement. Profiles of military technician personnel were evaluated with reference to the provisions of the civil service retirement system.

Major Observations from the Manpower Force Structure Profiles

Most components' desired 1986 Steady-State force structure profiles differed from their 1986 Actual force structure profiles. Again, Actual 1986 profiles for most components indicated more members than desired in the later years of service (16-30) and fewer members than desired in the earlier years of service (0-15). All components' 1986 Actual profiles showed that each currently has significant numbers with over 30 years of service. Yet, their 1986 Steady-State profiles indicate that few members with over 30 years of service are desired. This is true for both officers and enlisted members.

The Services indicate a general desire for more sustainable force structures. That is, they want to access most members relatively early in terms of years of service, with gradual attrition in later years. This is preferred over accessing members in the later years of service to meet requirements.

From the Steady-State profiles, a sharp increase is observed in the rate at which retention rates decrease after 16 to 18 years of service. This is indicative of the Services' desire to decrease participation in those later years of service (16-30) at a much more rapid pace than they are doing currently.

Evaluation of Data from the Force Structure Profiles

Overall, the reserve components express a desire for a younger, more sustainable force structure. Generally, the force structure profiles reveal a desire for a sharper decrease in the continuation rates for members with more than 16 years of service. In addition, it is apparent that they desire far fewer members with 30 or more years of service. Most components also indicate the need to increase retention rates in the first 20 years of service.

The force structure profiles provided to the 6th QRMC were important to the analysis of reserve compensation. They were especially useful in the to assess the impact of the current reserve retirement system.

Department of Defense Actuarial Data

The 1984 law that placed the funding of military retirement on an accrual basis also established an independent three-member DoD Retirement Board of Actuaries, appointed by the President. The Board is required to review valuations of the military retirement system, to determine the method of amortizing unfunded liabilities, to report annually to the Secretary of Defense, and to report to the President and the Congress on the

status of the fund not less than every four years. The DoD Office of the Actuary provides all technical and administrative support to the Board.

The Office of the Actuary uses military personnel files maintained by DMDC and pay files of the Service Finance Centers as input data in conducting annual valuations of the military retirement system. Population and pay projections are generated by an actuarial projection model. The accuracy of all aspects of this model has been confirmed through two extensive audits. The 6th QRMC relied heavily on the Office of the Actuary for supporting data. Data concerning the future costs of the current reserve retirement system and of alternative systems is entirely based on Office of the Actuary projections using the economic assumptions approved by the Board of Actuaries.

Economic assumptions include an annual 5 percent rate of inflation, a 6.2 percent annual increase in the basic pay scale, and an annual valuation interest rate of 6.6 percent. These assumptions were determined after extensive analysis of past trends. These trends are discussed in detail in the annual valuation of the military retirement system produced by the Office of the Actuary.

The Office of the Actuary also provided the 6th QRMC with detailed data including the following:

- Life expectancy for officers and enlisted members
- Data concerning the number of reserve retirees age 60 and over who draw retired pay
- Actuarial projections of the value of reserve retirement
- Projected costs of the current system and alternatives under evaluation by the 6th QRMC

Major Observations from DoD Actuarial Data

All cost projections for alternatives to the current reserve retirement system included in the QRMC report were developed by the Office of the Actuary. It is stressed that these are cost estimates that could change slightly should an alternative be enacted into law. The Office of the Actuary had to use numerous averaging, estimating, and piecemeal techniques while producing the alternative projections; the enactment of an alternative would require an extensive rewrite of the current valuation program.

Data provided by the Actuary was used to determine the present value of deferred compensation for reservists. This provides another basis for evaluating alternatives to the current

retirement system. One important observation from this data is that an age-based retirement system is relatively less favorable for enlisted personnel, since enlisted members enter younger and wait longer after qualifying for retirement benefits than do officers.

The Office of the Actuary analyzed a combined total of 15 versions of the seven major alternatives to the current reserve retirement system developed by the 6th QRMC. The Actuary's projections of retired pay and DOD budget costs and of the final normal costs of the alternatives were related by the QRMC to the estimated manpower effects of the alternatives. This comparison indicates that alternatives with very similar impacts on future retirement fund outlays and required contributions to the fund from the DoD would have markedly different effects on reserve manpower force structures. In general, the Actuary's projections indicate that alternatives expected to produce desirable force structure impacts would also result in reduced long-term costs and a lower normal cost percentage for reserve retirement, thus immediately reducing DOD reserve component personnel budgets. To produce time-relevant manpower impacts, each of the alternatives would also require increased retirement fund outlays in the near term.

Evaluation of Data from the DoD Actuary

All current and future retirement cost data used by the QRMC was provided by the Office of the Actuary. It is noted, however, that some of the noneconomic rates used by the Office of the Actuary are subject to error because of shortcomings of RCCPDS data, as described previously.

Analytical Tools and Contractor Support

There were few established and proven analytical tools or models initially available to assist the 6th QRMC in conducting a comprehensive evaluation of reserve retirement. The availability of such tools for the evaluation of personnel policy and compensation effects in the reserve components has lagged far behind those available for active component analysis. This is due in part to the relatively scant research on reserve component manpower and to the difficulties inherent in analyzing compensation impacts in the reserve setting. Most reserve members also hold full-time jobs; this has an important and independent effect on attrition and retention. Accession patterns reflect a mix of members with active duty service and entrants without prior service, and lateral entry and reentry occur to a much greater extent than in the case of the active force.

Acquiring adequate analytical tools and models was a primary concern from the outset of the review. Contract support was sought for developing these tools and models. The RAND Corporation, for example, was chosen because of its previous and ongoing research on reserve and active force compensation and on personnel force management. The following contractor support was instrumental in the study of reserve retirement:

- The RAND Corporation
  - RAND Reserve Dynamic Retention Model
  - RAND Reserve Policy Screening Model
  - 1986 RC Surveys Regression Analysis
  - Reserve Total Household Civilian Income Variables
- Computer Based Systems, Inc.
  - Force Structure Inventory Projection Model
  - Reserve Military Income Variables
- Syllogistics, Inc. (Appendix I)
  - Analysis of Civilian Earnings of Reserve Members and Comparison Group
  - 1986 RC Surveys Regression Analysis
- Hay/Huggins Company (Appendix D)
  - Hay/Huggins Benefits Comparison Survey and Analysis
- Research Triangle Institute
  - Creation of Survey Weights and Analysis Files and Civilian Occupational Files from 1986 RC Surveys
- Logistics Management Institute (Appendix J)
  - Analysis of Age by Occupational Category in Active and Reserve Components

The RAND Models

The two RAND models were the primary tools used to evaluate the expected manpower force structure impacts of retirement system alternatives. The Reserve Dynamic Retention Model is a two-level model of retention behavior and the Reserve Policy Screening Model is a behaviorally based inventory projection model. They are the first models sufficiently capable of imitating reserve component service for the detailed analysis of reserve compensation alternatives. They are able to model and evaluate the separate categories of reserve component service: part-time members, active Guard and Reserve members, and military technicians. Heretofore, this capability has not existed.

The RAND Reserve Dynamic Retention Model is based on a comprehensive retention model developed by the RAND Corporation to estimate the effect of compensation changes on the retention of Air Force officers. Other models that have been used to estimate the extent to which military retirement changes would affect retention showed less promise for adaptation for application to reserve force populations. The use of the RAND Reserve Dynamic Retention Model by the 6th QRMC was based in large part on the conviction that, because reserve compensation in a relatively small percentage of the total income of reservists, any reserve manpower model must be able to accommodate the effects of military "taste" variables and random disturbances in addition to monetary factors.

The limitations of the RAND Reserve Dynamic Retention Model used by the QRMC are discussed in detail later in this chapter. This discussion makes it clear that, when assessing the potential effects of a significant reduction in the value of reserve retirement, the possibility of error is, for a number of technical reasons, much greater for the reserve population. It is also important to assess the practical consequences for reserve readiness, should the actual effect of a reduction be significantly more adverse than estimated.

The Reserve Policy Screening Model is a behaviorally-based inventory projection model fully implemented in menu-driven format for a PC computer. It is designed to be used as a quick, efficient tool to evaluate and screen the effects of various manpower policy options. It contains historic data on reserve accessions, inventories, and continuation rates, disaggregated by demographic variables and years-of-service experience. The model projects the force structure over a variable horizon by incorporating a user-selected set of statistical projection techniques. It serves as an aid in reserve manpower planning tasks such as managing end strength, setting accession requirements, designing countercyclical policies to economic cycles, setting pay raises and bonus levels, and restructuring reserve compensation and retirement.

The two models were conceived and developed with the ability to work in concert with one another. Input to the Reserve Dynamic Retention Model consists of the selected alternatives expressed in terms of dollars. Output from the model consists of retention rates. These retention rates then serve as input for the Reserve Policy Screening Model, which projects future force structures, accession requirements, and so forth resulting from the retention rate changes produced by the various compensation alternatives. These force structures and accession requirements then serve as a basis for determining the costs of the alternatives. Figure 4-1 portrays the modelling process.

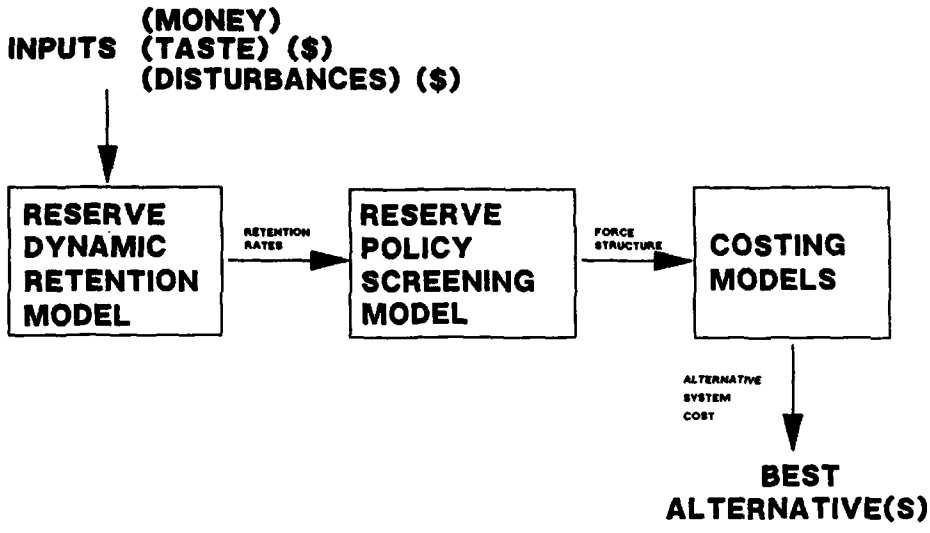


Figure 4-1. The Modelling Process

Estimating The Effects of Changes in the Reserve Retirement System[2]

When assessing changes in the reserve retirement system, it is necessary to estimate the effects of those changes on retention and personnel force structure in order to accurately predict the effectiveness and cost implications of those changes. The most reliable way of predicting the effects of potential changes is to observe the behavior of reserve personnel under different retirement systems. However, this is not possible because the reserve retirement system has changed little since its inception. The next best alternative is a behavioral model that describes the decision making process of individuals making the participate/do not participate decision over time in an uncertain environment. RAND's Reserve Dynamic Retention Model was developed for this purpose. The retirement system is an input and not part of the model's structure. Individuals are viewed as rational decision makers who consciously choose to optimize their expected returns at each decision point. This model has been used successfully to predict the retention behavior of Air Force Officers[3] and Air Force Enlisted Personnel[4].

The Selected Reserve Dynamic Retention Model

The Reserve Dynamic Retention Model for part-time enlisted Selected Reservists (AGRs and military technicians are not included) predicts voluntary retention rates on the following bases:

- Component (Army National Guard, Army Reserve, Air Force National Guard, Air Force Reserve)
- Non-prior service/prior active service (prior reserve service was not used)
- Year of service (based on pay entry base date)
- Term of initial enlistment
- Years of prior active service
- Age at entry

The model incorporates past compensation policies, expectations about the future, and individuals' uncertainty about their future decisions. The model incorporates the past, because the retention rate for any cohort at a given time may depend upon who is still in the cohort; the future, because individuals have expectations about the retirement system and pay structure; uncertainty, because many random factors exogenous to pay can affect the reservist's decision to participate. The following compensation measures are included in the model, all measured after federal income tax:

- Basic military pay
- Military retired pay
- Loss in civilian earnings
- Fixed costs of participating

The 1986 Reserve Components Survey: Selected Reserve Enlisted Personnel provided estimates of the proportions of individuals who lose civilian pay because of their Guard/Reserve activities. The Reserve Dynamic Retention Model explicitly incorporates these proportions. The model also includes transportation costs, which are a significant proportion of the fixed costs of participating. Thus, the model includes the principal financial incentives and disincentives to participating in the Selected Reserve.

In addition to the financial incentives and disincentives, the model allows for individuals to be persistently different from one another in their attachment to the military. That is, among observationally equivalent personnel, some will always require more compensation than others to induce them to stay in the

Selected Reserve because their "tastes" for the military lifestyle differ. The distribution of these tastes was statistically estimated by the Reserve Dynamic Retention Model.

The dependence of retention rates on past compensation and personnel policy is partly through the existence of persistent differences in taste for service among personnel. The distribution of tastes, and therefore the retention rate, among personnel in a given year of service will depend on how many of the relatively low-taste personnel separated in previous years. These separations will depend on past compensation, among other factors; hence the current retention of personnel depends on past compensation as well as on expected future compensation.

The Reserve Dynamic Retention Model accounts for individuals' own uncertainties about their future participation decisions. Individuals know that random factors, such as a change in the civilian job, family obligations, or relocation of their unit, can alter the future values these random factors may take on, but they make their current participation decisions knowing that their future decisions are uncertain. Again, the extent of this uncertainty is statistically estimated by the model.

Finally, the model accounts for premature losses of personnel without active service, i.e. separations of these individuals before they complete their enlistment terms, and for premature losses, during the first year of reserve enlistment of those with prior active service. The data showed that the existence of a service commitment does affect retention although it doesn't increase it to 100 percent. The Dynamic Retention Model accounted for this by statistically estimating the equivalent of a monetary penalty for separating prematurely.

Thus there are four types of factors in the Reserve Dynamic Retention Model: compensation, persistent differences in attachment to the Selected Reserve, random factors, and the cost of leaving before completing the first term of service. The parameters corresponding to these factors were estimated by combining data on actual participate/do not participate decisions from the Reserve Components Common Personnel Data System (RCCPDS) for fiscal years 1980 through 1986 along with information on financial incentives and terms of enlistment. A technical description of the model, the estimated parameters, and discussion of the parameters may be found in the forthcoming RAND Report "Improving Reserve Compensation: Evaluating Retirement System Options."

Simulating Alternative Retirement Systems

To evaluate the personnel force structure consequences of retirement system alternatives, retention rates from the model were combined with an aggregate dynamic personnel inventory

projection model (RAND's Policy Screening Model). Because the inventory projection model predicts the aggregate year-of-service distribution of personnel and accession requirements by reserve component rather than the more detailed breakdown used in the retention model, weighted averages of the retention model's rates were calculated to obtain average retention rates by year of service for each reserve component. The weights for each year of service were based on the sizes of the accession cohorts and their retention rates in the previous year of service.

The Reserve Dynamic Retention Model was estimated using a subset of all the RCCPDS available. Incomplete or inaccurate records for individuals had to be discarded--they could not be used in the estimation. Also, the retention rates are strictly good only for part-time Selected Reservists who engage in 48 IDT periods per year plus two weeks of ADT. Excluded were reservists who drill less (primarily Individual Mobilization Augmentees) and other categories of personnel. Separate models must be estimated for these personnel. However, all part-time enlisted Selected Reservists must be accounted for when projecting the personnel inventory, including transfers to and from AGR or military technician status.

It was assumed that the retention rates of groups of personnel omitted from the Reserve Dynamic Retention Model would change by the same percentages as the predicted retention rates of the part-time Selected Reservists. Thus, the retention rates used in the Reserve Policy Screening Model for the alternative retirement systems were calculated by calculating the ratios by the FY 1986 aggregate average retention rates by year of service. That is, the Dynamic Retention Model was used to calculate percentage deviations from the base case and these percentage deviations were then applied to the actual FY 1986 retention rates to obtain the retention rates under alternative retirement systems that were input to the Reserve Policy Screening Model.

Limitations

There are three potential sources of error in the Reserve Dynamic Retention Model as it has been applied to the part-time Selected Reserve: the applicability of the model, the small range of years in the database, and data problems and omissions.

Applicability of the Model

The Reserve Dynamic Retention Model assumes that individuals' attitudes toward military service are fixed throughout the course of their military careers. A more realistic assumption would be that during the first few years of the career, attitudes fluctuate much more than later in the career when the nature of military service is better understood by individuals.

Unfortunately, building a retention model using this more realistic assumption is difficult and has never been done. The practical consequence of the Reserve Dynamic Retention Model assumption is that persistent factors do not play an important role for personnel without prior service; these factors could not be detected for them. Presumably, later in their careers the persistent factors are important, and their inaccurate measurement in the Reserve Dynamic Retention Model could cause prediction error.

Although the Reserve Dynamic Retention Model can accommodate gaps in reserve participation, the data would not support this accommodation. Thus, the model does not predict gaps in participation even though they do occur for some individuals. However, after correcting actual retention rates for these gaps, the predictions of the Reserve Dynamic Retention Model do not seem to be too much in error on this account.

Clearly there can be noneconomic factors at work if compensation or retirement benefits are changed when service members expected stability. Individuals' participate/do not participate decisions may be more or less strongly affected than the retention model predicts due to the short-term effects of the positive or negative surprise occasioned by a compensation or retirement system change.

Small Range of Years in Data Base

The RCCPDS does not distinguish between full-time and part-time personnel before 1980. This distinction is essential to proper estimation of the model; hence, the sample size had to be limited to the period from 1980 to 1986. A longer sample would have allowed more precise estimation of parameters.

Data Problems

The accuracy of the RCCPDS has been significantly improving, but there were still problems with data inaccuracies and incompleteness. Other problems included the inability to determine how many retirement points each individual in the sample had accumulated and the inability to determine the civilian earnings loss suffered by individuals participating in the Guard/Reserve. The retirement point problem was resolved by assigning each individual the average number of retirement points earned by individuals in the same year of service and with the same number of years of active service. In addition, some economic factors based on the 1986 Reserve Components Surveys could not be assigned a dollar value. For example, it was possible to determine from the surveys how frequently reservists lost civilian income due to their reserve obligations, but it was not possible to determine the actual civilian earnings loss suffered by individual participating in the reserve. This

problem was resolved by assuming a statistical distribution of losses among Guard/Reserve members in lieu of assigning each individual an actual loss. Resolving the problems with retirement points and civilian earnings loss in these ways led to imprecision in the estimation of the parameters of the retention model.

Another important limitation was the inability to link enlistment, reenlistment, and affiliation bonuses with their recipients. As many as 40 percent of all enlisted National Guard and Reserve members with less than 10 years of service receive bonuses. The inability to link such data made it impossible to identify information about members receiving bonuses. If this were the only problem with the data, the likely effects of omitting bonuses from the analysis when calculating the parameters of the Reserve Dynamic Retention Model are to underestimate the role of money and overestimate the role of random disturbances in retention decision-making.

Using the Model for the Design of Alternatives

In any statistical model, a significant movement away from the status quo gives rise to larger prediction uncertainties than a small movement in the neighborhood of the status quo. Given this fact and the preceding discussion on limitations of the Reserve Dynamic Retention Model, retention predictions under alternative reserve retirement systems are clearly subject to very large uncertainties. One cannot place as much confidence in the model's predictions as one can place in analogous predictions for the active force using active force data.

It is unknown whether the net effects of all the limitations cause the retention predictions to over- or underestimate what the true retention rates would be under alternative retirement systems. Compared with other, simpler models, the Reserve Dynamic Retention Model's estimates of the sensitivity of retention rates to compensation seem about right. If the Reserve Dynamic Retention Model underestimated pay sensitivity, one could conclude that the model also underestimates the effects of changes in retirement benefits. The model predicts changes in retention rates at six years of service, ranging from 1 to 2 percent in response to a 10 percent increase in total life cycle compensation. These numbers are roughly comparable to, if not higher than, other model's predictions.

The high degree of uncertainty about retention rates under alternative retirement systems carries implications for the design of retirement system modification. A system change that might be desirable if the retention rate predictions were certain may not be desirable in the presence of a high degree of uncertainty. Even though the uncertainty means that large over- or underestimates of retention rates are equally likely, the

costs of under- and overestimated retention rates are not equal. Overestimating retention rates would lead to unit manning problems while underestimating would lead to higher than expected costs. Offsetting the higher costs, e.g. through reduced accessions or controls on retention, is easier to do in the short term than offsetting the manning shortages. Because of this cost asymmetry, reducing retirement benefits is more problematic when there is high uncertainty about retention rates.

Civilian and Military Income Data

Key to the analysis of reserve retirement was establishing the relative importance of total reserve military income as a contribution to total household income. The RAND Corporation, using the data from the 1986 Reserve Components Surveys, created variables for civilian income and for related data to be used in the subsequent analyses. RAND developed a set of rules for editing, imputing, and correcting the variables to create new, "clean", total civilian income variables for the reservist and the spouse. These rules, which were reviewed by DMDC, ensure consistency within each reservist's data and between data for reservist and spouse.

It would seem that members whose military income makes up a large portion of total household income would be more likely to continue reserve participation than those less dependent on military income; however, this could not be assumed. Total military income variables were developed by Computer Based Systems, Inc. in conjunction with the QRMC and DMDC. CBSI provided edited, imputed, and corrected the data as necessary to prepare the variable values for the RAND Corporation.

The civilian income data was crucial to the development of the RAND Reserve Dynamic Retention Model. From the "clean" data provided by CBSI, a distribution of civilian pay by years of military service was established. Through an elaborate heuristic scheme, this distribution was then incorporated into the stay/leave equation of the model. A separate analysis of the civilian income data yielded additional information.

Other analytic cools and models were developed within the 6th QRMC for the purpose of costing, estimation of retirement points, inventory projection, and survey regression analysis.

Notes

1. W. K. Chow and J. M. Polich, Models of the First-Term Reenlistment Decision, R-2468-MRAL, The RAND Corporation, 1980; this analysis is extended in J. R. Hiller, Analysis of Second-Term Reenlistment Behavior, R-2884-MRAL, The RAND Corporation, 1982, pp. 5-8.

2. This section is based on a memorandum to the 6th QRMC dated April 18, 1988, from Drs G. A. Gotz and M. K. Brauner, The RAND Corporation.

3. G. A. Gotz and J. J. McCall, A Dynamic Retention Model for Air Force Officers, R-3028-AF, The RAND Corporation, 1984.

4. Y. Arguden, Personnel Management in the Military: Effects of Retirement Policies on the Retention of Personnel, R-3342-AF, The RAND Corporation, January 1986.

Chapter 5. ANALYSIS OF THE CURRENT SYSTEM AND PROBLEM IDENTIFICATION

Introduction

The methodology and sources of data used to evaluate the current reserve retirement system area are covered in the preceding chapter. Problem areas, conclusions, and the design and testing of alternatives necessary to resolve identified problems are also discussed in Chapter 4, as are the analytical approaches and data associated with these processes.

The purpose of the 6th QRMC review of the reserve retirement system is to determine whether the current system meets the objectives for which it was originally designed, and whether the original objectives are still relevant to reserve service 40 years after enactment. As indicated in Chapter 1, the original purpose of reserve retirement was to provide "a monetary incentive for qualified reserve personnel to retain membership in the reserve components and continue their training." Other goals of reserve retirement were primarily relevant to members who had service in World War II.

An essential part of this review is to determine the relative cost-effectiveness of the present deferred income incentive for reserve service in support of its objective, particularly as compared with current compensation incentives and deferred income alternatives. The intent of this cost analysis is to determine the most economical means of achieving current and projected reserve force manpower requirements. The goal of the 6th QRMC has been the completion of an unbiased analysis. The effects of a perceived or actual loss of benefits on satisfaction with reserve service, and thus upon retention of reserve members, have been weighed carefully in the analysis to the extent that these effects are measurable or can otherwise be assessed.

Historical Criticisms of the Current System

The most extensive review of reserve retirement previously published was that conducted by the Reserve Compensation System Study (RCSS).[1] The RCSS review of reserve retirement was severely hampered by the lack of available reserve component data. The Report of the 5th Quadrennial Review of Military Compensation was devoted in major part to the study of the uniformed services retirement system. By design, however, it

did not undertake a comprehensive review of the reserve retirement system.[2] The 5th QRMC report did note the increasing importance of reserve compensation in support of Total Force manpower management. It also emphasized the need for better data on reserve component members and retirees; the difficulty of tracking individual careers; and the difficulty of employing analytical models to evaluate the "open" personnel system, with large numbers of lateral gains and losses, that exists in the reserve forces.[3]

The RCSS study and other reviews of the reserve retirement system have noted the following as shortcomings of the system:

- As a personnel management tool, reserve retirement is inflexible. The incentive provided for reserve service is constant in the near term, with the effects of modifications lagging behind enactment by as much as 40 years. Shifts in the supply and demand for military manpower resulting from the economic environment, and from the requirements of changing force structures, require flexible tools that can have short-term as well as long-term impact on force profiles.

- Retirement benefits have little value as a recruiting tool. The average new entrant is not at an age where the prospect of monetary benefits at age 60 affects the membership decision.

- Reserve retirement benefits contribute to an aging reserve force and to promotion stagnation in the junior officer and enlisted grades. A corollary criticism is that as the force ages, the seniority rises, increasing promotion stagnation and resulting in a shortage of junior officers and enlisted members.

- Retirement benefits are inappropriate in a secondary labor market.

- Reserve retirement is unnecessarily expensive. Less expensive alternatives could provide the same incentive for continued reserve service.

The 6th QRMC began its analysis of the current reserve retirement system by examining these critiques to establish their current validity and to determine whether the analysis would illuminate other areas of concern with the current system.

The Appropriateness of Retirement for Reservists

The issue of retirement as an appropriate incentive for part-time reservists is addressed first, since a conclusion that retirement is inappropriate or unnecessary as an incentive for reserve service could obviate the need for continued analysis of the current system. The view that reserve retirement is inappropriate for the part-time reserve forces centers on a comparison of the military reserve forces with the civilian sector secondary labor market, and on the attributes generally associated with that market. The RCSS concluded that "the reserve's primary competition for manpower is part-time employers in the civilian sector" and that "the relationship of reserve pay to the individual's earnings in primary and secondary (part-time) civilian employment is more relevant to reserve manning..."[4]

In the civilian sector, secondary labor or part-time employment is normally used in the following circumstances:

- As a supplement to the full-time force during seasonal periods of peak activity (e.g., additional retail sales clerks during the Christmas shopping season).
- When operating hours or peak demands make the use of part-time employees cost-effective. This implies that the learning curve on the tasks to be performed is such that the savings incurred by using skilled labor with full-time on-the-job experience is offset by the additional costs associated with overtime.
- As a temporary replacement for a full-time employee whose tasks are routine and must be accomplished on a daily basis. Examples include the use of temporary secretarial services during the absence of a full-time secretary.
- When the nature and structure of the employment lends itself to the secondary labor market. Examples are the part-time employment practices of fast food chains, telephone solicitation firms, and recreational facilities.

In the United States, the primary incentive for workers in the secondary labor market is supplemental current income. The secondary market is, for the most part, composed of individuals seeking to supplement the income derived from their primary employment; individuals who cannot devote the time required for full-time employment (students, homemakers, etc.); individuals between full-time employment (actively seeking full-time employment); and individuals without the prerequisite skills to enter the full-time market.

A review of the civilian sector secondary labor market produces the following conclusions:

- Under most circumstances, secondary labor may be obtained for direct current compensation at levels equivalent to or below that required for full-time employees.
- Additional benefits beyond those required by law are not generally necessary to attract secondary labor.
- Most secondary employment does not involve the exercise of managerial or supervisory authority and seldom involves executive level authority.
- The secondary labor market does not involve long-term contracting of individuals for part-time employment.
- The vast majority of the secondary labor market does not desire or require a career orientation for any member.

Organizations that recruit entry-level employees from the secondary market provide career paths for a percentage of these individuals, but acceptance of that career path typically results in a primary full-time position with the organization. The nature of military service in the reserve components does not fit the pattern of civilian sector secondary labor markets. Following are the major characteristics of service in the reserve components that make it diverge from the secondary labor market in the civilian sector:

- Long-term obligation to serve. The initial obligation involving active drill and annual training participation for reserve duty is typically four or six years for new entrants. A total military service obligation of eight years is a condition for all new entrants.
- Requirement for intensive and lengthy initial training. All new entrants without prior service must serve a minimum period of active duty for training, a period ranging from 12 weeks to two years and necessitating a leave of absence for new members who are employed full-time in the civilian sector.
- Service in the Selected Reserve requires an annual leave of absence from primary civilian employment for a minimum of two weeks for annual training.
- Conflicts between primary civilian employment and reserve service must, by law, be resolved in favor of reserve service.

- Long-term career orientations are not only encouraged, but are required for the proper maintenance of reserve component force structures.

- The requirement to attract individuals with leadership, managerial, and supervisory level talents is extensive. The required levels of employment-related experience are most often not compatible with civilian sector experience.

- The Selected Reserve depends heavily on the attraction of previous full time experience (prior active component experience) to fill gaps in midcareer personnel and positions requiring lengthy full time training.

- Unlike supplemental employment in the secondary market of the civilian sector, reserve service carries the potential for mobilization. This risk, voluntarily assumed by the reserve component member, is assumed by the member for as long as the member remains an active, inactive, or retired member of a reserve component.

In the early 1970s, the Air Force initiated a series of reserve personnel studies that developed a theory of secondary labor market participation in relation to the behavior of Air Force reservists. Subsequent studies, most particularly the 1978 Selected Reserve Bonus Test, found that reservists did not behave like typical employees in the secondary labor market and had much lower current income elasticities than do private sector part-time employees.[5] A portion of the difference in current income elasticities may be explained by the contract nature of reserve service. Based on attitudes toward career service, reserve retirement, and the role of reserve retirement in the retention decision extracted from the 1986 Reserve Components Surveys, current income elasticities for reservists are lowered by the presence of a deferred compensation incentive. The lower pay elasticities help to stabilize retention rates during the peaks of private sector economic cycles.

For these and similar reasons, reserve component service differs from employment in the civilian sector secondary labor market. The reserve components compete in this market for a significant percentage of their junior enlisted members and the compensation system incorporates appropriate monetary incentives to attract these individuals (bonuses and educational benefits). The officer corps and the noncommissioned officer corps more closely resemble the professional, career-oriented, primary labor market and require appropriate compensation incentives to retain these members. Deferred income is necessarily an alternative in a primary labor market, and therefore is

appropriate as an incentive for career reserve service, if it produces the desired quality and quantity of personnel in the most cost-effective manner.

There are several sources of empirical evidence to support the conclusion that reserve retirement is not only an appropriate, but a necessary incentive: the historical retention of reserve component members prior to the enactment of reserve retirement; the continuation rates experienced after enactment of reserve retirement, particularly rates in the All-Volunteer Force era that show the increasing pull of retirement after eight years of service for both officers and enlisted members; and DoD surveys, especially the 1986 Reserve Components Surveys. Because of the low income elasticities for the current compensation of reserve members, significant current compensation increases would be required to retain reservists with the desired qualifications and skills through the years of service required to meet technical and leadership requirements. The surveys indicate the strong pull of social and patriotic incentives among reserve participants. In the view of the 6th QRMC, the career service aspects of reserve retirement support and strengthen these incentives for reserve service.

Deferred income incentives become more important as the individual member increases in age, with corollary increases in civilian employment responsibility and taxable income. The following discussion of private sector pensions correlates with observed behavior within the reserve components:

> The pattern of pension coverage across different age groups suggests that over time workers gradually sort themselves into jobs with pensions. Only about a quarter of workers between ages 16 and 24 are covered by pensions. Pension coverage rises to 50 percent for those between 25 and 34; it is slightly above 60 percent for all older workers. Other things being equal, the odds of being covered are 13 percentage points higher for 25- to 34-year-olds and 20 to 24 percentage points higher for 35- to 64-year-olds than for 16- to 24-year-olds. Although patterns within a cohort over time may be quite different from across cohort patterns, they suggest the possibility that if a worker is not covered by a pension by the time he reaches the 35-64 age group, given the low turnover rates among older workers, there is a good chance he never will be covered.
>
> Because of the favorable tax treatment of pensions, it should come as no surprise that pension coverage is also strongly correlated with average hourly earnings. The coverage rate for workers earning less than $4 an hour is a mere 13 percent in contrast to coverage

rates above 70 percent for those earning $10 an hour or more. Most of this difference cannot be explained by other factors, as indicated by the probit results.[6]

Pension benefits increase in value to the individual as total taxable income rises, and as the individual increases in age. Considering that reserve income is taxed at the individual marginal tax rate as opposed to the average on full time civilian income, the use of deferred income as a midcareer retention incentive provides a positive tax advantage, and, therefore, greater value to the individual than the after tax discounted present value of retired pay would provide in current compensation. This indicates that, within limits, deferred compensation can be a more cost-effective retention incentive than the discounted present value of retirement in current compensation. The cost of replacing reserve retirement with current compensation alternatives is discussed in detail later in this chapter.

Analysis of the 1986 Reserve Components Surveys indicates that reserve retirement benefits are a major contribution to individual career decisions. Sixty-three percent of all officers report a very high probability of remaining in the reserve components until qualified for retirement, with another 18 percent reporting a good probability. Only 7 percent report that they most likely will not stay until qualified for retirement. Sixty-four percent of enlisted members currently not qualified for retirement will stay until they qualify, with another 25 percent reporting that they are not sure, as opposed to only 6 percent of enlisted members who report they will not stay until eligible for retirement. While some of the above members will not stay through retirement due to external events (civilian employment transfers, family and job pressure, and other random shocks), the expressed attitudes indicate an increasing willingness to remain in service. This should expand the midcareer personnel pool, allowing the reserve components to implement retention policies that favor the reserve components, rather than having to recruit to meet midcareer manpower levels.

The reserve retirement program also affects midcareer retention decisions. Another survey question asked respondents to indicate the extent to which their most recent retention decision was affected by the ability to earn credit toward reserve retirement benefits. The survey indicates that 62 percent of officers and 50 percent of enlisted members consider reserve retirement a major contributor to the retention decision. Another 24 percent of the officers and 22 percent of enlisted members report that reserve retirement is a moderate consideration in the retention decision (as opposed to a minor consideration or not a consideration). Given these attitudes, and data from the survey that indicates that members of the reserve components are more likely to be covered by a

nonmilitary pension plan through civilian employment than the general population, it may be concluded that, on average, members of the reserve components value retirement benefits higher than the general population.[7] Further information on the Surveys and the relative importance of reserve retirement to reservists and their spouses as compared with other compensation elements is in Appendix H.

The initial results of the RAND Reserve Dynamic Retention Model indicate that, with elimination of reserve retirement as a career incentive, the Selected Reserve could not maintain its required manpower force structures and would lose critical experience. Although the analysis indicates it is possible that retirement could be replaced with current income incentives, estimates based on the RAND model indicate that it could not be accomplished at less cost and with equal effectiveness in the retention of high quality members or in the maintenance of required manpower force structures over the long term.

A recent study[8] of the effects of pensions on the performance of private sector firms presents the first empirical evidence that the rate of profits among firms is not effected by the existence of a pension. The study concluded that there is no empirical evidence that other forms of compensation decrease in the presence of a pension and were unable to find any direct effects of pensions on labor productivity. The most likely reasons why profitability is not reduced despite the added costs of pensions and the lack of direct productivity effects are suggested to be the indirect productivity effects of improved capability to meet manpower objectives. "These objectives are to reduce turnover during most of the employee's work life and to increase retirement rates among older workers."[9] The result is lower accession and training costs, and increased experience levels. The increased average wage rates associated with an increase in the experience level may be offset in part by the ability to encourage retirement at the optimal age for occupation and industry.

Thus it appears that pensions can benefit a corporation by reducing recruiting and training costs, and retaining midcareer experience. However, pensions that increase compensation beyond the marginal product of labor in the later years can reduce attrition to an undesirable level that results in inefficient retirement decisions and, therefore, stagnation at the junior levels. Pensions are an appropriate form of compensation for firms desiring a career force, so long as the value of future increases in pension benefits is less than or equal to the marginal product of labor at the point where retirement is desired by the employer. While the length of service and age profiles desired by private firms are unlikely to parallel those of the active or reserve components (due to requirements for youth and vigor in the military), the principle with respect to

the effects of a pension plan on retirement remains the same. Indeed, it seems clear that the very low requirement in either the active or reserve force for the lateral entry of individuals without prior military training and experience make the application of this principle both more effective and more essential.

It is clear that current members value their future retirement entitlement highly. The career nature of reserve service, coupled with the attitudes of members with regard to service and the related compensation entitlements, establishes that deferred compensation is an appropriate benefit for extended reserve service. It does not, however, answer the question as to whether or not the system can be modified to achieve increased cost-effectiveness.

Reserve Retirement as a Recruiting Tool

In the past, the value of reserve retirement as a recruiting tool has been argued pro and con based on hypothetical suppositions. Full-time reserve recruiters have acknowledged the benefit of reserve retirement as a motivator for initial enlistment; while critics point to the low retention rates associated with members who have less than six years of service, citing this as evidence that reserve retirement is not a motivator for junior officers and enlisted members. Critics of the system argue that benefits 40 years in the future have little value to junior members, who are more concerned with current compensation. Further, these same critics point out that most senior members, let alone junior members, have little concept of the actual value of reserve retirement.

It is true that in a rational man model, which assumes that decisions are made on the present value of all benefits, the discounted value of reserve retirement over 40 years will have little effect on the decision if the same discount rate is applied to both deferred compensation and current compensation. However, the relative value of reserve retirement increases dramatically as the member approaches retirement qualification. Further, data provided by the 1986 Reserve Components Surveys coupled with the results of the 6th QRMC unit visit program indicates that members may typically apply a different, and significantly lower, discount rate to retirement benefits than they apply to current compensation.

Responses to a survey question dealing with the contribution of retirement credit toward the latest retention decision (see Figures 5-1 and 5-2) for officers and enlisted members are divided into six categories of personnel: members with five or less years of service who entered with no previous military experience, members with five or less years of service who have had previous military experience, members with 6 to 11 years of

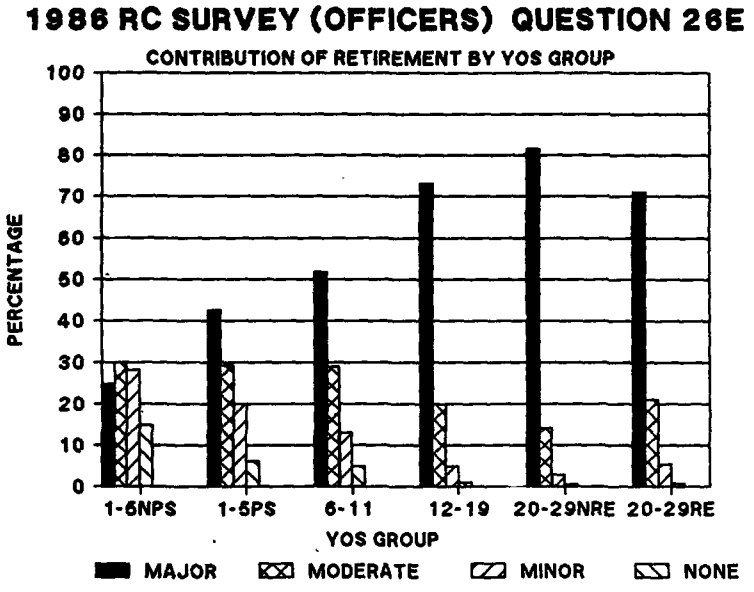


FIGURE 5-1

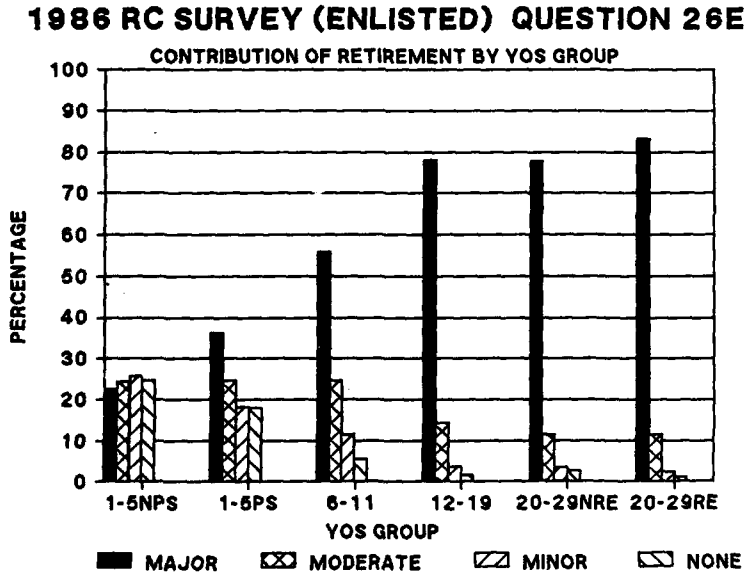


FIGURE 5-2

service, members with 12 to 19 years of service, members with 20 to 29 years of service who are not yet eligible for retirement, and members with 20 to 29 years of service who are already eligible for retirement. The results indicate that retirement benefits contribute significantly more to the retention decisions of junior officers and enlisted members than would be expected based on the present economic value of reserve retired pay. These figures further illustrate the increased value of reserve retirement in recruiting members with prior service and in retaining all members beyond six years of service.

Although the evidence supports a conclusion that reserve retirement is an excellent retention tool for members with prior service and is also valuable in recruitment, the question of low retention rates among junior members must still be addressed. As discussed in the first section of this chapter, reserve component service is not typical of the secondary labor market. Analysis of models of the intent to remain in the reserve components from the 1986 Reserve Components Surveys using regression and logit regression techniques applied by Syllogistics, Inc. (Appendix I) indicate the importance of retirement in the reenlistment or career (intent to stay until retirement) decision. These models use intent to remain until qualified for retirement as a dependent variable. If retirement benefits are entered into the models as an independent variable, with intent to reenlist and stay until retirement as the dependent variable, the impact of retirement benefits is highly positive and significant.

The results of the 1986 Reserve Components Survey correlate with the effects of pensions in the private sector. The "tax" imposed by separation prior to vesting of pension benefits is negligible to members in the early years of service with small retirement point accumulations. As the member gains in years of service, experience, and retirement credit, the present value of future retirement benefits (conversely the "tax") increases until the member cannot "afford" to leave prior to vesting.

It is recognized, however, that the reserve components compete in the secondary labor market for initial entry officers and enlisted members without prior active service. For enlisted members, educational benefits rank higher in the intent to reenlist decision than does supplemental civilian pay. This would suggest that more than the secondary labor incentive of additional current income is required to recruit and retain junior members.

The low retention and high attrition rates among junior members may be explained by several factors:

- A large percentage of junior members consider reserve service as a second job, for the purpose of supplementing present income only. These members would tend to depart when primary sources of income exceed present needs or when the present income derived from reserve service no longer exceeds the value of the time used by reserve service (characteristic of the secondary labor market).

- Many junior members enter reserve service for educational benefits and depart service once the obligatory period of service for receipt of those benefits is complete.

- The reserve components do not desire to maintain all individuals recruited on a career path. The majority of reservists are not expected to remain in service through retirement eligibility, nor would required military force structures support the retention of all members for 20 years of service.

Two components, the Army National Guard and the Army Reserve, together representing almost two-thirds of the Selected Reserve, desire that 56 percent of the enlisted force and 28 percent of the officer force be in the junior grades with less than six years of service at any time (Appendix F, Objective Manpower Force Structures). The required turnover in personnel to maintain proper force structure balance accounts for a large percentage of losses of junior members (although clearly not for the unacceptably high rate of unprogrammed early attrition). The conclusion here is that, while reserve retirement is not a primary recruiting tool for initial periods of service, it is an added incentive for initial membership that assists in meeting recruiting goals. Reserve retirement represents the single most important factor in the retention of members beyond the initial periods of obligation, and it is the primary incentive to attract prior active component experience to the reserve components.

This analysis indicates that reserve retirement is of little value as a recruiting tool for entrants without prior active component service. However, junior members without prior service do consider reserve retirement as a major benefit. We conclude that the major value of reserve retirement is as a retention tool for career service, and as a recruiting tool for members with prior active service experience.

Reserve Retirement as a Retention Tool

As previously indicated, the primary purpose for the enactment of reserve retirement was as an incentive for continued membership and training in the reserve components--retention. Analysis of the current system indicates that reserve retirement does provide the incentive for which it was designed. Analysis further indicates that not only does reserve retirement provide an incentive to retain membership through qualification, it provides no incentive to discontinue active reserve participation after qualification for retirement and prior to age 60. The QRMC analysis indicates that, absent the general use of mandatory separation programs, the incentives of the current reserve retirement system contribute to an aging reserve force and to the dissatisfaction of qualified midlevel members created by corollary promotion stagnation due to the rising seniority of members.

Again, these problems are not unique to military retirement systems. One study of civilian pension plans found that deferred compensation results in underpayment relative to the marginal product of labor in the early years of service, and overpayment in the later years.[10] The overpayment in the later years provides an increased incentive to remain in service, resulting in less efficient separation decisions. Two solutions to this problem have been employed in the civilian sector:

- Mandatory separation. The use of mandatory separation removes the incentive to remain.
- Early retirement provisions.

The use of either of these options can have undesired effects unless compensation and manpower programs are successfully integrated. Mandatory separation provisions that are inadequately supported by compensation policies can result in a perceived reduction in the value of deferred compensation or a perception of inequitable treatment, both of which may reduce the desired retention effects of the system. In 1985, for example, the Coast Guard Reserve implemented a mandatory separation policy for retirement eligible enlisted reservists with long service. The objective was to achieve a better mix of youth and experience and to reduce serious problems with promotion stagnation. The reaction of one Coast Guardsman, provided in response to the 1986 Reserve Components Surveys, was disappointment:

> Growing older has never bothered me until the recent notice regarding forced retirement upon attaining 30 years' of service from pay base date. I have never

> regretted that decision, but I am disappointed that I will not be able to remain in the reserve until age 60 as I had planned.

A Naval Reservist responded to a similar change in Naval Reserve policy as follows:

> The Navy is pushing me aside and all the benefits I worked and sacrificed for all these years are pulled out from under me. I have three children, two in college and a 13 year old who will be going to a private high school . . . . I think you can understand how the reserve pay and loss of exchange privileges is so important at this period of my life. I worked for it. Yet individuals who came to the reserve when things were convenient or provided them shelter from conditions, who are older and less experienced, can stay because they will not reach 30 years ever or by the time they are 60 and reap the benefits of retirement instantly.

Mandatory separation policies significantly increase the ability of the reserve components to manage the senior levels of the force, but coupled with the current reserve retirement system can and do engender similar reactions from those who are not retained. This can obviously also affect the retention selection process, although the QRMC had no way of assessing the degree or extent of such effects.

If the value of early retirement benefits increases the value of retirement so that the compensation (both current and deferred) from staying is equal to or less than the value of separation alternatives, individual may choose to leave earlier than desired. Hence it is important to set the incentive so as to encourage the desired behavior at the career point intended. If the current reserve retirement system was altered to offer an early retirement benefit that exceeded the value of continued service, many members would leave at the point where the early retirement benefits exceeded the value of remaining.

At the other extreme, the QRMC analysis indicates that deferred income currently provides the differential in pay required to attract and retain midcareer members in the reserve components. However, the current reserve retirement system makes the value of continued service after vesting far outweigh the value of separation prior to mandatory separation or age 60.

The continuation of personnel beyond the desired tenure in office results in a buildup of personnel in the junior grades awaiting promotion. Since promotion is the primary means of varying current compensation among reservists, promotion

stagnation decreases the relative value of reserve compensation, causing some members whom the reserve components might desire to retain to depart immediately on vesting.

While promotion stagnation and the resulting loss of midcareer members clearly presents a current and continuing problem for the reserve components, the consequences of an aging force are more difficult to evaluate. There are many reasons for the reserve components to maintain members in an active status beyond qualification for retirement:

- A small percentage of senior members (generally pay grades E9 and O6 and above) are required to fill key supervisory, management and leadership positions within the reserve components.

- Certain classes of members, those with highly technical skills in particular, gain valuable experience through long years of service; experience that is not always easily replaced.

- Certain classes of members possess skills that not only improve with age and experience, but initial training costs are very high. Aviators are representative of this class of members. For the Air Force, pilot turnover at initial retirement qualification would mean losing pilots still at the peak of their efficiency, and could result in higher training costs associated with weapon system training and qualification.

The result of these requirements for senior members is that the reserve components must not only identify classes of personnel for retention, but must target specific individuals within all classes. Class retention and management may be best accomplished through bonuses and special incentive pays, as well as blanket exceptions to separation policies. Efficient individual retention is much more difficult under the current reserve compensation system and manpower policies. The most frequent result is that too many personnel are retained for too long, resulting in an aging reserve force.

Logistics Management Institute (LMI) conducted an analysis of the present age of Selected Reservists. Their findings indicate that the age-critical assignments requiring youth and vigor (infantry and other related combat arms) are fairly well managed, with current mean ages exceeding the active component counterparts by approximately two years. Older personnel are normally in positions of greater importance, where age is less critical than experience and expertise. However, LMI, as their analysis states, made no attempt to project the current force profiles into the future, nor did they make observations based

on current retention trends. Their analysis, which is essentially a static picture of the Selected Reserve in May 1987, is presented in Appendix J.

Appendix C provides graphical presentations of the reserve components by age and years of service. The six-year trends indicate a substantial increase in senior members for all components with the exception of Marine Corps Reserve enlisted members. Further analysis using the RAND Reserve Policy Screening Model (Appendix G) indicates that the aging and seniority trends will continue after the present hump of members, currently centering around age 41 and attributed to the Vietnam conflict, moves through the system. Analysis of the component objective force structures (Appendix F) indicates that, without intervention (increased voluntary or mandatory separation), actual retention of senior members as currently projected will be far greater than desired retention.

High continuation rates beyond 20 years of service in the reserve components are due to the following factors:

- The 1986 Reserve Components Surveys indicate that 19 percent of officers with more than 20 years of service (26 percent of the officer corps has in excess of 20 years of service) are not yet retirement-eligible. Enlisted members with more than 20 years of service represent 9 percent of the total enlisted force, with some 25 percent of those members reporting they are not yet retirement-eligible.

- Analysis of survey data indicates that reserve component members who pursue reserve component careers tend toward civilian employment and lifestyles that support and encourage reserve component membership. Some members may migrate toward occupations that provide opportunities for reserve participation. More important, however, is that long-term retention is related to the original civilian career choice. Less than 20 percent of junior members are employed full-time by federal, state or local governments, while in excess of 46 percent of senior members are government employees. The numbers are even more significant when self-employed members and educators are included. Attitudes of spouses toward Selected Reserve service improve as seniority rises. It is clear that members who remain through retirement eligibility have normally found ways to reduce conflicts or otherwise accommodate reserve component membership to their family or employer.

- Observations made during the 6th QRMC unit visit program indicate that many senior members have become dependent on reserve current income at about the time of retirement eligibility. Many members pointed out that retirement

qualification at 20 years of service coincides with the beginning of college education for children, which increases family expenses.

- Unlike the active component retirement system, there is no concurrent sacrifice of income or benefits associated with continued membership after retirement eligibility and prior to age 60. In fact, the current system creates an anomaly, in that a member actually sacrifices income and benefits if retired or separated prior to age 60.

Figures C-34 through C-37 in Appendix C provide 6-year trends on retirements, separations, and transfers to an inactive status of Selected Reserve members with more than 20 years of service. The conclusion drawn from these trends is that the vast majority of Selected Reservists do not depart active Selected Reserve membership after achieving retirement eligibility until forced into separation by the actions of selective retention boards, statutory limits on service for officers, or reaching age 60, which is the age of earliest eligibility to draw retired pay (see the introduction to Appendix C).

It is significant to note that over 80 percent of retirement-eligible enlisted and 60 percent of retirement-eligible officers listed retirement benefits as a major contributor to their most recent decision to remain in the reserve components. Figure 5-3 presents a graphic representation of the effects on the eventual retirement annuity of continued Selected Reserve service after retirement eligibility. Although this example uses a member in pay grade O5, similar results occur for all grades. Not only does continued service provide continued current income and benefits, but it can provide substantial increases in the retired pay annuity, especially for promotion-eligible members. Again, there is no concurrent sacrifice of benefits associated with continued membership after retirement eligibility and prior to age 60.

Reserve retirement works well as an incentive to draw qualified junior members into reserve careers, as well as to attract and retain active service experience for the reserve components. Figures 5-4 and 5-5 depict the 1986 force profile continuation rates by year-of-service cell for officer and enlisted members. These rates are displayed by component and for the total Selected Reserve. Analysis indicates that continuation rates have been stable over the last four years, and that, barring major policy changes, these rates will continue for the near future, given no large modifications to selected reserve endstrengths.

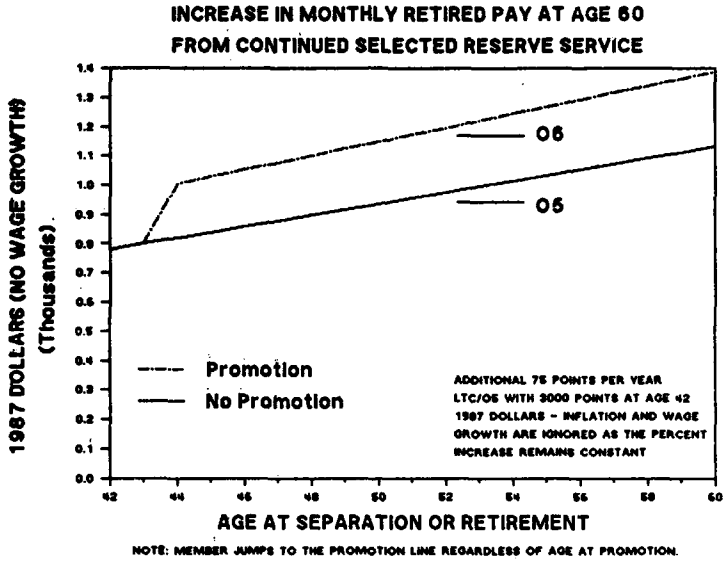


FIGURE 5-3

The effects on both reserve retirement and current policies that limit service are readily apparent in the graphs of continuation rates (this analysis uses the DoD rates; the effects of individual policies of different components are reflected in the component lines).

- Continuation rates for commissioned officers begin a gradual rise after five to seven years of service (the career decision point). The rates remain high until 20 year of service or retirement eligibility, where a decrease occurs. The decrease represents the separation of members who have continued membership primarily for the purpose of vesting retirement benefits. Other apparent effects of policies include the mandatory release of officers with 28 years of service (30 years of service for pay grade O6), and the gradual decline of retention approaching 40 years of service and age 60.

- The enlisted continuation rates emphasize the effects of reserve retirement on retention even more dramatically than does the officer profile. Immediately after the career decision at four to six years of service (end of the first period of obligatory service), continuation rates rise

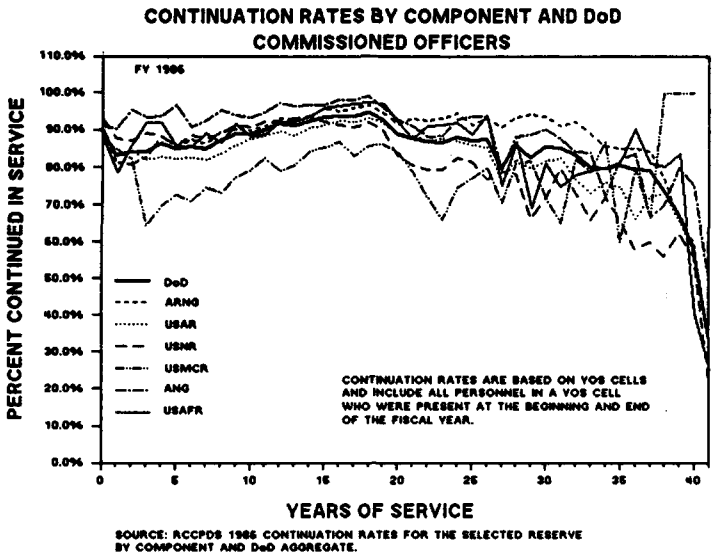


FIGURE 5-4

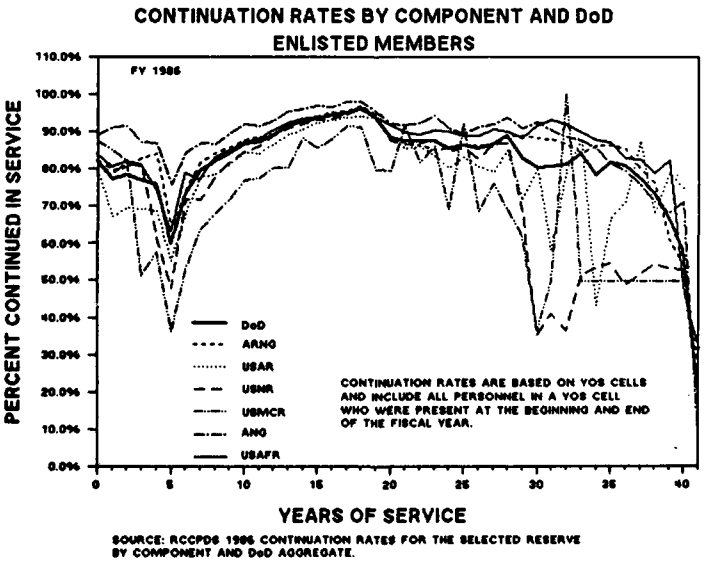


FIGURE 5-5

rapidly until 18 years of service. They then drop sharply toward 20 years of service (correlation with survey data indicates that RCCPDS may fail to pick up a prior active service enlisted members' initial years of service in a regular component, accounting for the decrease at 18 years of service rather than 20 years of service). For enlisted members, who have no statutory limit on service other than age 60, continuation rates stabilize between 85 and 90 percent through 28 years of service (30 years of service if RCCPDS has failed to record initial periods of service in a regular component) and average 80 percent or better to 38 (40) years of service (approximately age 60 if breaks in membership and unrecorded prior service are accounted for).

Although the continuation rate profiles indicate an immediate drop in the continuation rate at 20 years of service (which implies that some members do perform self-selection out of the reserve components at retirement qualification), several important explanatory variables exist: the existence of nonpay billets in the Selected Reserve; the retention of twice-passed-over officers in pay grade O4 through retirement qualification; and the actions of members with large accumulations of points from extended active duty.

For some of these latter members, the primary motivation for continued service is retirement qualification. The discounted value of increased retirement benefits, without the addition of current income, is normally not enough to overcome the value of the time consumed by reserve service after retirement qualification.

Figures 5-6 and 5-7 present the cumulative continuation rates for reserve component service. The line essentially represents the probability of continued active reserve component membership from initial entry with less than one year of service. An individual who enters active reserve service after the first year of service would have a 100 percent probability of continued service at the point of entry, declining by the cumulative continuation rates beyond the entry point. The inflection point in the DoD (and component) curves represents the career decision point and the beginning of reserve retirement as a primary motivator for continued reserve service (seven to eight years of service for commissioned officers, and five to seven years of service for enlisted members).

The conclusion that can be drawn from the analysis implies that the stabilization of the career force from the inflection point to 20 years of service is the direct result of the requirement for 20 satisfactory years of service to vest reserve retirement benefits. Changes in the years of service required for vesting would have two potential effects:

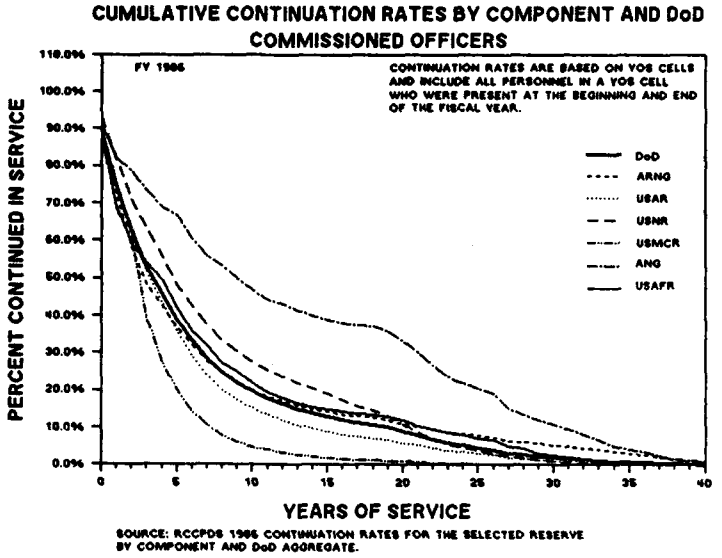


FIGURE 5-6

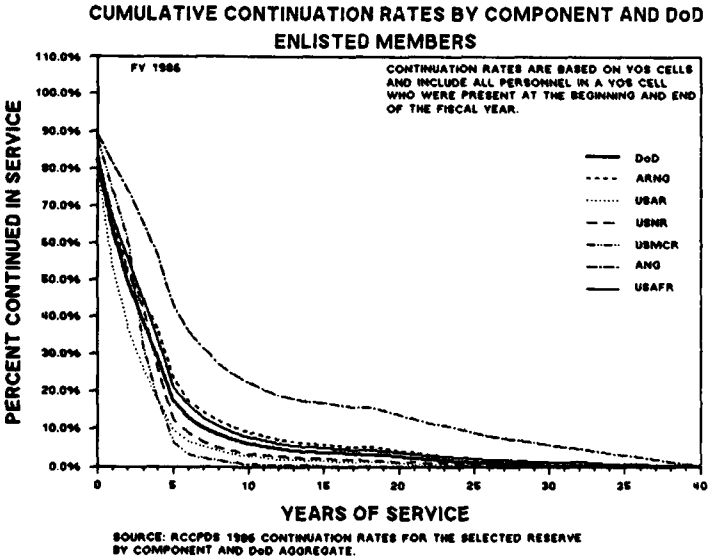


FIGURE 5-7

- An outward shift in the years-of-service requirement (to more than 20 years of service) would shift the inflection point downward and to the right, decreasing the probability of continued service, but extending service for those members who do continue and currently separate or transfer to an inactive status immediately after qualification. The net result would be fewer retirees with greater retired income.

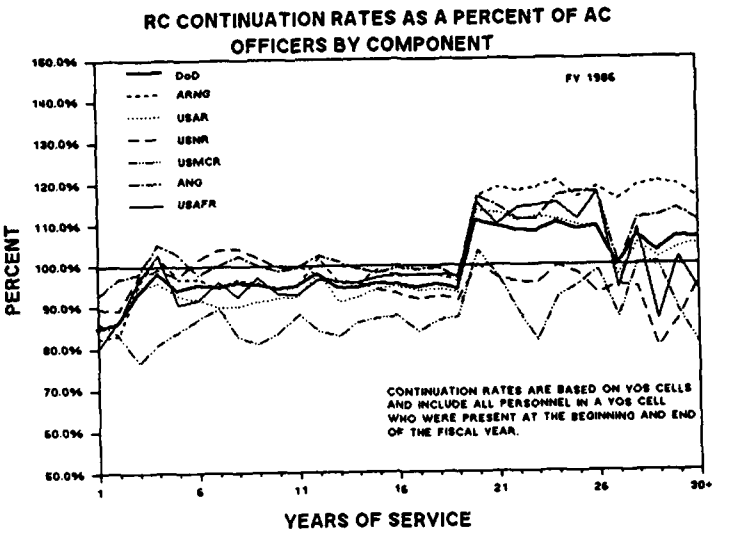
- An inward shift in the years-of-service requirement (earlier vesting) would shift the inflection point upward (it is unlikely the inflection point would move to the left due to service obligations). The upward shift would increase the probability of continued reserve service, increasing the number of midcareer members, and increasing the number of separations and transfers occurring at the vesting point. The net result would be a larger number of retirees with smaller average pensions.

- A shift in either direction would affect personnel turnover and therefore the requirement for initial entry accessions. The outward shift would decrease early retention, shifting the requirement for early accessions upward, increasing the reserve component initial entry training base and associated costs. The inward shift would have the opposite affect on the training base, but would increase the attraction of reserve retirement to current active component members, and therefore, concurrently increase the active component initial entry training base.

While a shift in the years-of-satisfactory-service requirement for reserve retirement could provide beneficial effects on the retention of midcareer reservists, and consequently enhance the value of retirement as a retention tool in the reserve components, a shift cannot be justified in terms of cost to the Total Force without a concurrent shift in the active component vesting requirement.

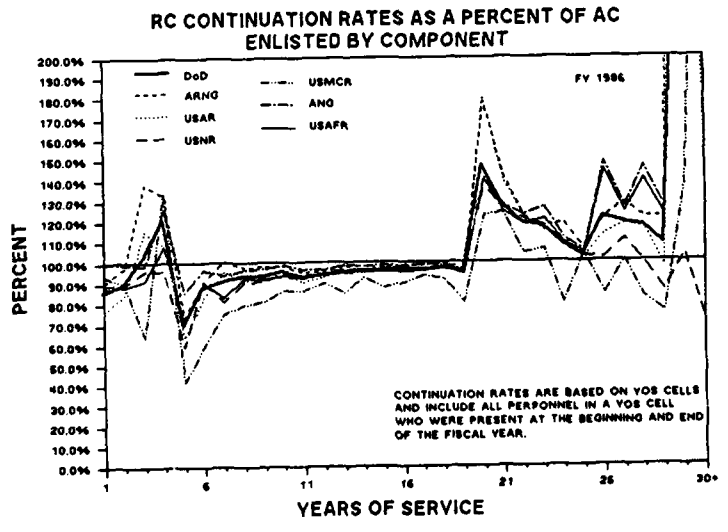
A useful tool in the analysis of the retention effects of retirement on the reserve components is a comparison between the effects of the active duty retirement system and reserve retirement. Figures 5-8 and 5-9 present reserve component and DoD Selected Reserve total continuation rates as a percent of the comparable active component and the DoD aggregate active component continuation rates (active component continuation rates were provided by DMDC).

For the most part, commissioned officer continuation rates lag behind those of the active components through 20 years of service. The effects of active duty policies can be seen in the DoD aggregate line at five years of service (the completion of obligatory service for academy graduates, and the end of the



SOURCE: RCCPDS 1986 CONTINUATION RATES FOR THE SELECTED RESERVE BY COMPONENT AND DoD AGGREGATE. ACTIVE COMPONENT RATES FROM DMDC.

FIGURE 5-8



SOURCE: RCCPDS 1986 CONTINUATION RATES FOR THE SELECTED RESERVE BY COMPONENT AND DoD AGGREGATE. ACTIVE COMPONENT RATES FROM DMDC.

FIGURE 5-9

competitive voluntary indefinite screening process for reserve members on extended active duty), and 12 years of service (final opportunity for promotion to pay grade O4 and augmentation into the regular component). Reserve officer continuation rates are dramatically higher after 20 years of service, reflecting the financial incentive associated with continued reserve service as opposed to the concurrent sacrifice of retired pay associated with continued active component service after retirement qualification.

The depiction of enlisted reserve component continuation rates as a percent of the rates for the corresponding active component explicitly displays the end of first-term commitments (three to four years of service for the active component, and four to six years of service for the reserve components. Beyond this point, reserve enlisted continuation rates lag behind those of the active components, displaying the same trends as reserve officer continuation rates.

Reserve retirement is an excellent retention tool for the reserve components. It is also the primary incentive to attract active component experience to the Selected Reserve, experience that would otherwise be lost to the Total Force. Further, it assists the active components in the maintenance of desired active manpower force structures by providing an alternate means of vesting active component service in a military retirement system. Without such an incentive, it is doubtful that the active components could maintain the numbers of midcareer personnel that they require, members who are not expected to qualify for active component retirement.

The 20-year requirement for vesting creates some minor problems that cannot be corrected through modification of the vesting requirement without a concurrent modification to the active component system. The elimination of retirement as a benefit for reservists would severely hamper the retention of midcareer reservists (as well as midcareer active component members) and the attraction of active component experience to the reserve components.

The analysis of reserve retirement as a retention tool highlights several problems with the current system:

- The present reserve retirement system contributes to an aging force. This results from the lack of benefits prior to age 60 and the lack of a concurrent sacrifice of benefits for continued service.

- The current system contributes to promotion stagnation and dissatisfaction with promotion opportunity in the junior grades. Coinciding with the effects of aging are the effects of increasing seniority among reserve component

members. As members increase in seniority beyond 20 years of service and are not promoted, separated, or retired, the members continue to hold billets that prevent junior members from being promoted. As the system backs up, junior members separate at a higher rate, increasing personnel turnover and related costs.

While some part of this problem could be corrected through the action of selected retention boards or high tenure policies, these policies have been used by the reserve components for many years and the problem continues to grow worse. Further, due to the percentage of personnel beyond 20 years of service who are not yet retirement-eligible, it is likely that forced reductions in senior grades would eliminate some of the wrong personnel. A desirable alternative to the current system would produce the following results:

- Continued high retention of midcareer personnel
- Continued support of required active component force structures, and the continued attraction to the reserve components of members with prior active component experience
- Support of current and projected objective reserve component force structures. Methods of support include support for selective retention policies by providing an incentive for continuous performance of satisfactory years through 20 years of service, and an increasing incentive for self-selection out of active membership from 20 through 30 years of service for personnel without promotion potential or critical skills.
- Attention to the issue of lack of concurrent sacrifice of benefits for continued service, as well as the lack of benefits prior to age 60 ("Gray Area Retirees").

Incorporating the ability to produce these results into an alternative reserve retirement system would address several criticisms of the current system. It would produce a system that is effective and flexible to the needs of personnel management and address the issues of an aging force and promotion stagnation in a manner than can be somewhat tailored to the separate needs of the individual components.

The Cost of Reserve Retirement

As discussed in Chapter 3, the cost of reserve retirement is relative to the expense of maintaining appropriate active and reserve component force profiles in the absence of reserve retirement. Critiques of the costs of reserve retirement have

often viewed retirement costs in isolation from the associated costs of personnel turnover in both the active and reserve components.[11] Further, these critiques have used the current and near-term projected outlays to retirees as the basis of their conclusion.

The analysis of the 6th QRMC examines the cost of the system from a position relative to the associated costs of increased personnel turnover, and relative to the present value of future benefits for the following reasons:

- Current and near-term federal outlays cannot be reduced by modification of the system without reducing the benefits of currently retired and retirement-eligible personnel. Current and near-term outlays (through the year 2028 at minimum) represent sunk costs to the Federal Government.

- DoD contributions to the Trust Fund represent the accruing value of retirement benefits earned in the fiscal year of appropriation. Any modification to the system will show immediate effects in these DoD contributions, to the extent (weight) that members currently in an active status are affected by the modification. An example of this is the affect of high-three averaging and the CPI minus 1 percent method of adjusting retired pay. Although all current members who were members prior to enactment were grandfathered under the system that then affected them, the normal cost percentage has reduced proportionate to the weight of the active members covered by the new system. Outlays, on the other hand, will not decrease until the first members affected by each new system reach 60 years of age (unless an earlier payment is enacted).

Retirement systems increase retention and reduce turnover. They also can encourage separation from active participation at career points considered optimum to meet manpower force objectives. The current reserve retirement clearly serves as an incentive that increases personnel retention. The cost-effectiveness of reserve retirement is directly related to the increases in costs associated with changes in personnel turnover and to alternative retention incentives that would occur in the absence or modification of reserve retirement benefits.

For example, if the elimination of reserve retirement decreased career retention, the cost-effectiveness of reserve retirement as an incentive would be related to the following: the increase in recruiting costs associated with higher personnel turnover; the increase in initial entry training costs and professional education required to fill positions vacated at a faster pace; the increase in current compensation bonuses required to attract members to longer periods of service; the increase in special incentive pays associated with highly

technical skills in demand in the civilian market (aviation career pay); and the increase in incentives to draw active component experience, both officer and enlisted, into the reserve components.

An added factor, much more difficult to estimate, is the value provided to active component manpower programs by the existence of a system of reserve retirement. This value is difficult to capture, but the existence of reserve retirement now provides the only way for members who embark on an active component military career but are unable to complete 20 years of active service to vest their military retirement. This has value to both the active component member and to force managers, particularly in times of significant reduction in active military strengths. It has value to the Total Force in that military experience lost to the active components during a reduction in force is much more likely to be retained in the reserve than it would be without reserve retirement.

Substantial reserve retirement system changes that grandfather current members will affect manpower force structures in the long term. The first effects will not be felt for six to eight years after enactment, and may take 30 to 40 years to mature. The effects of minor change may not be felt for 20 years or more. Reductions in benefits such as high-three averaging or adjustment of retired pay using the CPI minus 1 percent formula are changes for which it may take longer to accurately gauge effects. This is due to the complexity of the reserve retirement system, and current members lack of ability to estimate the true present value of retirement benefits 30 to 40 years in the future. The total reduction in value of reserve retirement of these two changes from the system applicable to members who first entered military service prior to September 8, 1980, is 18 percent. Effects of this reduction are unknown at this time because members affected by high-three averaging are, at most, in their seventh year of service, while members affected by high-three averaging and CPI minus 1 are in their first or second year of service. The lack of change in the reserve retirement system makes the modeling of effects of change in the retirement system on force structure a difficult task at best.

Using the RAND models to estimate the effects of elimination of reserve retirement on reserve component force structures indicates that required accessions would increase from a low of 5 percent for Air National Guard enlisted members to a high of 12 percent for Army Reserve enlisted members. It is important to note here that the RAND models do not have the capability to estimate accessions under varying compensation and supply scenarios. The model assumes that accessions are available, but cannot estimate the level of bonuses or other compensation that may be required to obtain the necessary accessions. It does

predict the number of accessions required to meet overall numerical objectives by estimating the effects of compensation changes on the retention of members after they have joined.

Two problems with this assumption are immediately apparent: the declining pool of service eligible population in the United States, and the ability to attract the required numbers of individuals with prior active component experience in the absence of a reserve retirement system. Beyond this, any increase in the size of the reserve components will not only require accessions on the margin, but will require additional percentage increases in accessions to maintain strengths in the face of reduced retention from elimination of reserve retirement or reduction in its value.

The current limit of the models in projecting force structures is Fiscal Year 2014, not far enough in the future to discern the full effects on force structure that would ensue from a change of this nature. The projected trend that would result from elimination of reserve retirement, even assuming increased current compensation necessary to maintain strength, is toward a junior force with reductions not only in the percentage of long service members but also in the percentage of midcareer members. The model does not capture the effects of the elimination of retirement on quality retention of personnel with current compensation alternatives to reserve service, nor does it consider the role of reserve retirement in the attraction of prior active component experience.

Using the models, and controlling for constant accessions between the current system and an elimination alternative, RAND estimates that it would require an average increase of between 12 and 17 percent (depending on component) in after-tax pay to offset the elimination of reserve retirement and hold accessions constant. This increase is based on 1986 reserve pay and assumes annual inflation adjustments equal to the CPI. While the number of accessions is constant with the current trends assuming no growth in the reserve components, the additional current income that would be required does not include other associated costs of the elimination of the current reserve retirement system. The following is a brief summary of the range of effects that would result assuming elimination of reserve retirement in Fiscal Year 1988 with all current members grandfathered in the system they were under when the change occurred:

- Accruals payments in the DoD budget would immediately be reduced, covering only the future costs of members grandfathered under the current systems. Accrual payments would continue through Fiscal Year 2018.

- Outlays from the military retirement fund to current retirees and grandfathered members would remain the same as outlays for the current systems until Fiscal Year 2026. Outlays would begin to decrease in Fiscal Year 2026, but they would not have reached zero by Fiscal Year 2063, the last year of available actuarial projections.

- Initial entry training costs would rise due to increase accession requirements and a larger proportion of accessions who have no prior service. An unknown cost is associated with the ability to attract prior active component experience in the absence of reserve retirement. The ability to achieve accessions necessary to meet endstrengths is unknown, but would be a significant potential problem.

- Estimates of the increase in current compensation costs include only those required to provide an economic incentive to remain once in service, they do not include increases in recruiting costs or accession incentives.

- The model does not account for personnel quality in retention. In the absence of a retirement system with vesting requirements, members whose alternatives to reserve service would produce a higher return than the increases in current compensation would be expected to separate; the penalty of lost retirement benefits would have been removed.

The increased current compensation is not a constant percentage per individual, but rather an estimate of the total value of additional retention incentives required. Time and experimentation would be required to determine the appropriate career points and amounts that would have to be applied. Since total outlays for current compensation would increase significantly, and outlays for reserve retirement would not begin to decline from the levels that would be experienced with no change for nearly 40 years, there would be very great increases in total outlays attributable to reserve manpower over a very long period.

Whether the eventual costs of reserve manpower would be reduced is more difficult to judge. The required increases in reserve compensation after taxes, as estimated by the RAND model, range from 12 to 17 percent depending on component. For the purposes of evaluation, an average increase of 15 percent in after tax take home pay is assumed. The increases are based on 1986 levels of reserve take home pay, and assume that pay will be adjusted by the CPI in the future. In January of 1988, inactive duty pay for reservists was subjected to FICA withholding, and the Department of Defense was required to pay the employer's share of FICA tax on IDT pay. Coupled with a 4.1

percent rise in the CPI for 1987, reserve IDT take home pay suffered an approximate 9 percent loss in value in January 1988 after accounting for the 2 percent raise in basic pay granted by Congress.

For purposes of this analysis, it is assumed that the increases in basic compensation will be distributed among midcareer and senior members. For this reason it is assumed that 50 percent of the employee's share of FICA tax is either recaptured in tax refunds or is appropriately discounted as a current benefit by the recipient. All of the employer's share of FICA tax is an increase in the DoD Budget.

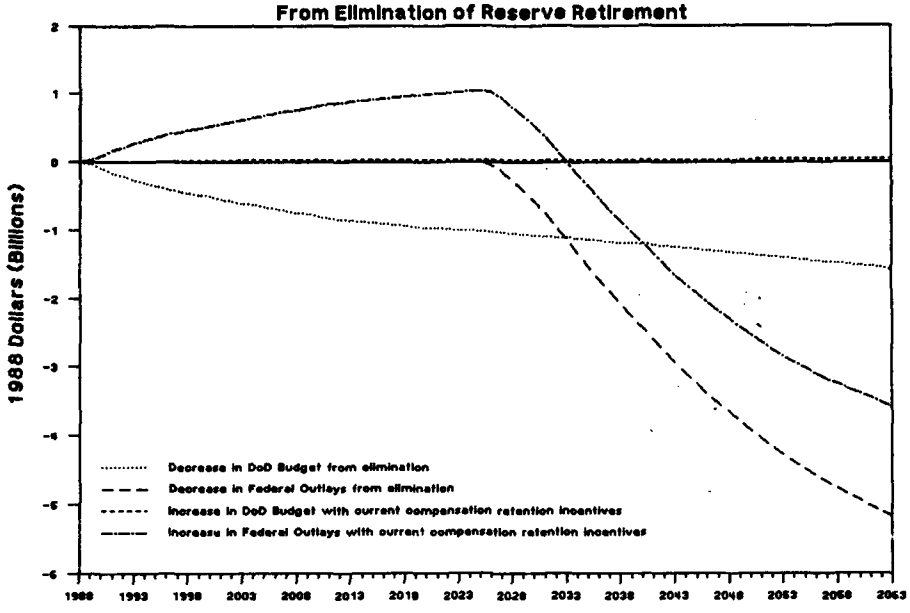
Increased current compensation is subject to immediate income tax at the marginal rate. Although the marginal rate for most senior members will approach 28 percent, an average marginal rate for the reserve manpower force of 22 percent has been used. This results in a 12 percent differential, as opposed to 18 percent, over the average tax rate of 10 percent. In 1986, $90 in take home IDT pay cost the Department of Defense $123 in budgeted funds, including accruals payments for reserve retirement. As of January 1, 1988, $82 in take home pay ($86 in value, including the future value of FICA contributions) cost DoD $131 in budgeted authority, including accruals for reserve retirement and the DoD share of FICA contributions.

The required 15 percent after-tax increase in 1986 take home pay will require $104 for each $90 of 1986 income ($100 before 1986 income tax). In 1988, $104 of after-tax take home pay (including the discounted value of FICA benefits) represents a DoD budget cost of $133, including the DoD share of FICA. This is opposed to the $131 in budgeted funds required to produce current levels of after-tax take home pay and accrue reserve retirement benefits. The net increase in budgeted basic pay required is 23.5 percent as opposed to the current accrual rate of 22.8 percent for reserve retirement.

If federal government outlays are considered, and an assumption is made that all tax is an intragovernmental transfer, current income outlays for reservists rise from $82 (per $100 of budgeted basic pay) to $104 in 1988 ($90 to $104 at 1986 levels), a 26 percent increase in federal outlays, notwithstanding the increases in accession bonuses, recruiting and training costs that would be incurred, or the increases in future social security benefits that are accruing to reservists. The effects of elimination of reserve retirement and replacement with current income incentives on the DoD Budget and on federal outlays are graphically displayed in 1988 dollars in Figure 5-10. Figure 5-10 includes only the effect of the 15 percent after-tax raise in current income, and assumes that only members who are not grandfathered under the current retirement system will receive the increase.

Marginal Difference in Defense Budget and Federal Outlays

From Elimination of Reserve Retirement



Fiscal Years

Figure 5-10

As shown, the DoD budget will increase slightly over current levels. The budget figure includes accruals for retirement benefits for grandfathered members and the marginal increases required to administer the 15 percent after-tax increase in pay. Again, it does not include the marginal increases in other associated costs. The outlay line includes the outlays to current and grandfathered retirees and the marginal increase in outlays (assuming recapture by the government of all tax) from the 15 percent after-tax increase in basic compensation for new entrants. Projected outlays do not include FICA rebates to fully covered members, outlays from other associated costs, or outlays from future increases in social security benefits from additional coverage to new members.

Under the assumptions stated above, the estimated increases in costs from elimination of reserve retirement and replacement with current income incentives would appear to represent a "best case" scenario. Actual increases in associated costs would be higher than those shown. Although the DoD Budget would continue

to increase more rapidly than under the existing system, the best case scenario indicates that federal outlays would reduce from current levels beginning in Fiscal Year 2033. Total excess cumulative outlays peak at over 29 billion 1988 dollars and are not recaptured until Fiscal Year 2053, 65 years after enactment. The peak annual marginal increase in 1988 dollars is over one billion per year.

The QRMC concludes that a retention incentive for midcareer members is necessary and required to maintain optimal manpower force structures as well as required levels of leadership and management talent and technical experience. While the exact cost has not been established for a current compensation retention incentive that would compensate for the elimination of reserve retirement, analysis indicates that the cost to the DoD Budget of such an incentive would be higher than the cost of deferred income alternatives. In the best case, federal outlays would increase dramatically in the near term, with real dollar cumulative savings not occurring for at least 65 years. Actual savings in outlays would be significantly less (potentially negative), which would put the crossover point (as well as the point where net savings begin) even further into the future. Finally, although the model cannot project beyond Fiscal Year 2014, retention trends in the senior grades under a current compensation alternative are below those required to maintain the Services' objective manpower force profiles. This indicates that, although the force size is assumed to remain constant (clearly a questionable assumption), experience levels, and hence, readiness, would decrease.

The 6th QRMC concludes that the use of deferred income as a retention incentive is more cost-effective and preferable to the use of a current compensation incentive. However, as shown in the analysis, there are problems with the current system. These deficiencies can be addressed by alternatives that do not affect the value of retirement as a retention tool for midcareer officers and enlisted members. These alternatives can therefore be evaluated solely in light of the retention value and projected costs of the present system. They are described and analyzed in Chapter 6.

Effects of an Age-Based Retirement System

A longstanding criticism of the current reserve retirement system suggests that reserve retirement is an incentive designed primarily for the benefit of officers. The historical basis for this argument is the 3-to-1 ratio of officers to enlisted members drawing reserve retired pay. The current ratio of officers to enlisted members in the Retired Reserve is primarily a result of retention of World War II and Korean officer veterans, the relatively poor reserve training programs generally in existence prior to the 1960s, and most importantly,

to the greatly improved retention of and value of retirement benefits to the All-Volunteer enlisted force recruited after 1973.

As pointed out in Chapter 1, the reserve components had severe retention problems prior to World War II. The enactment of reserve retirement was designed to assist in overcoming this problem. However, the Act allowed credit for service prior to enactment in the determination of qualification for reserve retired pay. The vast majority of reservists prior to World War II were officers, a trend that continued until 1952 when the present unit-based Selected Reserve system required the recruiting and retention of more enlisted members than officers.

The current population drawing reserve retired pay is composed of members who first entered service prior, during, or shortly after World War II. A member who was 18 years old in 1945 would have entered this population group in 1987 at age 60. As indicated in Chapter 3, the number of enlisted retirees currently reaching age 60 is approximately equal to the number of officer retirees. Shortly after the year 2000, the cumulative enlisted reserve retiree population will exceed the cumulative officer population, and, by the year 2025, the ratio is projected to be approximately two enlisted members for every officer drawing retired pay.

The QRMC analysis does indicate that an age-based retirement system favors late entrants into the system. The present economic value of the retirement annuity is significantly greater to a member who enters later, qualifies and retires later, and consequently waits less time to receive retirement benefits. This would suggest that an entirely age-based system is economically more valuable to officers (who enter and retire later) than to enlisted members.

The Retirement Point System

The analysis of the retirement point system and related conclusions and recommendations are presented in Chapter 7. The 6th QRMC regards the recommendations for changes in the retirement point system as appropriate for the current system as well as for the recommended alternative presented in Chapter 6.

Summary and Conclusions

The 6th QRMC analysis of the current system has concluded that a retention incentive for career reserve service is necessary and required to maintain appropriate manpower force structures, related leadership resources, and technical experience. Analysis indicates that current compensation alternatives would be less cost-effective. Further, the reserve retirement system

is the primary tool for attracting prior active component experience into the reserve components, a tool that our analysis indicates cannot be replaced with equal effectiveness or at less cost with current compensation incentives. The 1986 Reserve Components Surveys indicate that retirement benefits are the single most important factor in the decision to reenlist or remain in service. However, there are current and projected manpower force management problems related to the current reserve retirement system:

- The current system contributes to a force with more members with long service than desired. This is primarily the result of the lack of benefits prior to age 60, and the corresponding financial incentive to continue active participation beyond retirement qualification.

- The rising seniority of the part-time Selected Reserve force contributes to promotion stagnation and related dissatisfaction with reserve service. This may result in higher turnover of junior members and a related shortage of midcareer members.

- The current age-based system economically favors late entry into service. Additionally, current limits on the length of service contribute to a pool of trained mobilization assets with no incentive to retain membership in the Retired Reserve after mandatory separation prior to age 60.

The 6th QRMC concludes that the current reserve retirement system should be modified to more effectively support these objectives:

- Continued high retention of midcareer personnel

- Continued attraction to the reserve components of members with prior active component experience, without negatively affecting the maintenance support of required active component force structure

- Current and projected objective reserve component force structures; by providing an incentive for continuous performance of satisfactory years through 20 years of service, by providing an increasing incentive for self-selection out of active membership from 20 through 30 years of service for personnel without promotion potential or critical skills, and by providing a compensation system that can be integrated with selective retention programs in the reserve components.

- Early initial entry and continuous satisfactory service through retirement for career-oriented members.

Analysis of the current reserve compensation and retirement system has led to the conclusion that the deferred income system should support, rather than dictate personnel policy. The introduction to Chapter 6 will detail how and why this is necessary within the structure of reserve compensation and force manpower policy.

Notes

1. U.S., Department of Defense. Office of the Deputy Secretary of Defense (Reserve Affairs), Reserve Compensation System Study Final Report, June 1978.

2. Report of the Fifth Quadrennial Review of Military Compensation, vol. 1, pp. XI-145ff (Office of the Secretary of Defense: January 1984).

3. Ibid. pp. XI-146 to XI-147.

4. Op. Cit. pp. v-1 to v-2.

5. See John W. Brinkerhoff and David Grissmer, "The Reserve Forces in an All-Volunteer Environment," in William Bowman, Roger Little, and G. Thomas Sicilia, eds., The All-Volunteer Force After a Decade (McLean, Virginia: Pergamon-Brassey's 1986) pp. 206-229. This article contains citations for the Air Force-sponsored studies and a summary of the features of reserve participation that distinguish it from other secondary labor market participation.

6. Allen, Steven G. and Robert L. Clark. Pensions and Firm Performance, in Human Resources and the Performance of the Firm, edited by Morris M. Kliener, Richard N. Block, Myron Roomkin, and Sidney W. Salsburg, Industrial Relations Research Association, Madison, Wisconsin, 1987, pp. 200-201.

7. Ibid. Also, data from the spouse survey indicates that married reserve component members in the junior grades are three times more likely to be covered by a private sector pension plan than the general population. Over 90 percent of the respondents in grades above E4 and O2 on the spouse survey indicated that their spouse (the military member) was covered by a private pension plan. The comparable figure for the general population is approximately 70 percent. The fact that these members are covered by another pension plan and still report retirement and retirement credit as the primary economic motivator for reserve service indicates a higher utility for retirement than current compensation, and conversely, a significantly lower personal discount rate than the member places on the future value of current income. The relatively greater extent to which National Guard and Reserve members appear to value retirement benefits as compared to the general population is also inferred by the analysis of the relative value of reserve retirement to those with access to another retirement system as compared to reservists who do not participate in any other retirement plan. Junior officers and enlisted members for whom a retirement plan was available from civilian employment were much more likely to rate reserve retirement as a major factor contributing to their most recent decision to stay, (and much less likely to say that

reserve retirement was a minor factor), than were those who had no civilian retirement plan.

8. Ibid. pp. 220-223.

9. Ibid. p. 238.

10. Lazear, Edward. "Why Is There Mandatory Retirement?" Journal of Political Economy 87 (December 1979): pp. 606-20.

11. For example, the July, 1971 Report to the President on the Study of Uniformed Services Retirement and Survivor Benefits by the Interagency Committee, expressed the Committee's belief "that the present reserve retirement subsystem provides more economic incentive than necessary to meet its manpower requirements by permitting annuity computation to be based on future pay rates, unrelated to the pay level in effect while the member was participating in reserve service." (Volume I, Page 3-2). The argument presented, however, had to do with equity with the active duty nondisability retirement system, not with an assessment of the actual relative costs and interaction of the two systems. It also ignored the fact that the active system provides an immediate annuity.

Chapter 6. ALTERNATIVES TO THE CURRENT RESERVE RETIREMENT SYSTEM

The QRMC assessment of costs and benefits of the current reserve retirement system concluded that the system is a major factor in the ability of the reserve components to meet their manpower objectives. It also found, however, that the current system is not effective in supporting manpower policies for members who have already qualified for retirement except for being age 60. Further, it may be less effective than it could be in providing an incentive to continue participation for members with less than 20 years of service. Given these conclusions, the challenge was to determine if the current system could be restructured to more effectively support manpower force objectives and overall readiness of the reserve components.

The development and assessment of possible alternatives was guided by several considerations, which became the design criteria for alternative systems. The general principles of military compensation that helped to guide the QRMC study include the principle of integration of active and reserve component compensation systems. This integration supports the transition of members from one component to another in both war and peacetime conditions.[1] This was a particularly important principle in the review of reserve retirement. Thus, in assessing the range of alternatives to the present system, the 6th QRMC was bounded by the realization of the need to maintain active and reserve retirement systems that provide for an equitable and uncomplicated transition from one system to the other. It is also clear that, given the need for this integration, the active duty retirement system cannot be driven by the reserve system. This may be obvious in view of the relative size and costs of the two systems and in view of the fact that retirement is more critical for the full-time member. Although reserve retirement is essential to the achievement of manpower objectives, the relative importance of retirement for reservists is affected by the benefits available through their full-time employment. For similar reasons, the current compensation elasticities for reservists are much lower than for active members.

The model used by the QRMC to evaluate retention effects of changes in reserve retirement is described in Chapter 4. It is based on the comprehensive model developed by the RAND Corporation to estimate the effect of compensation changes on the retention of Air Force Officers. Other models that have

been used to estimate the extent to which military retirement changes would affect retention showed less promise for adaptation to reserve force populations. The use of the RAND Dynamic Retention Model by the 6th QRMC was based in large part on the conviction that, because reserve compensation is a relatively small percentage of the total income of career reservists, any reserve manpower model must be able to accommodate the effects of military "taste" variables in addition to monetary factors.

The limitations of the RAND Dynamic Retention Model used by the QRMC are discussed in detail in Chapter 4. This discussion makes it clear that, when assessing the potential effects of a significant reduction in the value of reserve retirement, the possibility of error is, for a number of technical reasons, much greater for the reserve population. It is also important to assess the practical consequences for reserve readiness, should the actual effect of a reduction be significantly more adverse than estimated.

The issues involved in the analysis of reserve retirement are, in many respects, quite different from those for the active components. One of the primary differences between active component and part-time reserve component members is absolute knowledge of civilian employability and earnings potential on the part of the reservist. While retirement from the active components and acceptance of full-time civilian employment may result in increased current income from the combination of military retired pay and civilian income, retirement from the reserve components will produce higher current income only if a retirement alternative produces more current compensation than active reserve participation or if the retired member uses the time once spent on reserve component service in a manner that produces income (more overtime or a second civilian job).

There is general agreement that savings in retirement cannot be realized without some loss of senior career personnel. In the active forces this means increased accession costs that would be partly offset by lower current personnel costs. Because of the limited paid duty of reserve members, reduction of the proportion of senior personnel in the force results in relatively small savings compared with the active components. Costs of increased accession requirements generated by lower retention of more senior personnel overwhelm the savings generated. Thus it is particularly important planned reductions in senior personnel be based on erations other than costs, e.g. enhanced retention of midcareer personnel, closer alignment with age and experience objectives based upon military effectiveness, and similar life cycle management considerations.

More importantly, the effectiveness of current compensation options that would be used to deal with unexpectedly adverse effects from a reduction in the value of reserve retirement are very difficult to estimate for a number of reasons:

- As shown in other analyses conducted by the 6th QRMC, the effects of compensation in the reserve setting can only be understood within the framework of the relationship between reserve service and the full time employment or status of the reserve member. Loss of civilian employment and income opportunities dramatically affects retention, as does change in job and marital status. For a significant part of the reserve population, this can overwhelm reserve compensation effects.

- Unlike members of the active components, many reserve members who stop participating for reasons other than compensation often return when these reasons no longer prevail. The existence of the reserve retirement system clearly increases the return rate of these members.

- The reserve components rely heavily on the affiliation of individuals with prior active component service. There is no experience to indicate what the level of this affiliation would be without a strong reserve retirement incentive.[2] As discussed earlier, the small amount of light that the experience between the two World Wars can shed on this issue indicates that this could be a significant problem. The reduction of accessions from this prior service population would have the same effect as the reduced retention of career force members with respect to increased training costs. Moreover, this impact, combined with the possibility of a markedly reduced return rate of separatees as discussed above, makes it likely that a significant reduction in the value of reserve retirement would have a near-term effect on reserve manpower.

In discussing the potential adverse impacts of reducing the value of the active duty retirement system, analysts have noted that, with all current members of the force continued in the existing system or "grandfathered," the impacts would not be felt for 8 to 10 years, when the pull of the retirement system begins to have a strong impact on retention. This would provide time to implement current compensation programs to keep retention at desired levels. In the reserve setting, as discussed above, compensatory initiatives could be needed much more quickly.

The need for effective integration of the active duty and reserve retirement systems presents another consideration of primary importance. As the QRMC analysis indicates, reserve retirement is important in order to attract into the National

Guard and Reserve sufficient numbers of members with prior active component training and experience. Conversely, the system must not be so competitive that it induces losses from the active components. This is especially true in the case of officers and enlisted specialists with high training costs and significant active component retention problems. These factors lead to the following design considerations for alternative reserve systems:

- The reserve retirement system must be fully compatible with the active duty retirement system, with active duty and reserve service creditable in either system.

- Reserve retirement should be sufficiently attractive to aid in recruiting members with prior active component experience without being so competitive that it causes undesired attrition from the active components.

As noted above, the QRMC concluded that the current system was not effective in supporting personnel policies and retention objectives for members who have already qualified for retired pay at age 60. The QRMC review concluded that the reserve components would generally have some difficulty in managing the Vietnam Era hump within the next several years and, potentially, in producing optimal force distributions with the increasingly senior enlisted force that is likely in the future. The QRMC also was cognizant of the fact that most recommendations for significant alternatives to military retirement have proposed that current members be grandfathered. These considerations led to the following criteria for alternative retirement proposals:

- An alternative system should be structured to support the accomplishment of reserve manpower force objectives in the near term.

- Members who first entered a uniformed service prior to the enactment of any proposed alternative should be provided the option of electing the alternative system or remaining under the current system.

There are very significant differences among the reserve components in terms of both actual and desired manpower force structures. Some components require much higher retention from 20 to 30 years of service in order to meet their manpower objectives than do others. In no case, however, did a component indicate a significant requirement for continued service beyond 30 years, and nearly all indicated a desire to decrease the size of their manpower force with more than 30 years of service. For this reason the QRMC formed the following conclusions:

- An alternative system must be sufficiently flexible to meet the needs of all seven reserve components.

- The economic incentive for any desirable alternative should always be for continued service in a pay billet, through, at minimum, 30 years of service.

The current age-based reserve retirement system does not provide a strong incentive for continuous satisfactory reserve service from initial entry into the reserve components. As long as the minimum qualifications for drawing retired pay are met prior to age 60, there is no direct compensation penalty for breaks in service. An incentive for continuous participation would increase the threshold for separation or breaks in service from outside pressures, increasing the average length of service and, therefore, potentially decreasing required accessions:

- An alternative to the current retirement system should provide an incentive for continuous satisfactory service from initial entry through, at minimum, 20 years of service.

Related to the above criterion is the positive effect of continuous satisfactory service on selected retention or high year of tenure policy. A compensation incentive for continuous satisfactory participation would support policy initiatives such as high year of tenure, maximum years of total service, or selective retention screening consistent with reserve component requirements.

An underlying principle of the military retirement system is that it should be integrated with the total system of military compensation. Under current law, there is no means to replace lost reserve income for the member who has qualified for retirement at age 60 but is no longer able to participate or is not allowed to do so. An early payment that would provide this integration should be sensitive to the reserve income level being replaced. The availability of a retirement option that replaces a percentage of reserve income would relieve a large portion of personal considerations in the reserve retention process. This suggests the following criterion for a retirement alternative:

- An alternative to the retirement system should provide a means to replace an appropriate percentage of reserve compensation for members who have qualified for retirement at age 60 but can no longer participate due to policy or personal reasons.

Underlying all of the principles of military compensation is the implied assumption that the elements of the system are sufficiently visible that members can understand the value of their compensation and react to incentives as intended by the

system design. This becomes particularly important whenever significant changes are proposed or implemented. Therefore, the following criterion is applicable:

- An alternative should be relatively straightforward in application, so that the modified or optional system can be readily communicated to and understood by reserve members.

In line with the principle that military compensation should be no higher or lower than necessary to fulfill its objectives, any alternative should not increase long-term retirement costs unless this would clearly result in a more cost-effective system. Because of the difficulty in demonstrating that a system with increased long-term costs would be more effective, the QRMC concluded that:

- Retirement system alternatives should be cost neutral or reduce long-term retired pay costs.

Finally, the overall guiding consideration in the design and evaluation of alternatives to the reserve retirement system is that policy should dictate force management decisions, not compensation. Compensation alternatives should support current and projected policy, and be flexible enough to adjust to changes in policy.

Alternative Systems Considered in Previous Studies

In addition to the examination of alternatives that meet the above criteria, a review was conducted of alternatives to the current system that had been recommended in previous studies of reserve retirement, or alternatives suggested by members or others concerned with retirement benefits. The Reserve Compensation System Study (RCSS) included two major alternatives with several variations and proposed two retirement options as part of their reserve compensation system alternatives:

- **Eliminate reserve retirement.** The savings from elimination would be reallocated into current compensation career bonuses for members with over seven years of service.

- **Reduce the value of reserve retirement.** The RCSS proposal would have resulted in retired pay reductions in the range of 20 to 35 percent. The proposal included provisions for a lump sum option. The lump sum option could be elected by the member at the time of retirement, rather than at age 60.

Other proposals, though not as well documented as the RCSS alternatives, have been suggested by the Department of Defense, military associations, and reserve members (on the 1986 Reserve Components Surveys comment sheets). They include the following:

- **The 1985 legislation submitted by the Department of Defense.** This legislation was submitted in response to a congressional directive that ultimately resulted in the Military Retirement Reform Act of 1986 and the requirement for this review of reserve retirement.
- **Lowering the age of first eligibility for retired pay to 55.**
- **Provision for an actuarially neutral early annuity.** Although not always specified as actuarially neutral, suggestions for a "reduced" early annuity, or some portion of retired pay prior to age 60 were prevalent in the comments made by members participating in the 1986 Reserve Components Surveys.

Career Bonus Incentives Instead of Reserve Retirement

The QRMC reviewed these alternatives for effects on manpower force objectives. The replacement of reserve retirement with current compensation career bonuses for midcareer members was rejected as a plausible alternative for reasons outlined in Chapter 5. Analysis indicates that current compensation incentives for career service would be more expensive and less effective than the current system of reserve retirement. The effect of career bonuses or retainer pays on the retention of members who have alternatives to reserve service is unknown, and qualitative retention problems could occur. Finally, the elimination of reserve retirement, despite the provision of current compensation incentives, would be likely to reduce substantially the attraction of members with prior active component experience to the reserve components. In 1980, following 18 months of additional research and analysis on reserve compensation and retention after the completion of the RCSS, a final report on the compensation system for the Selected Reserve was forwarded to the Congress. The analysis concluded that reserve retirement was an important inducement to career force stability and to accessions of members with prior service. The report concluded that "the overall structure of the retirement system should remain intact."[3]

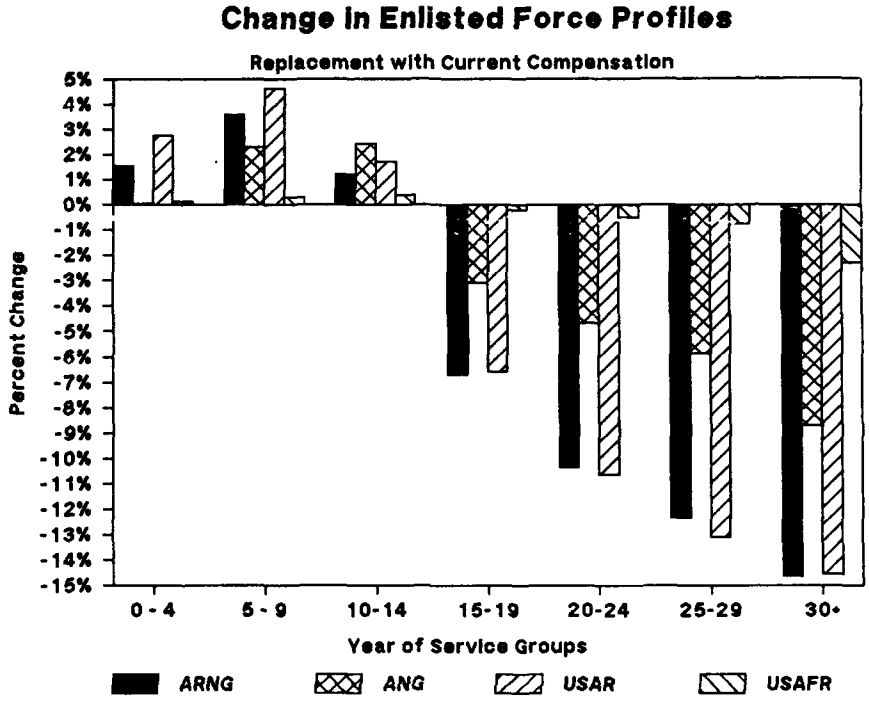
Appendix E provides the DoD Office of Actuary projections of the effects of eliminating reserve retirement on both future trust fund outlays and DoD contributions to the retirement fund. The projections indicate that outlays from the Military Retirement Fund would not begin to decrease until the year 2026.

Chapter 5 provides a detailed analysis of the known retirement system costs and estimated current compensation costs that would be associated with the elimination of reserve retirement. These costs would increase federal outlays for the next 50 years and increase the DoD budget indefinitely. Additional recruiting and training costs, not included in the estimates but likely to be as significant as the estimated current compensation costs, would add to the total costs of this alternative. The elimination of reserve retirement and its replacement with career bonuses was rejected as a viable alternative, due to the associated increases in cost and the elimination of the attraction of prior active component experience to the reserve components.

While the monetary cost likely to be associated with the replacement of the reserve retirement system with current compensation incentives is a major consideration, potential impacts on manpower force structures are also important. The RAND models developed for the 6th QRMC were used to estimate these impacts. Under the incentives of the current retirement system, the length of service of many reservists stretches well beyond 30 years. Thus, the impacts of eliminating reserve retirement on distribution of manpower experience would be partially masked for 15 to 20 years and would not be fully revealed until 30 or more years following elimination. This time span is sufficient to place severe burdens on most military manpower models, let alone a new model of the complex reserve manpower system that has heretofore not been represented except by relatively primitive models.

The QRMC, therefore, used the RAND models to project notional manpower force structure distribution by treating the existing force as though it had been retained without a retirement incentive. The notional distribution was obtained by projecting the actual 1986 manpower force of the four components over 20 years. This provides an approximation of how a current compensation alternative would affect the distribution of experience. Since the existing force was not retained without a retirement incentive and the projection is cut off at 20 years, the relative differences are likely to be underestimated. On the other hand, some of the projected effects might be reduced through skillful targeting and packaging of the current compensation alternatives.

Figure 6-1 presents the percentage change in enlisted years-of-service groups for the reserve components of the Army and Air Force. The percentage change shown is relative to the strength within each years-of-service group under the current reserve retirement system, projected for 20 years from 1986. Two facts are critical to interpretation of the graph: the model assumes constant endstrength (no growth or decline) and the model assumes that accessions are available and the DoD will



Source: RAND Dynamic Retention Model

Figure 6-1

provide all necessary monetary incentives to obtain them. The percentages of change shown are also relative to the total strength within each years-of-service group. Thus the 3 percent increase in years-of-service group 0 through 4 for the USAR represents a number equal to 13 percent of the 15-19 years-of-service group. Finally, as discussed above, the change in force profile shown in the graph is a snapshot after 20 years; change in the direction indicated might be expected to continue.

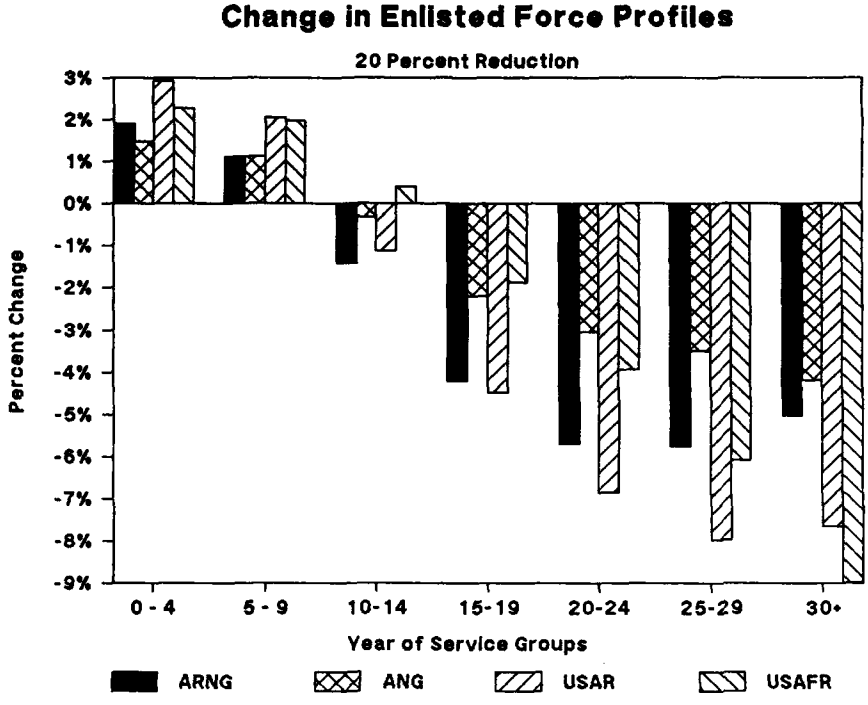
The model indicates that, in the absence of reserve retirement, retention becomes a problem in the midyears of service, even with current compensation alternatives in place. This is shown in Figure 6-1. The shift in force profile represents the increases in accessions that are required to offset the reduction in career retention. Projected shifts in force profiles that result from replacing reserve retirement

with current compensation are based on an even distribution of the current compensation increases for members across all years of service. Although the 15 percent increase in current compensation maintains current accession levels, it does so by marginally increasing the average length of service for new entrants rather than by increasing the average length of service for careerists.

Substitution of youth for experience is much more problematic in the reserve than in the active components. Not only is training more expensive relative to the actual cost of experienced part-time personnel but, even if all the increased accessions are provided formal training, substantial on-the-job training is necessary to achieve individual readiness. It is clear that problems of limited training time and adequate training resources make this a long process in the reserve. Steady state objective manpower force profiles developed by the Services for the 6th QRMC generally indicate a trade-off between youth and experience that uses increased numbers of midcareer personnel and fewer members with over 25 years of service.

Should reserve retirement be replaced with current compensation, the significant projected losses of midcareer personnel could potentially be reduced through skillful targeting of current compensation alternatives instead of an across-the-board distribution. There is a substantial question as to how much more efficient such targeting would be in the reserve environment, however. The long-term ability to provide stable and visible targeted bonuses or special pays is another consideration. For example, the 6th QRMC review of reserve bonus programs found that congressional delays in reauthorizing bonus authority and delays in implementation of the programs by the reserve components appeared to result in decreased retention. The stability of the retention incentive provided by the reserve retirement system is certainly an important plus during any period with changing budget priorities and changing emphasis on the manpower program turbulence.

As explained in chapter 5, the QRMC concludes that current compensation alternatives would be more expensive than the current reserve retirement system. If current compensation were substituted for reserve retirement, and one examines the potential impacts on the experience distribution of reserve manpower, it is seen that such a change would reduce the proportion of members with very long service. This change is warranted. It would also be likely to reduce the proportion of members with between 15 and 19 years of service, however, and this change would almost certainly impact on readiness.



Source: RAND Dynamic Retention Model

Figure 6-2

Reductions in the Value of Reserve Retirement

Even if it is granted that current compensation in lieu of reserve retirement would not reduce costs or improve personnel readiness, it could still reasonably be argued that reducing the value of reserve retirement would save dollars in DoD budget authority, dollars that could be used for targeted incentives that would more effectively achieve manpower objectives. Although a combination of current income career bonuses in combination with a less expensive reserve retirement system might produce similar accession requirements, to the current system at the same or less cost, it is highly unlikely. A 20 percent reduction in the value of reserve retirement for new entrants results in increased accession requirements, varying between 1.5 percent and 3.0 percent depending on component (Figure 6-2). The 20 percent reduction in reserve retirement would result in an normal cost of 18.2 percent of basic pay for new entrants, leaving a maximum of 6 percent of reserve basic

pay appropriations available to offset the associated cost increases of higher personnel turnover. (Savings would increase as the normal cost, computed under a weighted average, gradually was reduced from 22.8 percent to 18.2 percent. Current outlays would continue through 2026 just as they would if reserve retirement were eliminated, so that total costs to the government would be higher with any significant reduction in the value of reserve retirement.) As stated earlier, initial entry training costs in the reserve components tend to overwhelm savings produced by earlier separation of senior members, unless there is an offsetting increase in midcareer retention.

Reductions in the value of the current reserve retirement system, while maintaining the current structure of the system, would not reduce the problems already identified with the present system. For instance, members who have completed 20 years of service qualifying for retirement at age 60 are still encouraged to remain in active reserve service for as long as possible in order to increase their eventual retirement benefit.

To model reductions in the value of reserve retirement, the 6th QRMC used the same approach as was used in modeling elimination of the system. Figure 6-2 indicates the projected changes in manpower force profiles from a 20 percent reduction in the value of the current reserve retirement system. Midcareer years of service groups are most affected. The losses are cumulative as years of service increase, since losses in these years of service are not fully replaced by gains even under the assumptions of the model, which does not constrain accessions based on supply estimates. The percentage declines in the senior years of service, for all components except the USAFR, are less than the midcareer declines, indicating that those members who do stay, stay longer. The net result is increased shortages of midcareer personnel. The USAFR profile reflects the relatively high current seniority of that component, and would be expected to settle eventually into the same pattern as the other components. Reserve retirement annuities are sensitive to participation levels: given a 20 percent reduction in the value of reserve retirement, increased service by members who stay will cause overall retirement costs to decline by less than 20 percent.

The RAND model indicates that required accessions will increase across the board by a little over 2 percent, a significant increase when the cost of recruiting and initial entry training is compared with the small savings generated in reserve retirement. Not only would such an alternative exacerbate the problems with the current system, it would result in both an increased DoD Budget and increased federal outlays.

The 1985 Legislation to Reduce Accrual Account Appropriations

The 1985 draft legislation that the DoD was required to submit to the Congress eventually resulted in reduced benefits for active duty members who enter service after August 1, 1986, and retire with less than 30 years of service. This legislation also changed the retired pay adjustment procedure from full CPI protection to an annual percentage adjustment increase of CPI minus 1 percent.

In the draft legislation sent to the Congress, the penalty for retirement prior to 30 years of service would have affected reserve members as well as active component members. The legislation did not consider the effects of this change on reserve manpower objectives. The new law includes a one-time restoration to the amount that would have been payable had full CPI protection been in effect. Also, the penalty for retirement prior to 30 years of service no longer applies after age 62, at that time, retired pay is recomputed without the penalty.

If both the active and reserve retirement systems had been changed in 1986, the age-62 adjustments would have occurred only two years after initial eligibility to receive reserve retired pay. The trust fund outlay and DoD budget impacts that would have resulted from such changes are presented in Appendix E. As indicated, only a slight reduction would occur in trust fund outlays, beginning in the year 2025, with marginal savings in the DoD budget. In effect, the proposed change would have increased the already great incentive for reserve members to continue in an active status for as long as possible, further reducing system flexibility without producing appreciable savings. For these reasons, the 1985 proposal was rejected as an alternative.

Eligibility for Retired Pay at Age 55

Eligibility for reserve retired pay at age 55 has often been suggested. This is seen as particularly relevant to the situation of military technicians. Military technicians are civil servants who provide full-time support to the reserve components and are required to be members of the Selected Reserve as a condition of employment. Typically, they are first eligible for an immediate, unreduced civil service retired pay annuity at age 55. As a consequence, the majority of technicians remain in service until at least age 55.[4]

During testimony on H.R. 2744 in 1948, both congressional members and Department of Defense representatives suggested that the eligibility age for reserve retired pay should be lowered to 55 in the event that civil service retired pay eligibility was lowered to age 55. Eligibility for full civilian employment

retirement benefits was lowered to age 55 by Public Law 89-554 on September 6, 1966. The eligibility age for reserve retirement was not considered. The QRMC rejected the prospect of simply lowering the eligibility age to 55 for two reasons:

- Lowering the eligibility age for full reserve retired pay to age 55 would immediately increase trust fund outlays and the DoD Budget. An actuarially neutral age 55 annuity would increase near-term fund outlays while the DoD Budget would remain unchanged.

- Setting the age of eligibility for reserve retired pay at 55 would not provide a flexible retirement program supportive of reserve component personnel policies. It would only partially reduce the problem of "gray area" retirees, and it could increase the incentive for some members to remain in an active status through retired pay eligibility at age 55.

Providing an actuarially neutral reduced annuity at age 55 or earlier would address some of these shortcomings. In fact, an actuarially neutral annuity was the first alternative examined in the QRMC review. This alternative is discussed in greater detail later.

Lump Sum Retirement

The RCSS concluded that "the option of a lump sum payment ... would work to the mutual advantage of the government and the reservist."[5] The RCSS proposal would have denied any further benefits including health care, survivor benefit plans, and commissary and exchange privileges. Although a lump sum retirement system can be structured to produce the greatest savings to the government and the greatest present value to most individuals, such a system has significant drawbacks. These disadvantages are more important for the reserve components, which differ significantly from one another with respect to manpower force requirements. Proponents of a lump sum system point out the flexibility that such a system provides to military manpower force managers. The discount rates used to calculate the lump sum and the actual age or year of service for eligibility can be adjusted to provide an immediate economic incentive to extend or curtail service. Although there is much to be said for this flexibility, the actual effects of purely economic incentives on the decision to retire are unclear.

Table 6-1 shows the value of an actuarially neutral lump sum retirement to a typical officer in pay grade O5, using the assumptions of the DoD Actuary. The table assumes that the officer first entered service at 22 years of age and would be first eligible for a lump sum retirement at age 42, with 20

Table 6-1. The Value of an Actuarially Neutral Early Annuity and Lump Sum to the Individual Member

Pay Grade O5 at 20 YOS in 1987. FY 2005

						Then Year Dollars		1987 Dollars			
YOS	Age	Monthly Drill Pay	Early Annuity	Percent Drill Pay	Lump Sum Payment at Age	Early Annuity at Age 60 Adj. for Inflation	Current System Age 60	Current Monthly Age 60 Payment	Drill Pay	Early Annuity	Lump Sum Payment
20	42	483	397	82.3%	130022	956	2176	904	483	397	130022
21	43	513	445	86.8%	142888	1021	2239	930	488	424	136084
22	44	564	499	88.6%	156928	1090	2301	956	511	453	142338
23	45	599	560	93.5%	172249	1163	2364	982	517	483	148795
24	46	636	627	98.7%	188971	1242	2427	1008	523	516	155467
25	47	675	703	104.2%	207227	1326	2489	1034	529	551	162368
26	48	717	789	110.1%	227167	1417	2552	1060	535	589	169515
27	49	761	885	116.3%	248949	1514	2615	1086	541	629	176924
28	50	809	994	122.9%	272755	1619	2677	1112	547	673	184611
29	51	859	1116	130.0%	298786	1732	2740	1138	554	720	192599
30	52	912	1255	137.6%	327254	1854	2803	1165	560	770	200906
31	53	969	1411	145.7%	358416	1986	2865	1191	566	825	209559
32	54	1029	1588	154.4%	392544	2129	2928	1217	573	884	218583
33	55	1092	1790	163.8%	429945	2284	2990	1243	579	949	228009
34	56	1160	2018	174.0%	470958	2453	3053	1269	586	1019	237866
35	57	1232	2278	184.9%	515979	2637	3116	1295	593	1096	248194
36	58	1308	2575	196.8%	565450	2839	3178	1321	599	1180	259039
37	59	1389	2915	209.8%	619867	3060	3241	1347	606	1272	270446

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.
5. Lump sum and early annuity amounts are calculated using the assumptions of the DoD Actuary (5 percent long-term inflation, 1.2 percent long-term real wage growth, and 1.6 percent real interest).

satisfactory years of service. Table 6-2 provides the values for a typical enlisted member in pay grade E7, who first entered service at age 18 and is first eligible for retirement at age 38. The tables assume that a member who remains in active reserve service beyond 20 years of service continues to accrue retirement points.

Table 6-2. The Value of an Actuarially Neutral Early Annuity and Lump Sum to the Individual Member

Pay Grade E7 at 20 YOS in 1987. FY 2009

						--- Then Year Dollars ---				1987 Dollars	
YOS	Age	Monthly Drill Pay	Early Annuity	Percent Drill Pay	Lump Sum Payment at Age	Early Annuity at Age 60 Adj. for Inflation	Current System Age 60	Current Monthly Age 60 Payment	Drill Pay	Early Annuity	Lump Sum Payment
20	38	227	146	64.5%	48180	428	1233	421	227	146	48180
21	39	241	164	67.9%	52882	456	1266	433	230	156	50364
22	40	273	183	67.0%	58001	486	1300	444	248	166	52609
23	41	290	205	70.6%	63574	518	1333	456	251	177	54917
24	42	308	229	74.5%	69642	552	1367	467	254	189	57294
25	43	327	257	78.5%	76254	589	1400	479	256	201	59747
26	44	391	288	73.7%	83465	628	1434	490	291	215	62283
27	45	415	322	77.7%	91337	670	1468	502	295	229	64912
28	46	441	361	82.0%	99941	715	1501	513	298	245	67644
29	47	468	405	86.6%	109349	764	1535	525	302	261	70487
30	48	497	455	91.6%	119639	817	1568	536	305	279	73448
31	49	528	511	96.8%	130904	874	1602	548	309	299	76537
32	50	560	574	102.5%	143250	936	1635	559	312	320	79767
33	51	595	646	108.6%	156807	1002	1669	570	316	343	83158
34	52	632	728	115.1%	171733	1075	1702	582	319	368	86737
35	53	671	820	122.2%	188196	1154	1736	593	323	395	90525
36	54	713	926	129.9%	206372	1241	1769	605	327	424	94542
37	55	757	1046	138.2%	226438	1335	1803	616	330	456	98794

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.
5. Lump sum and early annuity amounts are calculated using the assumptions of the DoD Actuary (5 percent long-term inflation, 1.2 percent long-term real wage growth, and 1.6 percent real interest).

The dollar amounts required by this alternative point out several problems with the use of lump sum payments as an incentive to retire:

- If only monetary motivations are considered, there is no real incentive to retire, because the values are calculated actuarially neutral to age 60. Continued reserve service nets the present value of reserve pay and increases the value of the lump sum payment by the further accumulation of retirement points. Further, there is no economic loss in the original value of the lump sum as long as the member

is under age 60. Because the retirement decision is not linked to the start of a second career, there is not the same incentive to leave as there is for the active duty member.

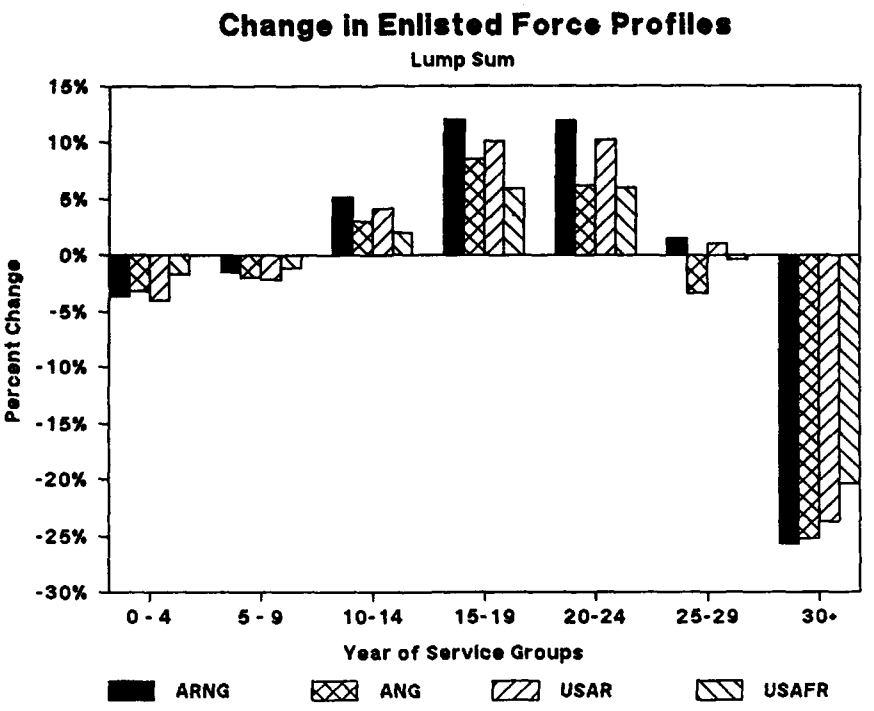
- If economic assumptions are considered, the higher the personal discount rate that a member would apply to the time and effort required for continued reserve service and to the lump sum, the sooner the member would retire, assuming a constant value of time and money for the member. Personal discount rates are associated with alternative use of time and money, and individuals with high personal discount rates include members with substantial alternative investment opportunities. It can be argued that these members are likely to be the most qualified and productive.

- The income tax consequences of a lump sum payment are significant. Special legislation would be required to shield the payment from the extreme taxation resulting from the receipt of a lump sum payment during peak earning years.

- Varying the amounts of lump sum payments to meet manpower force objectives could be counterproductive; variation would be likely to increase uncertainty with respect to the present value of the lump sum. Uncertainty increases investment risk and, therefore, the personal discount rate.

- Although the use of lump sum retirement would eliminate the requirement for survivor benefit programs, elimination of the other nonmonetary retirement benefits would detract from the institutional value of reserve retirement and could therefore have negative repercussions on the perceptions of reserve service among younger members.

The use of lump sum payments would produce long-term savings in fund outlays; however, an actuarially neutral calculation would not produce savings in the DoD Budget. Cost projections made by the DoD Actuary (Appendix E) indicate that a lump sum retirement system would initially double actual fund outlays. The example provided assumes that the option would apply to new entrants only, and that it would be received at age 60. There would be no change in fund outlays through the year 2028, when outlays would double. Outlays would decrease slowly, falling below projected outlays for the current system in 2063 and failing to produce net savings until close to the year 2100. Moving the eligibility date forward, and allowing current members to opt for a lump sum, produces similar effects over a slightly shorter period. Moving the eligibility age forward could produce real savings to the extent that individuals would retire earlier and accumulate fewer retirement points.



Source: RAND Dynamic Retention Model

Figure 6-3

Figure 6-3 presents the projected change in manpower force profiles, using the same modeling approach as in the previous alternatives and assuming eligibility for the lump sum at any time after 20 qualifying years of service. The lump sum alternative decreases accession requirements and provides the most extensive increase in midcareer retention of any of the alternatives. The results of the RAND model for an actuarially neutral alternative (either lump sum or early annuities) must be viewed cautiously. The model computes retention on the economic values of the alternative. By definition, an actuarially neutral amount does not change in present value at the set discount rate prior to the referenced age (age 60). It is certainly possible that, despite the net present value of continued service and the economic neutrality of the lump sum, the amounts involved would entice more personnel to retire at or shortly after initial eligibility than the model indicates.

Personnel with the greatest experience and highest levels of participation, and, therefore, the greatest lump sum values, would be likely to be the first to retire.

In addition to causing uncertainty over the timing of the loss of experienced personnel under this alternative, the actuarially neutral lump sum vastly increases federal outlays and continues the undesirable effects of an age based system. For these reasons, the QRMC rejected lump sum alternatives to the current reserve retirement system.

Actuarially Neutral Early Annuities

Offering a reduced early and immediate retirement annuity or lump sum payment that is "actuarially neutral" means that the lump sum present value of all future payments (or lump sum payment) of the new annuity is equal to the lump sum value of the old annuity. The new payment stream has more payments than in the present system, but they are reduced to equal the present lump sum value of the old stream.

An actuarially neutral early annuity would provide reserve members with an annuity calculated to provide the same lifetime value as the current system. The amount of the early annuity is determined by calculating the projected lifetime annuity from age 60 and providing a reduced early annuity that, at the implied discount rate, produces the same lifetime value for the retired population as a whole as the current system would provide. An actuarially neutral system would be neutral in cost to the government, but not necessarily neutral in value to an individual member.

The actuarially neutral early annuity has been suggested several times and, from member comments in response to the 1986 Reserve Components Surveys, seems to have some currency as an alternative. In 1969, the Reserve Forces Policy Board recommended retirement at a reduced figure, actuarially computed, at age 50 with 20 years of creditable service. Legislation to accomplish this objective was introduced in the 91st Congress (H.R. 8859). The DoD recommended deferment of action on H.R. 8859 pending completion of the review of the total military retirement system. Also, in 1971 a special Interagency Committee recommended to the President a plan to change reserve retirement; the plan included an actuarially reduced annuity as early as age 50.[6]

Table 6-1 shows the actuarially neutral retired pay for a typical officer in pay grade O5 with 3127 retirement points at 20 years of service. For this officer, an actuarially neutral early annuity would vary from 82.3 percent of monthly drill pay after 20 years of service to over 200 percent after 37 years of service. These percentages would be significantly less for an

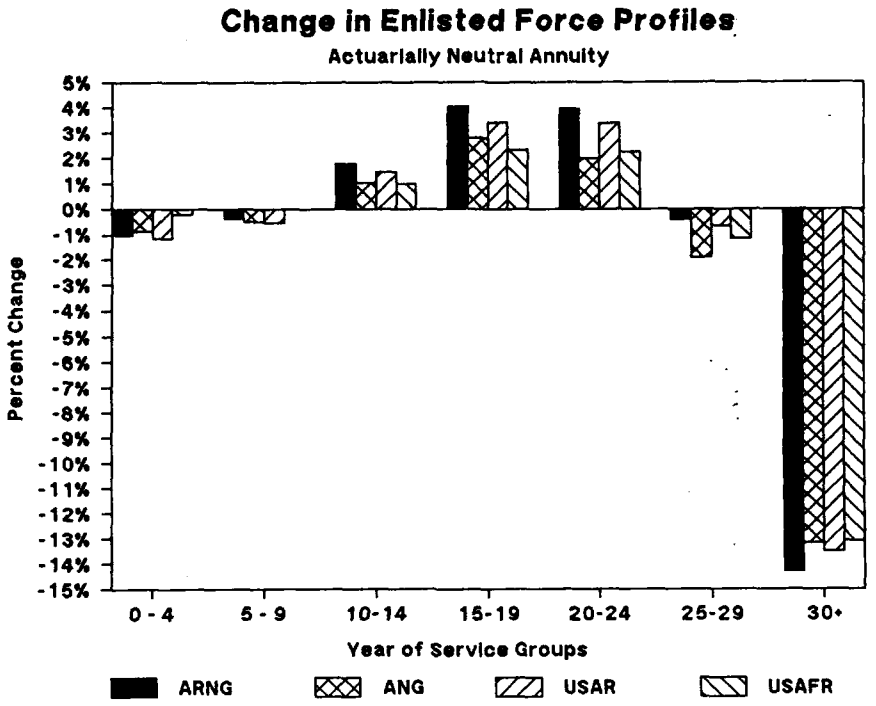
officer with less total active service and less intensity of reserve participation. Because personal discount rates are normally higher than the discount rates that would be used in calculating the early annuity, members would tend to favor retirement over continued service, despite the ability to continue drawing reserve duty pay and accumulating additional retirement points. More importantly, this system strongly favors members with large retirement point accumulations. These members are typically the most experienced and those with the highest participation levels.

Table 6-2 shows the full actuarially reduced early annuity for a typical enlisted member in pay grade E7 with 3127 points. The results are generally the same as for the officer example. The difference in the percent of monthly drill pay for a minimum participant results from the actuarial calculation. Because the early annuity is discounted from age 60 to the retirement age and the survivorship discount rate increases as the age of the retiring member decreases, the calculation produces a higher early annuity for members who are closer to age 60, with all other factors equal. This is not a consequence of the early annuity alternative per se, but of the fact that the annuity is calculated based on age rather than years of service. An age-based system favors officers, who typically enter service later and consequently wait a shorter time to collect retired pay than do enlisted members.

Although this system would provide an economic incentive to retire, it would not provide significantly greater flexibility to manpower force managers. The system would support selective retention policies by allowing members who are selected out to replace drill pay with retired pay in the monthly income equation. It also provides the member with an annuity for life.

Figure 6-4 charts the projected changes in force profiles of an actuarially neutral early annuity using the RAND models. For the same reasons stated regarding the actuarially neutral lump sum payment, the projections for years-of-service groups past 20 years of service must be viewed cautiously. For members with high point accumulations, the annuity would be higher than normal monthly drill pay, potentially providing too much incentive to leave the reserves despite the economic rationality of continued service that is incorporated in the model.

This alternative has a significant drawback: it would be most attractive to members with large retirement point accumulations. These may be the members that the reserve components would most prefer to retain. This system favors late entry into military service, just as the present system does. In addition, an actuarially neutral early annuity that is calculated from an age-based system does not encourage continuous service; that is, there is no penalty for breaks in service so long as



Source: RAND Dynamic Retention Model

Figure 6-4

qualification is obtained prior to age 60. This alternative would not support current or projected manpower force policy and was therefore rejected as an alternative.

The QRMC made several attempts to adapt the concept of an actuarially neutral early annuity to fit the criteria established for judging alternatives to the current system. The most promising of these attempts was a two-tier, actuarially neutral annuity. As examined, this alternative would provide an actuarially reduced annuity at retirement, based on a fixed number of points (1500), with the remaining points used to calculate the second tier at age 60. The member would then receive the sum of the two tiers for life.[7]

The two-tier actuarially neutral alternative would equalize the first-tier annuity for all members of the same age and in the same pay grade. Under this alternative, members with high point accumulations would not have a greater incentive to retire

than those with lower accumulations. The small first-tier annuity would support current and projected manpower force policies by allowing members to replace a portion of current drill pay if forced to separate. It would economically favor a decision to continue in an active status, because the present value of drill pay and additional retirement points would almost always exceed the value of the alternative retirement.

Because the annuity would be calculated in reference to the current age 60 annuity, this alternative would continue the effects of an age-based retirement system. The first tier would be equal for two members of the same pay grade and age. It would differ, however, for members with the same pay grade and years of service, but of different ages. Thus the alternative would continue the same age-based system effects identified for the full actuarially neutral early annuity, problems that are not supportive of manpower force policy. Although the alternative would be neutral to the current system, the amount of the annuity for enlisted members at initial retirement qualification would not be adequate if annuities for officers and more senior members were kept at reasonable levels. Analysis of this alternative resulted in the development of the QRMC-recommended alternative to the current reserve retirement system.

The Recommended Alternative: The Two-Tier Years-of-Service-Based Early Annuity Option

The two-tier years-of-service-based early annuity alternative (the Two-Tier Option) would provide an optional early annuity at any point after initial qualification for retirement. The annuity would be based on years of service from the pay entry base date (PEBD).[8] The Two-Tier Option would still require 20 years of satisfactory service to qualify. Once an individual was qualified, the total years of service from PEBD would be used, and satisfactory years would no longer be relevant.

The first tier would be a flat percent of the retired pay base, calculated under the high-three averaging method. There would be a retirement point reduction for electing the option. The annuity would be adjusted for inflation from election until age 62, using the CPI minus 1 percent mechanism.

The second tier would be at age 62, calculated from the remaining accumulated retirement points after subtraction of the retirement point reduction. The formula for calculating the second tier is identical to the current formula, except that the retired pay base is established at the time of first-tier election and is adjusted by the full CPI to age 62; thus any loss in earning power of the first-tier annuity that resulted

from the use of the CPI minus 1 percent adjustment mechanism would be caught up for the first-tier annuity before it was added to the second-tier annuity.

Medical care benefits for the member and dependents would commence on the member's 60th birthday. Election of the Two-Tier Option would not affect the current medical care benefit. This is similar to the situation today for the survivor of a reservist who elects an immediate benefit under the Reserve Component Survivor Benefit Plan and dies prior to age 60. The survivor receives the annuity immediately on the member's death but does not receive the medical benefits until the date on which the deceased member would have reached age 60.

Retired pay after age 62 would be the sum of the first tier, as adjusted at age 62, and the second tier as calculated, with a one-time catch-up for inflation. Retired pay after age 62 would be adjusted annually for inflation, based on the CPI minus 1 percent method.

Table 6-3 shows the percent of retired pay at a given year of service and the point reduction for electing the Two-Tier Option. Table 6-4 provides an example of the calculation and lifetime earning stream of a member electing the Two-Tier Option.

As Table 6-4 illustrates, a member electing the Two-Tier Option would receive a flat percent of the retired pay base, beginning the month and year of retirement. This amount would be adjusted each year by the applicable retired pay adjustment mechanism (Table 6-4 uses the CPI minus 1 percent because this is applicable to new members on or after August 1, 1986). At age 62, the retired pay base and the first-tier monthly retired pay are adjusted for the full intervening percentage increase in the CPI. (The Military Retirement Reform Act of 1986, which resulted in the change from full CPI indexing of military retired pay to the CPI minus 1 percent method, includes a one-time catch-up to full CPI from retirement to age 62 at age 62.) Once the first-tier point reduction is calculated (with 1500 points at 20 years of service on a 5 percent first tier, the example pay grade O5 member in table 6-4 is charged 1875 points for 25 years of service and a 7.5 percent first tier), the second tier is calculated by subtracting the first-tier point reduction from the member's total point accumulation and dividing the result by 360 to determine the equivalent years of active service. The number of equivalent years of active service is multiplied by 2.5 percent to determine the second-tier retired pay multiplier (percent of the adjusted retired pay base for the second tier). The second-tier multiplier is applied against the adjusted retired pay base. The resulting amount is added to the adjusted first-tier amount at age 62 to determine the monthly annuity.[9]

Table 6-3. Point Reductions and Percent of Retired Pay Pay Base for Electing The Two-Tier Year-of-Service Based Early Annuity Option

Years of Service at Retirement	Point Reduction for the 1st Tier	Percent of Retired Pay Base for 1st Tier
20	1500	5.0%
21	1575	5.5%
22	1650	6.0%
23	1725	6.5%
24	1800	7.0%
25	1875	7.5%
26	1950	8.0%
27	2025	8.5%
28	2100	9.0%
29	2175	9.5%
30	2250	10.0%
Greater than 30	2250	10.0%

Members with over 30 years of service receive 10 percent and are charged 2250 points. Members electing the Two-Tier Option who have not accumulated the minimum required points are awarded the highest level their total point accumulation will allow. Members with less than 1500 points may not elect the Two-Tier Option.

The amount of the first-tier annuity varies, from 33 percent of monthly minimum drill pay (four paid drills) at 20 years of service to 69 percent of monthly minimum drill pay at 30 years of service and beyond. The amount of the first-tier monthly annuity is constant, regardless of age, for all members in the same pay grade who elect the Two-Tier Option at the same years of service point. Table 6-5 shows the value of the Two-Tier option for a typical officer in pay grade O5 who first entered service at age 22. Table 6-6 presents the same data for a typical enlisted member in pay grade E7 who first entered service at age 18. Slight differences occur in the percent of monthly minimum drill pay, due to the differences in longevity pay increases for separate pay grades; these differences affect the high-three average retired pay base.

Figure 6-5 presents the projected changes in force profiles under the Two-Tier Option. As with the actuarially neutral lump sum and early annuity options, the projections show increased retention through 25 years of service. The declines in the later years of service are marginal, considering the increased

Table 6-4. Example of the Calculation and Lifetime Earning Stream of the Two-Tier Option

Date:	1 July	1988		Final	Retired Base	Military Payscale			
LTC/05				Pay	High-3 Avg	Date	05 w/22		
Points at Retirement:			3127			Jan-85	3,533		
Age at Retirement:			47	3,824	3,697	Oct-85	3,638		
YOS at Retirement:			25			Jan-87	3,748		
1st Tier Points (25 YOS):			1875			Jan-88	3,824		
1st Tier Percent:			7.5%						
Future CPI increase:			5.0%						

1st Tier Calculation: [Retired Base x 1st Tier Percent]

3,697 times 7.5% equals $277

Age	Year	Monthly Retired Pay	1988 Constant Dollars	Current System_1 Inflated Dollars	1988 Dollars
47	1988	$277	$277		
48	1989	288	275		
49	1990	300	272		
50	1991	312	269		
51	1992	324	267		
52	1993	337	264		
53	1994	351	262		
54	1995	365	259		
55	1996	379	257		
56	1997	395	254		
57	1998	410	252		
58	1999	427	250		
59	2000	444	247		
60	2001	462	245	1,462	776
61	2002	480	242	1,521	768
62	2003	1,245	599	1,612	776
Age 62 on at CPI-1		1,245		1,612	

To demonstrate the effects for new entrants, monthly retired pay is adjusted by the CPI minus 1 each year.

2nd Tier calculation:	[Age 62]	
Accumulated Points:	3127	
Less 1st Tier reduction:	-1875	

2nd Tier Points:	1252	
Divide by 360:	3.48	Equivalent Years
Multiply by 2.5 percent:	8.69%	2nd Tier Percentage
Raise the retired pay base by		
the full intervening CPI:	7,685	Retired pay base x 1.05
Multiply by the		compounded for 15 years
2nd Tier Percentage	668	Age 62 Adjustment

Adjust the 1st Tier monthly		
pay for the full		
intervening CPI:	576	Age 62 adjusted 1st Tier
	------	monthly retired pay
Add 1st and 2nd Tier:	$1,245	Annuity from age 62 on
	======	indexed at CPI minus 1

Notes: 1. Real wage growth is discounted in the current system calculation.

Table 6-5. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member

Pay Grade 05 at 20 YOS in 1987. FY 2007

					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	42	483	160	33.2%	2399	426	962	1387	904	483	160	362	523
21	43	513	191	37.2%	2468	482	1000	1482	930	488	182	377	559
22	44	564	225	39.9%	2537	541	1037	1578	956	511	204	391	595
23	45	599	263	43.9%	2606	602	1076	1678	982	517	227	405	632
24	46	636	304	47.8%	2675	663	1110	1773	1008	523	250	418	668
25	47	675	348	51.5%	2745	723	1139	1861	1034	529	272	429	701
26	48	717	394	54.9%	2814	780	1162	1941	1060	535	294	438	732
27	49	761	444	58.3%	2883	838	1185	2023	1086	541	316	447	762
28	50	809	500	61.8%	2952	897	1209	2106	1112	547	338	456	794
29	51	859	560	65.2%	3021	958	1234	2191	1138	554	361	465	826
30	52	912	626	68.6%	3090	1020	1258	2278	1165	560	384	474	859
31	53	969	665	68.6%	3159	1031	1337	2369	1191	566	389	504	893
32	54	1029	706	68.6%	3228	1043	1418	2461	1217	573	393	534	927
33	55	1092	750	68.6%	3297	1055	1500	2555	1243	579	398	565	963
34	56	1160	796	68.6%	3366	1067	1584	2651	1269	586	402	597	999
35	57	1232	846	68.6%	3435	1079	1669	2748	1295	593	407	629	1036
36	58	1308	898	68.6%	3504	1092	1756	2848	1321	599	411	662	1073
37	59	1389	954	68.6%	3573	1104	1846	2950	1347	606	416	696	1112

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.

midcareer retention. Accession rates decline slightly for these areas (about 1 percent). The major difference in the three alternatives is that at no time does monthly retired pay under the two-tier option exceed monthly drill pay for a minimum participant Selected Reservist in training-pay category A. Also, under the Two-Tier Option alternative, at no time is there a very large incentive for immediate retirement such as the lump sum alternative would provide. For these reasons, the QRMC believes that, with respect to retention patterns for members after 20 years of service, projections of the impact of the Two-Tier Option alternative are likely to be more accurate than for the lump sum and actuarially neutral early annuity alternatives.

Table 6-6. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member

Pay Grade E7 at 20 YOS in 1987. FY 2011

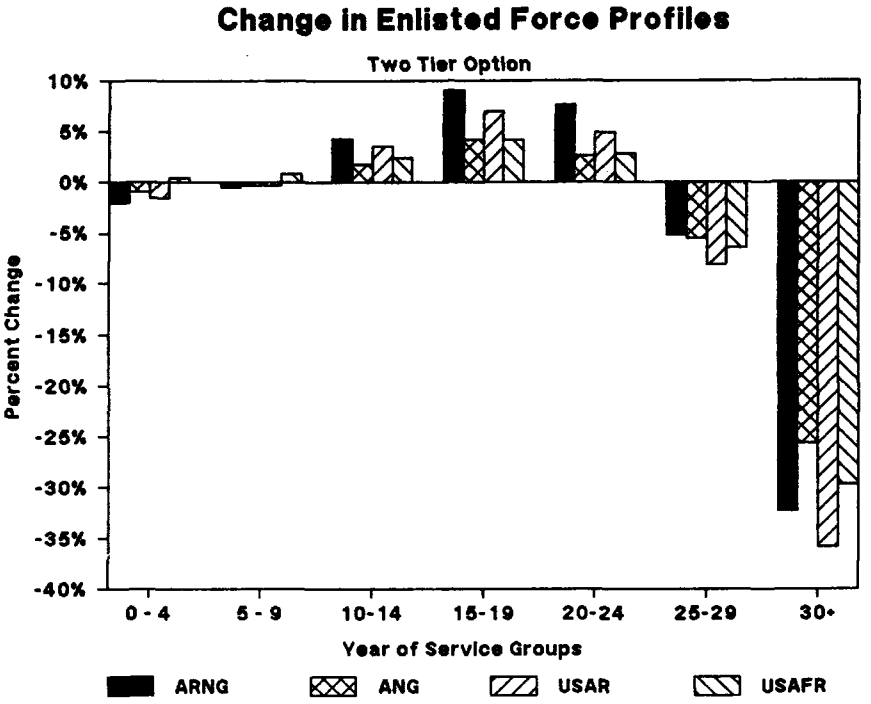
					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	38	227	77	33.8%	1359	248	559	807	421	227	77	173	250
21	39	241	90	37.5%	1396	278	574	852	433	230	86	178	264
22	40	273	107	39.0%	1433	312	594	905	444	248	97	184	281
23	41	290	126	43.3%	1470	350	619	969	456	251	108	192	301
24	42	308	147	47.6%	1507	389	643	1033	467	254	121	200	320
25	43	327	168	51.5%	1544	426	661	1087	479	256	132	205	337
26	44	391	195	50.0%	1581	470	688	1158	490	291	146	213	359
27	45	415	229	55.3%	1618	526	729	1255	502	295	163	226	389
28	46	441	268	60.7%	1655	584	769	1354	513	298	181	239	420
29	47	468	305	65.2%	1692	634	796	1430	525	302	197	247	444
30	48	497	341	68.6%	1729	675	810	1485	536	305	209	251	460
31	49	528	362	68.6%	1766	683	859	1542	548	309	212	266	478
32	50	560	385	68.6%	1803	691	910	1601	559	312	214	282	496
33	51	595	409	68.6%	1840	699	962	1660	570	316	217	298	515
34	52	632	434	68.6%	1877	707	1014	1721	582	319	219	315	534
35	53	671	461	68.6%	1914	715	1068	1783	593	323	222	331	553
36	54	713	489	68.6%	1950	723	1123	1846	605	327	224	348	572
37	55	757	520	68.6%	1987	731	1179	1910	616	330	227	366	592

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.

Addressing the Issues: Integration with Manpower Force Management Policy

The QRMC concluded that any alternative retirement system must be compatible with the active duty retirement system. This requirement is necessary to prevent the increase of costly early attrition in the active components and to continue to attract members with prior active service to the reserve components.



Source: RAND Dynamic Retention Model

Figure 6-5

The evaluation of the reserve retirement system provides the following insights regarding attraction of active component members to the reserve components:

- Members who are not retained on active duty through qualification for active duty retirement, or who separate from the active components for other than economic reasons, are attracted to the reserve components for the opportunity to continue service and to vest prior active service in a military retirement system.

- Members are attracted to the reserve components and voluntarily separate from the active components when the present value of an immediate start in a civilian career, combined with the present value of active reserve service and reserve retirement, exceeds the present value of

continued active duty and active duty retirement. This assumes that the member has specific economic alternatives to continued active component service.

The QRMC also evaluated the attraction of retirement for members already in the reserve components, reaching the following conclusions:

- Midcareer members separate from the reserve components when the present value of continued reserve service, combined with the present value of vesting reserve retirement (or the present value of the increased retired pay annuity from continued accumulation of retirement points), no longer exceeds the present value of the alternate use of the time.

In the development of the Two-Tier Option, the QRMC was cognizant of the potential motivations that might influence active component members to transfer to the reserve components and midcareer reserve component members to separate from active membership. Further, the QRMC was aware of the need for easy transition from the active component retirement system to the reserve component retirement system, due to the requirements of the active components for accession of reserve component members and the desire of the reserve components to attract members with prior active service. In the current reserve retirement system, the major features that maintain ease of transition between the active and reserve systems are the retirement point system and the 20 satisfactory years of service required for vesting. QRMC analysis indicates that maintaining the nondisability vesting requirement at 20 years of service and implementing the recommended modifications to the retirement point system (detailed in Chapter 7) will increase the ease of transition.

QRMC analysis indicates that the current requirement for vesting reserve retirement (20 satisfactory years of service) cannot be altered without concurrent modification to the active component system. An increase in the vesting requirement would decrease the attraction of members with prior active service to the reserve components and, therefore, the quality of the pool of manpower of prior active service that is available for voluntary accession. A decrease in the vesting requirement (to less than 20 years of service) would increase the economic value of reserve service, creating a potential for additional attrition in the active components.

Active component members who separate for noneconomic reasons would probably separate anyway; therefore, any alternative that increases attraction of these members would increase the quality of the available pool of manpower with prior active service. Active component members who separate for economic reasons alone were of greatest concern in the design of the Two-Tier Option. In reviewing the economic equation, it was determined that

members with opportunities that exceed the present value of continued active component service, without the addition of reserve service and reserve retirement, would leave the service anyway, which puts them in the same category as members who separate for noneconomic reasons.

For active component members whose continuation decision is based on an economic equation that includes reserve service and reserve retirement, the ability to obtain a pay billet in the reserve components becomes an important part of that equation. In significant part, the active component specialties with high civilian demand (normally highly technical skills requiring heavy initial training investments) are the same specialties that the reserve components want to maintain for as long as possible. Additionally, these specialties often receive special incentive pays (e.g. flight pay) and are often authorized twice as many paid drills per month as members in specialties that require less intense training to maintain proficiency receive. Table 6-7 and Table 6-8 provide an evaluation of the Two-Tier Option for the same two example members used in Tables 6-5 and 6-6, as if these members were aviators or flight crew members. These members typically accrue retirement credit at a higher level, which also serves as an incentive for longer service.

The solution to this problem lies in not increasing the voluntary turnover of these highly technical specialties in the reserve components. Without increased turnover, additional pay billets for these specialties are not available, which leaves the economic incentive in favor of continued active component service. The Two-Tier Option was designed so that the present value of continued reserve service (reserve duty pay and the increases in the retirement annuity from further accumulation of retirement points) always exceeds the present value of retirement. Under the Two-Tier Option, the economic decision favors continued reserve service for members who are allowed to continue by policy.

Based on the information from the Services and their reserve components, the Two-Tier Option was designed to support the following policies:

- Early entry into military service (18 to 23 years of age), either active or reserve
- Continuous satisfactory reserve component service
- Selective retention of senior members (Selection Out)
- Increased retention of members with less than 20 years of service

Table 6-7. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member
Aviator
Pay Grade O5 at 20 YOS in 1987. FY 2007

					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	42	1032	160	15.5%	2399	426	962	1387	904	1032	160	362	523
21	43	1092	191	17.5%	2468	482	1000	1482	930	1040	182	377	559
22	44	1194	225	18.8%	2537	541	1037	1578	956	1083	204	391	595
23	45	1264	263	20.8%	2606	602	1076	1678	982	1092	227	405	632
24	46	1338	304	22.7%	2675	663	1110	1773	1008	1101	250	418	668
25	47	1417	348	24.5%	2745	723	1139	1861	1034	1110	272	429	701
26	48	1501	394	26.2%	2814	780	1162	1941	1060	1120	294	438	732
27	49	1589	444	27.9%	2883	838	1185	2023	1086	1130	316	447	762
28	50	1684	500	29.7%	2952	897	1209	2106	1112	1140	338	456	794
29	51	1784	560	31.4%	3021	958	1234	2191	1138	1150	361	465	826
30	52	1891	626	33.1%	3090	1020	1258	2278	1165	1161	384	474	859
31	53	2004	665	33.2%	3159	1031	1337	2369	1191	1172	389	504	893
32	54	2124	706	33.2%	3228	1043	1418	2461	1217	1183	393	534	927
33	55	2251	750	33.3%	3297	1055	1500	2555	1243	1194	398	565	963
34	56	2387	796	33.4%	3366	1067	1584	2651	1269	1205	402	597	999
35	57	2531	846	33.4%	3435	1079	1669	2748	1295	1217	407	629	1036
36	58	2683	898	33.5%	3504	1092	1756	2848	1321	1229	411	662	1073
37	59	2846	954	33.5%	3573	1104	1846	2950	1347	1242	416	696	1112

Notes:
1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.
5. Monthly drill pay for aviators and flight crew members is based on eight drill periods per month plus the pro rata share of aviation career incentive pay (the minimum level was used for officers, the appropriate grade level was used for enlisted members).

- Increased attraction of prior active component experience that has already been lost to the active components by policy or for other reasons

Early entry has been deemed necessary by reserve components whose manpower force structures require youth and vigor (combat arms) and by all reserve components for specialties requiring heavy investments in training (the younger the member, the longer the available payback period for initial training costs). Early entry is supported by a years-of-service-based first tier,

Table 6-8. The Value of the Two Tier YOS Based Early Annuity Option to the Individual Member
Flight Crew Member
Pay Grade E7 at 20 YOS in 1987.

FY 2011

					Then Year Dollars				1987 Dollars				
YOS	Age	Monthly Drill Pay	1st Tier Payment	Percent Drill Pay	Current System Age 62	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment	Current Age 60 Payment	Monthly Drill Pay	1st Tier Payment Age 62	2nd Tier Payment Age 62	Total Two Tier Payment
20	38	507	77	15.1%	1359	248	559	807	421	617	77	173	250
21	39	535	90	16.9%	1396	278	574	852	433	620	86	178	264
22	40	600	107	17.8%	1433	312	594	905	444	661	97	184	281
23	41	634	126	19.8%	1470	350	619	969	456	665	108	192	301
24	42	670	147	21.9%	1507	389	643	1033	467	670	121	200	320
25	43	708	168	23.8%	1544	426	661	1087	479	674	132	205	337
26	44	835	195	23.4%	1581	470	688	1158	490	757	146	213	359
27	45	883	229	26.0%	1618	526	729	1255	502	763	163	226	389
28	46	934	268	28.6%	1655	584	769	1354	513	769	181	239	420
29	47	989	305	30.8%	1692	634	796	1430	525	775	197	247	444
30	48	1047	341	32.6%	1729	675	810	1485	536	781	209	251	460
31	49	1109	362	32.7%	1766	683	859	1542	548	788	212	266	478
32	50	1174	385	32.8%	1803	691	910	1601	559	795	214	282	496
33	51	1244	409	32.8%	1840	699	962	1660	570	802	217	298	515
34	52	1317	434	32.9%	1877	707	1014	1721	582	809	219	315	534
35	53	1396	461	33.0%	1914	715	1068	1783	593	816	222	331	553
36	54	1479	489	33.1%	1950	723	1123	1846	605	824	224	348	572
37	55	1567	520	33.2%	1987	731	1179	1910	616	831	227	366	592

Notes:

1. Assumed Inflation: 5.0 percent (long-term)
2. Assumed Pay Scale Growth: 6.2 percent (long-term)
3. The member continues to accrue retirement points beyond 20 years of service.
4. The percent of drill pay relates the early annuity to the monthly drill pay of a member who regularly performs only four paid drills per month. The percent decreases proportionate to an increase in the number of paid drills, and decreases at an increasing rate for members who regularly perform additional paid active mandays.
5. Monthly drill pay for aviators and flight crew members is based on eight drill periods per month plus the pro rata share of aviation career incentive pay (the minimum level was used for officers, the appropriate grade level was used for enlisted members).

rather than an age-based first tier. Where mandatory retirement is tied to years of service rather than to age, the younger the member is at retirement, the greater present value of the associated annuity. The economic decision whether to continue always favors continued service. Once a member is forced by policy to retire, however, when compared with the current system, the present value of the Two-Tier Option is greater at a younger age for members with the same pay grade and years of service.

Continuous satisfactory service has advantages for the reserve components as well for as the member. Breaks in active reserve component service increase recruiting demands and costs; increase personnel turbulence, which impacts on readiness; reduce the experience level of the member, increasing training costs; and create problems with the implementation of selective retention policies.

For reasons similar to the motivation for early entry, the Two-Tier Option supports continuous service, since the potential retirement annuity increases with additional years of service and has a greater value if those years of service are completed at a younger age. The projected result of this incentive is that, for components requiring implementation of selective retention policy, a larger percentage of the year-of-service cell under consideration would be eligible for consideration.

All members have a personal value that they place on time and money. This value varies from person to person and for individuals over time; it is termed the personal discount rate. The overriding theme of all personal discount rates is that a dollar today is worth more than a dollar tomorrow. Under the Two-Tier Option, the present value of continued reserve service is always greater than the value of retirement. This allows the reserve components to maintain the members selected for retention for as long as the components desire or policy allows. The Two-Tier Option was designed to exceed the present value of the current age-60 system for members with 30 years of service or less who are not selectively retained (under a reasonable range of personal discount rates). Therefore, while the economic decision is always in favor of continued service, once the option of continued service is no longer available, the Two-Tier Option has greater personal economic value for members who have performed service in the manner desired by the reserve components, because income is received earlier in life.

The grandfathering of all current members under the existing system, with an individual option to convert, is anticipated. Because all members who presently have eight or more years of service are under the final pay method of calculating their retired pay, it is probable that most current members who continue in active reserve service after age 52 would elect receipt of retired pay at age 60 instead of the Two-Tier Option, unless they have relatively high personal discount rates or do not expect to live to average life expectancy. Almost all other members who are not selectively retained would be expected to find the Two-Tier Option more attractive, based on their own expectations and personal discount rates. More importantly, regardless of the current members' economic analysis of the alternatives, the option will support unbiased decisions concerning the selective retention of current members. The financial condition of a member will no longer be a major

consideration in the retention process, because the member would have the option of electing an immediate annuity that would replace from 33 to 68 percent of the minimum monthly drill pay.

The results of projections of the impact of the Two-Tier Option using the RAND Reserve Dynamic Retention Model (Figure 6-5) indicate that offering an early annuity would be likely to increase retention of midcareer members. Increased retention of midcareer members was desired by almost every component. The advantages are obvious: decreased recruiting demands, decreased initial training costs, decreased personnel turnover, and more experience in the midlevel pay grades. All of this becomes even more important in light of the decreasing pool of available initial entry manpower.

The QRMC analysis indicates that the Two-Tier Option would be expected to increase the attractiveness of reserve component service for three groups: active service members without prior service, increasing the value of reserve retirement as a recruiting tool; active service members with prior service who are already members of the reserve components; and nonmembers who have already separated or have decided to separate from the active components for other than economic reasons. This would not only increase the pool of available accessions (important because of the declining initial entry age population) but would increase the quality of the available manpower pool.

The QRMC analysis indicates that the Two-Tier Option provides increased flexibility and potential to support manpower force management policies. The system is designed to allow force managers to make decisions that are the best for the component, without inordinate influence being exerted on retention decisions by the financial condition of the member being considered. In the absence of revised high year of tenure or selective retention policies, the Two-Tier Option would affect the continuation decisions of members only to the extent that it retains more midcareer members, and then only until the promotion stagnation trend currently evident in the reserve components inhibits the career decision altogether. Combined with active force manpower management and policy, the Two-Tier Option should assist all reserve components in meeting their manpower force objectives. It would support implementation of policy to achieve not only a better manpower structure based on each component's requirements, but net overall savings from reduced recruiting expenses, reduced initial entry training costs, more midcareer experience (and consequently, more efficient managers) and, therefore, greater readiness in the reserve components.

Value of the Two-Tier Option to the Member

The QRMC did not ignore the value of reserve retirement to the individual member. Whereas the value of the current system is essentially the same relative to participation levels and pay grade for two members of the same age, the Two-Tier Option provides incentives to perform continuous service and to enter at the earliest possible age, varying the value of the retirement annuity with the nature of service, much the same as does the active duty retirement system.

Current members would still be able to elect retired pay beginning at age 60; therefore, the current member's choice will be the alternative that provides the greatest personal present value. New entrants will have every opportunity to perform present and future service in a manner that provides a higher personal present value for the Two-Tier Option than for the old age-60 calculation. The minority of new entrants who are selectively retained beyond 30 years of service in the future will continue to draw reserve duty pay, become eligible for promotion, and accumulate additional retirement points, all of which greatly increase the value of the Two-Tier Option as it does under the current system.

Effects on the Costs of Reserve Retirement

Appendix E shows projections of the future costs of reserve retirement under the recommended Two-Tier Option (alternative 7B). Figure E-15 shows projected future outlays and accrual payments in 1988 dollars. Figure E-17 shows the percentage change in trust fund outlays and DoD accrual over the next 75 years.

As indicated, outlays from the retirement fund would initially increase. The peak would be 13 years after enactment. Outlays at that time would reach their maximum: 10 percent greater than the current reserve retirement system. Reductions in fund outlays would begin in the 18th year after enactment. Savings in fund outlays would peak at 20 percent 45 years after enactment and level off at a net 16 percent savings in future outlays. The percentage change is relative to the increasing fund outlays that will occur in any event, as the reserve retirement system matures. A 16.5 percent savings in DoD reserve retirement accruals occurs immediately and levels off at 7.5 percent in Fiscal Year 2009 (Table 6-9).

Reserve retirement outlays are currently 7.56 percent of total military retirement outlays. At the peak point of increased outlays 13 years after enactment, total military retirement outlays would increase by less than 1 percent. In the first year of net cumulative savings 19 years after enactment, total military retirement outlays would be reduced by 1.88 percent per

Table 6-9. Projected Cost of the Two-Tier Year-of-Service Based Option as Compared to the Current Reserve Retirement System ($ in millions)

		The Two-Tier YOS Based Option				Current System						Difference in Projected Outlays			
	Normal Cost			Trust Fund					Trust Fund						
Fiscal Year	Ratio (Weighted)	Accrual Actual	Accrual 1988 $	Outlays Actual	Outlays 1988 $	Accrual Actual	Accrual 1988 $	% Delta	Outlays Actual	Outlays 1988 $	% Delta	Fiscal Year Actual	Fiscal Year 1988 $	Cumulative Actual	Cumulative 1988 $
1988	0.218	670	670	1375	1375	802	802	-16.50%	1375	1375	0.00%	0	0	0	0
1989	0.217	699	666	1500	1429	828	789	-15.58%	1500	1429	0.00%	0	0	0	0
1990	0.217	734	666	1660	1506	863	783	-14.91%	1628	1477	1.97%	32	29	32	29
1991	0.216	766	662	1808	1562	894	772	-14.28%	1753	1514	3.14%	55	48	87	77
1992	0.216	801	659	1947	1602	927	763	-13.60%	1869	1538	4.17%	78	64	165	141
1993	0.215	849	665	2119	1660	979	767	-13.30%	2016	1580	5.11%	103	81	268	221
1994	0.215	903	674	2317	1729	1033	771	-12.58%	2186	1631	5.99%	131	98	399	319
1995	0.214	956	679	2537	1803	1090	775	-12.30%	2373	1686	6.91%	164	117	563	436
1996	0.214	1016	688	2781	1882	1154	781	-11.93%	2582	1748	7.71%	199	135	762	570
1997	0.214	1080	696	3048	1965	1216	784	-11.18%	2808	1810	8.55%	240	155	1,002	725
1998	0.213	1142	701	3336	2048	1287	790	-11.24%	3052	1874	9.31%	284	174	1,286	899
1999	0.213	1214	710	3643	2130	1356	793	-10.50%	3312	1936	9.99%	331	194	1,617	1,093
2000	0.213	1289	718	3956	2203	1434	799	-10.11%	3590	1999	10.19%	366	204	1,983	1,297
2001	0.213	1369	726	4220	2238	1517	804	-9.76%	3892	2064	8.43%	328	174	2,311	1,471
2002	0.212	1447	731	4539	2293	1604	810	-9.81%	4233	2138	7.23%	306	155	2,617	1,625
2003	0.212	1536	739	4882	2348	1695	815	-9.40%	4619	2222	5.69%	263	127	2,880	1,752
2004	0.212	1630	747	5202	2383	1792	821	-9.04%	5040	2309	3.21%	162	74	3,042	1,826
2005	0.212	1730	755	5547	2420	1893	826	-8.61%	5494	2397	0.96%	53	23	3,095	1,849
2006	0.212	1836	763	5929	2464	2000	831	-8.20%	5997	2492	-1.13%	(68)	(28)	3,027	1,821
2007	0.211	1939	767	6354	2514	2123	840	-8.65%	6567	2599	-3.24%	(213)	(84)	2,814	1,737
2008	0.211	2058	776	6801	2563	2244	846	-8.28%	7180	2706	-5.28%	(379)	(143)	2,435	1,594
2009	0.211	2185	784	7260	2606	2372	851	-7.87%	7812	2804	-7.07%	(552)	(198)	1,883	1,396
2010	0.211	2321	793	7731	2643	2519	861	-7.88%	8460	2892	-8.62%	(729)	(249)	1,154	1,146
2011	0.211	2464	802	8218	2676	2674	871	-7.84%	9127	2971	-9.96%	(909)	(296)	245	850
2012	0.211	2617	812	8729	2707	2841	881	-7.88%	9827	3047	-11.17%	(1,098)	(340)	(853)	510
2013	0.211	2779	821	9271	2738	3003	887	-7.45%	10570	3121	-12.29%	(1,299)	(384)	(2,152)	126
2014	0.211	2952	830	9847	2769	3189	897	-7.44%	11361	3195	-13.33%	(1,514)	(426)	(3,666)	(299)
2015	0.211	3134	840	10463	2802	3387	907	-7.46%	12206	3269	-14.28%	(1,743)	(467)	(5,409)	(766)
2016	0.211	3328	849	11122	2837	3596	917	-7.44%	13108	3344	-15.15%	(1,988)	(507)	(7,395)	(1,273)
2017	0.211	3534	859	11824	2873	3819	928	-7.46%	14068	3418	-15.95%	(2,244)	(545)	(9,639)	(1,818)
2018	0.211	3753	868	12569	2908	4055	938	-7.45%	15086	3491	-16.68%	(2,517)	(582)	(12,156)	(2,400)
2019	0.211	3985	878	13365	2945	4306	949	-7.45%	16163	3562	-17.31%	(2,798)	(617)	(14,954)	(3,017)

Table 6-9. Projected Cost of the Two-Tier Year-of-Service Based Option as Compared to the Current Reserve Retirement System ($ in millions) (continued)

	The Two-Tier YOS Based Option				Current System				Difference in Projected Outlays			
	Normal Cost	Accrual		Trust Fund Outlays		Accrual		%	Trust Fund Outlays	%	Fiscal Year		Cumulative	
Fiscal Year	Ratio (Weighted)	Actual	1988 $	Actual	1988 $	Actual	1988 $	Delta	Actual	1988 $	Delta	Actual	1988 $	Actual	1988 $
2020	0.211	4237	888	14193	2979	4573	960	-7.45%	17257	3622	-17.76%	(3,064)	(643)	(18,018)	(3,660)
2021	0.211	4435	898	15048	3008	4857	971	-7.46%	18373	3672	-18.10%	(3,325)	(665)	(21,343)	(4,325)
2022	0.211	4773	909	15956	3037	5157	982	-7.45%	19551	3722	-18.39%	(3,595)	(684)	(24,938)	(5,009)
2023	0.211	5068	919	16918	3067	5477	993	-7.46%	20794	3770	-18.64%	(3,876)	(703)	(28,814)	(5,712)
2024	0.211	5383	929	17930	3096	5816	1004	-7.45%	22103	3816	-18.88%	(4,173)	(720)	(32,987)	(6,432)
2025	0.211	5716	940	18996	3124	6177	1016	-7.46%	23477	3860	-19.09%	(4,481)	(737)	(37,468)	(7,169)
2026	0.211	6070	951	20117	3150	6560	1027	-7.46%	24916	3902	-19.26%	(4,799)	(752)	(42,267)	(7,920)
2027	0.211	6447	962	21298	3177	6966	1039	-7.46%	26423	3941	-19.40%	(5,125)	(764)	(47,392)	(8,685)
2028	0.211	6846	972	22555	3204	7398	1051	-7.46%	28019	3980	-19.50%	(5,464)	(776)	(52,856)	(9,461)
2029	0.211	7271	984	23883	3231	7857	1063	-7.46%	29691	4017	-19.56%	(5,808)	(786)	(58,664)	(10,247)
2030	0.211	7722	995	25290	3258	8344	1075	-7.46%	31450	4052	-19.59%	(6,160)	(794)	(64,824)	(11,040)
2031	0.211	8201	1006	26778	3286	8861	1087	-7.45%	33294	4085	-19.57%	(6,516)	(800)	(71,340)	(11,840)
2032	0.211	8709	1018	28354	3313	9411	1100	-7.46%	35229	4117	-19.52%	(6,875)	(803)	(78,215)	(12,643)
2033	0.211	9249	1029	30020	3341	9994	1112	-7.45%	37259	4147	-19.43%	(7,239)	(806)	(85,454)	(13,449)
2034	0.211	9822	1041	31784	3369	10614	1125	-7.46%	39391	4175	-19.31%	(7,607)	(806)	(93,061)	(14,255)
2035	0.211	10432	1053	33651	3397	11272	1138	-7.46%	41632	4203	-19.17%	(7,981)	(806)	(101,042)	(15,061)
2036	0.211	11078	1065	35627	3425	11971	1151	-7.46%	43988	4229	-19.01%	(8,361)	(804)	(109,403)	(15,865)
2037	0.211	11765	1077	37717	3454	12713	1164	-7.45%	46468	4255	-18.83%	(8,751)	(801)	(118,154)	(16,666)
2038	0.211	12495	1090	39928	3482	13501	1177	-7.45%	49080	4280	-18.65%	(9,152)	(798)	(127,306)	(17,464)
2039	0.211	13270	1102	42270	3511	14339	1191	-7.46%	51834	4305	-18.45%	(9,564)	(794)	(136,870)	(18,259)
2040	0.211	14092	1115	44750	3540	15228	1204	-7.46%	54742	4330	-18.25%	(9,992)	(790)	(146,862)	(19,049)
2041	0.211	14966	1127	47378	3569	16172	1218	-7.46%	57815	4355	-18.05%	(10,437)	(786)	(157,299)	(19,835)
2042	0.211	15894	1140	50165	3599	17174	1232	-7.45%	61064	4381	-17.85%	(10,899)	(782)	(168,198)	(20,617)
2043	0.211	16879	1153	53121	3630	18239	1246	-7.45%	64503	4407	-17.65%	(11,382)	(778)	(179,580)	(21,395)
2044	0.211	17926	1166	56257	3661	19370	1260	-7.46%	68147	4435	-17.45%	(11,890)	(774)	(191,470)	(22,168)
2045	0.211	19037	1180	59586	3693	20571	1275	-7.46%	72010	4463	-17.25%	(12,424)	(770)	(203,894)	(22,938)
2046	0.211	20218	1193	63118	3725	21847	1289	-7.46%	76108	4492	-17.07%	(12,990)	(767)	(216,884)	(23,705)
2047	0.211	21471	1207	66871	3759	23201	1304	-7.46%	80459	4523	-16.89%	(13,588)	(764)	(230,472)	(24,469)
2048	0.211	22802	1221	70857	3793	24639	1319	-7.46%	85082	4555	-16.72%	(14,225)	(762)	(244,697)	(25,230)
2049	0.211	24216	1235	75095	3829	26167	1334	-7.46%	89998	4589	-16.56%	(14,903)	(760)	(259,600)	(25,990)
2050	0.211	25718	1249	79601	3865	27790	1349	-7.46%	95225	4624	-16.41%	(15,624)	(759)	(275,224)	(26,749)

year. The peak year of projected savings shows a 2.64 percent decrease in total outlays. The projected static decrease in total military retirement outlays for the out-years is 2 percent.

The increased fund outlays in the early years are the consequence of current members receiving retired pay prior to age 60. As the retirement system matures and the percentage of reserve retirees drawing pay on the Two-Tier Option increases, outlays will begin to decline from projections for the current system. The immediate decrease in the DoD Budget reflects these future outlay savings in today's accruals, because all current members would have the opportunity to convert to the Two-Tier Option.

The increases in federal outlays projected from implementation of the Two-Tier Option are the smallest increases of any alternative that produces positive results in the retention of midcareer members. These outlays would be partially offset in the early years by decreased accession and initial entry training costs. These reductions would decrease the DoD Budget and, once the Two-Tier Option matures, would also reduce outlays.

The savings in future outlays are both real and implied savings. A significant portion of the real savings derives from two roots:

- Members who are not selected for retention will accumulate fewer retirement points, reducing outlays for these members from both the age-60 calculation and the Two-Tier option. There would be a reduced incentive for participation for points only by senior members in the Individual Ready Reserve.

- The Two-Tier Option eliminates unearned real wage growth, after retirement, from the calculation of reserve retired pay. The elimination of unearned real wage growth implies a small savings over the current system, but this will exist only if real wage growth actually occurs between a member's retirement and the 60th birthday.

Ancillary Benefits and Transition

In the above review of alternatives to the current reserve retirement system, nonmonetary benefits of reserve retirement, as well as problems associated with transition to an alternate system, have been largely ignored. Recommendations regarding "gray area" retirees and ancillary retirement benefits under the current reserve retirement system and the Two-Tier Option are discussed in detail in Chapter 9. Considerations for transition

to the recommended alternative are outlined below. Attention to these considerations during the drafting of proposed legislation should reduce implementation difficulties.

- A large segment of senior members of the reserve components are federal employees and subject to dual compensation laws. The application of dual compensation laws to the first-tier retainer payments would, in many cases, eliminate the positive net present value of the option to the individual, removing any incentive to depart service.

- Recovery of active duty separation pay from the first-tier retainer would remove the incentive to elect the Two-Tier Option. Recovery from the second tier would push back the current recovery period by two years and somewhat lengthen the recovery period. On balance, deferral of recovery until the second tier would appear to be warranted.

- Procedures would have to be incorporated for calculating first- and second-tier annuities for members voluntarily or involuntarily called to active status after they elected the first tier retainer . These procedures should be relatively straightforward as long as the retired pay base is established at time of election of the first tier. Retirement points earned during this service would be used in calculating the second tier, just as though they had been earned prior to election of the first-tier annuity. Recalculation of the first-tier annuity would be permitted (with point reduction using the first-tier formula) if subsequent service passed an established threshold (e.g. 75 points).

As discussed above, the SBP would need to be integrated with the Two-Tier Option. Transition itself would not appear to be inordinately complex. Two specific issues would appear to merit attention: application of the Two-Tier Option to members already in the Retired Reserve but not yet age 60, and immediate eligibility to elect the Two-Tier Option for all members with a minimum of 20 years of qualifying service, as opposed to a more gradual application of the option.

From the point of view of meeting reserve component objectives there would be no basis on which to offer the Two-Tier Option to members already in the Retired Reserve. Should it be judged that such offer is warranted on equity grounds, the first- and second-tier calculation could be the same as for active status members or could include a reduced benefit for election from Retired Reserve status. Inclusion of this group would increase initial outlays. From an individual economic perspective, however, a sizeable percentage of this group would be likely to opt to stay with retired pay at age 60 because of their proximity to that age.

The main reason for a two-step (or longer) transition to the Two-Tier Option would appear to be concern that if all members with 20 qualifying years have the opportunity to elect the option simultaneously, there would be a single surge of retirements that would cause manpower turbulence. This could be avoided by initially offering the option only to members subject to involuntary transfer to the Retired Reserve and those with at least 30 qualifying years. The 30-year standard could be gradually reduced one year at a time, so that full transition would be complete after 10 years. Obviously, many variations on this approach are possible. The transition scheme selected should be one judged by the reserve components to best fit their concerns and requirements.

Summary and Conclusions

The 6th QRMC review of reserve retirement assessed the effects of the system in attracting and retaining qualified reservists in support of manpower requirements. For the reserve members now entering service, 22.8 percent of their pay must be placed into the military retirement fund to pay for the future retirement costs of the group. In FY 1986, reserve retirees were paid $1.2 billion.

Previous studies of reserve compensation have concluded that reserve retirement is too expensive and is inefficient in supporting the reserve components' needs for enlisted members.[10] The 6th QRMC analysis indicates that reserve retirement is a major factor in the retention of both officers and enlisted members with critical leadership and technical skills. Although current compensation incentives could partially or completely replace the retirement system, QRMC analysis indicates that this could not be accomplished at less cost or with equal effectiveness. The retirement system also appears to support institutional values that are important to most reservists.

Balanced against these positive features of reserve retirement is the fact that the current system is relatively inflexible. This is particularly the case in terms of its ability to support manpower objectives for members who have completed the years of service requirement for retired pay but are under age 60. It is likely that a more flexible system would be of significant value in the next decade as members from the Vietnam Era hump approach age 50 and current high continuation rates combine to produce an excess of members with lengthy service.

Recommended Alternative

The QRMC examined a number of alternatives to the current system, including alternatives suggested as the result of earlier studies and those suggested by reserve members and

others concerned with the reserve forces. This review led to the development of an alternative to the current age-60 system. This alternative, the Two-Tier Option, which would provide an optional early annuity at any point after initial qualification for reserve retired pay with 20 years of satisfactory service, is recommended by the QRMC.

The Two-Tier Option would provide a second tier at age 62. The system would be optional for all members in service at enactment, in that members not electing an early annuity would receive retired pay and benefits beginning at age 60 as provided by existing law. Members electing the two-tier option, as well as those remaining under the current system, would receive medical benefits at age 60. The QRMC assessment of this alternative indicates that it would more effectively support the manpower force profiles desired by all reserve components.

The Two-Tier Option would be compatible with the active duty retirement system. It would not be competitive with the active duty system, but would be sufficiently attractive to aid in recruiting members with prior active duty who no longer desired to pursue an active duty career. In these respects, the alternative would not differ from today's system.

By providing a means to replace some percentage of the reserve compensation that is lost by members who have qualified for retirement at age 60 but can no longer participate, the Two-Tier Option would be supportive of selective retention policies of the reserve components. As an option that would be available immediately after enactment, it would be able to support manpower policies in the near term.

The Two-Tier Option is designed to provide an incentive to continue service through 30 years for those who are able to continue. The option should be easy to understand and communicate to reserve members. Because of the early annuity payments required, there would be an increase in outlays for retired pay from the military retirement fund. This increase would peak in 13 years after enactment. After 19 years, outlays from the fund would be less than under the existing system. Near-term increased outlays from retired pay would be partially offset by decreased accession costs and lower initial entry training costs. These same decreases would increase long-term savings.

There would be an immediate reduction in the amount of DoD accrual payments into the fund. These reduced accrual payments reflect the fact that the Two-Tier Option results in a significant decrease in reserve retirement costs in the long-term. The percent of reserve pay required to be set aside for new entrants to pay for the future costs of retirement would be reduced from 22.8 percent to 21.1 percent. In summary, the QRMC

concludes that implementation of the recommended Two-Tier Option to the current reserve retirement system would result in a more effective plan at less cost.

The QRMC recommends the development of legislation which would provide an optional early annuity at any point after initial qualification for reserve retired pay with 20 years of qualifying service. The early annuity would be optional for all persons who were members of a uniformed service prior to enactment of the recommended change. The Two-Tier system would apply to all new members after enactment.

Notes

1. See Office of the Secretary of Defense, Military Compensation Background Papers, U.S. Govt. Printing Office, June 1987, pp. 5-10.

2. During the course of the 6th QRMC review, Canadian defense officials, looking for an answer to poor reserve career retention and lack of prior active component affiliation, expressed interest in a reserve retirement system and the findings and alternatives of the QRMC.

3. Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), Special Projects Group. Review of the Compensation System for the Selected Reserve: Final Report, 1980, p. 34. This report did suggest that an option for an early partial cash-out system might assist in meeting manpower objectives and warranted further study.

4. The Civil Service Retirement System provides an unreduced, immediate annuity at age 60 with 20 years of service, and at age 55 with 30 years of service.

5. Office of the Deputy Assistant Secretary of Defense (Reserve Affairs), Reserve Compensation System Study - Final Report, June 30, 1978, p. VI-80.

6. Report to the President on the Study of Uniformed Services Retirement and Survivor Benefits by the Interagency Committee, July 1, 1971, p. 3-5.

7. It might be noted here that the current reserve retirement system may be seen as an extreme version of a two-tier system in which the first tier payment is zero.

8. The adjusted pay entry base date (PEBD) is the date that represents the start date of membership if the member has performed continuous service. A member with no breaks in membership would have the same PEBD and adjusted PEBD.

9. Although the calculation of the monthly retired pay annuity may seem complex, in contrast to the current system it could result in reduced administrative burden. Total retirement point accumulations are verified at the time of retirement, rather than at age 60 as with the current system. Records used to verify total point accumulations are more accessible while the member remains in an active status. As with the current system, the retired pay base is calculated once, at the time of retirement. The difference under the Two-Tier Option is that the member is still in an active status, and therefore still in the automated pay system, making the calculation easier and more accurate. Under the Two-Tier Option, the member will remain in

an automated pay system, greatly reducing the burden of the second-tier calculation, which is no more complex than the current age-60 calculation.

10. This view is still prevalent as indicated by the recent recommendation of the Congressional Budget Office regarding reserve retirement. See U.S., Congressional Budget Office, Reducing the Deficit: Spending and Revenue Options, U.S. Govt Printing Office, March 1988, pp. 90-92.

Chapter 7. THE RETIREMENT POINT SYSTEM; HISTORY, ANALYSIS AND RECOMMENDATIONS

The Initial Proposal

As initially proposed in 1946 and originally passed by the House in 1947 (H.R. 2744), the reserve retirement system would have provided an annuity at age 60, based entirely on years of service, with years of service not differentiated as to the level of reserve participation.[1]

Although this proposal required a minimum number of years of federal active service, the definition of a satisfactory year of reserve service was left to the discretion of the Secretaries of the Military Departments. The only limit placed on reserve retirement under this proposal was a pay cap (75 percent of basic pay), the same cap as active duty retirement. This proposal would have granted a lifetime annuity, beginning at age 60, to any member completing an aggregate total of 20 or more years of service. The annuity was to be the sum of the following:

- Two and one-half percent of the active duty basic pay multiplied by the number of years of active federal service. This pay would be based on the highest grade held satisfactorily during the entire period of service, and would be computed from the pay scale in force the year retirement pay was granted.

- One-half percent of this same base pay for each year of service other than active federal service; i.e. reserve service.

In addition to being 60 years old and having a minimum of 20 satisfactory years of service, a member was required to complete the minimum number of years of active federal service indicated in Table 7-1.

The requirement for active federal service was intended to accomplish two objectives:

- Congress wanted to link reserve retirement to the main purpose for which reserves existed at that time: a source of available qualified personnel; pretrained individual members who could be used to rapidly expand the active force in times of need.

- The War Department wanted an inducement for reserve officers to serve on extended active duty for periods of time short of that required to qualify for an active duty retirement.

Table 7-1. Years of Active Federal Service Required in the Initial Retirement Point Proposal (H.R. 2744)

Years of Service Prior to Enactment	Active Federal Service Required	Active Federal Service Required after Enactment
0 Years	3 Years	3 Years
Up to 5 Years	3 Years	2 Years
5 to 10 Years	4 Years	18 Months
10 to 15 Years	4 Years	1 Year
15 to 20 Years	4 Years	6 Months
Over 20 Years	4 Years	0 Years

Reaction to the Proposal

The original retirement proposal came from the Services. Opposition to the proposal existed only over the definition of active federal service. Reserve components of the War Department and the Department of the Navy argued that many members would be unable to leave civilian employment for the term of active federal service required.[2] The major support for reserve retirement from the active components of the War Department was as an inducement for reserve officers to serve on extended active duty. Justification for this support was based on planned force structures that pyramided toward the senior officer grades. These structures required a large number of junior officers who were not expected to achieve 12 years of active federal service. The War Department expected to meet junior officer requirements with reservists on extended active duty tours, holding the number of regular officers to the number expected to continue in active service through retirement. The War Department projected that reservists would not continue on extended active duty at the expense of their civilian careers without an alternate means for vesting active duty retirement benefits.

The War Department altered this position as mobilization planners within the Department exposed the vital need for a strong reserve, a reserve that would require participation from more personnel than the Department could use on extended active duty in peace time. H.R. 2744 was revised to include a provision to give 30 days of active federal service credit for each year of satisfactory reserve service, to be used toward

retirement qualification only.[3] This credit was to be in addition to any credit for annual training or other periods of active federal service, and was intended as an incentive for participation in inactive duty training.

Title III contained the foregoing provisions when H.R. 2744 was debated and passed in the House and introduced into the Senate in March of 1948.[4] Between that time and May 20, 1948, when the Senate Committee on Armed Services began hearings, Title III was dramatically modified. The result was the current reserve retirement system, which has remained basically unaltered since enactment on June 29, 1948. The text of the hearings before the Senate Committee on Armed Services on H.R. 2744 (80th Congress, 2nd Session) contains a thorough discussion of the major impetus behind the change from the preferred years-of-service based system to the retirement point system that was enacted. The major reasons for the change were as follows:

- In a retirement system based on undefined satisfactory years of service, an individual could enlist in a regular component for three years, transfer to a level of the reserves where a satisfactory year required little or no participation, and eventually qualify for retired pay. For this system, the actuarial projections indicated costs so high that they were considered outrageous.

- The years-of-service based system would have rewarded individuals identically for reserve service, without regard for their actual level of participation in inactive duty training. There was concern that this would be a disincentive to participate in inactive duty training beyond the minimum requirements. It was also felt that the proposed system would discourage membership in units of the reserve components requiring participation beyond the minimum needed to qualify for retirement.

Public documents, however, barely touch upon the rationale behind criteria for awarding points, types of points, limits on certain points, the definition of a good year, and the formula for calculating equivalent years of active service.

The Basis for a Retirement Point System

The earliest available documentation on a retirement point system for reserve retirement indicates that it was suggested by Lieutenant Colonel O. B. Myers, A.C. Reserve. Lieutenant Colonel Myers wrote to the Secretary of War on July 2, 1946, outlining a retirement point system that he felt would reconcile the conflicts existing between current bills before the 79th Congress, predecessors of H.R. 2744 (80th Congress).[5]

Although Lieutenant Colonel Myers' suggested point system was passed over in favor of the years-of-service based system in the original House version of H.R. 2744, the concept reappears in an undated memorandum from the Secretary of the Navy to the Secretary of Defense, prepared by Commander D. L. Martineau, Bureau of Naval Personnel.[6] The memorandum outlines and justifies a retirement point system that became the basis for the one finally recommended by the Department of Defense and enacted by Congress.

Under the initial concept of a nondisability retirement system for non-regular service, both the House and the Senate wanted to tie qualification to active federal service, allowing all or a majority of this service to have been performed prior to enactment (see Table 7-1).[7] The Services, on the other hand, viewed the primary purpose of the bill as an inducement for future service, and therefore wanted the required service to be performed after enactment. The problem with the original requirement for active federal service was twofold: What credit should be allowed for service prior to enactment? and, How were individuals to earn active federal service credit (or its equivalent) after enactment?

Before introduction of the point system, the Services successfully argued that annual training and other periods of active duty should count, and that an additional uniform credit of 30 days' active federal service per year should be awarded to each member completing a satisfactory year. The point system eliminated the need for tracking years of active federal service by treating each point earned as equal to one day; and by setting a minimum number of points per year, which approximated three years of active federal service over 20 years of service (see analysis on the 50-point minimum).

The structure of the enacted retirement point system was developed in May 1948, in the office of Major General John E. Dahlquist, Deputy Chief, Personnel and Administration, Headquarters United States Army. Assisting in the effort were representatives of the Services and their reserve components.[8]

The enacted retirement point system accomplished several goals of the Department of Defense:

- It placed all service creditable for retirement on the same basis, that of active federal service or its prescribed reserve equivalent.
- It established a formula for computing retired pay based on the individual's equivalent years of active federal service, the same basis on which active duty retirement pay was granted.

- It established a minimum participation requirement, eliminating the need to define a "satisfactory year" along with the need to track the three-year active federal service requirement for new entrants.

- It rewarded each individual on the actual level of participation, thereby providing an incentive to participate beyond the minimum prescribed level for qualification.

The analysis of the reserve retirement point system requires a thorough understanding of the purpose behind each component of the system, how the system provided appropriate incentives for the needs and missions of the reserve components in 1948, and how the requirements for the reserve components have changed over the last 40 years. Segregated into parts, the retirement point system consists of these components:

- Active federal service (AD points)
- Inactive duty (IDT)
- Membership (IDT)

These three sources of retirement points are bounded by these limitations:

- A 60-point cap on IDT and membership points, combined, in a given retirement year

- A 50-point minimum to classify a given retirement year as a satisfactory year of service

- A 365-point cap on total points counted in a given retirement year (366 in a leap year)

- A divisor of 360 for establishing equivalent years of active federal service

The award of points for active and inactive duty solved several problems with the original system:

- It placed all service on the same basis, with the point system providing the means to relate reserve inactive duty participation to active federal service, and provided that both the active and reserve retirement systems would use the same basis for pay (2.5 percent of basic pay for each year of equivalent active service).

- It placed a premium on inactive duty participation, thus providing an incentive to participate, rewarding individuals for their actual participation, and setting a uniform standard for satisfactory performance.

Award of IDT Points

From CDR Martineau's memorandum and from testimony before the Senate Committee on Armed Services,[9] it could be concluded that, for the most part, award of IDT points was to have been limited by the reserve components' budgets, implying paid periods of training or equivalent instruction. The language of the enacted legislation specifies "... or period of equivalent instruction that was prescribed for that year by the Secretary concerned and conformed to the requirements prescribed by law",[10] and indicates that tight controls were contemplated for the award of IDT points. This concept remains reflected in section 206(a) of title 37, United States Code, which provides an entitlement to compensation for inactive duty training "to the extent provided for by appropriations." Except for nonpaid drills, periods of equivalent instruction were expected to be fairly limited. In fact, the only type of equivalent instruction specifically mentioned is correspondence courses.

Original cost projections forecast that less than 1 percent of nondrilling officers and 0.25 percent of nondrilling enlisted members would qualify for retirement (as opposed to 5 percent of officers and 1 percent of enlisted members assigned to drilling units).[11] These projections, grounded on the reserve component structure that existed in 1948, provide evidence that most nondrilling reservists were not expected to acquire good years of service for retirement purposes.

The current system of awarding points for inactive duty training has been the subject of debate over many years. At the time the reserve retirement system was enacted, inactive duty training was conducted for the most part in single drill assembly periods, even though multiple training assemblies had been used to some degree to meet training requirements in the Naval Reserve since 1930. In 1949, during consideration of the Career Compensation Act, the Navy defended the need for conducting two paid drills in one day. In hearings before the House Armed Services Committee, it was stated that the Chief, National Guard Bureau, had suggested limiting the number of paid assemblies to one per day.[12] During the hearings, the Congressional members raised the issue of "two days' pay for one day's work". In 1954, the Department of Defense General Counsel ruled that the practice of paying for multiple drills was not legally objectionable and that "there appears to be no legal basis for concluding that such a drill or period of equivalent instruction is legal for pay purposes but not retirement purposes." The following year DoD Directive 1215.8 (2 May 1955) confirmed this opinion in regulation, and in 1958 the Comptroller General ruled in favor of the practice.[13] There has been periodic concern with the two days' pay and retirement points issue. Since a reservist is credited with two retirement points for a day in which two drill periods are performed, but

is credited with only one point for a day of active duty, this will doubtless continue to be raised as an issue from time to time.

Membership Points

Since the inception of the reserve retirement system, all reservists in an active status have been awarded 15 points per year for membership. Documentation of the historical background concerning membership points is relatively sparse: CDR Martineau's memorandum and a small section of the Reserve Compensation System Study (RCSS, section F, supporting papers, volume II, "Deferred Compensation and Benefits") provide the only documented legislative history. The background documentation develops two lines of reasoning for the award of gratuitous membership points:

- Under the initial system proposed by CDR Martineau, there would have been no minimum number of points required for qualification. Except for active participation, the means to earn points under his proposed system were quite limited. He proposed the award of gratuitous membership points on the basis of "15 days for each year of federal service without pay other than active duty or active duty for training",[14] thereby limiting the award of membership points to nondrilling reservists. Membership points were intended to allow nondrilling reservists to qualify for a small annuity at age 60. This intent was largely obstructed by the inclusion of the 50-point minimum, which assured that any reservist who qualified for an annuity had accumulated at least 1,000 points.

- In the proposal that was eventually enacted, membership points were included because the essentially arbitrary minimum of 50 points per year was considered unobtainable for members who did not drill or participate in annual training. Moreover, at that time, many reserve units were authorized fewer than 48 drills and, in some cases, no annual training. According to the RCSS background paper, membership points were recommended as compensation to the reservist for the "simple act of allowing his name to be maintained on the roster, thereby subjecting himself to call for active duty".[15] More to the point, membership points were recommended as a start toward the 50-point minimum, in recognition of the fact that many reservists could not obtain 50 points otherwise.

Both CDR Martineau and the drafters of the final proposal recommended 15 membership points, to correspond to the active service credit received for annual training. Although it is not spelled out in the background documentation, it can be inferred that points from active participation were to be the major

contributor to retirement qualification. The background documentation recommends the granting of membership points because of the many reservists who would be unable to obtain 50 points per year through drill participation only. This concept points, once again, to the fact that reserve retirement was regarded as a benefit for drilling reservists.

Sixty-Point Cap on Inactive Duty Points

Although no documentation exists on the logic behind the 60-point per retirement year cap on IDT points, probable considerations may be inferred from the legislative history:

- Sixty points, plus 12 to 15 days annual training, approximates one-fifth of 360 points, which equates to 0.5 percent in the retirement formula. One-half percent for each year of reserve service corresponds to the original reserve retirement proposals.

- An annual maximum of 60 paid drill periods had been established in law for the Army since 1920[16] and the Navy since 1925.[17] Thus, 60 was a recognized standard for maximum annual inactive duty participation. Further, the reserve component structure in 1948 did not provide the opportunities for participation that the reserve components of today provide. It was not anticipated that reservists, other than members of the National Guard and other Reserve units authorized 48 drills, would exceed the 60-point cap.

- As methods were contemplated for earning IDT points other than by direct participation in a drilling status, an annual cap on IDT points would appear appropriate to prevent abuse of the system.

A longstanding concern with respect to the award of IDT points relates to the provision that allows the Secretaries of the Military Departments to define a period of equivalent instruction. As shown in Table 7-2, the methods for earning IDT points include points for such activities as recruiting, attending an approved civilian seminar, or giving a lecture on a military subject to a local community organization. The cap on IDT points, 60 points per retirement year, prevents most drilling reservists from benefiting from these alternative methods of earning IDT points.

The Fifty-Point Minimum

Before the retirement point system was included in the legislative proposal for reserve retirement, the definition of a satisfactory year of service was to be left to the discretion of the Secretary of the appropriate Military Department. The Secretary of the Navy objected to the discretionary definition

AWARD OF RETIREMENT POINTS

TRAINING	REQUIREMENT	POINTS	TYPE
ACTIVE DUTY, ACTIVE DUTY FOR TRAINING, ANNUAL TRAINING, FTTD	AUTHORIZED ORDERS WITH OR WITHOUT PAY	1 POINT FOR EACH DAY OF TRAINING	ADT
MEMBERSHIP IN AN ACTIVE STATUS OF A RESERVE COMPONENT	a. MUST BE IN AN ACTIVE STATUS b. CURRENT POLICY ALLOWS CREDIT FOR PARTIAL YEARS	15 POINTS PER RETIREMENT YEAR	IDT
UNIT TRAINING ASSEMBLY, AFTP, RMA, TP, ATA, DRILL, EQUIVALENT TRAINING	ASSIGNED OR ATTACHED IN PAY OR NON-PAY STATUS	1 POINT FOR EACH ASSEMBLY, MAX 2 POINTS PER CALENDAR DAY	
ATTENDANCE AT RESERVE SCHOOLS	a. ACTIVE RESERVE STATUS b. NOT IN LIEU OF UTA	1 POINT FOR EACH ASSEMBLY	
PREPARATION AND PRESENTATION OF INSTRUCTION BY INSTRUCTORS AND ASSISTANT INSTRUCTORS	a. INSTRUCTION PRESENTED TO MILITARY UNITS, ROTC, OR OTHER APPROPRIATE GROUPS B. PRIOR APPROVAL AND VERIFICATION OF PREPARATION TIME AND PRESENTATION	1 POINT FOR 2 HOURS PREPARATION NOT TO EXCEED 3 PER 1 HOUR OF INSTRUCTION. 1 POINT FOR 2 HOURS OF PRESENTATION	
COMMAND, STAFF AND ADMINISTRATIVE DUTIES	AUTHORIZED ORDERS	1 POINT FOR A MINIMUM 2 HOURS OF DUTY	
COMPLETION OF ARMED FORCES EXTENSION COURSES	APPLICATION FOR ENROLLMENT MUST BE APPROVED	1 POINT FOR EACH 3 CREDIT HOURS	
ATTENDANCE AT PROFESSIONAL OR TRADE CONVENTIONS, ARMED FORCES SEMINARS, PROFESSIONAL MEETINGS, OR TRAINING CONFERENCES	a. AT LEAST 2 HOURS TRAINING b. MILITARY IMPORTANCE c. ENDORSED, SPONSORED, SUPERVISED OR CONDUCTED BY A MILITARY DEPARTMENT	1 POINT FOR A MINIMUM 2 HOURS MAX 1 POINT PER DAY	
PERFORMANCE OF MEDICAL DUTIES, CERTAIN LEGAL DUTIES BY LEGAL OFFICERS, AND PASTORAL DUTIES BY CHAPLAINS	DUTY MUST BE PERFORMED WITHOUT PAY	1 POINT FOR 2 HOURS DUTY MAX 2 POINTS PER DAY	
DUTIES PERFORMED AS A MEMBER OF THE MILITARY AFFILIATED RADIO SYSTEM (MARS)	ONLY PERIODS OF OPERATION IN THE OFFICIAL NET WILL BE AWARDED POINTS	1 POINT FOR 2 HOURS DUTY MAX 2 POINTS PER DAY	
OTHER SERVICES AND DUTIES	AS APPROVED	1 POINT FOR 2 HOURS DUTY MAX 2 POINTS PER DAY	
RECRUITING NEW MEMBERS FOR ENLISTMENT/REENLISTMENT	MUST BE VERIFIED BY THE OFFICER CERTIFYING THE ENLISTMENT AND THE NEW ENLISTEE	1 POINT FOR EACH NEW MEMBER ENLISTED	
OTHER TRAINING PROJECTS AS AUTHORIZED	PROJECTS MUST HAVE PRIOR APPROVAL OF THE MAJOR UNIT COMMANDER	1 POINT FOR EACH 2 HOURS WORK PROJECT, MAX 1 POINT PER DAY	

1. INACTIVE DUTY TRAINING (IDT) POINTS ARE LIMITED TO A MAXIMUM OF 50 POINTS IN ANY ONE RETIREMENT YEAR.
2. TOTAL POINTS (THE SUM OF ADT AND IDT POINTS) ARE LIMITED BY SERVICE REGULATIONS TO 365 (366) POINTS IN ANY GIVEN RETIREMENT YEAR.
3. A MINIMUM OF 50 POINTS IS REQUIRED FOR ONE FULL YEAR OF SATISFACTORY FEDERAL SERVICE. POINTS EARNED IN NON-SATISFACTORY YEARS ARE INCLUDED IN RETIREMENT PAY CALCULATIONS ONCE THE MEMBER QUALIFIES FOR RETIREMENT.

TABLE 7-2

due to the existing structure of the Naval Reserve, and the differing participation requirements among the various components of that structure. Under the original proposal, the Secretary of the Navy would have been required to make individual decisions on what constituted a satisfactory year for each member of the Naval Reserve.[18]

One of the original goals of Congress in considering a reserve retirement system was to link qualification to active federal service. Although the armed forces and their reserve components did not disagree specifically with this requirement, they successfully argued that actual participation in the reserves should count toward completion of the active federal service requirement. Before introduction of the point system proposed as part of the legislative package, the requirement for active federal service for new entrants stood at three years.[19] As H.R. 2744 went to the Senate, it would have allowed full credit for all periods of active duty; active duty for training (including annual training); and, for every year of reserve service, a uniform credit of 30 days toward completion of the active federal service requirement. This would have allowed a minimum-participant category A member to complete the active federal service requirement in 24 years of reserve service (15 days annual training plus 30 days uniform credit times 24 years equals 3 years of active federal service). Any additional performance of active duty for training would shorten this period.

The introduction of the point system produced an easy solution to the definition of a satisfactory year and the active federal service requirement: require a minimum number of points. The minimum was arbitrarily set at 50 points per retirement year,[20] which, over 20 years of minimum satisfactory participation, produces a minimum point accumulation of 1000 points (almost three years active federal service at one point per day). This solution for defining future satisfactory reserve performance was acceptable to the Military Departments and the Congress, but it did not solve the problem of credit for past reserve service. The final solution to credit for past service, although not equitable when levels of participation are considered, was the award of a satisfactory year of service, along with 50 points credit, for each year of federal reserve service prior to enactment of the system.

As stated, the 50-point minimum was essentially an arbitrary decision, although it is apparent that there was some consideration of participation levels as they existed in 1948:

- Members of the National Guard and of other Reserve components that were authorized 48 drills and annual training would exceed the minimum through normal participation.

- Members of units and programs that were authorized 24 drills, annual training, and 15 membership points could exceed the minimum through participation, so long as they attended all assemblies.

- Members in units or programs that were authorized 24 or less drills without annual training could achieve a satisfactory year through the performance of equivalent training, correspondence courses, and active duty training (when available). These individuals would be required to earn up to 35 points (50 points less the 15 membership points) through methods not connected with unit participation. The majority of these individuals were not expected to qualify for reserve retirement.[21]

With the inclusion of membership points in the final proposal, the minimum level of participation required for a satisfactory year was set at that level required to earn 35 points. Earning 35 points by means other than unit participation was considered nearly impossible at that time.

The proposal provided that all years of reserve service prior to enactment of the system would be considered "satisfactory years." It correspondingly required active duty during World War I or II as a condition of eligibility for those who were members of the reserves before August 16, 1945. After enactment, this provision was extended to include the Korean conflict and, subsequently, to include service during the Berlin and Cuban crises as well as during the Vietnam conflict period. For those who first became members after World War II, no requirement exists for active duty in time of war.[22]

The system, as enacted, ensured that new members of the reserve components will meet certain minimum service requirements to qualify for retirement; therefore, a specific requirement for active federal service was not required.

Analysis of the Retirement Point System and Recommendations

Active Duty Points

Active duty points are awarded on the basis of one point for each day of full-time service:[23]

- Active duty
- Active duty for training (with and without pay)[24]
- Full-time National Guard duty

The awarding of one point for one day of active service appears reasonable and equitable, and it has been accepted as such by reserve members. Under the formula for calculating

retirement benefits, one year of active service approximates 2.5 percent of base pay, the same as for active duty retirement, and the same as proposed in the original version of the bill.

Just as important, active duty points provide ease of transition from extended active duty to a reserve status and vice versa, a feature strongly desired by the Department of Defense. By providing full credit for each day of active service, the system enhances the active duty experience level in the reserve components and enables the active components to attract reserve members to perform short periods of extended active service. The basis for award of active duty points is consistent with the requirements of active service. The system accommodates the needs of both the active and reserve components, and therefore should be continued.

Inactive Duty Points

Inactive duty points (IDT) are awarded on the basis of one point for each attendance at a drill or period of equivalent instruction.

Inactive duty training and training requirements have changed radically since 1948:

- Almost all reserve units are currently authorized 48 paid drills per year in addition to 12 to 15 days annual training. In 1948, only the National Guard was authorized 48 paid drills by law, with the majority of Reserve units authorized considerably less.

- The length and scheduling of drill periods has changed. Initially, a drill period was two to four hours, one evening per week, with perhaps two hours devoted to training after administrative duties had been discharged. Currently, a drill period is typically one weekend per month, which often amounts to 48 hours continuous training for deployable units. Multiple drills involving two and one-half or three days are not uncommon.

- Most units are authorized a considerable number of additional IDT training periods, which may be allocated individually or to units as a whole as training needs and missions dictate.

- Air crews and pilots assigned to flying units are authorized up to an additional 48 IDT periods per year to maintain their qualifications.[25]

It was the clear intention of the Department of Defense and Congress that reservists should receive full credit toward retirement for their actual participation. However, it is also

clear that the current levels of participation were never anticipated. Currently, with the cap of 60 IDT points per retirement year, the majority of drilling reservists lose at least three retirement points per year, with the average loss as high as 27 points for officers of the Air National Guard (see retirement point analysis in Appendix B).

The 6th QRMC approach to the analysis of this issue was to compare the actual and required duty performed within the basic one-year period of credit for active duty and reserve members.

- Members on active duty accrue points for each day of service, whether or not the day is actually a duty day. They receive one point per day for nonduty weekends, accrued leave, and federal holidays. The minimum-participant member on extended active duty could actually work as few as 219 days (365 less 104 weekend days, less 12 federal holidays, less 30 days paid vacation) out of 365. This member would receive 365 retirement points, an average of 1.67 points per working day. If the member works additional days beyond the minimum, as most do, the average credit will fall, approaching one point per day as the member approaches 365 full working days (see Figure 7-1 later in this chapter).

- A reservist in Training/Pay Category A (97 percent of trained part-time members of the Selected Reserve) who is a minimum participant earns 75 points per retirement year (48 for drills and 15 for membership, capped at 60, plus 15 for annual training). This reservist does not accumulate leave and, in most cases under the current system, works every day of annual training, thus earning 75 points for 39 working days, or 1.92 points per day. The ratio of points per day decreases rapidly with the member's level of participation. The average Army National Guard officer earns 98 good retirement points per year, indicating that this average officer receives an additional 23 ADT mandays beyond the minimum required level of participation. Assuming no additional IDT performance, this officer receives 1.6 points per working day. If this officer works additional IDT periods during the year, the point-credit ratio drops even more, due to the current 60-point cap on IDT retirement point credit (see Figure 7-1 on page 7-23).

The award of retirement points for inactive duty is as appropriate as the award of retirement points for active duty. Unlike the point credit for active duty, however, the analysis of credit for IDT is complicated by the award of two IDT points for two drill periods performed in one day and the 60-point cap on IDT points.

Membership Points

The majority of reserve units are now authorized 48 drills and at least 12 days of annual training.[26] Thus, the original concern that apparently led to the award of membership points in unit programs is no longer relevant; most unit members can now easily exceed 50 points through minimum required participation.

The requirement for membership points to achieve a 50-point good year remains a concern for reservists whose only participation requirement is annual training. This group represents only about 1.5 percent of the part-time Selected Reserve.[27]

The following points are pertinent when considering of any recommendation concerning the elimination of membership points:

- Reducing the minimum required points for a satisfactory year to 35 (or less) would not affect the ability of reservists to earn satisfactory years with no change in the required level of participation, if membership points were eliminated. However, this would reduce retirement benefits earned annually by as much as 30 percent for minimum-participant members.

- Elimination of membership points, with no reduction in the points required for a satisfactory year, would have little effect on the ability of Training/Pay Category A members to qualify for satisfactory years of service. Data from the 1986 Reserve Components Surveys and from the Air Force Reserve and the Air National Guard indicate that the average Category A unit member loses more than 12 IDT points per retirement year. This suggests that, with the 60-point cap on IDT points in place, membership points do not benefit most category A unit members. It must be pointed out that there is limited data currently available for the analysis of retirement points.[28] The mean suggested averages may be dramatically skewed from the mode, due to extremely high IDT point losses by the following groups: pilots and air crew members; senior officers and enlisted members performing additional IDT periods authorized for administrative and readiness (training) management; and officers attending reserve service schools to complete career course, command and staff, or war college requirements. This suggests that a large number of junior officers and enlisted would lose up to 17 percent of their retirement benefits earned annually, if membership points were eliminated and they failed to

increase their IDT participation beyond the minimum levels required. However, these individuals are not necessarily in the categories of active members most concerned with retirement benefits.

- Currently, over 95 percent of the Selected Reserve lose at least three points per year due to the 60-point cap on IDT points. Thus, there is no direct compensation incentive for Category A unit members to participate in unpaid activities for IDT credit.

Elimination of membership points would reduce the annual point total of minimum-participant Selected Reservists. The following are hypotheses regarding the effects on retention if membership points were eliminated. These hypotheses appear valid, but are not fully verifiable with currently available data:

- Membership points represent a decreasing percentage of retirement benefits as an individual member approaches retirement qualification. The QRMC analysis indicates that levels of participation increase as the individual gains experience. The average total point accumulation increases faster with years of service than participation levels would allow, suggesting that individuals with low total-point accumulations are more likely to separate. Separation is fostered by current policies requiring the separation or transfer to an inactive status of members failing to achieve a satisfactory retirement year for two consecutive years.

- As retirement qualification gains importance as an incentive for continued service (between 8 and 14 years of service, depending on the amount of prior active service), the primary goal of most individuals is the vesting of previously earned retirement credit, with accumulation of additional credit a secondary motive.

- Retention of personnel beyond 20 good years of service appears to be significantly affected by the fact that there are no immediate benefits for those who separate or retire before age 60. Continued active membership allows the individual to accumulate additional retirement points and possibly qualify for promotion, both of which increase the value of retirement, without altering the retention decision process.[29] Further, drilling reservists continue to receive pay and benefits that are not offset by a concurrent sacrifice of retirement pay and benefits.

These hypotheses, once proven, would support the following conclusions about the affect on retention of the elimination of membership points, assuming a corresponding decrease in the minimum points required for a satisfactory year. The effect is tied to the type and length of the reservist's participation:

- **Nondrilling minimum participants without significant amounts of prior active service and in the early years of service.** Retention in this group would be marginally reduced due to the decreased value of reserve retirement. The actual percentage decrease would not be large because these individuals already have a high rate of separation and the retention pull of reserve retirement is less developed.

- **Nondrilling minimum participants with prior active service.** Retention would not decrease discernibly, due to the strong retention factor associated with vesting of retirement benefits.

- **Drilling reservists in the early years of service.** Retention would not suffer; the primary motivation of these individuals appears to be part-time employment (current versus deferred income). Members in this category with prior active service would be even less affected.

- **Reservists with eight to twenty years of service.** Retention would not be affected due to the incentive to vest previously accumulated retirement points. Further, for drilling reservists, IDT participation levels increase as they enter this period of their career, decreasing or voiding the impact of eliminating membership points.

- **Reservists with more than 20 satisfactory years of service.** Retention would be affected only to the extent that losing these points made continued membership less attractive than separating in response to family or civilian employment pressures.

The elimination of membership points would result in an approximate 7 percent decrease in retired pay for a new entrant Category A member who attends initial entry training in an active duty for training status and never performs any additional training beyond 48 drills and annual training for the remainder of service. The percentage decrease drops rapidly if the member performs any additional active duty for training during a career in excess of 20 years. Further, with no change in the 60-point cap on IDT points, up to 12 additional earned IDT points would be creditable for retired pay computations. A member who earned at least 12 additional IDT points per retirement year would completely offset the reduction in retired pay created by the elimination of membership points.

Cursory analysis of membership points supports their elimination, in conjunction with a concurrent decrease from 50 to 35 in the minimum points required for a satisfactory year. Elimination of membership points would provide incentive for Category A reservists to increase participation in both paid and unpaid inactive duty training. Decreasing the minimum point requirement to 35 points (or less) would allow reservists to qualify for a satisfactory year without increasing their required level of participation. Further, the elimination of membership points in conjunction with a lift in the IDT point cap would reward those Category A members who perform additional IDT rather than providing equal deferred income compensation for inactive duty participation to all Category A members, regardless of the level of participation.

From available data, it is not readily apparent that eliminating membership points would reduce the cost of reserve retirement; many individuals would compensate for this loss with additional IDT participation. This issue is discussed further in the sections on the 60-point IDT cap and the 50-point minimum, as well as in the conclusion to the retirement point section.

The Sixty-Point Cap on IDT Points

The current retirement point system limits to 60 the number of IDT points that are creditable for retired pay computations in any one retirement year.

As stated earlier, the nature of reserve service has changed dramatically over the last 40 years. All Category A members are currently authorized and required to perform 48 paid drills, resulting in a minimum loss of three IDT retirement points per retirement year when membership points are considered. Analysis of the 1986 Reserve Components Surveys and the 6th QRMC report on unit visits indicates that loss of IDT retirement points due to the 60-point cap contributes to dissatisfaction with reserve service, and therefore, adversely affects retention.[30] The following facts are relevant to an analysis of the 60-point cap:

- There is no incentive with respect to the retirement system for unpaid IDT participation beyond the first 45 points per retirement year.

  Since the majority of category A unit members earn more than 45 points through minimum required drill participation, there is no compensation incentive to drill without pay when required to meet administrative burdens, and no direct incentive to complete educational requirements through correspondence courses or IDT sessions sponsored by reserve service schools.

- **Many Category A unit members currently lose large numbers of IDT points each year.**

  Pilots and aircrew members currently lose as many as 48 IDT points per year for those awarded in conjunction with additional paid drills (AFTPs) to maintain flight qualifications. Reserve commanders and staff are often required to participate in additional IDT periods to accomplish administrative duties. These periods, both paid and unpaid, result in the award of IDT points that almost always exceed the cap on IDT points and therefore are not creditable for retirement purposes.

- **The 60-point cap produces an inequity in the compensation system for equivalent required work.**

  When enacted, the 60-point cap was reasonable within the context of a legislated maximum of 60 paid drills. Today, with no legislated maximum on paid drills, a significant percent of all Category A reservists perform more than 60 drills. Some members are required to perform 96 drills per year. Therefore, today the 60-point cap creates a disparity in retirement credit for members who perform in excess of 48 drills per year. A Category A member required to perform additional work beyond the minimum, if compensated through use of a paid active manday, receives both current compensation (base pay and allowances) and deferred compensation: the ADT point will count in retired pay computations. This same member, if compensated for identical performance through the use of one additional IDT period, will receive current compensation of base pay only (no BAQ or BAS), and receive no deferred compensation: after reaching the cap, the IDT point will not count in retired pay computations. In the case of unpaid additional ADT or IDT periods, the former are creditable for retirement pay computations while the latter are not.

  Individual members are seldom able to choose the type of duty (ADT or IDT) for additional required work. Whether a member is compensated by paid ADT versus paid IDT for similar work depends on the availability of budgeted additional ADT mandays and IDT periods, as well as the existing regulations governing their use. A hypothetical situation can easily be developed in which two members receive significantly different current and deferred income for identical careers and duty, simply because of the limitations of the system.

The 1986 Reserve Component Surveys provided a page for comments by members on issues not covered by specific questions on the survey itself. These comment sheets were provided to the 6th QRMC for review, and, although the frequency of related

comments was not tabulated,[31] the comments often mentioned the inequity of the 60-point cap on IDT points and the associated disincentive to participate in inactive duty training above the required minimum. A related topic, the lack of compensation for unpaid drills and overtime required to complete administrative tasks, was one of the most visible complaints about reserve compensation.

The 6th QRMC conducted field visits to discuss compensation concerns with reservists at their unit locations. The following is extracted from the 6th QRMC report on the unit visit program:

> Retirement and Estate Benefits, with 69 observations in 25 units, was the most frequently discussed topic. Only Basic Compensation, with 65 observations in 22 units, ranked at the same level of interest. Retirement and Estate Benefits was preselected as a subject for discussion in 10 units.
>
> Within this subject category, the topic with the most interest is the 60-point cap on IDT retirement points. Our review indicates that many members perceive the cap as resulting in unfairly withheld compensation for extra work they perform, primarily because most drilling reservists exceed the cap for the minimum required participation (48 drill points plus 15 points for satisfactory participation equals 63 points). Unit members, especially aircrews, may actually earn up to twice the points allowed, resulting in up to half their effort going unrewarded for retirement. The cap is particularly problematic when members drill for points only and lose points that exceed the cap. While some consider the cap to be a disincentive for correspondence courses, most members perceive the cap as a detriment to unit operational and training objectives. Many members do not understand the cap in the first place and think it should be done away with. Others suggest increasing the cap to 110 points or higher, and a few suggest that excess accrued points should be applied to years when fewer points are earned.[32]

Point data from the Air National Guard and the Air Force Reserve (the only components with accurate point data available in automated records), indicates that on the average, Category A members in these two components lose in excess of 15 IDT points per year (see Appendix B). The data currently available makes it impossible to analyze the distribution of lost points resulting from the 60-point cap for all reserve members:

- Accurate point data in automated personnel or pay systems will not be available in the near future for five of the seven components.

- The dispersion of lost points is unknown; that is, whether a small number of personnel are losing large numbers of IDT points each year (aircrew members can lose over 48 points each year), or whether the averages are representative of a typical member.

- The amount of unaccounted-for IDT points is unknown. It is apparent that IDT points for many unpaid drills, staff meetings, correspondence courses, and other IDT participation are not accounted for. This occurs for many reasons: the member is not aware that IDT point credit is authorized for certain types of unpaid participation; the member is aware that point credit is authorized, but does not bother to request credit once the 60-point cap has been exceeded; credit is requested, but fails to be posted, with no attempt to correct the record if the 60-point cap has been exceeded.

- If the 60-point cap is completely lifted, there is a substantial probability of a redistribution of additional IDT periods from members with high levels of IDT participation to members with low levels of additional IDT. Currently available data not only makes it impossible to estimate the degree of such a redistribution, but also makes it impossible to estimate the degree of total increase in additional IDT participation.

Point Values

While the problems created by the 60-point cap discussed above appear to merit corrective action, it may be argued that revision of the current limit upward would overcompensate some members, since IDT retirement credit can be accumulated on the basis of two points for one day of duty. As pointed out in the section on IDT points, an active duty minimum participant earns approximately 1.66 points per working day. The minimum-participant Category A reservist earns 1.92 points per day when membership points are counted, but only 1.62 points per day if membership points are eliminated. The average point value per working day declines rapidly for the Category A reservist due to the 60-point cap.

Figure 7-1 details the declining average value of retirement points for days worked beyond the minimum required (39 days). The figure illustrates a Category A reservist under the current system (60-point IDT cap and 15 membership points). The maximum credit line shows declining average values for a member performing ADT mandays at 1 point per day. When ADT points are

counted (subject to a 365-point cap), this line continues to decrease to an ultimate limit of 1 if the individual works 365 days. The minimum credit line shows the declining average value if the member receives only IDT credit for additional work. Since the 60-point cap has already been exceeded, the line will decrease to an ultimate limit of .21 points per day at 365 days.

A typical Category A reservist will earn a value between the minimum and maximum credit lines, because the member will perform a mix of additional IDT periods and of ADT mandays. The active duty line represents the declining value of retirement points to a member on extended active duty if the member exceeds the minimum required workdays in a work year (365 days less 104 weekend days, less 12 federal holidays, less 30 days vacation, equals a minimum of 219 workdays). This line will decline to an ultimate limit of 1 as the member approaches 365 days worked. (The active duty line is provided on all retirement point charts as a reference point only.) Comparisons can be made, at a given number of additional days worked, between the active duty line and the category A reservist lines, but such comparisons are not necessarily appropriate, due to the differing natures of extended active duty and reserve participation.

Figure 7-1 indicates that it is technically possible for a Category A reservist to exceed the average retirement-point credit earned by an active duty member, but that the reverse is more probable. The probability of earning less average credit per day is expressed by the area between the minimum and maximum curves and below the active duty line. Earning less than the average point credit for an active duty member penalizes the reservist in several ways:

- Retirement points determine differences in reserve retired pay between individuals of the same age, rank, and years of service.
- Active duty members receive compensation for the entire year, regardless of the number of days actually worked. The reserve member does not accrue leave for IDT or ADT participation of less than 30 days. Members seldom participate for periods that permit paid days off (weekends or holidays). Further, many reserve members participate in additional ADT and IDT activities without pay, compensated only by the award of retirement points, many of which are never counted due to the IDT point cap.
- Finally, there is a significantly greater value for a retirement point to a member who expects to qualify for an active duty retirement. If a reserve officer qualifies for active duty retirement, all points (including any IDT points earned during part-time participation) are included

in the calculation of retired pay. Additionally, this member would begin receiving retired pay immediately, not at age 60.

Viable Options to the Sixty-Point Cap

Figure 7-2 defines the range of probable average retirement point credit per working day if membership points were eliminated, leaving the 60-point IDT cap in place. As the figure indicates, a Category A reservist would exceed the active duty benchmark within a relatively small range that requires earning two IDT points per additional day. Currently, the reserve components prohibit or limit the opportunity to participate in additional IDT periods beyond the required 48 drill periods at a rate higher than one per day.[33]

Figure 7-3 shows probable average retirement point credit if membership points are retained and the 60-point IDT cap is eliminated. Under this option, the range of probable averages is always above the active duty benchmark.

Figure 7-4 shows the range of probable averages if membership points and the 60-point IDT cap are eliminated. Although this chart indicates a wide range above the active duty benchmark, the typical Category A reservist will approach the minimum credit line due to the difficulty of earning more than one point per day worked beyond the normal 48 drills.

Alternatives to the current system are illustrated in Figures 7-5 through 7-8. A 75-point cap on IDT points was selected initially because available data indicates that the typical category A reservist loses 12 to 15 points per retirement year. Again, as expressed in the discussion above: available data does not indicate an even distribution of IDT retirement point losses (the arithmetic mean is skewed from the mode); there is no way to estimate the redistribution of additional IDT points that might occur; the number of unaccounted-for points is unknown; and there is no way to estimate increases in current levels of additional IDT participation.

- Figure 7-5 graphs the results of raising the IDT point cap to 75 and eliminating membership points. Figure 7-6 further limits the award of IDT points beyond the initial 48 drills to one per day. The net result under both of these options is that the range of probable average credit remains below the active duty benchmark for the vast majority of participation, required or additional.

- Figure 7-7 shows the results if membership points are eliminated and the IDT point cap is increased to 75 with a maximum of 60 IDT points that could be earned at two points per day for multiple assemblies. Figure 7-8 is identical

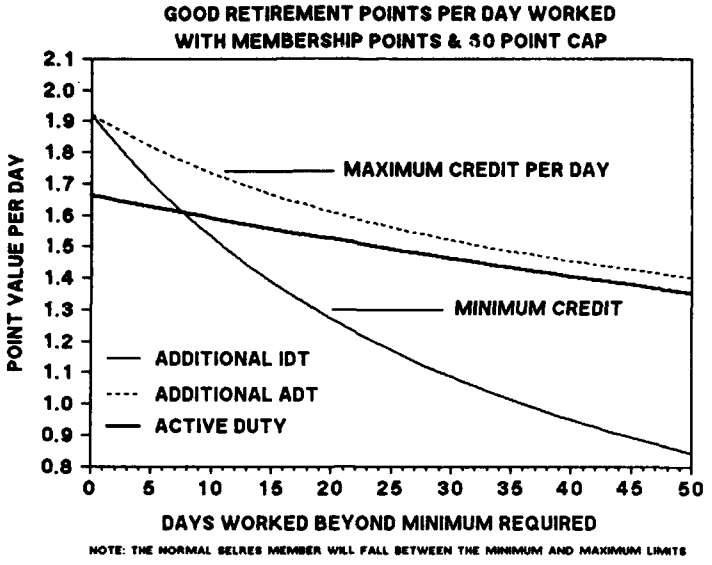


FIGURE 7-1

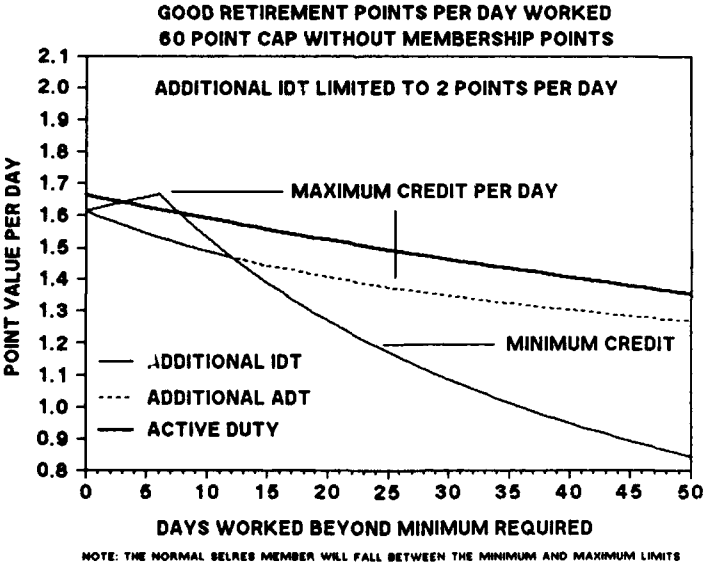


FIGURE 7-2

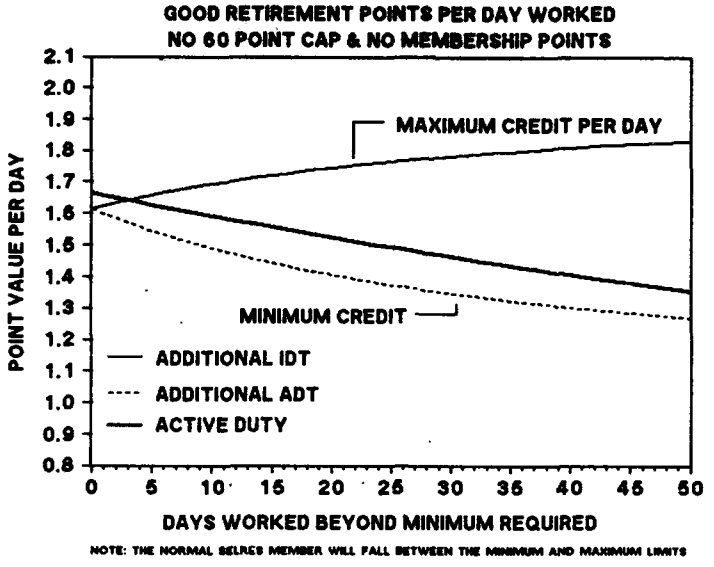


FIGURE 7-3

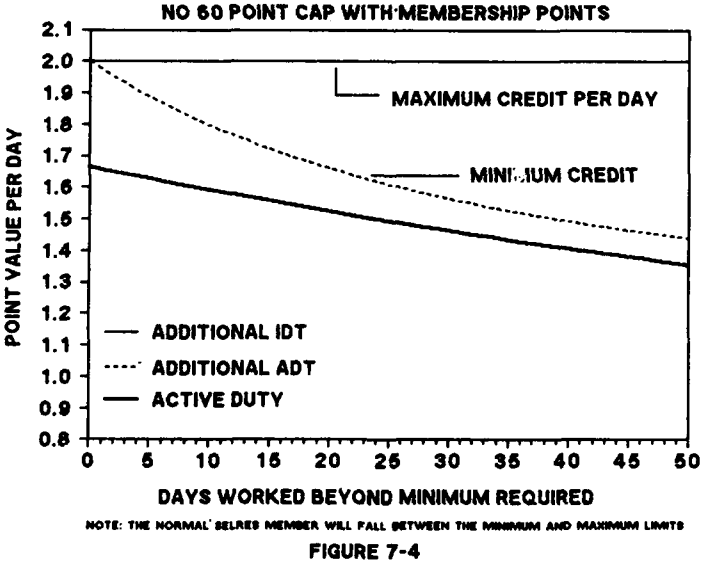


FIGURE 7-4

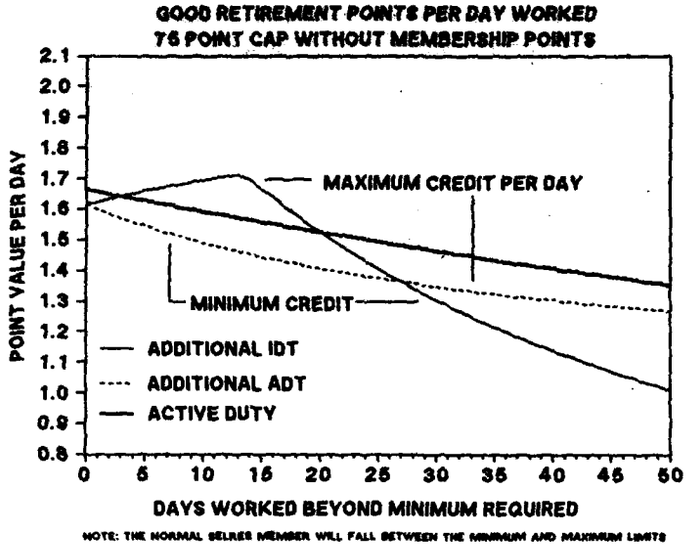


FIGURE 7-5

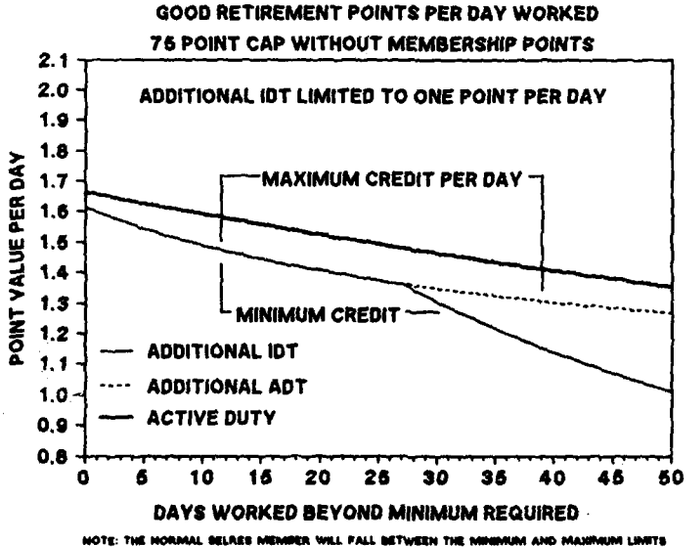


FIGURE 7-6

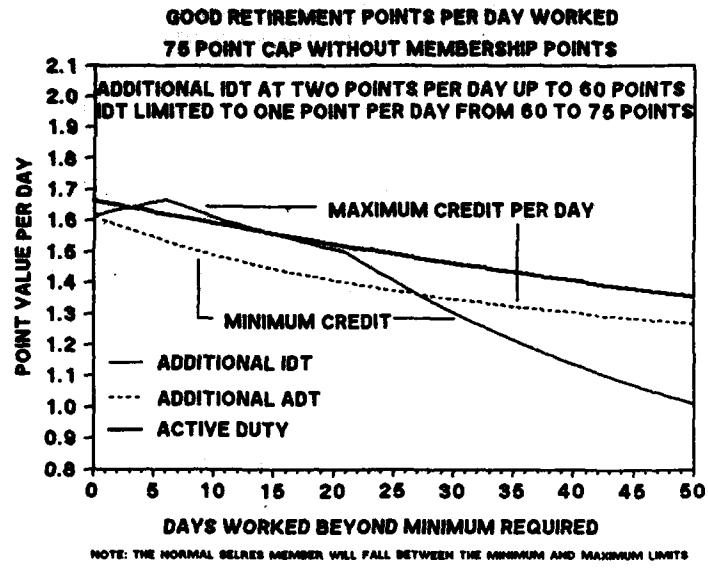


FIGURE 7-7

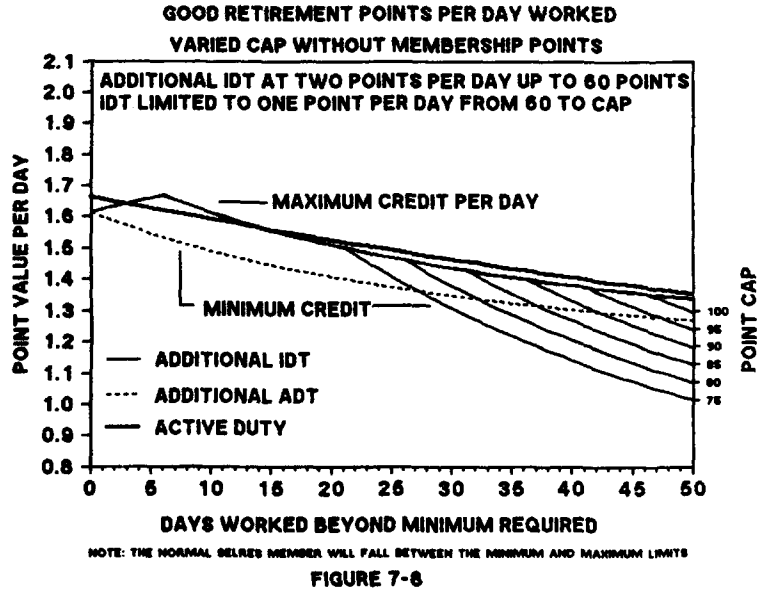


FIGURE 7-8

to Figure 7-7, except that it shows the varying results of setting the IDT point cap at 5-point intervals above 75 points. The net result would be that the Category A reservist, with extra duty within the range now being performed, would approach the active duty benchmark in average retirement point credit per working day.

As Figure 7-8 demonstrates, eliminating membership points, lifting the IDT point cap, and limiting credit for IDT points to one per day after 60 points have been earned for multiple assemblies narrows the range of probable average retirement point credit per day worked. The range is slightly below the active duty benchmark for the majority of individuals. Implementing these measures would reduce the effects on deferred compensation for individual members who perform the same additional workloads under an ADT as opposed to an IDT status. It would allow the Military Departments more flexibility in determining compensation incentives for various categories of additional required work, and it would continue to maintain a deferred income premium for extended active duty.

It is important to note that the ability to earn two points per day for some types of inactive duty training is the only means a part-time reservist has to meet or exceed the active duty baseline under any circumstances. As can be seen from the graphs, a limit of 60 points at 2 points per day reasonably limits the ability of a part-time reservist to exceed the baseline.

Several economic arguments arise in support of and in opposition to any change in the IDT point cap. The lack of valid retirement point data makes analytical verification of these arguments impossible at the present time:

- There is no reason to lift the cap to allow retirement credit for additional IDT performance: members of the reserve components already accomplish these missions without receiving retirement credit.

  Discussion: The assertion here is essentially that, today, the appropriate member performs the pertinent additional mission under the proper conditions for the most cost-effective compensation alternative. This contention is not supported by the little evidence that exists. The distribution of lost IDT points for the Air Force reserve components suggests that a small group of members performs the majority of additional IDT periods, while additional ADT periods appear to be more widely distributed. One can infer that if deferred compensation credit were allowed for additional IDT performance, the additional IDT workload

would tend to redistribute itself among all members, thus helping to raise the readiness of individual members as well as of the unit itself.

- An increase in the number of creditable IDT points that can be earned in one retirement year would increase the cost of reserve retirement.

  Discussion: This would occur automatically if one assumes that most reservists would exceed the current 60-point IDT cap. However, any redistribution of currently-performed paid and unpaid active mandays into IDT periods would lower the cost for those members who exceeded the new cap and could not earn these redistributed points in an ADT status. The system cost could be higher, but this is not easy to predict based on existing data.

- Raising the IDT point cap would provide incentive to perform unpaid IDT.

  Discussion: Any increase in reserve retirement cost caused by increased use of unpaid IDT for required unit missions and administrative tasks would be at least partially offset by concurrent decreases in the use of paid and unpaid active mandays, and by decreases in the use of paid additional IDT. Decreased use of ADT would offset the increased IDT points one-for-one, since all ADT points currently count. Decreases in paid IDT and ADT days would more than offset the increase in IDT points for unpaid IDT performance that replaces paid days (current compensation value far exceeds the discounted net present value of a retirement point).

Due to the nature of reserve service, additional manpower for increased peacetime missions may be acquired in two ways: increase the available manpower by increasing the strength of the reserve components, or increase use of currently available manpower. Either method increases the cost of the reserve components, and therefore the cost of reserve retirement, but this cost can be offset by decreases in required active duty strengths. For additional missions that do not require additional trained personnel upon mobilization, using current reserve personnel to the extent that they are available and willing to participate results in the most economical use of funds allocated for these missions. Currently, many of these missions are accomplished through the use of paid active mandays. Although this is likely to continue, savings could occur if there were an incentive to accomplish these additional missions in a paid or unpaid IDT status. The increase in the cost of reserve retirement from these activities could actually produce overall savings.

Additionally, if membership points are eliminated, with a concurrent decrease in the minimum number of points required for a satisfactory year, additional IDT points earned would be offset by the loss of the gratuitous points currently counted (12 at most for the minimum-participant Category A reservist, and 15 for others). An increase in the IDT point cap and elimination of membership points cannot be shown to increase reserve retirement costs until there is evidence that total average point accumulations would increase for members who actually qualify for reserve retirement. Additionally, if it is determined that costs would increase, that increase must be compared with the costs associated with accomplishing reserve component missions by alternative means.

Reservists not required to perform 48 IDT periods have not been considered in the above discussion. Available data indicates that the majority of these members do not exceed the current 60-point IDT cap. In fact, the available data indicates that most of these members barely exceed the 50-point minimum required for a satisfactory year. This implies that there would not be an increase in the cost of reserve retirement from a lift in the IDT point cap for these members. Further, the elimination of membership points, with a concurrent decrease in the required minimum points for a satisfactory year, should in effect decrease point accumulations by 15 points per year for these members.[34]

An increase from the present 60-point annual cap for IDT would accomplish several goals for the reserve components:

- It would place an additional premium on Category A participation: members required to perform a minimum of 48 IDT periods are the only expected beneficiaries of a lift in the cap, especially if membership points are eliminated.

- It would increase the incentive for additional paid and unpaid IDT participation by all members, which could potentially improve both individual and unit readiness at less total cost than the use of active mandays for the same purpose.

- It would decrease the current dissatisfaction with this aspect of reserve service; dissatisfaction created when members lose retirement point credit for additional IDT performance that is required for successful completion of unit missions and training requirements.

- A small increase in the current cap (to 75 points), with provision for a review after five years, would provide an analytical tool for system comparison. The change would provide data on the actual value of retirement points as an incentive for participation; data that otherwise would not

be available, even with verifiable point data and several years of history for trend analysis. Holding the cap to 75 points during this period would provide the Department of Defense with the ability to analyze the effect of any further revision of the cap, to preclude an unjustifiable increase in the cost of reserve retirement.

- Finally, the lift in the cap, along with the elimination of membership points, realigns the point system with its actual purpose: compensation for participation.

For these reasons, despite the lack of verifiable data and the unknown impact on cost, an increase in the IDT retirement point cap to 75 points per retirement year is recommended with the following stipulations:

- No more than 60 points may be accumulated at the rate of 2 points per day (the first 30 days per year with multiple assemblies would result in two points credit each), with IDT point credit limited to one point per day for all other IDT participation, regardless of the number of assemblies performed and compensated.

- Inherent in the decision to raise the IDT point cap is a review of current regulations governing the award of IDT retirement points by OSD and the Military Departments. To insure comprehensive data for later evaluation of the IDT point cap and the use of IDT points as an incentive, the Services will need to track the award of retirement points by categories: ADT points by extended active duty, paid mandays, unpaid mandays, and annual training; IDT points by required drills, additional paid and unpaid drills, correspondence courses, and other unpaid equivalent training.

It is recognized that there are members who are required to perform more than 75 drill periods per year as a condition of membership and that an increase in the IDT point cap to 75 will not fully alleviate the inequity of the retirement point system for these members. However, these members receive current compensation (drill pay and pro rata special incentive pay) for this additional required performance. The intent of this recommended lift in the IDT point cap is to provide a deferred compensation incentive for additional IDT performance that is not a requirement of membership and is not always compensated. Members who are required to perform in excess of 75 drills per year will automatically receive the full benefit of the raise in the IDT point cap, but it is not necessarily cost-effective to provide these members with allowable retirement point credit for all required drills.

The potential benefits to the readiness and morale of the reserve components are numerous if the IDT point cap is raised. The potential impact on the cost of the reserve retirement system can be limited by the magnitude of the increase in the cap, until data is gathered to determine its impact on reserve readiness. Whether or not the increase results in added costs, the information provided will allow the Department of Defense to evaluate the cost-effectiveness of retirement points and, therefore, the cost-effectiveness of deferred compensation as an incentive for current reserve service.

The Fifty-Point Minimum for a Satisfactory Year of Participation

As described earlier, the basis for reserve retirement is at least 20 years of service in which performance has met the definition of satisfactory. A satisfactory year of reserve service is any retirement year in which the member is credited with a minimum of 50 retirement points. Originally, it was anticipated that this level of participation would be extremely difficult to obtain for most reservists (only 5 percent of officers and 1 percent of enlisted members participating in drilling units were expected to achieve 20 good years of service).

The evolution of reserve component administrative, mission, and mobilization requirements over the last 40 years has increased minimum required levels of participation for most unit members (most unit members are now category A reservists) to a level where the 50-point minimum is no longer a consideration in qualifying for retirement. Increased participation is also evident for members not required to perform 48 IDT periods. While members who are required to perform 24 drills and annual training can still achieve a satisfactory year by minimum participation and membership points, members who are required to perform less than 24 drills must still use additional ADT (when available), correspondence courses, and other forms of inactive duty training in order to earn 35 points and achieve a satisfactory year. Over the last 40 years, there has been a substantial increase in the number of members not in category A who achieve satisfactory years.

The definition of a satisfactory year of reserve service has an obvious impact on the cost of the reserve retirement system, just as other recommendations regarding the retirement point system have an impact on the minimum point requirement.

Proceeding from the premise that the current 50-point minimum is an appropriate level of required minimum participation when membership points are granted, then the minimum number of points should be lowered to 35 if membership points are eliminated. This would require the identical minimum level of participation from all reserve members, at the same time lowering total point

accumulations for reservists who participate at minimum levels. Eliminating membership points without lowering the minimum point requirement would increase required levels of participation for reservists not in Category A, which could affect their retention. The effect of lowering the minimum on the implied active federal service requirement can be ignored, since membership points and the original 30 days' uniform credit were both counted toward this implied requirement, yet did not represent physical participation on the part of the member. Further, the vast majority of reservists qualifying for retirement accumulate in excess of 2500 points (with the average in excess of 3000), far more than three years of equivalent active federal service.

As discussed in Chapter 5, reserve retirement is one of the major keys to long-term retention of reserve personnel, as well as one of the major recruiting tools available to the reserve components. As the number of reservists not required to perform at least 24 drills has grown, so has the means by which they may qualify for a satisfactory year. The review of alternatives to unit participation recommended in the section on the 60-point IDT cap is likely to result in elimination of some types of inactive duty training and a tightening of control on the award of IDT points for others. For reservists not required to perform 24 drills annually, this would necessarily constrict the means available to earn a satisfactory year, and could potentially decrease retention among these members.

The proper solution to this problem requires the Military Departments to determine the level of participation required to maintain these reservists in numbers commensurate with budget constraints and mobilization requirements. The current level of 35 earned points requires participation beyond the required minimum; these members must earn additional points through nonpaid IDT, including correspondence courses. The benefit to the readiness of the reserve components or the individual in such cases is not always apparent.[35] The proper definition of a satisfactory year is that amount of participation that maintains members at a predetermined level of readiness appropriate to mobilization plans and budget constraints. The proper minimum point level for a satisfactory year would consider this new definition, as well as the retention rates required to maintain the appropriate force with reduced or no drill requirements, with savings from reduced total point accumulations offsetting the increased costs associated with improved retention.

It is beyond the scope of this review to define the required level of satisfactory participation for reservists not required to perform at least 24 drills. Therefore, no change to the current minimum point requirement is recommended, except in

conjunction with eliminating membership points. If membership points are eliminated as recommended, the minimum point requirement should be reduced to 35.

The 360-Point Divisor and the 365-Point Cap on Annual Points

The 360-point divisor for establishing equivalent years of active service is based on the day's pay standard: pay for any part of a calendar month is one-thirtieth of monthly base pay and allowances per day. Thirty times 12 months is 360 days, hence the 360-point divisor.

The 365-point cap on total yearly points (366 in a leap year) counted for retirement purposes is a restriction placed on reserve retirement by regulation, pursuant to Secretarial authority to create regulations for implementing the reserve retirement system.[36] The basis for a limit of 365 points is the number of days in a year, for which a member on extended active duty would receive one point for each day served.

Neither the divisor nor the yearly cap on total points presents a problem when considered independently. Jointly, however, they result in more than one year of credit for one year of continuous service. There is no evidence that this outcome was intended. Two possible remedies are readily apparent:

- Increase the divisor to 365 (366 in a leap year).
- Decrease the yearly cap on total points to 360.

Increasing the divisor to 365 (366 in a leap year) would require the computation of retirement pay by single years, rather than by the accumulated point total. The fact that most retirement years will not coincide with the calendar year further complicates the process. In addition, an increase in the divisor would decrease the value of retirement points earned by reservists not on extended active duty below the standard of one-thirtieth of a month per point.

A 360-point cap on future yearly retirement points would ensure that all members earned exactly one year of credit for one year of equivalent work, whether on extended active duty, in an active Guard or Reserve status, or accumulating points on a part-time basis. The net result would be a loss of five points credit (six in a leap year) for each continuous year of extended active duty on the part of a member; credit that currently entitles the members with extended active duty service to more than 2.5 percent of base pay at age 60.

The 360-point cap can be implemented immediately and uniformly for all members. No grandfathering would be required. Implementation of a 365-point divisor would, however, involve

significant administrative burden associated with grandfathering. This review recommends the legislation of a 360-point cap on total points accumulated in one retirement year. No change to the divisor is recommended.

Summary and Recommendations

The structure of the point credit system for reserve retirement has remained virtually unaltered since enactment of the reserve retirement system in 1948. The system was well thought out, relative to the actual and contemplated organization of the reserve components at that time. The point system advanced the goals of the Department of Defense in proposing a reserve retirement system, as well as the goals of the Congress in supporting and enacting the world's only deferred income system for military reserves.

The evolution of the reserve components over the last 40 years has altered requirements for participation and readiness. The current forced reductions in active duty strength will further increase reliance on the reserve components for the defense of the Nation. In order to provide the proper compensation incentives to members of the reserve components who must now increase their individual and unit readiness (sometimes at the expense of civilian careers and family), the following revisions to the retirement point system are recommended:

- **Eliminate membership points in conjunction with a decrease in the minimum number of points required for a satisfactory year to 35.**

  As outlined in the analysis, membership points could be eliminated with little or no effect on retention.

- **Raise the yearly IDT point cap to 75 points.**

  Analysis indicates that the current cap on IDT points, 60 points per year, acts as a disincentive for additional IDT performance. The cap, therefore, inhibits the readiness of individual members and units and contributes to overall dissatisfaction with reserve service.

- **Limit to 60 the number of points that may be credited at two points per day.**

  Concurrent with the increase in the IDT point cap, it is recommended that credit for multiple assemblies (two points per day) be limited to 30 days per year (60 points), and that all other IDT point credit be limited to a maximum of

one point per day regardless of the number of assemblies performed or compensated on days beyond the first 30 in which two points are awarded.

- Cap the yearly accumulation of total retirement points at 360.

  This recommendation limits the amount of retirement credit received in any one retirement year to exactly one year of credit. Further, it maintains the integrity of the concept of one-thirtieth of one month's pay and allowances for each day of active duty.[37] Interpretation of the authority to regulate the total number of points allowed in a given retirement year is currently subject to confusion; this suggests that this 360-point cap should be legislated.

Legislation is required for all of these recommendations except the 60-point limit on accrual of points at two points per day. The 6th QRMC estimates that the combined effect of these recommendations would not result in additional costs to the Department of Defense.

Additional Recommendations

It is recommended that the Military Departments review their current regulations regarding the award of IDT points for unpaid activities. This review should determine whether each method of earning additional unpaid IDT points impacts directly on the readiness of the reserves, and whether deferred compensation is the most appropriate and cost-effective incentive for the accomplishment of these missions. In conjunction with this review, the Military Departments should establish whether the current minimum level of actual participation (35 points) results in the appropriate tradeoff when considering the following:

- The required levels of readiness for reservists not required to perform a minimum of 24 paid drills
- The difficulty these members may have in earning 35 points per year
- The associated costs of reserve retirement
- Budget constraints for training these members

Finally, assuming early enactment of the 6th QRMC recommendations, the results of these alterations to the current retirement point system should be reviewed, using valid retirement point data (with several individual years for trend analysis) by the 7th QRMC. This review would then determine whether further restructuring is required.

Notes

1. U.S., Congress. House, Committee on Armed Services, Subcommittee No. 7, Retirement, Subcommittee Hearings on H. R. 2744, No. 169, H. Hearings No. 169, 80th Cong., 1st sess., May 12, 1947, pp. 3296-3299.

2. Ibid. p. 3437.

3. Ibid. p. 3298.

4. U.S., Congress. Congressional Record, 80th Cong., 2nd sess., March 10, 1948, p. 2481.

5. U.S., National Archives. Letter dated July 2, 1946 to The Hon. Robert P. Patterson, Secretary of War, from Lt. Col. O. B. Myers, A.C. Reserve, RG 165, War Dept General and Special Staff, Legislative and Liaison Division, Legislative Group, Pending and Enacted Legislation, 1943-1946, Senate Bills, 79th Cong., S. 1972-S. 1980, S. 1974 File, Box# 301.

6. U.S., National Archives. RG 46, Records of the U.S. Senate, 80th Congress, 2nd Session, Committee on Armed Services Legislative Files: Dockets, H.R. 2744, File I, Box 68. A note attached to the memorandum by CDR Martineau indicates that the memo was signed on a Saturday sometime after H.R. 2744 was read to the Senate, but before the Senate held hearings on the bill. The text of the memo places it after April 10, 1948. The text of the memo is reproduced as an appendix to this section.

7. U.S., Congress. Senate, Hearings before the Committee on Armed Services, United States Senate, 80th Congress, Second Session, on H.R. 2744, 80th Cong., 2nd sess., p. 29.

8. Ibid. p. 32.

9. Ibid. pp. 67, 69-70. At various other points within the text of the Senate hearings on H.R. 2744, the witnesses indicate that award of IDT points, and therefore the cost of the proposed system, will be limited by the reserve components' budgets, indicating that award of IDT points for other than paid drills or paid periods of equivalent instruction would not be a substantial percentage of the total points awarded.

10. U.S., Congress. Title 10, United States Code, Armed Forces, §1332, para. (a)(2)(A)(ii).

11. Ibid. Senate Hearings on H.R. 2744, p. 29.

12. Hearings before a Subcommittee of the House Armed Services Committee on H.R. 2553, 81st Cong., 1st sess., pp. 1721-1723.

13. 37 Comp. Gen. 618 (March 21, 1958).

14. Appendix A, enclosure b, paragraph 2.

15. U.S., DoD. Reserve Compensation System Study, Supporting Papers, Volume II, Deferred Compensation and Benefits, ODASD-RA, June 1978, section F, p. 3.

16. Pub. L. No. 242.

17. Pub. L. No. 512.

18. See memorandum from the Secretary of the Navy to the Secretary of Defense prepared by CDR Martineau in Appendix A.

19. See Table 7-1.

20. Ibid. RCSS, vol II, section F, p. 2.

21. Ibid. Senate Hearings on H.R. 2744, p. 29.

22. This provision was further amended in 1983 to extend reserve retirement benefits to individuals who first became members prior to 1945, but who did not serve on active duty during World War I or World War II, or on active duty (other than for training) during the Korean Conflict. The amendment extended the active duty in time of war for these individuals to allow service on active duty (other than for training) during the Berlin and Cuban missile crises (after 31 August 1961 and before 31 May 1963), or during the Vietnam Conflict (after 4 August 1964 and before 28 March 1973). At that time the Congress agreed that this change was a fair and equitable solution to this issue and that further easing of the "wartime service" provisions of the original law would be unwarranted (§924, Pub. L. No. 98-94). See the Conference Report to accompany S. 675 on the Department of Defense Authorization Act, 1984, Report No. 98-213, August 15, 1983).

23. This includes active duty, active duty for training, and full-time National Guard duty, paid or unpaid, under competent federal orders.

24. The reserve components have found it necessary in some circumstances to order an individual to active duty for training without pay. This system ensures that the member is eligible for military medical benefits in the event of injury, and therefore allows the accomplishment of various types of training such as the Army Physical Readiness Test (APRT). Further, it provides medical coverage for members performing administrative duties in an unpaid status. Deferred compensation is thus provided for additional time required of a member for which current compensation is unavailable.

25. Aircrews may perform in excess of 48 AFTPs if specifically authorized by the Secretary concerned (DOD Directive 1215.6, p. 3, para. E3.D(2), September 22, 1987).

26. This standard for the National Guard is 48 drills and 15 days annual training (32 U.S.C. §507). The standard for the Selected Reserve, except as specifically authorized by the Secretary of Defense (10 U.S.C. §270) is 48 drills and 14/15 days of annual training. The Coast Guard, under directives of the Secretary of Transportation, typically performs 48 drills and 12 days of annual training.

27. Current regulations require the separation, transfer to an inactive status, or retirement of members who fail to earn a satisfactory year for two consecutive years. Available data suggests that the reserve components do not uniformly enforce the application of this requirement, allowing these reservists to continue in an active status. Reservists must earn a minimum of 20 satisfactory years to qualify for retirement, but, once qualification is achieved, all points earned in other years are included in the computation of retired pay.

28. In 1986, DoD Instruction 7730.54 was revised to require the reporting of accumulated retirement points to DMDC beginning in FY 1987. Additionally, §661 of Pub. L. 99-661 required that, "not later than September 30, 1987, the Secretary of each Military Department shall develop the data required pursuant to Department of Defense Instruction Number 7730.54 (dated May 7, 1986) and submit that data to the Secretary of Defense." The majority of data so far reported has proven unreliable for analysis. This problem arises because most of the reserve components are only now in the process of automating retirement point accounting, and have not yet verified the accuracy of their systems or the accuracy of the manual records used as source information. It is anticipated that reliable data may become available in the near future.

29. The net present value of reserve retirement actually increases after 20 good years of service, because the individual is now vested and must only live to age 60 to collect. The individual is no longer required to earn a satisfactory year and does not sacrifice benefits as a result of continued service. In the active retirement system, the individual sacrifices retirement pay to continue in active service.

30. This matter has been an issue in the reserve components for many years. The Annual Report of the Reserve Forces Policy Board for 1986 recommended that the 6th QRMC study this matter.

31. Due to the extremely large volume of handwritten comments, and the fact that most members commented on a variety of compensation-related topics within a single comment sheet, it

was not considered feasible within the resources of the 6th QRMC to categorize and tabulate similar comments for frequency distributions.

32. Draft of the report of the Sixth Quadrennial Review of Military Compensation, to be published.

33. DoD Directive 1215.6, Uniform Reserve, Training and Retirement Categories, September 22, 1987, limits paid and unpaid IDT performance to a maximum of two periods per day. This Directive limits the use of additional IDT training periods (ATPs) to 12 per fiscal year per member, and additional flight training periods (AFTPs) to 48 per fiscal year for any aircrew member. Readiness management periods (RMPs) are limited to 24 per fiscal year, with the additional stipulation of no more than one per day, and not on the same day as performance of another training period (IDT, ATP, or AFTP). DoD Instruction 1215.7, Reserve Retirement Point Credit, essentially limits the award of retirement points for IDT participation to a maximum of two per day. The services have placed additional restrictions on the award of IDT points and the use of additional IDT periods, paid and unpaid. The net result is that it is extremely difficult to exceed one point per day beyond the minimum required 48 drills for IDT participation.

34. Refer to the section on membership points for a discussion of the effects on retention for members in not required to perform 48 IDT periods per year if membership points are eliminated. The minimum required points for a satisfactory year would have to be lowered to no more than 35 to realize net savings without drastic effects on retention. See the section on the 50-point minimum for expanded discussion of this issue.

35. This is readily apparent from the fact that the majority of reservists not required to perform at least 24 IDT periods per year (1.5 percent of the trained Selected Reserve) earn exactly the minimum required for a satisfactory year (Those who fail to do so for two consecutive years are transferred to an inactive status). This would imply that, given budget constraints, the actual level of participation desired from category C (and below) members by the Military Departments is below the level required to earn a satisfactory year. In a perfect world with no budget constraints, it is conceivable that the Department of Defense would want to have every reservist fully qualified on M-Day, so that no postmobilization training would be required. In such a situation, virtually any reservist could qualify for a satisfactory year simply by volunteering for training, and training received by reservists would be directly related to individual or unit readiness.

36. Section 307, Pub. L. No. 810-80, 80th Cong. (H.R. 2744).

37. This situation arises since the current unlegislated cap on total yearly retirement points is 365 (366 in a leap year), which results in more than one year of credit when divided by 360 (the divisor for establishing equivalent years of active federal service in the reserve retirement pay formula).

Chapter 8. STRUCTURAL ISSUES

Significant changes have occurred in the reserve components' structure, mission and intensity of training since World War II. The provisions of the reserve retirement system, however, have remained essentially unaltered since their 1948 enactment. As discussed in preceding chapters, these basic provisions were developed to meet needs perceived in that era. Subsequent events and trends have produced a different environment, necessitating new criteria for judging the effectiveness of the reserve component retirement system. Individual structural and technical aspects of the system, as they relate to the operation of the whole, will be the focus of this chapter.

Historical Context

The need for military manpower is always greatest during conflict. When the conflict is reduced or resolved, many of those called to meet immediate needs return to their previous endeavors. Such was the case in the post-World War II environment, where over 50 percent of the adult male population between 18 and 45 had served in the armed forces. As active force manpower strength declined from 1945 to 1950, (it was less than 1.5 million by 1950, before the outbreak of the Korean War), the role of reserve forces became more important. The role was still not well defined, but there was clear recognition that reserve forces would be much more significant than they had been prior to World War II. This being the case, the training needs of the reserve components urgently required bolstering through improved full-time support, standardized training requirements, and improved retention of qualified reservists.

The need to better integrate the personnel policies and compensation systems for active duty members with those for reserve members became apparent during the period between World War II and the Korean War. The Korean War served as the initial impetus for improved integration. Many of the changes enacted in the 1950s were the result of the need to keep large numbers of reserve officers on extended active duty to meet national defense requirements after Korea. As a result, much of the new legislation during this period dealt with officers rather than with enlisted personnel. This emphasis has been reversed in the past decade as large numbers of enlisted members have served on extended active duty in their reserve status to meet the needs of the reserve components for full-time recruiting, technical and administrative support.

With the transition of the reserve components came a new set of requirements. The reserve retirement system did not fully keep pace with the great changes in reserve missions and concomitant manpower requirements. However, few could have had the insight necessary to envision the extent of the changes to come. One effect is that many portions of title 10, United States Code, have become anachronistic or dysfunctional.

There are two principal consequences of the failure to systematically update the reserve retirement system. The first is the complex, overlapping and confusing structure in terms of which retired military members are categorized. The second is a number of unintended inequities that have developed over the years. While some of these are superficial, others are quite substantive, having a significant impact on individual members. As the active and reserve components become even more closely aligned, it is increasingly important for all provisions to work equitably so as to encourage both active and reserve service.

In the succeeding pages, some of these structural issues are addressed in detail. The thorough review of these issues necessarily included an examination of their legislative history to determine original intent as well as the assessment of their current utility. The QRMC review of these issues was conducted with reference to the current retirement system and not to any alterations to that system that might be recommended.

The Structure of Military Retirement Categories

The military retirement system differs in a number of ways from retirement plans that exist outside the military setting. For example, military retirement has a much stronger role in supporting manpower force structure objectives. The operation of the retirement system is a major factor in helping to ensure that the manpower available to the Armed Forces has the required mix of age and experience. Another difference of great importance is that retired military members are subject to recall to active duty to meet national defense needs.

The 5th QRMC reviewed the mobilization aspects of the military retirement system. This part of the 5th QRMC study was conducted by the Mobilization Concepts Development Center of the National Defense University.[1] One conclusion of this study was that "retiree data analysis is a particularly troublesome problem in that pay and personnel files are inconsistent, combined with the fact that current reports do not adequately reflect the various categorizations of retirees to allow yearly reconciliation." [2]

The 6th QRMC review indicates that this situation has improved only marginally in the intervening four years. In 1986 and 1987, this issue was again identified by the Office of the Undersecretary of Defense (Policy) in exercise Remedial Action Projects. The 6th QRMC was tasked to review this problem and recommend solutions. Our review indicates that these persistent difficulties in accounting for retired personnel are largely due to the complexity of the retired categories that form the structure in which the retired population is accounted for.

From a defense manpower perspective, the most important feature of categories of retired personnel is the availability, for involuntary order to active duty, of the members in the categories. In this respect, the most important distinction is whether or not the member has retired after 20 or more years of active service. Under current law, both regular and reserve members who retire after 20 years or more of active service may be ordered to active duty by the Secretary concerned at any time (section 688 of title 10, United States Code). Members in other retired categories who have not retired after 20 or more years of active duty may be ordered to active duty without their consent only in time or war or of a national emergency declared by the Congress, unless otherwise authorized by law. Further, these retired members may not be ordered to active duty unless the Secretary concerned, with the approval of the Secretary of Defense, determines that there are not enough qualified reservists in an active status who are readily available.

This simple but critical division is not reflected in the established categories of retired members. The existing categories are as follows (for clarity, the following listing excludes members on permanent or temporary disability retired lists):

- Retired Regulars. This category includes regular officers and enlisted members who have retired after 20 or more years of active duty.

  This is complicated by statutory provisions affecting regular enlisted members who retire after 20 years of service but prior to 30 years of service. In the Navy and Marine Corps, regular enlisted members who retire prior to completing 30 years of active duty are transferred to the Fleet Reserve and Fleet Marine Corps Reserve, respectively, until their active and retired service totals 30 years. Current statutes do not specify whether these categories are part of the Retired Reserve. Indeed, it is not clear whether they are part of the Naval Reserve or Marine Corps Reserve. Members of the Fleet Reserve are not included in the Retired Reserve in official Department of Defense

statistics. Conversely, the Fleet Marine Corps Reserve members are included as part of the Retired Reserve in these statistics.

In the Army and Air Force, retired regular members with less than 30 years total service are defined in statute as part of the Army Reserve and Air Force Reserve, although there is no specification indicating whether they should be administratively classified to the Retired Reserve. Army members in this category are included in the official Department of Defense reserve manpower strength reports; Air Force members are not.

- Retired Reservists. This category includes reserve officers and enlisted members, as well as retired regular enlisted members as discussed above, administratively classified as follows:
  - Those drawing reserve retired pay under section 1331 of title 10, United States Code. These members are age 60 or older.
  - Those not drawing reserve retired pay, but who will be eligible at age 60 under section 1331 of title 10, United States Code; referred to as "Gray Area Retirees" in this report.
  - Those drawing pay who have completed 20 or more years of active duty. Under Department of Defense Directives, this category includes the Fleet Reserve and Fleet Marine Corps Reserve and the similar categories of regular enlisted retirees of the Army and Air Force.
  - Those not drawing pay and not eligible at age 60 for retired pay under section 1331 of title 10, United States Code. Members in this category are referred to as honorary retirees.

Issue One - Transfer of Regular Enlisted Retirees to the Retired Reserve

As noted above, for nondisabled regular enlisted members who qualify for retirement or retainer pay after completion of at least 20 (but less than 30) years of active service, the manpower and personnel accounting procedures are not uniform among the Services. This is due to a difference in law among the Services and also to the procedures by which the Services implement these laws. The statutes pertaining to the Army and the Air Force are essentially the same. The law provides that regular enlisted members of these Services who retire after 20 years (but prior to completion of 30 years) of active service,

are transferred to the Retired Reserve until their total active and retired service equals 30 years. In accordance with laws pertaining to the naval services, the Navy and Marine Corps transfer regular and reserve enlisted members to the Fleet Naval Reserve, which includes the Fleet Reserve and the Fleet Marine Corps Reserve. As in the case of the Army and the Air Force, after 30 total years of active and inactive service, former regular members are transferred to the regular retired list of their service. There is no similar procedure in the case of the Coast Guard, and regular enlisted members of the Coast Guard are placed directly on the regular retired list at retirement.

The procedures set out in law are cumbersome and are no longer needed to achieve the purposes originally intended. Further, the actual accounting practices of the Services have not strictly followed the statutory provisions. As a result, in recent DoD exercises, considerable confusion has been encountered in determining available mobilization manpower.

The statutory provisions for the naval services were originally set forth in the Naval Reserve Act of 1925. Similar, but less extensive, provisions applying to the Army and the Air Force were enacted shortly after World War II, using the naval services as a model. Some of the original provisions of the Naval Reserve Act pertaining to the Fleet Naval Reserve have since been repealed, and others have never been used.

The Fleet Reserve and the Fleet Marine Corps Reserve were established to make it clear that regular enlisted members leaving active duty after 16 (in 1925) or 20 (after 1938) years of active service would remain mobilization assets. The following provisions were intended to ensure that these members would be retained as mobilization assets:

- Providing "retainer" pay versus retired pay
- Authorizing mandatory active duty training as part of the Naval or Marine Corps Reserve
- Requiring members to receive periodic physical examinations

While the technical term of retainer (vice retired) pay remains, the training provision has never been used and the physical examination provision has been repealed. The mobilization provisions for Fleet Naval Reservists have been rendered obsolete and irrelevant by the enactment of uniform law providing broad recall authority to the Secretaries of the Military Departments. Section 6485 of title 10, United States Code, allows Presidential recall of the Fleet Reserve and Fleet Marine Corps Reserve but only under emergency conditions. In contrast, under section 688 of title 10, United States Code, as amended in 1984 by Public Law 98-94, the Secretary concerned can

order to active duty, at any time, any member retired from the military after 20 years or more of active duty. Consequently, the provision for Presidential recall afforded in section 6485 is unnecessary.

When queried, all the DoD Services concurred that, by virtue of section 688, the practice of assigning regular enlisted retirees to the Fleet Naval Reserve (or to the Retired Reserve in the case of the Army and the Air Force) held no advantage and merely complicated the administration of regular enlisted retirees. A legal opinion from the Army's Military Personnel Law Branch further stated that, for Regular Army enlisted soldiers who retire with less than 30 years of service, transfer to the Army Reserve is not necessary for mobilization purposes. A similar opinion was rendered by the General Law Division in the office of the Air Force Judge Advocate General. It was noted that the provisions of section 688 do not apply to retired members of the Coast Guard, thus leaving the Coast Guard the only armed force whose Secretarial recall authority was not updated and made uniform by changes enacted to section 688 in 1980 and 1983. This oversight needs correction.

There is no reason today not to transfer regular enlisted members directly from active duty to their respective regular retired lists. This would simplify administration and greatly improve the accounting of mobilization assets.

While implementing the changes discussed above would greatly improve the management of regular and reserve retirees, it should be noted that the Fleet Naval Reserve has become a significant institution in the Navy. The Navy values the "retainee" concept as embodied in the Fleet Naval Reserve. It is felt that the status of retainee and retainer pay vice retired pay for members in the Fleet Reserve and the Fleet Marine Corps Reserve reinforces the understanding of members that they are subject to recall (not retired but retained) during the years between 20 and 30 years of total service. In addition, private organizations such as the Fleet Naval Reserve Association have made important contributions. The changes recommended by the 6th QRMC can be implemented while retaining the Fleet Naval Reserve and the retainer pay system.

Conclusions on Issue One

Currently, section 688 of title 10, United States Code, makes adequate provision for the mobilization of any regular or reserve enlisted member with at least 20 years active service. The sole exception here is for Coast Guard retirees, and section 688 requires amendment to correct this oversight. Consequently, sections 3914, 6330 and 8914 of title 10, providing for transfer of certain regular enlisted members to the Retired Reserve and Fleet Naval Reserve, are not necessary for mobilization purposes

or any other manpower management purposes. The status of the retainee and of retainer pay in the Fleet Naval Reserve has important institutional value within the Department of the Navy. This does not require the administrative classification of Fleet Naval Reservists within the Naval or Marine Corps Reserve.

Recommendation to Simplify Regular and Reserve Retired Structure

It is recommended that remedial legislation be enacted to simplify the regular and reserve retired structure, transferring all regular enlisted retirees with 20 (but less than 30) years of service directly to their respective Services' retired lists. Those portions of sections 3914, 6330, and 8914 of title 10, United States Code, that relate to the assignment of regular enlisted retirees to the Retired Reserve should be repealed as unnecessary and anachronistic. The Fleet Reserve and Fleet Marine Corps Reserve would be continued but would not be accounted for as part of the Naval or Marine Corps Reserve.

Section 688 of title 10, United States Code, should be amended to provide authority to the Secretary of Transportation equivalent to that possessed under this section by the Secretaries of the Military Departments. The recommended structure for nondisability retirees is as follows:

Members retired after 20 years or more of active duty

- Officers
  - Regular
  - Reserve
- Enlisted
  - Regular (Fleet Naval Reserve)
  - Reserve (Fleet Naval Reserve)

Members retired under chapter 67 of title 10, United States Code, or eligible but for being age 60

- Officers
  - Drawing retired pay
  - Not drawing retired pay (eligible at age 60)
- Enlisted
  - Drawing retired pay
  - Not drawing retired pay (eligible at age 60)

Issue Two - Honorary Retirees

Currently over 146,000 members of the Retired Reserve (about one-third of the Retired Reserve) are individuals who are not now drawing retired pay and who will not be eligible for pay at age 60. They are members on the Services' Retired Reserve lists who have become known as "honorary" retirees. Technically,

these members may be ordered to active duty in a war or national emergency. However, the Military Departments do not generally consider or treat honorary retirees as mobilization assets. Only the Navy considers any members in this status as mobilization assets, but the Navy does not update the records of these members or otherwise manage honorary retirees as a mobilization resource. No Service tracks these individuals or maintains their records. Consequently, the viability of this category of the Retired Reserve as a mobilization asset is questionable at best.

Numbers of Honorary Retirees as of March 1987:

	Army	Navy	USMC	USAF	Total
Officer	51,614	52,178	7,806	24,659	136,257
Enlisted	7,480	199	97	2,144	9,920
Total	59,094	52,377	7,903	26,803	146,177

Honorary retired lists were first established by the Naval Reserve Act of 1938. They were designed to recognize those members of the Naval Reserve Forces who reached age 64 or had completed 30 years of service. This was prior to any provision for retired pay or retired benefits for members of reserve components. At that time, with no reserve retirement system, reservists participated solely for pay and other immediate benefits. Subsequently, the other services established honorary retired lists as a means of recognizing the dedicated service of the career reservist. The Army and Air Force Vitalization and Retirement Equalization Act of 1948 created a paid retirement system for career reserve personnel.

The Provisions of the Naval Reserve Act of 1938 were repealed by the Armed Forces Reserve Act of 1952. Persons on the honorary retired lists when the 1952 Act was passed were transferred to the appropriate Retired Reserve by section 213 of the 1952 Act. Under the new law, honorary retirees are administratively defined as classified by DoD Directive. The intent was that the Retired Reserve would be a purely voluntary portion of the reserve components. Members would be those who, while no longer participating in training, would be of value to the armed forces in a large scale mobilization.[3]

DoD Directive 1200.15 currently provides six categories defining eligibility for honorary retirement. One of these categories allows the Secretary concerned to assign any member of a reserve component, age 37 or above, who has consistently supported the armed forces in an outstanding manner, to the

Retired Reserve. The other categories are generally designed to recognize reserve members, age 37 or above but not qualified for retires pay at age 60, who, after extensive service, find themselves unable to continue to participate. Officers twice not selected for promotion and members who have become inactive due to the demands of a civilian job or family represent typical cases. When no longer permitted to remain in an active status, reservists have been given the option of discharge or transfer to the Retired Reserve. Honorary retirement is elected for various reasons, including a sincere desire or willingness to serve the country in the event of an emergency.

The option of transfer to the Retired Reserve has never been systematically offered to all potentially eligible members, however, nor has there been any effort to retain members with the greatest mobilization potential as honorary retirees. While honorary retirees are legally subject to mobilization by virtue of their membership in the Retired Reserve, the Services have not updated home addresses, established physical condition after separation, nor taken action to confirm deaths of members. Consequently, their present usefulness as a source of available manpower in any mobilization is extremely limited.

Not only is this category of reservists of limited value as a mobilization asset, but it is also a factor reducing overall ability to ascertain and manage retired manpower resources. Recently, several hundred retirees have been identified who, through administrative errors (having received the wrong kind of identification card), are receiving significant benefits to which they are not entitled. This is attributable to confusion regarding the status of members of various categories of the Retired Reserve.

Conclusions on Issue Two

"Honorary" retiree is essentially a misnomer. While some placements on the honorary retired list may have been honorary in nature, the practice has been to allow individuals who have served extensively, but are not eligible and will not become eligible for retired pay, the opportunity to continue to identify with the armed forces. Regular members and reservists departing from active duty who have no remaining military service obligation and who do not elect active reserve participation, however, are typically discharged rather than transferred to the Retired Reserve as honorary retirees. The usefulness of honorary retirees as a mobilization resource is extremely limited, given the current level of effort that goes into the administration of this portion of the Retired Reserve. A greater emphasis on the administration of honorary retirees would be unlikely to result in this category becoming an important source of manpower in a war or national emergency. In

sum, this category is anachronistic, has very limited value, complicates manpower accounting procedures, and has led to some individuals receiving benefits to which they are not entitled.

Recommendation for the Elimination the of Honorary Retiree Category

It is recommended that DoD Directive 1200.15 be revised to eliminate the category of honorary retiree and provide that only members who are or will be eligible for retired pay be placed in the Retired Reserve in the future. Existing lists would be reduced by attrition and then discontinued. In the interim, it is recommended that measures be taken to prevent the inadvertent issuance of retiree identification cards (DD Form 2 (Retired)) to honorary retirees.

The recommendation is not expected to have any impact on the DoD budget.

Corrections Required for Uniformity and Equity

The QRMC review uncovered four areas where serious unintentional inequities or incongruities had developed. These areas include matters pertaining to establishment of the member's retired grade, membership requirements for retired pay and benefits, the crediting of inactive duty training for enlisted members who qualify for an active duty retirement, and provisions for retirement sanctuary after long service. The discussion of these matters follows in sections of this chapter on Issues Three through Six. A seventh issue was referred to the 6th QRMC by the Coast Guard. This issue, Retirement Eligibility for Disabled Reservists, was reviewed by the Fiscal Year 1987 Coast Guard Reserve Policy Board and was determined by the Commandant of the Coast Guard to be worthy of consideration by the 6th QRMC. The issue was also raised by individual reservists during the Unit Visit Program and in comments provided by members and spouses who responded to the 1986 Reserve Components Surveys.

Issue Three - Highest Grade Retirement for Reserve Enlisted Members

Provisions of law that permit members to retire from active service at the highest grade in which they have satisfactorily served are a management tool enabling the services to make necessary force management decisions that could otherwise embitter affected personnel. Under existing law (sections 3911, 6323, and 8911 of title 10, United States Code), an officer may be retired after completion of 20 years of active service, at least 10 years of which was service as a commissioned officer.

This 10-year period need not be the 10 years immediately preceding retirement. As a result, reserve officers involuntarily released from active duty prior to completion of 20 years of service have in many cases been able to qualify for retirement by enlisting for continued active duty. Upon completion of 20 years of active service, providing they remain commissioned officers, such members may be retired at the highest officer grade in which they satisfactorily served on active duty for at least six months. If the officer has not completed 10 years of commissioned service, advancement to the officer grade occurs after a total of 30 years of active and retired service.

For enlisted members, however, uniform provisions do not exist. In the Army and the Air Force, under the provisions of sections 3964 and 8964 of title 10, United States Code, warrant officers and regular enlisted members can, if their active service plus service on the retired list totals 30 years, retire at the highest grade in which they served on active duty. A regular enlisted member of the Navy may be retired at the highest officer grade served satisfactorily under a temporary appointment. Otherwise there is no provision for retirement in a higher officer grade or enlisted grade.

Reserve enlisted members of the Army and the Air Force are not entitled to be advanced to the highest grade satisfactorily served after a total of 30 years of active and retired service. Reserve enlisted members of the Navy may be advanced to the highest officer grade served satisfactorily under a temporary appointment under the same authority as regular enlisted members of the Navy.

Until recently, during peacetime nearly all Army and Air Force enlisted personnel on active duty were members of a regular component. As a result, reserve enlisted members seldom qualified for active duty retirement. With the inception of the Active Guard and Reserve (AGR) program, however, thousands of reserve enlisted members now serve full-time in support of the Guard and Reserve. Reserve enlisted members of the Army and Air Force serving on full-time duty with the National Guard or Reserves, who now qualify for active duty retirement and otherwise accrue all benefits of active duty retirement, retire at the grade held at time of retirement. There is no provision for their advancement to the highest grade held. This is an important item for members who initially accepted AGR billets in a lower grade than the grade in which they were serving and in which they had previously served satisfactorily on active duty. It is also important for AGR members who have found it necessary to accept an administrative reduction in grade due to a unit reorganization, the elimination of billets, or other reasons beyond the control of the member.

Conclusions on Issue Three

For governing the retirement of enlisted personnel completing 20 or more years of active service, policy and law are inconsistent between regular and reserve enlisted personnel of the Army and Air Force, as well as between regular enlisted personnel of the Navy and Marine Corps and those of the Army and Air Force. Differences exist in the laws governing the retirement of full-time enlisted reserves of the Army and Air Force and the laws governing the retirement of full-time enlisted reserves of the Navy and Marine Corps. These differences are inequitable because they have no basis in the personnel management requirements of the Services. To resolve these inconsistencies and inequities, policy and law should be changed to provide consistent and equitable treatment between the services and their reserve components for personnel who qualify for active duty retirement.

Recommendation to Provide Uniformity

Legislative action is recommended to amend sections 3964 and 8964, title 10, United States Code, to include reserve enlisted members qualifying for active duty retirement and to create two new sections providing the Navy with parallel and equal authority. Several conforming amendments will also be necessary. These changes would provide uniformity between the services and their active and reserve components with respect to enlisted personnel qualifying for active duty requirement.

Service estimates indicate that approximately 25 regular members per year may now be affected by this provision. The number of reserve enlisted members potentially affected is probably less. The incremental annual cost in outlays would be less than $50,000. It is unlikely that DoD costs under the accrual funding for military retirement would be affected by the proposed change.

(NOTE: This recommendation was enacted as section 512 of Public Law 100-180, December 1987.)

Issue Four - Required Reserve Membership from Receipt of Twenty Year Letter through Eligibility to Draw Retired Pay

The purpose of military nondisability retired and retainer pay for service in the active armed forces of the United States is to ensure the following:

- That the choice of career service in the armed forces is competitive with reasonably available alternatives

- That promotion opportunities are kept open for young and able members
- That some measure of economic security is made available to members after retirement from career military service
- That a pool of experienced personnel exists, subject to recall to active duty during time of war or national emergency

The primary purpose for the establishment of retired pay for non-regular service (reserve retirement) was as follows: To provide an incentive for qualified personnel to retain membership and continue training in such [reserve] components and thereby provide a pool of skilled, trained, and readily available manpower to augment active duty forces in times of national emergency.[4]

These two interests dovetail in their objective of maintaining a pool of experienced personnel to augment active duty forces. The reserve retirement system, however, fails to retain many of these personnel after issue of a 20-year letter and completion of active participation. As a result, the reserve retirement system is less effective in maintaining a pool of experienced personnel subject to recall when needed. The problem lies in the law regarding the separation of individuals from service in the armed forces, and the lack of financial penalty for failure to request transfer to the Retired Reserve (if qualified).

Under section 1331(a) of title 10, United States Code, receipt of retired pay for reserve service is premised, among other things, upon an individual's performance of 20 years of service as computed under section 1332 of title 10, United States Code.[5] After completion of the requisite number of years of qualifying service, an individual may effectively drop out of the reserves by accepting a discharge, and simply wait until reaching age 60, when the individual may apply for retired pay. No contemporaneous affiliation with a reserve component of an armed force is required. Associated statutory provisions, including, for example, those providing health care entitlement, make it clear that a <u>former</u> member entitled to and receiving retired pay has the same entitlement as a retired member receiving retired pay.

An individual who accepts a discharge from the reserves after completing the requisite number of years of qualifying service is effectively lost as a mobilization asset in the event of war or national emergency. Such an individual does not even become a potential mobilization asset when he reaches age 60 and applies for reserve retired pay, inasmuch as the mere acceptance of reserve retired pay does not make an individual a member of the retired reserve.[6] Thus, an individual in receipt of retired

pay for reserve service may have been lost as a potential reserve mobilization asset ever since completion of 20 years of qualifying service. Equally important, if an individual drops out of the reserves after receiving a 20-year letter, the individual is effectively lost to the reserve personnel tracking system, and it is impossible, in practice, to determine how many such individuals may later apply for reserve retired pay, and when. In short, losing such personnel means that the government has limited means of tracking its future reserve retired pay obligations and associated liabilities.

For those who joined a uniformed service after September 7, 1980, there currently exists a financial penalty for discharge from military status rather than transfer to the Retired Reserve or the Standby Reserve. Reserve retirees in this category, who typically will not begin receiving retired pay before 2020, will have the retired pay calculated using the average of their highest 36 months of basic pay that they would have received had they been on active duty. Only periods during which they were a member can be counted. Since service in the Standby Reserve or the Retired Reserve is membership, an individual retaining membership would have a higher three-year average base, (calculated based on the pay scale in effect during the three years immediately prior to the member reaching age 60) than a member who accepted discharge prior to age 60, assuming normal pay scale increases. There are currently no other financial penalties for accepting discharge from the reserve components instead of transferring to the Retired Reserve. The actual number of reservists discharged after receipt of a 20-year letter is unknown. The Army reported 547 and the Air Force 569 in the RCCPDS for Fiscal Year 1985, but indicate that the actual numbers could be many times greater. Since these individuals have no military status and will have no military status even when they receive retired pay and associated benefits, they are not tracked in the reserve military personnel systems.

Conclusions on Issue Four

In order to reconcile the purposes of military retirement (in particular the maintenance of retired members as qualified mobilization assets) with the current reserve retirement system, continuous membership after receipt of the twenty year letter should be a prerequisite to qualification for retired pay and associated entitlement. The QRMC review also found that the current system creates significant administrative and fiduciary problems.

Recommendation for Required Reserve Membership

It is recommended that section 1331(a) of title 10, United States Code, be modified to include a new paragraph (5) that would require continuous membership in a reserve component after

receiving notification (20-year letter) of completion of the years of service required for retired pay at age 60, in order to qualify for that pay. This provision would apply only to members receiving a 20-year letter after the effective date of the amendment.

This recommendation is expected to have no direct impact on the DoD budget. Small administrative savings are likely.

Issue Five - Inactive Duty Training Participation Point Credit for Reserve Enlisted Members

Current provisions of law allow Army and Air Force regular and reserve officers who qualify for active duty retirement to compute their retired pay based on the following:

- Years of active service
- Reserve service not creditable as active service

The second category consists of inactive duty training points and membership points. Once qualified for active duty retirement (20 years of active service), members are not eligible for reserve retirement. Officers qualifying for a 20-year active service retirement are credited at retirement with any reserve inactive duty training performed (not to exceed 60 points per year). Army and Air Force enlisted members, however, are not entitled to similar credit for reserve inactive duty training or for membership points in calculating their active duty retired pay. Navy and Marine Corps enlisted personnel are credited with IDT service but only after their active and retired service equals at least 30 years. This inequity appears to be the result of legislative oversight.

Sections 3911, 3925, 3991, 6321, 6322, 6323, 8911, 8925 and 8991 of title 10, United States Code, make ample provision for the retirement of both regular and reserve officers after they achieve 20 years of active duty service. Sections 3991, 6333 and 8991 prescribe the steps necessary to compute retired pay for both officers and enlisted members. However, these sections reference two other sections for the computation of years-of-service credit (section 1405 for officers and sections 3925, 8925, or formula C of section 6333(a) for enlisted members). Section 1405 provides for the computation of years of service for officers in a manner that credits reserve inactive duty training and membership points in the computation of retired pay. Those sections applicable to enlisted members (sections 3925, 8925 and formula C of section 6333(a)) do not, however, provide similar credit.

The current situation evolved out of the historical need for large numbers of officers on active duty who had substantial

periods of reserve service while not on active duty. After the Korean War, the increase in the size of the active Army and Air Force required many more officers than could be accommodated under statutory limits on the numbers of regular officers. As a result, many reserve officers qualified for a 20-year active duty retirement. Since these officers often had substantial reserve service that was not on active duty, in 1958, Public Law 85-422 provided for the crediting of inactive duty training in the computation of years-of-service credit for officers.[7]

Similar provisions were not provided for enlisted members, perhaps in part because there were no statutory provisions for reserve enlisted members of the Army or Air Force to qualify for an active duty retirement until 1980. The 1980 amendments did not incorporate provision for the credit of inactive duty training. In the case of the Navy and Marine Corps, this inequity applies to retainer pay but not to retired pay received after active service and service in the Fleet Naval Reserve totaling 30 years.

Conclusions on Issue Five

An inequity currently exists in the crediting of reserve inactive duty training when computing the retired pay of members who qualify for an active duty retirement. Officers receive credit for this service. Enlisted members receive either no credit or partial credit only. This inequity is the result not of conscious intent but of relevant compensation law not having kept pace with the changing role of the reserve components and reserve service. The differing methods for computing credit for inactive duty training for officer and enlisted members appear to be solely the result of legislative oversight. No substantive reason exists to allow such an inequity to continue.

Recommendation to Achieve Equity

It is recommended that the applicable portions of title 10, United States Code, be amended to allow reserve enlisted members who qualify for an active duty retirement to receive years-of-service credit for inactive duty training points in the computation of retainer pay and retired pay. This recommendation would apply only in the calculation of the retired pay of members retiring after the effective date of the amendatory legislation.[8]

The expected impact of this recommendation on the DoD budget is minimal.

Issue Six - Retirement Sanctuary for Reserve Component Members

Section 1163(d) of title 10, United States Code, provides that "a member of a reserve component who is on active duty and is within two years of becoming eligible for retired pay or retainer pay under a purely military retirement system, may not be involuntarily released from that duty before he becomes eligible for that pay, unless his release is approved by the Secretary." This provision is commonly referred to as the "retirement sanctuary." It was added as part of Public Law 676 (July 9, 1956), which amended the Armed Forces Reserve Act of 1952 to provide a lump-sum readjustment payment for members of the reserve components who are involuntarily released from active duty.

The purpose of Public Law 676 as stated in the Report of the Senate Committee on Armed Services was two-fold:

- To provide a readjustment payment to reservists who, after having served continuously on active duty for long periods of time, are involuntarily released at an age at which their usefulness to the Armed Forces is less than that of younger officers who are needed for current and future service

- To provide some measure of economic security that would induce Reserve officers to remain voluntarily in the active service, and thereby to reduce expensive personnel turnover and increase the effectiveness of the armed services through the retention of competent and experienced officers

The Act provided a formula for payment. The basis of the formula is one-half of a month's basic pay, in the grade at which serving when released, for each year of service ending at the close of the 18th year. This 18-year cap was related to a special provision for those who had completed at least 18 years of active duty as set out above and now codified as section 1163(d) of title 10. In the 1956 Senate Committee on Armed Services hearings on this legislation, it was stated that the intent was to give the Secretary concerned broad discretion in the administration of this provision.

This provision, like many others passed in the post-Korea environment, reflected the fact that the Armed Forces required large numbers of reserve officers on active duty to meet the needs of national security. The justification cited in the Senate report was that "to attract and retain the required number of capable reservists on active duty, a reasonable degree of security must be provided to them . . . . The absence of such an authority deters continued active duty beyond obligated periods and creates hardships for those persons who are actually released."

This context, when combined with the specific and limited meaning of "active duty" (which excluded "active duty for training" when Public Law 676 was enacted), makes it clear that the members intended to be protected by the "18-year sanctuary" were those who had served on extended active duty for a significant and continuous period beyond any obligated period of service. On June 30, 1987, however, a three-judge panel of the United States Court of Appeals for the Federal Circuit reversed a United States Claims Court decision and held that an Army Reserve officer was entitled to be retained on active duty under the provisions of section 1163(d) even though the officer was not serving on extended active duty.

It is estimated that several hundred members of the Army's reserve components in an active reserve status but not serving on extended active duty have completed 18 years of active duty. There are also such cases in the other services, but the number of cases is smaller. Under the Appeals Court decision, any of these members could claim sanctuary while performing required annual active duty for training. Additionally, any member who has completed 18 years of active federal service, but was involuntarily released from active duty in previous years, may claim back pay and allowances and active duty retirement pay as a result of the Appeals Court decision. This could potentially involve a much larger number of reservists.

As noted above, "active duty for training" was not included within the definition of "active duty" when Public Law 676 was enacted in July, 1956. On August 10, 1956, however, Public Law 1028 revised, codified, and enacted into law titles 10 (Armed Forces) and 32 (National Guard), United States Code. This revision and recodification changed the definition of active duty to include active duty for training. According to the report of the Senate Judiciary Committee on this codification and revision project, the revised definition was based "on the definition of "active federal service" in the source statute, since it is believed to be closer to general usage than the definition in 50:901(b), which excludes active duty for training from the general concept of active duty."

The 1956 codification of titles 10 and 32 had as its object the restatement of existing law, consistent with the general plan of the United States Code. The intent was to avoid making new law. As stated in the report, "the pertinent provisions of law have been freely reworded and rearranged, subject to every precaution against disturbing existing rights, privileges, duties, or functions." The current section 1163(d) was not moved to title 10 until September 7, 1962, however, as the result of Public Law 87-651. Thus it appears that this provision was not subjected to the same critical review as other provisions with respect to the specific effect of the codification project on its meaning. It may be fairly

concluded, therefore, that the specific meaning of active duty in section 1163(d), when enacted, was broadened to include active duty for training through legislative inadvertence.

It is estimated that there may be as many as two thousand members of the reserve components who could potentially claim retirement sanctuary and/or retention on active duty simply as a result of performing their annual active duty for training requirements in accordance with section 270 of title 10. The number who would make such claim is unknown, as is the final outcome in the courts. It is possible that significant and unintended retirement costs could be incurred, should the law not be revised. The potential cost range is estimated to be $100 million to $600 million. In addition, the mandatory retention of such members would be severely disruptive to active and reserve component management in terms of utilization, officer and enlisted grade ceilings, and active component and reserve component (AGR) active duty endstrength management.

Conclusions on Issue Six

The retirement sanctuary established for reserve members by section 1163(d) of title 10, United States Code, was intended to ensure that reservists who had reached 18 years of creditable service for retirement, through voluntary service on extended active duty, would ordinarily be retained until qualified for immediate retirement. Through legislative inadvertence, the plain words of the law can now be construed to include members on short periods of active duty for training. A recent Appeals Court decision has, in fact, so construed the law. Based on the QRMC review, it is clear that the conclusion arrived at by the Appeals Court, whatever its legal merit, was not intended nor contemplated when section 1163(d) was enacted in 1956.

Had the current problem been anticipated, Department of Defense and Military Department directives could have been promulgated to preclude members on short periods of active duty for training from being considered to be in the retirement sanctuary. Regulatory revisions would still be helpful. Given the statutory problem and the recent Appeals Court ruling, however, a legislative amendment is advisable.

The conclusions of the 6th QRMC must now be read within the context of the Act of December 30, 1987, to make technical corrections in provisions of law enacted by the Military Retirement Reform Act of 1986 (Public Law 100-224). As stated by Senator Glenn in supporting a Senate amendment adding a new section 4 to the bill as it had passed the House:

> Specifically, section 4 of this bill restores the original definition of "active-duty" in section 1163(d) of title 10 which excluded any active duty for

training periods. Research of the legislative history of this section shows that a later recodification of this section changed the definition to include periods of active duty for training based "on the definition of 'active Federal service' in the source statute, since it is believed to be closer to general usage than the definition which excludes active duty for training from the general concept of active duty." The intent in this recodification was to avoid making new law and report language stated "the pertinent provisions of law precaution against disturbing existing rights, privileges, duties, or functions." Unfortunately, the recodification had the unintended effect of providing a loophole that has been found by one court to allow certain reservists on active duty for training to claim the 18-year retirement sanctuary--a point at which no military officer can be involuntarily separated from active duty without cause. The correction restores the original intent of the section and is appropriate.[9]

This revision appears to avert the serious potential personnel disruption and costs discussed in the preceding section. Additional changes, recommended below, are required to update the law and ease its operation under current circumstances.

Recommendation for Retirement Sanctuary

A legislative proposal should be developed to update the provisions of the law to reflect current circumstances. To preserve the original intent and to reflect current circumstances, the law should be amended to (1) specifically cover full-time National Guard duty and (2) set a specific minimum period of active duty (other than for training). The most reasonable period is 180 days. This is the period which corresponds to the period of active duty accountability against active component active duty strength limits and reserve component full-time support strengths under section 115(b) of title 10, United States Code.

Using this rationale, section 1163(d) of title 10, United States Code, should be amended to read, "Under regulations to be prescribed by the Secretary concerned, which shall be as uniform as practicable, a member of a Reserve component who is on active duty (other than active duty for training) or full-time National Guard duty (other than full-time National Guard duty for training) for 180 days or more and is within two years of becoming eligible for retired pay or retainer pay under a purely military retirement system, may not be involuntarily released from that duty before he becomes eligible for that pay, unless his release is approved by the Secretary."

In the future, proposed modifications to laws and directives affecting the compensation and related entitlement and benefits of members of the uniformed services should be carefully reviewed, to assess the potential impact of such changes on reserve component members in all statuses, including career status with the active components. While this is an obvious objective of all legislative proposals, the number and complexity of statuses in which reservists serve makes special attention particularly important to preclude unintended consequences.

Issue Seven - Nonmilitary Disability Retirement for Selected Reservists

Qualification for nondisability military retirement, whether under the active duty or reserve system, requires a minimum of 20 years of qualifying service in order for the member to vest the entitlement. A member who incurs a disability of at least 30 percent under the standard schedule of rating disabilities in use by the Veterans' Administration at the time of the determination is entitled to disability retired pay if the disability is the proximate result of performing active duty or inactive duty training and was not the result of the member's intentional misconduct or willful neglect, and was not incurred during a period of unauthorized absence.[10]

A member who is disabled after vesting an entitlement to nondisability retirement and whose disability is less than 30 percent also qualifies for a disability retirement. In the case of a member with at least 20 years of active service, nondisability retired pay would begin immediately. In the case of a member who does not have 20 years of active service, but does have 20 qualifying years for a reserve retirement, the member may elect transfer to the inactive status list and receipt of disability retired pay at age 60. A member with a disability found to be less that 30 percent and who does not have 20 years of qualifying service for an active duty or reserve retirement, generally qualifies for disability severance pay.

In summary, a member on active duty for more than 30 days who becomes disabled, other than through misconduct or willful neglect, will generally be entitled to either disability retired pay or disability severance pay. A reservist who is not on active duty for more than 30 days and becomes disabled is similarly entitled to disability retired pay or disability severance pay if the disability is the result of an injury incurred during active duty or inactive duty training or (since enactment of the National Defense Authorization Act for Fiscal Year 1987), is the result of disease or illness incurred or aggravated during such duty.

The Commandant of the Coast Guard determined that the 6th QRMC should consider the potential inequity to reservists, with long service but not yet vested in a reserve retirement, who fail to pass an annual physical. These members are separated without entitlement to any compensation. The concern with this issue was succinctly stated by an Army National Guard Officer in responding to the 1986 Reserve Components Surveys:

> The one drawback of planning for retirement is the lack of provision for disability. The only strong reason I have for remaining in active reserve status is retirement. I always wonder what will happen if I became physically disabled after 17-18 years and was unable to get to 20. With no provision for disability, I would never get a penny of retirement. Then I would have given up all these weekends, all these early morning hours, all this outdoor adverse conditions for nothing.

Other members and spouses echoed this concern in their written comments in response to the Surveys and during the QRMC's unit visits.

This issue is exceptionally complex, in part because the disability retirement and severance pay scheme is necessarily complex in order to give equitable treatment to members with varying degrees of disability and lengths of service, and in part because of the difficulty of assessing the appropriate compensation, if any, for a reserve member who can no longer serve because of a disability that is not judged to have been incurred or aggravated in military service. In addition, adequate data is not available on the number of reservists who have been discharged without compensation due to a finding of not physically qualified (NPQ).

In addition to the equity issues, it is possible that the lack of any compensation for reservists found NPQ for a disability not directly related to military duty may lead to some members being "carried" until receipt of a 20-year letter. Others, knowing they are likely to be found NPQ, may drop out of the Selected Reserve and attempt to perform the remaining years of qualifying service in the IRR, using correspondence courses to accumulate the required 50 points. The extent to which such problems exist is also unknown.

To properly evaluate the issue of disability retirement that is not service connected, several difficult questions must be addressed:

- Is it philosophically consistent with military compensation principles and the role of reserve component service to have a program for disability retirement that is not service connected?

- If a retirement system were established for disabilities that are not service connected, at what point in the career of the reservist should the member be "vested"?

- How long a period should be allowed since the member's last break in service? In other words, should a member who recently affiliated or reaffiliated with the reserve program qualify for compensation in the event of disability that is not service connected?

- Should there be a requirement for a minimum period of reserve service immediately prior to the disability?

- How would the reserve disability retirement or severance pay be calculated and when would it be paid?

- What procedures should be established in the case of temporary disability that is not service connected?

- Should the disabled reservist be entitled to ancillary benefits, such as medical, commissary, exchange, theater, etc.; and, if so, when should these benefits be made available?

- How would integration with any Veterans' Administration disability benefits be handled?

Conclusions on Issue Seven

The issue raised here is an important one and is clearly of concern to many reservists. A solution that is equitable within the Total Force context is not immediately apparent. There is, moreover, very little information on the potential number of cases. Rough extrapolations from the annual total of disability retirements indicates that the total number of reservists who would incur a disability of at least 30 percent that is not service connected might range from 1500 to 2000. Perhaps 600 of these reservists would have at least 10 but less than 20 years of reserve service.

The inability of a member to continue reserve service because of a determination that the member is not physically qualified seems reasonably distinct from other reasons that make it difficult for a member to continue participation, such as job or family obligations or circumstances. In the former case, the Service has determined that the member may not continue to participate. Logically, it is not unlike the active duty

system: the member who separates prior to 20 years of service for any reason other than physical disability loses any claim to retired pay. The member who must separate due to physical disability will receive physical disability retirement or separation pay.

The QRMC concludes that this issue warrants an equitable solution but believes that additional study is required. The following tentative criteria might help guide this study:

- Any program should apply to all reserve members who have not vested in the reserve retirement system.
- Ancillary benefits such as medical care and use of military facilities do not appear to be warranted.
- The size of any payment should be directly related to the pay grade and retirement points accrued by the member at the time of the finding of disability, and in no case should it be greater than that received by a member of the same grade and service who qualifies for disability retired or severance pay.
- It would be preferable if any benefit were provided by insurance coverage to be elected by the member.

Recommendation for Further Study

The 6th QRMC recommends that the DoD and tne Coast Guard jointly study the feasibility of a Government-sponsored insurance program with a private insurer, along the model of the Servicemen's Group Life Insurance program, to cover reservists on a voluntary basis for some part of the retired pay loss associated with a disability that is not service connected but which precludes further reserve service.

Notes

1. Report of the Fifth Quadrennial Review of Military Compensation, Appendix E, "Uniformed Services Retirement system," Vol 1A, January 1984.

2. Ibid.

3. U.S., Congress. Senate, Committee on Armed Services, Report to Accompany H.R. 5426 (The Armed Forces Reserve Act of 1952), Report No. 1795, 1952, p. 14.

4. U.S., Congress. House, Armed Services Committee, Subcommittee No. 7, Retirement, H. Hearings No. 169, 80th Cong., 1st sess., 12 May 1947, and H. Rept No. 816, 80th Cong., 1st sess., July 9, 1947, pp. 9 and 11.

5. The last 8 years of qualifying service must be as a member of one of the reserve components identified in 10 U.S.C. §1332(a)(1). Under 10 U.S.C. §1331(d), the Secretaries of the various military departments are required to notify each individual who has completed the years of service required for eligibility for retired pay for reserve service.

6. Under 10 U.S.C. §274, the retired are defined as "reserves" who "have been transferred to [the retired reserve] upon their request." Also see, e.g. 10 U.S.C. Chapters 363 (10 U.S.C. §3843 et seq.), 863 (10 U.S.C. §8843 et seq.), and 10 U.S.C. §6327.

7. Prior to June 1, 1958, officers received full years-of-service credit for all time as an officer in an active reserve status.

8. In 1967 the Cabinet Committee on Federal Staff Retirement Systems recommended that "for the purpose of computing their retired pay, active duty enlisted members should receive credit for their prior reserve service on a point credit basis comparable to the entitlement enjoyed by officers" (in Federal Staff Retirement Systems: Appendix to the Report to the President of the United States by the Cabinet Committee on Federal Staff Retirement Systems, printed as Senate Document No. 14, 90th Congress, 1st Session, p. 49). This review evaluated the options for crediting prior inactive reserve service and rejected crediting all service in an active reserve status prior to June 1, 1958, because it would create a retroactive windfall. They did, however, recommend retired pay credit for all current retirees the first month after the effective date of authorizing legislation. The QRMC recommendation is much more limited and would require no retroactive calculations for members drawing retired pay on the date of enactment.

9. Congressional Record, December 17, 1987, p. S18344.

10. The discussion of disability retired pay here is necessarily brief. The reader is referred to the Military Compensation Background Papers, 3rd Ed. June 1987, pp. 397-406, for a detailed discussion of disability retired pay.

Chapter 9. NONPAY BENEFITS AND ENTITLEMENTS FOR RETIRED RESERVISTS

As discussed in the preceding chapters, Title III of the Army and Air Force Vitalization and Retirement Equalization Act of 1948 created a nondisability retirement program for reserve personnel. The intent of Title III retirement was to provide an incentive for members of the reserve components to encourage longer periods of service. Upon completion of 20 years of qualifying service, reservists have the following options: (1) they can continue to participate in the reserve, (2) they can terminate their military status by discharge, or (3) they can transfer to the Retired Reserve or, in certain cases, to an inactive reserve status. This chapter discusses the benefits that are now or could be available to members in the third category during the period from their transfer to the Retired Reserve until initial receipt of retired pay and benefits at age 60. Discharged individuals in category two are also eligible for retired pay and benefits at age 60. Because these individuals have been discharged, they are no longer military members and are not further discussed in this chapter. Entitlements and benefits that the 6th QRMC recommends for members of the Retired Reserve (should QRMC recommendations for the establishment of a two-tier option for reserve retirement be enacted) are also discussed in this chapter.

The Retired Reserve has been administratively separated into six categories. For our purposes, these categories can be combined into the following three major areas: (1) members who receive retired pay; (2) members who have met all requirements for retired pay except for being at least age 60; and (3) members who are not eligible for retired pay, and who will not be eligible at age 60 (these members are commonly referred to as honorary retirees). This issue focuses on members in category two, who are often referred to as "gray area retirees". Gray area retirees can be defined as reservists who have received official notification of completion of 20 or more years of qualifying service in accordance with section 1331(d), and who have been transferred to the Retired Reserve but have not reached age 60. These members are important mobilization manpower assets to the Total Force and the time served in the Retired Reserve counts for longevity in grade in the computation of retired pay.

According to Defense Manpower Data Center files, as of September 1987 there were approximately 64,000 retired reservists in the gray area category. In 1985 and 1986,

respectively, approximately 5,700 and 5,500 members transferred to the Retired Reserve. During these same two years approximately 8,440 and 6,955 reservists, respectively, attained age 60 and started receiving retired pay.

The entitlements and benefits currently available to gray area retirees are of two types, those for which eligibility is established by statute and those governed solely by regulation and policy. Some gray area retirees may enjoy more benefits than others because of their Service's efforts to identify and maximize the benefits available. However, there are certain benefits that accrue to all retired reservists under age 60, regardless of Service. First, upon receipt of their letter of notification of 20 years of qualifying service, they may participate in the Reserve Component Survivor Benefit Plan (RCSBP). Also, full-time coverage is available (at a higher premium, graduated by age) under the Servicemen's Group Life Insurance (SGLI) program. Since SGLI is not subsidized by the government and RCSBP is not subsidized for participants before age 60, these benefits are available at no cost to the government. Second, upon transfer to the Retired Reserve, they may continue membership in an open mess, if local rules permit; wear the uniform on appropriate occasions; make purchases from clothing sales stores; retain reserve identification card; and fly on a space available basis within CONUS and to Alaska, Hawaii, Guam, Samoa, Puerto Rico, and the Virgin Islands on military or military-controlled aircraft.

Some believe that the above benefits do not provide sufficient recognition or reward for the prior service of gray area retirees. The Reserve Forces Policy Board, which has a statutory advisory role to the Secretary of Defense, has proposed that additional benefits be provided to these members and their families. This viewpoint has been shared by voluntary military related associations such as the Reserve Officers Association (ROA), and The Retired Officers Association (TROA).

Under current laws and policies designed to ensure a reserve force with the needed mix of youth and experience, many reservists are mandatorily removed from an active status after the completion of 20 or more years of service. These members are typically in their forties or early fifties. During the period between the point when they transfer to the Retired Reserve and the time when they begin to draw retirement pay, some reservists feel shut out and cut off from their Service and the way of life to which they have devoted many years.

In examining the costs and advantages of extending added benefits to gray area retirees, the 6th QRMC reviewed several recent attempts to provide additional benefits for these retired reservists. In 1983 the Reserve Forces Policy Board (RFPB) considered the issue of extending post exchange and space-

available travel to retired reservists who had not yet attained age 60. These privileges were to be extended in exchange for the member's address and condition of health to insure that the member is available for recall as part of the Individual Ready Reserve (IRR). The proposal was not implemented. In the evaluation of the RFPB proposal, it was pointed out that Public Law and DoD Directives already required the Services to maintain adequate and current information on the physical condition and availability for service of all members of the reserve components, including retired reservists and that retired reservists are required to provide this information.

Also in 1983, a bill (S.1474) was introduced in the Senate to amend title 10, United States Code, to authorize the use of post exchange and commissary stores by gray area retirees. The Congressional Record indicates that the bill was intended to make service in the National Guard and Reserve components more attractive as a secondary career choice. The bill was referred to the Committee on Armed Services, which in turn requested the views of Department of Defense. The Department of Defense recommended that the bill should not be favorably considered. The following reasons were given: (1) use of these facilities by gray area retirees would increase the customer load by an estimated 333,000 potential customers (133,000 members and approximately 200,000 dependents); (2) this increase in customers could reduce the value and benefit of the facilities to persons already being served; (3) the bill would likely require an increase in appropriated funds at a time when emphasis was on minimizing appropriated funds to operate commissary stores; and (4) the DoD was conducting a test of modified commissary use for members of the Selected Reserve, and the results of the test would provide a better basis for assessing the costs, benefits, and impacts of extending or modifying exchange and commissary privileges. The bill was not enacted.

In 1985, a bill (H.R. 1577) was introduced to extend commissary and post exchange privileges to retired reservists who had not attained age 60. Both DoD and the Office of Management and Budget (OMB) provided comments opposing the bill. DoD opposed the bill on the basis of the potential increase in costs and impact on facilities. OMB also noted past criticisms that commissaries offer unfair competition to private sector supermarkets. The bill was not enacted.

QRMC Review

A unit visit program was conducted by the 6th QRMC staff members during April and May, 1987. At almost all of the 26 reserve units visited, the issue of immediate benefits at retirement, as opposed to age 60 benefits, was raised by unit

members. The two benefits mentioned most often were commissary and exchange privileges, primarily because unit members currently enjoy these privileges on a limited basis but would lose them entirely if they transferred to the Retired Reserve before age 60. Consequently, some argued, many members remain in unit positions until mandatory retirement. These comments were echoed by many members and their spouses, who provided written comments when completing the 1986 Reserve Component Surveys. Numerous participants in the survey recommended that nonmonetary benefits, such as commissary and military exchange privileges, be extended to reservists immediately upon retirement instead of at age 60.

Because of many reservists' perception that gray area retirees have insufficient benefits, the QRMC staff reviewed the feasibility of offering additional low-cost or no-cost benefits to this group. The benefits reviewed include commissary, extended space-available travel, legal assistance, and Morale, Welfare, and Recreation (MWR) activities to include military exchanges, class VI stores, temporary lodging facilities (TLFs), and other general welfare and recreation programs. Each benefit is discussed individually below.

Commissary Privileges

Prior to the National Security Act of 1947 that established the DoD, the Army and Navy had separate regulations to govern commissaries. After 1947, the House Armed Services Committee set up procedures to approve basic organizational and operating regulations for military commissaries. This control was not established by a specific law, but as legislative oversight exercised by the Committee under its authority to conduct inquiries and investigations relative to its legislative function. In 1949, a joint service regulation (currently DoD Directive 1330.17, Armed Services Commissary Store Regulations) was established to govern commissary store operations for all Services. The current regulation states that, as DoD policy, commissaries shall be operated as appropriated fund activities and as an integral element of the military pay and benefits package. The intent of the commissary system is to provide an income benefit through savings or discount purchases on food and household items necessary to subsist and maintain the household of the military member and family for the inclusive period of compensated duty/service. Therefore, the primary consideration in authorizing commissary privileges is the compensation status of the military member. Based upon this stated intent, the military commissary system is considered an essential and appropriated funded activity. Some of the funds appropriated by Congress for commissary store operating costs are required by statute to be reimbursed with funds collected from commissary

patrons. Other operating costs such as garbage removal, medical inspection, and the overseas transportation of commissary store merchandise, do not require reimbursement.

When originally established, commissary stores were looked on as being primarily intended for the benefit of members of the active armed forces and their dependents. As time passed, however, other categories of personnel, including personnel in the nonmilitary uniformed services and certain reserve forces personnel, became entitled to use them under varying circumstances. It should be noted that an unremarried former spouse of a member or former member who meets the following criteria is also an authorized commissary patron: married to the member for at least 20 years, during which period the member performed at least 20 years of service that is creditable in determining the member's eligibility for retired pay.

In 1985, DoD made an estimate of the potential costs should gray area retirees be permitted to patronize the commissary. The method of computing the commissary costs including assumptions and limitations follows:

Assumptions and Limitations

The costs associated with a change in patron base would be directly related to the frequency of use and percentage of total patrons who would actually exercise the benefit. The major difficulty in estimating these costs is in estimating the participation rate. One aspect of this difficulty was illustrated in the reserve commissary test conducted during 1984 and 1985. Not only did use rates in that test vary by geographic region, but they tended to increase as more patrons became aware of the benefit. A range of use rates from 5 percent to 75 percent were used to show costs over a range of potential use.

Computation of Commissary Costs

Table 9-1 shows use and cost for commissaries. The following figures are used in comparisons on the table:

- Total potential patrons in this category: 64,986
- Total spent per trip: $140
- Estimated trips at one visit per month: 1
- Appropriated overhead cost: 12%
- Annual costs are based on five different use rates.

Table 9-1. Use and Cost for Commissaries

	5% Use	10% Use	25% Use	50% Use	75% Use
Patrons	64,986	64,986	64,986	64,986	64,986
X Use Rate	.05	.10	.25	.50	.75
X Expenditures	$140	$140	$140	$140	$140
X 12 months	12	12	12	12	12
	$ 5.5M	$10.9M	$27.3M	$54.6M	$81.9M
X 12% appropriated overhead	.12	.12	.12	.12	.12
Estimated Annual Costs	$ 0.7M	$ 1.3M	$ 3.3M	$ 6.6M	$ 9.8M

The analysis indicates that extending commissary privileges to retired reservists on a limited basis (12 visits per year), would be unlikely to make these facilities significantly less valuable or beneficial to those now being serving. Unlike their active duty retiree counterparts, reserve retirees are not currently drawn to reside in locations close to military facilities. Reserve retirement does not typically coincide with a change in primary employment and there is no permanent change of station authorization associated with reserve retirement. It is likely, therefore, that many gray area retirees would seldom or never use the commissary, even if authorized to do so. The following chart, based on a member survey conducted in 1986 by The Retired Officers Association, shows that reserve officer retirees drawing retired pay use the commissary significantly less than do active duty officer retirees.

Frequency of Commissary Use
Retirees and Dependents

	Active Duty Retirees	Reserve Retirees
Unweighted Total	1220	984
Weighted Total	72447	56866
(Unweighted = actual number of responses)		
Two or more times a month	42%	29%
About once a month	34%	31%
Once every one or two years	11%	16%
Never	12%	24%

A 1984 National Guard and Reserve Survey, conducted by the Defense Manpower Data Center for the Office of the Deputy Assistant Secretary of Defense (Reserve Affairs), reported that 50 percent of all Selected Reserve members live more than 46 miles from a commissary. Only 10 percent of the reserve shoppers in the 1984-1985 Selected Reserve Commissary Test, however, came from more than 50 miles away. Only 2 percent of the test participants traveled more than 100 miles. One-fourth of the total Selected Reserve population lives 100 miles or more from the nearest commissary. This distribution should closely parallel that of gray area retirees.

As mentioned above, at the direction of Congress, the DoD conducted a test in 1984-1985 to review the effects of expanded commissary privileges for reservists. The test was conducted in the New England, Los Angeles, and San Antonio areas. The eligibility criteria of test participants were based on the assignment to a unit within the specifically designated ZIP codes of the test areas. Reservists eligible to participate were authorized a maximum of 14 visits throughout the year. Of the estimated 101,524 members eligible, the highest use rate during a one-month period was 28 percent and the weighted average use rate was 6.7 percent. Reserve members and their families spent $140 on an average commissary visit. Our estimate of the use rate and cost for gray area retirees is as shown in Table 9-2. In the table, the following figures are used in the computation:

- Total potential patrons in this category: 64,000
- Estimated expenditures per trip: $140
- Estimated trips per month: 1
- Appropriated overhead cost: 12%
- Annual costs are shown based upon a projected minimum use rate of 7 percent and a maximum rate of 40 percent.

Table 9-2. Commissary Use Rate And Cost For Gray Area Retirees

	7% Use	40% Use
Patrons	64,000	64,000
X Use Rate	.07	.40
X Month Expenditures	$140	$140
X 12 months	12	12
	$ 7.5M	$43.0M
X 12% appropriated overhead	.12	.12
Estimated Annual Costs	$ 0.9M	$ 5.0M

The DoD commissary system operates at an average 17 percent overhead-to-sales ratio (to include overseas transportation and operations). The income effect or savings offered by the commissary is directly related to the fact that 12 percent of the overhead costs are paid by appropriated funds. The appropriated cost associated with an increase in the patronage base would be 12 percent of the resulting increase in commissary sales. Since March, 1987, when Selected Reservists were authorized to use commissaries up to 14 times per year, the sales rates in commissary stores have increased by only approximately .02 percent. This assessment of the extent that reservists are using military commissaries, although covering only a short period of time, supports general predictions that the number of gray area retirees most likely to use commissaries and the overall effect of that use on store operations would both be very small. The QRMC estimates that use would likely be much closer to 7 percent and annual costs would most likely be in the $1.3 million range.

Space Available Travel

Space available travel aboard DoD-owned and controlled aircraft is governed by DoD Directive 4515.13, Transportation by DoD-Owned and Controlled Aircraft. It is traffic eligible for space that is surplus after all mission essential traffic has been accommodated. This benefit is available to retired reservists under 60, but travel is not permitted to all overseas areas and is not available to the dependents of reservists. Currently, gray area retirees may travel within CONUS; between CONUS and overseas (but only to Alaska, Hawaii, Guam, Samoa, Puerto Rico, and the Virgin Islands); and within Alaska, Hawaii, Puerto Rico, and the Virgin Islands without their dependents. Because travel is permitted only if space is available, extension of this benefit to permit retired reservists to travel between CONUS and all overseas areas, and within and between all overseas areas accompanied by their dependents, would be one of the no-cost benefits currently authorized for the retiree drawing retired pay. It could reduce the availability of this benefit to reservists in a pay status; however, it should be noted that the current restriction pertaining to gray area retirees also applies to members of the Selected Reserve.

Legal Assistance

Section 1044 of title 10, United States Code authorizes the Secretary of the Military Department concerned to provide legal assistance (subject to the availability of legal staff resources) to certain military members and their dependents in connection with their personal civil legal affairs. Legal assistance may be provided to active duty members and their

dependents and members entitled to retired or retainer or equivalent pay and their dependents. Providing legal assistance to gray area retirees and their families on a space-available basis would be a no-cost benefit for the retired reservist, not requiring additional resources. This would require statutory change, however, and it would be very difficult to argue why this community service should be extended to gray area retirees.

Morale, Welfare, and Recreation (MWR) Activities

Current operational policies for MWR activities to include patronage authorizations, are stated in DoD Instruction 1015.2, Operational Policies For MWR Activities. MWR activities are defined as activities, located on military installations or property controlled by a Military Department, that provide for the comfort, pleasure, contentment, and mental and physical improvement of authorized DoD personnel in terms of providing recreational and free-time programs, resale merchandise and services, or general welfare. MWR activities may be funded wholly with appropriated funds, primarily with nonappropriated funds, or with any combination of the two. Nonappropriated funds are government funds used for the collective benefit of military personnel, their dependents, and authorized civilians who generate them.

A proposal containing a complete realignment of MWR activities was submitted for congressional approval by the Assistant Secretary of Defense (Force Management and Personnel) in August, 1987. The realignment, which includes specific restrictions on appropriated fund support by category of activity, would permit the DoD to continue essential MWR activities and reverse a trend of increased appropriated fund support. Under the realignment, MWR activities were arrayed in four categories, with the primary criteria in developing that array being mission essentiality and the ability to generate revenue. These categories provide a reasonable base against which to assess the appropriateness of extending the use of MWR activities to gray area retirees. In reviewing the report, the House Appropriations Committee agreed that the proposed classifications may present an equitable means to reform MWR activities. The Committee noted that the DoD needed to look for creative ways to generate nonappropriated funds and recommended that DoD allow National Guard and Reserve personnel to use revenue-generating MWR activities.

The first category, designated CATEGORY A - MISSION SUSTAINING, contains the activities considered most essential in meeting the organizational objectives of the military services. The activities will be supported almost entirely with appropriated funds, with the use of nonappropriated funds limited to specific instances where appropriated funds are prohibited by law or where the use of nonappropriated funds is

essential for the operation of a facility or program. Activities in this category have virtually no capacity for generating nonappropriated revenues. Some of these activities and programs are libraries, physical fitness facilities, and unit level sports. This category is clearly related to the mission needs of active status members, whether active component or reserve. Activities in this area would generally not be supported for use by gray area retirees.

The second category, designated CATEGORY B - BASIC COMMUNITY SUPPORT ACTIVITIES, contains activities closely related, in terms of supporting the military mission, to those grouped in Category A. These support activities should receive a substantial amount of appropriated fund support, but differ from those in Category A because of their ability to generate nonappropriated fund revenues. Some of these community support activities are arts and crafts skill development, outdoor recreation, and child development centers. These activities support the community need of members on active duty. Generally, these activities would not be appropriate for use by gray area retirees.

The third category, designated CATEGORY C - ENHANCED COMMUNITY SUPPORT, represents a marked crossover point between the two criteria of mission essentiality and capability of nonappropriated revenue generation. Activities in this group have the business capability of generating enough income to cover the majority of operating expenses, but they lack the ability to sustain themselves based purely on their business activity; consequently, they receive limited appropriated fund support. Some of these activities are tickets and tours service, military open messes/clubs, and temporary lodging facilities. Currently, gray area retirees may continue their membership in an open mess, and the Air Force permits them use of temporary lodging facilities. We believe that all activities in this category are generally appropriate for consideration of use by gray area retirees; specifically, temporary lodging facilities. Consideration of specific activity follows.

Temporary Lodging Facilities (TLFs)

Temporary lodging facilities, also known as transient quarters, are governed by DoD Directive 4165.55, Temporary Lodging Facilities. These facilities are specifically identified interim housing facilities operated by the military services to provide short-term temporary housing accommodations for military members, their dependents, families, and guests. The use of TLFs is a privilege, not an entitlement or right, and TLFs may be occupied only for a charge or fee. The DoD Directive authorizes retired military personnel and their dependents to use TLFs on a space-available basis. The Air Force construes this to include retired reservists under age 60 by

authorizing occupancy in its implementing regulation. The Army has interpreted the DoD guidance differently; its implementing regulation does not include use by retired reservists under age 60. The problem in the case of TLFs, as in some other benefit situations, is that the DoD Directive and Service implementing regulations use terms like "retired military personnel" or "retirees" without defining whether these terms are intended to include retired reservists under 60. This lack of specificity results in an inconsistency in regulations for implementation by the Services. The use of TLFs should be consistent among the Services. Since the Air Force procedures appear to work effectively, we believe that all Services should include occupancy by retired reservists under age 60 on a space-available basis. Since a service or rental fee must be paid by occupants, any additional cost to the government for permitting gray area retirees to use these facilities would be minimal.

The fourth category of MWR activities, designated CATEGORY D - BUSINESS ACTIVITIES, contains activities considered less essential from the perspective of the military mission, but still highly desirable as a means of providing recreational activity, with the attendant morale benefit. This category also includes the exchange benefit, which has high mission essentiality but is included in this category because of its additional ability to generate revenues to support other MWR activities. Activities in this category also have the highest capability of generating revenues. These activities receive very limited direct appropriated fund support, but do receive indirect support such as common services for all installation activities; e.g. fire and police protection, pest control, and medical and veterinary services. These activities are comparable to self-sustaining businesses, capable of funding most expenses. Some of the business activities are bowling lanes (over 12 lanes), Class VI/package stores, golf courses, and military exchanges. Activities in this category seem appropriate for use by retired reservists; specifically, military exchanges and Class VI stores. Consideration of specific activities follows.

Military Exchanges

Military exchanges are established under regulations of the various military departments. The Armed Services Exchange Regulations, first published as a DoD Directive in 1949 and currently issued with the approval of the House Committee on Armed Services, provide DoD-wide instructions governing exchange operations.

The purpose of the military exchange is to provide authorized patrons with articles and services necessary for their health, comfort, a[illegible] convenience. Secondarily, exchanges provide, through e[illegible]ngs, a supplemental source of funding for DoD MWR

programs. Military exchanges are nonappropriated fund instrumentalities of the DoD that contribute greatly to the morale of military personnel and their dependents. The exchanges do receive selected appropriated fund support but are generally self-supporting with respect to the payment of civilian salaries, purchase of operating equipment and supplies, and maintenance of facilities and equipment. Appropriated funds are used primarily for transportation of goods overseas. Therefore, we conclude that extension of exchange privileges to gray area retirees would have benefits for the MWR program and would likely have minimal effect upon the exchange system.

Class VI/Package Stores

Package stores are governed by DoD Directives 1015.3 and 1015.3-R, Armed Services Military Club & Package Store Regulations. DoD policy as stated in DoD Directive 1015.3 establishes package stores as an essential part of the DoD Morale, Welfare, and Recreation program. Before authorizing a package store, the Secretary of a Military Department considers many factors, but primarily the following: the ability to use the net income of the package store to fund MWR activities; alleviating uniformed personnel from the burden of increased user fees and charges for MWR activities; and supporting and improving the quality of life for the military community and their families. Package stores are resale and revenue sharing activities with functions that include providing reimbursable goods and services to authorized patrons, and funds to support other designated morale programs. Package stores operate on a self-sustaining basis. DoD Directive 1015.3-R, which governs both military clubs and package stores, clearly authorizes membership in military clubs for "uniformed personnel retired without pay" (gray area retirees), but is not clear in authorizing or denying them package store privileges. The DoD Directive authorizes "retired members" of the Uniformed Services of the United States and their adult dependents to patronize package stores, it does not specify "retired with or without pay." Other categories of individuals and organizations entitled to package store privileges include unmarried surviving spouses of active and retired uniformed personnel, and Government departments and agencies outside DoD as determined by the DoD Component.

The MWR Program provides a variety of goods, services, and activities designed to help make military service rewarding. Its numerous activities function as integral parts of the military compensation system and the military family services program. Military Exchanges, Class VI/Package stores, Temporary Lodging Facilities, and other Military General Welfare and Recreation programs in categories C and D are the MWR activities reviewed for possible extension to retired reservists under age 60. These activities receive very limited direct appropriated

fund support under the current MWR categories and under the proposed MWR realignment. Because these activities have the capability to generate revenue, we view them as low-cost benefits for the retired reservists under age 60.

Conclusions and Recommendations - Current Reserve Retirement System

The issue of providing benefits to retired reservists prior to age 60 has been of continuing concern. Many reserve members believe current policies to be inherently unfair. They feel that providing benefits immediately upon retirement would serve as a means by which they may continue their affiliation with the military community. A retirement benefit package for gray area retirees would serve primarily as a recognition of long and dedicated service. Additionally, expanded benefits for gray area retirees benefits would increase monies for nonappropriated fund activities and provide an incentive for members with more than 20 years of service to transfer to the Retired Reserve.

The 6th QRMC recommends that all MWR activities in categories C and D, (specifically, temporary lodging facilities, military exchanges, and Class VI/Package stores) be extended to gray area retirees. These benefits would provide a viable retirement benefit package that would permit gray area retirees to continue to enjoy certain military benefits they had before transferring to the Retired Reserve and would maintain their sense of continuity with the armed forces. The costs associated with extending exchange privileges and other MWR programs would be minimal because exchanges and other MWR activities in categories C and D receive very limited direct appropriated fund support.

Conclusions and Recommendations - Two-Tier Years of Service Based Early Annuity Option

The full implementation of the Two-Tier Option as recommended by the QRMC should incorporate a program of benefits that would eliminate the problem of gray area retirees. Current practices tie the receipt of all nonpay benefits to the receipt of retired pay. Under the Two-Tier Option, members electing the option would be eligible for a portion of retired pay immediately upon retirement; thus the question as to the appropriate package of associated benefits is immediately raised.

Under the Two-Tier Option, members with 20 qualifying years for retirement have the option of selecting the first-tier retainer of the option, waiting until age 60 to receive retired pay, or remaining an active participant. Members entering after enactment of the recommended retirement revision would not have an option. Twenty years after enactment, members without an

option would begin receiving the first-tier retainer. It would be 40 or more years after enactment before the last members with an option to elect retired pay at age 60 would retire. At some point between 20 and 40 years after enactment, most new reserve retirees would initially receive the first-tier retainer.

In the view of the QRMC, it would be most equitable and most efficient to keep the nonpay benefits and entitlements associated with reserve retirement commensurate with those of members electing to remain an active Selected Reserve participant. Entitlements and benefits would then be a neutral factor in a member's decision to retire or continue participating. Until age 60, then, Selected Reservists, members receiving the first-tier retainer, and Retired Reservists under age 60 who are eligible for retired pay at age 60 and who do not elect the first-tier retainer would be treated equally with respect to commissary privileges, MWR activity use, and so forth. Initial eligibility for medical care benefits should remain at age 60. Currently, Retired Reserve members begin receiving medical care benefits concurrently with retired pay at age 60. The grandfathering provisions recommended to accompany enactment of the Two-Tier Option would continue this authority for all members currently in the system.

There is no DoD data on the use of medical benefits by reserve retirees. The Retired Officers Association survey of its membership, fielded in October 1986, provides the only data on this matter known to the QRMC. The results of this survey represent over 57,000 Title III reserve retirees, 93 percent of whom were 60 or older. The survey found that 87 percent of the Title III retirees reported that they never used inpatient care at a military hospital. Another 60 percent reported that they never used outpatient care at a military hospital or clinic. In response to the question, "Which of the following do you and your dependent family members use for satisfying your medical care needs? (Mark all that apply)," 21 percent marked "Use CHAMPUS" and 32 percent marked "Use Military Hospital or Clinic." The comparable percentages for active duty retirees--bearing in mind that the age distribution and percent of the total population eligible for medical benefits of the two groups are different--were 37 percent and 55 percent, respectively.

The QRMC found no compelling reason for recommending medical benefits for reserve retirees and their dependents earlier than the current benefit that begins when the member receives retired pay. Like all other retirees, these reservists and their dependents are eligible for care in a medical facility of the uniformed services on a space-available basis. Retired CHAMPUS benefits are also available; however, Title III retirees are only eligible for CHAMPUS for a maximum of five years because CHAMPUS benefits for retired members cease when the individual qualifies for Medicare at age 65.

In summary, the 6th QRMC recommends that, under the Two-Tier Option, all reservists with 20 qualifying years for reserve retirement would have the same group of benefits as members of the Selected Reserve. When the member reaches age 60, the entitlements and benefits would be the same as for all members of the uniformed services in receipt of retired pay. Under the Two-Tier Option, therefore, the current issue surrounding benefits for gray area retirees would be resolved in favor of a standard system of benefits applicable to all active and retired reservists under 60 years of age and a second tier of benefits and entitlements commencing at age 60.

Appendix A. SECNAV MEMO (CDR MARTINEAU) ON RETIREMENT POINT SYSTEM

The following is the text of the April 1948 memo from the Secretary of the Navy to the Secretary of Defense, prepared by Commander D. L. Martineau, outlining a retirement point system for the reserve components.

From: The Secretary of the Navy.
To: The Secretary of Defense.

Subj: Recommendations regarding Title III of the bill H. R. 2744 pertaining to the proposed modified retirement system for personnel of the Reserve components.

1. I have been advised by the Chief of Naval Personnel that on 10 April the second of two conferences regarding the subject bill was called by Mr. Nathaniel Goodrich, representing the Secretary of Defense. This conference was attended by Mr. Goodrich and representatives of the Army, Navy and Air. Mr. Goodrich announced that it was the tentative decision of the Secretary of Defense to recommend to the Congress that further action on Title III of the subject bill be held in abeyance pending final report of the Gray Board.

2. As you know, H. R. 2744 has already passed the House, and is now awaiting hearings by the Senate Armed Services Committee. As the result of an independent actuarial study conducted at the request of the Senate Armed Services Committee, it has been estimated that the ultimate cost of Title III of H. R. 2744 in its present form would be prohibitive. The Navy Department generally concurs in this estimate which indicates that this annual cost would continue to increase over the next seventy years until it reached an annual amount that might exceed $400,000,000. It is understood that the Army and Air Force Departments and the interested Reserve components have also voiced general concurrence with the foregoing actuarial study.

3. In the event that the Senate sees fit to proceed with the consideration of H. R. 2744 in its present form, and in accordance with Mr. Goodrich's request, the recommendations listed below are submitted for consideration by the Secretary of Defense. The purpose of these recommendations is to reduce the potential cost of this bill and to improve certain of its administrative aspects.

4. It is understood that the interested Reserve organizations have already submitted a remedial amendment. The affect of this amendment would be that all active Federal service now required to be performed for eligibility by Reserve personnel subsequent to the date of enactment must be performed only as a member of a Reserve component. Such an amendment would be unacceptable to the Navy Department, inasmuch as, for the purpose of this bill, it would entirely disregard any active service performed in Regular forces. It is recognized that the primary purpose of this bill is to provide suitable inducements for high caliber personnel to serve in the Reserve components. It is believed, however, that the amendment would discourage the majority of personnel who after serving varying periods in the Regular forces might otherwise join the Reserve components upon their return to civilian life. It would not only

Discriminate against those who had performed full active service in the Regular forces, but would make it impossible for many persons in this category from ever qualifying for Reserve retirement under this bill. It would thereby tend strongly to deprive the Reserve components of a valuable source of well trained personnel.

5. The foregoing amendment, however, if modified to some extent could be made acceptable to the Navy Department. This can be done by amending the language now contained in subparagraphs (1) and (2) inclusive of Section 302(a), in order to reduce the prescribed active Federal service now required to be served, subsequent to the date of enactment, as a member of a Reserve component, and further, to permit drills to count as days of active Federal service as recommended in paragraph 7 below.

6. As now written, persons qualifying under the bill will be eligible to receive retired pay commencing at age sixty based upon 2½% of the highest annual base and longevity pay times the number of years of active Federal service. The respective secretaries would be required to establish certain standards and qualifications as to what constitutes satisfactory Federal service. This particular aspect presents a problem of considerable proportion. The Secretary of the Navy, for instance, will be required to determine in each individual case whether or not the individual concerned has performed satisfactory Federal service while a member of a Reserve component, prior to and subsequent to the date of enactment.

7. It is believed that the foregoing disadvantages can be remedied, while at the same time improving the real inducement objective of the bill. It is, therefore, recommended that Section 303 of the bill be amended by providing that retired pay will be computed solely on the basis of the number of years of active Federal service performed, and at the usual rate of 2½% of the highest pay received during the entire period of service. Further, that the definition of active Federal service be made to include all periods of active duty, all period of active duty for training, and all drills. Thus for instance, each day that an authorized drill is performed would be counted for eligibility as a day of active Federal service. In addition to the foregoing, to provide further that all persons who have served or may hereafter serve as members of any Reserve component shall be credited annually with fifteen days active Federal service for eligibility purposes.

8. It follows, therefore, that by adopting the changes set forth in paragraph 7 above that the Reserve retired pay would be determined largely on the basis of the individual's actual contribution of his time and effort to the Reserve component to which he belonged. It would also grant a small but nominal flat credit to all Reserves for maintaining their membership as such, and would suitably recognize the fact that certain Reserve personnel are not

necessarily required to perform periodic drills, depending upon their particular qualifications. It would largely obviate the difficult and never ending administrative task of determining in each individual case whether or not he has performed satisfactory service while in an inactive status.

4. The necessary technical amendments to accomplish the recommendations set forth in paragraphs 5 and 7 above are contained in enclosures (A) and (B).

5. Cost estimates for the bill as now written, and if amended as shown herein, are submitted as enclosures (C) and (D) respectively.

Encls. (NW)
(A), (B), (C) and (D).

Prepared by
Commander D. L. Martineau, Pers-2L
BuPers, Ext. 7792

ENCLOSURE A

1. Brigadier General E. A. Evans of the Reserve Officers Association, and speaking for all the interested Reserve Associations regarding H. R. 2744, has suggested the following amendment regarding the counting of active Federal service when performed as a member of the Regular forces:

Add a new proviso to section 302(a)

"Provided further, that for the purposes of this subsection, the active Federal service required to be served subsequent to the enactment of this title must be served as a member of a reserve component."

2. As explained in the basic letter, the foregoing amendment is unacceptable to the Navy Department. Under the bill as now written, the effect of this proviso would be to require not less than 24 years of perfect service as a member of a reserve component, regardless of any previous period of active Federal service as a member of the Regular forces, for new personnel obtained after date of enactment. While such an amendment would accomplish a substantial reduction in fiscal cost, its overall effects would be undesirable.

3. In lieu of the foregoing amendment as suggested by Brigadier General Evans, the following amendment is suggested by the Secretary of the Navy. In Section 302(a) delete sub-paragraphs (1) to (6) inclusive, and substitute therefore the following:

(1) If he has completed either no service or less than five years of satisfactory Federal service in any or all of said services prior to the date of enactment of this title, he must have completed not less than three years of active Federal service, at least two years of which must have been served subsequent to the date of enactment of this title as a member of reserve component.

(2) If he has completed five years, but less than ten years of satisfactory Federal service in any or all of said services prior to the date of enactment of this title, he must have completed not less than four years of active

Federal service, at least eighteen months of which must have been served subsequent to the date of enactment of this title as a member of a reserve component.

(3) If he completed ten years but less than fifteen years of satisfactory Federal service in any or all of said services prior to the date of enactment of this title, he must have completed not less than four years of active Federal service, at least one year of which must have been served subsequent to the date of enactment of this title as a member of a reserve component.

(4) If he has completed fifteen years, but less than twenty years of satisfactory Federal service in any or all of said services prior to the date of enactment of this title, he must have completed not less than four years of active Federal service, at least six months of which must have been served subsequent to the date of enactment of this title as a member of a reserve component.

(5) If he has completed twenty or more years of satisfactory Federal service in any or all of said services prior to the date of enactment of this title, he must have completed not less than four years of active Federal service.

ENCLOSURE B

1. Adoption of the amendments contained in paragraph 2 hereof are recommended for the following reasons:

(a) To place all reserve service authorized to be counted for the computation of retired pay on the single basis; namely, that of "active Federal service" or its prescribed equivalent, and at the standard rate of 2½% of the highest active duty annual base and longevity pay.

(b) By counting the performance of authorized drills, subsequent to the date of enactment, as days of active Federal service, this bill would then constitute a realistic and concrete inducement for active participation with the reserve components. The bill already authorizes active duty for training periods to be so counted.

(c) The payment of retired pay would be determined largely on the basis of the individual's actual contribution of his time and effort to the reserve component to which he belongs.

(d) By allowing an annual 15 day active Federal service credit to all members of the reserve components, it places some premium on such membership. In this connection, a prescribed elimination system is contemplated for terminating at any time the reserve status of those who do not maintain satisfactory standards of performance.

(e) It would permit those reserve members who are required to perform few or no drills to qualify for a small retirement benefit. But in general, the most substantial portion of any such retired pay would be earned proportionate to the number of drills and periods of training duty performed.

(f) It would greatly reduce the difficult administrative task for the Departments concerned of adjudicating satisfactory Federal service other

than active Federal service, prior to and subsequent to the date of enactment, for purposes of determining eligibility and retired pay. The proposed amendment would reduce the governing criteria to (1) membership in a reserve component (2) the earned number of years of active Federal service, or fraction thereof, or both.

(g) It would provide a realistic retirement system based on actual service (active or inactive), and one that permits better control of future fiscal costs.

(h) It would result in a marked reduction in ultimate fiscal cost.

2. The principles set forth in this enclosure may be accomplished by making the following amendments:

(a) Delete section 313 and substitute therefore the following:

"Sec. 303(a). Any person granted retired pay pursuant to the provisions of this Title shall receive such pay at an annual rate equal to 2½ per centum of the active duty annual base and longevity pay which he would receive if serving, at the time granted such pay, on active duty in the highest grade, permanent or temporary, satisfactorily held by him during his active period of service, multiplied by a number equal to the number of years and 360ths thereof, which shall consist of the sum of the following:

(1) All periods of active duty performed under competent Federal orders.

(2) All periods of training duty performed under competent Federal orders.

(3) 15 days for each year of Federal service without pay other than active duty or active duty for training.

(4) A number of days equal to the number of drills and periods of equivalent instruction, with or without pay, the individual concerned

has satisfactorily performed subsequent to the date of this Act. Such drills and periods of equivalent instruction shall be restricted to those prescribed and authorized by the secretary of the respective service for the year concerned and shall conform to the requirements prescribed by other provisions of law.

"(c). No person shall be entitled to receive such retired pay at an annual rate in excess of 75 percent centum of said active duty pay."

(b) Delete Section 304 and substitute therefore the following:

"Sec. 304. After the effective date of this title, any member of a reserve component of the Army of the United States, the Air Force of the United States, or the United States Navy, or Marine Corps who, when it has been so determined by the Secretary of the Army with respect to personnel of the Army, by the Secretary of the Navy with respect to personnel of the Navy and Marine Corps, and by the Secretary of the Air Force with respect to personnel of the Air Force, fails to conform to such standards and qualifications as may be prescribed by law or regulations, may be discharged, separated, or retired without pay, by order of the cognizant secretary, in accordance with applicable laws or regulations: Provided, That such retired status shall effect a termination of such person's right to accrue retirement benefits under this title but shall not effect any rights which have accrued prior to the time that such person was placed in a retired status."

(c) In Section 306 delete subsection (d), and reletter the present subsections (e) and (f) accordingly.

(d) Section 307 delete all before the second proviso and cause the remainder of Section 307 to read as follows:

"Sec. 307. The right to perform such drills or other inactive duty training and to accrue credit therefore shall not be contingent upon the performance of any active Federal service."

(e) Correct Section 309 to read as follows:

"Sec. 309. Any person who has not attained the age of sixty years but is eligible in all other respects to receive retired pay under the provisions of this title may, by order of the Secretary of the cognizant service, be transferred to an inactive status list in accordance with such laws or regulations as may have been, or may be established for the reserve components of the Army of the United States, Navy, Air Force of the United States, or Marine Corps. After the effective date of such transfer he shall not be required to participate in any training or other programs prescribed for said reserve components, and he shall not be entitled to be credited with additional active Federal service for the purpose of this title while he is in such inactive status. Any such person may, in the discretion of the cognizant service secretary, be recalled to active status at any time, and if so recalled, he shall be credited with active Federal service or Federal service in a reserve component other than active Federal service, or both for the performance of such duty."

3. See Enclosure "D" for an estimate of cost of the bill if amended as shown above. It should be noted that the bill if amended will produce a marked reduction in ultimate cost.

Appendix B. RETIREMENT POINT ANALYSIS

The data presented in this Appendix was extracted from several sources: the 1986 Reserve Components Surveys, publications of the DoD Office of the Actuary, and RCCPDS. This analysis was also dependent upon the assistance of the Air National Guard and the Air Force Reserve in providing accurate and detailed retirement point data from their personnel data systems.

Table B-1 displays the average creditable retirement points by grade for all Title III reserve retirees who first began drawing retirement pay (assumed age 60) in fiscal years 1980 through 1986. The average points were arrived at by working backward through the DoD Actuary's calculated average gross pay by grade (unadjusted for survivors' benefits) for new reserve retirees in each fiscal year. Grades above 06 were excluded since they represent a small fraction of the force, yet tend to skew the mean averages from the modes.

Since the averages are derived from new reserve retirees, who can be assumed to be 60 years old in the fiscal year of entry into the retired pay system, these averages represent total creditable retirement point accumulations for World War II and Korean era veterans. As indicated in Table B-1, these averages have declined substantially since 1980. This decline is assumed to reflect the additional active duty service of these members during World War II and Korea. The data, along with other trends, suggests that point values will stabilize at their current level for the next five to ten years. The average then will begin to rise as the first Vietnam Era veterans begin to reach age 60. The majority of Vietnam veterans are currently between the ages of 35 and 42, as displayed in the aging figures in Appendix C, indicating that once the averages begin to rise, they will continue to do so for about ten years (15 to 20 years from now).

Analysis of current trends in the reserve components indicates that current part-time members are participating at much higher levels than ever before (Tables B-2 through B-8); suggesting that current members, even without long periods of active duty in time of conflict, will sustain the higher point levels after the Vietnam Era veterans move through the system. These higher levels of participation represent the increased emphasis on reserve components in today's Total Force. As more active component missions are shifted to the reserve components, the levels of participation can be expected to rise even further.

For the cost of reserve retirement, the implications of this trend are significant; however, it still represents a total savings over maintaining active forces for the same missions.

The data presented in Tables B-2 through B-8 should be used with the following caution: actual means were available for the Air National Guard and the Air Force Reserve only. This data indicates that point totals derived from the survey are 1 to 2 points higher than the actual. This difference is presumed to be the result of some survey respondents including additional paid IDT periods in the response to survey question 34. This does not mean that the member did not perform the duty indicated. It is probable that additional IDT points for this duty exceeded the 60-point cap and were not creditable for retirement pay computations. Further, the data for very junior officers and enlisted members is not useful for this analysis because only trained members were included in the survey. Also, some junior members included their initial period of active duty training in their point totals while others did not, thus affecting the averages.

Tables B-9 through B-14 display the average unpaid hours and the estimated days worked per year by part-time Selected Reservists. The estimated number of days does not include additional paid IDT periods, time spent in traveling, or time spent on military duties away from the drill site. The inability to estimate the additional paid IDT periods from the survey reduces this estimate from the averages that would be expected based on the reserve component budgets for additional paid IDT periods in Fiscal Year 1986. Additionally, the estimated days worked would be higher for those who actually worked additional days than for the entire component.

Tables 2-9 through 2-14 strongly suggest that the average Selected Reservist would have little difficulty accumulating at least 60 IDT points if membership points were eliminated. It further suggests that many members would exceed the recommended 75-point cap. As stated in the text, the impact of this on the cost of the retirement system would depend on many factors, such as the redistribution of active duty into IDT mandays, the redistribution of available mandays among members, etc.; therefore, the actual impact cannot be estimated from current data.

The availability of valid retirement point data has been a major obstacle in this review. If not for the 1986 Reserve Components Surveys, and the Air National Guard and Air Force Reserve retirement point tracking systems, little data would have been available. A quality retirement point tracking and reporting system for all the components is necessary for proper accountability and for personnel management programs. Although

the Air Force reserve components have made great strides in this area, even their system does not provide all the information necessary for analysis of the retirement point system.

DOD Average Retirement Points by Grade (1980-1986)
Reserve Retirees First Drawing Pay in Given Fiscal Year

	80	81	82	83	84	85	86
O6	4275	3802	3681	3659	3632	3615	3546
O5	3653	3229	3118	3060	3069	3106	3127
O4	3465	3014	2934	2863	2824	2813	2882
O3	3700	3044	2936	2762	2720	2700	2616
O2	4190	3429	3179	3032	3405	3213	3001
O1	4162	4432	4062	3323	3506	3400	3815
Average	3711	3243	3126	3053	3048	3055	3089
W4	4383	3897	3777	3705	3672	3658	3659
W3	3611	3313	3087	3083	2939	2944	2804
W2	3891	3548	3337	3441	3115	3110	3262
W1	3961	3906	3436	2887	3135	3271	2880
Average	4142	3708	3533	3484	3414	3470	3418
All Officers	3737	3271	3153	3079	3074	3088	3123
E9	4401	3908	3651	3705	3619	3576	3460
E8	3937	3463	3384	3326	3219	3257	3182
E7	3816	3416	3248	3236	3159	3089	3057
E6	3735	3250	3274	3170	3037	3105	3014
E5	3535	3101	3096	3029	3114	2909	3001
E4	3128	3162	2815	2966	2634	2757	2663
E3	0	5415	0	0	1998	2357	1712
E2	0	0	0	0	0	0	0
E1	0	0	0	0	0	0	0
Average	3905	3451	3325	3301	3210	3184	3127
All Retirees	3775	3313	3201	3144	3119	3125	3125

Source: DoD Actuary - Valuation of the Military Retirement System and the DoD Statistical Report on the Military Retirement System, all volumes 1980 through 1986.

Notes:

1. All averages are weighted by pay grades.
2. All reserve retirees are assumed to have in excess of 26 YOS in determining the appropriate base pay for pay grade by year.
3. Averages were determined by working backwards through the reserve retirement pay calculation using the average gross pay by grade for new reserve retirees drawing pay, and the pay scales in effect on January 1 of the given fiscal year.

Table B-1

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
ARNG	E9	117	1,688	101.6	8.319	100.134	103.148	6.93%	
	E8	488	6,586	94.8	7.115	94.170	95.432	7.41%	
	E7	1,374	22,952	90.6	5.933	90.301	90.928	5.99%	
	E6	3,755	54,721	86.8	4.843	86.689	86.999	6.86%	
	E5	5,566	92,841	86.9	4.316	86.742	86.968	6.00%	
	E4	6,107	112,168	85.2	4.018	85.079	85.280	5.44%	
	E3	1,811	45,256	84.9	9.230	84.430	85.280	4.00%	
	E2	480	30,556	82.4	6.314	81.846	82.975	1.57%	
	E1	31	35,860	79.0	18.455	72.503	85.497	0.09%	
	E5-E9	11,300	178,788	87.8	4.915	87.714	87.895	6.32%	
	O6	94	1,292	99.1	16.561	95.705	102.401	7.28%	
	O5	177	2,839	100.2	17.691	97.642	102.855	6.23%	
	O4	388	6,090	97.9	19.985	95.911	99.888	6.37%	
	O3	588	9,565	97.3	8.406	96.639	97.997	6.15%	
	O2	324	5,968	98.0	11.117	96.808	99.229	5.43%	
	O1	363	8,243	94.1	12.063	92.817	95.299	4.40%	
	O3-O6	1,247	19,786	98.0	14.923	97.217	98.874	6.30%	
	ALL	21,663	436,625	87.5	6.538	87.446	87.620	4.96%	

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-2

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
USAR	E9	123	1,598	94.4	12.374	92.236	96.610	7.70%	
	E8	425	6,664	90.8	7.577	90.073	91.513	6.38%	
	E7	1,128	19,597	85.0	5.536	84.679	85.325	5.76%	
	E6	1,703	28,126	84.2	3.459	84.056	84.385	6.05%	
	E5	2,228	44,104	83.3	4.682	83.083	83.472	5.05%	
	E4	2,666	69,374	82.3	2.720	82.223	82.430	3.84%	
	E3	707	29,676	78.6	4.302	78.317	78.951	2.38%	
	E2	276	22,513	74.0	7.261	73.133	74.846	1.23%	
	E1	40	31,418	76.8	4.112	75.526	78.074	0.13%	
	E5-E9	5,607	100,089	84.7	5.121	84.591	84.859	5.60%	
	O6	247	2,859	88.3	8.461	87.257	89.367	8.64%	
	O5	461	7,140	88.4	13.365	87.157	89.598	6.46%	
	O4	965	14,001	85.0	4.820	84.695	85.303	6.89%	
	O3	821	14,041	84.2	4.379	83.892	84.491	5.85%	
	O2	337	5,990	83.5	4.982	82.984	84.048	5.63%	
	O1	263	7,691	84.0	12.335	82.486	85.468	3.42%	
	O3-O6	2,494	38,041	85.7	7.444	85.393	85.978	6.56%	
	ALL	12,390	304,792	83.7	5.550	83.643	83.839	4.07%	

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-3

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
USNR	E9	51	707	82.1	9.657	79.487	84.788	7.21%	
	E8	100	1,715	79.4	6.715	78.044	80.676	5.83%	
	E7	424	7,206	78.3	6.173	77.738	78.913	5.88%	
	E6	1,097	21,200	77.9	5.663	77.566	78.236	5.17%	
	E5	1,298	30,156	77.2	3.489	76.967	77.346	4.30%	
	E4	660	20,026	76.4	5.627	75.957	76.816	3.30%	
	E3	475	18,639	82.2	6.534	81.575	82.750	2.55%	
	E2	152	8,044	77.8	7.516	76.634	79.024	1.89%	
	E1	2	8,926	75.0	0.000	75.000	75.000	0.02%	
	E5-E9	2,970	60,984	77.8	5.072	77.576	77.940	4.87%	
	O6	155	2,050	82.5	9.285	81.061	83.984	7.56%	
	O5	404	5,788	82.4	5.741	81.881	83.000	6.98%	
	O4	569	8,107	82.9	4.057	82.535	83.202	7.02%	
	O3	310	6,295	77.5	4.920	76.962	78.057	4.92%	
	O2	52	1,243	73.4	11.082	70.411	76.435	4.18%	
	O1	27	685	72.6	4.794	70.784	74.401	3.94%	
	O3-O6	1,438	22,240	81.6	5.503	81.271	81.840	6.47%	
	ALL	5,776	140,787	78.8	5.531	78.704	78.989	4.10%	

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-4

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
USMCR	E9	17	158	96.6	30.824	81.935	111.241	10.76%	
	E8	50	442	87.9	17.353	83.050	92.670	11.31%	
	E7	156	1,153	78.5	10.227	76.895	80.105	13.53%	
	E6	264	2,301	80.6	10.786	79.347	81.949	11.47%	
	E5	590	6,124	83.6	12.108	82.625	84.579	9.63%	
	E4	729	6,537	82.0	5.261	81.599	82.363	11.15%	
	E3	1,142	11,091	83.4	3.885	83.177	83.628	10.30%	
	E2	241	5,814	81.1	3.921	80.646	81.636	4.15%	
	E1	32	4,503	77.2	5.600	75.278	79.159	0.71%	
	E5-E9	1,077	10,178	82.5	12.367	81.803	83.280	10.58%	
	O6	58	152	92.9	11.772	89.850	95.909	38.16%	
	O5	163	575	88.9	7.227	87.768	89.987	28.35%	
	O4	239	853	89.7	8.078	88.637	90.685	28.02%	
	O3	224	1,059	90.5	9.642	89.206	91.731	21.15%	
	O2	44	257	82.9	18.648	77.376	88.396	17.12%	
	O1	2	16	95.0	17.000	71.439	118.561	12.50%	
	O3-O6	684	2,639	90.0	8.800	89.352	90.671	25.92%	
	ALL	3,951	41,035	83.9	8.353	83.601	84.122	9.63%	

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-5

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
ANG	E9	93	1,145	86.7	9.447	84.800	88.641	8.12%	89.0
	E8	229	2,829	87.9	6.681	86.999	88.730	8.09%	85.2
	E7	984	11,223	85.2	4.766	84.902	85.498	8.77%	83.2
	E6	1,698	20,573	83.4	3.320	83.243	83.559	8.25%	81.2
	E5	1,959	23,355	83.3	2.984	83.203	83.468	8.39%	83.0
	E4	1,088	12,210	84.2	4.394	83.943	84.465	8.91%	91.5
	E3	295	4,038	85.9	18.213	83.800	87.956	7.31%	155.0
	E2	66	1,291	79.1	6.005	77.657	80.555	5.11%	149.0
	E1	3	84	60.0	0.000	60.000	60.000	3.57%	95.3
	E5-E9	4,963	59,125	84.0	3.940	83.890	84.110	8.39%	82.6
	O6	47	445	102.1	24.904	94.986	109.226	10.56%	96.8
	O5	181	2,268	102.1	12.355	100.349	103.949	7.98%	100.0
	O4	321	3,901	101.4	11.653	100.099	102.649	8.23%	99.2
	O3	269	2,417	102.1	16.787	100.098	104.110	11.13%	112.0
	O2	95	1,168	113.4	19.717	109.393	117.323	8.13%	135.0
	O1	96	1,125	98.3	23.612	93.620	103.067	8.53%	150.0
	O3-O6	818	9,031	101.8	14.676	100.822	102.833	9.06%	102.8
	ALL	7,424	88,072	86.6	7.913	86.397	86.757	8.43%	91.8

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-6

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
USAFR	E9	73	868	93.0	12.131	90.203	95.769	8.41%	91.1
	E8	134	1,865	93.2	17.131	90.346	96.147	7.18%	87.4
	E7	599	7,960	91.6	8.109	90.995	92.294	7.53%	86.6
	E6	1,016	13,333	88.7	5.738	88.325	89.031	7.62%	85.5
	E5	1,200	16,626	84.8	3.075	84.632	84.980	7.22%	84.9
	E4	384	4,782	85.9	8.276	85.055	86.711	8.03%	107.0
	E3	60	1,210	89.7	21.471	84.234	95.100	4.96%	159.0
	E2	10	198	65.8	4.750	62.856	68.744	5.05%	143.0
	E1	1	15	60.0	0.000	60.000	60.000	6.67%	111.0
	E5-E9	3,022	40,652	88.0	6.665	87.797	88.273	7.43%	85.7
	O6	73	934	92.1	16.124	88.411	95.808	7.82%	86.5
	O5	195	2,517	91.1	12.998	89.319	92.968	7.75%	81.8
	O4	504	6,110	90.6	6.411	90.071	91.191	8.25%	82.0
	O3	352	3,044	85.4	5.795	84.841	86.051	11.56%	84.6
	O2	100	1,131	93.4	11.078	91.199	95.541	8.84%	99.6
	O1	63	475	84.5	8.383	82.422	86.562	13.26%	143.0
	O3-O6	1,124	12,605	89.2	8.669	88.685	89.699	8.92%	82.9
	ALL	4,764	61,068	88.2	7.797	87.946	88.389	7.80%	89.1

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-7

Summary of Statistics, 1986 Reserve Components Survey Retirement Point Totals
Average Good Retirement Points Per Year By Grade By Component

Comp	Grade	Number Surv	Total Pop	Survey Mean	Survey SD	95% Conf. Interval LOW	HIGH	% Surv	Actual Mean
CGR	E9	34	151	82.5	17.045	76.741	88.200	22.52%	
	E8	52	212	76.6	15.335	72.390	80.726	24.53%	
	E7	226	809	77.8	7.767	76.793	78.818	27.94%	
	E6	554	2,358	79.9	6.531	79.379	80.466	23.49%	
	E5	454	2,750	78.7	7.464	77.965	79.339	16.51%	
	E4	540	3,659	80.9	7.515	80.259	[illegible].526	14.76%	
	E3	59	489	81.8	21.204	76.369	87.190	12.07%	
	E2	33	775	85.1	25.435	76.443	93.800	4.26%	
	E1	1	183	0.0	0.000	0.000	0.000	0.55%	
	E5-E9	1,320	6,280	79.1	8.009	78.624	79.488	21.02%	
	O6	11	29	91.8	12.394	84.494	99.142	37.93%	
	O5	94	164	82.5	17.458	78.949	86.008	57.32%	
	O4	181	340	85.9	13.956	83.840	87.906	53.24%	
	O3	201	459	87.1	12.463	85.337	88.783	43.79%	
	O2	127	265	78.2	8.250	76.746	79.616	47.92%	
	O1	37	126	86.3	16.869	80.835	91.706	29.37%	
	O3-O6	487	992	85.8	14.099	84.590	87.094	49.09%	
	ALL	2,604	12,769	80.9	10.351	80.476	81.272	20.39%	

Source: 1986 Reserve Components Survey and the Air Force Reserve Components Retirement Point Database (Actual Means).

Notes: 1) Point totals from the survey represent questions 32 and 34 plus 60 points for unit members. Since the survey results were 1 to 2 points higher than the actual Air Force data, it is apparent that some respondents included additional IDT periods in question 34.

Table B-8

1986

Average Number of Unpaid Hours Worked Per Month
(From 1986 Reserve Components Survey)

Average for all members

	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR	ALL
1-240 Unpaid Hours								
No. of Personnel	149,433	109,320	38,165	11,918	29,448	27,012	4,864	370,160
% of Component	40.9%	44.6%	35.3%	36.9%	30.3%	37.8%	42.8%	39.8%
% of All Personnel Reporting Unpaid Hours	40.4%	29.5%	10.3%	3.2%	8.0%	7.3%	1.3%	100.0%
No. of Hours Reported	2753654	1974631	444898	199553	359213	371270	65967	6169186
Average Unpaid Hours by Those who Performed	18.4	18.1	11.7	16.7	12.2	13.7	13.6	16.7
No Unpaid Hours								
No. of Personnel	215,885	135,557	69,916	20,408	67,676	44,447	6,503	560,392
% of Component	59.1%	55.4%	64.7%	63.1%	69.7%	62.2%	57.2%	60.2%
% of All Personnel With No Unpaid Hours	38.5%	24.2%	12.5%	3.6%	12.1%	7.9%	1.2%	100.0%
Component % of Total	39.3%	26.3%	11.6%	3.5%	10.4%	7.7%	1.2%	100.0%
Total Population	365,318	244,877	108,081	32,326	97,124	71,459	11,367	930,552
Average Unpaid Hours Per Month For Component	7.54	8.06	4.12	6.17	3.70	5.20	5.80	6.63
Average Unpaid Days Per Year For Component:								
Those Who Worked	26.5	26.0	16.8	24.1	17.5	19.8	19.5	24.0
All Personnel	10.8	11.6	5.9	8.9	5.3	7.5	8.3	9.5

Notes:

1. Data extracted from the 1986 Reserve Components Survey. Population figures exclude AGRs but include Military Technicians.
2. Data from members reporting more than 240 unpaid hours per month were discarded as unreasonable responses.
3. Average Unpaid Days Per Year assumes 11.5 months in which volunteer work may be performed and that eight hours equates to one day.
4. The number of personnel with no unpaid hours includes those personnel reporting more than 240 hours and all unknowns.

Table B-9

1986 Estimated Time Spent by Part Time Reservists - Days Per Year
(Average Per Member)

Average for all members	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR	Weighted ALL
Annual Training (Notional) _1	15.0	14.0	14.0	14.0	15.0	14.0	14.0	14.5
IDT (Drills) (Notional) _1	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Paid Mandays (ADT & IDT) _2	11.8	8.6	6.2	6.9	9.7	10.9	7.4	9.8
Unpaid At Drill Location _3	10.8	11.6	5.9	8.9	5.3	7.5	8.3	9.5
Other _4	UNK	UNK	UNK	UNK	UNK	UNK	UNK	0.0
Total Average Days Worked	61.6	58.2	50.1	53.8	54.0	56.4	53.7	57.8

Notes:

1. Chart is for Category A unit members only. An assumption is made that all members work the required minimum drills and annual training.
2. Data for paid mandays was extracted from the 1986 RC Surveys. Numbers represent the average paid mandays (ADT) for FY 86. Additional paid IDT periods were not available from any source.
3. The number of unpaid days worked at the drill location was extracted from the 1986 Reserve Components Survey.
4. The unknown number of days worked includes: paid mandays allocated to the reserve components from the active force budget; days spent completing unit work at home; and other time spent on travel, correspondence courses, as well as paid additional IDT periods.

Table B-10

1986

Average Number of Unpaid Hours Worked Per Month
(From 1986 Reserve Components Survey)

Average for Officers only

	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR	ALL
1-240 Unpaid Hours								
No. of Personnel	28,933	33,429	13,407	2,166	7,528	8,181	1,138	94,782
% of Component	78.5%	67.6%	63.0%	73.1%	65.6%	54.1%	78.8%	68.4%
% of All Personnel Reporting Unpaid Hours	30.5%	35.3%	14.1%	2.3%	7.9%	8.6%	1.2%	100.0%
No. of Hours Reported	582048	584620	158250	33898	107815	108039	17236	1591906
Average Unpaid Hours by Those who Performed	20.1	17.5	11.8	15.7	14.3	13.2	15.1	16.8
No Unpaid Hours								
No. of Personnel	7,903	16,011	7,865	799	3,948	6,937	307	43,770
% of Component	21.5%	32.4%	37.0%	26.9%	34.4%	45.9%	21.2%	31.6%
% of All Personnel With No Unpaid Hours	18.1%	36.6%	18.0%	1.8%	9.0%	15.8%	0.7%	100.0%
Component % of Total	26.6%	35.7%	15.4%	2.1%	8.3%	10.9%	1.0%	100.0%
Total Population	*36,836*	*49,440*	*21,272*	*2,965*	*11,476*	*15,118*	*1,445*	*138,552*
Average Unpaid Hours Per Month For Component	15.80	11.82	7.44	11.43	9.39	7.15	11.93	11.49
Enlisted/Officer Ratio	8.9	4.0	4.1	9.9	7.5	3.7	6.9	5.7
Average Unpaid Days Per Year For Component:								
Those Who Worked	28.9	25.1	17.0	22.5	20.6	19.0	21.8	24.1
All Personnel	22.7	17.0	10.7	16.4	13.5	10.3	17.1	16.5

Notes:

1. Data extracted from the 1986 Reserve Components Survey. Population figures exclude AGRs but include Military Technicians.
2. Data from members reporting more than 240 unpaid hours per month were discarded as unreasonable responses.
3. Average Unpaid Days Per Year assumes 11.5 months in which volunteer work may be performed and that eight hours equates to one day.
4. Includes pay grades O1 - O7 and W1 - W4.
5. The number of personnel with no unpaid hours includes those personnel reporting more than 240 hours and all unknowns.

Table B-11

1986 Estimated Time Spent by Part Time Reservists - Days Per Year
(Average Per Member)

Average for Officers only	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR	Weighted ALL
Annual Training (Notional) _1	15.0	14.0	14.0	14.0	15.0	14.0	14.0	14.3
IDT (Drills) (Notional) _1	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Paid Mandays (ADT & IDT) _2	19.5	9.8	6.5	9.1	25.3	13.7	10.3	13.6
Unpaid At Drill Location _3	22.7	17.0	10.7	16.4	13.5	10.3	17.1	16.5
Other _4	UNK	UNK	UNK	UNK	UNK	UNK	UNK	0.0
Total Average Days Worked	81.2	64.8	55.2	63.5	77.8	62.0	65.4	68.4

Notes:

1. Chart is for Category A unit members only. An assumption is made that all members work the required minimum drills and annual training.
2. Data for paid mandays was extracted from the 1986 RC Surveys. Numbers represent the average paid mandays (ADT) for FY 86. Additional paid IDT periods were not available from any source.
3. The number of unpaid days worked at the drill location was extracted from the 1986 Reserve Components Survey.
4. The unknown number of days worked includes: paid mandays allocated to the reserve components from the active force budget; days spent completing unit work at home; and other time spent on travel, correspondence courses, as well as paid additional IDT periods.

Table B-12

1986

Average Number of Unpaid Hours Worked Per Month
(From 1986 Reserve Components Survey)

Average for Enlisted only

	ARNG	USAR	USNR	USMCR	AMG	USAFR	USCGR	ALL
1-240 Unpaid Hours								
No. of Personnel	120,500	75,891	24,758	9,752	21,920	18,831	3,726	275,378
% of Component	36.7%	38.8%	28.5%	33.2%	25.6%	33.4%	37.6%	34.8%
% of All Personnel Reporting Unpaid Hours	43.8%	27.6%	9.0%	3.5%	8.0%	6.8%	1.4%	100.0%
No. of Hours Reported	2171606	1390011	286648	165655	251398	263231	48231	4576780
Average Unpaid Hours by Those who Performed	18.0	18.3	11.6	17.0	11.5	14.0	12.9	16.6
No Unpaid Hours								
No. of Personnel	207,982	119,546	62,051	19,609	63,728	37,510	6,196	516,622
% of Component	63.3%	61.2%	71.5%	66.8%	74.4%	66.6%	62.4%	65.2%
% of All Personnel With No Unpaid Hours	40.3%	23.1%	12.0%	3.8%	12.3%	7.3%	1.2%	100.0%
Component % of Total	41.5%	24.7%	11.0%	3.7%	10.8%	7.1%	1.3%	100.0%
Total Population	328,482	195,437	86,809	29,361	85,648	56,341	9,922	792,000
Average Unpaid Hours Per Month For Component	6.61	7.11	3.30	5.64	2.94	4.67	4.86	5.78
Officer/Enlisted Ratio	0.11	0.25	0.25	0.10	0.13	0.27	0.15	0.17
Average Unpaid Days Per Year For Component:								
Those Who Worked	25.9	26.3	16.6	24.4	16.5	20.1	18.6	23.9
All Personnel	9.5	10.2	4.7	8.1	4.2	6.7	7.0	8.3

Notes:

1. Data extracted from the 1986 Reserve Components Survey. Population figures exclude AGRs but include Military Technicians.
2. Data from members reporting more than 240 unpaid hours per month were discarded as unreasonable responses.
3. Average Unpaid Days Per Year assumes 11.5 months in which volunteer work may be performed and that eight hours equates to one day.
4. Includes pay grades E1 - E9.
5. The number of personnel with no unpaid hours includes those personnel reporting more than 240 hours and all unknowns.

Table B-13

1986 Estimated Time Spent by Part Time Reservists - Days Per Year
(Average Per Member)

Average for Enlisted only	ARNG	USAR	USNR	USMCR	ANG	USAFR	USCGR	Weighted ALL
Annual Training (Notional) _1	15.0	14.0	14.0	14.0	15.0	14.0	14.0	14.5
IDT (Drills) (Notional) _1	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Paid Mandays (ADT & IDT) _2	11.0	8.3	6.1	6.6	7.6	10.2	6.9	9.2
Unpaid At Drill Location _3	9.5	10.2	4.7	8.1	4.2	6.7	7.0	8.3
Other _4	UNK	UNK	UNK	UNK	UNK	UNK	UNK	0.0
Total Average Days Worked	59.5	56.5	48.8	52.7	50.8	54.9	51.9	56.0

Notes:

1. Chart is for Category A unit members only. An assumption is made that all members work the required minimum drills and annual training.
2. Data for paid mandays was extracted from the 1986 RC Surveys. Numbers represent the average paid mandays (ADT) for FY 86. Additional paid IDT periods were not available from any source.
3. The number of unpaid days worked at the drill location was extracted from the 1986 Reserve Components Survey.
4. The unknown number of days worked includes: paid mandays allocated to the reserve components from the active force budget; days spent completing unit work at home; and other time spent on travel, correspondence courses, as well as paid additional IDT periods.

Table B-14

Appendix C. PROFILES BY AGE AND YEARS OF SERVICE

Source: RCCPDS.

The following graphs present profiles and representations of age and years-of-service data for the Selected Reserve. All data was extracted by DMDC personnel from the RCCPDS database at the request of the 6th QRMC. In Figures C-1 through C-37, AGR/TAR personnel were excluded because of their potential qualification for active retirement. Technicians were excluded from the same figures due to requirements for continued membership and the rules for civil service retirement (this combination tends to force continued membership through age 55).

The first series (Figures C-1 through C-19) profiles the Selected Reserve from 1981 to 1986 by age. The figures are presented by component for commissioned officers, warrant officers (if applicable), and enlisted members. The graphs indicate a significant aging trend in all the reserve components except the enlisted Marine Corps Reserve (Figure C-12).

The second series (Figures C-20 through C-33) profiles the same members, except for warrant officers, by years of service. The graphs indicate the current trend toward seniority in the Selected Reserve, which is causing promotion stagnation in many junior grades. Note that for officers, age and years of service are highly correlated. Warrant officers were excluded from this series due to the nature of their service (warrant officers are highly skilled members with many years of experience, and there is a second group of warrant officer aviators in the Army components). Years of Service profiles for warrant officers do not correlate with the Age profiles, nor is there a significant seniority problem with warrant officers since, for the most part, they may be promoted without regard to strength in grade.

The third series (Figures C-34 through C-37) profiles Selected Reserve retirees by Years of Service and Age. These graphs profile only personnel who transferred during the given fiscal years. Included in the graphs are transfers to the IRR, transfers to inactive status lists, and separations of personnel with more than 20 years of service. These inclusions show the separation trends of retirement-eligible personnel from the Selected Reserve. Not all personnel transfer immediately to the Retired Reserve since there are no benefits to be gained by such a transfer. Warrant officer profiles have again been excluded due to the expected continuation of their service for a maximum number of years. It was not possible to extract former

technicians from the Retired Reserve files; however, the results of technician transfers at age 55 are readily apparent on the Age graphs.

For commissioned officers, note that the primary transfer points are at 28 years and 30 years of service, and at ages 50, 52, 55, and 60. The separations at 28 and 30 years of service correspond to the maximum limit on commissioned service for grades O6 and below. The separations at age 50 and 52 correlate with 28 and 30 years of service for most commissioned officers with no prior enlisted service. The separations at age 55 correlate with the retirement of military technicians, and the separations at age 60 correlate with the maximum age for service and reserve retired pay eligibility. Separations before 28 years of service correlate with the actions of selective retention boards and the Selected Reserve strength in grade limitations.

As shown in the first series of graphs, enlisted age does not correlate with years of service. The enlisted profiles (which include separations, as well as transfers to the IRR and inactive status lists with more than 20 years of service) indicate a peak in activity at 20 years of service; however, unlike the officer graphs, this peak at its high point in FY 1985 represented less than 10 percent of the total enlisted separations from the Selected Reserve with more 20 years of service. The gradual decline toward 42 years of service is more indicative of the overall trends. The Age profile depicts this trend even more dramatically, indicating a slow rise in separations, with a peak at age 55 (military technicians), and with almost 33 percent of the separations occurring at age 60. The rise in earlier separations corresponds with the activity of selected retention boards in the last few years, as the endstrength levels of the Selected Reserve have begun to stabilize.

The final series of graphs (Figures C-38 through C-139) are two-dimensional representations of the Total Selected Reserve by component, disaggregated by Part-Time members (including IMAs), military technicians, and Active Guard/Reserve members. These graphs jointly depict age and years-of-service for pay grades E7-E9 and O4-O6 in each component.

In general, this data shows effects of the three different systems: retirement eligibility after 20 years of active service for AGR/TARs; eligibility for an unreduced civil service retirement annuity at age 55 (with 30 years of service) for military technicians; and eligibility for retired pay at age 60 for reservists with 20 or more creditable years of service toward reserve retirement but less than 20 years of active service.

DISTRIBUTION OF OFFICERS BY AGE

ARMY NATIONAL GUARD

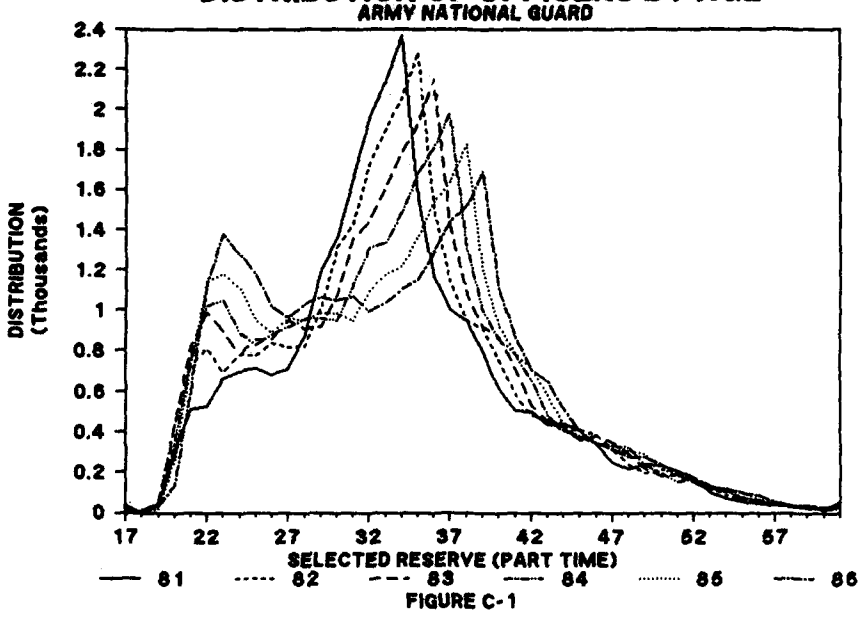


FIGURE C-1

DISTRIBUTION OF WARRANT OFFICERS BY AGE

ARMY NATIONAL GUARD

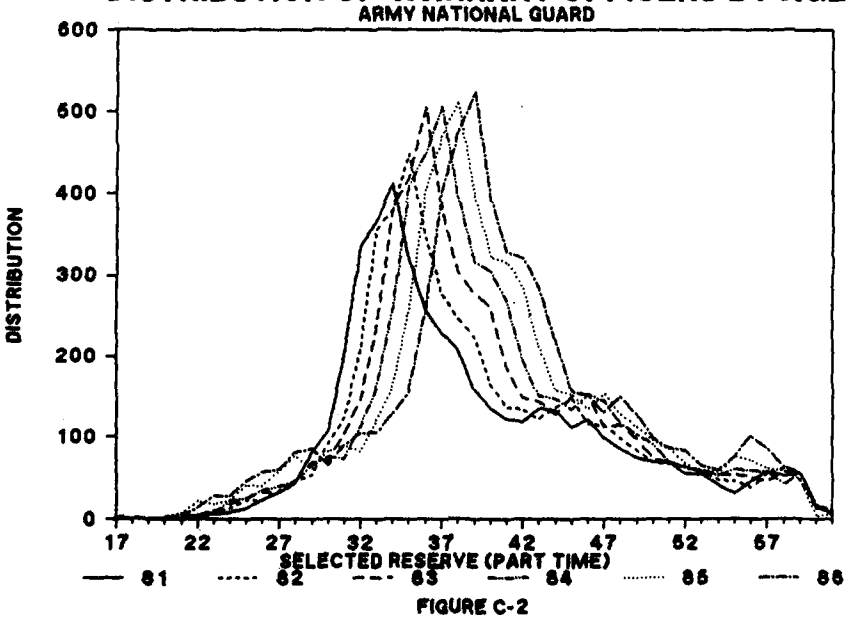


FIGURE C-2

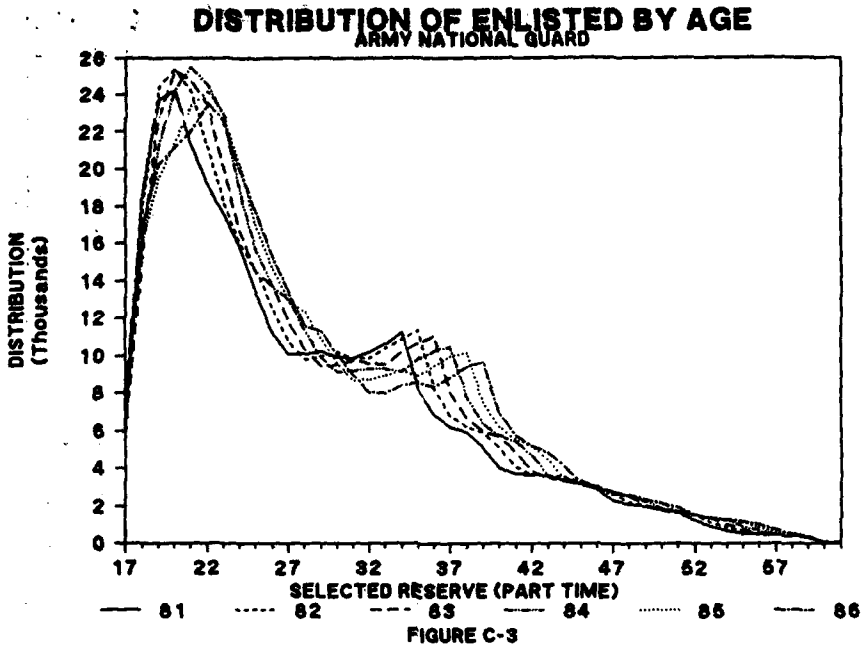


FIGURE C-3

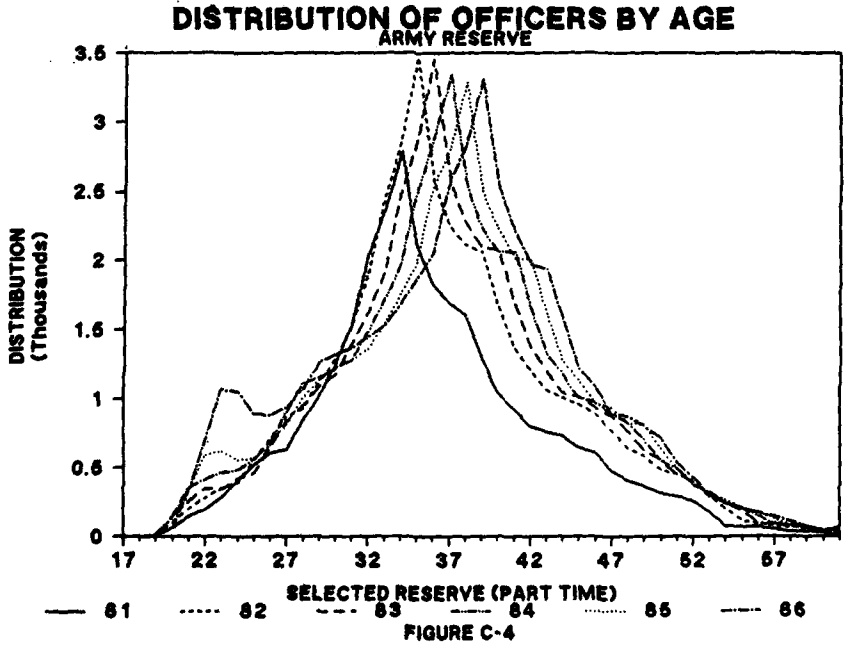


FIGURE C-4

DISTRIBUTION OF WARRANT OFFICERS BY AGE

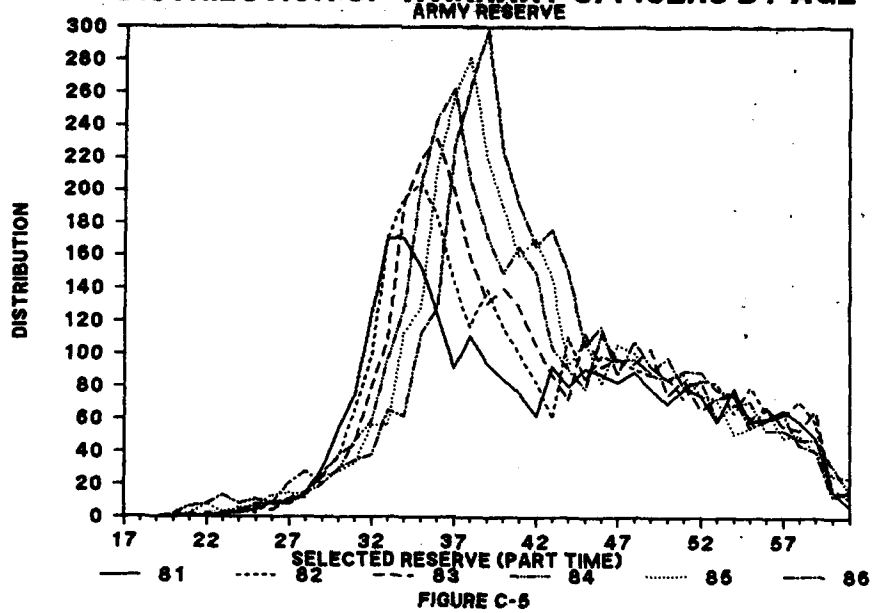


FIGURE C-5

DISTRIBUTION OF ENLISTED BY AGE

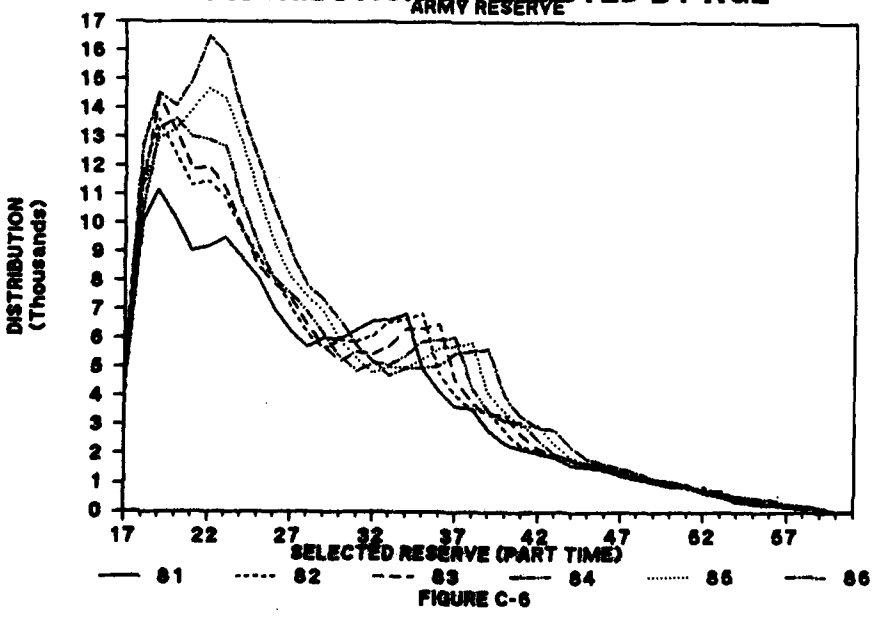


FIGURE C-6

DISTRIBUTION OF OFFICERS BY AGE

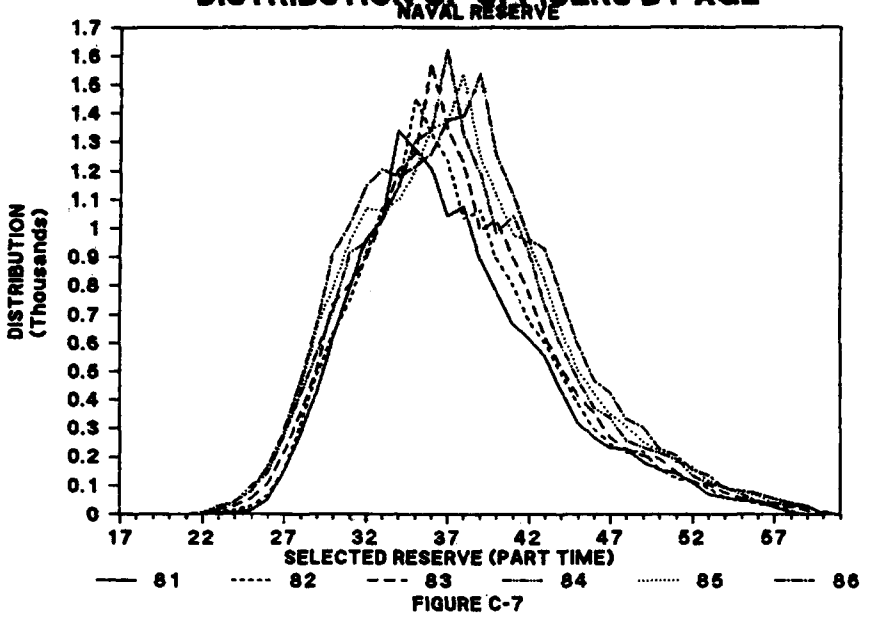


FIGURE C-7

DISTRIBUTION OF WARRANT OFFICERS BY AGE

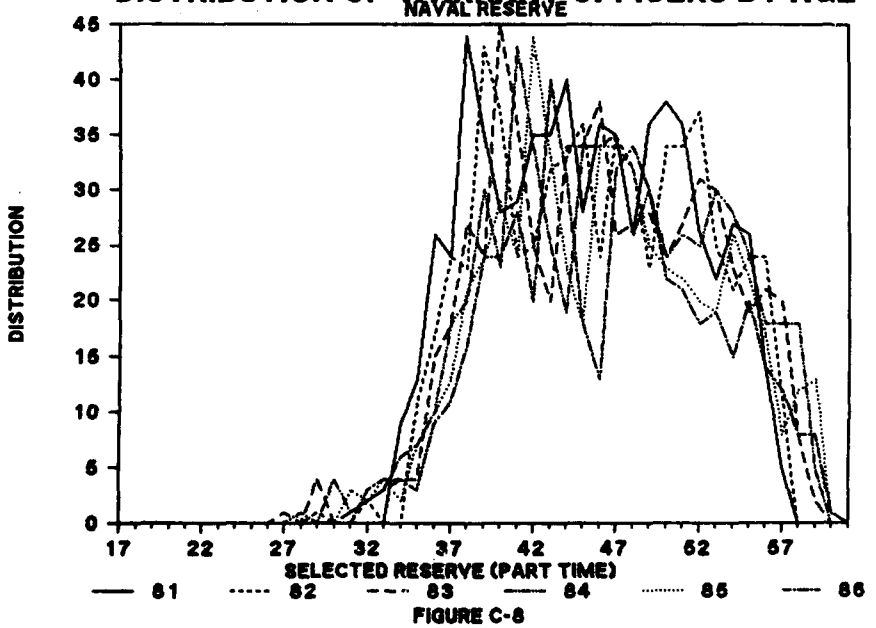


FIGURE C-8

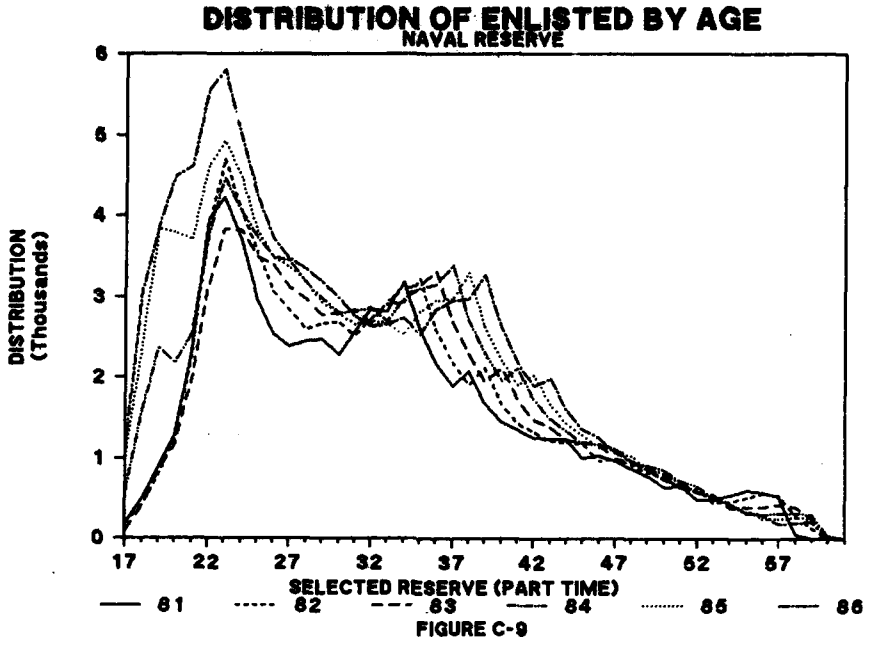


FIGURE C-9

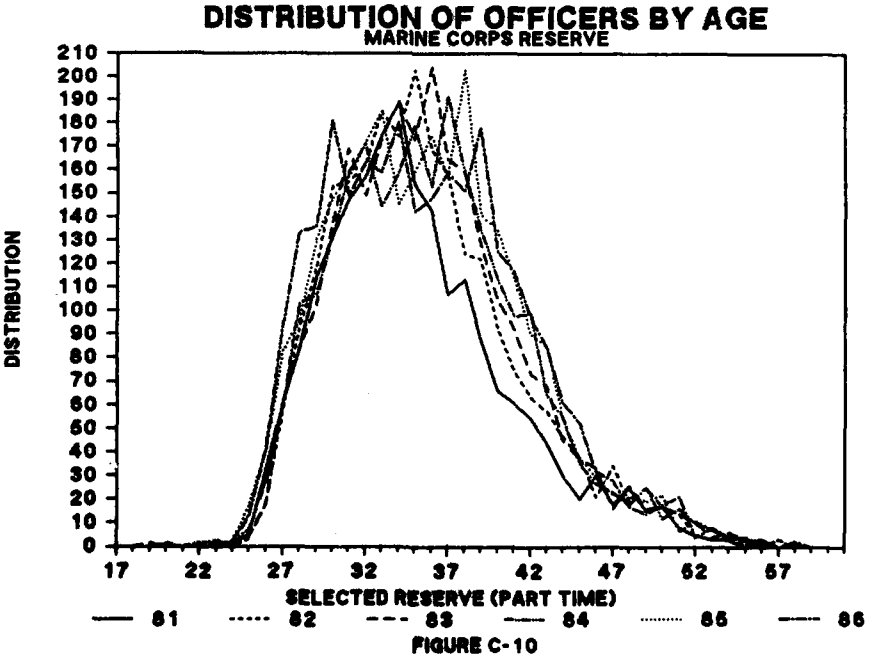


FIGURE C-10

DISTRIBUTION OF WARRANT OFFICERS BY AGE

MARINE CORPS RESERVE

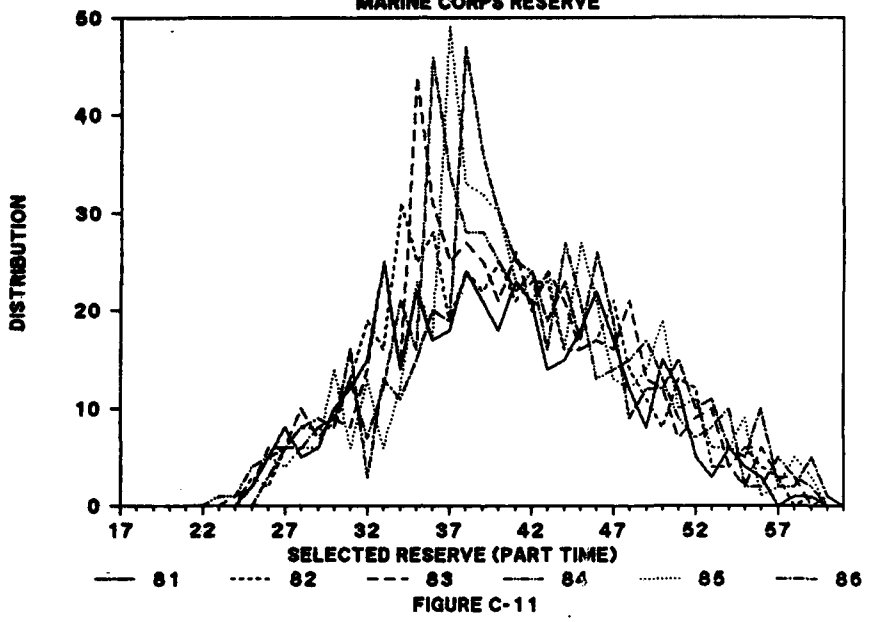


FIGURE C-11

DISTRIBUTION OF ENLISTED BY AGE

MARINE CORPS RESERVE

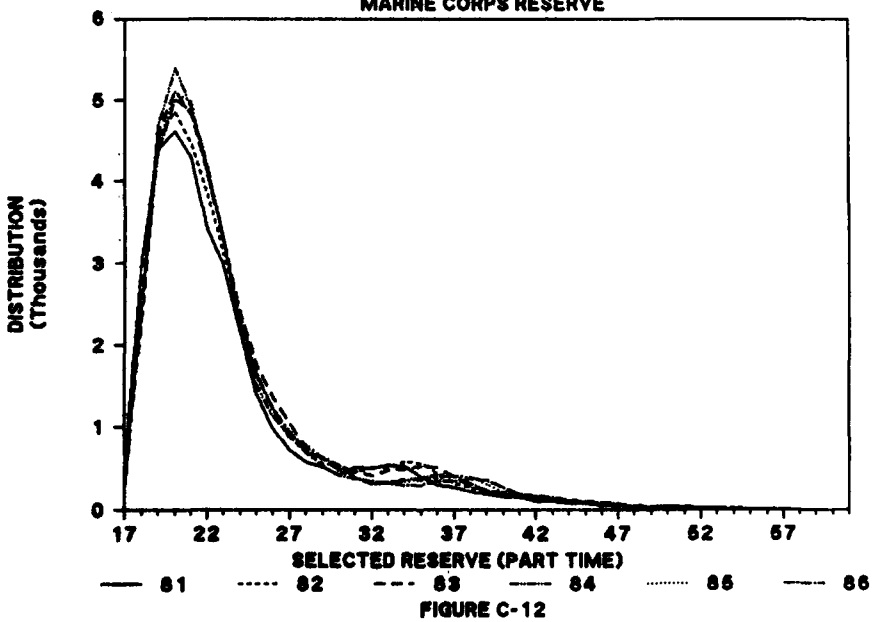


FIGURE C-12

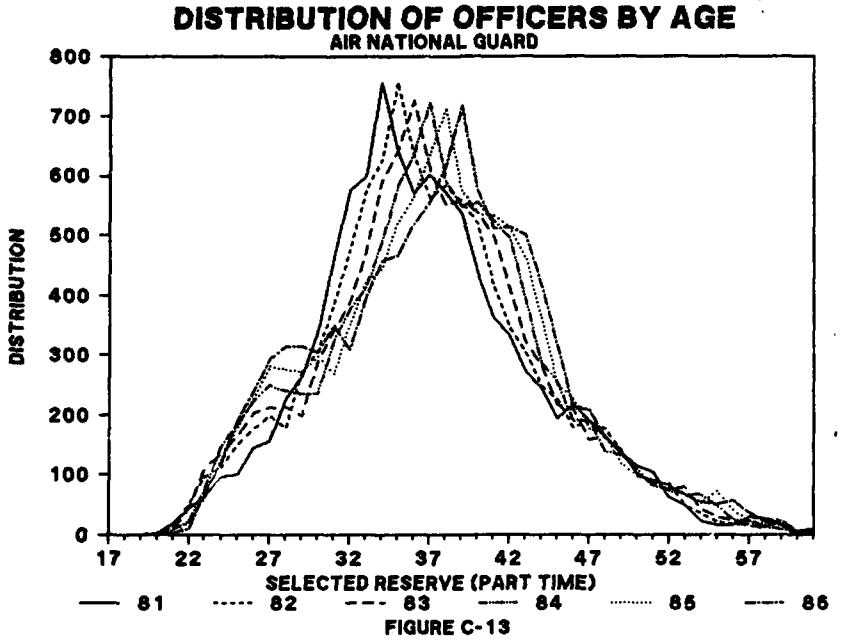


FIGURE C-13

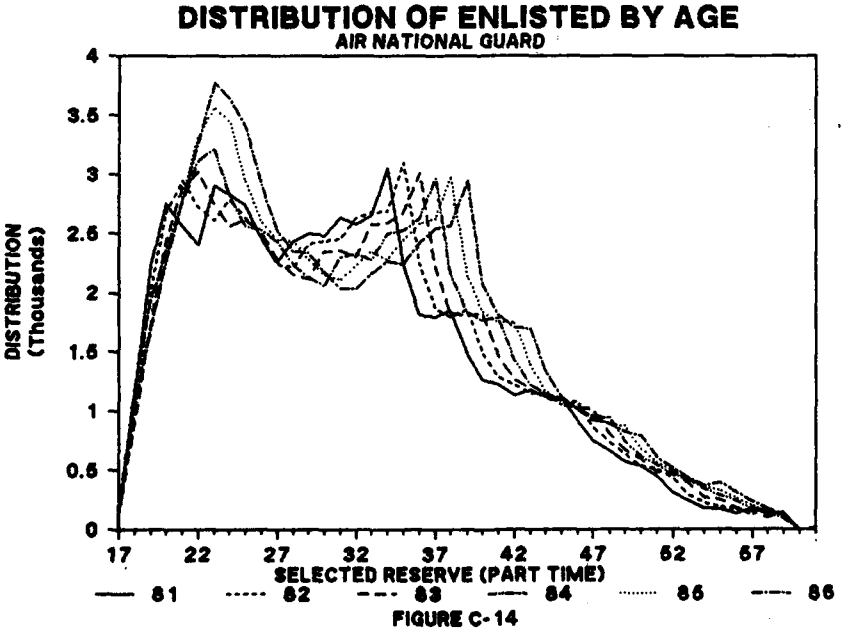


FIGURE C-14

DISTRIBUTION OF OFFICERS BY AGE

AIR FORCE RESERVE

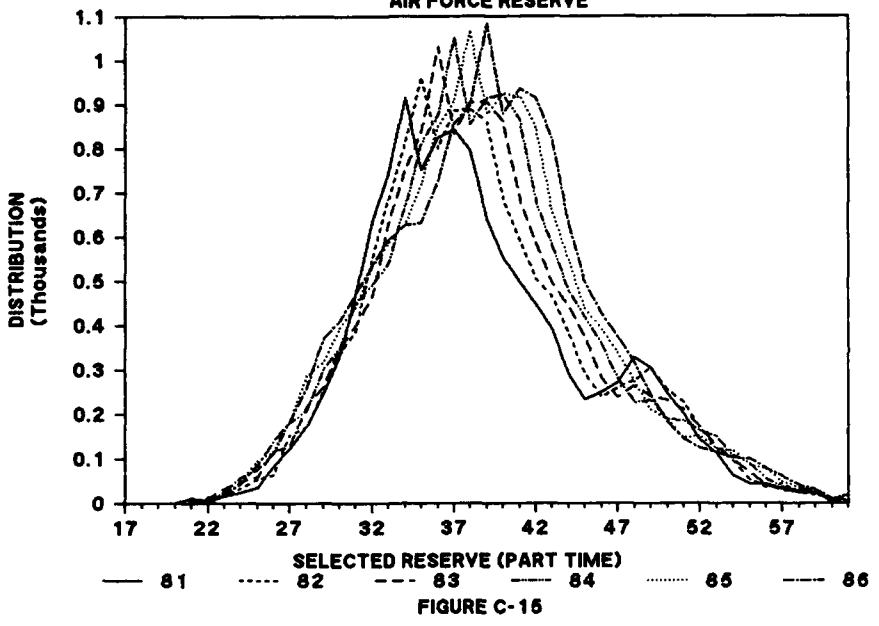


FIGURE C-15

DISTRIBUTION OF ENLISTED BY AGE

AIR FORCE RESERVE

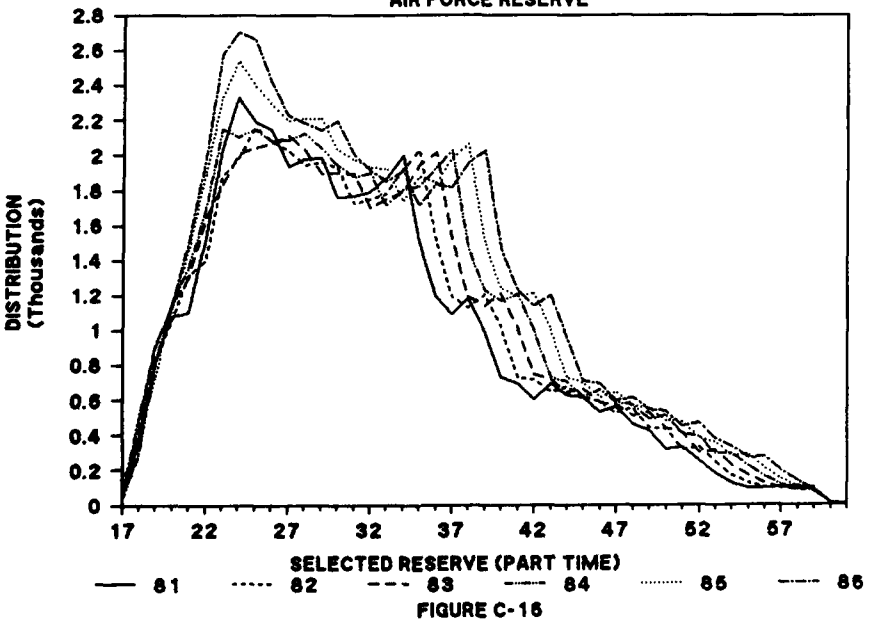


FIGURE C-16

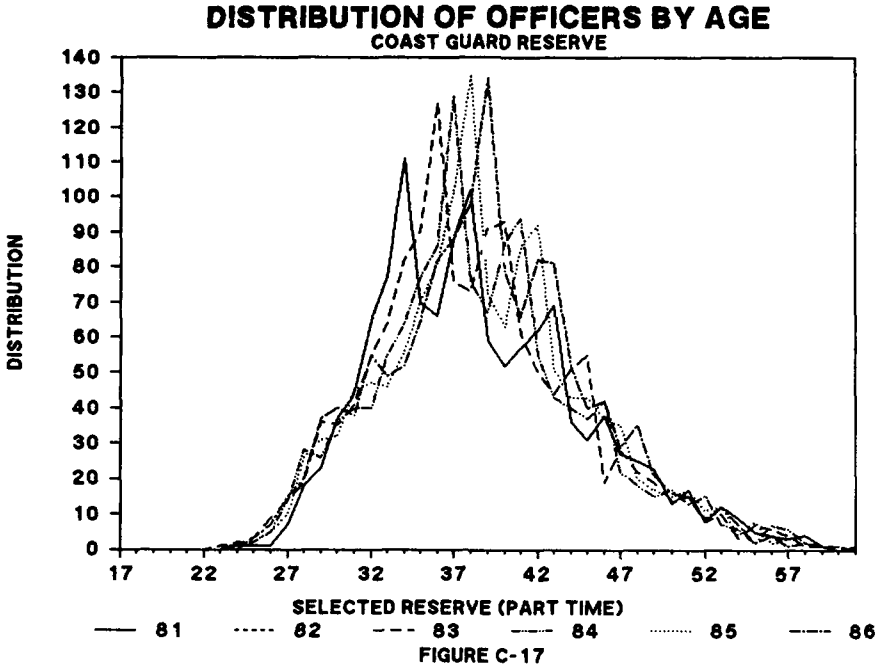


FIGURE C-17

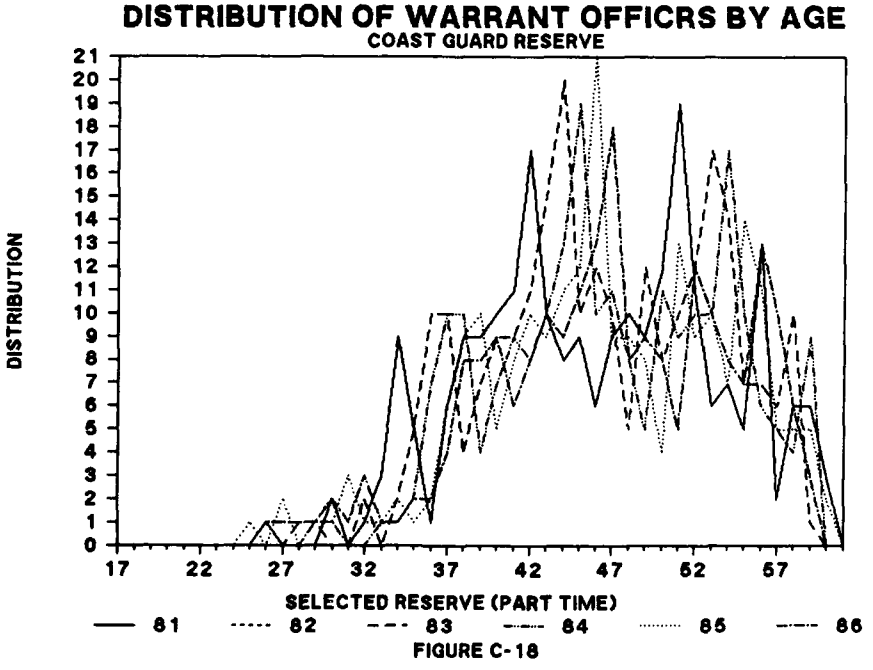


FIGURE C-18

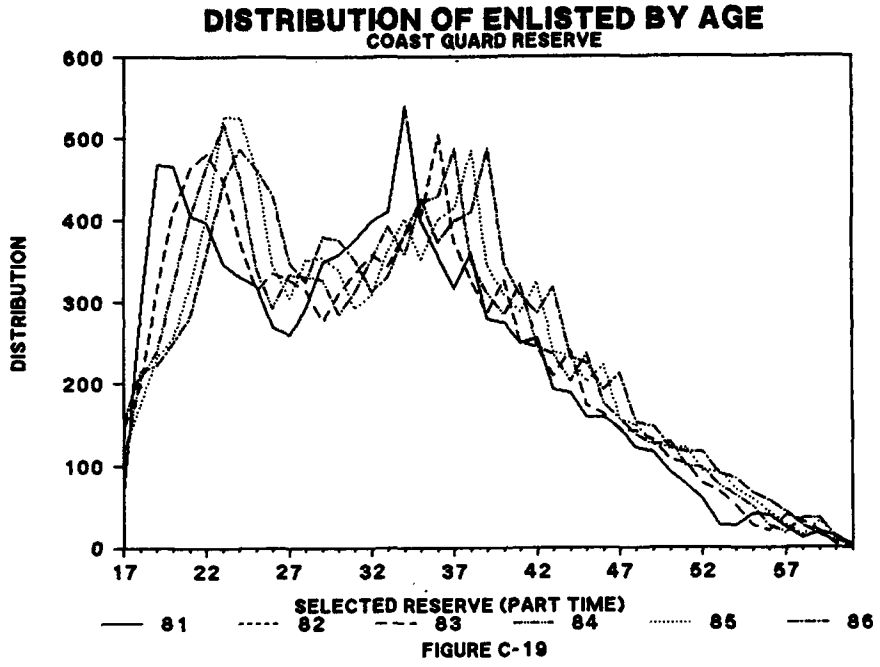


FIGURE C-19

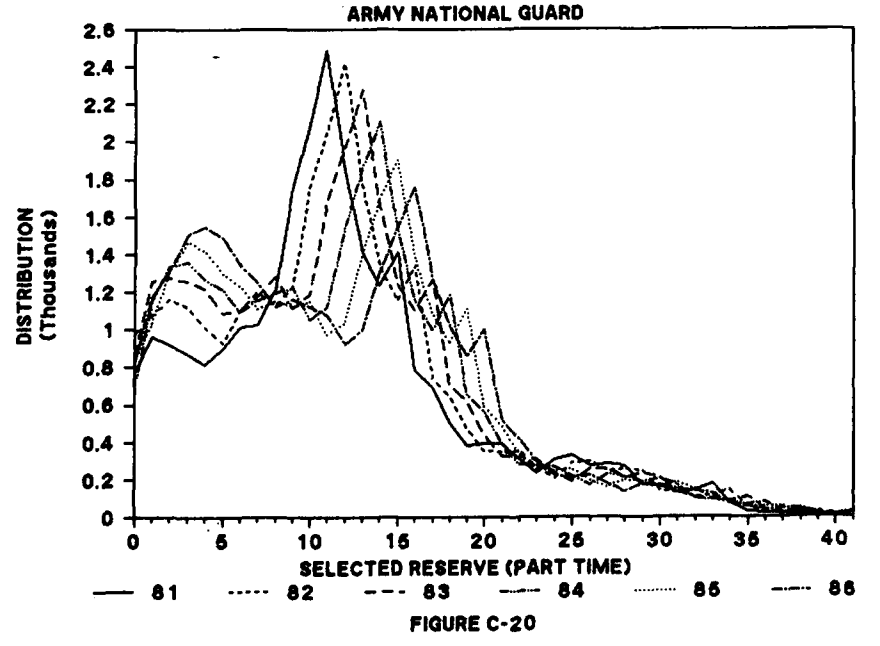


FIGURE C-20

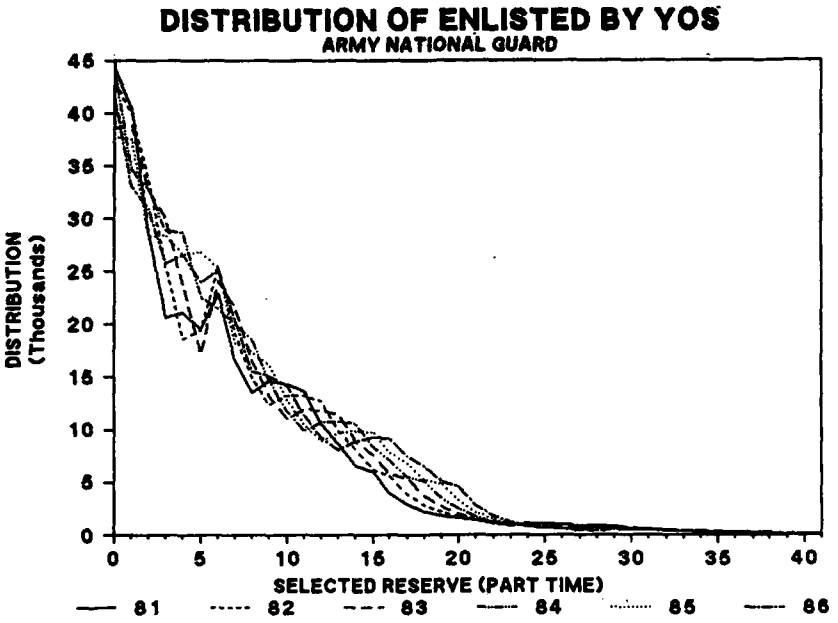


FIGURE C-21

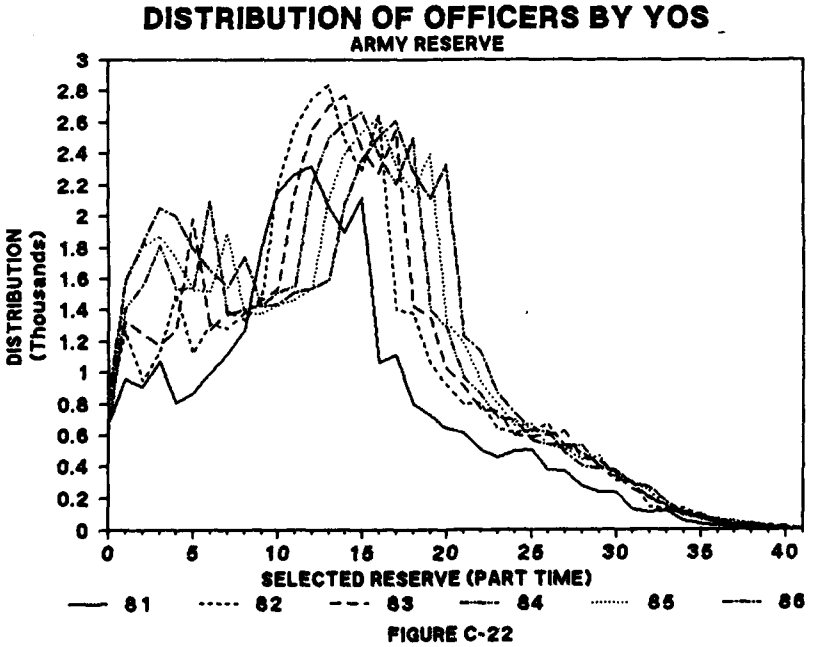


FIGURE C-22

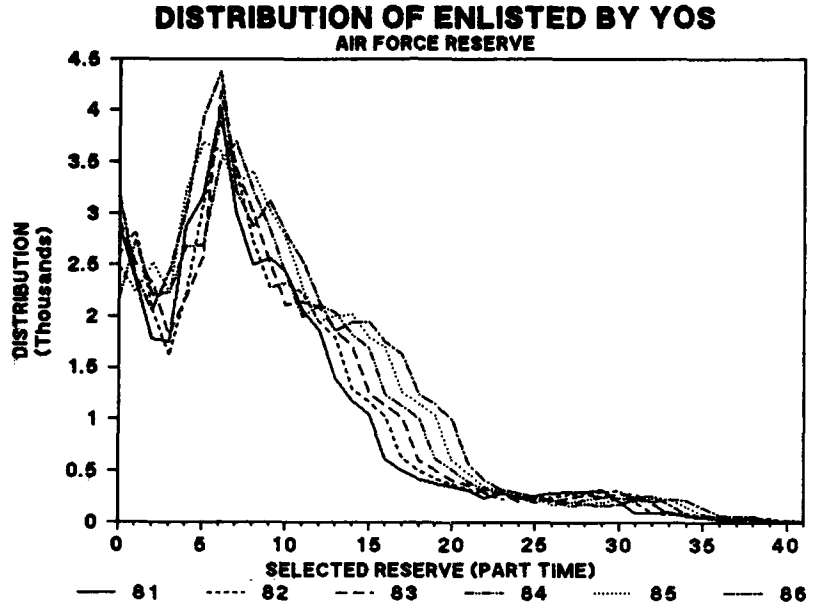


FIGURE C-23

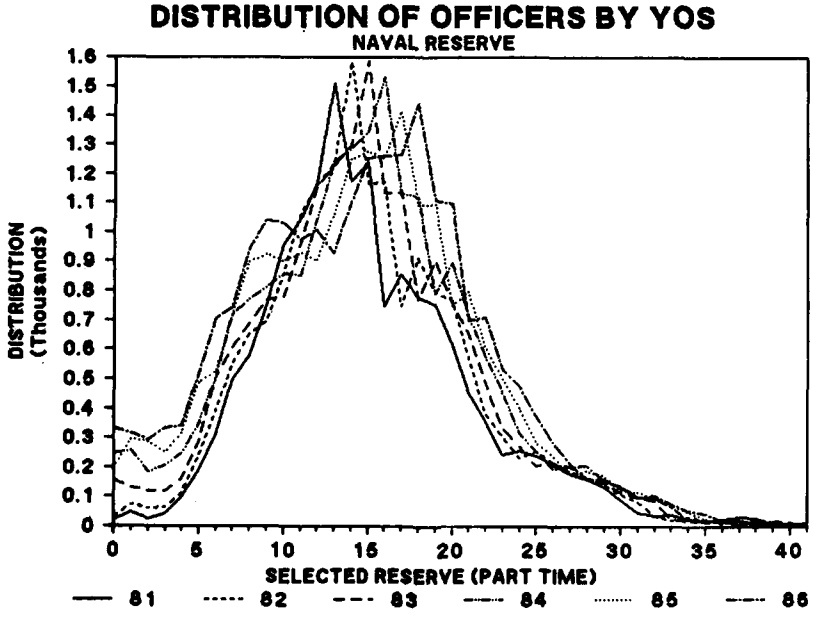


FIGURE C-24

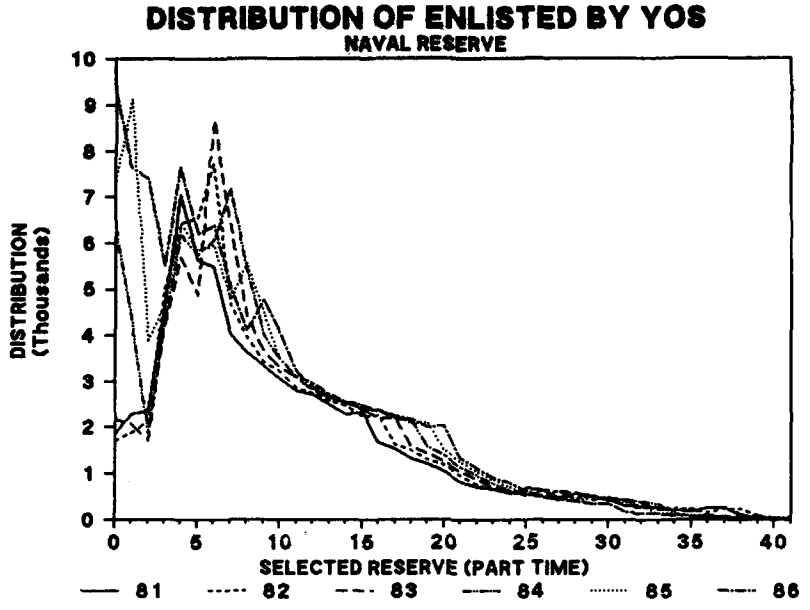


FIGURE C-25

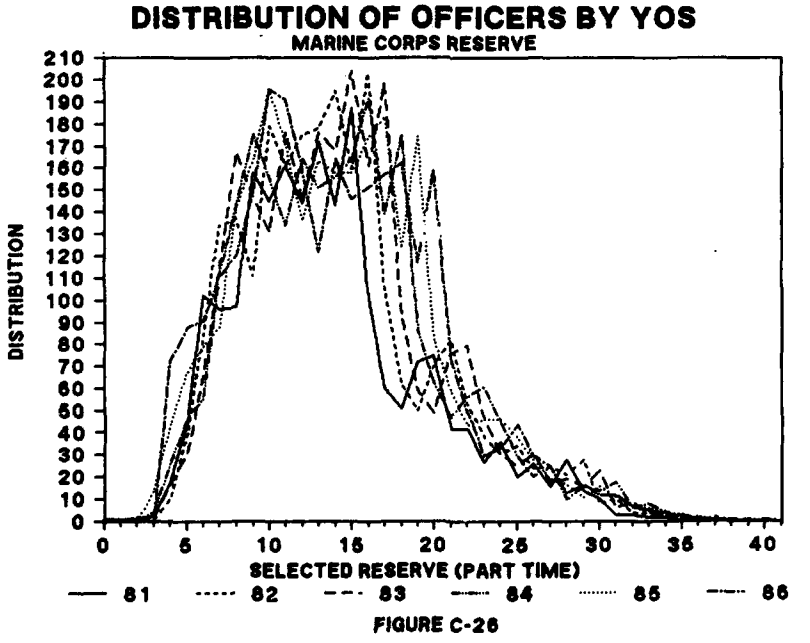


FIGURE C-26

DISTRIBUTION OF ENLISTED BY YOS

MARINE CORPS RESERVE

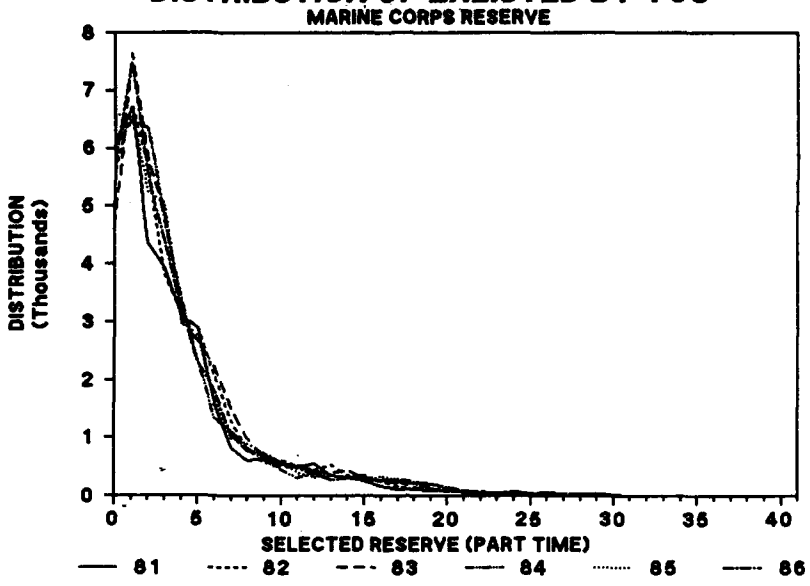


FIGURE C-27

DISTRIBUTION OF OFFICERS BY YOS

AIR NATIONAL GUARD

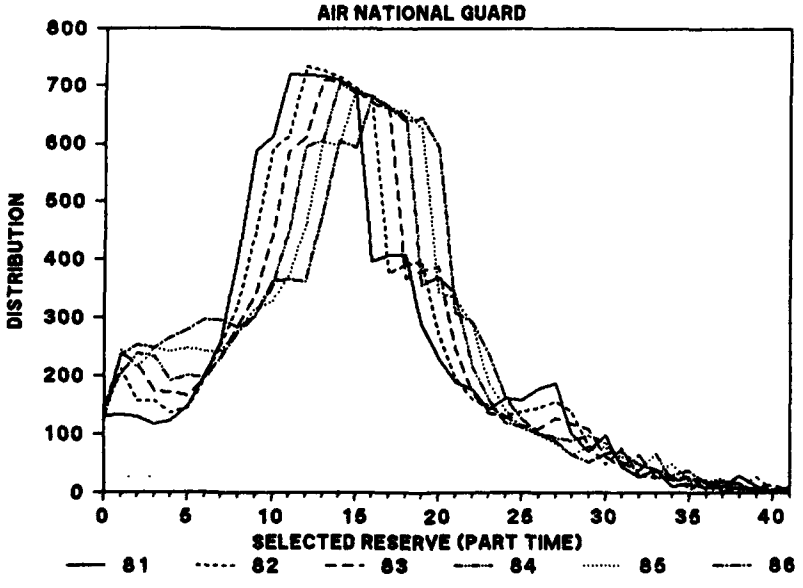


FIGURE C-28

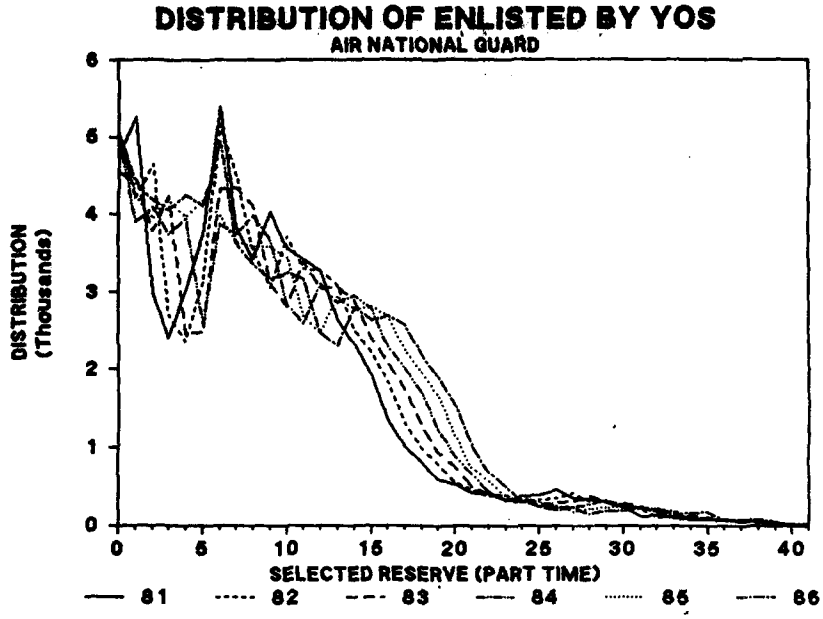


FIGURE C-29

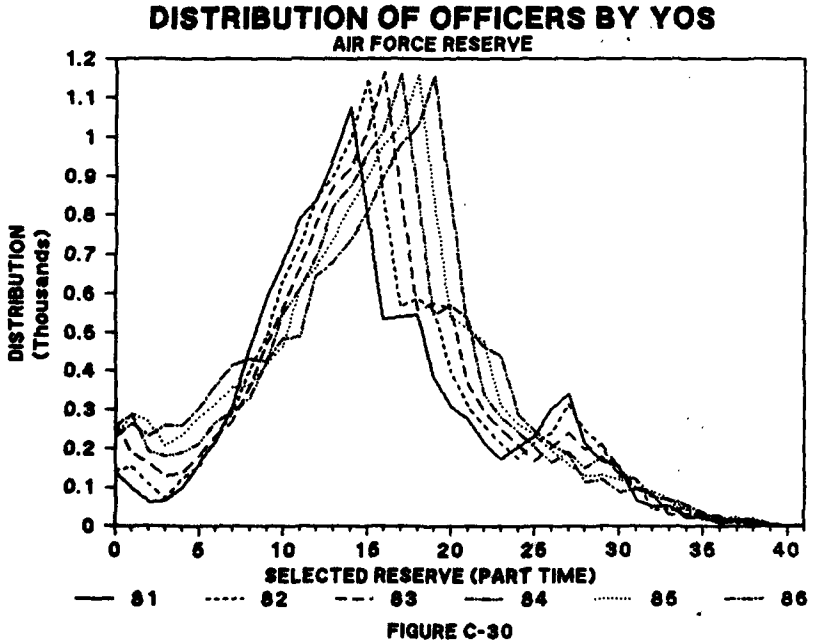


FIGURE C-30

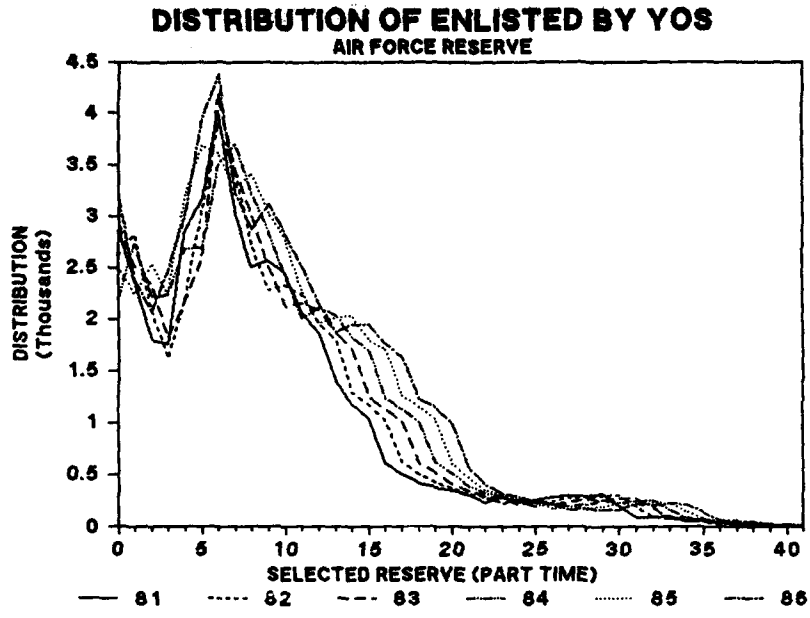


FIGURE C-31

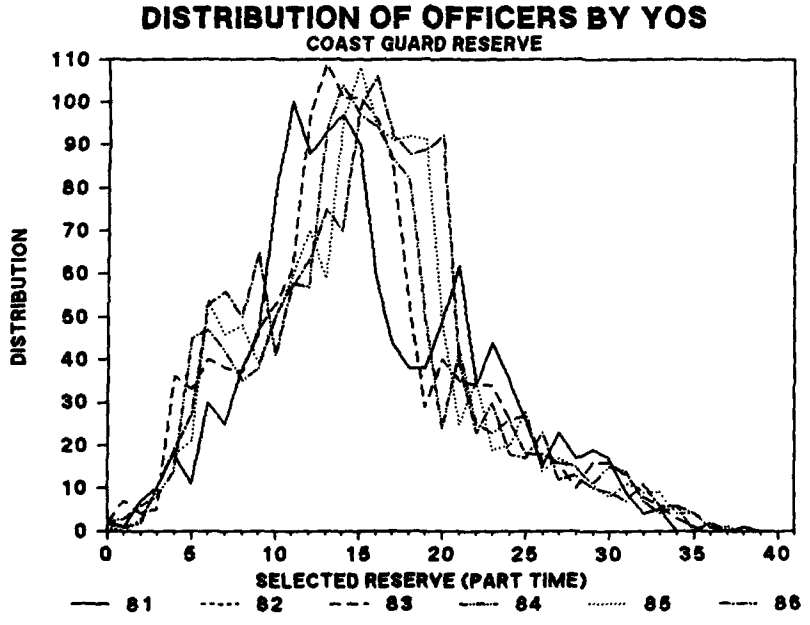


FIGURE C-32

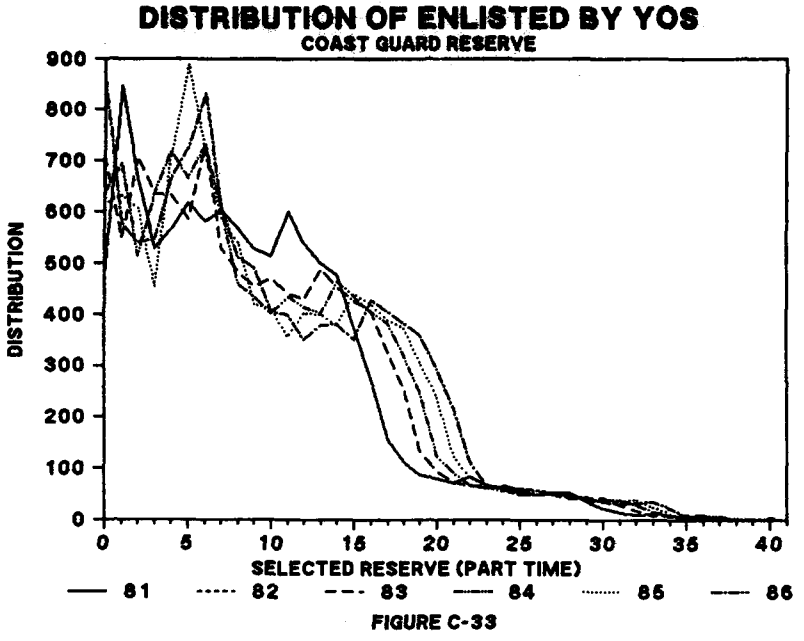


FIGURE C-33

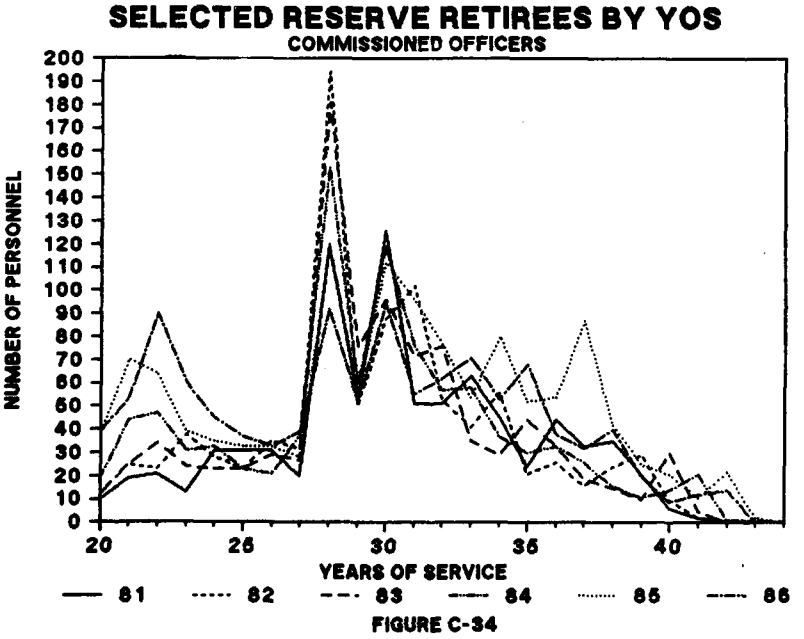


FIGURE C-34

SELECTED RESERVE RETIREES BY AGE

COMMISSIONED OFFICERS

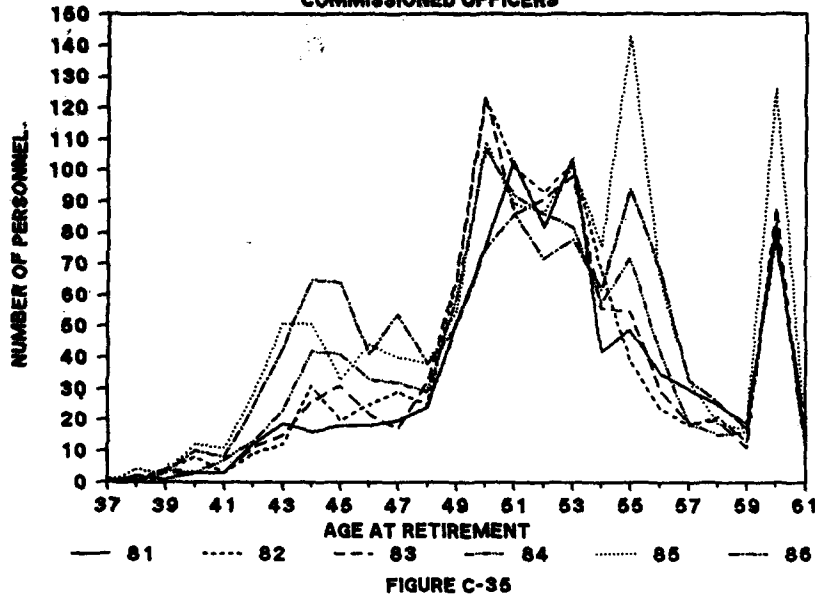


FIGURE C-35

SELECTED RESERVE RETIREES BY YOS

ENLISTED PERSONNEL

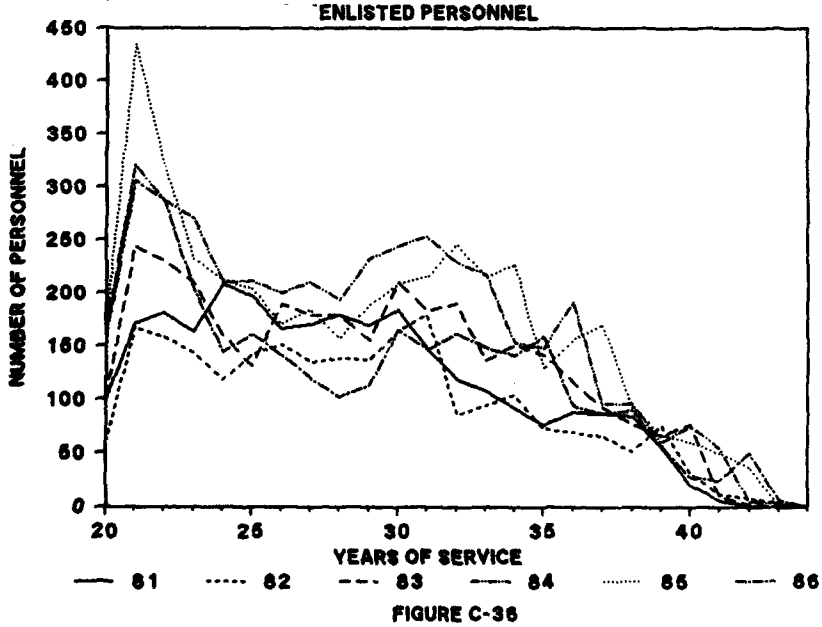


FIGURE C-36

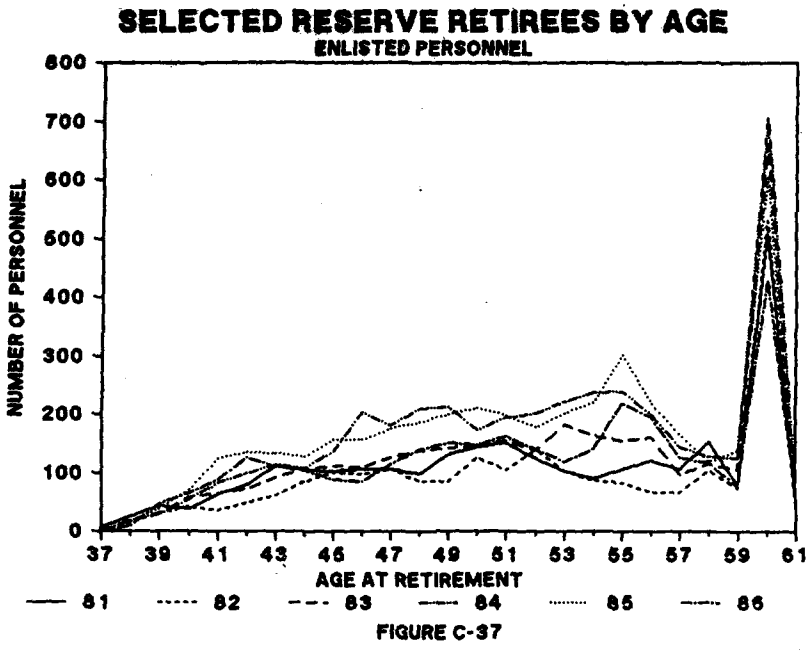

SELECTED RESERVE RETIREES BY AGE
ENLISTED PERSONNEL
NUMBER OF PERSONNEL
800
700
600
500
400
300
200
100
0
37 39 41 43 45 47 49 51 53 55 57 59 61
AGE AT RETIREMENT
81 82 83 84 85 86

FIGURE C-37

ARMY NATIONAL GUARD - O6 (PART-TIME) N = 846

N	%									AGE
202	23	2	4	14	20	24	24	36	78	55+
383	45		1	7	22	23	95	194	41	50-54
205	24				9	53	96	47		45-49
55	7			1	12	35	7			40-44
1	0				1					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	1	3	8	16	26	33	14	
	N	2	5	22	64	135	222	277	119	

FIGURE C-38

ARMY NATIONAL GUARD - O5 (PART-TIME) N = 1,794

N	%									AGE
71	4	4	15	15	11	12	5	5	4	55+
292	16		4	14	33	38	92	103	8	50-54
746	42		13	18	49	210	295	161		45-49
595	33		3	18	154	354	66			40-44
90	5		1	3	61	24	1			35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	2	4	17	36	26	15	1	
	N	4	36	68	308	638	459	269	12	

FIGURE C-39

ARMY NATIONAL GUARD - O4 (PART-TIME) N = 4,486

N	%									AGE
17	0	2	5	2	2	1	1			55+
75	2	6	7	19	9	11	14	9		50-54
535	12	5	27	62	75	211	124	31		45-49
2059	46	10	45	129	874	928	73			40-44
1710	38	7	44	241	1238	180				35-39
94	2		10	59	25					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	3	11	50	30	5	1		
	N	30	138	512	2223	1331	212	40		

FIGURE C-40

ARMY NATIONAL GUARD - O6 (TECHNICIANS) N = 308

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
41	13							6	35	55+
167	54						12	100	55	50-54
79	26					4	33	42		45-49
20	6				3	11	6			40-44
1	0				1					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				1	5	17	48	29	
	N				4	15	51	148	90	

FIGURE C-41

ARMY NATIONAL GUARD - O5 (TECHNICIANS) N = 610

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
8	1							3	5	55+
121	20					2	11	85	23	50-54
279	46			1	1	39	128	110		45-49
183	30				36	113	34			40-44
19	3				11	8				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			0	8	27	28	32	5	
	N			1	48	162	173	198	28	

FIGURE C-42

ARMY NATIONAL GUARD - O4 (TECHNICIANS) N = 603

N	%									AGE
										55+
7	1						1	6		50-54
100	17		1		2	24	42	30	1	45-49
255	42			3	73	152	27			40-44
234	39			20	167	47				35-39
7	1			3	4					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		3	4	41	37	12	6	0	
	N		1	26	246	223	70	36	1	

FIGURE C-43

ARMY NATIONAL GUARD - O6 (ACTIVE GUARD/RESERVE) N = 138

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
35	25			1				6	28	55+
48	35						8	31	9	50-54
40	29					4	14	22		45-49
14	10					9	5			40-44
1	1					1				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			1		10	20	43	27	
	N			1		14	27	59	37	

FIGURE C-44

ARMY NATIONAL GUARD - O5 (ACTIVE GUARD/RESERVE) N = 435

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
30	7			1		2	7	20		50-54
129	30			1	4	27	66	31		45-49
216	50				57	133	26			40-44
60	14				30	30				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			0	21	44	23	12		
	N			2	91	192	99	51		

FIGURE C-45

ARMY NATIONAL GUARD - O4 (ACTIVE GUARD/RESERVE) N = 1,001

N	X									AGE
										55+
3	0				1	1		1		50-54
64	6		1	5	7	27	21	3		45-49
382	38		6	19	147	199	11			40-44
502	50		3	72	360	67				35-39
49	5		3	34	12					30-34
1	0		1							25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	X		1	13	53	29	3	0		
	N		14	130	527	294	32	4		

FIGURE C-46

ARMY RESERVE - O6 (PART TIME) N = 2,757

N	%									AGE
518	19	6	16	36	51	58	70	143	138	55+
1101	40	10	13	29	57	82	436	430	44	50-54
853	31	3	3	15	32	283	426	87	4	45-49
225	8	1		1	39	176	7		1	40-44
16	1				11	4			1	35-39
										30-34
										25-29
44	2	5	1		3	6	5	3	21	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	1	3	7	22	34	24	8	
	N	25	33	81	193	609	944	663	209	

FIGURE C-47

ARMY RESERVE - O5 (PART-TIME) N = 6,599

N	%									AGE
179	3	34	21	29	29	25	20	11	10	55+
812	12	18	32	58	80	94	312	204	14	50-54
2566	39	14	61	104	139	1149	883	199	17	45-49
2647	40	8	33	70	797	1665	64		10	40-44
301	5	5	2	11	226	55			2	35-39
2	0	2								30-34
3	0		1						2	25-29
89	1	14	6	2	5	13	5	4	40	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	2	4	19	45	19	6	1	
	N	95	156	274	1276	3001	1284	418	95	

FIGURE C-48

ARMY RESERVE - O4 (PART-TIME) N = 12,727

N	%									AGE
81	1	34	22	9	6	4	1	2	3	55+
214	2	34	33	38	36	30	16	21	6	50-54
1099	9	64	125	138	161	394	167	40	10	45-49
5307	42	78	184	319	2985	1648	65		28	40-44
5487	43	33	173	1122	3922	206			31	35-39
325	3	2	19	237	58				9	30-34
1	0		1							25-29
213	2	19	13	18	38	10	3	1	111	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	2	4	15	57	18	2	1	2	
	N	264	570	1881	7206	2292	252	64	198	

FIGURE C-49

ARMY RESERVE - O6 (TECHNICIANS) N = 22

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
11	50						2	9		50-54
8	36						7	1		45-49
2	9					1	1			40-44
										35-39
										30-34
										25-29
1	5							1		20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%					5	45	50		
	N					1	10	11		

FIGURE C-50

ARMY RESERVE - O5 (TECHNICIANS) N = 58

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
8	14					3	5			50-54
24	41				8	9	7			45-49
19	33		1	3	15					40-44
6	10			4	2					35-39
										30-34
										25-29
1	2								1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		2	12	43	21	21		2	
	N		1	7	25	12	12		1	

FIGURE C-51

ARMY RESERVE - O4 (TECHNICIANS) N = 102

N	%									AGE
										55+
2	2					1		1		50-54
14	14				1	5	8			45-49
50	49				23	25	2			40-44
35	34			6	26	3				35-39
										30-34
										25-29
1	1								1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			6	49	33	10	1	1	
	N			6	50	34	10	1	1	

FIGURE C-52

ARMY RESERVE - O6 (ACTIVE GUARD/RESERVE) N = 80

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
3	4							3		55+
33	41						16	15	2	50-54
35	44					8	19	8		45-49
7	9				2	4	1			40-44
1	1					1				35-39
										30-34
										25-29
1	1					1				20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				3	18	45	32	3	
	N				2	14	36	26	2	

FIGURE C-53

ARMY RESERVE - O5 (ACTIVE GUARD/RESERVE) N = 483

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
47	10	1		2		3	17	23	1	50-54
176	36	1	1		4	66	78	25	1	45-49
224	46			1	54	155	14			40-44
35	7				18	17				35-39
										30-34
										25-29
1	0							1		20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	0	1	17	50	23	10	0	
	N	2	1	3	76	241	109	49	2	

FIGURE C-54

ARMY RESERVE - O4 (ACTIVE GUARD/RESERVE) N = 1,172

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
3	0						1	2		50-54
82	7		3	9	12	31	22	4	1	45-49
573	49		2	23	296	233	19			40-44
498	42		4	79	365	50				35-39
13	1			8	5					30-34
1	0		1							25-29
2	0				1				1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	10	58	27	4	1	0	
	N		10	119	679	314	42	6	2	

FIGURE C-55

NAVAL RESERVE - O6 (PART-TIME) N = 1,901

N	%									AGE
183	10	1	1	1	5	13	26	68	68	55+
452	24	2		5	11	23	206	191	14	50-54
934	49	1		1	11	441	435	45		45-49
325	17				24	287	13		1	40-44
4	0				4					35-39
										30-34
										25-29
									1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	0	0	3	40	36	16	4	
	N	6	1	7	55	764	680	304	84	

FIGURE C-56

NAVAL RESERVE - O5 (PART-TIME) N = 5,412

N	%									AGE
70	1	5		8	8	9	15	15	10	55+
256	5	5	2	29	32	49	78	56	5	50-54
804	15	4	6	24	75	460	194	41		45-49
2871	53	2	1	18	1493	1297	60			40-44
1403	26	1	1	35	1308	57			1	35-39
										30-34
										25-29
8	0	1			2		3	2		20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	0	2	54	35	6	2	0	
	N	18	10	114	2918	1872	350	114	16	

FIGURE C-57

NAVAL RESERVE - O4 (PART-TIME) N = 7,459

N	%									AGE
6	0	2		2	1		1			55+
57	1	9	2	3	8	9	17	8	1	50-54
323	4	4	11	32	77	127	68	4		45-49
1415	19	22	35	96	728	489	45			40-44
3685	49	42	76	1686	1794	84			3	35-39
1962	26	14	156	1761	31					30-34
1	0			1						25-29
10	0			3	6	1				20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	4	48	35	10	2	0	0	
	N	93	280	3584	2645	710	131	12	4	

FIGURE C-58

NAVAL RESERVE - O6 (ACTIVE GUARD/RESERVE (TAR)) N = 149

N	%									AGE
										55+
24	16						11	13		50-54
101	68					64	29	8		45-49
20	13					18	2			40-44
										35-39
										30-34
										25-29
4	3					2	1	1		20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%					56	29	15		
	N					84	43	22		

FIGURE C-59

NAVAL RESERVE - O5 (ACTIVE GUARD/RESERVE (TAR)) N = 376

N	%									AGE
										55+
1	0						1			50-54
49	13				1	34	14			45-49
234	62				89	134	11			40-44
78	21			3	67	8				35-39
										30-34
										25-29
14	4	3	1	1	2	6			1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	0	1	42	48	7		0	
	N	3	1	4	159	182	26		1	

FIGURE C-60

NAVAL RESERVE - 04 (ACTIVE GUARD/RESERVE (TAR)) N = 648

N	%									AGE
										55+
										50-54
6	1					4	2			45-49
92	14			1	49	38	4			40-44
358	55		2	151	189	16				35-39
167	26		9	155	3					30-34
										25-29
25	4	6		10	3				6	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	2	49	38	9	1		1	
	N	6	11	317	244	58	6		6	

FIGURE C-61

MARINE CORPS RESERVE - O6 (PART-TIME) N = 143

N	%									AGE
3	2							1	2	55+
40	28						14	25	1	50-54
78	55					11	63	4		45-49
22	15				1	16	5			40-44
										35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				1	19	57	21	2	
	N				1	27	82	30	3	

FIGURE C-62

MARINE CORPS RESERVE - O5 (PART-TIME) N = 518

N	%									AGE
1	0						1			55+
10	2					2	3	5		50-54
58	11				2	34	22			45-49
366	71			1	146	203	16			40-44
83	16				58	25				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			0	40	51	8	1		
	N			1	206	264	42	5		

FIGURE C-63

MARINE CORPS RESERVE - O4 (PART-TIME) N = 791

N	%									AGE
										55+
										50-54
5	1			1	1	2	1			45-49
89	11			6	55	26	2			40-44
575	73			173	377	25				35-39
122	15			106	16					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			36	57	7	0			
	N			286	449	53	3			

FIGURE C-64

MARINE CORPS RESERVE - O6 (ACTIVE GUARD/RESERVE) N = 9

N	%	YOS 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
3	33						2	1		50-54
6	67					1	4	1		45-49
										40-44
										35-39
										30-34
										25-29
										20-24
	%					11	67	22		
	N					1	6	2		

FIGURE C-65

MARINE CORPS RESERVE - O5 (ACTIVE GUARD/RESERVE) N = 57

N	%	YOS 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
1	2						1			50-54
4	7					2	2			45-49
40	70				16	23	1			40-44
12	21				12					35-39
										30-34
										25-29
										20-24
	%				49	44	7			
	N				28	25	4			

FIGURE C-66

MARINE CORPS RESERVE - O4 (ACTIVE GUARD/RESERVE) N = 62

N	%									AGE
										55+
										50-54
										45-49
5	8			1	4					40-44
45	73			12	25	8				35-39
12	19			9	3					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			35	52	13				
	N			22	32	8				

FIGURE C-67

AIR NATIONAL GUARD - O6 (PART-TIME) N = 271

N	%									AGE
55	20		1	3	3	5	3	10	30	55+
107	39		1		2	7	40	56	1	50-54
80	30				3	19	48	10		45-49
28	10				4	22	2			40-44
1	0				1					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	1	5	20	34	28	11	
	N		2	3	13	53	93	76	31	

FIGURE C-68

AIR NATIONAL GUARD - O5 (PART-TIME) N = 1,492

N	%									AGE
71	5	2	1	3	9	18	6	14	18	55+
195	13	1	4	22	34	27	58	43	6	50-54
600	40	4	4	19	41	328	157	47		45-49
561	38		1	11	180	360	9			40-44
65	4			7	55	3				35-39
										30-34
										25-29
										24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	1	4	21	49	15	7	2	
	N	7	10	62	319	736	230	104	24	

FIGURE C-69

AIR NATIONAL GUARD - O4 (PART-TIME) N = 3,503

N	%									AGE
6	0	3		2	1					55+
46	1	3	2	2	8	10	11	8	2	50-54
320	9	3	11	25	49	145	72	15		45-49
1609	46	10	16	66	995	511	11			40-44
1445	41	7	17	366	1030	25				35-39
77	2	7	12	49	9					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	2	15	60	20	3	1	0	
	N	33	58	510	2092	691	94	23	2	

FIGURE C-70

AIR NATIONAL GUARD - O6 (TECHNICIANS) N = 155

N	%									AGE
24	15							5	19	55+
57	37						6	38	13	50-54
55	35					18	26	11		45-49
18	12				4	13	1			40-44
1	1				1					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				3	20	21	35	21	
	N				5	31	33	54	32	

FIGURE C-71

AIR NATIONAL GUARD - O5 (TECHNICIANS) N = 733

N	%									AGE
24	3							3	21	55+
211	29					4	17	162	28	50-54
234	32				2	113	75	44		45-49
219	30				85	126	8			40-44
45	6				43	2				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				18	33	14	29	7	
	N				130	245	100	209	49	

FIGURE C-72

AIR NATIONAL GUARD - O4 (TECHNICIANS) N = 558

N	%									AGE
1	C							1		55+
32	6						2	30		50-54
89	16			2	2	24	44	17		45-49
219	39			4	109	94	12			40-44
204	37			49	148	7				35-39
13	2			12	1					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			12	47	22	10	9		
	N			67	260	125	58	48		

FIGURE C-73

AIR NATIONAL GUARD - O6 (ACTIVE GUARD/RESERVE) N = 68

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
7	10							1	6	55+
22	32						3	16	3	50-54
24	35				1	12	4	7		45-49
15	22				3	11	1			40-44
										35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				6	34	12	35	13	
	N				4	23	8	24	9	

FIGURE C-74

AIR NATIONAL GUARD - O5 (ACTIVE GUARD/RESERVE) N = 202

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
4	2								4	55+
17	8					1	4	12		50-54
51	25			1		28	15	7		45-49
102	50				56	43	3			40-44
28	14				25	3				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			0	40	37	11	9	2	
	N			1	81	75	22	19	4	

FIGURE C-75

AIR NATIONAL GUARD - O4 (ACTIVE GUARD/RESERVE) N = 430

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
1	0						1			50-54
30	7				5	7	14	4		45-49
145	34			4	88	47	6			40-44
225	52		1	58	159	7				35-39
29	7		3	23	3					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	20	59	14	5	1		
	N		4	85	255	61	21	4		

FIGURE C-76

AIR FORCE RESERVE - O6 (PART TIME) N = 812

N	%									AGE
177	22			9	17	18	31	60	42	55+
299	37				13	27	145	108	6	50-54
262	32			2	10	85	158	7		45-49
66	8				21	43	2			40-44
8	1				8					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			1	8	21	41	22	6	
	N			11	69	173	336	175	48	

FIGURE C-77

AIR FORCE RESERVE - O5 (PART-TIME) N = 2,242

N	%									AGE
139	6	8	9	11	12	14	19	31	35	55+
274	12	10	2	19	33	42	94	64	10	50-54
1096	49	3	5	34	72	627	312	43		45-49
692	31			10	155	524	3			40-44
41	2				40	1				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	1	3	14	54	19	6	2	
	N	21	16	74	312	1208	428	136	45	

FIGURE C-78

AIR FORCE RESERVE - O4 (PART-TIME) N = 5,792

N	%									AGE
7	0	2				2	.	1	2	55+
56	1	9	4	10	8	6	5	14		50-54
446	8	22	12	45	67	215	75	10		45-49
2976	51	20	33	101	2013	792	17			40-44
2236	39	3	28	575	1614	16				35-39
70	1		12	55	3					30-34
1	0	1								25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	2	14	64	18	2	0	0	
	N	57	89	786	3705	1031	97	25	2	

FIGURE C-79

AIR FORCE RESERVE - O6 (TECHNICIANS) N = 76

N	%	YOS 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
3	4							2	1	55+
24	32						3	20	1	50-54
29	38					16	11	2		45-49
19	25				9	10				40-44
1	1				1					35-39
										30-34
										25-29
										20-24
	%				13	34	18	32	3	
	N				10	26	14	24	2	

FIGURE C-80

AIR FORCE RESERVE - O5 (TECHNICIANS) N = 155

N	%	YOS 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
1	1					1				55+
17	11						3	12	2	50-54
70	45					34	31	5		45-49
63	41				20	42	1			40-44
4	3				3	1				35-39
										30-34
										25-29
										20-24
	%				15	50	23	11	1	
	N				23	78	35	17	2	

FIGURE C-81

AIR FORCE RESERVE - O4 (TECHNICIANS) N = 373

N	%									AGE
										55+
2	1						1	1		50-54
17	5			1	1	6	7	2		45-49
193	52			4	141	48				40-44
154	41			38	115	1				35-39
7	2		1	4	2					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		0	13	69	15	2	1		
	N		1	47	259	55	8	3		

FIGURE C-82

AIR FORCE RESERVE - O6 (ACTIVE GUARD/RESERVE) N = 61

N	%									AGE
7	11					1		3	3	55+
20	33						4	14	2	50-54
25	41					10	12	3		45-49
9	15				1	8				40-44
										35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				2	31	26	33	8	
	N				1	19	16	20	5	

FIGURE C-83

AIR FORCE RESERVE - O5 (ACTIVE GUARD/RESERVE) N = 53

N	%									AGE
1	2								1	55+
2	4					1	1			50-54
25	47				2	13	6	4		45-49
23	43				8	14	1			40-44
2	4				2					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				23	53	15	8	2	
	N				12	28	8	4	1	

FIGURE C-84

AIR FORCE RESERVE - O4 (ACTIVE GUARD/RESERVE) N = 44

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
1	2						1			50-54
6	14				1	4	1			45-49
21	48				14	7				40-44
16	36			5	11					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			11	59	25	5			
	N			5	26	11	2			

FIGURE C-85

COAST GUARD RESERVE - O6 (PART-TIME) N = 29

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
7	24						2	5		50-54
22	76					7	13	2		45-49
										40-44
										35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%					24	52	24		
	N					7	15	7		

FIGURE C-86

COAST GUARD RESERVE - O5 (PART-TIME) N = 164

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
3	2					1	1	1		55+
19	12				2	3	2	11	1	50-54
24	15					15	8	1		45-49
82	50				47	29	6			40-44
36	22			3	33					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			2	50	29	10	8	1	
	N			3	82	48	17	13	1	

FIGURE C-87

COAST GUARD RESERVE - O4 (PART-TIME) N = 340

N	%									AGE
6	2				1	2	2	1		55+
29	9			1	3	7	5	12	1	50-54
53	16			3	9	18	20	3		45-49
83	24			6	33	42	2			40-44
142	42			47	94	1				35-39
27	8		2	24	1					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	24	41	21	9	5	0	
	N		2	81	141	70	29	16	1	

FIGURE C-88

ARMY NATIONAL GUARD - E9 (PART-TIME) N = 953

N	%									AGE
236	25				2	6	16	46	166	55+
270	28				6	22	49	141	52	50-54
225	24				16	53	90	66		45-49
167	18				43	106	18			40-44
55	6				40	15				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				11	21	18	27	23	
	N				107	202	173	253	218	

FIGURE C-89

ARMY NATIONAL GUARD - E8 (PART-TIME) N = 3,979

N	%									AGE
476	12			1	27	71	60	85	232	55+
650	16			7	81	166	98	236	62	50-54
762	19			16	195	240	178	133		45-49
1092	27		1	32	484	511	66			40-44
894	22		1	57	725	111				35-39
104	3			50	54					30-34
1	0			1						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		0	4	39	28	10	11	7	
	N		2	164	1564	1099	402	454	294	

FIGURE C-90

ARMY NATIONAL GUARD - E7 (PART-TIME) N = 13,179

N	%									AGE
1064	8			4	153	232	140	218	317	55+
1587	12	1	4	55	391	431	265	362	78	50-54
2061	16	2	6	192	762	614	310	175		45-49
3368	26	2	39	436	1616	1197	77	1		40-44
3763	29	6	55	774	2637	291				35-39
1113	8		57	769	287					30-34
216	2	1	96	119						25-29
7	0		7							20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	2	18	44	21	6	6	3	
	N	12	264	2349	5846	2765	792	756	395	

FIGURE C-91

ARMY NATIONAL GUARD - E9 (TECHNICIANS) N = 463

N	%									AGE
146	32					2	9	23	112	55+
176	38					3	16	120	37	50-54
82	18					7	41	34		45-49
44	10				4	31				40-44
15	3				9	6				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	

149

FIGURE C-92

ARMY NATIONAL GUARD - E8 (TECHNICIANS) N = 1,665

N	%									AGE
236	14	#387	23			1	20	73	147	146	45-49
316	19			9	45	229	33			40-44
247	15			9	185	53				35-39
29	2			13	16					30-34
2	0			2						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			2	17	23	14	28	15	
	N			35	278	391	239	467	255	

FIGURE C-93

ARMY NATIONAL GUARD - E7 (TECHNICIANS) N = 4,127

N	%									AGE
357	9			5	8	32	51	73	188	55+
662	16			7	30	48	120	358	99	50-54
754	18			28	60	183	294	189		45-49
988	24		5	43	222	652	66			40-44
979	24		6	89	743	141				35-39
329	8		17	210	102					30-34
57	1		19	38						25-29
1	0		1							20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	10	28	26	13	15	7	
	N		48	420	1165	1056	531	620	287	

FIGURE C-94

ARMY NATIONAL GUARD - E9 (ACTIVE GUARD/RESERVE) N = 272

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
50	18					1	3	16	30	55+
61	22				2	4	11	32	12	50-54
61	22				2	23	22	14		45-49
61	22				4	50	7			40-44
38	14				27	11				35-39
1	0				1					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				13	33	16	23	15	
	N				36	89	43	62	62	

FIGURE C-95

ARMY NATIONAL GUARD - 8 (ACTIVE GUARD/RESERVE) N = 942

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
41	4				4	5	7	10	15	55+
115	12				16	23	19	43	14	50-54
168	18			3	36	60	47	21	1	45-49
265	28			14	107	122	22			40-44
291	31			35	232	23				35-39
61	6			38	23					30-34
1	0			1						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			10	44	25	10	8	3	
	N			91	418	233	95	74	30	

FIGURE C-96

ARMY NATIONAL GUARD - E7 (ACTIVE GUARD/RESERVE) N = 5,646

N	%									AGE
149	3			2	16	26	20	31	54	55+
296	5			16	62	77	49	77	15	50-54
660	12		2	89	188	175	147	59		45-49
1311	23		20	222	573	452	44			40-44
1958	35	2	51	516	1264	125				35-39
993	18	1	82	690	220					30-34
273	5	1	136							25-29
6	0		5						1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	5	30	41	15	5	3	1	
	N	4	296	1671	2323	855	260	167	70	

FIGURE C-97

ARMY RESERVE - E9 (PART-TIME) N = 1,351

N	%									AGE
198	15	2			10	19	32	77	58	55+
357	26			1	13	33	102	198	10	50-54
350	26		2		29	117	129	72	1	45-49
301	22		1		89	188	23			40-44
126	9				89	35				35-39
4	0	1			3					30-34
1	0		1							25-29
14	1	9	1		1	2		1		20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	0	0	17	29	21	26	5	
	N	12	5	1	234	394	286	348	71	

FIGURE C-98

ARMY RESERVE - E8 (PART-TIME) N = 5,629

N	%									AGE
354	6	2	2	1	60	95	53	69	72	55+
689	12	4	2	9	151	186	185	143	9	50-54
1131	20	3	8	46	330	372	270	98	4	45-49
1752	31	2	5	64	885	750	45		1	40-44
1530	27	2	2	113	1237	174			2	35-39
130	2			75	54				1	30-34
										25-29
43	1	5	4	3	6	7	3	1	14	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	0	6	48	28	10	6	2	
	N	18	23	311	2723	1584	556	311	103	

FIGURE C-99

ARMY RESERVE - E7 (PART-TIME) N = 15,820

N	%									AGE
483	3	4	2	10	143	163	88	25	48	55+
1171	7	3	5	61	451	386	197	58	10	50-54
2078	13	12	16	284	924	565	243	27	7	45-49
4127	26	12	81	699	2217	1052	52		14	40-44
5601	35	14	120	1269	3957	231			10	35-39
1789	11	12	149	1300	321				7	30-34
373	2	6	150	217						25-29
198	1	34	24	13	40	17	7	1	62	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	1	3	24	51	15	4	1	1	
	N	97	547	3853	8053	2414	587	111	158	

FIGURE C-100

ARMY RESERVE - E9 (TECHNICIANS) N = 155

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
28	18				1	3	5	17	2	55+
45	29				2	3	8	30	2	50-54
45	29				2	8	22	13		45-49
25	16				2	21	2			40-44
11	7				6	5				35-39
										30-34
										25-29
									1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				8	26	24	39	3	
	N				13	40	37	60	5	

FIGURE C-101

ARMY RESERVE - E8 (TECHNICIANS) N = 389

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
40	10				9	14	13	4		55+
57	15			2	5	15	19	14	2	50-54
87	22	1	1	3	17	24	32	9		45-49
105	27			3	28	69	5			40-44
94	24			4	74	16				35-39
5	1			4	1					30-34
										25-29
1	1				1					20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	0	4	35	35	18	7	1	
	N	1	1	16	135	138	69	27	2	

FIGURE C-102

ARMY RESERVE - E7 (TECHNICIANS) N = 733

N	%									AGE
20	3			1	5	11	3			55+
60	8			1	12	23	20	4		50-54
106	14		2	11	28	41	23	1		45-49
201	27	1	2	30	93	69	6			40-44
244	33	1	8	49	174	11			1	35-39
84	11	1	5	60	18					30-34
13	2		3	10						25-29
5	1		2	1				1	1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	3	22	45	21	7	1	0	
	N	3	22	163	330	155	52	6	2	

FIGURE C-103

ARMY RESERVE - E9 (ACTIVE GUARD/RESERVE) N = 92

N	%									AGE
28	30						1	11	16	55+
22	24					2	2	16	2	50-54
18	20					4	11	3		45-49
17	18				2	12	3			40-44
7	8				3	4				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				5	24	18	33	20	
	N				5	22	17	30	18	

FIGURE C-104

ARMY RESERVE - E8 (ACTIVE GUARD/RESERVE) N = 646

N	%									AGE
38	6				3	8	6	6	15	55+
72	11				7	28	11	25	1	50-54
128	20			1	32	53	34	7	1	45-49
184	28			4	75	95	10			40-44
203	31			9	164	30				35-39
20	3			11	9					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			4	45	33	9	6	3	
	N			25	290	215	61	38	17	

FIGURE C-105

ARMY RESERVE - E7 (ACTIVE GUARD/RESERVE) N = 3,044

N	%									AGE
85	3				14	22	10	19	20	55+
195	6		1	9	57	65	30	31	2	50-54
356	12		3	66	127	96	54	10		45-49
714	23		23	173	352	153	13			40-44
1044	34	1	28	242	720	53				35-39
559	18	1	45	416	95				2	30-34
86	3	1	26	59						25-29
5	0		3		1				1	20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	4	32	45	13	4	2	1	
	N	3	129	965	1366	389	107	60	25	

FIGURE C-106

NAVAL RESERVE - E9 (PART-TIME) N = 563

N	%									AGE
102	18				1	5	17	22	57	55+
138	24					5	20	96	18	50-54
131	23				5	24	67	35		45-49
134	24				3	99	32			40-44
57	10				27	30				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				6	29	24	27	13	
	N				36	163	136	153	75	

FIGURE C-107

NAVAL RESERVE - E8 (PART-TIME) N = 1,359

N	%									AGE
153	12			1	3	23	32	30	64	55+
238	17			3	6	28	51	120	30	50-54
226	17			6	21	47	112	40		45-49
412	31			5	65	291	51			40-44
295	22		1	7	215	72				35-39
30	2			13	17					30-34
										25-29
				1	1	2	1			20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	3	24	34	18	14	7	
	N		0	36	328	463	247	190	94	

FIGURE C-108

NAVAL RESERVE - E7 (PART-TIME) N = 5,743

N	%									AGE
267	5			9	36	60	100	35	27	55+
527	9			37	91	96	148	137	18	50-54
925	16		13	61	134	257	357	103		45-49
1696	30		15	95	443	964	179			40-44
1636	28		17	176	1160	283				35-39
569	10		13	413	143					30-34
104	2		29	75						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		1	15	35	29	14	5	1	
	N		87	872	2012	1667	785	275	45	

FIGURE C-109

NAVAL RESERVE - E9 (ACTIVE GUARD/RESERVE (TAR)) N = 143

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
3	2						1		2	55+
7	5						2	3	2	50-54
33	22					5	20	8		45-49
74	52				2	47	25			40-44
26	18				15	11				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				12	44	34	8	3	
	N				17	63	48	11	4	

FIGURE C-110

NAVAL RESERVE - E8 (ACTIVE GUARD/RESERVE (TAR)) N = 356

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
4	1								4	55+
15	4					1	3	10	1	50-54
36	10					7	25	4		45-49
128	36				17	96	15			40-44
156	45				95	64				35-39
14	4			4	10					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			1	34	47	12	4	1	
	N			4	122	168	43	14	5	

FIGURE C-111

NAVAL RESERVE - E7 (ACTIVE GUARD/RESERVE (TAR)) N = 1,463

N	%									AGE
8	1					1		1	6	55+
29	2			1	2	3	5	16	2	50-54
89	6			3	12	23	42	9		45-49
388	27			7	87	266	28			40-44
681	47			30	500	151				35-39
253	17			159	94					30-34
15	1		2	11	2					25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		0	14	48	30	5	2	1	
	N		2	211	697	444	75	26	8	

FIGURE C-112

MARINE CORPS RESERVE - E9 (PART-TIME) N = 150

N	%	YOS 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
2	1						2			55+
18	12						8	10		50-54
74	49					11	54	9		45-49
52	35				1	34	17			40-44
4	3				2	2				35-39
										30-34
										25-29
										20-24
	%				2	31	54	13		
	N				3	47	81	19		

FIGURE C-113

MARINE CORPS RESERVE - E8 (PART-TIME) N = 418

N	%	YOS 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
6	1				1	4	1			55+
13	3				2	3	8			50-54
58	14				3	33	20	2		45-49
152	36				36	108	8			40-44
182	44			1	138	43				35-39
7	2				7					30-34
										25-29
										20-24
	%			0	45	46	9	0		
	N			1	187	191	37	2		

FIGURE C-114

MARINE CORPS RESERVE - E7 (PART-TIME) N = 1,026

N	%									AGE
4	0				2	1	1			55+
30	3				9	19	1	1		50-54
72	7			1	30	38	3			45-49
242	24			16	158	68				40-44
480	47			45	413	22				35-39
195	19			130	65					30-34
3	0			3						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			19	66	14	0	0		
	N			195	677	148	5	1		

FIGURE C-115

MARINE CORPS RESERVE - E9 (ACTIVE GUARD/RESERVE) N = 8

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
1	13							1		50-54
3	38					1	2			45-49
4	50					4				40-44
										35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%					63	25	13		
	N					5	2	1		

FIGURE C-116

MARINE CORPS RESERVE - E8 (ACTIVE GUARD/RESERVE) N = 24

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
										50-54
1	4				1					45-49
8	33				4	4				40-44
14	58				11	3				35-39
1	4				1					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				71	29				
	N				17	7				

FIGURE C-117

MARINE CORPS RESERVE - E7 (ACTIVE GUARD/RESERVE) N = 127

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
										55+
2	2					2				50-54
7	6				4	3				45-49
21	17			3	12	6				40-44
46	36			10	36					35-39
42	33			30	12					30-34
9	7		2	7						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		2	39	50	9				
	N		2	50	64	11				

FIGURE C-118

AIR NATIONAL GUARD - E9 (PART-TIME) N = 289

N	%									AGE
152	53					2	6	22	122	55+
58	20				1	3	4	45	5	50-54
46	16					8	20	18		45-49
30	10				4	23	3			40-44
3	1				3					35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				3	12	11	29	44	
	N				8	36	33	85	127	

FIGURE C-119

AIR NATIONAL GUARD - E8 (PART-TIME) N = 897

N	%									AGE
203	23				6	20	13	41	123	55+
174	19				11	38	24	90	11	50-54
202	23				19	65	75	43		45-49
190	21			3	60	115	12			40-44
118	13			5	88	25				35-39
10	1			6	4					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			2	21	29	14	19	15	
	N			14	188	263	124	174	134	

FIGURE C-120

AIR NATIONAL GUARD - E7 (PART-TIME) N = 5,624

N	%									AGE
455	8			1	41	87	68	105	153	55+
884	16			13	170	227	166	278	30	50-54
1080	19		1	39	278	344	288	130		45-49
1394	25		1	94	677	586	36			40-44
1366	24		3	195	1052	116				35-39
406	7		2	296	108					30-34
39	1		8	31						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		0	12	41	24	10	9	3	
	N		15	669	2326	1360	558	513	183	

FIGURE C-121

AIR NATIONAL GUARD - E9 (TECHNICIANS) N = 819

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
188	23						2	40	146	55+
385	47						27	285	73	50-54
175	21					13	74	88		45-49
52	6				1	38	13			40-44
19	2				13	6				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				2	7	14	50	27	
	N				14	57	116	413	219	

FIGURE C-122

AIR NATIONAL GUARD - E8 (TECHNICIANS) N = 1,848

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
182	10				1	5	8	45	123	55+
647	35				3	12	62	478	92	50-54
518	28				9	66	237	206		45-49
290	16			1	36	205	48			40-44
183	10			5	132	46				35-39
28	2			18	10					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			1	10	18	19	39	12	
	N			24	191	334	355	729	215	

FIGURE C-123

AIR NATIONAL GUARD - E7 (TECHNICIANS) N = 5,273

N	%									AGE
333	6				7	21	43	101	161	55+
1101	21			7	25	53	185	746	85	50-54
1366	26			26	53	252	645	390		45-49
1114	21		1	35	202	740	136			40-44
990	19		3	108	713	166				35-39
321	6		2	221	98					30-34
48	1		7	41						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		0	8	21	23	19	23	5	
	N		13	438	1098	1232	1009	1237	246	

FIGURE C-124

AIR NATIONAL GUARD - E9 (ACTIVE GUARD/RESERVE) N = 49

N	%									AGE
12	24							4	8	55+
11	22					1	1	7	2	50-54
12	24						9	3		45-49
11	22				1	10				40-44
3	6				1	2				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				4	27	20	29	20	
	N				2	13	10	14	10	

FIGURE C-125

AIR NATIONAL GUARD - E8 (ACTIVE GUARD/RESERVE) N = 247

N	%									AGE
21	9						2	3	16	55+
20	8				1	1	4	11	3	50-54
46	19			1	2	8	28	7		45-49
75	30				14	51	10			40-44
72	29			2	59	11				35-39
13	5			3	10					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			2	35	29	18	9	8	
	N			6	86	71	44	21	19	

FIGURE C-126

AIR NATIONAL GUARD - E7 (ACTIVE GUARD/RESERVE) N = 1,467

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
32	2				2	11	5	8	6	55+
92	6			1	9	19	23	37	3	50-54
166	11			8	40	44	49	25		45-49
341	23			29	134	159	19			40-44
512	35	1		85	372	54				35-39
274	19		6	196	72					30-34
50	3		9	41						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	1	25	43	20	7	5	1	
	N	1	15	360	629	287	96	70	9	

FIGURE C-127

AIR FORCE RESERVE - E9 (PART-TIME) N = 538

N	%									AGE
143	27				1	4	11	56	71	55+
175	33				6	20	28	107	14	50-54
108	20				5	28	51	24		45-49
70	13				17	46	7			40-44
39	7				23	16				35-39
3	1			1	2					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			0	10	21	18	35	16	
	N			1	54	114	97	187	85	

FIGURE C-128

AIR FORCE RESERVE - E8 (PART-TIME) N = 1,369

N	%									AGE
197	14				6	29	26	64	72	55+
300	22			2	25	47	63	150	13	50-54
273	20			4	52	65	107	45		45-49
329	24			7	112	182	28			40-44
233	17			17	184	32				35-39
37	3			12	25					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			3	30	26	16	19	6	
	N			42	404	355	224	259	85	

FIGURE C-129

AIR FORCE RESERVE - E7 (PART-TIME) N = 5,877

N	%									AGE
419	7			2	49	62	72	111	123	55+
760	13			20	162	154	123	268	33	50-54
896	15		4	73	296	248	200	75		45-49
1374	23		9	176	647	490	52			40-44
1602	27	1	16	333	1126	126				35-39
718	12		35	533	150					30-34
108	2		30	78						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%	0	2	21	41	18	8	8	3	
	N	1	94	1215	2430	1080	447	454	156	

FIGURE C-130

AIR FORCE RESERVE - E9 (TECHNICIANS) N = 288

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
42	15					1	5	24	12	55+
111	39				3	4	11	85	8	50-54
53	18					10	28	15		45-49
54	19				8	37	9			40-44
25	9			1	14	10				35-39
3	1				3					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			0	10	22	18	43	7	
	N			1	28	62	53	124	20	

FIGURE C-131

AIR FORCE RESERVE - E8 (TECHNICIANS) N = 466

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
44	9				2	2	6	27	7	55+
118	25				2	9	25	71	11	50-54
89	19			6	16	17	37	13		45-49
113	24			5	20	77	11			40-44
86	18			9	51	26				35-39
15	3			11	4					30-34
1	0			1						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			7	20	28	17	24	4	
	N			32	95	131	79	111	18	

FIGURE C-132

AIR FORCE RESERVE - E7 (TECHNICIANS) N = 1,801

N	%									AGE
104	6				6	8	21	45	24	55+
317	18			3	20	33	74	172	15	50-54
261	14			20	28	64	104	45		45-49
367	20		5	36	97	203	26			40-44
435	24		4	97	276	58				35-39
289	16		13	223	53					30-34
28	2		13	15						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		2	22	27	20	12	15	2	
	N		35	394	480	366	225	262	39	

FIGURE C-133

AIR FORCE RESERVE - E9 (ACTIVE GUARD/RESERVE) N = 23

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
3	13				1		1		1	55+
7	30				1	1	1	3	1	50-54
5	22					2	3			45-49
4	17				1	3				40-44
4	17				3	1				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				26	30	22	13	9	
	N				6	7	5	3	2	

FIGURE C-134

AIR FORCE RESERVE - E8 (ACTIVE GUARD/RESERVE) N = 95

N	%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	AGE
4	4					2	1		1	55+
19	20				3	2	2	10	2	50-54
17	18				3	3	10	1		45-49
23	24				6	13	4			40-44
24	25			3	18	3				35-39
8	8			5	3					30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			8	35	24	18	12	3	
	N			8	33	23	17	11	3	

FIGURE C-135

AIR FORCE RESERVE - E7 (ACTIVE GUARD/RESERVE) N = 146

N	%									AGE
4	3					1	1	1	1	55+
17	12			1	6	3	2	3	2	50-54
16	11		1	2	4	6	2	1		45-49
38	26		1	7	21	8	1			40-44
35	24		4	12	17	2				35-39
29	20		1	25	3					30-34
7	5		2	5						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		6	36	35	14	4	3	2	
	N		9	52	51	20	6	5	3	

FIGURE C-136

COAST GUARD RESERVE - E9 (PART-TIME) N = 151

N	%									AGE
22	15					2	5	10	5	55+
41	27				2	3	7	27	2	50-54
51	34				2	10	32	7		45-49
27	18				5	16	6			40-44
10	7				7	3				35-39
										30-34
										25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%				11	23	33	29	5	
	N				16	34	50	44	7	

FIGURE C-137

COAST GUARD RESERVE - E8 (PART-TIME) N = 212

N	%									AGE
32	15				4	7	7	8	6	55+
34	16				4	8	5	16	1	50-54
58	27				4	16	31	7		45-49
47	22			3	17	26	1			40-44
34	16			4	23	7				35-39
6	3			3	3					30-34
1	0			1						25-29
										20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%			5	26	30	21	15	3	
	N			11	55	64	44	31	7	

FIGURE C-138

COAST GUARD RESERVE - E7 (PART-TIME) N = 809

N	%									AGE
60	7			1	16	16	8	15	4	55+
127	16			9	36	35	14	33		50-54
181	22			19	59	54	39	10		45-49
184	23		1	35	80	64	4			40-44
171	21		6	37	109	19				35-39
66	8		5	46	15					30-34
19	2		6	13						25-29
1	0		1							20-24
	YOS	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
	%		2	20	39	23	8	7	0	
	N		19	160	315	188	65	58	4	

FIGURE C-139

Appendix D. EXTRACT OF THE HAY/HUGGINS REPORT: BENEFITS PROVIDED BY EMPLOYERS OF PERSONNEL IN THE SELECTED RESERVES

The following is a series of extracts from portions of the Hay/Huggins report that concern reserve retirement and related benefits. The full text of the report will be appended to the report of the 6th QRMC. Explanatory comments added by the 6th QRMC staff are bracketed [].

I. Hay/Huggins Benefits Comparison

Hay/Huggins conducts an annual survey of employers throughout the country. The survey, called the Hay/Huggins Benefits Comparison, includes participants from all industry groups and geographical areas. The survey concentrates on medium and large organizations and includes questions concerning insurance plans, pension plans, capital accumulation plans, annual and sick leave, and executive perquisites. Data for this study was drawn for specific groups from the 912 employers reporting in the 1986 HHBC.

The survey information is used to measure the total benefit value for each of the organizations in the survey. The Hay/Huggins Benefits Value Comparison (BVC) is used to perform a quantitative analysis of the value of the benefits provided by the employer. The unit of measure is (a) the rate of expected use of a benefit times (b) the expected value of the benefit times (c) the duration of receipt of the benefit. For instance, the disability value is determined by multiplying (a) the expected rate of disability by (b) the expected annual benefit by (c) the expected number of years on the disability rolls.

...

II. Benefits from Reserve Status

...

Five benefits were determined to be of significant monetary value to the reserve force members and were included in the calculation of the average value of benefits. The first and

most important benefit is the number of additional points earned toward retirement credit. Details on the calculation of the retirement value are provided below.

...

Retirement plan points are accumulated for active duty, for drills, for other instruction, and for certain other services provided to the government by the reserve force members. The reserve force member who accumulates 50 such points annually for 20 years becomes eligible for retirement benefits [at age 60]. The 20 years need not be consecutive. The benefit amount is based on both current basic salary and the total number of points accumulated. For purposes of this calculation, all points [subject to certain annual caps] earned are counted, including points earned in years in which the reservist did not accumulate 50 points. The benefit provided is 2.5 percent of active duty basic pay for every 360 points. Total retirement pay may not exceed 75 percent of active duty basic pay.

...

The BVC uses the normal cost of a retirement system to measure the value of the benefit as a percentage of salary. The reserve-specific normal cost calculated by the Office of the Actuary of the Department of Defense was used as the base for the BVC calculation. The Office reports that the military normal cost is 26.4 percent of covered payroll in 1987 and will decline eventually to 22.8 percent of covered payroll. The 22.8 percent will be the normal cost when all of the reserve force members are subject to the retirement plan changes enacted in July 1986 for members first entering on or after August 1, 1986 (Military Retirement Reform Act of 1986).

If there is more than one retirement plan, the BVC measures the cost of the plan that will apply to new employees, since one of the purposes of the analysis is to determine the effect that benefits programs will have on recruiting new personnel. Therefore, it is appropriate to base the BVC analysis on the ultimate 22.8 percent normal cost. [For new military entrants on or after August 1, 1986].

The normal cost was adjusted to reflect the economic assumptions used in the BVC. Actuaries for different employers use different sets of assumptions based on the unique characteristics of the benefits, investments, and funding philosophy of the specific plan. The BVC uses a standard yardstick based on a set of assumptions that are the approximate average of actuarial assumptions in the private sector. The demographic assumptions, such as the UP-1984 mortality table used in the BVC, were not adjusted since they create marginal differences.

The differences in assumptions were applied against the baseline cost of 22.8 percent to produce a BVC cost of 18.8 percent of covered payroll for military retirement. The average cost of retirement benefits in the private sector is 13 percent of salary. The 13 percent includes the value of pension plans (see Table XI) [not provided here] and capital accumulation plans (see Table XII) [not provided here] since the latter are primarily tax-deferred income to be used for retirement income.

It is important to understand that the BVC assumptions are used in this study to standardize the measurement of the benefits systems. The set of assumptions used by the DoD has been established as the most appropriate for funding of the military retirement system. The differences in economic assumptions are:

	Department of Defense	BVC
Annual Inflation	5.0%	4.0%
Annual salary scale increase	6.2%	6.0%
Annual investment	6.6%	7.0%

[It is important to note that Hay/Huggins did not recalculate the normal cost based on total compensation. Since military basic pay represents only about 70 percent of total military monetary compensation, applying the NCP to total monetary compensation, as is done in the civilian sector, would decrease the NCP even further. If all reserve retirement credit were earned during paid periods, this would also decrease the recomputed NCP.]

III. Employer-Provided Benefits Values

...

The second most valuable part of the benefits package is the pension benefit. [The first is paid vacation and holidays.] The great majority of employers provide a basic retirement package and an increasing number provide capital accumulation plans which, under current tax law, are primarily intended to supplement retirement income. Graphs XI and XII show the value of the pension and capital accumulation plans. The third leg of retirement income, Social Security, is included in the calculation of statutory benefits.

Pension benefits increase by pay levels, as a percentage of salary, because many plans are integrated with Social Security to provide relatively higher benefits at higher pay levels. The values are slightly higher at the mid-pay levels for small employers than they are for the large employers at the middle pay levels, but the values are almost identical at both low and

high pay levels. The prevalence tables show that 90 percent of large and 75 percent of small employers provide pension plans and that 59 percent of small and 72 percent of large employers integrate these with Social Security. The BVC includes the value of inflation adjustments whether provided as a formal part of the plan or on an ad hoc basis.

The most valuable benefit provided by an employer is usually the leave provided for vacations and holidays. Typical practice is to provide 9 to 12 holidays a year and from 10 days vacation for new employees to 25 days for long-term employees. The cumulative value of these benefits, together with a small addition for employer-provided cafeterias, is about 11 percent of salary.

...

PREVALENCE OF BENEFIT PRACTICES*
(EXTRACTED FROM APPENDIX A - PREVALENCE OF BENEFITS)

RETIREMENT BENEFITS	1-500 Domestic Employees	Greater than 500 Domestic Employees
PENSION PLAN	75% have a plan	90% have a plan
Eligibility	50% have a minimum age of 21 and a minimum service of one year 16% have immediate eligibility 13% other 11% have minimum service of one year or less	44% have minimum age of 21 minimum service of one year 25% have immediate eligibility 15% have minimum service of one year or less
Cost	92% are employer-paid 8% require employee contributions	88% are employer-paid 12% require employee contributions
Vesting	50% have full vesting after 10 years of service 22% have other types of graded vesting schedules 10% have graded vesting with 25% at 5 years and 100% after 15 years	74% have full vesting after 10 years of service 13% have other types of graded vesting schedules 7% have graded vesting with 25% at 5 years and 100% after 15 years
Basis of Benefit	78% are final average pay plans 20% are money purchase plans	83% are final average pay plans
Basis of Final Average	82% use highest or final 5 years	77% use highest or final 5 years

RETIREMENT BENEFITS	1-500 Domestic Employees	Greater than 500 Domestic Employees
Formula (Final Pay Plans)	39% provide a uniform percentage of final average pay; of these, 30% provide 1.5-1.75% per year of service 24% provide 2% per year of service 24% provide 1.5% per year 17% provide a step-rate plan, where the percentage per year of service varies with compensation level 15% provide a flat percentage after a specified number of years of service 11% provide percentages that vary according to years of service; of these, the prevalent practice is to provide 2% per year up to 25 years and 1% per year thereafter	45% provide a uniform percentage of final average pay; of these, 52% provide 1.5-1.75% per year of service 27% provide 1.76%-2% per year of service 19% provide percentages that vary according to years of service; of these, the prevalent practice is to provide 2% per year up to 25 years and 1% per year thereafter 14% provide a step-rate plan, where the percentage per year of service varies with compensation level 11% provide a flat percentage after a specified number of years of service
Covered Compensation (Based on bonus paying companies)	30% credit bonuses as compensation	51% credit bonuses as compensation
Social Security Offset	59% have direct Social Security offset; of these, 52% offset 50% after 30 years 26% offset < 50% after 30 years 22% offset > 50% after 30 years	72% have direct Social Security offset; of these, 53% offset 50% after 30 years 31% offset < 50% after 30 years 16% offset > 50% after 30 years
Early Retirement	59% permit reduced early retirement pensions only 19% permit both reduced and unreduced early retirement pensions 19% are money purchase plans 2% permit unreduced early retirement pensions only	47% permit reduced early retirement pensions only 46% permit both reduced and unreduced early retirement pensions 1% permit unreduced early retirement pensions only
Disability Provisions	51% allow service to accrue during disability 46% have an immediate disability pension	63% allow service to accrue during disability 34% have an immediate disability pension

RETIREMENT BENEFITS	1-500 Domestic Employees	Greater than 500 Domestic Employees
Pre-Retirement Death Benefit		
(i) Death in Active Service Before Fully Vested	78% do not provide a benefit	86% do not provide a benefit
(ii) Death in Active Service After Becoming Fully Vested	65% the REA death benefit is paid for by the plan	72% the REA death benefit is paid for by the plan
Payment Provisions		
(i) Single Employees	83% provide life income to unmarried retirees 11% provide life income with 10 years certain	82% provide life income to unmarried retirees 7% provide life income with 10 years certain
(ii) Married Employees	87% provide an actuarially reduced 50% joint and survivor annuity to married retirees	88% provide an actuarially reduced 50% joint and survivor annuity to married retirees
Cost-of-Living Adjustments	34% have given COLAs	61% have given COLAs
(i) Type of COLA	52% gave no COLAs on ad hoc basis 30% gave COLAs by plan provision 18% gave COLAs by plan amendment	47% gave no COLAs on ad hoc basis 37% gave COLAs by plan amendment 14% gave COLAs by plan provision
(ii) Total Increase for 1/1/80 retirees as of 1/1/87	32% gave 20.13%-30% 27% gave 10% or less 17% gave 20.1% or less 13% gave 10.1%-20% 11% gave 30.1-40%	25% gave 10.1%-20% 23% gave 10% or less 22% gave 20.1%-30% 11% gave 30.1%-40% 9% gave over 40%
Supplemental Executive Pension Plans	7% provide supplement executive retirement plan (SERP) 4% provide excess benefit plans (designed to restore reduction due to TERFA maximum) 1% provide a combination	23% provide excess benefit plans (designed to restore reduction due to TEFRA maximum) 13% provide supplemental executive retirement plan (SERP) 10% provide a combination

RETIREMENT BENEFITS	1-500 Domestic Employees	Greater than 500 Domestic Employees
(i) Benefit Income Objective		58% specify a benefit income objective; of these, 32% are 41%-55% of final salary 26% are over 60% of final salary *22% are 60% of final salary* 42% do not specify a benefit income objective
(ii) Benefits from Qualified Plan		85% include benefits under the qualified plan in meeting the benefit income objective
(iii) Final Salary		59% use final or highest 5 years 28% use final or highest 3 years
CAPITAL ACCUMULATION		
401(k) Thrift/Matching Stock Purchase Plan	32% have plan	53% have plan
(i) Maximum Employee Contribution Matched by Employer	52% permit maximum contribution matched by of 6% 15% permit maximum contribution of 5% 15% permit maximum contribution of 4% 12% permit maximum contribution of 3%	56% permit maximum contribution of 6% 15% permit maximum contribution of 5% 12% permit maximum contribution of 4% 6% permit maximum contribution of 3%
(ii) Employer Matching as Percent of Employee Contribution	86% match by a specified percentage; of these, 63% match 50% of the *employee's contribution* 14% match 100% of the employee's contribution, 9% match 75% of the employee's contribution	83% match by a specified percentage; of these, 50% match 50% of the employee's contribution 17% match 100% of the employee's contribution 13% match 51% - 99% of the employee's contribution 12% match 25% of the employee's contribution 12% match varies based on profits

RETIREMENT BENEFITS	1-500 Domestic Employees	Greater than 500 Domestic Employees
(iii) Covered Compensation (based on bonus paying companies)	31% credit bonuses as compensation	40% credit bonuses as compensation
(iv) Vesting	38% are full and immediate 32% are grades with full vesting based on years of service; of these, 72% full vesting occurs after 5 years 21% full vesting occurs after 10 years 7% full vesting occurs after 1-4 years 24% are grades with full vesting based on years of class participation	31% are grades with full vesting based on years of service; of these, 50% full vesting occurs after 5 years 24% full vesting occurs after 6-10 years 24% full vesting occurs after 1-4 years 30% are full and immediate 25% are years of plan participation
Thrift/Matching Stock Purchase Plan	6% have plan	9% have plan
401(k) Profit Sharing/Stock Bonus Plan	2% have plan	6% have plan
Profit Sharing Reduction	16% have plan	12% have plan
401(k) Salary Reduction Only Plan	8% have no plan	10% have plan
Employee Stock Ownership Plan (ESOP)	1% have plan*	5% have plan**

* 41 percent of the comparator organizations are stockholder companies.
** 66 percent of the comparator organizations are stockholder companies.

Appendix E. COSTING OF ALTERNATIVE RETIREMENT SYSTEMS BY THE DOD ACTUARY

The figures presented in this appendix graphically portray the projected cost of the current system and alternatives to the current system that have been proposed in the past, or were in the final group of alternatives considered by the 6th QRMC.

The system costs for accruals and outlays are presented first in constant (1988) dollars, and then in inflated dollars. The alternatives are contrasted to the current system in each presentation. Additionally, for each alternative, this appendix provides a graphic representation of the percentage change (delta) in accruals and outlays from the current system projections.

Many of the alternatives were costed under various transition and grandfathering assumptions. In most cases, the difference in projected costs for the various assumptions of the same alternative did not produce significant differences in the projected costs. Therefore, the most likely set of transition and grandfathering assumptions for each alternative has been included.

The costing model used by the DoD Actuary to cost the alternatives held retention rates and the officer/enlisted mix constant with the current system for comparison, varying the estimated average years of service and retirement point accumulations for members who actually achieve retirement. Average years of service assumptions were based, in part, upon the RAND Dynamic Retention Model (Selected Reserve part-time members only) and assumptions regarding the actions of retirement eligible members in non-pay billets and the IRR.

An average increase/decrease in accumulated retirement points of 75 points for each year of service added or subtracted from the current system average was assumed. Considering the level of participation by senior members as indicated in Appendix B, this assumption will tend to underestimate savings from those alternatives which decrease average years of service and underestimate additional expense from those that increase average years of service.

The increase/decrease in costs are for the retirement system only, and do not include additional expenses or savings associated with increased or decreased accession requirements. These costs are described in Chapter 6.

Alternative Key:

Alternative	Average YOS at Retirement Off/Enl	Title
Current	29/33	Base Case for Each Graph
3A	29/33	No Retirement (Avg YOS applies to Grandfathered members only)
4A	29/33	Lump Sum at Age 60 (Earlier payments would produce similar results in an earlier fiscal year)
5A	25/25	Actuarially Neutral Early Annuity Option
6E	26/27	Two-Tier Age Based Annuity Option
7B	26/27	Two-Tier YOS Based Annuity Option
8A	29/33	System Modification developed in 1985 for the Military Retirement Reform Act, not enacted

These alternatives are discussed in detail in Chapter 6. The DoD Actuary assumes 5 percent long-term inflation, 6.2 percent long-term nominal military wage growth, and 6.6 percent nominal interest on the Military Retirement Trust Fund.

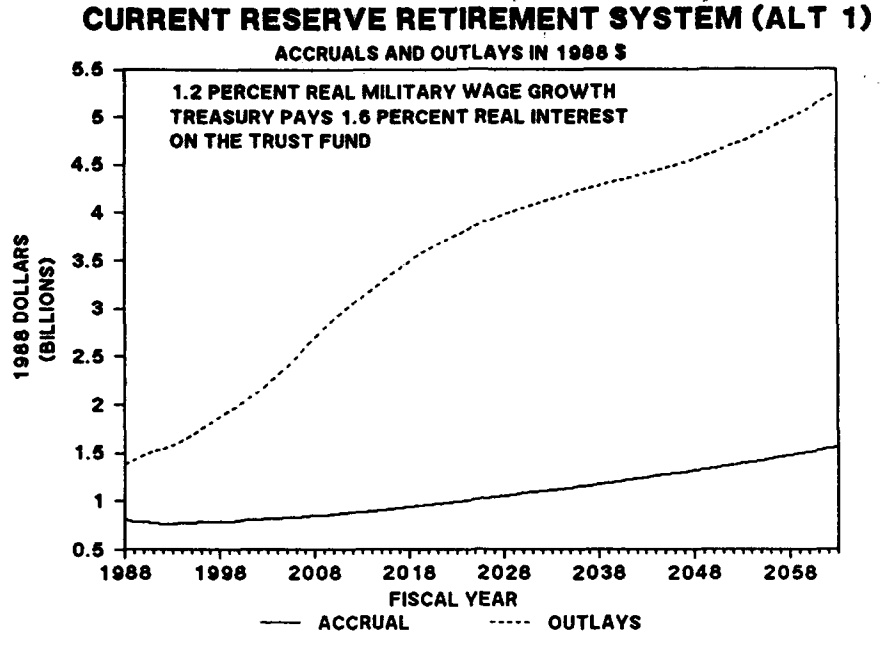


FIGURE E-1

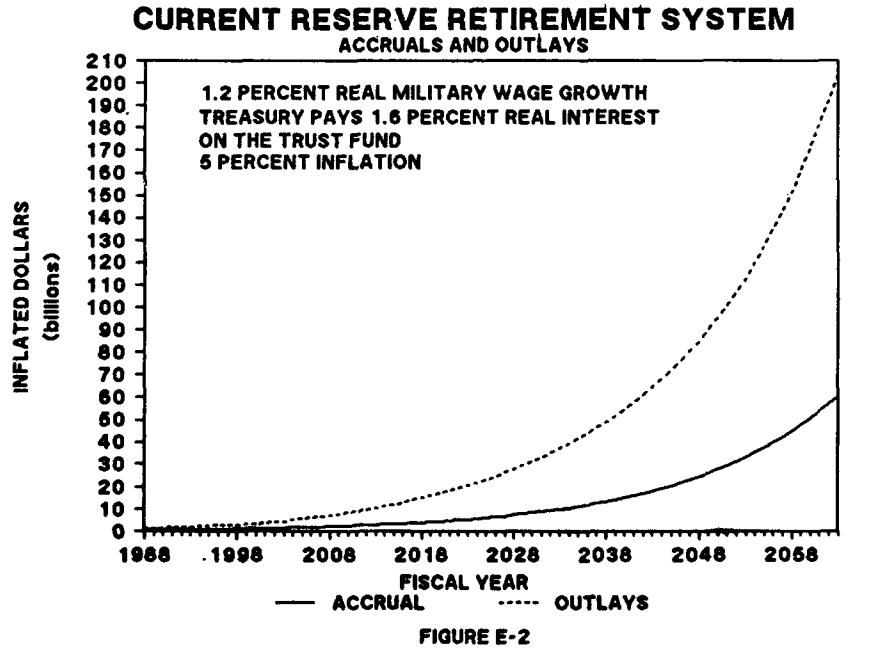


FIGURE E-2

ELIMINATION OF RESERVE RETIREMENT (ALT 3A)

ACCRUALS AND OUTLAYS IN 1988 $

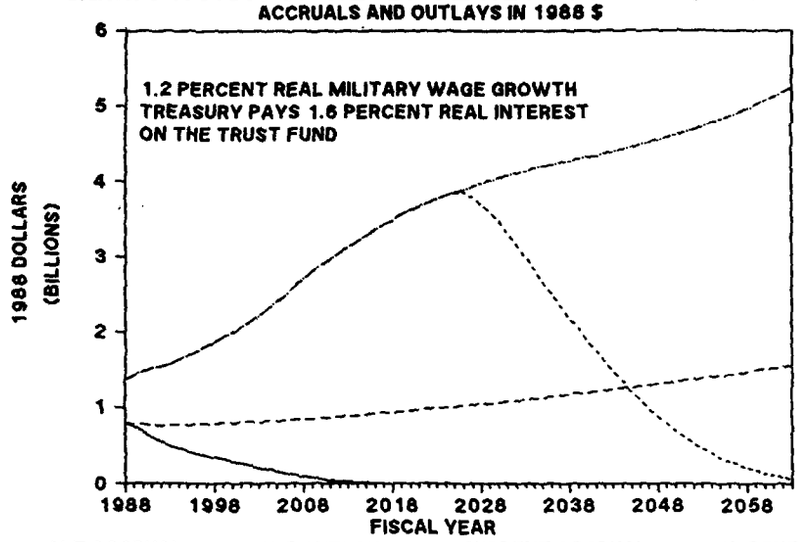


FIGURE E-3

ELIMINATION OF RESERVE RETIREMENT (ALT3A)

ACCRUALS AND OUTLAYS

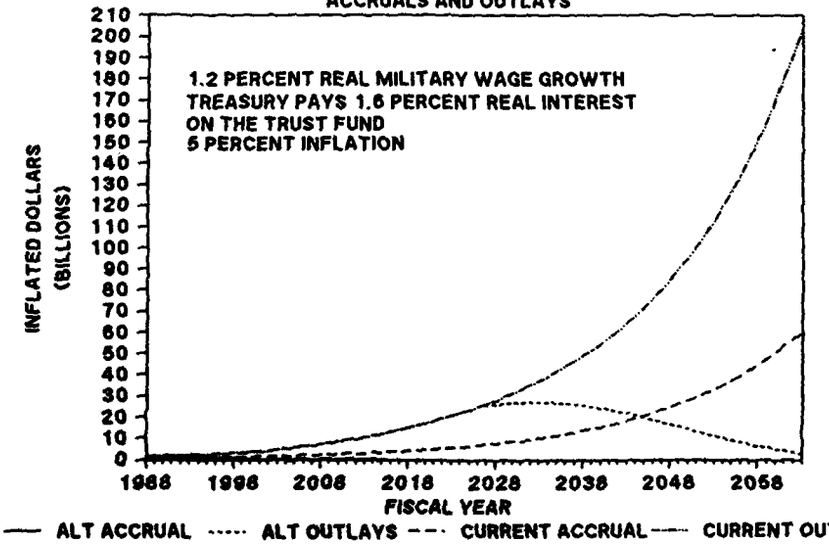


FIGURE E-4

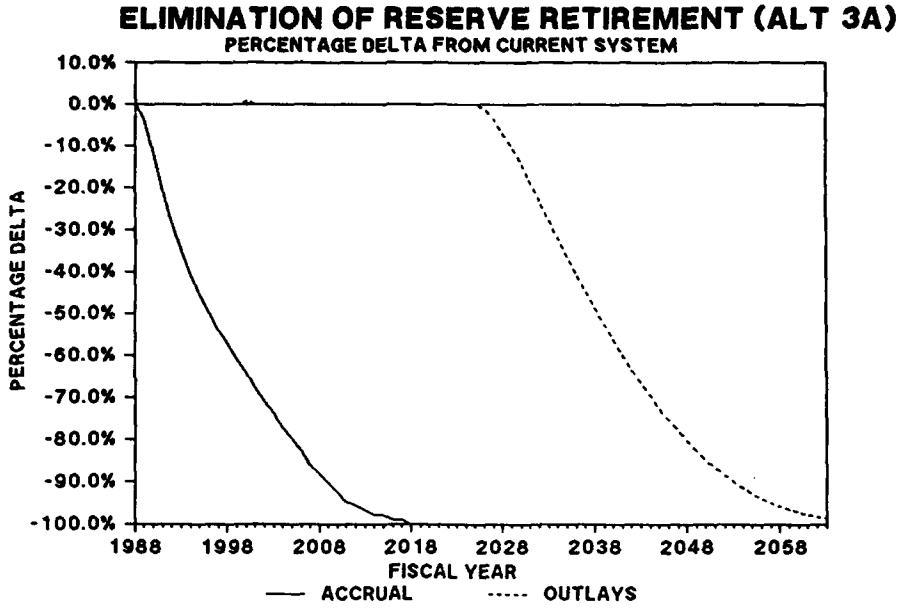

ELIMINATION OF RESERVE RETIREMENT (ALT 3A)
PERCENTAGE DELTA FROM CURRENT SYSTEM
10.0%
0.0%
-10.0%
-20.0%
-30.0%
-40.0%
-50.0%
-60.0%
-70.0%
-80.0%
-90.0%
-100.0%
PERCENTAGE DELTA
1988
1998
2008
2018
2028
2038
2048
2058
FISCAL YEAR
ACCRUAL
OUTLAYS

FIGURE E-5

LUMP SUM RETIREMENT [NEW ENTRANTS] (ALT 4A)

ACCRUALS AND OUTLAYS IN 1988 $

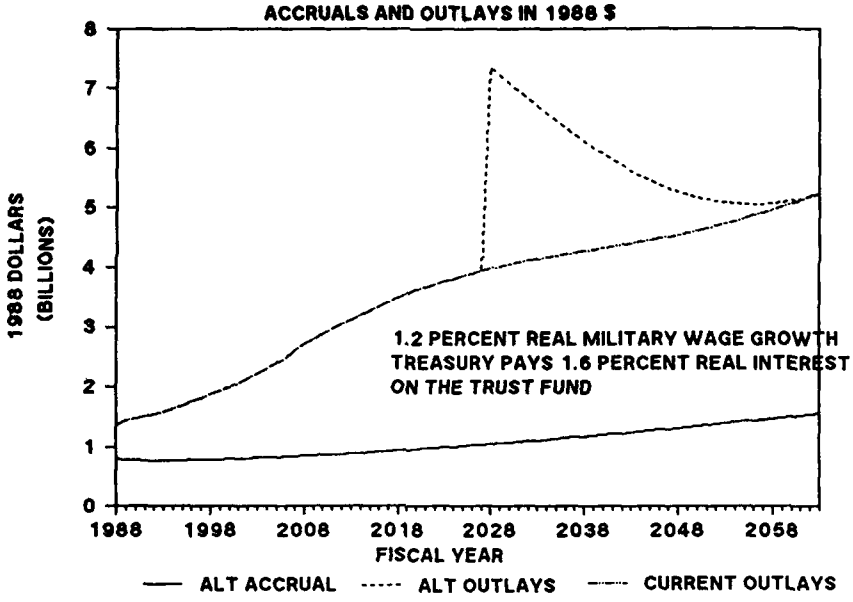


FIGURE E-6

LUMP SUM RETIREMENT [NEW ENTRANTS] (ALT 4A)

ACCRUALS AND OUTLAYS

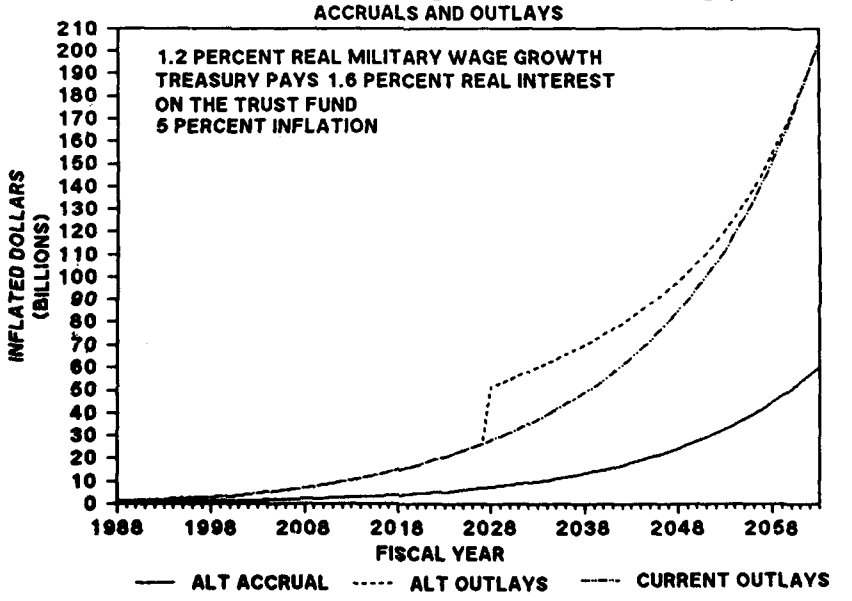


FIGURE E-7

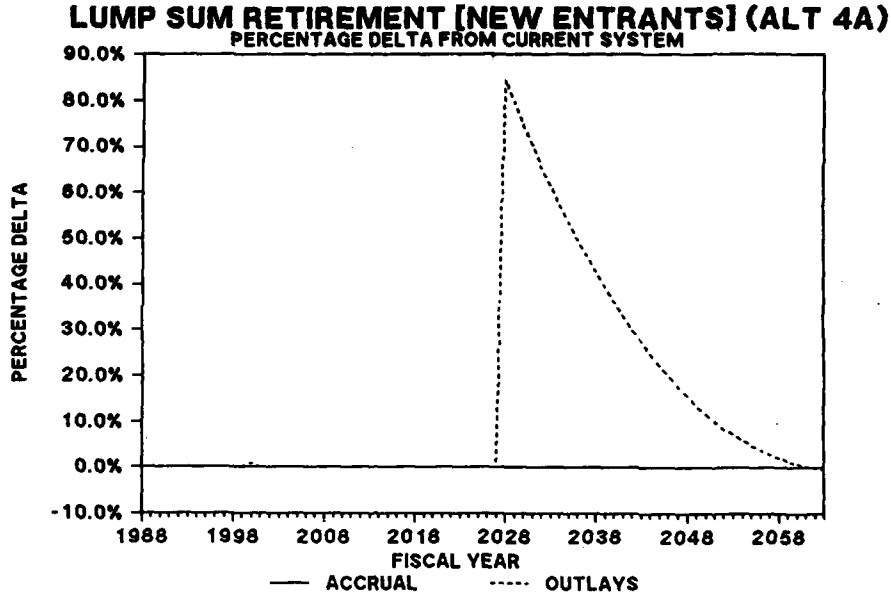

LUMP SUM RETIREMENT [NEW ENTRANTS] (ALT 4A)
PERCENTAGE DELTA FROM CURRENT SYSTEM
PERCENTAGE DELTA
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
-10.0%
1988
1998
2008
2018
2028
2038
2048
2058
FISCAL YEAR
ACCRUAL
OUTLAYS

FIGURE E-8

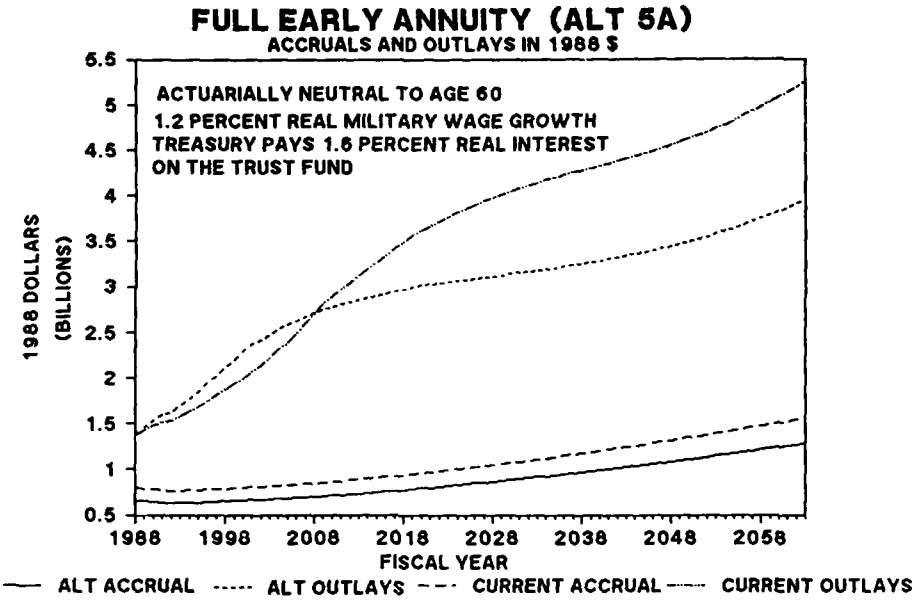


FIGURE E-9

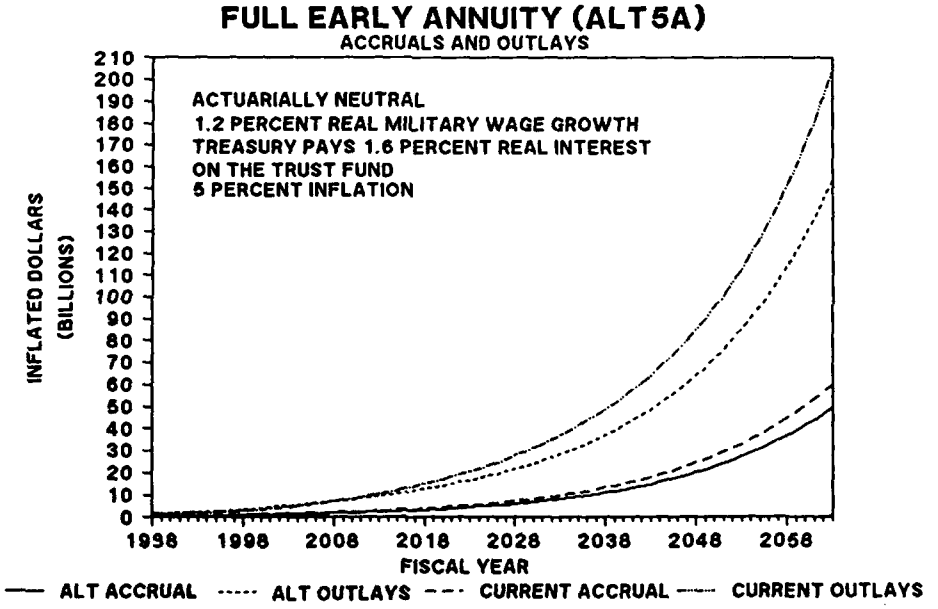


FIGURE E-10

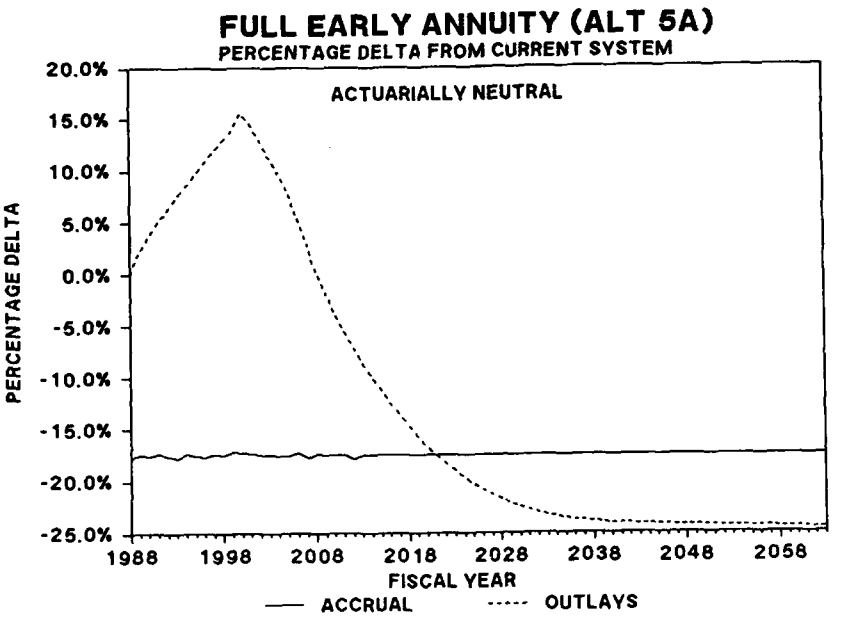

FULL EARLY ANNUITY (ALT 5A)
PERCENTAGE DELTA FROM CURRENT SYSTEM
ACTUARIALLY NEUTRAL
20.0%
15.0%
10.0%
5.0%
0.0%
-5.0%
-10.0%
-15.0%
-20.0%
-25.0%
PERCENTAGE DELTA
1988
1998
2008
2018
2028
2038
2048
2058
FISCAL YEAR
ACCRUAL
OUTLAYS

FIGURE E-11

TWO TIER ACTUARIALLY NEUTRAL EARLY ANNUITY (ALT 6E)

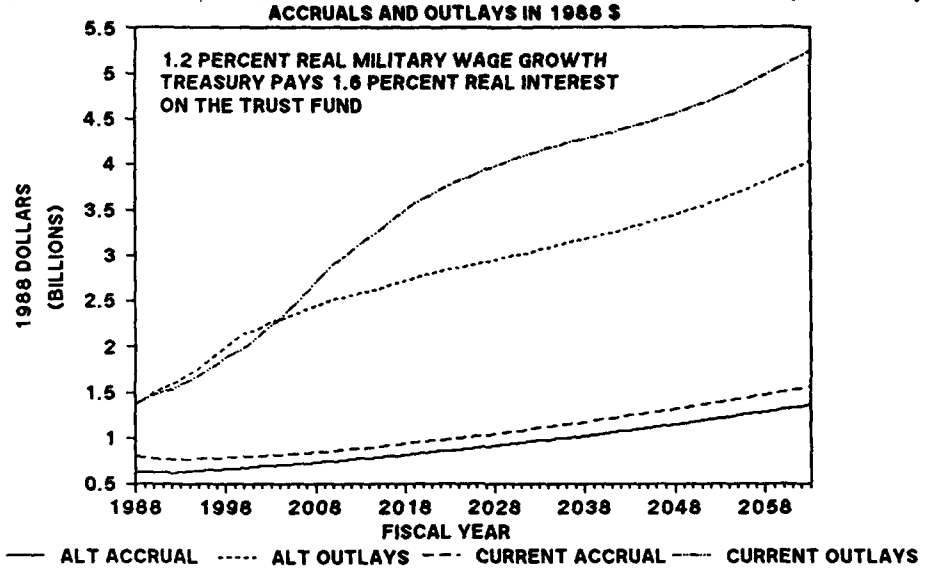


FIGURE E-12

TWO TIER ACTUARIALLY NEUTRAL EARLY ANNUITY (ALT 6E)

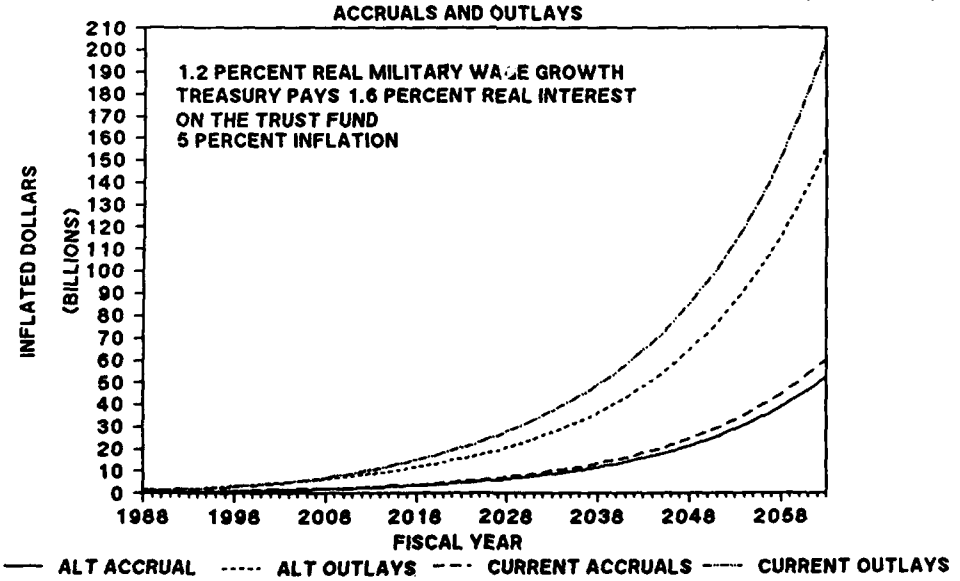


FIGURE E-13

TWO TIER ACTUARIALLY NEUTRAL EARLY ANNUITY (ALT 6E)

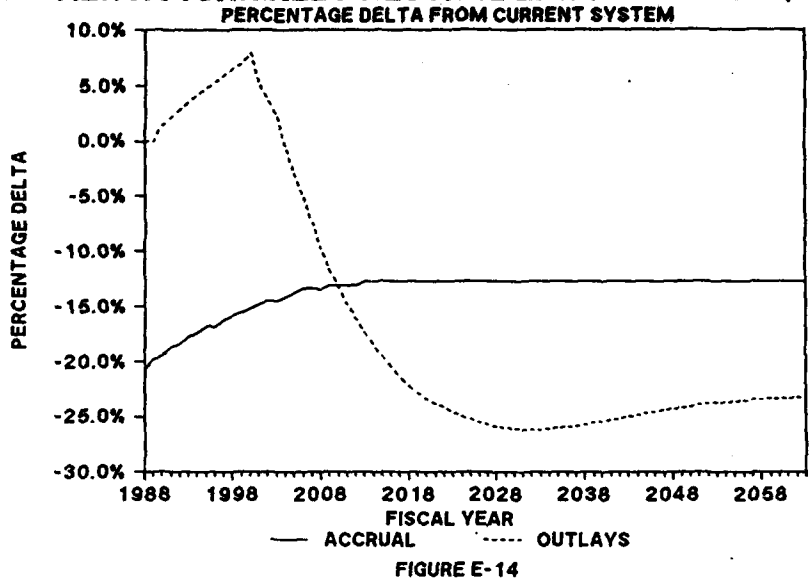


FIGURE E-14

TWO TIER YOS BASED EARLY ANNUITY OPTION (ALT 7B)

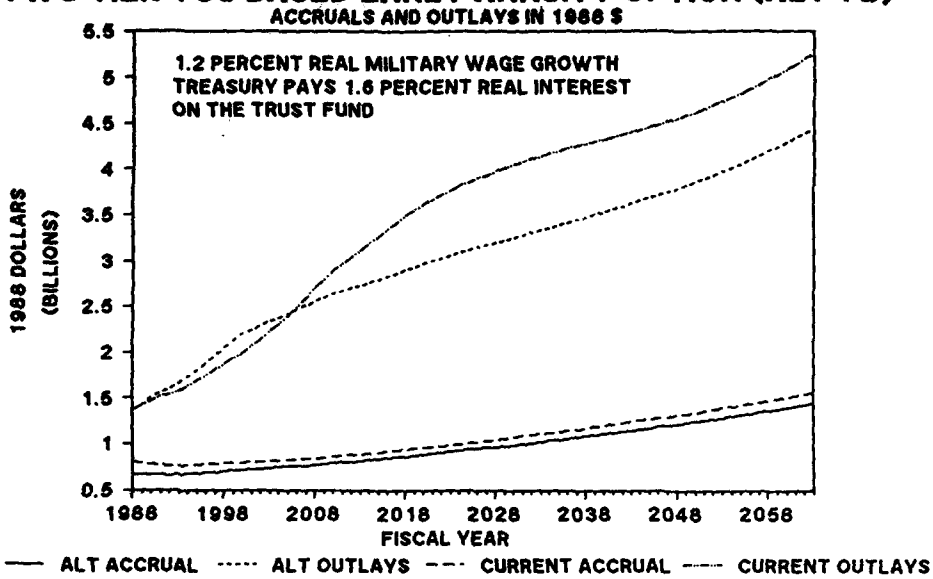


FIGURE E-15

TWO TIER YOS BASED EARLY ANNUITY OPTION (ALT 7B)

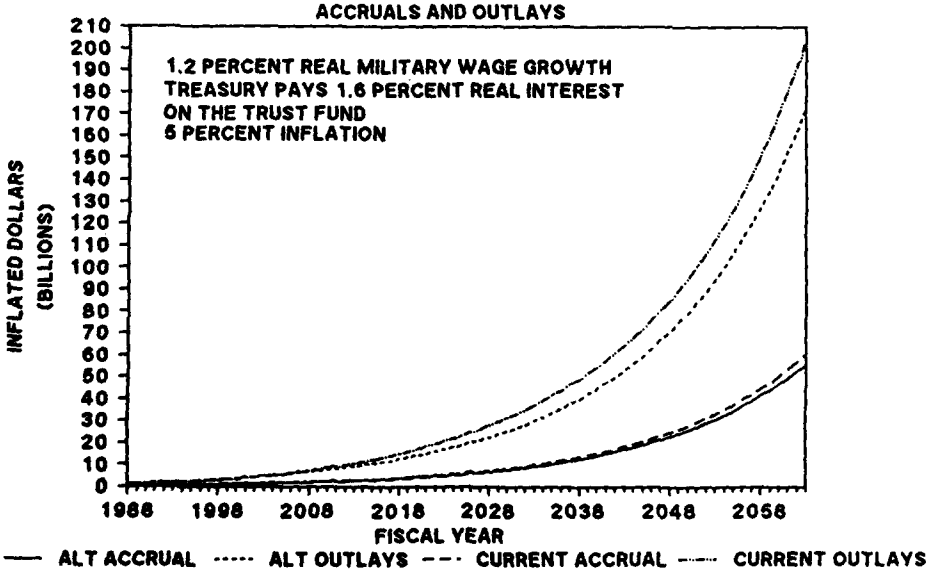


FIGURE E-16

TWO TIER YOS BASED EARLY ANNUITY OPTION (ALT 7B)

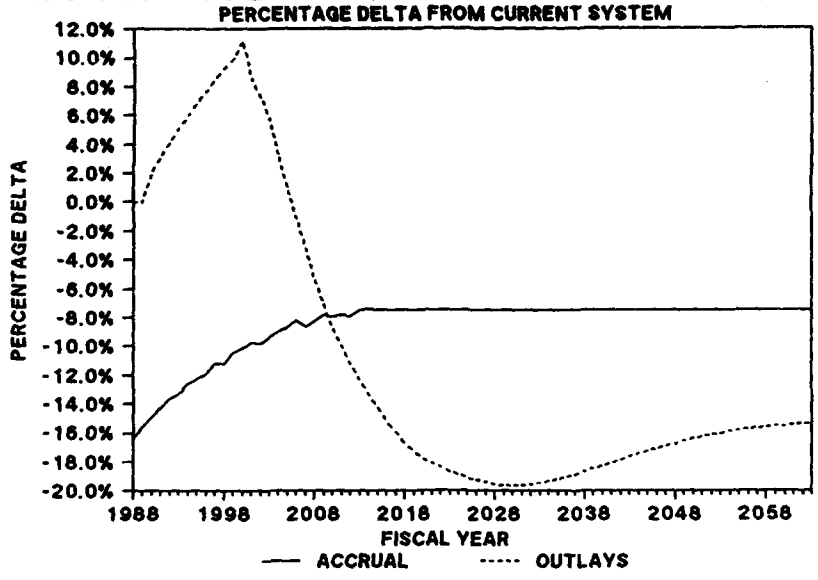


FIGURE E-17

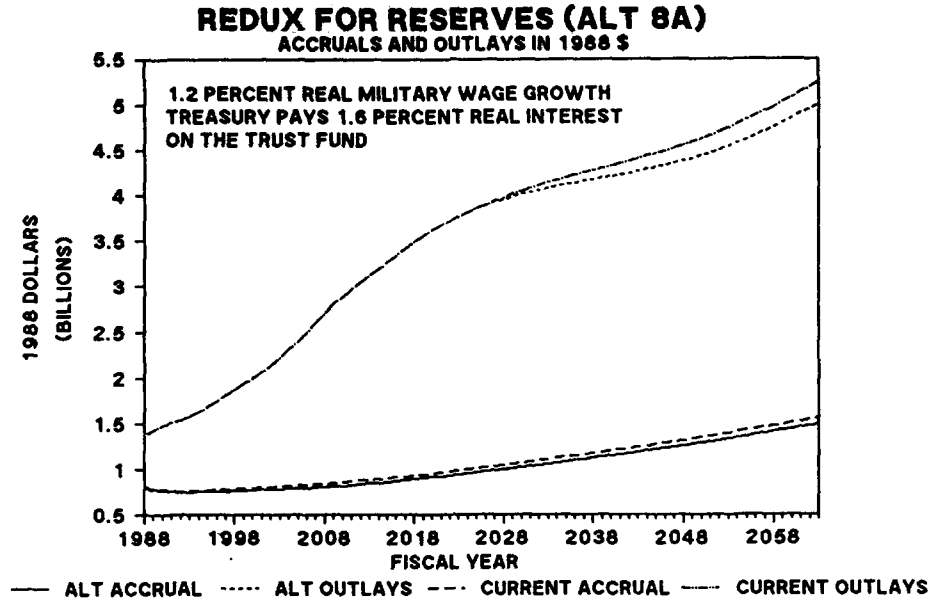


FIGURE E-18

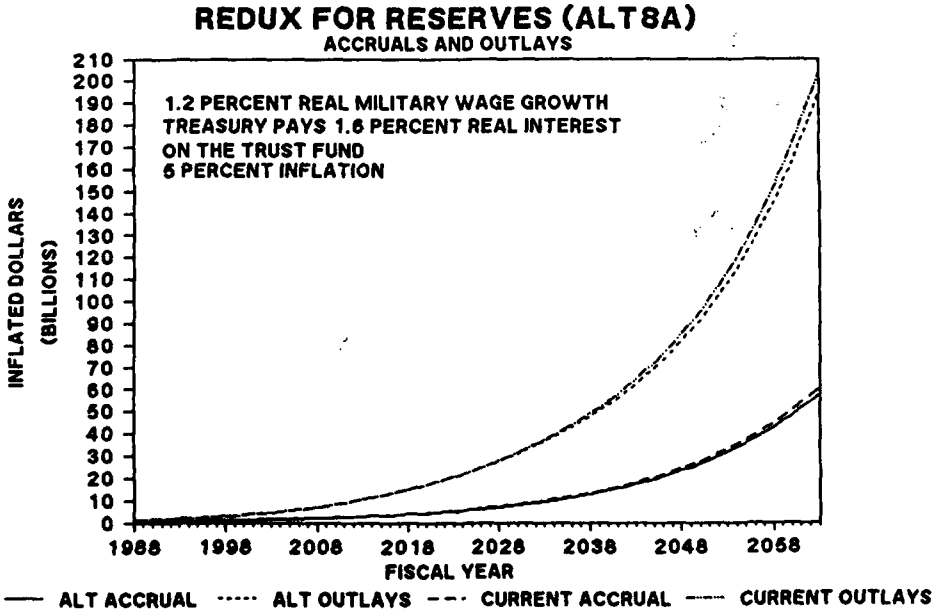


FIGURE E-19

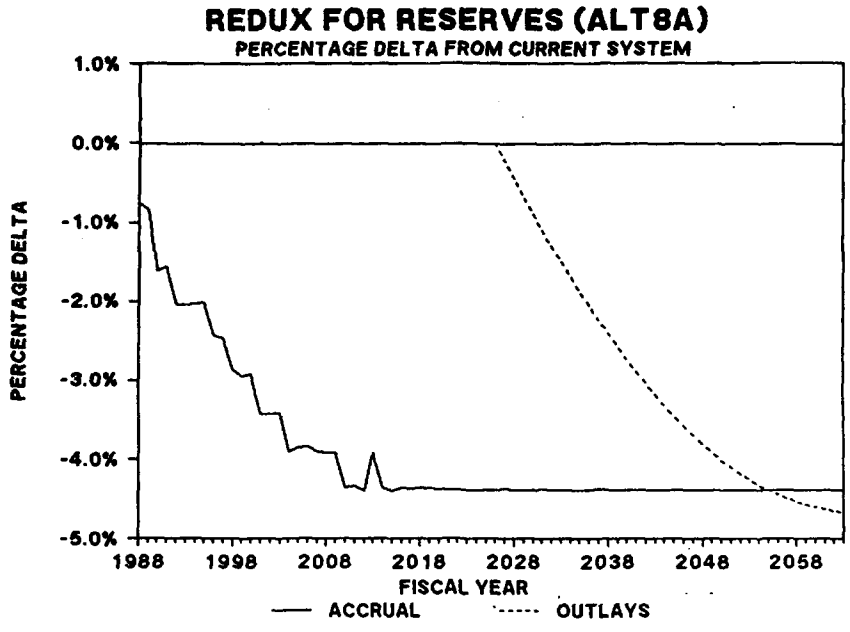

REDUX FOR RESERVES (ALT8A)
PERCENTAGE DELTA FROM CURRENT SYSTEM
1.0%
0.0%
-1.0%
-2.0%
-3.0%
-4.0%
-5.0%
PERCENTAGE DELTA
1988
1998
2008
2018
2028
2038
2048
2058
FISCAL YEAR
ACCRUAL
OUTLAYS

FIGURE E-20

Appendix F. OBJECTIVE MANPOWER FORCE STRUCTURE PROFILES (OFFICERS AND ENLISTED, PART-TIME MEMBERS ONLY)

Source: Individual Services

The following 12 graphs display the objective manpower force structure profiles of each reserve component excluding the Marine Corps Reserve. This data is described in three separate and distinct force structures: Fiscal Year 1986 Actual, Fiscal Year 1986 Steady-State, and Fiscal Year 1992 Steady-State. For explanation, see Chapter 4.

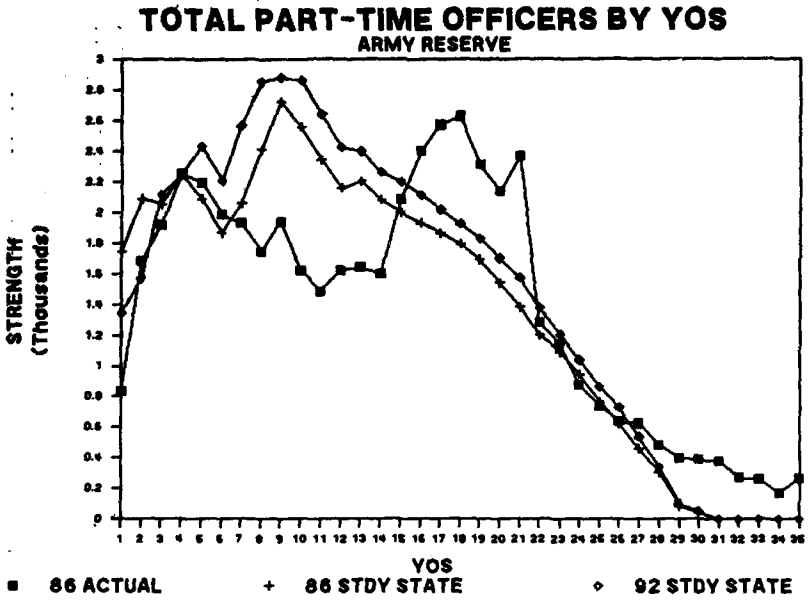


FIGURE F-1

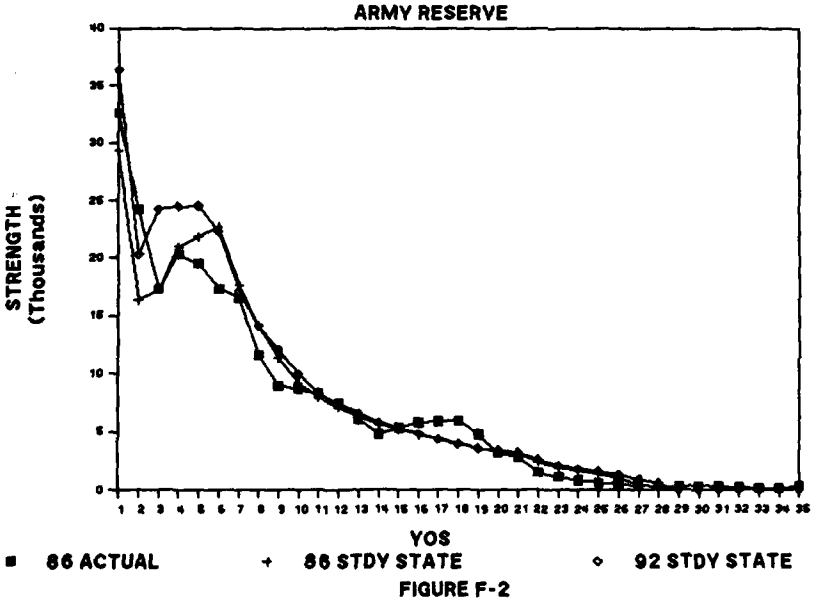


FIGURE F-2

TOTAL PART-TIME OFFICERS BY YOS

NAVAL RESERVE

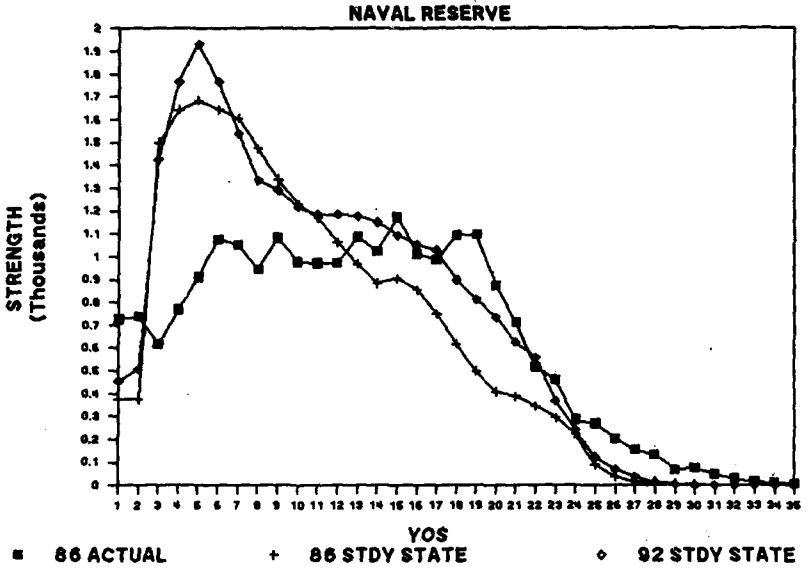


FIGURE F-3

TOTAL PART-TIME ENLISTED BY YOS

NAVAL RESERVE

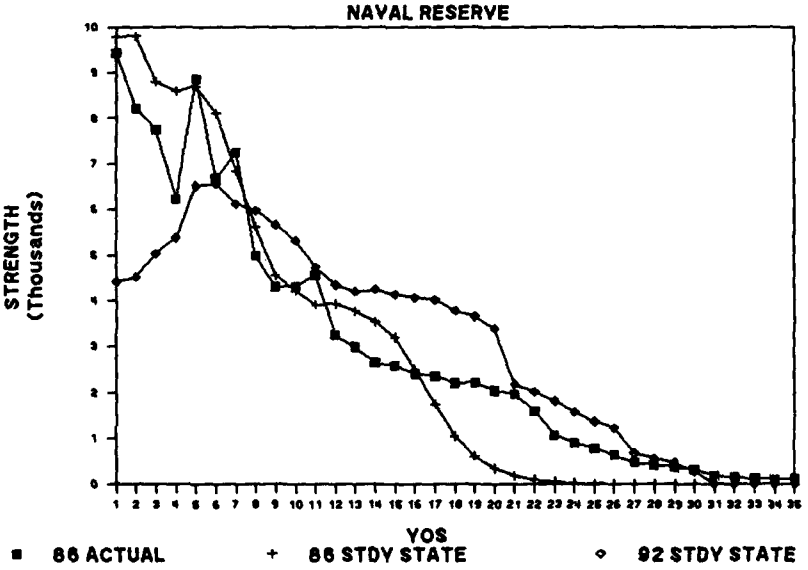


FIGURE F-4

TOTAL PART-TIME OFFICERS BY YOS

AIR FORCE RESERVE

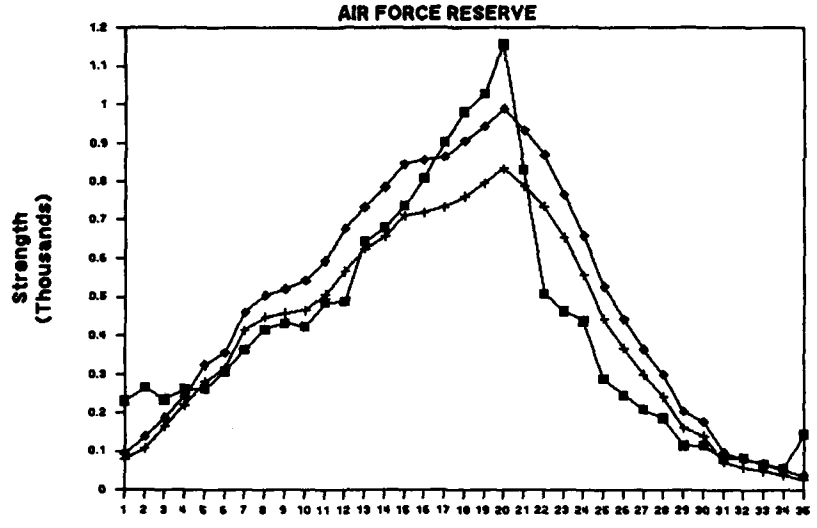


FIGURE F-5

TOTAL PART-TIME ENLISTED BY YOS

AIR FORCE RESERVE

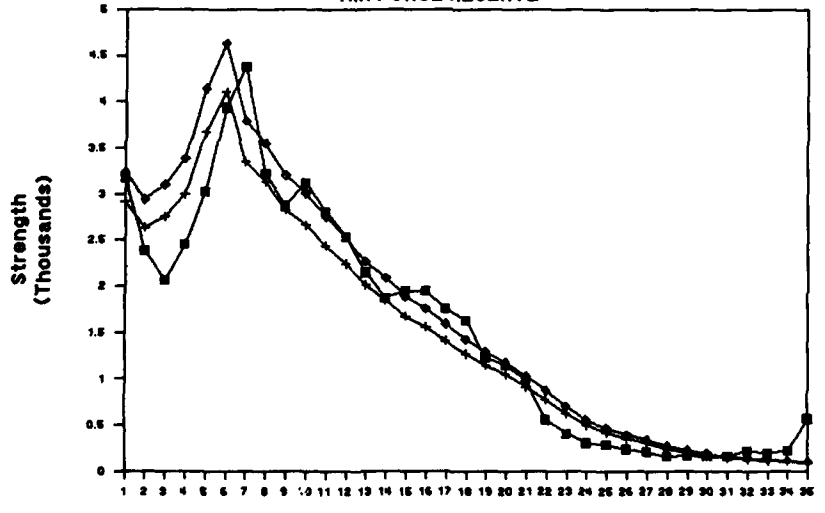


FIGURE F-6

TOTAL PART-TIME OFFICERS BY YOS

COAST GUARD RESERVE

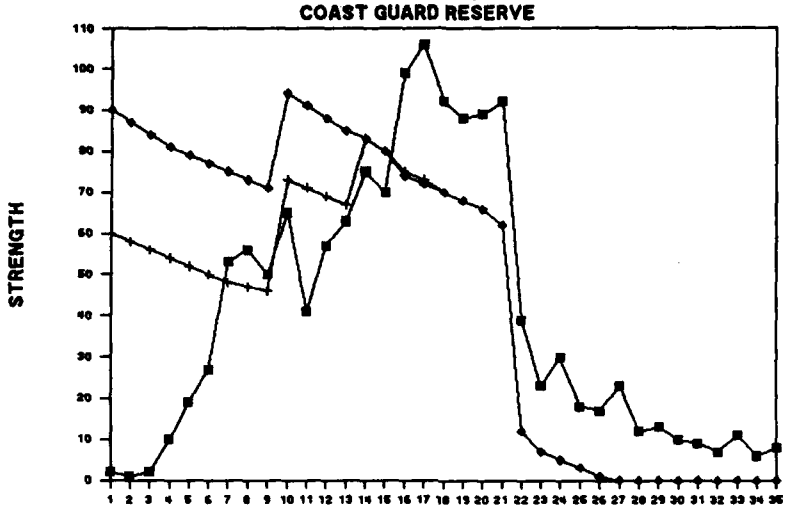


FIGURE F-7

TOTAL PART-TIME ENLISTED BY YOS

COAST GUARD RESERVE

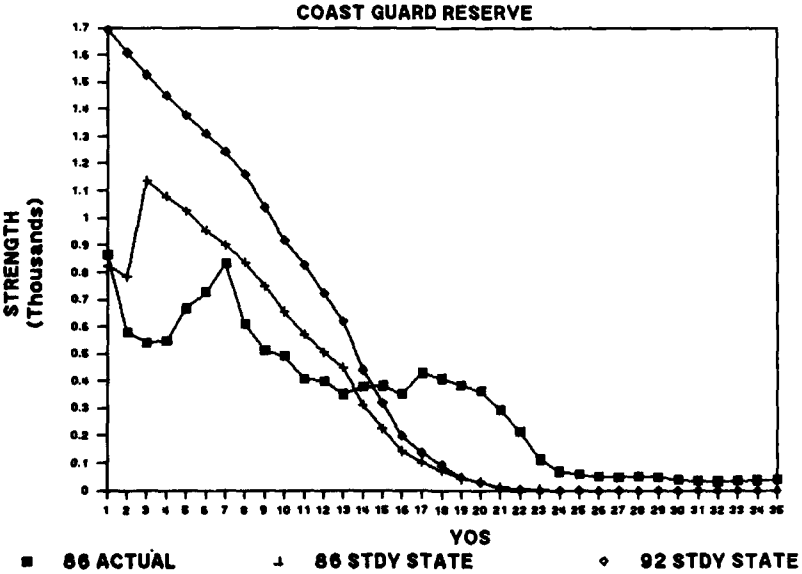


FIGURE F-8

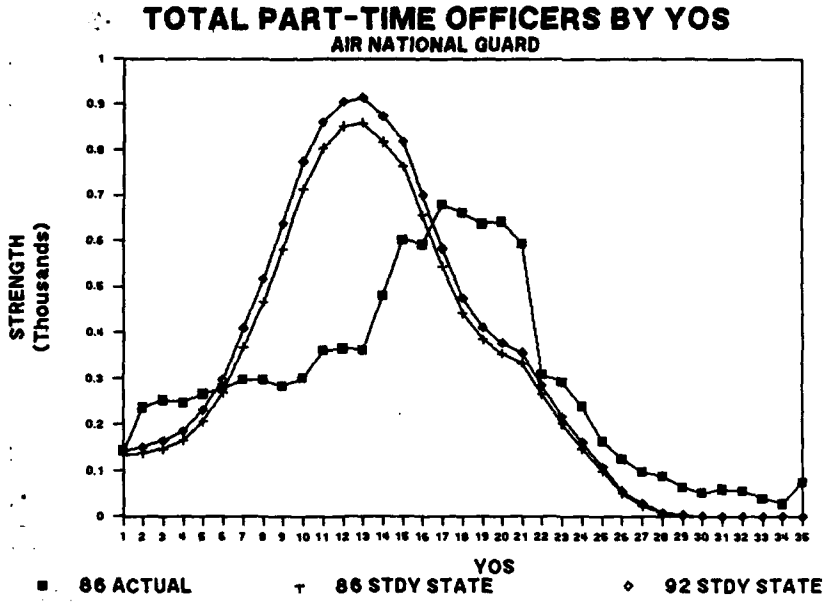


FIGURE F-9

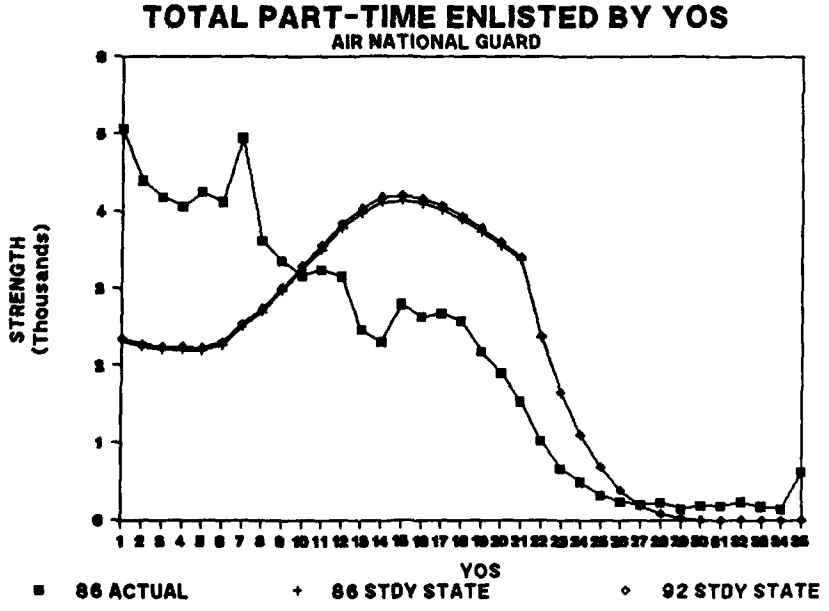


FIGURE F-10

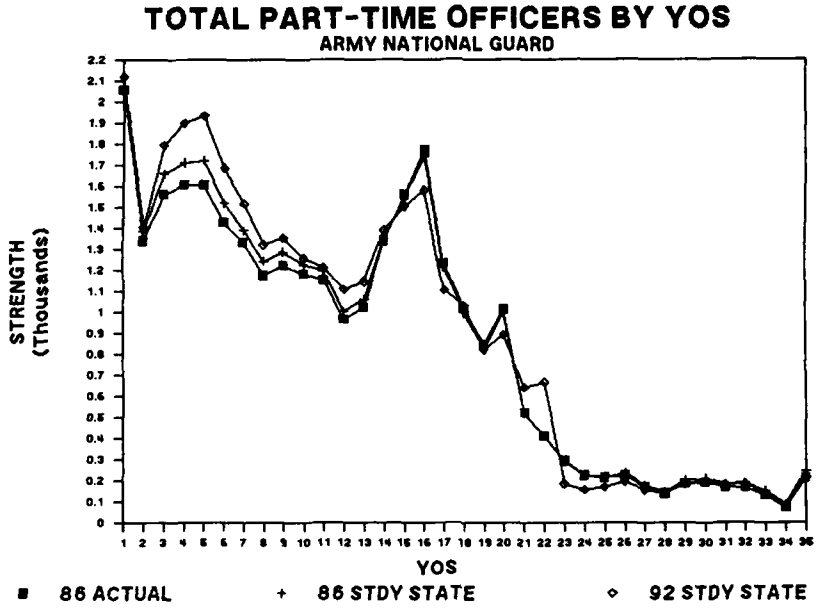


FIGURE F-11

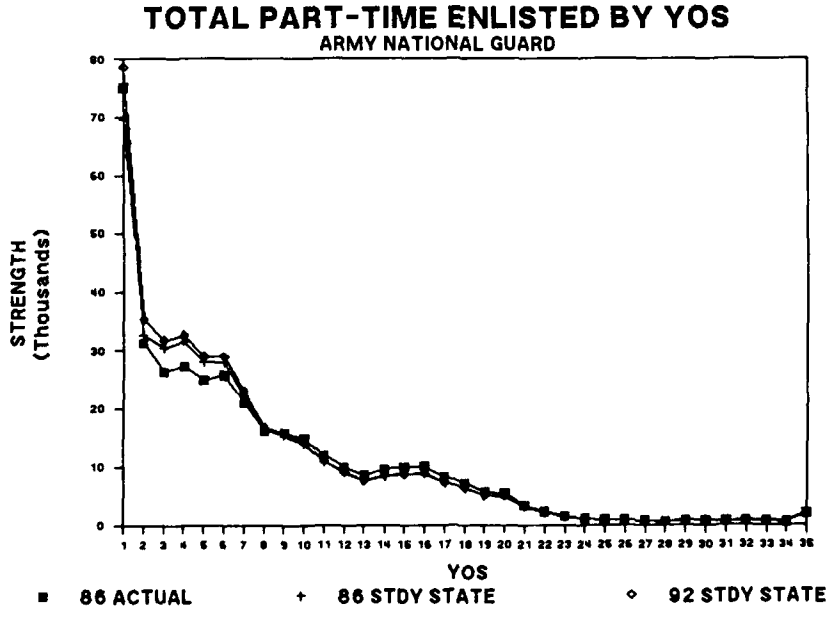


FIGURE F-12

Appendix G. MANPOWER FORCE STRUCTURE PROJECTIONS (OFFICERS AND ENLISTED, PART-TIME MEMBERS ONLY)

The Defense Manpower Research Center of the RAND Corporation, as part of the work of the National Defense Research Institute (the OSD-sponsored Federally Funded Research and Development Center), developed a reserve inventory projection model. This model, known as the Reserve Policy Screening Model, was used to demonstrate the approximate near-term effects of the current reserve personnel system. Based on a certain set of assumptions, the model projects future levels of participation for part-time members by years of service in the Selected Reserve. Collectively, these projections are indicative of what the distribution by years of service for part-time members of the Selected Reserve would look like under the existing personnel systems of the reserve components and without any major environmental changes. This model is the first of its kind that separates part-time Selected Reservists from their AGR/TAR and military technician counterparts.

The 6th QRMC used this model and its projections to examine future levels of part-time participation by members with over 16 years of service; participation that could be attributed in large part to the operations of the current reserve retirement system. Projections for AGR/TAR full-time personnel were excluded. These members can qualify for active duty retirement after 20 years of active duty and in many cases are mandatorily retired by service policy when or soon after they qualify for retired pay. In any event, once qualified, those members will receive an immediate annuity when they retire. Thus the incentives for continued service after initial retirement qualification are markedly different in the case of active duty retirement. Projections of strength levels of military technicians were also excluded because of the requirement for continued reserve membership to retain their technician employment status and because reserve service for this group is primarily affected by the rules for civil service retirement.

A basic set of assumptions provided a conceptual framework into which the key aspects of the system analysis could be fitted. Assumptions were designed to be realistic, yet conservative, to avoid an exaggerated picture of the future. Three sets of projections were made using different levels of growth in the personnel endstrength of the reserve components. The first set of projections assumes that there will be no increase in the end strength of the reserve components from 1986 levels. The second set of projections assumes a modest increase

in endstrength of 0.6 percent per year for each component. The third set of projections assumes endstrengths approximating those in the 1987 POM estimates for each of the components. The assumptions employed are as follows:

- The profile of accessions is at the Fiscal Year 1986 level.
- Forward continuation rates are used.
- Continuation rates are at the Fiscal Year 1986 level.
- All accession years of service (YOS) are treated equally and are unlimited.
- The projections labelled "FC1" and "92Z" allow for no growth in any component.
- The projection labelled "FC2" allows growth of 0.6 percent per component per year.
- The projection labelled "92P" allows growth at 1987 POM end strength estimates.
- If a population continuation rate or accession continuation rate is nonexistent in YOS <1, a rate of 1.0 is substituted.
- If the YOS unknown continuation rate is missing, the overall average rate is substituted. In all other missing YOS figures, the rate for the preceding YOS rate is substituted.

The first series of projections (shown with odd numbers: G-1 through G-23) were made under the "no growth" assumption. The second series (shown with even numbers: G-2 through G-24) were made under the assumption of 0.6 percent per year growth in end strength. These projections were divided into 3 YOS groups: 16-20, 21-25, and 25-30. Because the findings are similar with one exception, all these projections are discussed together. The last series of projections (Figures G-25 through G-34) were made to examine the 1992 force structure likely to result from current reserve compensation and personnel policies, including the current reserve retirement system. These projections were made using the "no growth" assumption and again assuming growth as indicated in 1987 POM estimates. The force structures are labeled 86ACT, 92SS, 92Z, and 92P. The 86ACT profile represents the actual force as it appeared in 1986. The 92SS profile represents the desired Steady-State force as indicated by the reserve component. The 92Z profile is the resultant force structure in 1992 should no growth in the force occur and no new reserve compensation and personnel policies be implemented. Lastly, the 92P is the resultant profile, again in 1992, should

growth occur as indicated in 1987 POM estimates and, again, should no new reserve compensation and personnel policies be implemented.

The projections show several clear trends. For members currently in the 16-20 YOS group, a "hump" effect is readily apparent in most of the projections. This correlates to the personnel increases experienced during the Viet Nam War. For both officers and enlisted members, those representing the peak of the hump were 40 years of age in 1987. In the future, this hump will gradually decrease as it moves through the succeeding YOS groups. Although the effects of the hump lessen over time, the projections indicate that, with current levels of continuation, even after the effects of the hump have passed through the system the reserve components will have a higher proportion of the force with over 16 years of service than they have had in the past. The projections vary by component and by officer and enlisted subpopulation. Generally, the enlisted force projections indicate that the percent of the force in the higher YOS groupings will remain high, with only a slight decline from the peak created by the hump. This proportion is also higher than desired, as all components have indicated via their 1992 Steady-State profiles. The result is an increase in the number of members who will eventually qualify for reserve retirement.

The differences among the three sets of projections result from the endstrength growth assumed. Comparing the three sets of projections, the only substantial difference is the number of members entering those later YOS groups. As one might expect, there are slightly more members entering the later YOS groups under the profiles that assume end strength growth than under the one that uses the "no growth" assumption. When 0.6 percent endstrength growth is assumed, approximately 3 percent more members are still participating in the year 2000 than under the "no growth" assumption.

The force structure projections in G-25 through G-34 also depict a clear trend. In both 1992 projections (92Z and 92P), the number of members with over 20 years of service significantly increases over the actual 1986 levels in every component. The 92Z and 92P profiles show that the structure of the current force will diverge even further from the desired 1992 Steady-State.

The projections clearly show that, even after the Viet Nam Era hump passes through the system, the current high continuation rates result in sustained high strength levels in the later YOS groups. Sustained continuation rates would indicate that increases in the number of members reaching those later years of service are not simply attributable to the Viet Nam Era hump, but can also be attributed to the generally high levels of

continuation for career members in the current reserve personnel system. In addition, it appears that, without near-term changes to either the reserve compensation system or reserve personnel policies or both, reserve force structure is certain to stay out of step with the Steady-State profiles provided by the reserve components.

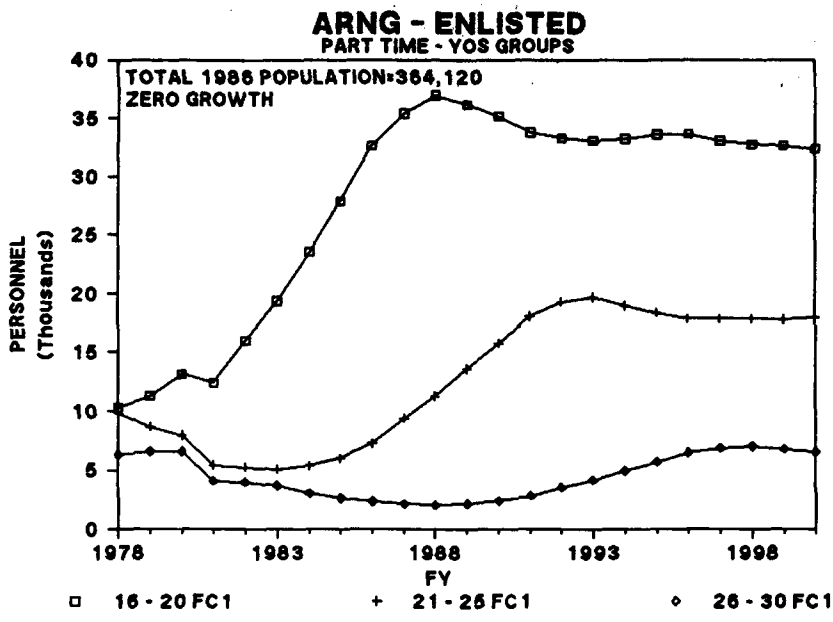


FIGURE G-1

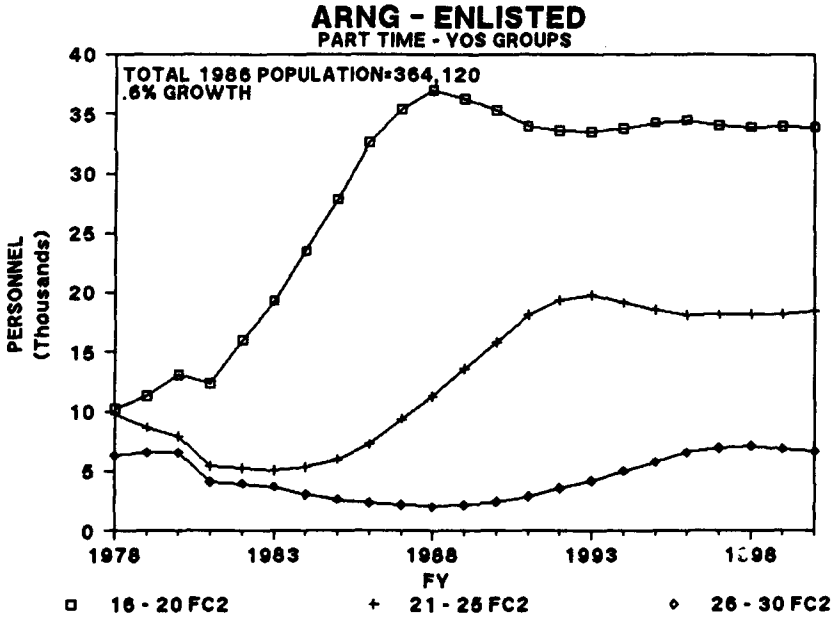


FIGURE G-2

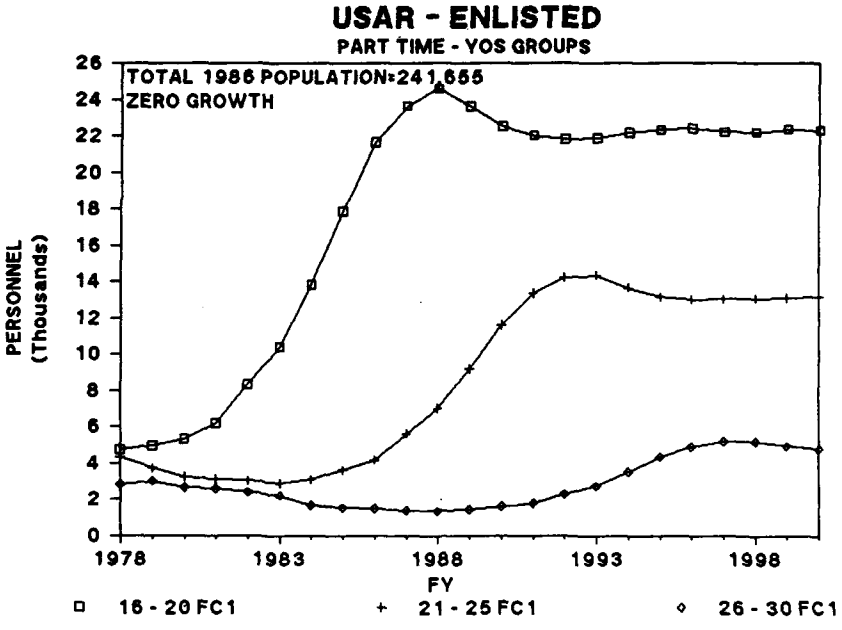


FIGURE G-3

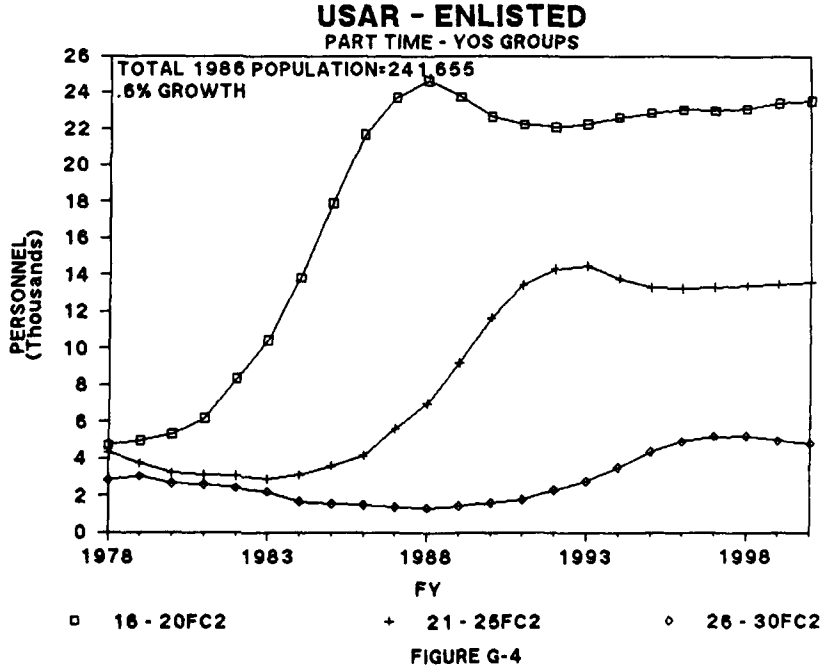


FIGURE G-4

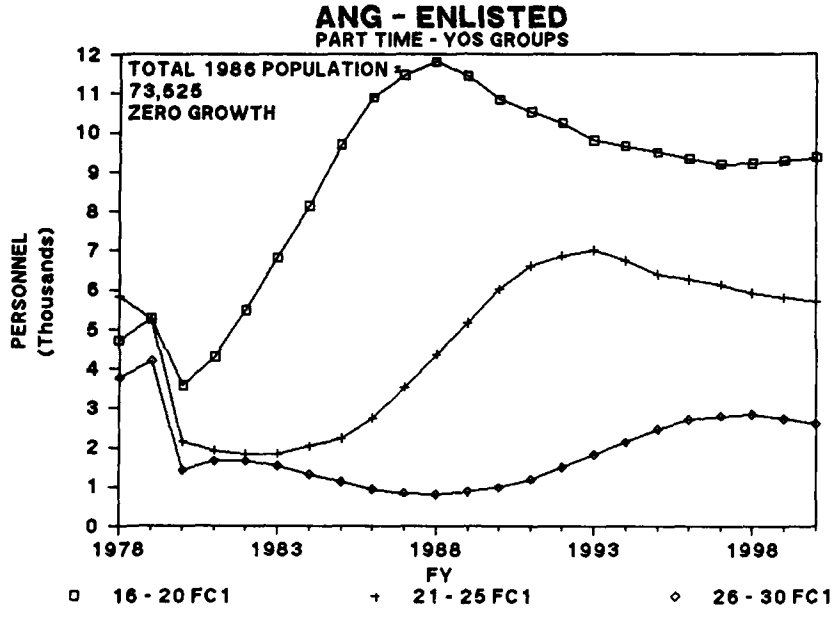


FIGURE G-5

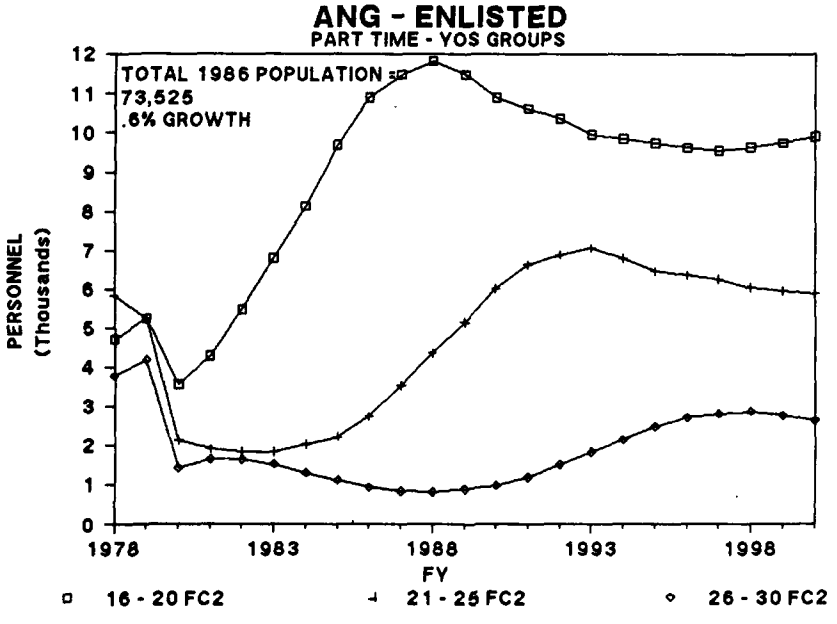


FIGURE G-6

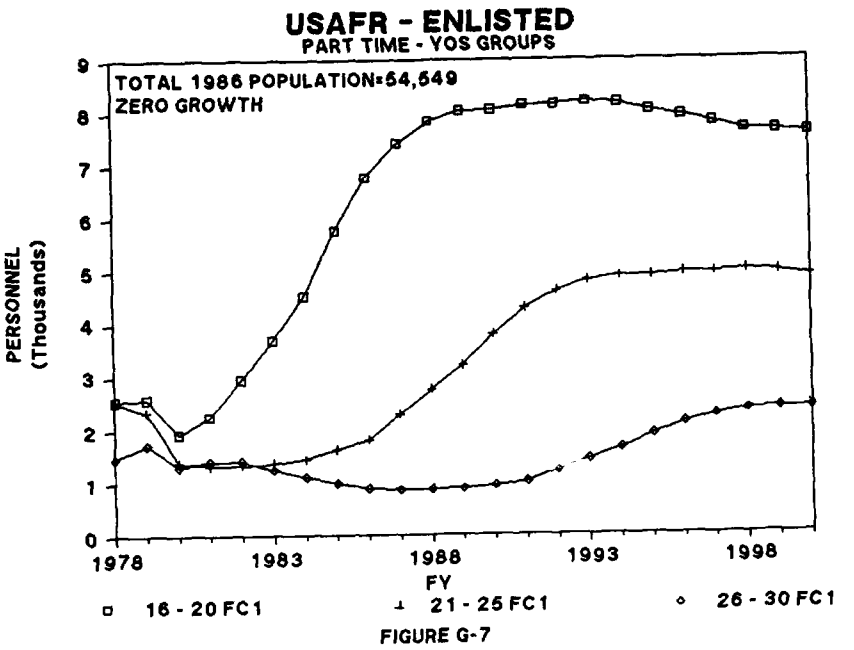


FIGURE G-7

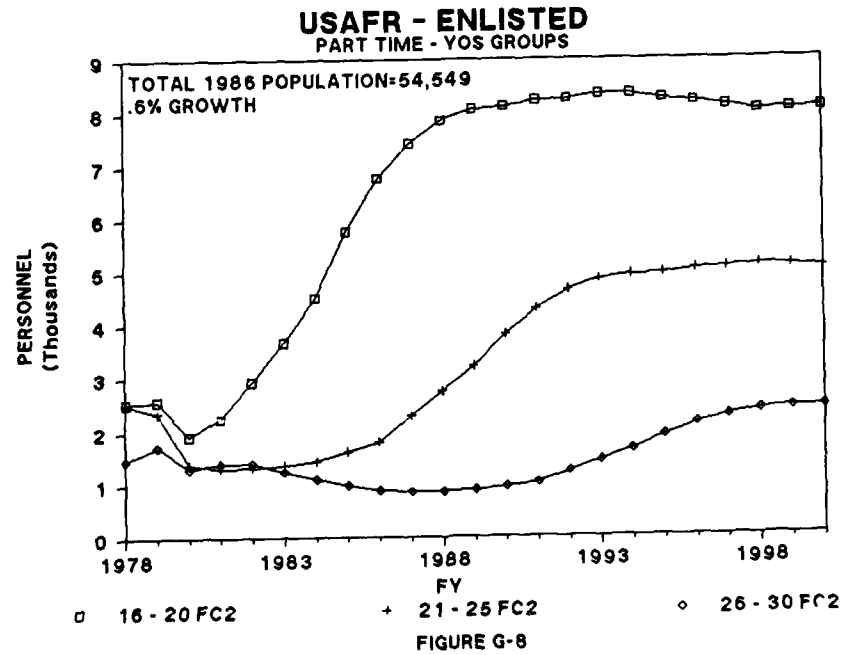


FIGURE G-8

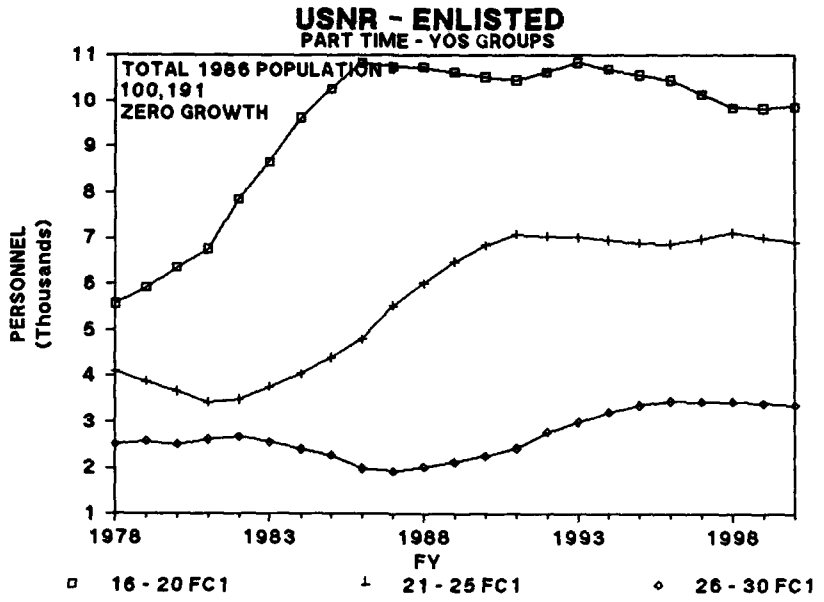


FIGURE G-9

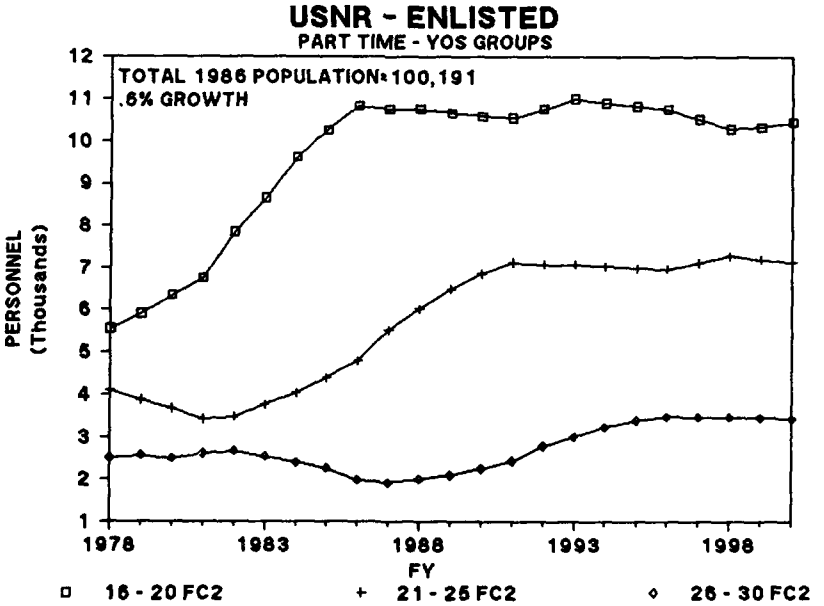


FIGURE G-10

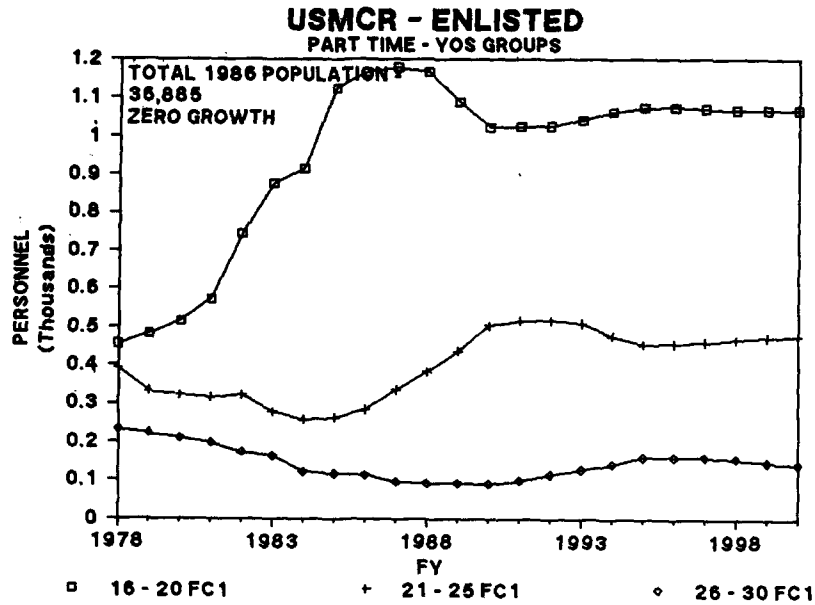


FIGURE G-11

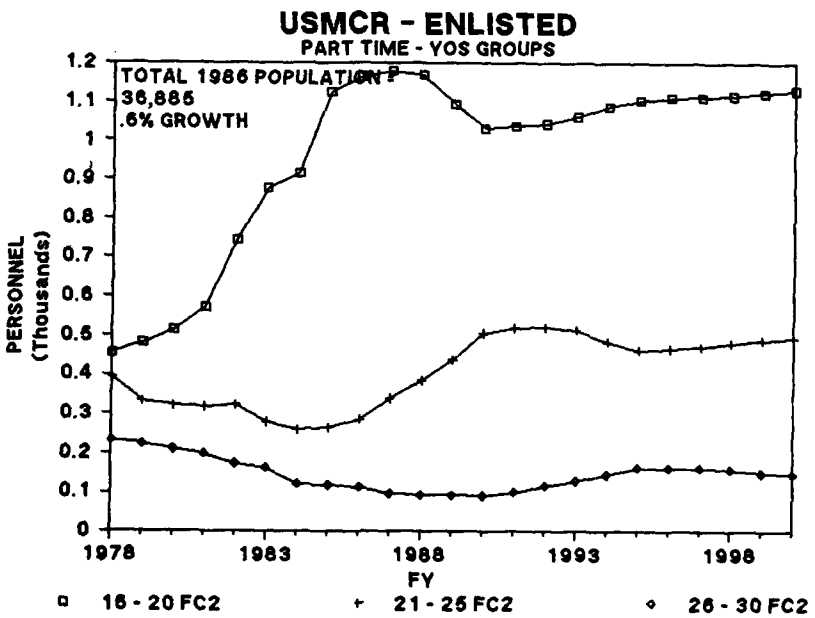


FIGURE G-12

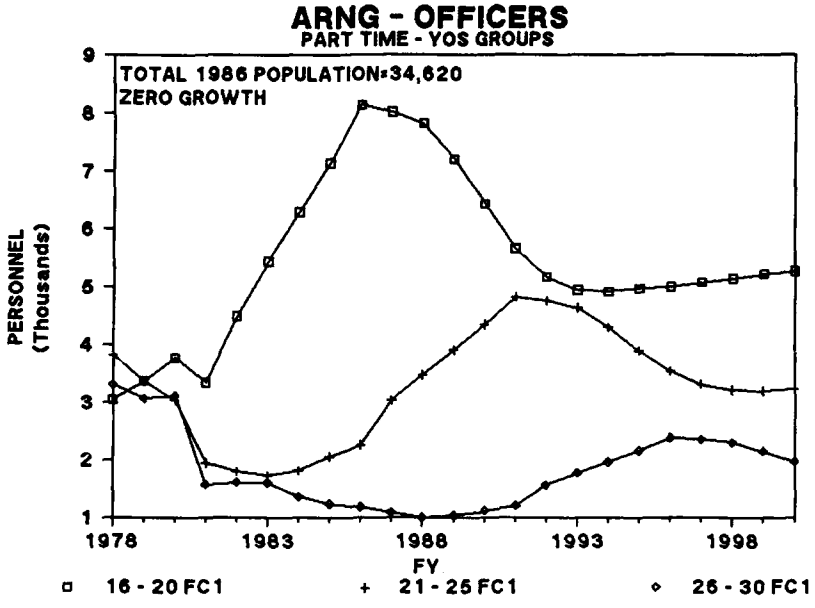


FIGURE G-13

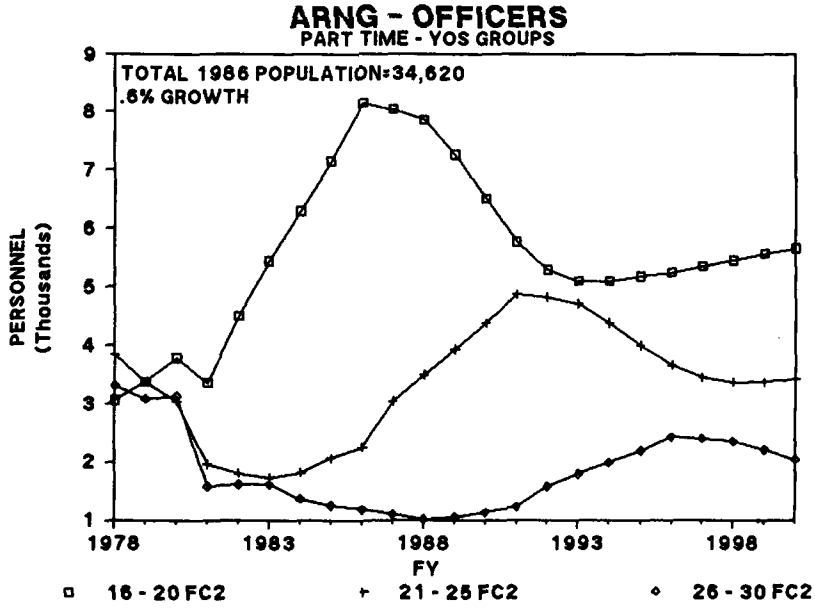


FIGURE G-14

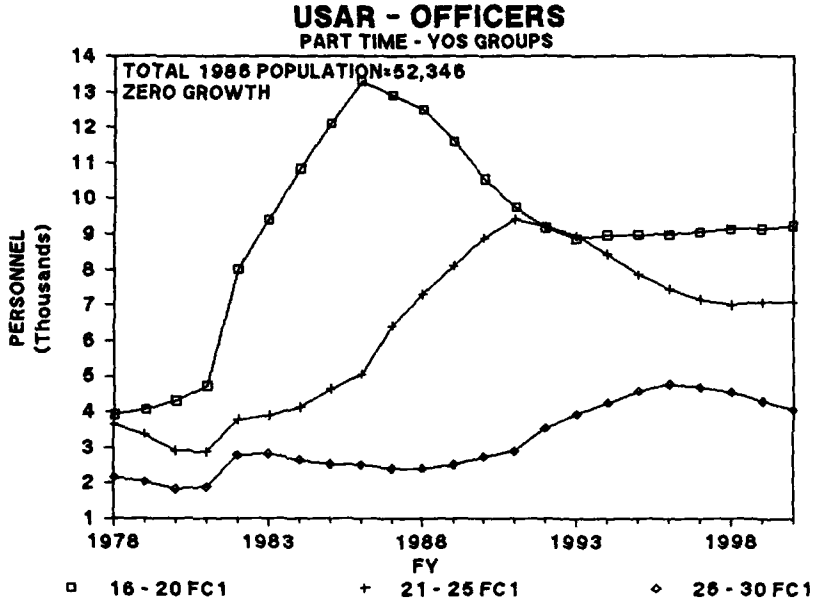


FIGURE G-15

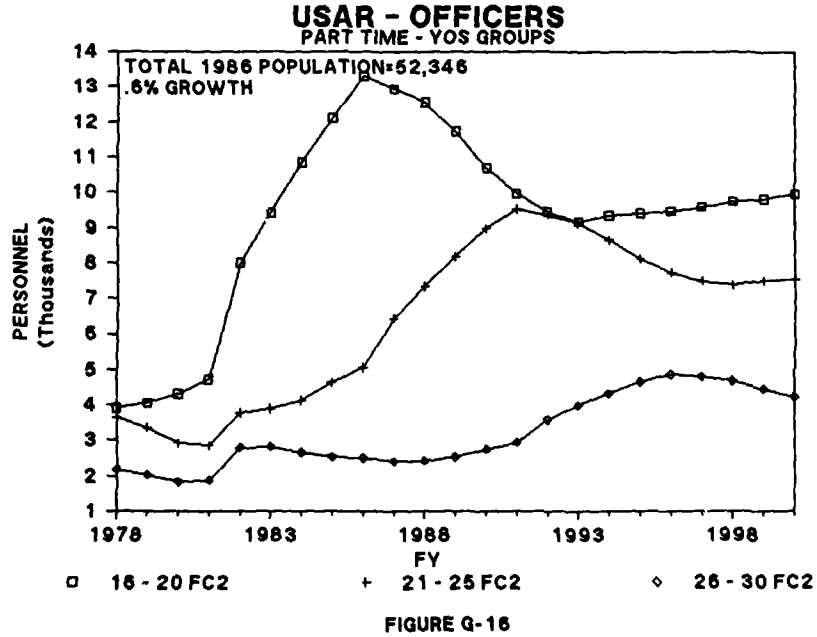


FIGURE G-16

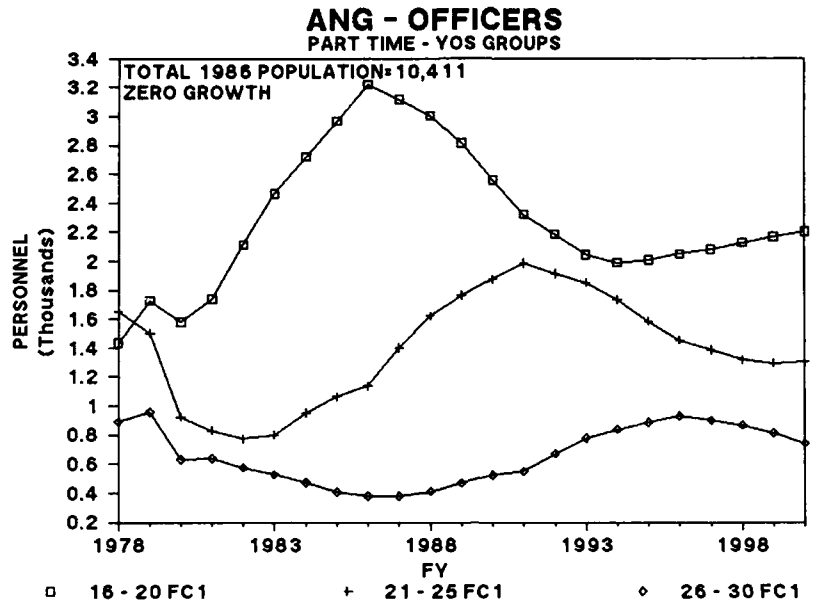


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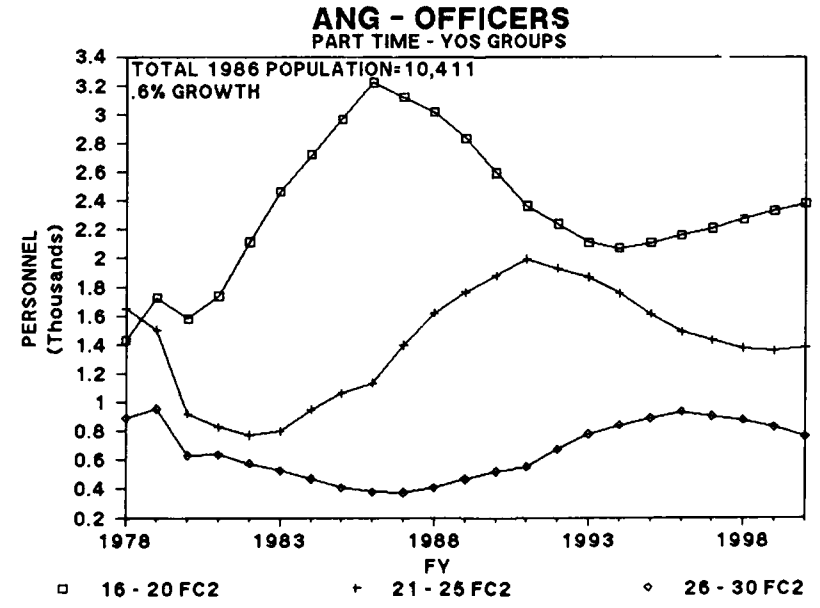


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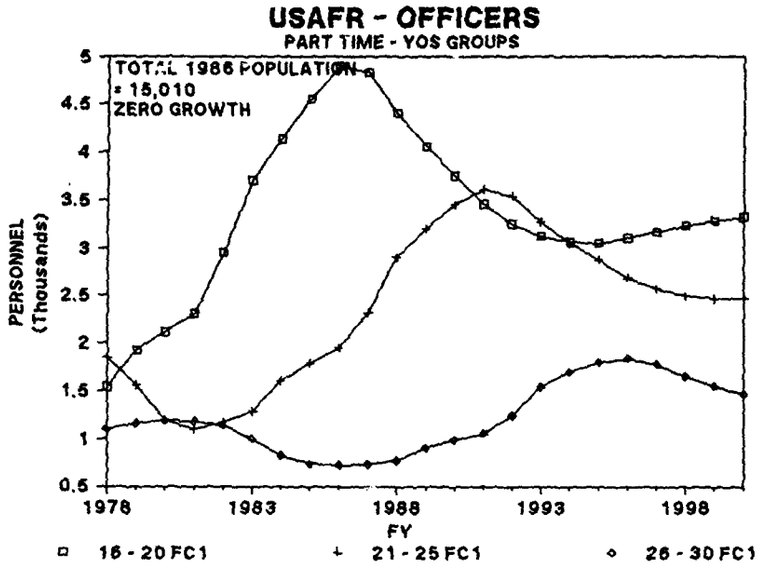


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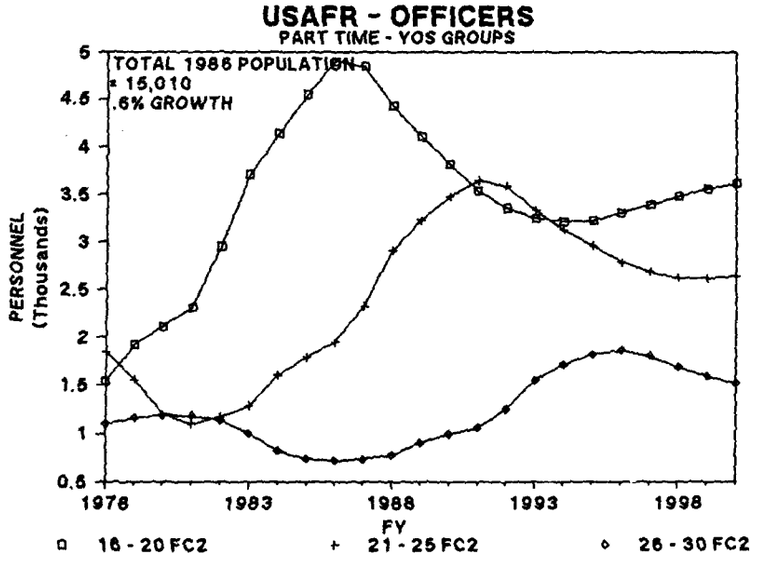


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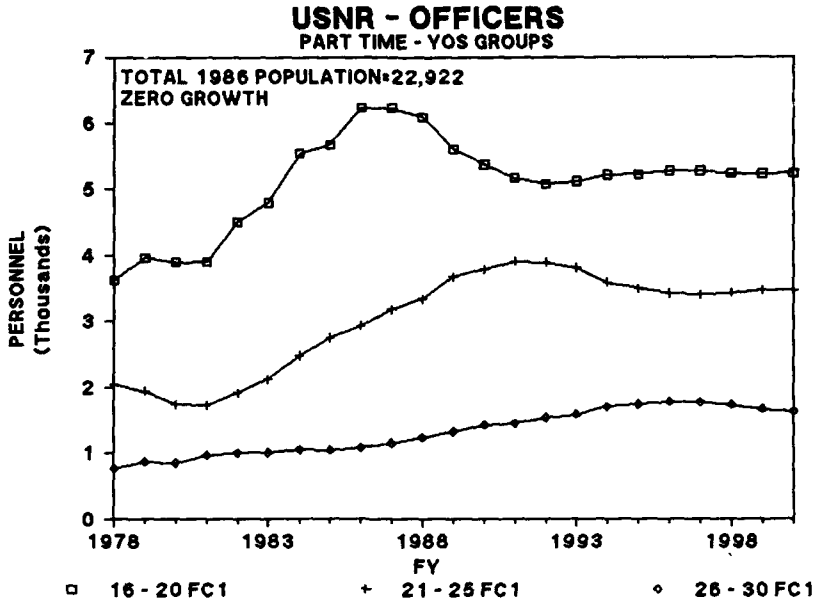


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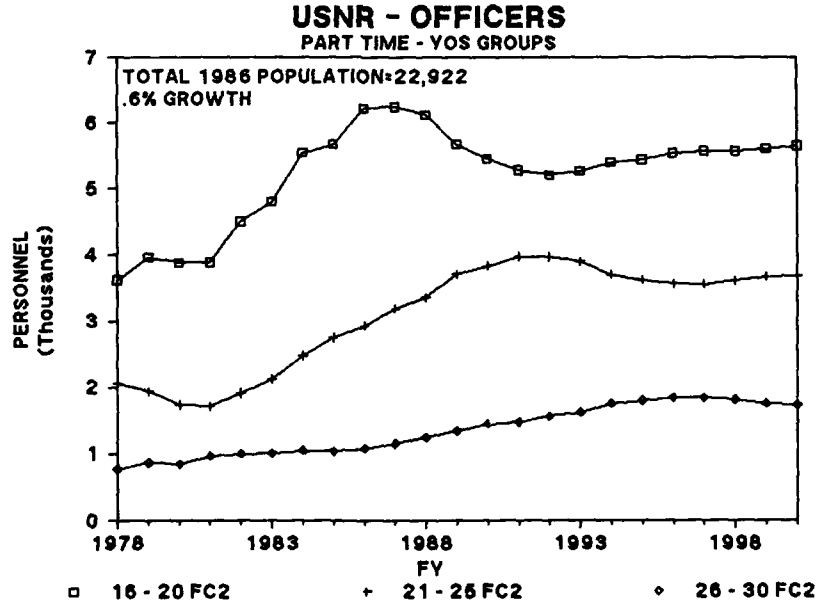


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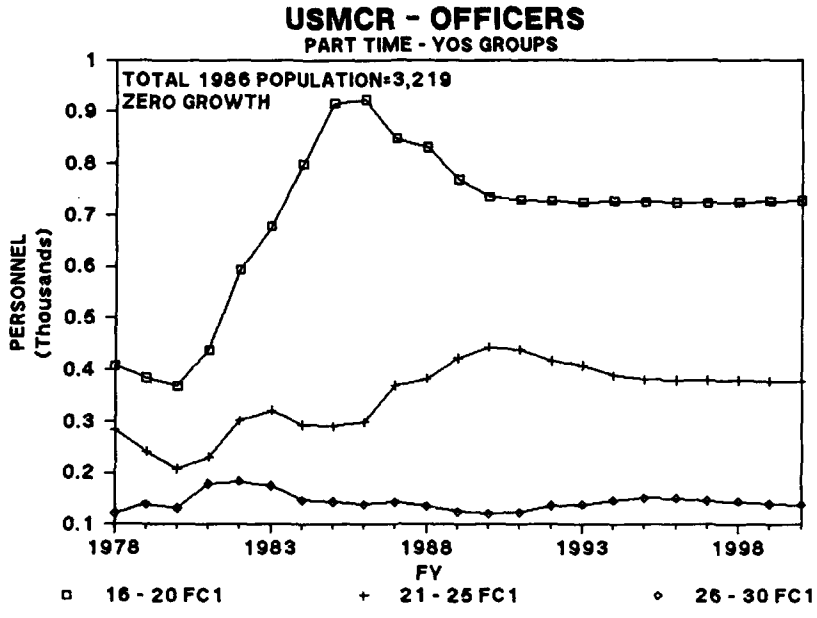


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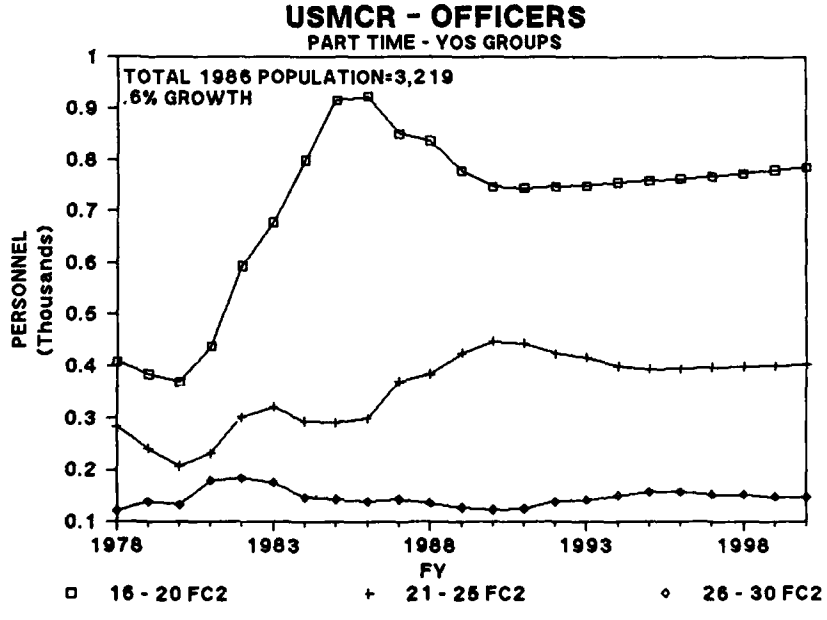


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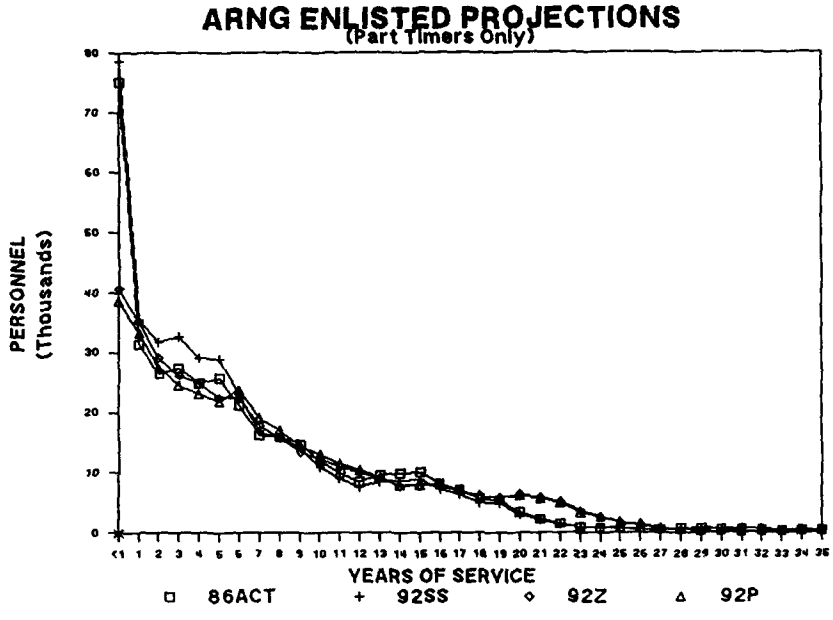


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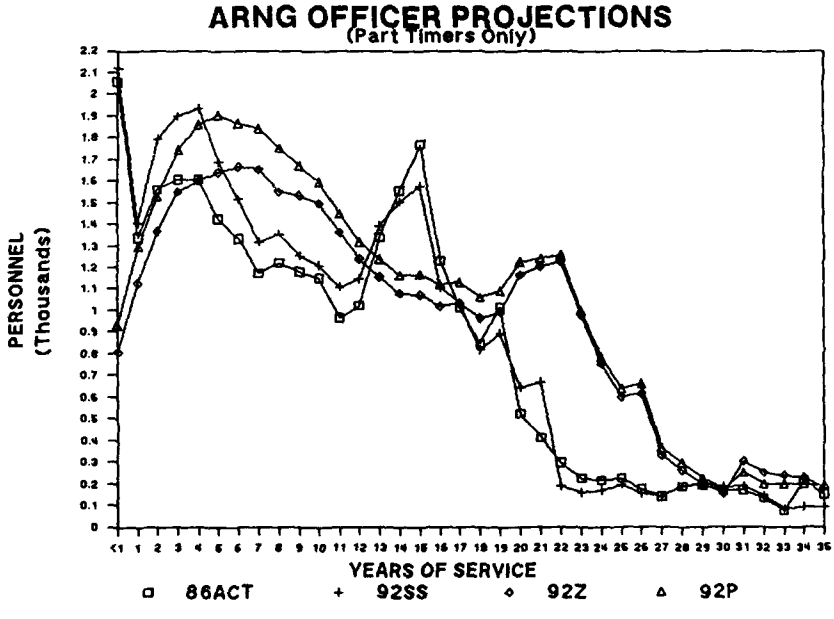


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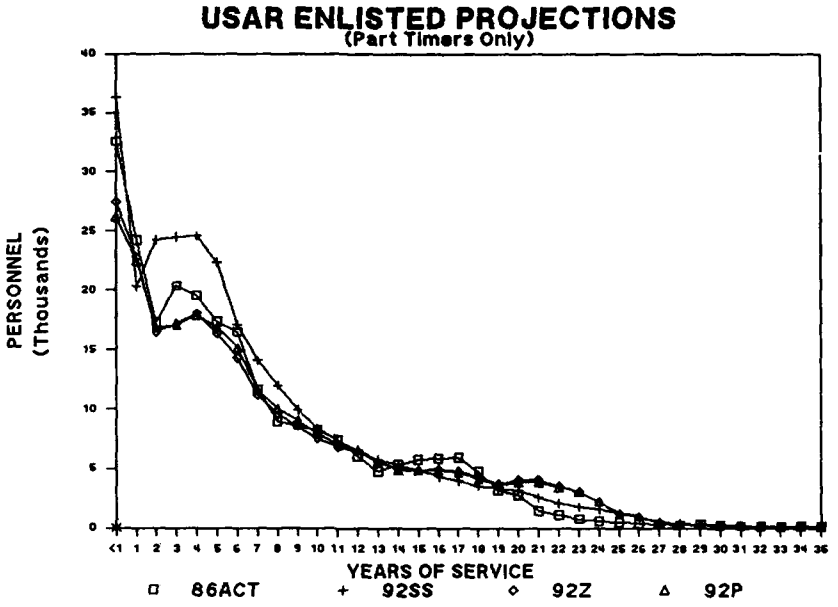


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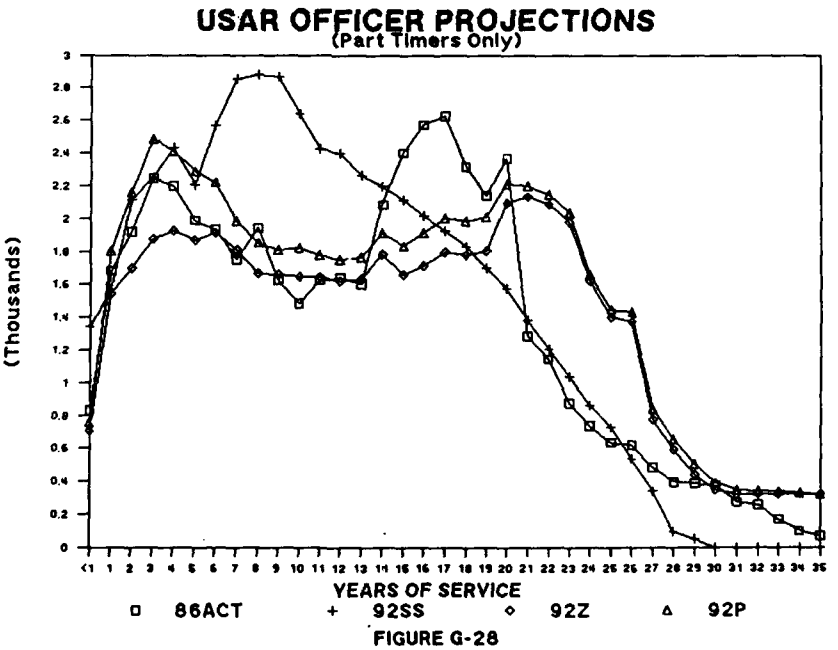


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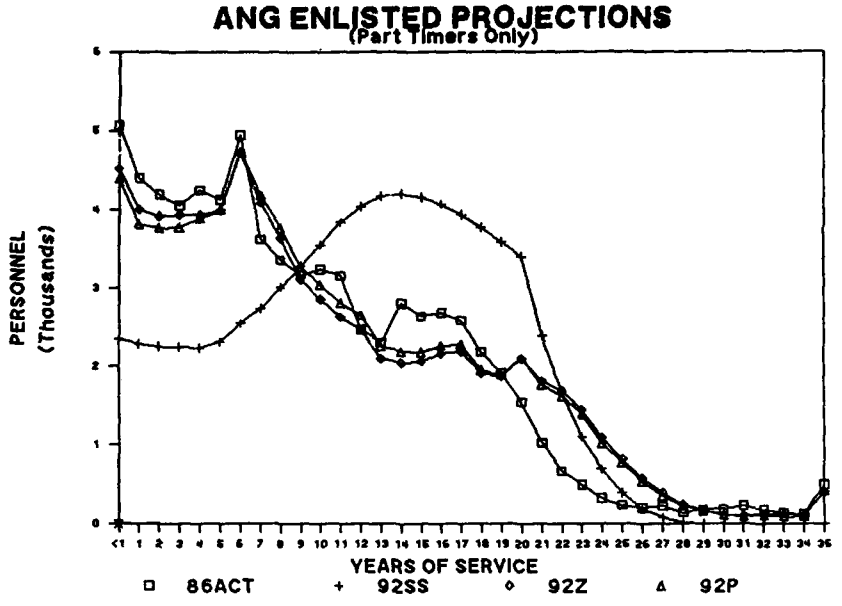


FIGURE G-29

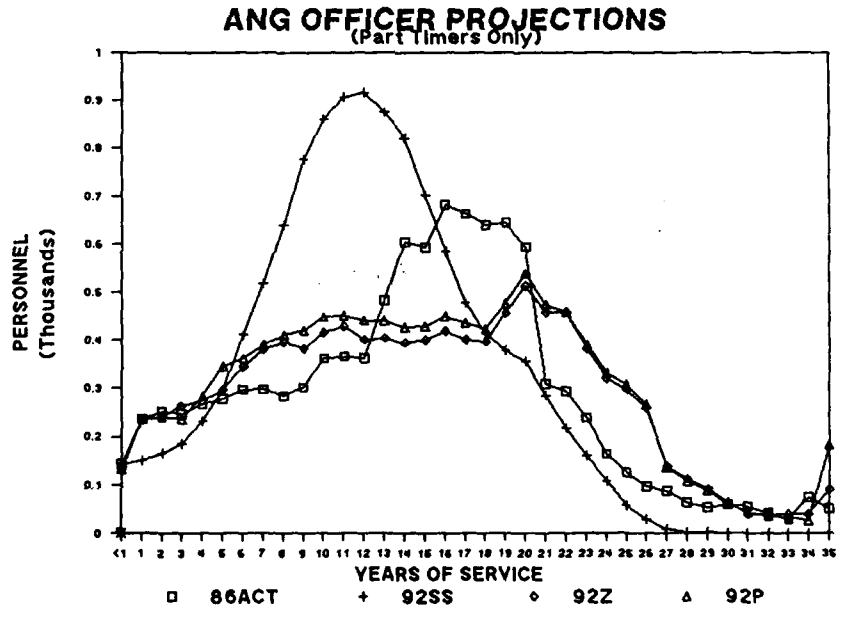


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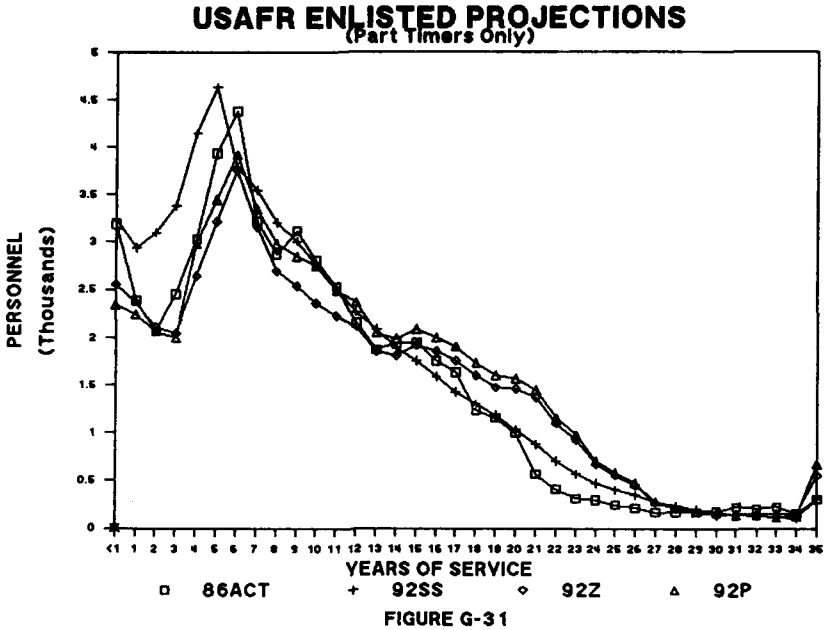


FIGURE G-31

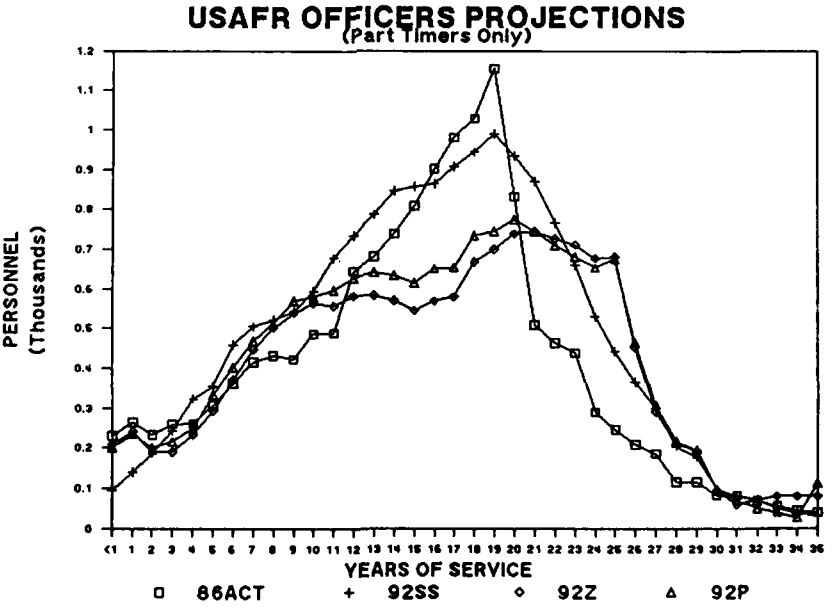


FIGURE G-32

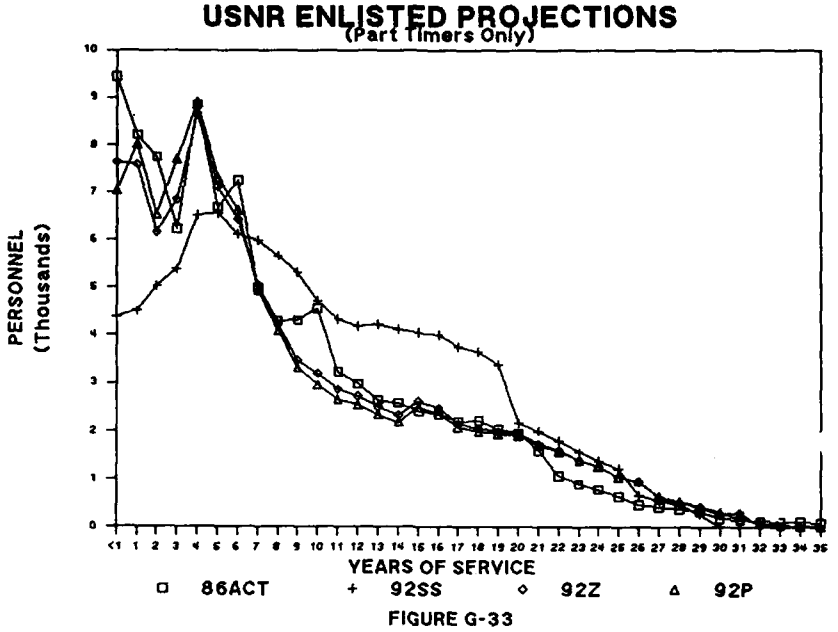


FIGURE G-33

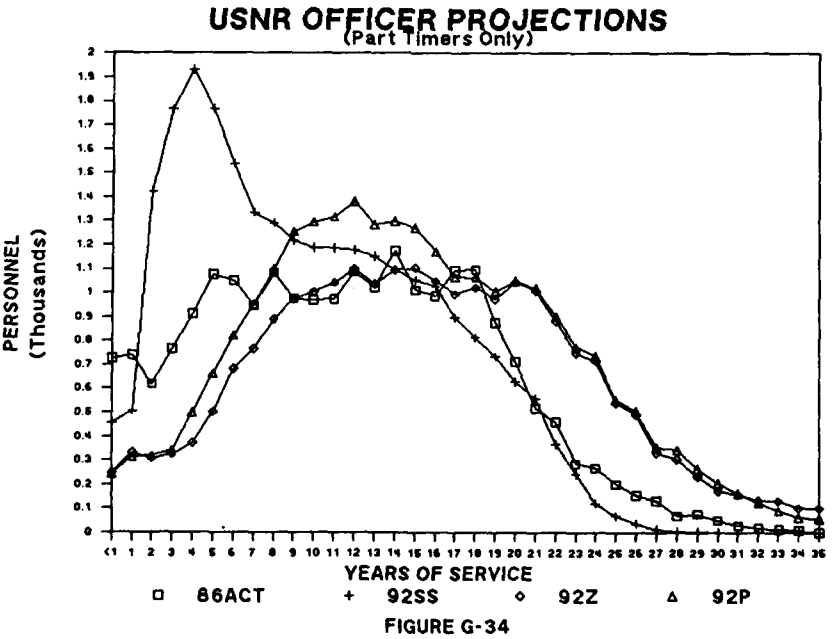


FIGURE G-34

Appendix H. MEMBER AND SPOUSE ATTITUDES TOWARD RESERVE RETIREMENT (OFFICERS AND ENLISTED, PART-TIME MEMBERS ONLY)

Source: 1986 Reserve Components Surveys

The graphs in this appendix show the distribution of responses to survey questions relating to reserve retirement.

Figures H-1 through H-9 show continuation motivations and intentions of Selected Reserve enlisted members. The graphs reveal a significant change in enlisted members' intentions beginning after the sixth year of service. Over 60 percent of reservists with prior active service say that retirement benefits had a major impact on their most recent decision to stay in the reserve. The next most important compensation factor is the need of money for basic family expenses.

Figures H-10 through H-17 show the responses of Selected Reserve officers to similar questions. Table H-1 shows the relative contribution of monetary and nonmonetary factors in reserve members' most recent decision to continue in reserve service as reported by their spouses. The table shows the percentage of those who say the factors made a "major contribution." For both officers and enlisted members, "getting credit toward military retirement" is the most important single factor.

On each graph, the vertical axis shows the percentage rate. On some graphs, the horizontal axis shows components; on others, it shows years-of-service (YOS) groups. Each YOS group is identified by a range of years of service. If the numbers in the range have a letter suffix, data is for a subset of the group. These subgroups are represented by the following suffixes:

- PS - Prior service
- NPS - No prior service
- RE - Retirement eligible
- NRE - Not retirement eligible

The following conclusions can be drawn from the graphs:

- Reserve retirement increases in importance to members after the sixth year of service.

- The majority of members with over six years of service (and the vast majority of those with more than 12 years) indicate an intent to stay in the reserves at least long enough to qualify for reserve retirement.

- For the reservist with six years of service or more, reserve retirement is a major factor in the decision to continue to participate.

- Reserve retirement is a more significant factor for members with prior service than for those without prior service.

- Reserve retirement credit is perceived as very important by the spouses of reservist as well as by the members themselves.

Table H-1 in this appendix shows the relative importance to spouses of all factors contributing to the most recent decision to stay in the Guard/Reserve. Percentages are given for spouses of enlisted members, of officers, and for all spouses.

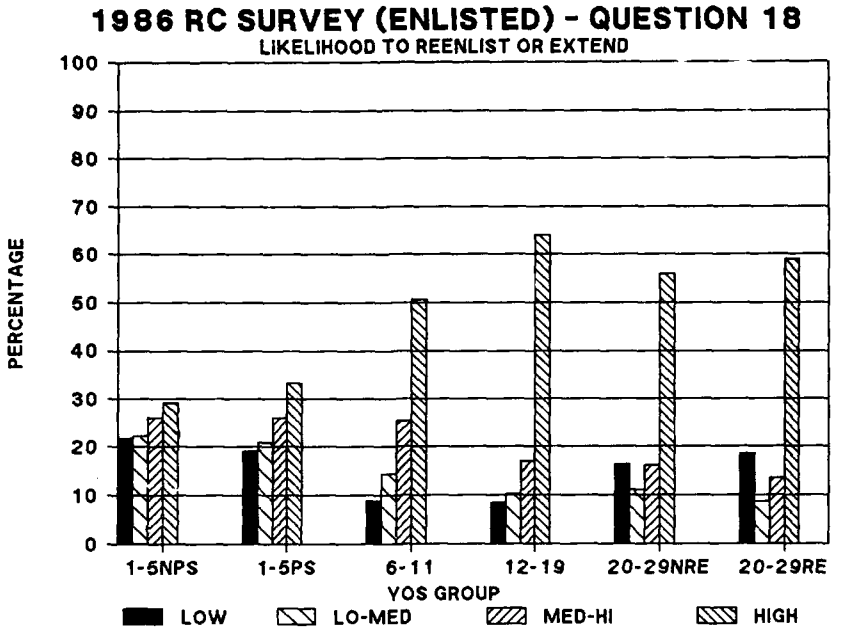


FIGURE H-1

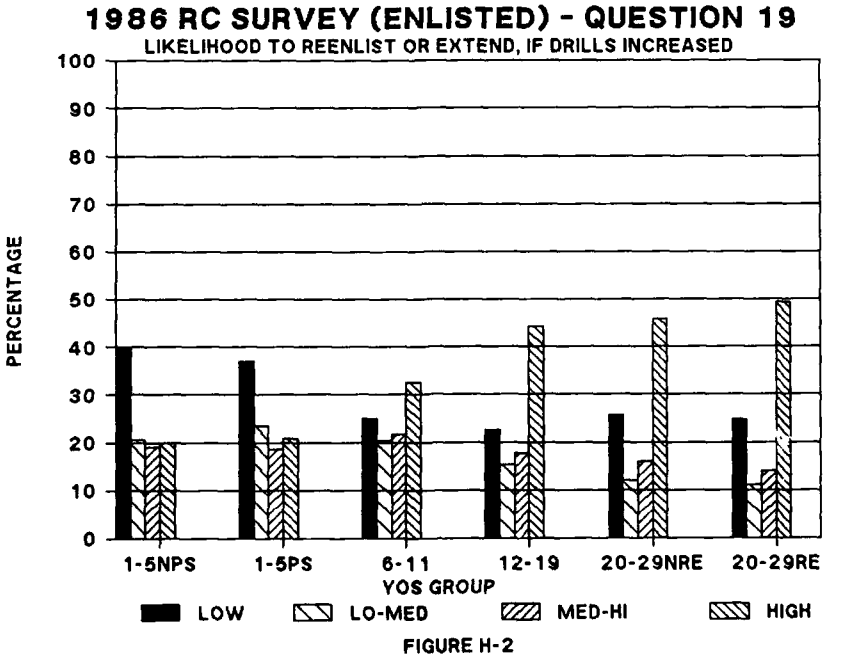


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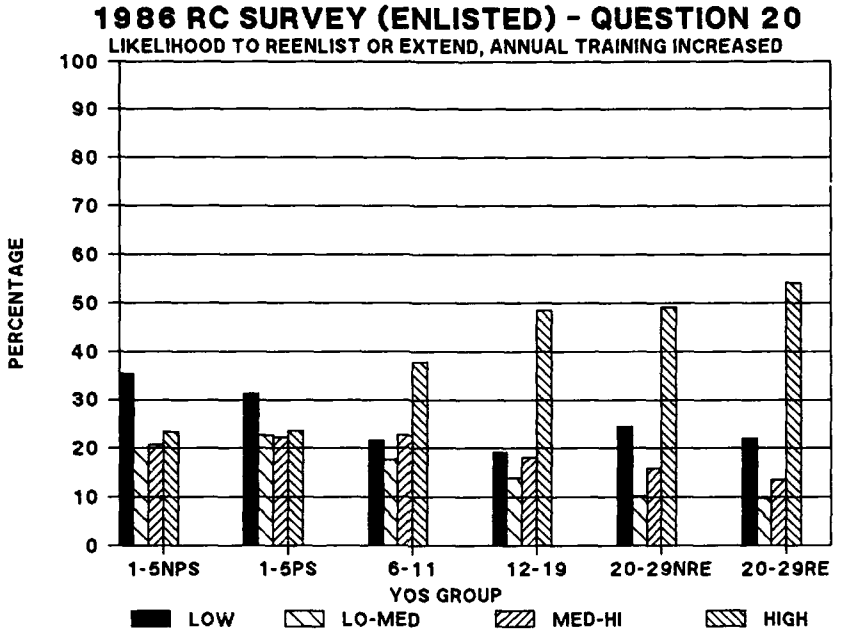


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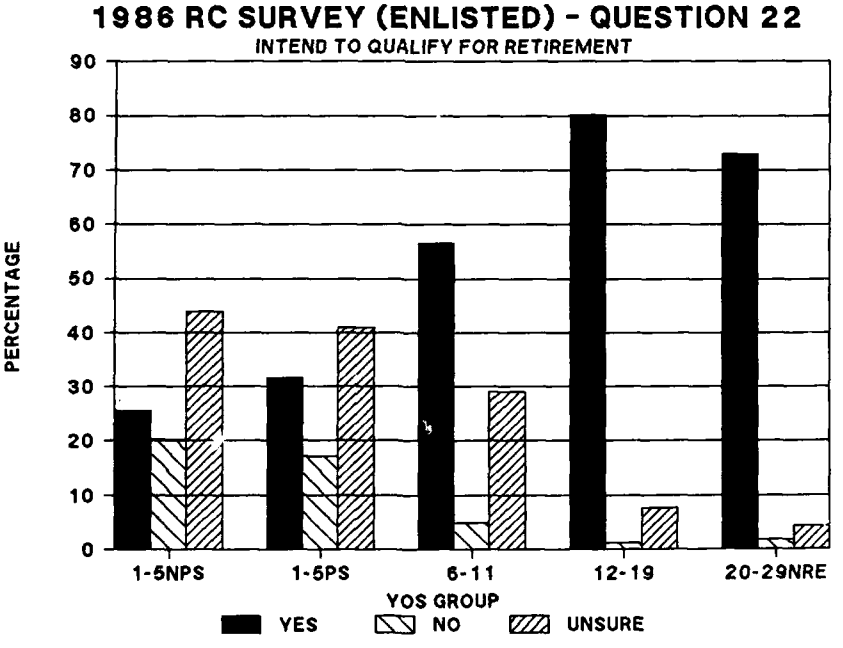


FIGURE H-4

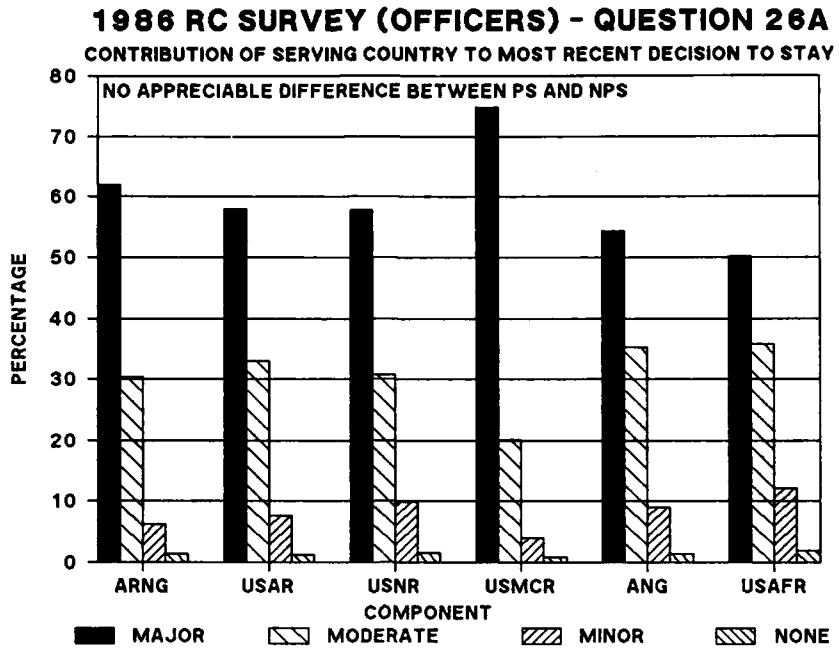


FIGURE H-5

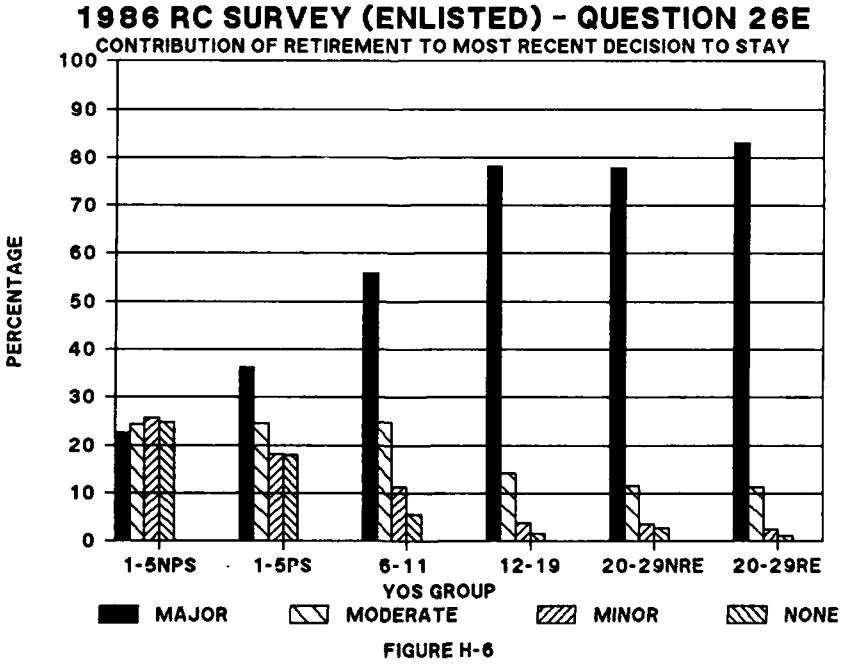


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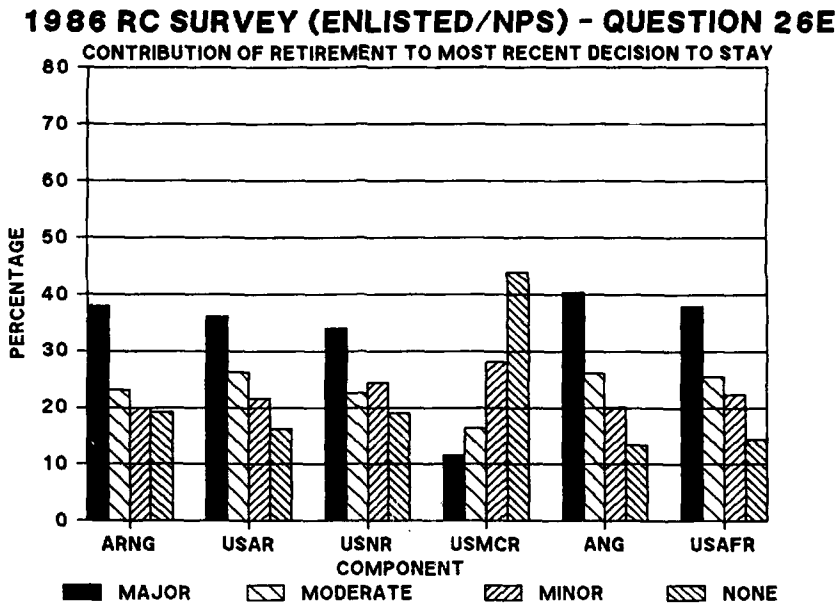


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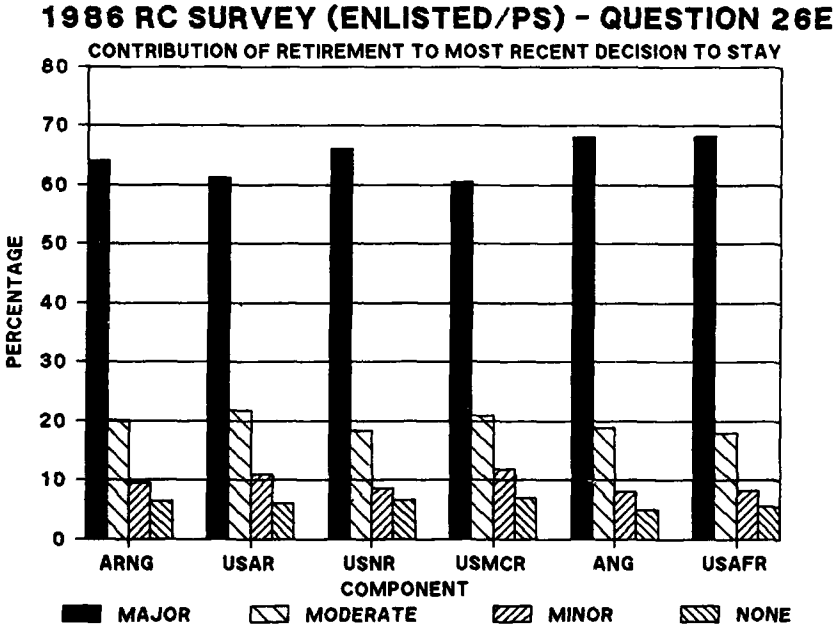


FIGURE H-8

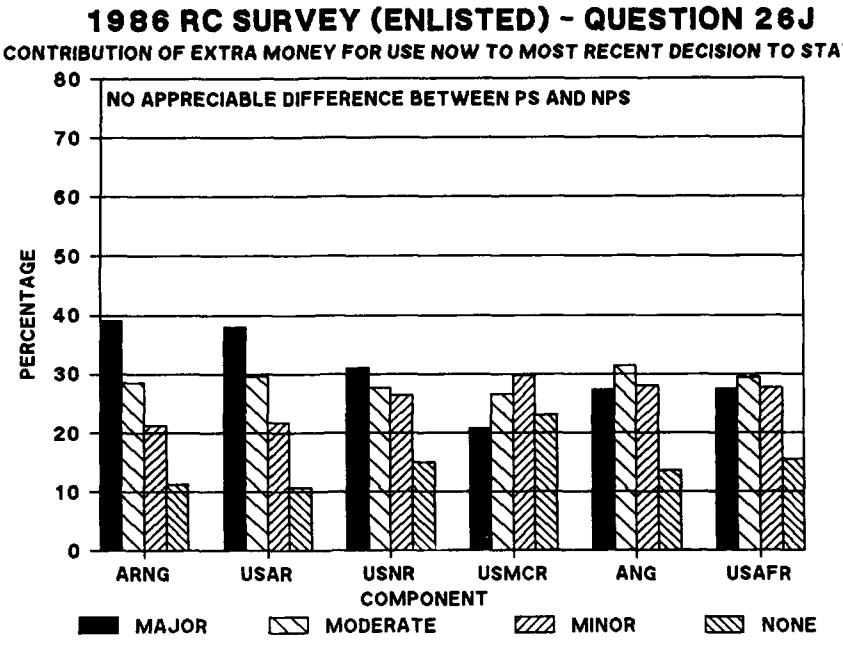


FIGURE H-9

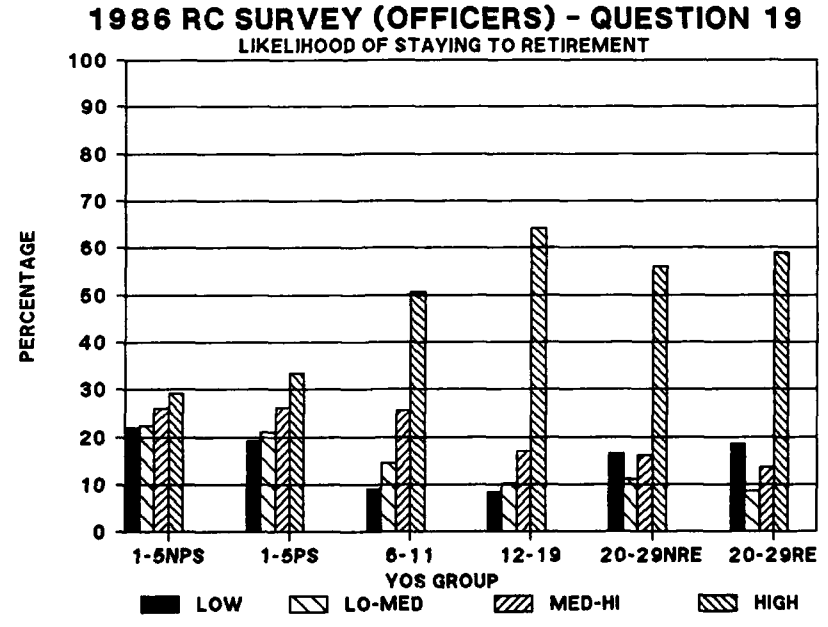


FIGURE H-10

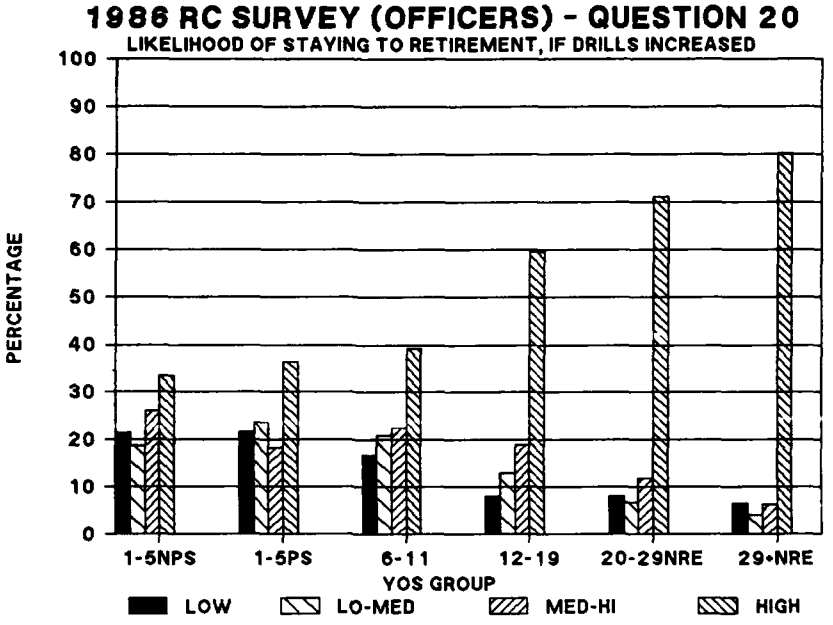


FIGURE H-11

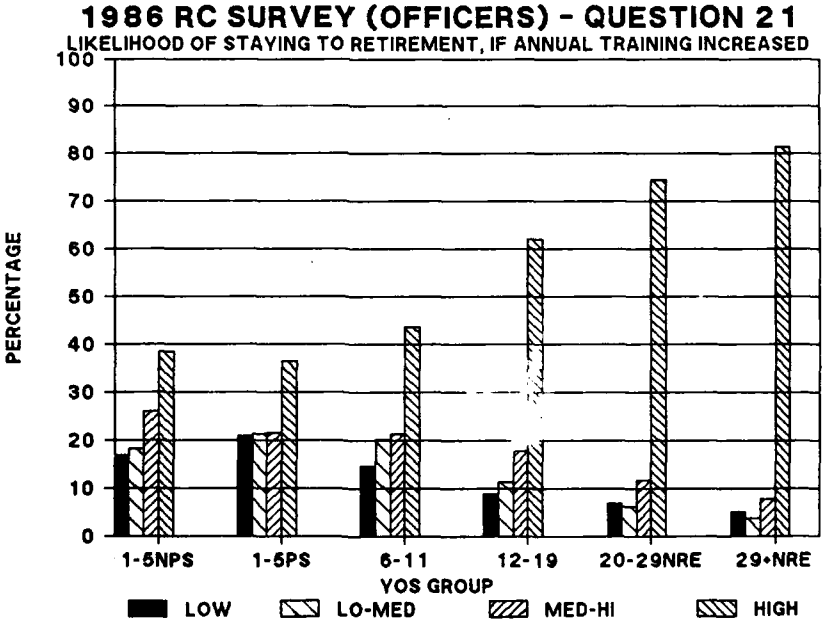


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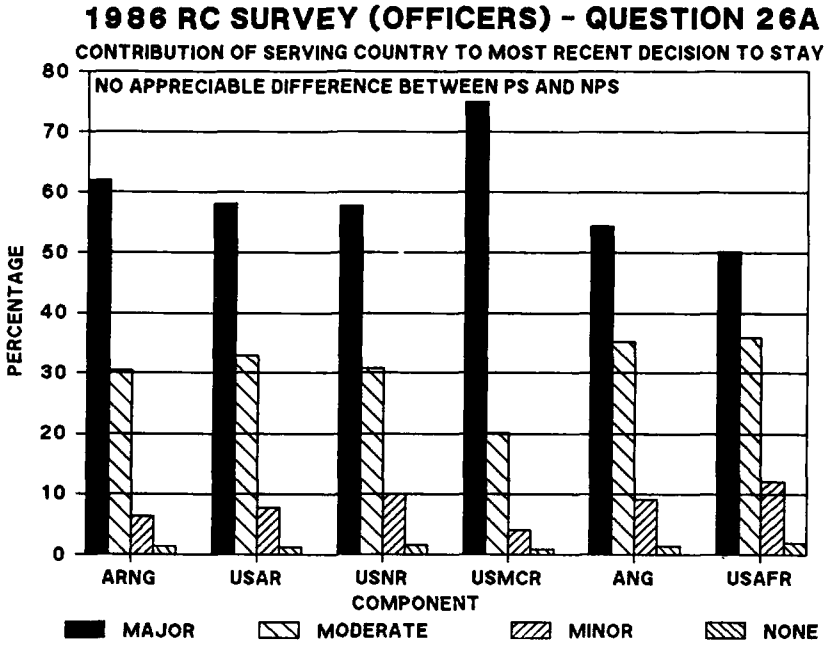


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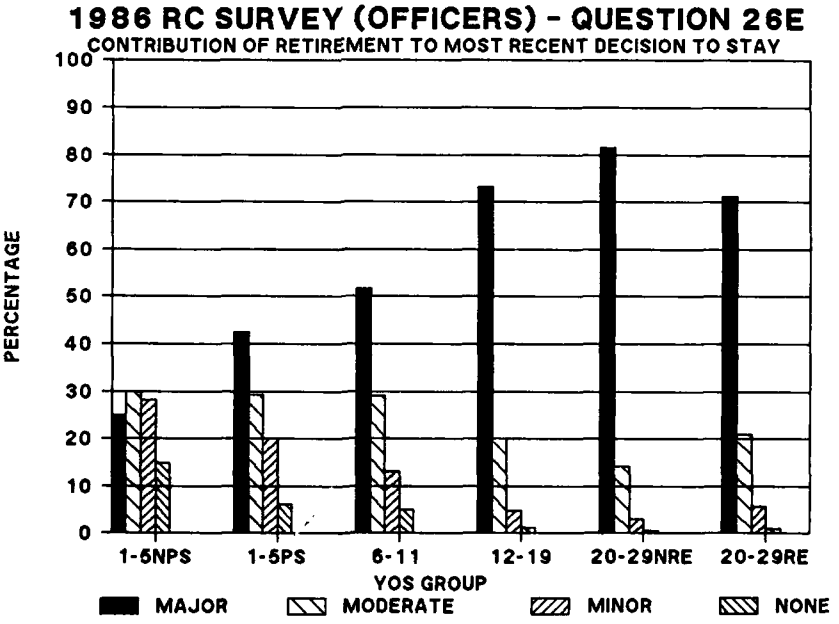


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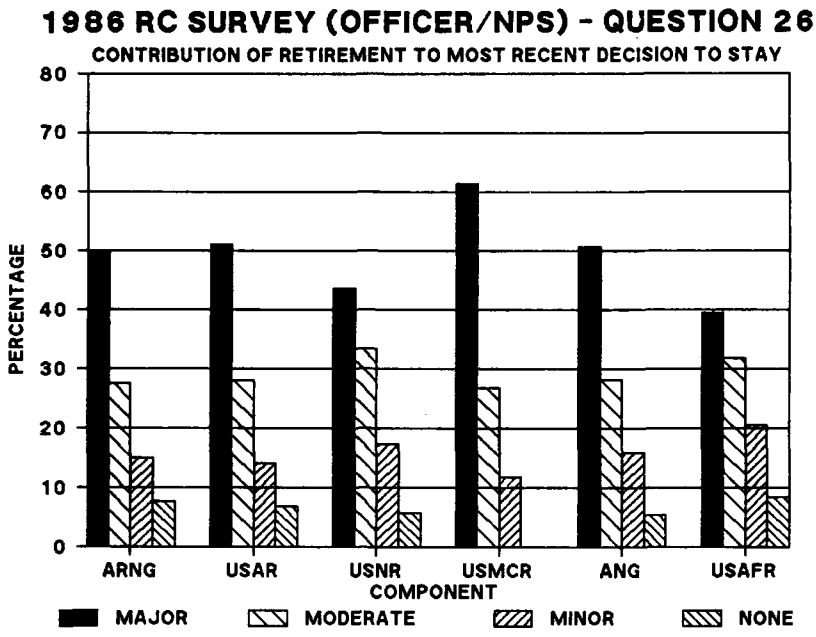


FIGURE H-15

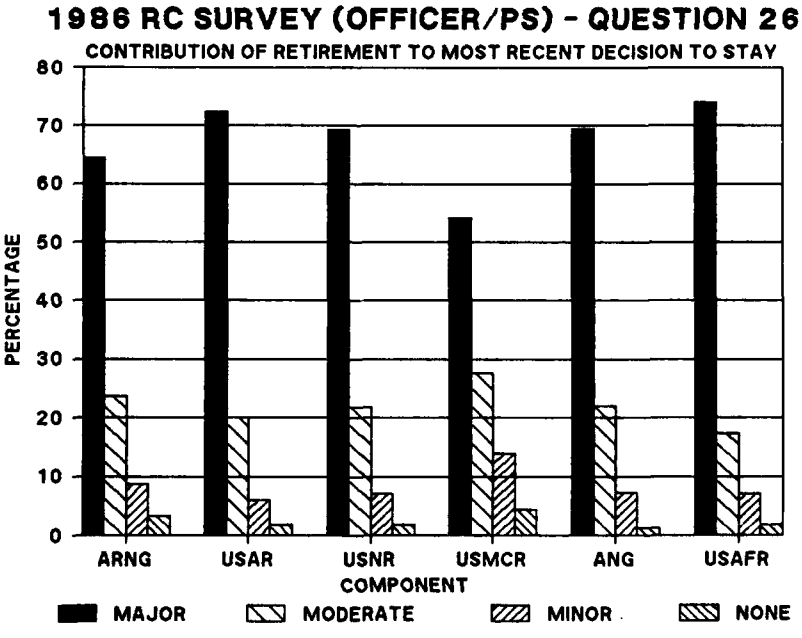


FIGURE H-16

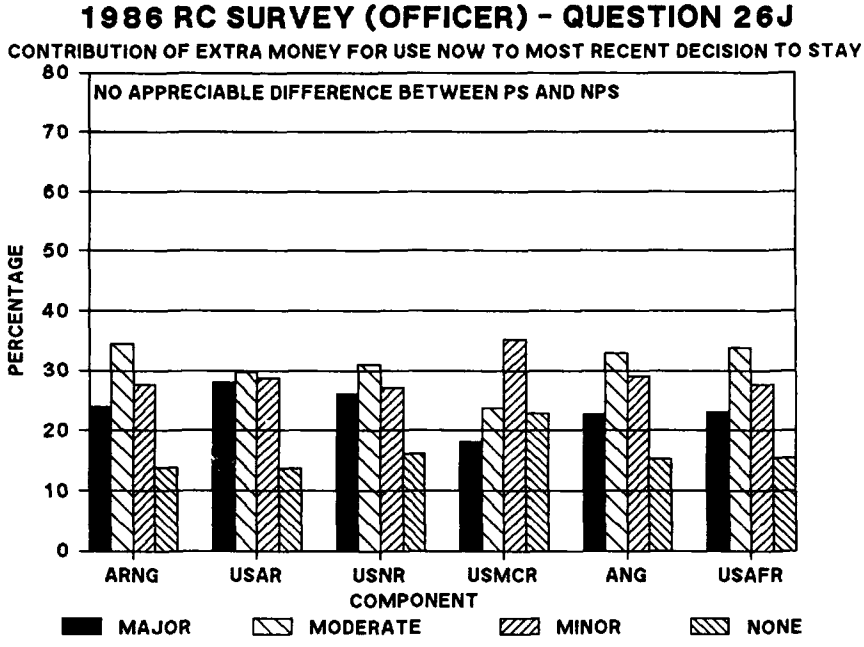

1986 RC SURVEY (OFFICER) - QUESTION 26J
CONTRIBUTION OF EXTRA MONEY FOR USE NOW TO MOST RECENT DECISION TO STAY
NO APPRECIABLE DIFFERENCE BETWEEN PS AND NPS
PERCENTAGE
80
70
60
50
40
30
20
10
0
ARNG
USAR
USNR
USMCR
ANG
USAFR
COMPONENT
MAJOR
MODERATE
MINOR
NONE

FIGURE H-17

Table H-1. Factors Contributing to Members Most Recent Decision to Stay in the Guard/Reserve: Percentage Who Say Factor Made a "Major Contribution"

Contributing Factor	Spouse of Enlisted Member	Spouse of Officer	Total
Getting credit toward military retirement	63.0%	74.2%	65.0%
Pride in Guard/Reserve accomplishments	48.4	54.8	49.5
Serving the country	46.7	51.3	47.5
Needed the money for basic family expenses	37.8	28.2	36.2
Promotion opportunities	34.1	45.3	36.0
Wanted extra money to use now	32.9	28.6	32.2
Just enjoy the Guard/Reserve	32.1	35.1	32.6
Challenge of military training	24.8	23.6	24.6
Serving with the people in the unit	22.8	21.3	22.5
Saving income for the future	17.4	22.4	18.3
Travel/'get away' opportunities	15.5	12.2	14.9
Obtain training to help get a civilian job	12.0	4.6	10.7
Opportunity to use military equipment	12.7	10.2	12.3
Using educational benefits	10.0	5.2	9.1

Source: Spouse Questionnaire: Q. 17,76

Appendix I. REGRESSION RESULTS FOR INTENT TO REENLIST, OR TO REMAIN UNTIL RETIREMENT (SYLLOGISTICS, INC.)

The following tables present the results of regression analysis of the intent to reenlist and the intent to remain until retirement for officers and enlisted members. The analysis of reserve component benefits based on the 1986 Reserve Components Surveys (done by Syllogistics, Inc.) concludes that retirement is the single most important benefit to members of the reserve components.

The DoD aggregate regression results are presented in this appendix. Pages I-2 through I-5 present DoD aggregate regression and logit regression results on intent to remain for officers and enlisted members. Credit for retirement, for both officers and enlisted, is the single most significant explanation for intent to remain in service. Pages I-6 through I-10 present logit results for officers and enlisted by pay grade groupings. Of special note are the results for pay grades E1-E4 (page I-6) where, again, credit for retirement dwarfs all other explanations for intent to reenlist or intent to remain until retirement.

Table I-1. Regression Results for Intent to Stay (Enlisted)

Variable	Intent to Reenlist Parameter Estimate	Intent to Reenlist T-Statistic*	Intent to Stay Until Retirement Parameter Estimate	Intent to Stay Until Retirement T-Statistic*
Intercept	6.25	39.06	0.34	15.39
Supervisor attitude	0.10	5.94	0.008	3.58
Absence for weekend drills	0.24	9.41	0.02	5.41
Absence for annual training	0.25	11.29	0.003	1.10
Received supplemental civilian pay	0.07	1.89	0.02	4.81
Age	-0.003	-1.04	0.01	29.33
Stayed in to serve country	0.47	19.80	0.03	7.94
Eligible for education benefits	0.48	13.57	0.06	12.49
Already eligible to retire	-0.98	-11.88	-0.84	-74.30
High school graduate	0.14	3.28	0.02	3.07
College graduate	0.34	6.63	0.04	5.90
Veteran	0.20	5.47	-0.004	-0.72
Stayed in for training to get a civilian job	0.07	4.53	-0.006	-2.99
Stayed in for credit toward retirement	1.44	73.58	0.21	77.76
Ratio of Reserve income to civilian pay	-0.0004	-0.40	0.000005	0.03
No. of observations:	30,794		30,906	
Adjusted R-Square:	0.266		0,361	

* T-statistics pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

Table I-2. Regression Results for Intent to Stay Until Retirement (Officers)

Variable	Parameter Estimate	T-Statistic*
Intercept	6.62	23.72
Supervisor attitude	0.06	2.31
Absence for weekend drills	0.08	1.94
Absence for annual training	0.13	3.72
Received supplemental civilian pay	0.12	2.16
Age	0.07	14.14
Stayed in to Serve country	0.44	11.64
Eligible for education benefits	0.07	1.16
College graduate	-0.31	-4.11
Veteran	0.13	2.44
Stayed in for training to get a civilian job	0.05	1.50
Stayed in for credit toward retirement	1.34	38.45
Ratio of Reserve income to civilian pay	0.02	1.59

No. of observations: 5,956
Adjusted R-Square: .31

* T-statistics pertains to null hypothesis that parameter estimate is 0. The critical T-statistic for a 95 percent confidence level is 1.645 for one-tailed test and 1.96 for two-tailed test; for a 90 percent confidence level it is 1.282 for one-tailed test and 1.645 for two-tailed test.

Table I-3. Logit Regression Results (All Enlisted)

	Intent to Reenlist*		Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**	Estimated Parameter	Chi-Square**
Intercept	0.53	16.81	0.38	9.21
Supervisor attitude	0.08	32.21	0.03	4.35
Absence for weekend drill	0.16	60.22	0.09	22.44
Absence for annual training	0.16	80.70	0.04	6.01
Received supplemental civilian pay	0.03	0.78	0.12	18.40
Age	-0.01	28.73	0.005	7.20
Stayed in to serve country	0.28	208.88	0.01	27.79
Eligible for education benefits	0.33	124.77	0.35	153.51
High school graduate	0.01	7.59	0.03	0.92
College graduate	0.21	23.84	0.39	93.54
Veteran	0.15	22.86	0.33	138.39
Already eligible to retire	-0.64	98.47	---	---
Stayed in for training to get a civilian job	0.06	22.12	-0.03	4.62
Stayed in for credit toward retirement	0.86	2895.04	1.11	3721.76
Ratio of Reserve income to civilian pay	-0.0006	0.39	-0.0001	0.01
	R = 0.406***		R = 0.448***	

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of Model", Biometrika, 67, 418.

Table I-4. Logit Regression Results (All Officers)

	Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**
Intercept	4.11	165.85
Supervisor attitude	0.02	0.32
Absence for weekend drill	0.05	0.93
Absence for annual training	0.07	2.69
Received supplemental civilian pay	0.08	1.37
Age	-0.09	304.25
Stayed in to serve country	0.29	43.22
Eligible for education benefits	0.25	11.31
College graduate	0.38	21.62
Veteran	0.31	23.87
Stayed in for training to get a civilian job	-0.01	0.10
Stayed in for credit toward retirement	0.99	597.31
Ratio of Reserve income to civilian pay	0.008	0.07

R = 0.353***

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

Table I-5. Logit Regression Results, Pay Grades E1-E4

	Intent to Reenlist*		Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**	Estimated Parameter	Chi-Square**
Intercept	-0.16	0.55	-1.28	30.56
Supervisor attitude	0.09	15.70	0.07	8.87
Absence for weekend drill	0.15	20.59	0.07	3.27
Absence for annual training	0.14	23.92	0.07	4.25
Received supplemental civilian pay	-0.12	5.44	0.04	0.59
Age	0.01	9.35	0.05	97.19
Stayed in to serve country	0.28	85.22	0.20	29.70
Eligible for education benefits	0.42	83.31	0.45	81.28
High school graduate	0.03	0.25	-0.05	0.82
College graduate	-0.19	4.28	0.21	4.69
Veteran	-0.10	3.12	-0.09	2.04
Already eligible to retire	-1.43	5.85	---	---
Stayed in for training to get a civilian job	-0.07	12.86	-0.04	3.71
Stayed in for credit toward retirement	0.84	1327.78	1.06	1369.44
Ratio of Reserve income to civilian pay	0.0009	0.32	0.001	0.12
	R = 0.436***		R = 0.482***	

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of Model", Biometrika, 67, 413-418.

Table I-6. Logit Regression Results, Pay Grades E5-E9

	Intent to Reenlist*		Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**	Estimated Parameter	Chi-Square**
Intercept	1.46	65.70	1.79	125.35
Supervisor attitude	0.09	23.01	0.03	3.32
Absence for weekend drill	0.16	37.37	0.10	17.65
Absence for annual training	0.20	68.41	0.05	5.30
Received supplemental civilian pay	0.05	1.71	0.07	4.38
Age	-0.04	203.39	-0.03	140.60
Stayed in to serve country	0.30	136.39	0.08	11.86
Eligible for education benefits	0.19	23.18	0.22	39.06
High school graduate	0.11	5.78	0.03	0.41
College graduate	0.25	23.17	0.33	54.62
Veteran	0.13	12.32	0.32	92.92
Already eligible to retire	-0.49	54.87	---	---
Stayed in for training to get a civilian job	0.09	23.46	-0.02	1.54
Stayed in for credit toward retirement	0.79	1127.50	1.07	1866.96
Ratio of Reserve income to civilian pay	0.02	0.60	0.005	0.18
	R = 0.326***		R = 0.331***	

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of Model", Biometrika, 67, 413-418.

Table I-7. Logit Regression Results, Pay Grades 01-02, W1

	Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**
Intercept	0.71	0.87
Supervisor attitude	0.005	0.01
Absence for weekend drill	0.13	1.48
Absence for annual training	0.15	2.44
Received supplemental civilian pay	0.20	1.68
Age	0.01	0.59
Stayed in to serve country	0.26	5.99
Eligible for education benefits	0.55	9.42
College graduate	-0.05	0.07
Veteran	0.55	9.36
Stayed in for training to get a civilian job	0.06	0.65
Stayed in for credit toward retirement	1.01	161.84
Ratio of Reserve income to civilian pay	0.20	4.24

R = 0.436***

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

Table I-8. Logit Regression Results, Pay Grades 03-05, W2-W4

	Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**
Intercept	4.94	137.37
Supervisor attitude	0.01	0.08
Absence for weekend drill	0.04	0.46
Absence for annual training	0.07	2.23
Received supplemental civilian pay	-0.01	0.02
Age	-0.11	237.10
Stayed in to serve country	0.35	49.01
Eligible for education benefits	0.10	1.31
College graduate	0.47	22.00
Veteran	0.14	3.65
Stayed in for training to get a civilian job	0.002	0.01
Stayed in for credit toward retirement	0.94	347.73
Ratio of Reserve income to civilian pay	0.0003	0.01

R = 0.339***

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter estimate is 0. The critical Chi-Square statistic for a 95 percent level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

Table I-9. Logit Regression Results, Pay Grades 06-07

	Intent to Stay Until Retirement*	
	Estimated Parameter	Chi-Square**
Intercept	-1.47	0.54
Supervisor attitude	0.19	2.54
Absence for weekend drill	-0.09	0.19
Absence for annual training	0.01	0.01
Received Supplemental civilian pay	-0.01	0.01
Age	-0.01	0.18
Stayed in to serve country	0.12	0.38
Eligible for education benefits	0.81	4.40
College graduate	1.39	3.99
Veteran	0.27	1.20
Stayed in for training to get a civilian job	0.01	0.01
Stayed in for credit toward retirement	-0.39	5.40
Ratio of Reserve income to civilian pay	-0.38	0.30

R = 0.320***

* Dependent variable.

** Chi-Square statistic pertains to null hypothesis that parameter is 0. The critical Chi-Square statistic for a 95 percent confidence level is 3.84.

*** R is a statistic that is between -1 and +1 and provides a measure of the contribution of variables independent of the sample size. R measures the predictive ability of the model and is similar to the multiple correlation coefficient. For more information see Atkinson, A. C. (1980), "A Note on the Generalized Information Criterion for Choice of a Model", Biometrika, 67, 413-418.

Appendix J. LOGISTICS MANAGEMENT INSTITUTE ANALYSIS

AGES/JOB ASSIGNMENTS IN THE RESERVE COMPONENTS

A Technical Analysis Paper
prepared for the
Sixth Quadrennial Review of Military Compensation

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AGES/JOB ASSIGNMENTS IN THE RESERVE COMPONENTS

INTRODUCTION

Concern has been expressed often about "aging of the force" in the reserve components. As the combat experienced Vietnam veterans who remained in the reserve grow older year by year, the "hump" shows up graphically in age charts of all the reserve components. Two distinct problems can be implied by the "aging of the force" issue. One is that the current force contains many members who are too old to perform their job effectively; e.g., the over-40 year old infantryman who may be required to assault enemy positions on a future battlefield. The second problem is that the current age distribution could, at some future time, lead to excessive numbers of reservists who are too old for their assigned jobs. In either case, quantitative descriptions of these potential problems are most useful when age requirements, inventory, and other data are disaggregated into job categories.

This paper analyzes the current force only by relating the ages of reserve component members to their current assignments within each reserve component. This is accomplished by separating each component into DoD Occupational Groups and tabulating the age groups within each of the Occupational Groups for each reserve component. The tables were constructed from data provided by the Defense Manpower Data Center (DMDC) from the Reserve Components Common Personnel Data System (RCCPDS). The data came from the May 1987 data base. Members were placed in occupational groups based on their duty specialty rather than their primary specialty. This assures that the analysis is based on jobs actually being performed by reservists rather than on other jobs for which they might have been trained.

Within the minimum and maximum age limits of military service, there are many jobs in all the reserve components for which age is not a significant criterion. Many jobs require specialized knowledge and technical skills which can be acquired only through experience. These jobs can be – and are being – filled by individuals with long service in the same unit, many of whom returned to their home town after active service.

On the other hand, youth and vigor are prime requisites for infantrymen and some other combat arms jobs, all of which are identified in the Occupational Groups discussed herein. Even in the combat arms some jobs require experience as well as technical knowledge and leadership with the result that some personnel in the older age brackets can be found in the combat arms in both the active and reserve components.

Officer and enlisted personnel are classified separately by Occupational Groups in the DoD Occupational Conversion Manual. We discuss them separately in the following sections. About one-third of enlisted Naval Reservists are not included in any occupational group due to a data problem which classifies them as "unknown."

ENLISTED OCCUPATIONAL GROUPS

In this section we examine separately each of nine Enlisted Occupational Groups (groups 0 through 8) by age group for each reserve component and for all reserve components. Occupational group 9, which includes trainees, students, patients, prisoners, and transients, is not discussed. We also display the same data by age group for each active component and for all active components in the same Enlisted Occupational Groups.

Electronic Equipment Repairmen

This Enlisted Duty Occupational Group 100 – 199 includes specialists in the maintenance and repair of various types of electronic and allied equipment, including radio, radar, navigation, weapons, and computers, among others.

Table 1 shows that even in this field where highly technical knowledge and experience are the prime requisites, only 17.9 percent of reserve component members are over 40 years old. This varies across the components with the Air National Guard having the highest percentage (23.3 percent) of personnel over 40. This is natural with the high emphasis in this component on electronic equipment associated with combat aircraft.

Reserve component personnel in this group are generally older that active personnel, especially in the Air Force and Navy (see Table 2), because many of these jobs are filled primarily by personnel who learned their high skills on active duty. Earlier studies have documented the difficulty of training non-prior-service personnel for these high skill jobs.

Incumbent age is not of significant or primary importance to jobs in this field in either the active or reserve components.

Communications and Intelligence Specialists

This Enlisted Duty Occupational Group 200 – 299 includes the operation and monitoring of radio, radio teletype, radar, sonar and allied communications and intelligence consoles. The group also includes specialists who gather and interpret photographic, electronic, and documentary intelligence.

The same situation prevails here as in the previous occupational group. Only 11.6 percent of reserve component members are over 40, and the Air National Guard

TABLE 1

RESERVE COMPONENTS

Enlisted Duty Occupational Group 100-199 – Electronic Equipment Repairmen
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	15 4	19.7	3.4	3.8	3 3	21 7	9 7
< = 24	34 5	44 0	20 2	18.6	19 3	60 7	28 5
< = 28	50.1	62.0	37.9	39.8	36 8	78 8	45 9
< = 32	61 3	74 1	51 0	57 4	52 3	87 3	58 9
< = 36	71 7	82 4	63 4	70 4	63 8	90 8	69 8
< = 40	83 0	90 9	76 7	85 0	79 4	96 2	82 1
< = 44	90 1	95 1	85 6	90 1	90 3	98 6	89 7
< = 48	94 4	97 6	91 9	94 1	95 8	99 6	94 4
< = 52	97 7	99 0	97 3	97 9	98 2	99 9	97 9
Total	10,915	3,834	10,017	3,050	5,806	1,352	34,974
Mean	30 6	27 8	33 4	32 3	33 0	25 5	31 4

TABLE 2

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 100-199 – Electronic Equipment Repairmen
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	15.2	10.8	13.7	10.1	11.6
< = 24	41.9	44.6	55.1	37 4	42.1
< = 28	61.4	68.8	76.3	63.3	65.9
< = 32	76.5	83.2	87.3	77 9	80.3
< = 36	88.0	91.7	93.6	88.4	89.9
< = 40	96.7	97.5	98.5	96 6	97.1
< = 44	99.2	99.3	99.6	99.2	99.3
< = 48	99.8	99.9	99.9	99.9	99.9
< = 52	100.0	100.0	100.0	100 0	100.0
Total	30,228	61,867	10,125	58,977	161,197
Mean	27.4	26.7	25.5	27.6	27 1

has the highest percentage (24.6 percent) of personnel over 40 for the same reasons as with electronic equipment repairmen (see Table 3).

TABLE 3

RESERVE COMPONENTS

Enlisted Duty Occupational Group 200-299 – Communications and Intelligence Specialists (Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	13.4	22 0	5 7	5 0	4 0	24 8	14 3
< = 24	45.0	49 3	23 2	17 3	23 1	66 7	43 1
< = 28	62.1	67 6	37 9	33 5	39 7	82 1	60 2
< = 32	67 9	77 5	49 6	47 1	54 7	88 1	68 3
< = 36	80 8	84 3	60 8	60 4	66 8	91 6	79 3
< = 40	89 4	91 4	75 4	76 6	81 3	95 4	88 4
< = 44	94 4	95 7	86 0	86 0	90 4	97 9	93 9
< = 48	97 0	97 9	92 5	91 9	95.8	99 4	96 9
< = 52	98 8	99 1	97 3	97 0	98 4	99 9	98 8
Total	40,999	16,151	3,575	666	8,095	3,009	72,495
Mean	28 1	26 8	33 4	34 0	32 3	24 7	28 5

Here also reserve component personnel are generally older than active personnel for the same reasons as in the previous occupational group. Even so, the mean age of reserve component personnel in this group is only 2.3 years higher than active personnel (see Table 4).

Health Care Specialists

This Enlisted Duty Occupational Group 300 – 399 includes specialists in patient care and treatment, ancillary medical support, and in technical and related medical and dental services, administration and logistics.

Here we find a somewhat different picture which is explainable by the difference in medical duties among the components (see Table 5). Overall, 10.3 percent of all reserve component members in this group are over 40. In the Army Reserve 7.7 percent are over 40 and in the Army National Guard 11.4 percent are over 40. Looked at the other way, about 90 percent of reserve component personnel in this group are under 40 except in the Air National Guard. These numbers provide ample room for personnel managers to assure youth and vigor among medical personnel serving in the forward combat areas upon mobilization.

TABLE 4

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 200-299 – Communications and Intelligence Specialists
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	19.1	16.3	23.0	11.4	17.2
< = 24	50.8	50.2	62.8	37.0	49.0
< = 28	71.5	71.0	80.1	61.9	70.2
< = 32	84 7	83.8	89.1	76.5	83.3
< = 36	92.9	91 6	94.3	87.1	91 6
< = 40	97.9	97.1	98.0	96.0	97 3
< = 44	99 4	99 1	99.3	99.1	99 2
< = 48	99 9	99 8	99.9	99.9	99 9
< = 52	100.0	100 0	100.0	100.0	100.0
Total	78,689	48,733	11,834	30,750	170,006
Mean	25.9	26 1	24.6	27.8	26.2

TABLE 5

RESERVE COMPONENTS

Enlisted Duty Occupational Group 300-399 – Health Care Specialists
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	18 0	24 7	4 7	6 1	9 6	---	18 2
< = 24	40 5	48 3	21 4	25 3	30 7	---	40 4
< = 28	57 2	64 5	39 2	46 2	49 0	---	57 5
< = 32	69 0	76 0	52 2	63 4	65 1	---	70 3
< = 36	79 0	84 7	66 3	76 9	77 8	---	80 6
< = 40	88 6	92 3	79 9	87 6	88 4	---	89 7
< = 44	93 7	96 1	88 8	93 1	94 2	---	94 5
< = 48	96 7	98 2	93 6	96 1	96 9	---	97 2
< = 52	98 5	99 3	97 4	98 4	98 5	---	98 8
Total	18,513	30,433	3,568	6,379	7,944	---	66,837
Mean	28 8	27 1	32 8	30 8	30 1	---	28 6

Here the ages of active and reserve component personnel are closely parallel. On the average reserve component personnel are only 1.7 years older (see Table 6).

TABLE 6

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 300-399 – Health Care Specialists
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	15.0	13.2	---	12.7	13.8
< = 24	43.0	45.2	---	47.1	44.8
< = 28	63.5	66.6	---	68.4	65.8
< = 32	78.6	80.4	---	80.7	79.7
< = 36	89.6	90.7	---	89.9	90.0
< = 40	96.6	97.2	---	96.7	96.8
< = 44	99.0	99.1	---	99.1	99.0
< = 48	99.8	99.8	---	99.9	99.8
< = 52	100.0	100.0	---	100.0	100.0
Total	41,964	29,630	---	28,309	99,903
Mean	27.1	26.8	---	26.7	26.9

Other Technical and Allied Specialists

This Enlisted Duty Occupational Group 400 – 499 includes specialists in technical and professional-type skills not elsewhere classified. These skills include photography, cartography, meteorology, ordnance disposal, laboratory analysis, and music, among others.

None of the specific job descriptions within this broad group appear to require youth and vigor as a prerequisite, and Table 7 reflects a broad spread among all age groups with 18.3 percent of all reserve component personnel over the age of 40. Since these are such highly specialized assignments, the table seems to reflect the highly desirable recruitment and retention of prior-service personnel who gained such experience on active duty.

As expected, reserve component personnel are generally older (by 3.3 years) than active component personnel in this group but this reflects the retention of these highly skilled personnel where such an age difference is not significant (see Table 8).

TABLE 7

RESERVE COMPONENTS

Enlisted Duty Occupational Group 400-499 – Other Technical and Allied Specialists
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	12 6	19.8	3.9	4.1	3.1	22 7	12 2
< = 24	30 2	42.8	18.0	18.8	12 8	63 5	30 5
< = 28	45 0	61 0	32.1	38.5	28 0	78 4	46.4
< = 32	56.0	72.4	45 8	51 3	40 7	85 1	58 1
< = 36	66 8	80 7	57 9	64 9	54 9	91 5	68 7
< = 40	80 9	89 6	74 2	79 0	70 9	96 2	81 7
< = 44	89 1	94 7	84.8	88 2	82 2	98 9	89 6
< = 48	93 8	97 2	91 7	93.2	89 1	99 8	94 2
< = 52	97 3	99.0	96 8	97 3	94 6	100.0	97 6
Total	11,074	7,447	5,357	1,552	1,143	529	27,102
Mean	31 7	28.1	34.3	33.1	35 6	25 1	31.3

TABLE 8

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 400-499 – Other Technical and Allied Specialists
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	10.4	5.7	16.8	10.9	10.3
< = 24	34.9	26.9	52.2	39.3	36.7
< = 28	57.9	52.7	71.4	61.4	59.5
< = 32	76.5	72.2	84.1	75.5	76.0
< = 36	88.6	84.0	91.7	86.6	87.3
< = 40	96.3	93.0	97.3	95.9	95.7
< = 44	98.9	97.3	98.8	99.0	98.9
< = 48	99.8	99.3	99.8	99.8	99.8
< = 52	100.0	99.8	100.0	100.0	100.0
Total	15,790	7,223	3,402	18,508	44,923
Mean	28.0	29.3	26.1	27.8	28.0

Functional Support and Administration

This Enlisted Duty Occupational Group 500 – 599 includes general administrative, clerical and personnel specialists. The group also includes administrative specialists in data processing, information, and related areas, and functional support specialists in areas such as supply, transportation, and flight operations.

Here again no specific job descriptions within this group appear to require youth and vigor as prerequisites, and the tables reflect a broad spread similar to that of the Other Technical and Allied Specialists. Here 18.9 percent of all reserve personnel are over 40 with the Air National Guard having the highest percentage (27.1 percent) over 40 (see Table 9).

TABLE 9

RESERVE COMPONENTS

Enlisted Duty Occupational Group 500-599 – Functional Support and Administration
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	10 0	18 6	4 4	4 2	3 1	19 7	11 6
< = 24	26 7	41 8	18 4	16 2	14 0	53 0	30 0
< = 28	41 7	58 4	32 1	29 7	27 0	69 5	45 1
< = 32	53 7	70 1	44 3	43 8	40 3	80 0	57 3
< = 36	65 5	78 9	58 1	57 9	56 0	86 5	68 6
< = 40	78 9	88 2	72 9	74 4	73 4	93 7	81 1
< = 44	87 3	93 8	82 7	85.0	86 0	97 1	89 0
< = 48	92 3	96.7	89 5	91 2	93 2	99 1	93 7
< = 52	96 1	98 6	95 2	95 9	97 2	99 8	97 0
Total	59,758	62,190	21,740	15,774	12,071	5,218	176,751
Mean	32 4	28 6	34 6	33 1	34 9	26 6	31 5

Just as in the previous group, reserve component members are generally older (by 3.1 years) than active component personnel who do the same work (see Table 10). In actual numbers of personnel over 40 in the reserve components, this group accounts for the largest number – 33,406 individuals – and age is not a job criterion.

TABLE 10

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 500-599 – Functional Support and Administration
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	13.9	7.5	15.4	10.0	11.4
< = 24	39.7	31.0	46.2	35.2	37.1
< = 28	58.2	53.5	66.9	55.8	57.3
< = 32	73.5	69.5	80.6	69.6	72.0
< = 36	85.3	83.5	89.4	82.3	84.3
< = 40	94.3	92.8	96.2	94.3	94.2
< = 44	97.9	97.3	98.6	98.5	98.1
< = 48	99.5	99.3	99.7	99.8	99.7
< = 52	99.9	99.8	99.9	100.0	99.9
Total	104,942	54,745	29,253	110,664	299,604
Mean	28.1	29.1	26.8	28.7	28.4

Electrical/Mechanical Equipment Repairmen

This Enlisted Duty Occupational Group 600 – 699 includes specialists in the maintenance and repair of electrical, mechanical, hydraulic, and pneumatic equipment.

In all the Services, the preponderant numbers of these personnel would work in areas far removed from the battlefield, mostly in major repair shops and installations. Age appears not to be a major consideration in any specialty subset within this occupational group, and the table above reflects a wide spread among all age groups with 17.0 percent of all reserve component members over 40 years old (see Table 11). Here again the Air National Guard has the highest percentage (26.7 percent) over 40, reflecting stability and traditional long service in local Air National Guard units.

As in other groups, reserve component members are generally older (by 4.7 years) than active component members (see Table 12). This group accounts for another 26,951 reserve component personnel over 40, and age is not a job criterion.

TABLE 11

RESERVE COMPONENTS

Enlisted Duty Occupational Group 600-699 – *Electrical/Mechanical Equipment Repairmen*
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	15.8	22.5	4.0	5.4	2.7	22.9	13.1
< = 24	35.5	48.2	18.2	20.8	22.8	63.5	33.2
< = 28	51.7	65.5	33.6	38.1	41.1	79.8	49.8
< = 32	62.6	76.3	45.3	52.6	53.8	86.8	61.2
< = 36	72.5	83.7	57.5	64.5	64.9	91.5	71.2
< = 40	83.9	91.7	73.3	79.0	78.7	96.3	83.0
< = 44	90.6	95.6	83.6	87.6	87.8	98.7	90.0
< = 48	94.5	97.8	90.1	92.1	93.6	99.6	94.2
< = 52	97.5	99.1	95.8	96.0	97.2	99.9	97.4
Total	70,010	27,312	25,922	15,817	14,008	5,468	158,537
Mean	30.3	27.2	34.5	33.1	32.8	25.0	30.8

TABLE 12

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 600-699 – Electrical/Mechanical Equipment Repairmen
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	19.2	13.2	19.5	15.4	15.9
< = 24	54.3	49.1	60.4	44.6	49.8
< = 28	73.3	72.1	79.5	67.5	71.5
< = 32	85.3	84.2	89.3	80.7	83.7
< = 36	92.8	92.5	95.4	89.9	92.0
< = 40	97.9	97.4	98.8	97.5	97.7
< = 44	99.5	99.2	99.6	99.4	99.4
< = 48	99.9	99.8	99.9	99.9	99.9
< = 52	100.0	100.0	100.0	100.0	100.0
Total	95,652	126,569	28,064	121,193	371,478
Mean	25.6	26.2	24.8	26.7	26.1

Craftsmen

This Enlisted Duty Occupational Group 700 – 799 includes the formation, fabrication, and installation of structures and components, the installation and maintenance of utilities, and related trades and crafts.

The jobs in this occupational group are typically performed some distance from the battlefield, and most of them require specialized knowledge and experience. Age is not a job criterion. As in other groups, Table 13 reflects a wide spread among all age groups with 20.2 percent of all reserve component personnel in this group over 40 years old.

TABLE 13

RESERVE COMPONENTS

Enlisted Duty Occupational Group 700-799 – Craftsmen
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	18 2	26 2	3 0	4 2	4 8	28 8	13 4
< = 24	39 0	51 7	14 6	17 5	21 6	71 2	32 5
< = 28	54 9	67 4	27 5	34 1	33.0	86 2	47 0
< = 32	66 0	76 9	38 5	47 6	42 6	91 6	57 5
< = 36	75 7	83.8	51 9	61 2	53 3	94 2	67 7
< = 40	86 1	91 5	68 4	75 8	68 6	97 0	79 8
< = 44	92 3	95 9	80 5	85 2	79 8	99 2	87 9
< = 48	95 9	97 8	88 5	91 5	88.2	99 6	93.1
< = 52	98 1	99 1	95 1	95 9	94 3	100 0	96.8
Total	16,861	12,517	9,800	5,610	12,086	1,069	57,943
Mean	29 4	26 8	35 9	34 1	35 1	23 9	31 5

Reserve component members in this group are generally older (by 4.9 years) than active component personnel (see Table 14).

Service and Supply Handlers

This Enlisted Duty Occupational Group 800 – 899 includes personnel involved in protective and personal services and nonclerical personnel involved in warehousing, food handling, and motor transportation.

Some jobs in this occupational group are better fitted for younger personnel, particularly in certain types of combat support units. Table 15 shows the Army

TABLE 14

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 700-799 – Craftsmen
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	18.0	11.9	24.2	11.3	13.6
< = 24	55.3	46.8	63.5	42.9	48.0
< = 28	73.5	69.3	82.3	64.2	69.0
< = 32	85.1	81.5	92.5	77.1	81.2
< = 36	91.8	90.1	97.3	87.5	89.9
< = 40	97.3	96.3	99.2	96.5	96.7
< = 44	99.2	98.6	99.9	99.1	99.0
< = 48	99.8	99.6	100.0	99.9	99.8
< = 52	100.0	99.9	100.0	100.0	100.0
Total	13,918	25,591	4,210	26,684	70,403
Mean	25.7	26.7	24.2	27.4	26.6

Reserve, which is heavy in support type units, has the lowest percentage (11.1 percent) of personnel over 40 years old, except for the Marine Corps Reserve which has the youngest personnel in all categories. On the average, reserve component personnel are 4 years older than active component personnel in this group (see Table 16). Tables 15 and 16 reflect ample numbers to fill all jobs requiring youth with personnel in the younger age brackets.

Infantry, Gun Crews, and Seamanship Specialists

This Enlisted Duty Occupational Group 001 – 099 includes individual weapons specialists and crew-served artillery specialists, armor and amphibious crewmen, and specialists in combat engineering and seamanship.

We shall examine this group more closely because it includes a high proportion of the jobs for which youth and vigor are important criteria. Even here, however, many jobs require extensive knowledge and experience because these are the individuals who engage the enemy in combat. They must be led and supported by personnel with adequate knowledge and experience to assure success. Senior sergeants in all the army combat arms, air crew members of all the Services, security guards, patrol and drug detector dog handlers in the Navy, fall in this broad occupational group. For these reasons, we cannot expect 100 percent of personnel under 40 years old even in this occupational group.

TABLE 15

RESERVE COMPONENTS

Enlisted Duty Occupational Group 800-899 – Service and Supply Handlers
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	13.5	19.0	4.6	6.0	4.8	28.7	14.5
< = 24	32.7	45.0	18.1	21.2	21.4	71.4	36.1
< = 28	47.6	62.0	30.2	37.2	37.7	85.8	51.5
< = 32	58.0	71.9	40.0	49.8	50.7	91.2	61.8
< = 36	68.3	79.8	53.6	62.8	63.0	94.4	71.6
< = 40	80.6	88.9	70.0	77.2	78.8	97.7	83.0
< = 44	88.3	94.0	81.5	85.4	89.3	99.3	90.1
< = 48	93.0	96.9	89.0	90.6	94.5	99.8	94.3
< = 52	96.6	98.8	95.1	94.7	97.5	100.0	97.4
Total	54,375	35,265	7,731	2,734	2,972	6,628	109,705
Mean	31.3	28.3	35.3	33.6	33.0	23.8	30.3

TABLE 16

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 800-899 – Service and Supply Handlers
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	19.4	10.4	26.2	14.3	17.6
< = 24	53.2	35.5	69.9	49.2	51.7
< = 28	71.4	55.1	85.4	69.9	70.4
< = 32	83.0	69.1	93.2	81.1	81.7
< = 36	90.9	80.0	97.0	90.0	89.8
< = 40	97.0	91.2	99.1	97.1	96.4
< = 44	99.1	97.0	99.7	99.2	98.9
< = 48	99.8	99.4	100.0	99.9	99.8
< = 52	100.0	99.9	100.0	100.0	100.0
Total	68,159	25,919	23,361	43,109	160,548
Mean	26.0	29.0	23.7	26.5	26.3

Table 17 reflects the fact that the Army National Guard, which has large combat units, has the lowest percentage (except for USMCR) in the over-40 year old age brackets, with only 9.7 percent. The Air National Guard and Air Force Reserve have higher percentages (20.6 percent in both cases) of personnel over 40. Presumably this reflects the fact that some air crewmen on strategic and tactical airlift can be older without detriment to mission accomplishment. For the reserve components as a whole, only 11.6 percent of all personnel in this occupational group are over 40 years old. For comparison purposes, Table 18 displays active force data from all four Military Services for this enlisted duty occupational group.

TABLE 17

RESERVE COMPONENTS

Enlisted Duty Occupational Group 001-099 – Infantry, Gun Crews, Seamanship Specialists
(Cumulative percent in each age group by components)

Component/ age	ARNG	USAR	ANGUS	USAFR	USNR	USMCR	All components
< = 20	22.4	19.0	5.9	4.7	2.4	31.7	20.5
< = 24	48.9	41.8	25.1	19.7	20.6	78.4	46.4
< = 28	64.9	55.9	41.8	38.3	36.9	90.0	61.8
< = 32	74.7	64.8	54.6	54.4	49.5	93.8	71.5
< = 36	82.3	72.8	65.9	67.0	62.0	96.0	79.3
< = 40	90.3	84.8	79.4	79.4	77.9	98.5	88.4
< = 44	94.9	91.9	88.2	88.2	87.8	99.5	93.8
< = 48	97.3	96.0	93.4	93.1	93.7	99.8	96.8
< = 52	98.9	98.5	97.5	97.0	96.8	100.0	98.7
Total	121,601	43,315	5,999	5,837	5,584	9,849	192,185
Mean	27.5	29.3	32.5	32.9	33.5	23.1	28.2

To make a comparison of this occupational group which requires youth and vigor in most jobs with another group which does not require youth, we compared the age distributions of two sample occupational groups, the infantry and the electronic equipment repairers of the Army National Guard.

Figure 1 shows that infantrymen are much younger than the electronic equipment repairers. While only 11.7 percent of the infantry group is 40 or older, 20 percent of electronics repair specialists are over 40 (see Table 19). Only 34 percent of electronics repairmen are 24 or younger, while nearly 50 percent of infantrymen are 24 or younger.

TABLE 18

ACTIVE COMPONENTS

Enlisted Duty Occupational Group 001-099 – *Infantry, Gun Crews, Seamanship Specialists*
(Cumulative percent in each age group by components)

Component/ age	Army	Navy	Marine Corps	Air Force	All components
< = 20	22.5	6.1	32.9	16.1	21.1
< = 24	55.1	32.7	76.0	50.8	54.8
< = 28	73.2	55.3	89.6	71.5	73.2
< = 32	84.7	71.7	95.6	83.2	84.5
< = 36	92.2	85.3	98.1	91.9	92.2
< = 40	97.4	94.6	99.5	97.6	97.4
< = 44	99.2	98.4	99.8	99.3	99.2
< = 48	99.9	99.7	100.0	99.9	99.9
< = 52	100.0	99.9	100.0	100.0	100.0
Total	151,393	35,381	41,852	35,945	264,571
Mean	25.6	28.7	22.9	26.1	25.7

We found this same logical and desirable situation in the Marine Corps Reserve, depicted in Figure 2, but found the Army Reserve with somewhat older infantrymen and somewhat younger electronics repairmen, as depicted in Figure 3. When comparing Air Force Reserve and Air National Guard enlisted air crew members with their electronics repairmen subsets, we found older air crew members. These two components also have older electronics repairmen than their Army and Marine Corps counterparts, as depicted in Figures 4 and 5.

Active Versus Reserve Enlisted Infantry Age Comparisons

Because the infantry is the occupational subgroup most closely identified with a need for youth and vigor, we next compared age distribution of reserve component infantrymen with their active force counterparts.

Table 20 demonstrates that the active Marine Corps infantrymen and reserve Marine Corps infantrymen age distributions are almost identical. Both are much younger than other active or reserve infantry forces. This has been the desire and policy of the Marine Corps for many years, and the table shows successful execution of that policy. It should be noted that the Marine Corps Reserve is a much smaller force than the Army reserve components and is a much lighter force, required to move on short notice without substantial overhead.

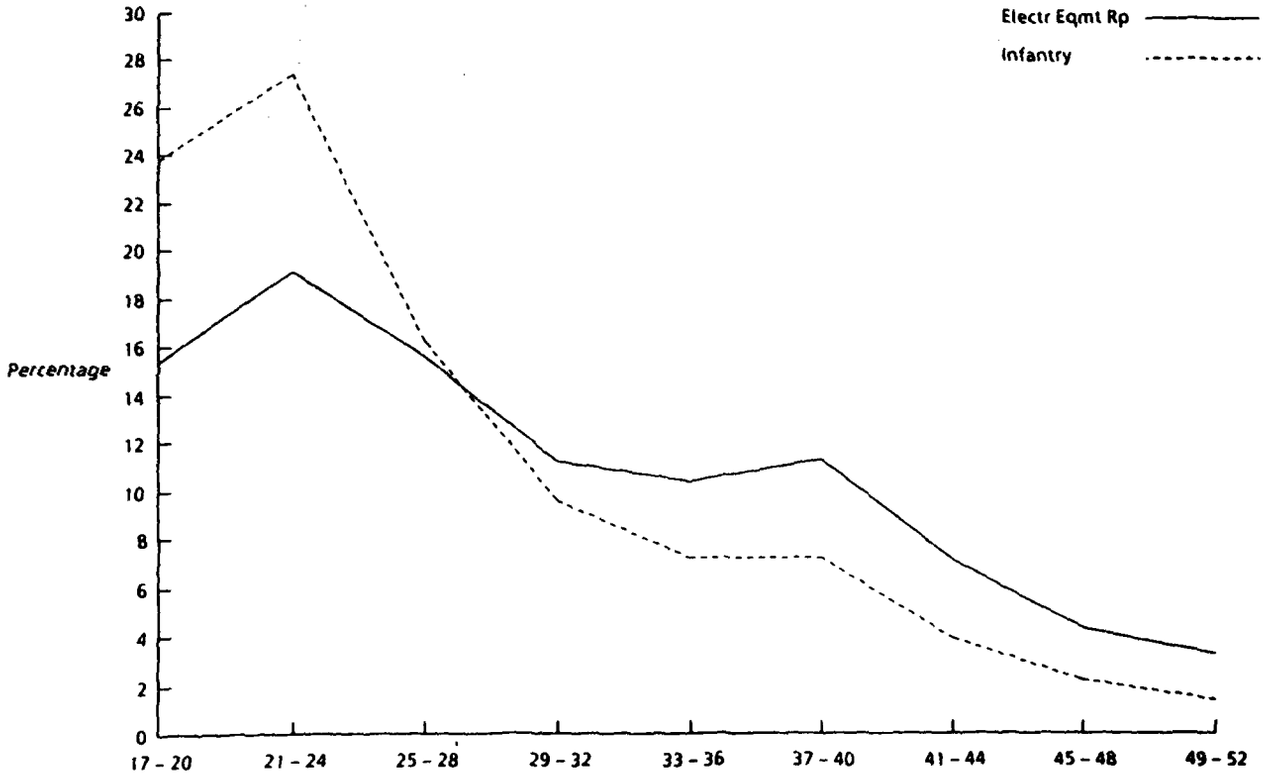


FIG. 1. ARNG ENLISTED AGE DISTRIBUTION
(Infantry versus Elect Eqmt Rp)

TABLE 19

ARNG ENLISTED AGE DISTRIBUTION

Age	Cumulative percent		Age	Frequency percent	
	El Eqmt Rp	Infantry		El Eqmt Rp	Infantry
< = 20	15.4	23.8	17 - 20	15.4	23.8
< = 24	34.5	51.2	21 - 24	19.1	27.4
< = 28	50.1	67.5	25 - 28	15.6	16.3
< = 32	61.3	77.1	29 - 32	11.2	9.6
< = 36	71.7	84.3	33 - 36	10.4	7.2
< = 40	83.0	91.5	37 - 40	11.3	7.2
< = 44	90.1	95.4	41 - 44	7.1	3.9
< = 48	94.4	97.6	45 - 48	4.3	2.2
< = 52	97.7	99.0	49 - 52	3.3	1.4
Total	10,915	59,061		10,915	59,061

The table also shows that the Army National Guard infantry force is somewhat older than the active force, but its age distribution closely parallels that of the active force. On average the Army National Guard is 1.9 years older than the active infantry force. Part of this difference may be explained by the deliberate recruitment of prior service personnel into the combat divisions of the Army National guard. The tables also show that 8.5 percent of Army National Guardsmen are over 40 years old, compared with only 2 percent of active Army infantrymen over 40. Presumably this reflects the long term stability of National Guard units with senior noncommissioned officers (NCOs) who have been in the same unit throughout their careers. In actual numbers the ARNG has only 5,020 infantrymen over 40. This does not appear to preclude appropriate assignments within the physical capabilities of these individuals.

The age distribution of Army Reserve infantrymen shows a pattern of somewhat older personnel with some differences in age distribution which may be more significant. The numbers of personnel over 40 years old are still small (only 1,915 individuals) because the USAR infantry force is only about one-fourth the size of the ARNG infantry force. The USAR has 12 percent of its infantry over 40 years old, 18.7 percent under 20 years old, and less than half (43.6 percent) under 24 years old. This appears to reflect an even greater recruitment of prior service personnel, and the USAR-unique training division requirement for larger numbers of senior NCOs as infantry trainers of new soldiers upon mobilization.

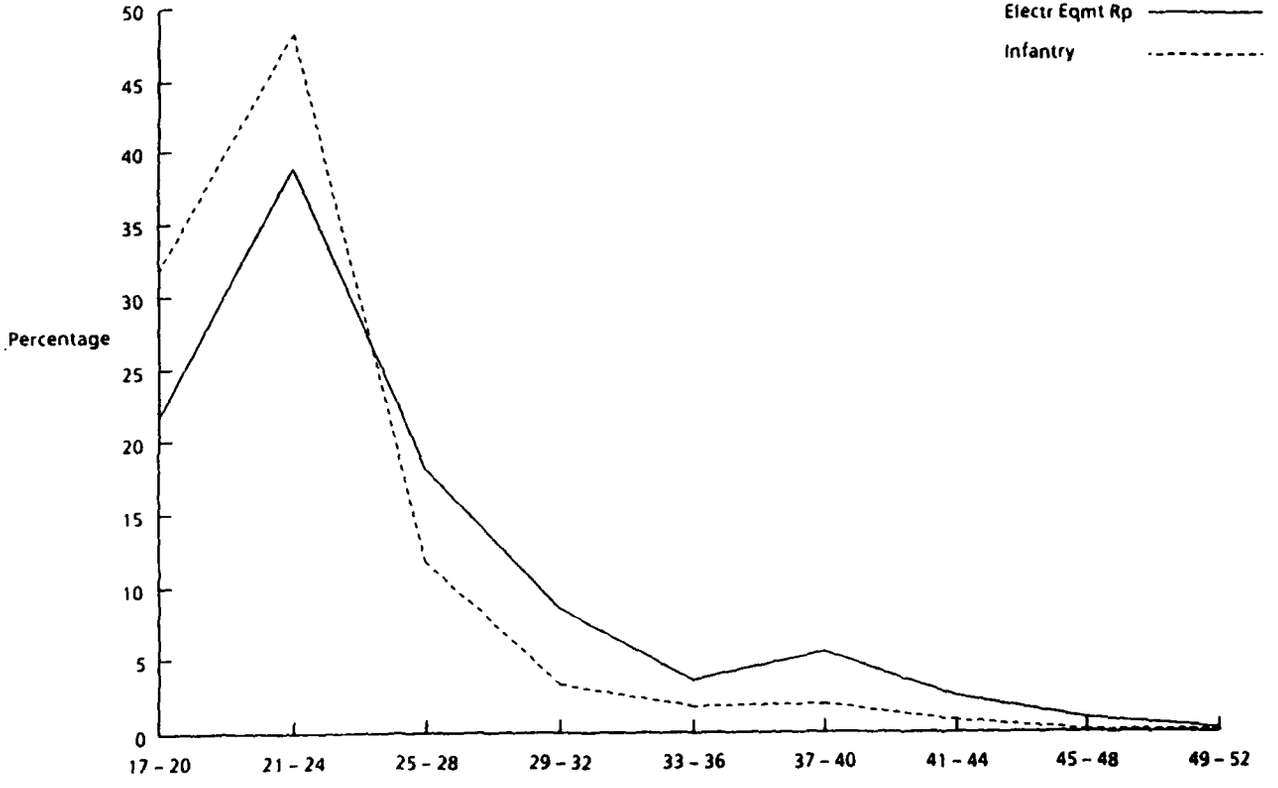


FIG. 2. USMCR ENLISTED AGE DISTRIBUTION
(Infantry versus Electr Eqmt Rp)

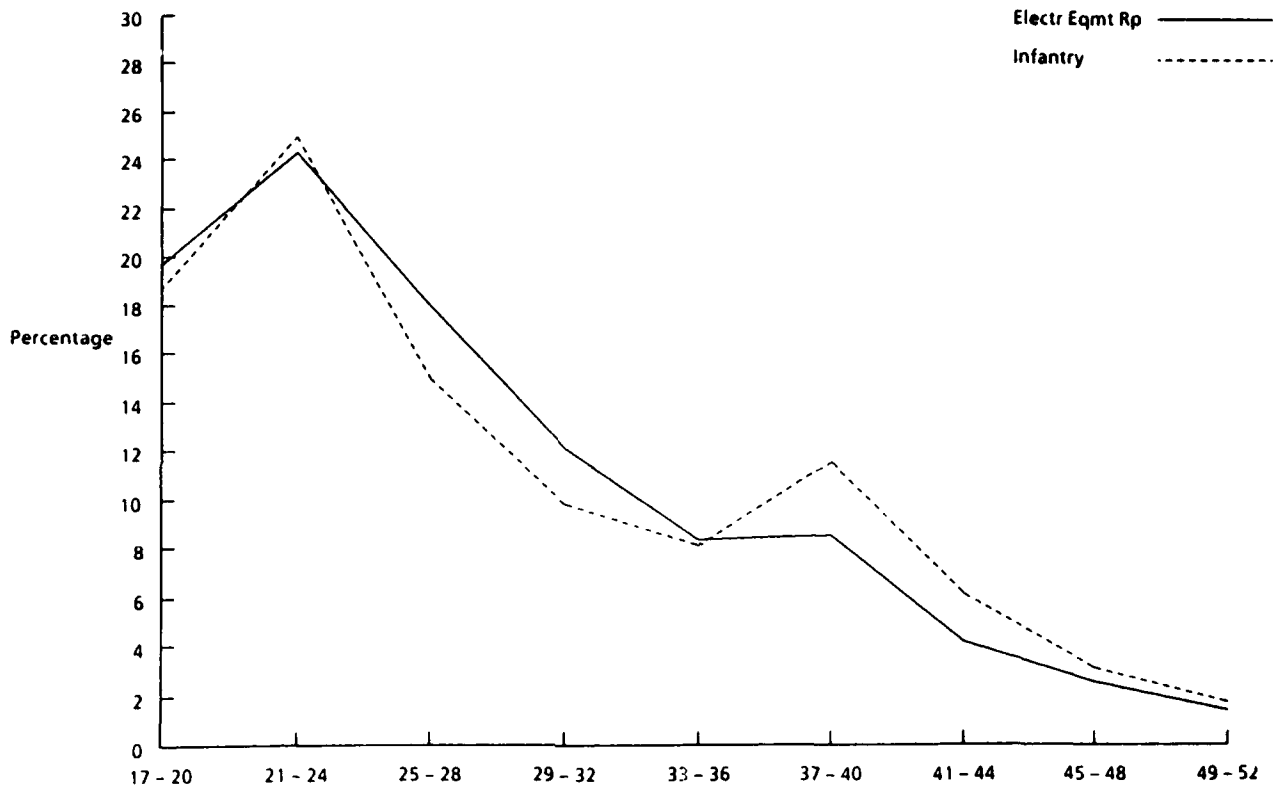


FIG. 3. USAR ENLISTED AGE DISTRIBUTION
(Infantry versus Electr Eqmt Rp)

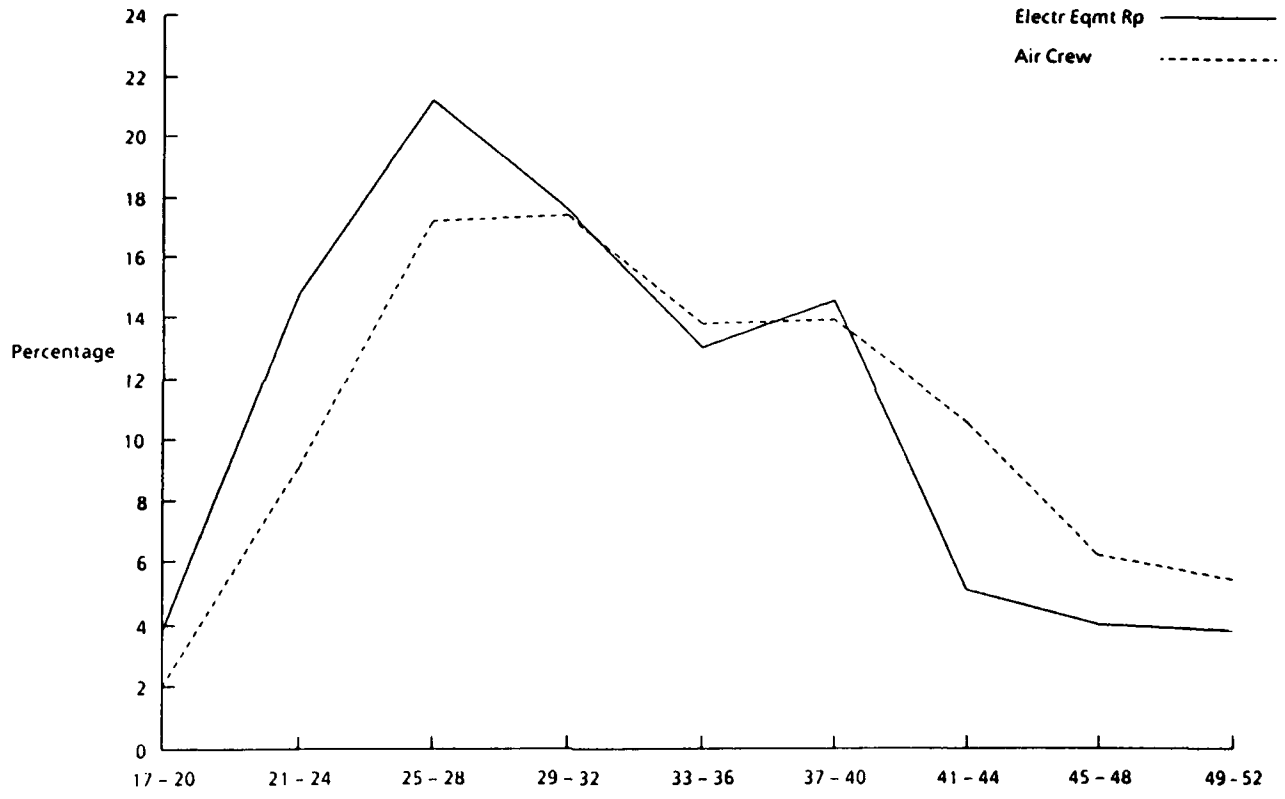


FIG. 4. USAFR ENLISTED AGE DISTRIBUTION
(Air Crew versus Electr Eqmt Rp)

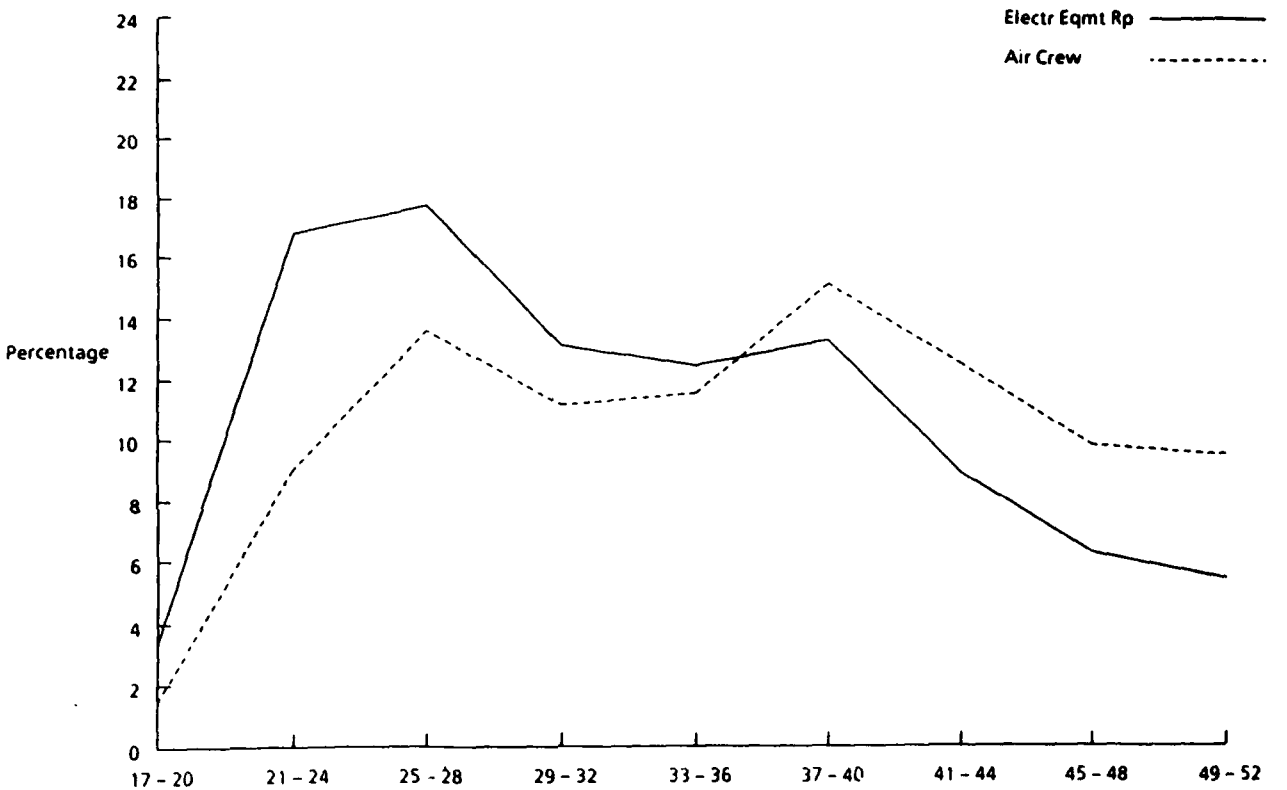


FIG. 5. ANG ENLISTED AGE DISTRIBUTION
(Air Crew versus Electr Eqmt Rp)

TABLE 20

ACTIVE AND RESERVE INFANTRY AGE DISTRIBUTION – ENLISTED

(Cumulative frequency)

Age	Active Army	ARNG	USAR	Active Marine Corps	USMCR
< = 20	24.3	23.8	18.7	33.3	31.8
< = 24	58.8	51.2	43.6	77.2	80.2
< = 28	76.0	67.5	58.6	90.2	91.9
< = 32	86.7	77.1	68.4	95.7	95.2
< = 36	93.5	84.3	76.5	98.0	97.0
< = 40	98.0	91.5	88.0	99.5	98.9
< = 44	99.4	95.4	94.1	99.8	99.7
< = 48	99.9	97.6	97.2	100.0	99.9
< = 52	100.0	99.0	98.9	100.0	100.0
Total	65,821	59,061	15,962	20,546	6,461
Mean	25.1	27.0	28.6	22.8	22.8

Here it may be useful to compare all active infantry forces (Army and marine Corps) with all the reserve infantry forces (Army National Guard, Army Reserve and Marine Corps Reserve). Table 21 displays this information.

In the aggregate, on the average reserve infantry forces are 2.4 years older than active infantry forces. The age distributions are not dramatically different, as Figure 6 depicts.

OFFICER OCCUPATIONAL GROUPS

All military officer occupations and/or billet designators are assigned to one of nine DoD Occupational Codes for officers. The group with which we are primarily concerned is Group 2, Tactical Operations Officers. It includes pilots and air crews as well as a subset (2E Ground and Naval Arms) which includes infantry, artillery, armor and close support officers, and Naval ship commanders and other warfare-related officers.

The other officer Occupational Groups are as follows:

1. General Officers and Executives

3. Intelligence Officers

TABLE 21

INFANTRY AGE DISTRIBUTION

(Active versus Reserve)

Age	Cumulative frequency		Age	Frequency	
	Combined Active Infantry	Combined Reserve Infantry		Combined Active Infantry	Combined Reserve Infantry
< = 20	26.4	23.4	17 – 20	26.4	23.4
< = 24	63.2	52.0	21 – 24	36.7	28.6
< = 28	79.4	67.7	25 – 28	16.2	15.7
< = 32	88.8	76.8	29 – 32	9.5	9.1
< = 36	94.6	83.8	33 – 36	5.7	6.9
< = 40	98.4	91.4	37 – 40	3.8	7.6
< = 44	99.5	95.5	41 – 44	1.1	4.1
< = 48	99.9	97.7	45 – 48	0.4	2.2
< = 52	100.0	99.1	49 – 52	0.1	1.4
Total	86,367	81,484		86,367	81,484
Mean	24.6	27.0		24.6	27.0

4. Engineering and Maintenance Officers
5. Scientists and Professionals
6. Health Care Officers
7. Administrators
8. Supply, Procurement and Allied Officers
9. Nonoccupational (patients, students, trainees, etc.)

It seems apparent that our concern is almost exclusively with Group 2 where officers with youth and vigor are required for the same reasons as with the enlisted personnel who do similar – though subordinate – kinds of work.

Table 22 reflects some significant differences in age distribution of infantry officers in the reserve components compared with the active force. While the Active Army infantry officer is on average 30 years old and the Army National Guard infantry officer is only 2 years older, more than 80 percent of Active Army infantry

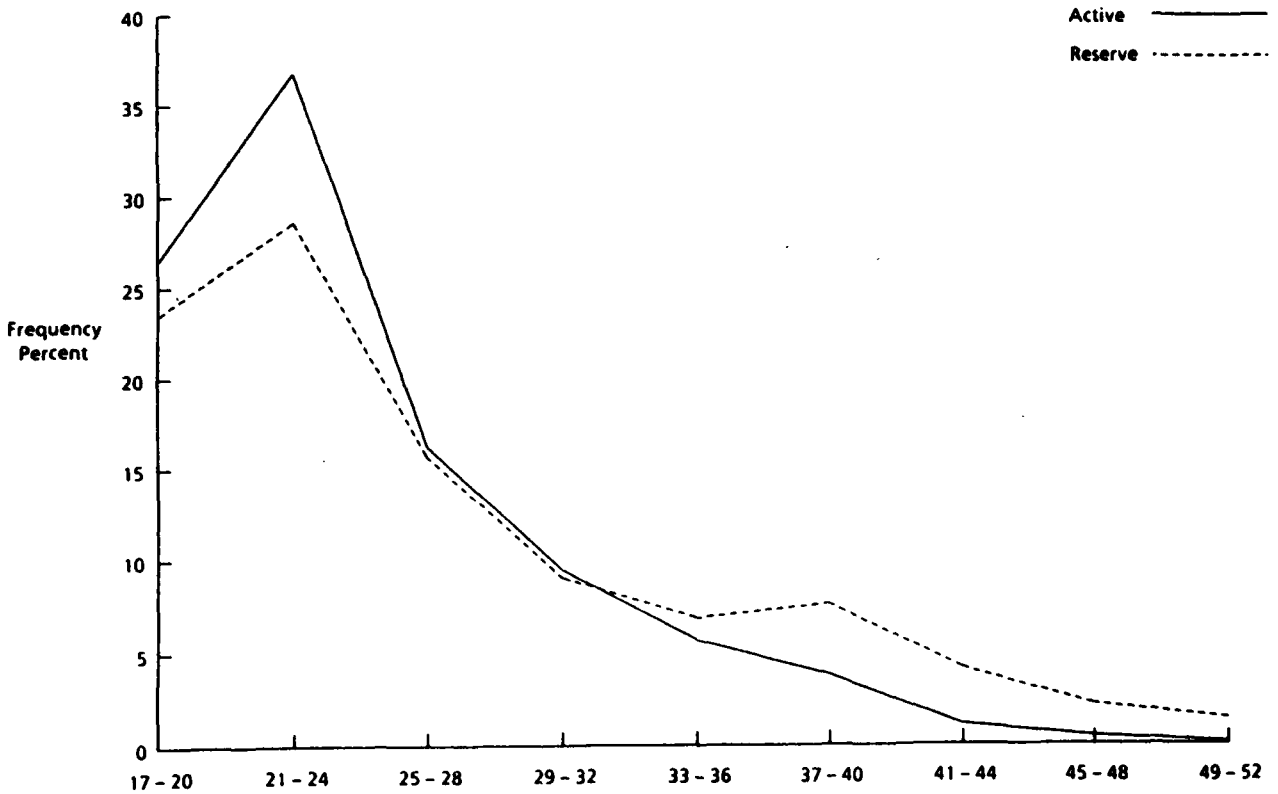


FIG. 6. INFANTRY AGE DISTRIBUTION
[Active versus Reserve (Enlisted)]

officers are 36 or younger, compared with only 68 percent for the Army National Guard.

TABLE 22

ACTIVE AND RESERVE INFANTRY AGE DISTRIBUTION – OFFICER

(Cumulative frequency)

Age	Active Army	ARNG	USAR	Active Marine Corps	USMCR
< = 20	0.0	0.4	0.2	0.0	0.0
< = 24	18.9	18.6	15.9	21.2	0.0
< = 28	48.1	35.9	33.3	47.7	16.8
< = 32	69.1	52.3	50.5	68.6	45.9
< = 36	80.8	68.0	66.0	83.0	70.0
< = 40	90.6	86.9	85.0	93.6	88.0
< = 44	96.1	94.3	94.1	98.8	96.2
< = 48	98.8	97.8	98.5	99.9	98.7
< = 52	99.9	99.5	99.8	100.0	99.4
Total	20,719	13,472	5,492	2,706	710
Mean	30.4	32.4	31.4	30.0	34.0

Even with those figures the differences are not so striking as to question the combat capability of any component. Some of the differences are attributable to service policies. For example, the Marine Corps Reserve has no infantry officers under 24 years old. This is because all newly commissioned Marine Corps officers must serve first on active duty. In recent years the Army has been striving to provide active duty billets for all its newly commissioned officers to assure experience with troops before assignment to reserve component units. However, these active duty tours have been of relatively short duration, and this is reflected in the age distribution of younger reserve infantry officers being almost identical to that of their active force counterparts. The long-term stability of reserve component units, discussed above, is also evident in this age distribution of infantry officers. It should be noted, however, that 9.4 percent of Active Army infantry officers are over 40 years old and 13.1 percent of ARNG infantry officers and 15 percent of USAR infantry officers are over 40 years old. This difference reflects a relatively small number of individuals and does not necessarily mean they are assigned to jobs for which they are not physically capable. In past wars many officers over 40 years old have successfully commanded infantry battalions or higher units.

CONCLUSIONS

Based on an examination of the present ages of Service members comprising the existing force, concern that reserve component personnel currently are too old to accomplish their expanded mission is unfounded. Wherever youth and vigor are prime requisites for military assignments, the Services have managed their reserve components to achieve reasonable current age distributions. It should be noted, however, that no attempt was made to project any future age distribution of the force.

When ages of reserve component members are related to their current assignments in each reserve component, the result shows older personnel generally filling jobs for which age is not a criterion. Personnel over 40 are filling jobs requiring specialized knowledge and technical skills which can be acquired only through experience.

Emphasis by the Military Services on retention of personnel in the reserve components is well placed, especially in the technical logistics fields where training of non-prior-service personnel has proved so difficult. For these jobs, age is not a primary criterion.

Within all the DoD Enlisted Occupational Groups, mean ages of reserve component personnel are somewhat higher than active component personnel but not so much higher or in large enough numbers to create serious problems in the event of mobilization in the near future.

Within the infantry subset of the DoD Enlisted Occupational Group which includes combat assignments, Army National Guard personnel on average are only 1.9 years older than active Army infantry personnel. In actual numbers, only 5,020 ARNG infantry personnel and only 1,915 USAR infantry personnel are over 40. These two groups include senior NCOs who must have extensive knowledge and experience to lead troops in combat, provide staff expertise at combat unit headquarters, or (in the case of USAR infantrymen) provide combat training.

The age distributions of active and reserve Marine Corps infantrymen are almost identical and are younger than other active or reserve infantrymen. This reflects successful execution of the Marine Corps policy to manage its smaller and lighter force capable of moving rapidly on short notice without substantial overhead.

Officers in the reserve components also are generally older than active duty officers, but within the infantry the average difference is less than 2 years.

Appendix K. MEMBER AND SPOUSE COMMENTS ON RESERVE RETIREMENT ISSUES

All respondents to the 1986 Reserve Components Surveys were given the opportunity to comment at the end of the questionnaire, where the following prompt appeared:

> We're interested in any comments you'd like to make about Guard/Reserve personnel policies - whether or not the topic was covered in this survey. Do you have any comments?

Respondents also marked a coded response block, indicating whether or not they had filled out a comment sheet. This enabled the QRMC to determine the percentage of respondents, in various categories and with varying attitudes on major issues, who filled out comment sheets. By comparing the characteristics and attitudes of those who provided comments with those who did not, it was then possible to judge the extent to which those who provided comments were representative of all respondents.

Overall, one of four officers and one of every five enlisted members provided written comments. Senior members in both officer and enlisted categories were somewhat more likely to have provided comments. There were only slight differences between those who commented and those who did not; differences related to the sex of the respondent, their intent to stay in the reserve, or their overall satisfaction. Those dissatisfied or very dissatisfied with pay and benefits or with leadership or training were more likely to comment than those who were satisfied with these aspects of their service.

About one of every five spouses who responded to the survey provided written comments. Unlike the members, the percent of spouses who provided comments did not vary by the member's pay grade. Whether or not the spouse had previously served in the military did not affect the percentage who provided comments. Neither the participation status of the member--part-time unit member, IMA, military technician or AGR/TAR--nor the likelihood of the member staying in the reserve for a full career affected the rate at which spouse comments were provided. Spouses who were dissatisfied with the member's pay and allowances or with the member's participation in the reserve were about twice as likely to have provided comments than those who were satisfied, favorable or indifferent on these matters. About one out of five spouse comments was written by an individual who was

dissatisfied with their spouse's reserve pay and allowances. In aggregate, it appears that those providing comments were representative of the population surveyed.

Although the National Guard and Reserve members and their spouses who provided additional written comments appear to be generally representative of the population surveyed, the comments included in this appendix cannot be said to be representative. The process of screening over 20,000 comment sheets was systematic, however, and does provide additional insight into the issues being considered. QRMC staff members who had participated in the unit visit program read through the comments and used predesignated codes to identify categories of comments for subsequent review. Most of these categories related to compensation or other personnel issues affecting overall satisfaction with the Guard and Reserve. The coded comments were then reviewed, and representative comments on each subject recorded. Comments dealing with reserve retirement are presented below.

Army National Guard

Officers

"I would like to see the retirement age dropped to 55 yrs old, most civilian job, if you start young enough you can draw full benefits at 55, why not the National Guard?"

"The one drawback of planning for retirement is the lack of provision for disability. The only strong reason I have for remaining in active reserve status is retirement. I always wonder what will happen if I became physically disabled after 17-18 years and was unable to get to 20. With no provision for disability, I would never get a penny of retirement. Then I would have given up all these weekends, all these early morning hours, all this outdoor adverse conditions for nothing. Although I am reasonably satisfied with the Guard, as the saying goes, I'd rather be sailing. I would like some prorated retirement in the event of disability after 10 years."

"Retirement benefits should begin, in all fairness, immediately after the completion of 20 or more years of service as with active duty personnel. NG soldiers already receive a fraction of active duty counterparts and must wait until age 60 for eligibility. My thoughts are to either give the full 50% of base pay at age 60 (after 20 yrs. service) to NG personnel or give the reduced portion immediately following retirement. Both alternatives are logical and fair."

Spouses of Officers

"I feel that guard members should be able to draw their retirement benefits at the end of their twenty year term."

"I think that more than 60 credits a year should be granted. My husband puts more than his 60 credits a year but only gets 60 credits a year for retirement. This should be changed."

"They force retirement at 55 but we can't receive full benefits until age 60."

"I am worried that by the time my husband is eligible for retirement benefits, there will be no benefits or they will be substantially reduced. This is a prime attraction for him to stay in the Guard, as he can certainly earn more at his civilian occupation in 2 weeks & 11 weekends than he earns at Guard duty."

"I wish we could receive retirement pay at age 55!"

"My husband is working toward retirement and can get no official written word about his status. It makes planning impossible."

"I would like to see the age lowered in which a guardsman must attain before receiving retirement benefits. Why must they wait when they have served 20 or 30 years."

"I feel the age of retirement pay should be lowered and the retirement point ceiling should be lifted."

"Of course I must remind myself that his check does pay our car payment and that we have made a few good friends. He also tells me the retirement benefits will be good. Hopefully, I won't be too worn out to enjoy them."

"Draw retirement upon completion of 20 years."

Enlisted Members

"Retirement pay needs to start sooner than age 60."

"The closer one gets to retirement the harder it is to keep your job. 'They' are always looking for ways to get rid of the older ones. And then the system wonders what is wrong?"

"Reduce retirement to age 55. Give credit for all Inactive Duty Retirement points."

"Overburden demands are placed on National Guard personnel with no reward in the way of pay or retirement points."

"I believe the qualitative retention board is unfair, as compared to Active Duty. If an AD soldier is nonselected, he may immediately draw his retirement pay, where a guardsman, if nonselected, must still wait until age 60 to draw his benefits."

"I am a 58 year old male and a veteran of WW2, Korea and served as a civilian in Viet Nam. I am in fair physical condition and passed the 4 mile run and weight requirement. I know that I will never be mobilized in a combat unit. As long as we maintain our weight and keep a sharp military appearance; why try to kill us by running two miles in 20 minutes? After all - how many 50 year olds are there in the regular army? It is fine for the RA to set these requirements for their soldiers as there are dam few if any that have to comply. I guess there are a few of us soldiers that just don't have 20 or more years of military service for one reason or other but must risk a heart attack to try and get there."

"Why is it that when you retire after 20 years but you are not 60, you lose your identity. I believe you should have some rights. When you recruit a man you inform him he can retire in 20 years but you don't advise him that he gets nothing until 60."

"I had planned to stay in for 20 years or more, but my understanding of retirement benefits, as explained by my retention NCO has not impressed me. It appears that I lose all priviledges (i.e. Commissary, PX, travel) when I retire until I turn 60 years of age. 60 is OK, but the other benefits should continue. A change of this sort would change my mind."

"The retirement benefits have NEVER been explained nor have I been able to get any info."

"Retention boards for personnel with 20 years or more service should be more stringent - not just 'eye-wash'. Soldiers with 30 years or more service should be moved out of a 'slot' to an advisory capacity or retired."

"An individual with 20 qualifying years for retirement under the reserve system should be given the right to use exchanges, commassaries, guest housing, etc., just as a regular retiree, while he is waiting to collect his retirements at age 60. He/she has earned this right, and there should not be this gap in the benefits system. A correction of this situation could have a very favorable effect on the upward mobility of the younger soldier and the every present retention problem in the first and mid-level re-enlistment periods."

"Would like to see the retirement age lowered to age 55, or a choice of age for retirement.

20 yrs svc 55 years age 1/2 pay till age 60
25 yrs svc 55 years of age full retirement
20 yrs svc 60 years of age full retirement."

"Need to start drawing salary when you retire at 20 years service, instead of waiting until you get 62 years old."

"I don't feel like the present system on retirement is fair to the NG member who serves his time and applies for retirement. I feel that a N.G. member should not be required to wait until age 60 to recieve benefits."

"Retirement benefits should be granted when Reserve Component member departs service after 20 years. Quality performance in the Reserve Component is not a 2 day a month job and 2 week training period, it requires minimal of an additional 3-5 days a month. Most successful members don't have a part time reserve commitment, rather a full time second job in addition to their civilian occupation. Retirement is based on points. The Reserve Component member doesn't receive near what the Active Army member accumulates in a year. Why is the Reserve Component member further penalized?"

"Currently, I understand if you become sick or hurt as a civilian or on your civilian job, you are then forced out of the National Guard. I feel that there should be some type of early retirement plan or some type of insurance in the Guard that would keep the soldier from loosing all his benefits. I know this can happen because one of my fellow Guardsmen had 14 years in and developed high blood pressure and was forced out. He does not have any privileges and will recieve nothing at 60 or retirement because he did not have twenty years in the Guard. This is a matter of grave concern to our whole unit as we have seen how the National Guard and Army let the soldier down after putting in 14 years."

"Overburden demands are placed on National Guard personnel with no reward in the way of pay or retirement points."

Spouses of Enlisted Members

"Actually the only asset the National Guard is, to us, is the Retirement and I feel that the risk involved is too great for a couple hundred dollars."

"I feel that any reservist should be given credit toward retirement for all sub courses completed because they are required to remain a member of the National Guard."

"Wish the age of drawing from their retirement program were lowered to 55 years of age at least."

"Would like to see retirement benefits payable after 30 years instead of waiting until 60 years old."

"Spouse reenlisted with National Guard without consulting family and did so because of a pay cut in civilian job at a difficult financial time for this family. Now continues to stay because of desire for future retirement benefits."

"I am of the understanding that retirees are allowed at age 60 to have full exchange and commissary privileges. My question is why at age 60 and not sooner, perhaps at age 55?"

"I don't know what good it will do to tell you how mad and full of hate about your retirement program. My husband has given 14 yrs to the Army National Guard, 5 yr AGR. Now we find out he will never get a fair retirement. He has put his life in the Guard and now will get nothing for it. He has made a career in the Army Guard, now he is completly lost not know what to do. You would think the Army would have a retirement for a good solder who has put in 14 yrs and who wants to put in 15 more."

"Retirement benefits should be recieved after 20 yrs regardless of age. Same as active duty!"

"Would like to see retirement available at 55 years of age."

"Military retirement: The year in which you can receive it. Why can't you receive it when you have your 20 years in. Why must you wait till age 60."

"Since I don't work what allotment can I receive, such as (social security, benifit). This is if something would happen to my spouse prior to him getting his 20 yrs of service in."

"I think that the military retirement benefits are unfair to the Guard/Reservist. That after twenty years of service they can't draw their pension at a lower rate than full time military personel."

Army Reserve

Officers

"The requirement point accounting system is an absolute mess! Something has got to be done to give reservists confidence in the 'system.' It is a source of poor morale for me personally and from casual conversations with other reservists, they too experience the same utter frustration at the 'system'."

"Even though retirement points are earned for such extra duty, most of these points are not credited because of an imposed limitation. The result is a great deal more time spent away from family and work with nothing to offset it except for, on rare occasion, a 'Thanks'."

"Military retirement benefits for Guard & Reserve having to reach the age of his or her 60th birthday to long. As a Guard or Reserve should serve 30 yrs or reach the age of 50 if desired to retire with full benefits. Retirement points as a Guard or Reserve all points that or total for active duty, correspondence course, drill attendances, and being a member should count. On a correspondence course their credit equal one (1) retirement point. After reaching a total of 50 points of one yrs, points don't count. As Guard or Reserve are working for that wonderful day of retirement too."

"We should receive retirement benefits when we retire and not have to wait to age 60."

"My retirement points have been an inexcusable mess for years. I have spent many hours attempting to reconstruct creditable time that never made it to my records."

"Last August I visited ARPERCEN in St. Louis, MO to review my military records. My records and officer efficiency reports appeared to be in good order. However, according to the station computer, I only had (3) good years toward retirement. My question: has there been other problems with accounting of retirement points or is this an isolated case? And what is being done to verify retirement points for all personnel past their respective obligations?"

"No retirement compensation for unpaid drills. Enlisted and officer personnel should be told the truth when they join that only approx. 75% of their service will receive retirement consideration."

"All retirement points earned in a year should count toward one's pension. At present time I earn from 20 to 45 points a year that will not be credited toward my pension. If you earn a retirement point it should count toward your pension. Why earn these points if 10 to 20 yrs down the road they won't count on your pension. If you preform on ATA, AFTP, or correspondence course and earn a retirement point, then you should be paid for that point upon retirement. Why drill for points only when you won't get paid for half the points you earn anyway? After completing 20 or 30 good years to earn a pension you still must wait another 10 to 20 years before you can start collecting your pension. Why? Active duty personnel start to receive their pension as soon as they complete their 20 years. They do not have to wait 10 to 20 years to receive their first pension

check. When you have satisfactorily completed 20 good years of reserve service and qualify to receive a pension you should start receiving that pension. All other employers start paying the employee's pension to him as soon as he retires. The Reserves should do the same or at least be reallistic and lower the age to 50 yr. old."

"Record keeping of retirement points at RCPAC has, for years, been poor. They often miss recording submitted 1380s and even active duty time."

"Please put some money in ARPERCEN and get retirement points computerized and accurate."

"I am dissatisfied with the retirement point card system. My records are not up to date thanks to computer error and now the burden is on me to rebuild it."

"Retiring in one year after 37 years service - I'll be 56 however I'll have to wait until 1991 - age 60 to use the PX & Commissary. Doesn't seem fair."

"When I joined the National Guard in 1966 there was a big sales pitch that a strong lobby was going to get retirement benefits down to age 55 instead of 60. This was a big selling point to me and others in my group. I still hear the same thing 20 yrs. later however the age is still 60 yrs. old. We're still waiting. Also getting info. about retirement points & benefits from St. Louis is like pulling teeth."

"Unable to get my retirement points corrected after 3 years of submitting information. Have 6 years shown as not good that are good years."

"I am not sure that the 'system' has any records or grasp on my service time, and how I am progressing towards retirement. I am afraid that, in the future, I will be 'shorted' retirement points due to poor or non-existent records."

"Retirement points should not be limited to 60/yr for IDT/correspondence courses. Reservists spend numerous unpaid hours accomplishing or planning for unit missions and completing needed or required military education. We should get credit for those contributions."

"Retirement payment beginning at age 60 is a deterrent for retirement - 'I'll be dead by sixty anyway'!"

"All retirement points earned should count. The maximum of 60 IDT points per year cheats soldiers out of retirement that has been earned."

"As a 52 year old LTC with 28 years service, I recommend - quite seriously - that with few exceptions reservists, whatever their grade or assignment, who reach the age of 45 and complete 20 years service should be mandatorily retired."

"More emphasis should be placed on retirement points by ARPERCEN and RCPAC. It takes to long to get corrections processed."

Spouses of Officers

"Reservists should not have to wait till age 60 to receive retirement benifits."

"It does not seem fair that when my husband retires we cannot use military facilities until age 60. That will be 10 years after his retirement."

"I must admit that I am not sure I won't be fed up soon and will pressure him to resign as soon as we reach 20 years to qualify for retirement benefits."

"My husband is a self-employed dentist - thus we must provide all benefits ourselves, except what retirement he may receive if he stays in the Reserves long enough to qualify."

"He goes so much of if it weren't for the retirement carrot we would stop altogether."

"Instead of waiting to age 60 for retirement benefits, make it 10 years after retirement or age 60, whichever comes first."

Enlisted Members

"Reservist should have some intermediary benefits from the time they file for and earn retirement recognition until they actual reach retirement age, i.e., retire at any age - no benefits at all till age 60."

"Improve retirement benefits for members of the Reserve forces. Reducing these benefits or making them more difficult to achieve only discourages the reservist and results in loss of experienced leaders in the unit affecting the units performance and national security which is the bottom line."

"Upon retirement from the Reserves, the service member has no benefits until the SM reaches age 60. He or she has absolutely no association at all with the military, i.e., no commissary privileges; no PX privileges; no hospital; no installation entrance privileges. This is an absurdity, how can someone with one day active duty have all the privileges, or someone who retires at age 37 from the active force have all the privileges,

BUT someone with, say 40 years have to wait until age 60 to receive anything at all in return. It makes me sick to think that after I spend 30 years in the Army, 7 of them on a Regular Army status that I won't have any affiliation with the Army for approximately 8 years."

"I would like to see a better system for our retirement point system. I don't know of a person who's points are in order when he or she want's to retire. It's not the people. It's the system."

"I think when a person receives his 20 year letter qualifying them for retirement they should at least have the privelage to use the PX and commissary between that time and age 60. I have spent 2/3 of my life in the Reserve and may not live long enough to see any other benefit."

"I would like to see a policy of being able to draw retirement benefits when a person has completed 20 good years of service rather than having to wait till age 60."

"How about lowering the age for receiving retirement benefits to age 57, after completing 20 yrs of Reserve Service."

"There should be some kind of retirement benefits for reservists unable to complete a full 20 yrs because of medical or civilian job reasons."

"I believe all IDT points should count toward retirement, not just 60."

"Concern, not included in this question bank is that of a reservist who becomes not physicaly qualified prior to 20 years. I have served 18 years in the program. If, at this point I should become NPQ I would be dropped from the program with nothing."

"Also, determining amount of benefits to be drawn from point system is difficult. Unit administration personnel are not able to effective advise."

"I believe that retirement should be changed to allow those eligible to retire at age 55 with 20 qualifying years of service.

"If a member of the Guard/Reserve serves twenty (20) years in the program he should be able to draw a pension sooner than age Sixty (60) at a reduced amount."

"Retirement should start when 20 years of either active/-reserve time is completed, instead of waiting until an individual is age 60."

"I will be 56 years of age when I retire. 4 yrs is a long time to wait when Army pay has become a part of ones budget."

"Retirement point system, in reference DARP form, presents another problem. Although its intent is both noble and informative, I have yet to witness a large percentage that relate correct documentation (even after conditions were made the year before). Understanding the size of this undertaking I am sympathetic but it creates yet another frustration in morale at a much higher NCO head."

"I would like a better accountability of retirement points at St. Louis, MO. Many people have difficulty getting documents to verify our good years."

"Complexity of point system leads to human error and often accounts for individuals having difficulty at retirement time re proper credit for all participation."

"I've tried for 3 years to get Army records on total time served."

"Unreasonable delay in updating point credit records, especially in later years as eligibility for retirement nears. I had 20 years creditable in August 1985. Wrote to ARPERCEN (certified, return receipt) in December 1985 requesting 20 year letter. It is now 16 April 1986 and I haven't even gotten the courtesy of a reply!!!"

"Retirement point cards not researched by Personnel Section. Very lax in this area. Many individuals are not getting their proper number of points or good years of service."

"I feel that we should get paid for retirement after 20 years and not have to wait until age 60."

"I feel you should improve the possibility of receiving retired pay earlier. Perhaps an age over time of service. This would enable people to receive their benefits at a earlier date, ie making the age over time served equal 50. If I joined at age 20 and put in 25 year's this would equal 45. I would start collecting my retirement in 5 years vs 15 years. I believe this to be an incentive for reservists rather than the age 60 rule."

"No incentives to remain in reserve status except for retirement."

"I would like to see Retirement Benefits paid to Retirees immediately after retirement (do not wait until 60 years old)."

"I think that when you retire you shouldn't have to wait 20 years to draw retirement. Because some people will retire at 40-45 years old, why should they have to wait. After all they did give 20-30 years of their life to their country."

"When a Reservist puts his or her 20 good years in, at least give them half of the retirement pay and not wait till age 60."

"Requirement to wait until age 60 to draw retirement benefits is a negative in the program. Reservists should be able to begin drawing retirement any time they retire after 20 'good years'."

"I honestly think that there should be a better policy for retirement points for military personnel on reserve status. Whereby if an individual puts forth all his or her effort in a reserve program he or she should be able to retire with more points than currently allocated."

"Point system should be increased beyond current levels."

"Retirement pay after 20 years of loyal service."

"I believe that the Reserve should be able to draw their retirement before the age of 60 yrs. old."

"The pay for the USAR is good, but the benefits and retirement at 60 years of age is bad. Why is the USAR retirement the same as the active Army?"

"Reducing the retirement benefit age to 55 years old to coincide with mandatory removal age, shorting the time individuals are left with no contact with the Reserve/NG."

"A reserve member should get retirement pay after 20 years or more of good service instead of waiting until age 60."

"Retirement benefits - should start at the completion of 30 yrs service or when one reaches the age of 50 yrs old with 20 good retirement yrs."

"Give full retirement benefits after 20 yrs service to all Army Reserve members. On date of 20 yrs service don't wait till we are 60 or 65 yrs old we want it when we get 20 yrs service in."

"Eliminate age 60 for benefits & pay. Would prefer retirement possible at time of 20 yr completion, regardless of age."

"Retirement pay not enough & should be able to recieve on completion of 20 yrs."

"At age sixty a Reservist can start receiving his check if he/she have 20 or more years. I would like to see the age 60 lowered."

"I would like to see retirement pay start upon the completion of 20 years service."

"Retirement at age 60 - qualified at age 37. This is hard to sell to a 17 yr old."

"Anyone completing twenty years of total service should be able to recieve retirement pay upon retirement, rather that wait until age 60."

Spouses of Enlisted Members

"I think it is very unfair to have a person serve 20 years or more in the service of his/her country and then not let them have their retirement pay until after they are 60. I think it is very wrong."

"Why must a reservist wait until he is almost dead before he can enjoy his or her retirement. 60 or 62 is much to long a time to wait to receive a retirement that you put in twenty or more years for?"

"How does Albert earn retirement points? What age would he receive benefits? Do I have the right to his benefits it he should pass away? Do you need a lawyer in that case?"

"I believe men, women who has enough years to retire would do so if they could have full time PX and commissary privileges before they reach the age of 62 years old, this way old timers would retire and give other men-women a chance to move up in rank and position, the way it is they keep staying on holding the position and rank when in reality they should be retired."

"I believe that because my husband is serving his country as an active reservist that he should be able to receive retirement benefits, upon completion of his 20 years of duty, as does a regular military person, rather than having to wait to age 60."

"I would like retirement benefits to be available at age 55. Or, perhaps an option could be given; either retire at age 60 with full benefits or retire at age 55 at a lower benefit amount."

"I'm very dissatisfied with retirement benefits only because they cannot be utilized until age 65. My husband has been in for 27 years and should he retire now at age 51, he has to wait so many more years to draw pension. I believe when a person stays in all this time (for 20 years or over) then they should

be able to benefit from this as soon as they retire from Military service. A lot of sacrifices are made and I really believe the government should lower the age at which pensions are received. I have wanted to state my opinion for a long time."

"Maybe when my husband retires after 20 years in the Reserves the government could let us use the commissary, hospital clinics and PX when he has twenty years instead of 60 years old."

"I also feel that once your spouse has reached 20 years of service that there should be more benefits for both before age 60."

"I just wish the record keepers could do a better job of keeping up with the time the Reserve personnel put in. My husband has been a Reserve member for 20 years, but the USAR has no record of two of those years!"

"I would like the retirement benefits to start after my husband has his 20 years in, just like the regular Army has. My husband has over 10 years regular service, and has 3 years in the Army Reserves. He will go for his retirement, but before we receive any benefits we have to wait another 20 years. That's not fair."

"Retirement benefits should apply after 20 years of service."

"Reduce retirement age to 55."

"A more liberal retirement program to where my husband could retire at an earlier age and draw a pension sometime before age sixty."

"Hope that the age for military retirement would be lowered to age 55."

"I think that when a Reserve person retires, they should not have to wait until age 60 to start drawing their retirement."

"Would like to see reservists be able to receive credit for inactive duty for training of up to 100 points per year for retirement credit."

Naval Reserve

Officers

"Looking back, I doubt I'd have stayed over twenty years except for the retirement promises, so its distressing to see the military singled out by the budget-cutters."

"I believe very strongly that retired reservist should have more benefits between retirement and age 60; at the very minimum they should have full commissary and exchange privileges. These could be granted at very little cost to the government."

"Upon reaching 20 years of service, retirement benefits such as the exchange, commissary, travel should start. Pay starting at 60 is still fair although it would be nice to start pay upon retirement."

"I cannot say that I am more than just 'satisfied' with Reserve retirement benefits until the uncertainty over future benefits is removed."

"I feel once you have completed 20 satisfactory years you should start receiving all benefits as regular service except for the pay. Feel the pay should start at 55 yrs vs 60 yrs."

"One aspect of the reserve which I feel is unfair to all reservists, is the use of NPQ status for all non-military related injuries or illness. If a reservist has made a commitment to the reserve, why should he or she be just dropped if there is an injury which is not the fault of the reservist? The situation is certainly different for someone on active duty."

"I believe both pay and retirement benefits have become too liberal. As a result, we have many in the Reserve who are here only because of the money and retirement benefits, and are not in the least involved because of any desire to be of service to our country."

Spouses of Officers

"I feel very strongly that retired reservists should be able to use all facilities immediately and not have to work until they are 60. These men served their time and should not be penalized because they were 'reservists.'"

"After giving over 38 years to Active Reserve Service = facing retirement I feel that losing Exchange rights and having to wait two yrs or more for Commissary, Exchange & Medical rights of use difficult to understand and accept."

Enlisted Members

"I also think that a retired reservist should have more benefits. There is a definite void from the date of retirement until the reservist reaches age 60. Why is it that the retiree can not travel space A during this time frame? Why can't the reservist have exchange privileges? The retired reservist should not have to wait until the age of 60 to have these benefits."

"My personal life has changed in the last 12 years and now I want out. I am not interested in the benefits 25 years from now as, as a reservist without active duty I will not receive enough money to make it worth my while to "stick" it out. I currently maintain a medical policy on my own whether I have military medical or not. I probably would not go to a Navy doctor anyway."

"During the time between a persons retirement and the time that person starts to collect retirement pay the benefits are virtually zero. This should be changed. Even though a retired person is not as yet collecting his retirement pay he should still be given access to base facilities and space A flights, and commissary and exchange privileges. A retired person should not be in limbo until his retirement pay comes, this could be for years."

"Please simplify the explanation of the survivor benefits program for people about to retire. The explanation currently is very confusing and hard to understand."

"Survivor Benefit Program. The word doesn't get out on this until its too late."

"Should receive more retirement points for correspondence letters, etc. All points should count for retirement not 60 plus active duty each year but all points earned."

"In general I like the Reserves, but the main thing I dislike is why make us wait until age 60 to start getting our retirement benefits, I think we should get them at the end of say 25 years of time."

"Unproductive senior officers (and often a few enlisteds too) are being kept on the roster, seemingly just to get their 30 years in. Its costing the retirement system heavily, seriously taking retirement funds from more deserving members. Recommend 22, 24, or 26 year cuts and freeze their point at that time as well. There are a few, fully qualified members that need to be retained in non-pay status, but not the thousands currently creating their own existence."

"I would like reservists' retirement benefits which have little or no expense to the government such as exchange, commisary, space A travel to be available when the reservist has 20 good years, not have to wait to age 60."

"I feel immediate benefits should be granted at retirement from reserves, i.e. pay, commissary, exchange, etc."

"The Navy is pushing me aside when all the benefits I worked and sacrificed for all these years are pulled out from under me. I have three children, two in college and a 13 year old who will be going to a private High School because of his exceptional talents. I think you can understand how the reserve pay and loss of exchange privileges is so important at this period of my life. I worked for it. Yet individuals who came to the reserves when things were convenient or provided them shelter from conditions, who are older and less experienced, can stay because they will not reach 30 years ever or by the time they are 60 and reap the benefits of retirement instantly."

"I put most of my emphasis on earning additional retirement points as being a greater incentive for me to stay in the program. I would like to point out as being our unit career counselor for a good number of year's retirement points have a strong impact on both young and old members. When counseling older members prior to there retirement or when they get their statement of 20 qualifying year's of service they often ask me to add up their points and compute what their retirement pay would be if they started to draw it presently and believe it or not most of them are shocked and make comments like 'It's hardly worth it is it?' Then when we talk about S.B.P. most seem to be unhappy with what there beneficiary would receive. I am sure most career minded people would welcome the opportunity to earn extra retirement points to beef up their retired pay because this is probably the main reason they are in the reserve program. Young people comming in presently like the S.A.M. program will have little if any active duty and with a 30 year and out career program they don't have any opportunity to earn enough retirement points to make it worth their time even if they stay 30 years for retired pay. This is a bad point for retention."

Marine Corps Reserve

Officers

"Personnel that require should be allowed a reserve retired I.D. card to show their status. As it is now, you are in a state of non-existence from the time you retire till age 60. Retired reserves should at least be allowed, PX, club and automobile sticker privileges."

"Reservists who retire before age 60 are in limbo status - no longer part of "family" and no benefits, either."

"Would like to see reserve retirement payable at age 55."

"Non-pay benefits should begin immediately upon retirement. PX, commissary, travel, etc. should begin as soon as an individual retires."

"Think it is a crying shame that, once a Marine retires (after 20 years), we have no military privileges in the base exchange, commisary or can not be a club member until we are over 60. In many cases this can amount to over 20 years. It is as if a retired reservist is just forgotten about, they deserve more than that!!"

"I also feel that all benefits except pay should be allowed at time of retirement eligibility. Since pay would not be given until age 60, the other benefits, commissary, PX and space available is at no additional cost to the government."

"I feel that retirement privileges other than pay and medical benefits should be extended to those individuals and their dependents who have accumulated twenty or more years of satisfactory service, but have not reached age 60."

"If a reservist has to wait till age 60 to receive benefits (current system), there should be no interim period when no PX privileges etc. are granted."

Spouses of Officers

"He should be able to retire earlier at reduced benefits. In the case of disability or death before twenty "good" years I should be able to receive <u>some</u> retirement benefits."

"My husband would like to stay in the reserves long enough to qualify for retirement pay but billets for officers for the necessary length of time are few and far between. The system has a built-in problem requiring the dropping out of your most experienced (and perhaps most willing-to-serve) reserve officers."

"Retirement benefits should be allotted at age 55 especially of over 25 yrs. of active reserve time."

Enlisted Members

"I'd like to know more about retirement. e.g., credits, points.... Enough information is not passed."

"I find serving in the Marine Corps Reserve an honor and a sacrifice. It is difficult sometimes to leave my family for drills or duty, but I do receive a sense of satisfaction that I am doing the right thing in serving my country.... The retirement system is the carrot that keeps me going despite the sacrifices and risks involved in USMCR service."

"I am unclear of the retirement points. How they are earned 1 yr, 2 yrs, act."

"Make retirement benefits improved & shorter length of waiting period - from 60 to 50 yrs."

"Retirement for reservists should be looked into in greater detail as a further incentive for participation."

"I personally feel all military personnel should recieve equal retirement pay I feel the current system is discriminating."

"As after next year I will have 30 years in. That means all I get for the next 13 years is a ---- pink ID card."

Spouses of Enlisted Members

"I lost a job I had held for 17 years when the steel mills closed down. During this crisis and subsequently, my spouse's reserve pay and commissary privileges have been a great help, and the prospect of retirement benefits is a comfort."

Air National Guard

Officers

"Retirement - wish more options could be offered prior to age 60. Example: a tax deferred 'buy out' of retirement points that could be used as an individuals retirement when the individual desired to do so."

"Should pay retirement at time of retirement. Not age 60. (Could pay only say 2/3 normal retirement if this option elected.)"

"When we retire we should be allowed limited access to the BX - perhaps a couple of visits a month - Its a real dry spell from the end of military service until age 60 years."

"I feel that we should be paid retirement on all points that are earned. I have personally lost some 750 pts during my tenure in the Guard over 11 years. But in any case that is equivalent to 1 1/2 to 2 years of participation on a full time basis that is lost to the individual."

"For increased retention and satisfaction especially of flying personnel - eliminate limit on crediting IDT points for retirement credit."

"I am concerned about lack of exchange and commissary privileges for my pending retirement. Specifically between age 55 and 60 when I can use these facilities. Our state policy is to retire all ANG members at age 55. I would like to have the above listed benefits as a minimum for the five year void prior to receipt of my military retirement pay."

"A guardsman injured in the line of duty is compensated well monetarily. But if his recuperation takes very long, he will lose a creditable year's service. There is no method to obtain duty points to earn enough to get a creditable year's service. There is no method to obtain duty points to earn enough to get a creditable year's service. There should be some way to not lose this."

"I would like to see retired ANG members have PX & commissary privileges. Plus half salary earnings. These members have served the country long and hard and I feel the system needs to be changed to accommodate these retired members. It appears they have been 'outcast' and 'penalized' because they have not reached age '60'. Let them enjoy upon retirement what 'they' have earned."

Spouses of Officers

"My husband spends 2 weekends a month and several nights flying with the guard of which I am very supportive. I think he should get his retirement at 55 the same as the full-time technicians."

Enlisted Members

"Easier access to Retirement information for spouses."

"I would like to see a way we could build up more retirement points."

"Consider allowing Military Technicians and traditional Guardpersons (i.e. 'part timers') to receive retirement pay after 20 years of service. I do feel that is only fair to reduce the amount of pay by 1% to 1.5% for each year the member's age is less than 60 years."

"I feel retirement should be paid at age 55. This is to much disparity between the regulars & the Guard. In the A.F. an E-9 with 30 yrs must in most cases retire if he is age 50, the 10 yr difference in age 50 AF, 60 ANG should be brought closer together. If we are mobilized you could have 60 yr old chiefs, this appears contrary to AF policy."

"Concerning personnel working toward retirement. As long as you are a great asset for what is wanted for the Guard, everything is great; but if you run into a problem, especially a health problem, even a corrected health problem, I feel like they won't think twice about kicking you out rather than trying to help you. It should work both ways; you are good for the guard; the guard should be good for you. People that have to get out because of some problem like health should get some retirement compensation; especially people that are up in years and are very close to retirement."

"Retirement should begin after retiring from 20 years of service regardless of age."

"Don't understand the retirement points system I am currently receiving."

"I think it is atrocious that any individual should wait on an average 20 years before he can receive any retirement benefits (pay). I wish this could change shortly."

"Commissary privileges and exchange privileges after 20 years of service for retired reserves and national guard personnel. The 60 point inactive duty retirement ceiling should be changed to the number of points earned."

"The amount of dollars available for retirement per month is inadequate. Based on twenty years of service as an E-7, I would receive approximately four hundred dollars per month. If I worked equivalent hours in a civilian job I would receive far better retirement just for the investment. Twenty years is a long time to invest for four hundred dollars per month retirement, considering the limited promotional opportunities allowed non-technician guardsmen, and the cost to carry out the mission (clothes, meals and transportation)."

"When on inactive duty with the guard all of the points received for these days do not count toward retirement. This should be changed and every point earned should be credited. There should be no maximum number per year."

"The 60-point inactive duty retirement ceiling should be changed to the number of points earned."

Air Force Reserve

Officers

"I don't mind waiting until age 60 for retirement but why do I have to wait until 60 for a retirement I.D. card & privileges? That is a low cost/high pay back to the Reserves by increasing morale."

"Inactive Duty Training Points: Each year I get an average of 50-75 points that do not count towards retirement. For example I am currently enrolled in National Defense University by correspondence with 3 month suspenses on each of 5 sections. I will lose over 1/2 of these accrued points. This is not fair and equitable. This system of getting and keeping points for retirement should be reviewed closely."

"Full retirement benefits should commence at age 55."

"Lower age required for start receiving reserve retirement pay to at least 55."

"I would like to see the retirement age lowered so that retirees are eligible for benefits sooner. Mostly, I would like to see the retirement pay system unaffected by the retiree's eligibility for Social Security payments."

"Retirement benefits should be given prior to age 60. Also, if Reservists die before age 60 but after 20 years of good service, dependents should receive survivor benefits. The strain on the family is tremendous, and they should receive something for 20 years of family sacrifice."

"I feel there ought to be a way to combine the individual's Retirement Retention year with the gov't fiscal year. This double planning year merely causes an overload of paper work, hours of unnecessary work, confusing frustration - and too often the loss of a good year for an individual reservist!"

"I feel it is extremely unfair that one may serve up to 19 years and lose a position by abolishment/realignment, lose a position through promotion or not be promoted and lose rights to retirement benefits. I feel there should be a vested retirement system. For example, after 10 years one should be eligible at the retirement age for monetary benefits based upon points. It is becoming very difficult to get 20 years service. I have been in the Reserves for eight years and have been assigned to 5 different Air Force Commands."

"I would like to see the age for retirement compensation to begin to be lowered to 50 or 55."

"The USAFR keeps increasing our requirements for our mission ready capability to the extent that now there is no difference between the active duty Air Force and the Reserves. We are being taken advantage of in regards to pay, retirement and benefits. We take the same risks and do the same job as well as, or better than our active duty counterparts for one third the pay and after its all over, we have to wait until age 60 to collect - if we live that long. I would like to see aircrews get paid more and be able to collect our retirement as soon as we are eligible just like our active duty equals."

"Request more thorough and frequent information on retirement and survivor benefits."

"Something needs to be done about the period between retirement and age 60. I will have 8 years that I cannot visit a BX, Commissary or use base facilities after serving 30 years. This makes no sense and is a demotion."

"Lower retirement age (Title III) to age 55. Too many reservists die without collecting a dime!"

"Would like to see Reservists be able to receive credit for inactive duty for training of up to 100 points per year."

"I am interested only in the retention of the retirement system I served my time under. I keep hearing rumblings of tying it to social security etc."

"The retirement system for reservists is in dire need of revision. I cannot understand why it's necessary for us to wait 20 years (if we retire at age 40 after 20 good years in the Reserve) to receive our retirement pay. Maybe that was ok when we were 'weekend warriors', but it certainly doesn't ring true today. I wonder, too, what the statistics are for reservists living long enough to even see their hard-earned retirement pay. I think the numbers may show that a majority of the retirement 'bennies' go to the reservist's survivors! Regardless of whether we're paid at 60 years or immediately after retiring, we're still only going to collect a small percentage of what an active duty retiree collects based on the number of points we have. While I agree the government would, if we could retire at age 40, have to make monthly payments to all those reserve retirees for 20 years when the government isn't paying anything right now, but even if the age for collecting retirement was moved up to age 50 or 45, it would be some consolation--and I think we're worth it."

"Information regarding point credit for ECI courses is inaccurate. Since a total of 60 points for other than active duty is all that is allowed, then very little of the effort that goes into PME is creditable. This is very disappointing when a

person struggles for two years to complete ACSC or AWC, and then not receive full credit for it. Since PME is almost a requirement for promotion full credit should be granted the completed effort."

"Having a retirement income is very important. I am concerned that this benefit might be removed. I would probably reevaluate my participation in the reserves if the retirement benefits are taken away."

"I am an IMA and self-employed and I have to meet IDT during the work week (Mon-Fri) and also ADT. The overhead expenses at my office are more than what I receive while training. Consequently the only pay I will receive for being in the reserve the amount I will get for retirement which is in reality an unknown amount. So there is a very real possibility I will pay more to be in the reserve than I will receive from it after 20 years of service. This situation could be improved if a self-employed IMA would be allowed to meet IDT on week-ends. Another problem is if I become disabled or die before getting 20 good years the retirement for all the years I worked will be lost."

"Eliminate the R&R year and convert to FY requirements only."

"The requirements for reservists to track two sets of dates for a 'good' year and for 'participation' confuses many and is another example of the stupidity of the personnel system. Tracking participation between anniversary dates and the fiscal year causes many errors and, in some cases, loss of credit due to shortfall. Let's get people oriented! Tell the accountants they will have to live with less accurate projections of spending. Why not just track by anniversary date. I'm sure that service wide, the spending would average out after the first year. Why not have the system serve the people rather than the reverse!"

"I would very much like to see a retirement option of 55 with reduced pension. It would be an attractive future for keeping trained personnel in the reserves and enticing younger people to serve.

"Retirement pay should take effect at time of retirement, in order to remain proportionate to active duty. Active duty at 20 yrs = full retirement immediately. Reserve at 20 yrs. = % of full 20 yrs points accomplished would be more equitable if it became effective at time of retirement - not age 60."

"I would like to see the retirement age lowered to 55."

"Retirement benefits should be available prior to age 60."

"The current policy of zero benefits for retired reservists prior to age sixty is extremely poor. BX, commissary and space A, the non-pay items should be granted upon retirement.

a. Reserve retirees should be granted BX, commissary, space-A travel, and medical benefits immediately upon retirement. BX, commissary, and space-A travel would have no significant fiscal burden. Medical benefits would require additional DOD expenditures, but could be reduced significantly with a prospective payment plan the retiree buys into - HMO concept. Today the Federal Government contracts with several insurers for prospective health plans for employees.

b. Retirement pay should be on an optional plan. Pay could continue to be deferred until a certain age OR provide an option for early retirement pay, but at a reduced rate until the designated age for full pay is achieved."

"Need to combine regular anniversary date/year with retirement date/year so they are both the same."

"The policy which I most object to is having to consider both the fiscal year and the R/R year when planning my IDTs & annual tours. I missed having a 'good' first year as an IMA by 1 point, because I did my initial IDT 2 days before my R/R year began (I thought my year began the day my orders were effective)."

"A major motivation for many reservists completing 20 years of service is the retirement benefit. Reduction of the benefit to the reservist or his spouse would have a profound effect on retention. This is definitely true of this reservist."

"I strongly recommend that a Reservist who has completed 20 or more years should have base exchange privileges following retirement from the Reserves and prior to age 60."

"I would like to see <u>all</u> of the points I earn each year applied towards my retirement pay. It seems only fair."

"After retirement retirees should be allowed to use BX and commissary facilities prior to age 60."

"I participate because of the retirement benefits and because my regular job is unstable and this is a good supplement. <u>Major contribution</u>."

"Retirement pay and benefits should begin when elected. Waiting nineteen years in a limbo status is too long to endure before reaching age 60."

Spouses of Officers

"Retirement benefits should be available at an earlier age. From personal experience, too much red tape involved, and time, in returning to reserve participation after surgery, i.e., my spouse had by-pass surgery Dec 4, 1985, and with a very uneventful recovery, returned to his Optometry practice on 20 Jan 86. He has been given a clean bill of health, dismissed by cardiologist for 1 year, and walking/jogging 2-4 miles per day. As of 5 Apr 86 he still had not been permitted to return to the reserves where he also practices optometry. He has missed all this time toward his retirement, and the money also. There should also be some form of compensation for sickness in reserves as there is for active members."

"Could you please explain point systems for retirement and how they pertain to those who have mixed on and off active duty status. I don't think even the reservists are sure. Also how do we check our status to make sure its correct."

"Making all reservists wait until age 60 to collect their retirement seems arbitrary since the contributions made by each member during a career in the reserves can vary greatly. Reservists who spend more time on active duty/accrue more points/serve longer/contribute more should be able to start collecting their retirement sooner than one who does the minimum to get by. Currently, their is no distinction made except in the amount of retirement received. Again, the hard-charger should be able to collect retirement before the average performer everything else being equal. Such a system would be a performance motivator while the reserve member is serving."

"I'd like to know more about the retirement benefits due my spouse."

"I would like to see certain retirement benefits available on retirement and not at the age of sixty."

"I'm very proud of the fact that my husband is a fighter pilot in the Air Force Reserves, but I feel that he is being shortchanged in some areas compared to his active duty equals. Aircrew-members are not just 'weekend warriors' like the average reservist. The necessity for him to stay mission ready requires him to be away at least 8-10 days a month flying. Its just like having a second full-time job. He is a very patriotic and dedicated person and for what you're paying him its obvious to me the he isnt in this for the money. He has the same requirements and takes the same risks as active duty aircrews take for only a fraction of the pay. Its not just the pay I feel he is being shortchanged, its having to wait until age 60 to receive any benefits at all. The physical demands on fighterpilots in these new aircraft make me wonder if he will

collect any benefits at all. I would like to see you pay the reserve aircrews more and make the benefits of retirement available upon their completion of and eligibility for 20 years of service just like their active duty equals."

"I do feel that if you have an additional duty as a reservist that there should be some type of compensation, be it financial or otherwise. Maybe translate it into mandays and let it count towards retirement. You could not get away with this in a civilian job, and you know it."

"The law that says in order to earn a reserve retirement the last 8 yrs must be in the reserves - should be eliminated. I served 20 good yrs (14 active & 6 reserve), attained the rank of LtCol but could not be awarded a retirement because of this rule."

Enlisted Members

"I would like opportunity to select immediate retirement, with reduced annuity at completion of 20-30 years."

"I would like to receive my retirement pay start once I complete 20 years and do retire its the benifits I could use at the end of my 20 yrs. If I'm still alive at 60."

"I believe the retirement age for reserve components should be moved up to 55 years of age instead of age 60. I find myself slowing down or maybe better said falling behind the fast young minds we have in the service today. Technology is so much more complicated - and we must be ready to fight fast wars these days with extreme complicated equipment. My personnel management skills are still sharp. However, I do catch myself finding it harder and harder to muster each month. Yet I like the reserve program and am proud to be a part of it."

Spouses of Enlisted Members

"Reserve recruiters on base are even less knowledgeable about whats going. I personally called one and he couldn't even explain the retirement system."

"No complaints about the Reserve work my wife is doing - she likes it & the retirement is her main continuing goal."

"Why can't we receive his retirement money after serving 20 good reservist years?"

"Lower the age from 60 to 55 to be able to collect on retirement benefits."

"As far as Retirement, it seems unfair that they must wait until they reach the age of sixty before they are able to collect their benefits. They have worked for them so they should be able to collect them when they retire no matter what their age is."

"Upon retirement at any age a guard member should be allowed to use the commissary and exchanges - a fair exchange for giving up time each weekend and training for twenty years."

"Reserves should be able to collect some of their retirement pay before reaching 65 because you can be dead by then."

"I'd like to know what your going to do about improving dependent benefits and reducing the age of collecting retirement benefits from 60 to 50."

"Full military retirement benefits should be available to Guard and Reserve members after twenty years of service regardless of the members age."

"The Reserve/Guard is a good program, but I think the retirement age should be lowered from 60 to 55 with no penalty for retirement at age 55."

"I feel that he ought to get his retirement pay when he retires over 20 or 30 years instead of waiting for age 62."

"I feel that the age to collect retirement pay should be lowered."

"We have also had extreme difficulty in getting retirement points accredited correctly to my spouse's account by ARPC. We filed a request and sent supporting documents 1 year ago this month and have not received acknowledgement or resolution to the problem."

"Retirement benefits should be lowered to age 55 with 30 yrs. or possible be available after 30 yrs. at any age."

"I would also like to see retirement for reserves at 20 years or more."

Coast Guard Reserve

Officers

"Need to increase statutory limits on maximum number of retirement points allowable per year. All points earned should be creditable."

"New alternatives for retirement benefits should be explored 10 yr vesting especially in officer corps emphasis could then be geared to development and intensive military training for junior grade officer & enlisted personnel. Most reservists do not think 20 let alone one (1) year ahead.

"I would like to explain my comment that I am dissatisfied with current retirement benifits. My concern is not with the benefit itself but with the potential for never recieving it."

Spouses of Officers

"The retirement pay age of 60 is to high and should be lowered to 55 years."

"Keep all privileges from the time you end drills and are eligible to retire until you reach retirement at age of 60."

"The Coast Guard now has a mandatory transfer to the IRR at 31 years for Warrant Officers and some Chiefs. This is unfair to men who have served faithfully and still have good years left they can serve."

Enlisted Members

"Growing older has never bothered me until the recent notice regarding forced retirement upon attaining 30 years' service from pay base date. I have never regretted that decision, but I am disappointed that I will not be able to remain in the reserve until age 60 as I had planned."

"For 14 years I have been trying to have my 6 years of USNR time added to my USCGR time for retirement. Points from prior service also have not been completely added."

"Some sort of reduced pension for personnel over 15 years who for health reasons cannot complete their reserve career."

"The point statements are a total disaster - need intense attention."

"I wonder what my chances are of ever reaching age 60? What would it hurt to receive some privileges between the end of your reserve 20 career and reaching age 60?"

Spouses of Enlisted Members

"I have heard talk of lowering retirement benefits which I hope is untrue. This is a major reason why my spouse joined, for family health benefits and retirement income."

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SIXTH QUADRENNIAL REVIEW OF MILITARY COMPENSATION

VOLUME IA

COMPENSATION OF FULL-TIME SUPPORT PERSONNEL

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6th QRMC Report

Executive Summary

Volume I: National Guard and Reserve Compensation

Volume IA: Compensation of Full-Time Support Personnel

Volume IB: National Guard and Reserve Retirement

Volume IC: Compensation in Support of Reserve Medical Manpower

Volume II: Compensation and Personnel Readiness

Volume III: 6th QRMC Supporting Studies

PREFACE

The 6th Quadrennial Review of Military Compensation (6th QRMC) was organized in October of 1986 to fulfill the direction of the President of the United States; "conduct a complete review of the principles and concepts of the compensation system for members of the uniformed services", and "report to me...options and recommendations for improving the current reserve compensation system." Specific to the President's direction was the requirement, found in section 1008(b) of title 37, United States Code, to submit a detailed report to Congress summarizing the results of such a quadrennial review. Recommendations were also to be included proposing changes in the statutory salary system and other elements of the compensation structure provided to members of the uniformed services.

In his letter of instruction, the President designated the Secretary of Defense as Executive Agent for this review. The Secretary, in turn, instructed the Assistant Secretary of Defense (Force Management & Personnel) to conduct the study. To provide overall policy direction and guidance, a Coordination Council was established, with the Assistant Secretary of Defense (Force Management and Personnel) and the Assistant Secretary of Defense (Reserve Affairs) as co-chairmen. Members included the Principal Deputy Assistant Secretary of Defense (Health Affairs), the Assistant Secretaries of the Army, Navy and Air Force (Manpower and Reserve Affairs) and the Commandant of the Coast Guard. The Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) served as Executive Director of the review.

A further body, the 6th QRMC Steering Committee, was established in January of 1987 in order to provide close oversight and direction for the review. The Steering Committee was composed of flag and general officers from each of the seven National Guard and Reserve components and from the four active DoD components. A general officer representing the Reserve Components Medical Council was also named to the Steering Committee.

Liaison was established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA). They did not participate in most deliberations since the 6th QRMC review was entirely focused on reserve compensation. Reserve members of the Uniformed Public Health Service do not actively participate unless on active duty, and the NOAA Commissioned Corps has no reserve component.

The technical staff for the QRMC was developed in the last months of 1986 by assembling qualified individuals from the active and reserve components. By January 1, 1987, all staff and steering committee members had convened, commencing the efforts of the review.

This volume is part of the report of the 6th QRMC. It covers one of the three issue areas identified for separate analysis within the overall context of the review: compensation for members providing full-time support to the reserve components. This issue is also summarized in Chapter 3 of Volume I.

Significant growth in full-time support to the reserve components has been required to achieve readiness objectives. Program growth has been accomplished primarily through placing National Guard and Reserve members on full-time duty to support reserve administration, training, and recruiting. This Active Guard and Reserve (AGR) force now exceeds 68,000 members. Many compensation provisions affecting AGR members are the same as for reservists serving as part of the active components of the armed forces. In addition, however, new compensation issues have been raised with respect to the status and conditions of service of AGR members.

The other major source of military full-time support is the military technician. About 65,000 military technicians provide full-t'me support as federal civilian employees of the Army and Air Force. As a condition of their civilian employment, these individuals also maintain a status as part-time Selected Reservists. Substantial questions have been raised in the last decade over the relative cost-effectiveness of military technicians and AGRs. Questions have also been raised about the extent to which compensation differences between members in the two statuses may result in conflicts and affect morale.

When the full-time support panel of the 6th QRMC made its initial evaluation of the major areas for review, it became apparent that compensation aspects of the issues were intricately connected with overall management schemes and program objectives. Consequently, the panel concluded that a broad understanding of the entire full-time support program would be required in order to form sensible conclusions and recommendations. It was also apparent that a special effort would be needed to gain such an understanding; previous comprehensive studies were 10 or more years old, each reserve component's program was specially tailored to its specific mission requirements, and accurate data would be difficult to obtain in some cases. On the other hand, the 6th QRMC was fortunate in having available some excellent information resources such as the databases and assistance provided by the

Defense Manpower Data Center, and the many staff contacts in the DoD and in other government and private organizations. A special effort was made to include information collected from these resources in this report so that the reader can also form a broad view of program management, and so that it will be available as a potential basis for comparison in future reviews.

During the course of the work of the 6th QRMC, numerous presentations, briefings and discussion sessions were held. These included presentations and discussions with the Military Department Secretariats and Service staffs, of great assistance but too numerous to mention here. In the Executive Branch, assistance was provided by staff of the Office of Management and Budget, Veterans' Administration, Department of Health and Human Services, Department of Justice, and Department of Labor. As noted above, liaison was also established with the Public Health Service and the Commissioned Corps of the National Oceanic and Atmospheric Administration. Staff of the General Accounting Office, Congressional Budget Office, and of the Senate and House Armed Services Committees also were most helpful throughout the review.

Communication with the Reserve Forces Policy Board, which has a statutory role as advisor to the Secretary of Defense on reserve issues, and with policy boards established within the individual Services, were of great value to the QRMC both in identifying issues and concerns and in providing feedback to the QRMC staff as positions were being developed. In addition to the Reserve Forces Policy Board, these groups included the Senior Enlisted Advisors to the Assistant Secretary of Defense for Reserve Affairs, the Joint Army/Air Force Reserve Forces Policy Committee, the National Reserve Forces Policy Board (Navy), the Secretary of the Navy's Advisory Council on Retired Personnel, the Marine Corps Reserve Policy Board, and the Air Force Reserve Policy Council. Participants in the Naval Reserve Flag Officers Conference (1988) and the Reserve Center Commanders Conference (1987) were also most helpful.

Additionally, several military associations provided forums on one or more occasions for the discussion of issues and were most gracious in providing formal association positions on National Guard and Reserve compensation issues, membership survey information, perspectives on the views of their membership, and other valuable data and suggestions. These organizations included the Adjutants General Association of the United States, Air Force Sergeants Association, Council of Military Organizations, Enlisted Association of the National Guard of the United States, Fleet Reserve Association, Marine Corps Reserve Officers Association, The Military Coalition, National Guard

Association of the United States, National Military Family Association, Naval Reserve Association, Non-Commissioned Officers Association, Reserve Officers Association, The Retired Enlisted Association, and The Retired Officers Association.

Finally, within the Department of Defense the staffs of the Defense Manpower Data Center and the DoD Office of the Actuary deserve special mention for data assistance, support, analysis, and advice at every stage of the review.

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Headquarters and Headquarters Company, 78th Training Division, Edison, New Jersey

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328th Personnel and Administration Battalion, San Antonio, Texas

5506th Dental Service Detachment, St. Louis, Missouri

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803d Medical Group, Boston, Massachusetts

United States Naval Reserve

USS Clifton Sprague (FFG16), Philadelphia, Pennsylvania

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RNMCB 21, NAEC Lakehurst, New Jersey

Naval Hospitals 119 and 219, Long Beach, California

Naval Hospital Newport Branch Medical Clinic - NAS South Weymouth, Massachusetts

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United States Marine Corps Reserve

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H&MS 41, Detachment B - MCAS El Toro, Santa Ana, California

4th Fleet Service Support Group - N&MCRC, Miramar, California

Air National Guard

143d Combat Communications Group, Seattle, Washington

156th Tactical Fighter Group, Muniz ANGB, San Juan, Puerto Rico

United States Air Force Reserve

514 Military Airlift Wing, McGuire AFB, New Jersey

702 Military Airlift Squadron, McGuire AFB, New Jersey

37th Aeromedical Evacuation Group, MacDill AFB, Florida

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EXECUTIVE SUMMARY

This volume is part of the report of the Sixth Quadrennial Review of Military Compensation (6th QRMC). Section 1008(b) of title 37, United States Code, requires that a review of compensation systems for members of the uniformed services be conducted not less than once every four years. On September 23, 1986, President Reagan directed that the 6th QRMC conduct a comprehensive evaluation of the benefits and costs of all reserve compensation programs. The review was initiated on January 1, 1987.

Compensation of full-time National Guard and Reserve members employed in support of the reserve components was one of the reserve compensation programs reviewed by the 6th QRMC as a separate issue. As administratively classified by the Department of Defense, full-time support personnel include active component personnel (15,738), military technicians (61,651), Active Guard/Reserve (AGR) members (63,518), and civil service employees (18,333). The full-time support total of 159,240 (as of September 30, 1986) makes it readily apparent that this function requires an important segment of total defense manpower. As members of the Selected Reserve, paid with reserve appropriation funds and accounting for four out of five full-time support personnel, military technicians and AGR members were the focus of attention. The review did not include the Coast Guard Reserve because full-time support in that component is provided by reserve program administrators who are members of the active component.

The objective of the full-time support program is to enhance the readiness of reserve forces, and this program is largely responsible for enabling these forces to perform the expanded missions they have been assigned under the Total Force policy. The cadre of military technicians and AGRs plays an especially important role in providing support at reserve unit level. Military technicians are full-time federal employees who are, as a condition of employment, active military members of the reserve component in which they are employed as civilians. They must enter active military service when called. AGRs are members of the Selected Reserve who have been called to full-time active military duty (180 days or more) for the purpose of organizing, administering, recruiting, instructing, or training the reserve components. "TAR" is the Navy acronym for a special category of AGR members whose career specialty is Training and Administration of Reserves.

During the past decade, many difficult questions have arisen about the growth, cost, force mix, program objectives, and management of the full-time support program. From a compensation perspective, two major questions have arisen:

- Should AGR/TARs and active component members receive essentially the same compensation, given the perceived differences in conditions of service between these two groups? This question potentially affects all components, and it stems from the perception that the hardships associated with military service occur less frequently and with less severity in AGR/TAR service than in active component service.

- Are military technicians or AGRs the most cost-effective form of full-time support manpower? This question potentially affects the components of the Army and Air Force.

In reviewing these questions, the 6th QRMC operated from the premise that military compensation must support defense manpower policies that, in turn, support the military, strategic, and operational plans of the Nation. Therefore, conclusions and recommendations were sought that would enhance the readiness objective of the full-time support program. To understand and appreciate the complex nature of this relationship, a broad survey was conducted of full-time support program origins and personnel management as practiced in the six reserve components of the DoD.

Origin of the Reserve Component Full-Time Support Programs

The practice of providing full-time support to reserve components is not a new one. When the modern reserve forces began to evolve at the turn of the century, full-time civilian caretakers were hired to maintain the horses and supplies in National Guard units. During the same period, active component members were detailed to reserve units as instructors and inspectors. There is also a long tradition of calling reservists to full-time duty at the seat of government on so-called "statutory tours," to other tours of duty at state headquarters of the National Guard, and to intermediate military headquarters for the purpose of preparing and administering the policies and regulations affecting the reserve components. Descendants of all these programs exist in the reserve components today, encompassed by the term "full-time support" (FTS).

After World War II, it became apparent that the traditional concept of reserve forces constituted in the "civilian components" was inadequate to meet the challenges of modern

defense requirements. The wartime experience had proven that reserve forces as organized and trained before the war simply would not be prepared for mobilization, deployment to an overseas theater, and employment in combat in a timely fashion and at the necessary levels of proficiency. To make matters worse, the Nation then as now strained under the enormous costs of large, peacetime military operational requirements and commitments. To make the most of scarce resources, the Total Force policy was devised and adopted in the early 1970s. This policy calls for maintaining only the minimum essential active forces and for placing increased reliance on the reserve components, not only to provide forces to support a full mobilization in the event of war, but also to provide forces to be called upon in circumstances short of war. As a consequence, the Nation now also relies heavily upon operational support from its reserve forces in peacetime. Each of the reserve components has developed different approaches to this dual challenge within the context of its own specific requirements and missions; however, they all rely heavily on full-time support in one form or another to get the job done.

Army Full-Time Support Programs

The Army full-time support programs include both military technicians and AGRs. The use of technicians originated in the National Guard's system of unit caretakers and was expanded to include their employment in Army Reserve units after World War II. Military technicians provide unit support. Most are members of the units in which they work as civilians, although large numbers are employed as civilians in area support activities and in some headquarters elements that are not mobilizing units. Prior to the initiation and rapid expansion of the AGR program in the 1980s, full-time active duty reservists were generally employed in other than mobilizing units as recruiters or on statutory tours. Beginning with a military technician conversion test in FY 1978 and 1979, AGRs have been assigned in increasing numbers to provide unit support along with military technicians. All Army AGRs are managed as careerists.

Navy Full-Time Support Programs

The Navy relies primarily on TARs for full-time support of its reserve forces. In fact, the Navy pioneered the concept of reliance on uniformed, full-time active duty reservists to provide unit support. The forerunner of the TAR program was established in December 1945 as the CAD (Continuous Active Duty) program. The name "TAR" was applied in 1953 after implementation of the provisions of the Armed Forces Reserve Act in 1952. Thus, it predates by over a quarter-century the widespread use of AGR members during the 1980s in the Army's reserve component units and the Air National Guard. TARs play a

key role as ship's company in the Naval Reserve Fleet. To keep Naval Reserve forces current with operations in the active fleet, TARs maintain a close association with the regular Navy. Among their other assigned functions, TAR officers routinely serve tours of duty with the regular Navy for refresher training. Before FY 1983, TARs were members of the active Navy. They were transferred to the Naval Reserve in that year for personnel strength accountability and funded from reserve personnel rather than from military personnel appropriation accounts to provide AGR program uniformity within the DoD. In addition to TARs, the Navy AGR program also includes other full-time reservists on statutory tours and on recruiting duty.

Marine Corps Full-Time Support Programs

Although the Marine Corps Reserve does use some full-time reservists, most of its full-time unit support is provided by active Marine Corps Instructor-Inspector (I&I) teams attached to Marine Corps Reserve units. The Marine Corps Reserve is organized as a division/wing team that mirrors the three teams composing the bulk of the Corps' active component manpower structure. The nature of the Marine Corps Reserve training mission and day-to-day operational requirements generally does not demand a large proportion of full-time members with relatively narrow, highly technical skills in long term, stable assignments. It is in this context that the active component provides full-time support for reserve units. The simplicity and flexibility of such a plan is self-evident. In addition to instructing and inspecting, I&I teams provide a natural means of coordination and liaison with active units. This assists the Corps as a whole in integrating the peacetime and wartime support provided by its reserve forces.

Air Force Full-Time Support Programs

When the Air Force was established as a separate service in 1947, its full-time support force had its roots in the National Guard's system of military technicians. Although the Air Force did experiment briefly with full-time active duty reservists in the Air Force Reserve (the Category R program), it ultimately has continued to depend primarily on technicians to provide most required full-time support. Both Air Force reserve components use AGR personnel for statutory tours and reserve recruiting duty, and the Air National Guard uses them in relatively small numbers for unit support. All full-time unit support in the Air Force Reserve is provided by military technicians. The full-time support programs in both Air Force reserve components have been highly successful.

Life-Cycle Management of Full-Time Support Personnel

There are significant differences in the full-time support (FTS) programs of the Military Departments. These differences emanate from the unique structure and functional needs of each component as developed over time, and they are reflected in both law and policy. Consequently, there are separate and distinct management procedures and force characteristics for each category of FTS personnel in each component. To form a comprehensive perspective of these differences, a matrix was developed to display in general terms how each component's FTS program is structured. The matrix can be found in Table 2-1 in Chapter 2. It shows the major differences both across the reserve components as well as among the various categories of full-time support personnel (military technicians, AGR/TARs, and active component members) within any single component.

AGR/TAR and Active Component Compensation

Should AGR/TARs and active component members receive essentially the same compensation, given the perceived differences in conditions of service between these two groups? This is the first of the two major full-time support compensation questions reviewed by the 6th QRMC. The complete analysis of the issue may be found in Chapter 3; a synopsis is provided below.

Full-time AGR (Active Guard/Reserve) members, including Navy TARs (Training and Administration of Reserves), are compensated under essentially the same pay and benefit systems as active component military members. Concern has been expressed about this situation, based on the perception that AGRs and TARs are not subject to the same rigors and hardships characteristic of service in the active military components. Most often mentioned among the hardships of the active component member are the frequent permanent change of station (PCS) moves brought about by changes in duty assignments and the family separations caused by remote overseas assignments or deployments aboard ship.

The 6th QRMC analysis entailed two major avenues of investigation: a comparison of conditions of service, and a comparison of the elements of compensation as they are paid to these two groups. The comparison of conditions of service included institutional policy and perspectives as well as perceptions of active and reserve component members about service conditions, using the results of the 1985 DoD Survey of Officer and Enlisted Personnel (active component), (1985 DoD Member Survey), and the 1986 Reserve Components Survey: Full-Time Support Officer and Enlisted Personnel (1986 RC AGR Survey). Results of the surveys are supported by available objective data in the Reserve Components Common Personnel Data

System (RCCPDS). The 1986 RC AGR Survey provides the first available comprehensive reserve component data in this area; therefore, this analysis provides a new and unique perspective on the issue. The comparison of compensation elements was made to validate the hypothesis that their application is essentially identical for both groups.

Institutional Policies and Perspectives

The policies that govern conditions of service for individuals must be developed within statutory authority and congressional guidance. AGR duty assignments must be made to accomplish the reserve support functions specified in the law. National Guard members ordered to full-time duty under the provisions of title 32, United States Code, are not in federal service, and they generally serve in their home state. Guardsmen and Reservists ordered to active duty under section 672(d) of title 10, United States Code, may be detailed to other duties only for the specific purpose of periodic refresher training under the authority of section 678 of title 10; they may not be detailed to other duties simply to meet the requirements of the active component.

Within the DoD and the Services, the current, single compensation system for both groups is considered to be the only one that provides essential fairness to all members on active duty as well as the compensation needed to attract the quality of military members needed. While demands for duty overseas and at sea are recognized as being less frequent for full-time Active Guard and Reserve members, there is little or no perceived difference with respect to other aspects of service.

Comparison of Conditions of Service

Through the analysis of survey data and other supporting data, it has been possible for the first time to make across-the-board quantitative comparisons of many aspects of the conditions of service for active component members and AGR/TARs. As expected for the two most often-cited areas, frequency of moves and family separations, active component members do have the most rigorous service conditions, but the comparisons also depict a wide variation within and between components and reveal that a relatively high level of short-term separation from family is experienced by the AGR population.

Naval Reservists are virtually identical to their counterparts in the active component, but there are wide differences between members of other reserve components and their counterparts. When comparing officer and enlisted populations within components, the differences in conditions are often far greater than the corresponding differences between active component members and AGR/TAR members. Across the range of conditions of

service, the results are mixed. Sometimes the advantage is with active members and sometimes with AGR/TAR members. The net result is a complex interaction of advantages and disadvantages within each component. Because the results are mixed, it would be especially difficult to devise a general formula to relate rigors of service to compensation rates on a rational basis.

Comparison of Compensation Elements

A systematic review of all compensation elements confirmed that compensation systems for active component members and AGR/TARs are essentially the same. However, equal application of compensation rules does not necessarily mean that compensation costs are identical for these two groups. The number of members drawing special pays, for example, was found to be higher on the active component side. Likewise, since enlistment, reenlistment, and other bonuses are paid by policy on the basis of service needs, AGR/TAR members do not currently receive such compensation even when the statutes authorize them. Finally, there are several types of allowances such as the variable housing allowance, family separation allowance, dislocation allowance, and hostile fire/imminent danger pay that are paid, all or in part, on the basis of exposure to a particular condition of service. Compensation elements that are related to conditions of service are inherently more efficient and equitable than any general remedy ever could be.

Four technical or structural differences were found in examining elements of active component and AGR/TAR compensation:

- VA Benefits for active component members and title 10 AGRs (those in federal service) differ from benefits for title 32 National Guard AGRs (those on full-time National Guard duty under state control).
- Entitlement to nondisability separation pay for regular enlisted members differs from that for AGR/TAR enlisted members.
- Entitlement to selective reenlistment bonuses authorized by Section 308 of title 37, United States Code, for regular enlisted members differs from that for AGR/TAR enlisted members.
- Educational benefit entitlements for active component members differ from those for AGR members.

Conclusions about AGR/TAR and Active Component Compensation

Although there are specific, measurable differences in conditions of service when comparing active component members and AGR/TARs, there is no rational basis for making a general corresponding adjustment in the compensation structure. Applying specific elements equally to each member on the basis of exposure to rigorous conditions appears to be an equitable and efficient approach to this issue. The compensation of active component and AGR/TAR members is essentially the same except for four technical or structural differences, two of which should be changed: all AGRs should accrue veterans' benefits on an equal basis, and AGR service educational benefits should be limited to the active duty program. Changes are not required in the other two areas; there is insufficient need to pay bonuses to attract AGRs at this time, and there is a continuing need for separation pay for active duty enlisted reservists.

Recommendations on AGR/TAR and Active Component Compensation

- **The 6th QRMC recommends that there be no overall change in the way the compensation system structure accounts for differences in conditions of service between active component and AGR/TAR members, but that these four specific recommendations on structural and technical issues be adopted:**
  - **Develop remedial legislation to amend the United States Code so that members serving on full-time National Guard duty (other than for training only) have the same status, with the same consequences for title 38 purposes, as members who serve on active duty.**
  - **Make no change to current statutes which authorize separation pay for enlisted reservists but not for enlisted regular members. Given the existing state of AGR enlisted program management within the reserve components and the fact that enlisted members have typically left established civilian careers to serve in AGR status, the QRMC recommends that no change be made to existing legislative authority at this time.**
  - **Do not amend section 308 of title 37, United States Code, to authorize payment of selective reenlistment bonuses (SRBs) to TAR/AGR members until such time as a requirement for such authority can be demonstrated.**
  - **Amend section 2132, chapter 106 of title 10, United States Code, so that full-time active duty service as AGR members of the Selected Reserve can be credited only**

for use with the educational assistance program established under chapter 30 of title 38, United States Code.

Cost-Effectiveness of Military Technicians and AGRs

Are military technicians or AGRs the most cost-effective form of full-time support manpower? This is the second of the two major full-time support compensation questions reviewed by the 6th QRMC. It potentially affects the components of the Army and Air Force. The full analysis of this issue may be found in Chapters 4, 5, and 6; a synopsis is provided below.

Background

During the past decade, much of the continuing controversy over full-time support for the reserve components has focused on the relative cost-effectiveness of using military technicians and AGRs to provide full-time support in the reserve components of the Army and the Air Force. If there has been a consensus about any aspect of the issue, it has been that additional full-time support is necessary to meet the increasing missions and responsibilities that have been assigned to these components. Congressional guidance has consistently stressed that a balance of cost and readiness (as a measure of effectiveness) should form the basis for decisions about the full-time support manpower force mix. However, each new budget cycle has marked another round in the debate on which category of full-time support manpower is the most cost-effective, and there have been no easy answers on either side of the equation.

The 6th QRMC analysis included a review of the historical development of the issue and an examination of prior work that has been done to measure and portray the actual compensation costs. Computer Based Systems, Inc. developed an automated cost comparison model for significant elements of military technician and AGR compensation costs as part of the study effort, and the results were used as the basis for objective comparisons in this report. Since compensation costs are intricately connected to manpower management systems, management practices for both military technicians and AGRs were reviewed. Available personnel information was examined, including manpower force structure data submitted by the Services or available in RCCPDS and other data files maintained by the Defense Manpower Data Center, results of the 1986 Reserve Components Surveys of Selected Reserve officer and enlisted personnel, and data provided in published reports or by Service points of contact. Reports prepared by elements of the Legislative and Executive Branches, such as congressional committes and the General Accounting Office, were also reviewed along any with Departmental responses.

By the late 1970s, new missions and the need for increased responsiveness under the Total Force Policy had generated a basic requirement for more full-time support personnel in the reserve forces. Additional full-time active duty reservists had already been called to duty as recruiters after the 1973 transition from conscription to voluntary service in the Armed Forces; however, the need for additional support extended to the day-to-day operation of units as well. The requirement was especially great in the Army's reserve components, where obtaining more full-time manpower to meet mission requirements was perhaps more important than whether the best choice of manpower was military technicians or full-time active duty members. Although "What kind?" has often overshadowed "How many?" in the debate over this issue, the need for growth has not been disregarded. Significant overall growth has been programmed by relative need in each component. In the four reserve components of the Army and Air Force, between 1979 and 1987, the combined strength of military technicians and AGRs grew from 66,668 to 108,377, or 63 percent. However, the increase in AGR strength during this period was 447 percent, while the increase in military technician strength was only 7 percent.

In the decade between 1968 and 1978, major concerns were raised about the cost and management of military technician programs, including concerns about the potential impact of unionization. Consequently, a series of studies and congressional actions occurred during this period, culminating in a military technician conversion test in 1978 and 1979 to determine the feasibility of recruiting full-time active duty reservists as an alternative source of manpower. After considering the results of the conversion test, the Congress originally decided to allow each component to program the full-time support mix that would best meet its own unique requirements. The Army components--and to a lesser extent the Air National Guard--planned to replace many of their military technicians with full-time active duty reservists (now known as AGRs). However, because the addition of large numbers of AGRs has not produced significant cost savings, some of the original concerns about military technicians (such as union activities) have not proven to be significant, and because of management problems with a mixed force, these plans have not been completed, and the Congress has maintained continuous restrictions in the form of technician strength floors, AGR strength ceilings, and a prohibition on converting occupied and vacant technician positions.

6th QRMC Cost Comparison Analysis of Military Technicians and AGR Members

In reviewing the historical record of full-time support personnel cost comparisons, the following precepts and general trends were identified:

- Manpower programming is based on costs to the government, not on benefit to the individual.
- To form a true picture of compensation costs, all significant immediate and deferred, direct and indirect costs must be considered.
- Because pay raises and other compensation system changes may alter relative costs, cost analyses must be updated periodically.
- The availability of accurate, integrated databases is essential to the computation of valid cost comparisons.
- Relative costs cannot be determined without establishing a linkage, such as military pay grade, as a basis of comparison. Such linkages may take the form of grade equivalency tables, service or component manpower organization classification guidance, or population averages.
- The more recent analyses show that AGRs generally cost more than general schedule military technicians but somewhat less than most wage board technicians. In addition, AGR officers are relatively more expensive than enlisted AGRs, and the relative costs of AGRs within enlisted, warrant officer, and officer categories increase with military pay grade as compared with military technicians.

6th QRMC Full-Time Support Cost Comparison Model

The 6th QRMC full-time support cost comparison model incorporates the above precepts and has produced up-to-date cost estimates reflecting compensation system changes since the last major analysis (conducted by Management Consulting & Research, Inc., published on May 24, 1985). It also advances the state of the art, where possible, using improved databases and procedures. The results provide the basis for 6th QRMC conclusions about the cost-effectiveness of military technician and AGR manpower from a reserve component compensation perspective. This model incorporates military and civilian income data for military technicians and AGRs, including data on reserve component, military and (if applicable) civilian grade,

step and category, military specialty, marital status, and all elements of compensation: direct, indirect and in-kind. The basis of comparison selected for use was military grade, in view of the paramount importance of the military aspects of the functions performed. The following points summarize the model results:

- GS/GM military technicians have lower average annual costs than AGRs in most military pay grades and lower than average costs than wage board technicians in all military pay grades.

- In the military grades with the highest population strengths, wage board military technicians generally cost more than AGRs. In the more senior military grades, AGRs generally cost more than wage board military technicians.

- Costs increase more rapidly with military pay grade for AGRs than for military technicians.

- Although the three observations listed above are valid for all four reserve components, there are significant differences between these components. The difference between the average civilian grade held among military technicians at any military grade varies by as much as 3.4 civilian grade levels across the components. Air Force Reserve AGR and military technician forces cost more per capita than in other components because the AGR force consists largely of higher grade statutory tour officers and recruiters. The Air National Guard generally has the least difference between AGR and military technician costs while the Army Reserve has the greatest.

Cost Model Management Indicators

If hypothetical total program costs were the sole criterion for choice, the 6th QRMC cost comparisons (as well as the conclusion that AGRs should continue to receive essentially the same compensation as active component members) would generally support the use of general schedule military technicians over AGRs in the full-time support forces of the Army and Air Force reserve components. However, changing the force mix, either through program growth or through realignment, is not likely to produce significant savings since changes would occur only at the margin. Short-term savings are especially unlikely because members of the existing force would likely be protected from mandatory conversion of status, and few members could be expected to volunteer for any status change yielding less compensation. Because cost savings are not likely to occur, military requirements for meeting readiness objectives ought to be the governing factor in force mix decisions.

Cost Comparison Conclusions

Relative cost savings from using one form of full-time support rather than another will occur only at the margins as the result of program growth or realignment; thus, costs savings in the short term are very unlikely to result from any FTS force mix decision. Given the difficulties with compensation and other related problems of a mixed force with no clear delineation between requirements for AGR and technician positions, and given the fact that short-term costs (and probably longer term costs) will not be affected significantly by the choice of AGRs or technicians to perform full-time support, it seems apparent that military requirements and effectiveness should be the primary consideration in force-mix decisions. This is consistent with congressional guidance indicating that the choice of manpower should not based on cost alone, but also requires consideration of "military requirements and other needs of the Department of Defense."

Full-Time Support Manpower Management

Once the costs of available forms of manpower have been determined, they must be examined in relationship to military requirements and other needs of the DoD before any determination can be made about which form of manpower is most suitable for a specific function.

To enable the 6th QRMC to identify and understand the overall objectives of full-time support manpower objectives, each Service was asked to provide appropriate force structures for its reserve components. The Army and Air Force were asked to provide separate structures for military technicians and AGRs. These structures were to be based on three separate and distinct strength profiles. The first was a profile of the existing force as of September 30, 1986. The data array included strength by pay grade and years of service as in the standard RCCPDS report A8. The second was a steady-state structure for FY 1986 showing where the Service would like its reserve component(s) to be, and the third was a steady-state structure showing where the Service would like its component(s) to be heading assuming FY 1992 program strengths. The steady-state profiles were to include the basic force configuration required for the actual force, and they were to include additional flow dynamics and age distribution data as well. The 6th QRMC formed the following conclusions about the full-time support force structure profiles:

- Since the full-time support force structures produced for this review generally represent a new, single iteration effort, they should be viewed as a "first

draft," rather than as a definitive statement of existing status and Service force structure objectives.

- Full-time support force structure analysis, if institutionalized, can provide a disciplined method for defining force structure objectives and requirements as a basis for improved active (as opposed to reactive) program management.

- Efforts should be continued to improve full-time support manpower, personnel, and pay data integration so that it can be used more effectively in the analysis of manpower costs and personnel management issues.

Friction between military technicians and AGRs in the daily work environment has existed since the inception of the AGR program. The individual problems that exist are generally attributable to the existence of two separate military personnel management systems for the performance of one set of functions. These systems are frequently seen by members as competitive rather than mutually supportive programs to the extent that some members feel a threat to their livelihood. Additionally, wherever there are differences between the two systems, they are normally a source of frustration for members in one category or the other.

According to members responding to the 1986 Reserve Components Surveys, friction continues to create tension in the Army's reserve components and in the Air National Guard. This friction manifests itself in several ways as another problematic aspect of mixing technicians and AGRs in units. The compensation system has a direct impact in creating two sources of this friction. The first is pay inversion that occurs when a supervisor (typically a general schedule military technician) earns less pay than a member who he supervises (typically an AGR). The second is grade inversion that occurs when the level of responsibility, even supervisory relationship, may be reversed between daily work status and unit training when military technicians switch between their civilian and military position/status. There are other sources of friction: for example, active duty rules for duty hours differ from civil service rules, and promotion rules and opportunities differ. The result has been allegations of "politics" and favoritism on both sides by members of these two groups. This friction, much of which centers on compensation or compensation-related matters, tends to work against organizational effectiveness. It demonstrates that employing military technicians and AGRs in the same working environment in mobilizing units is not sound personnel management practice. Such practice specifically disrupts the very efficiency and organizational cohesiveness

that compensation systems, grade structure, and other personnel management mechanisms are designed to promote. Although management can ameliorate some problems, it cannot eliminate the structural differences that are a root cause of friction between the two groups.

After examining the Army's reserve components full-time manning program in 1985, the General Accounting Office concluded that mixing technicians and AGR personnel in deployable troop units is not organizationally sound and detracts from effectiveness. A primary reason cited by the GAO was compensation variances and perceived inequities between the two groups. The Department of the Army and the Department of Defense agreed with this conclusion and indicated to the Congress that they would implement a program to reduce such mixing, if necessary authority were granted. Congressional approval necessary to implement such a program has not been forthcoming.

Conclusions about Full-Time Support Manpower Management

Although the separation of military technician and AGR forces in mobilizing units is highly desirable from a compensation perspective, the means of achieving such separation is an equally important consideration. Plans to achieve separation should focus on improving combat readiness in a cost-effective manner as the fundamental objective. In achieving this objective, the QRMC analysis indicates that the following key points should be addressed:

- Mixed forces should be aligned to separate AGRS and technicians in their daily work environment or provide clear and separate career patterns. Any program of change should pay particular attention to existing commitments to and expectations of current members.

- The separation should not be based on the performance of "peacetime" and "wartime" functions. With few exceptions, both military technicians and AGRs should perform functions, applicable to both peace and war, that require military members on a full-time basis for the efficient and effective accomplishment of mission objectives. Peacetime-only functions generally do not require a military status.

- Separation of the AGR and military technician full-time forces would be facilitated by clearer conceptual standards for delineating the difference between military technicians and AGRs. These cannot be formulated in absolute terms, but guidelines could be developed based on Service functional requirements

and the characteristics of each force. Clearer role definitions, in addition to contributing to the development of cost-effective force mixes, would assist in allaying some of the animosity and counterproductive competition that exists between these two groups.

- Increased emphasis should be placed on the compatibility of military and civilian grade and position for military technicians. Associated with each military technician position should be a specific range of military grades and skills within limits specified by the Service.

- Finally, opportunities for support system modernization should be sought in conjunction with force realignment. Obsolete systems and procedures employed in the support of reserve units are one of the major causes of data problems noted throughout this review. During the 6th QRMC unit visit program, full-time support personnel were observed to be overburdened with administrative work, much of which is no longer performed at the unit level in the active components. This obsolescence may also limit wartime capability. The full-time force should be organized in peacetime to provide support through the same up-to-date systems required to support their units in combat.

Chapter 1. FULL-TIME SUPPORT OVERVIEW

Scope

The 6th QRMC, charged to examine reserve compensation, included within the scope of its review an examination of compensation paid to full-time National Guard and Reserve members employed to provide support to the reserve components. As administratively classified by the Department of Defense, full-time support personnel include active component personnel (15,738), Active Guard/Reserve (AGR) (63,518), military technicians (MT) (61,651), and civil service employees (18,333). The full-time support total of 159,240 (as of September 30, 1986) makes it readily apparent that this function requires an important segment of total defense manpower. As members of the Selected Reserve, paid with reserve appropriation funds and accounting for four out of five full-time support personnel, AGR and military technician members were the focus of attention in this review.

At the outset, it should be noted that there are significant differences among the reserve components in 1) the numbers and categories of full-time support personnel employed, and 2) the functions that these members perform in support of the reserve components. Although percentages vary greatly, all reserve components use active component members to provide full-time support. Similarly, all components except the Coast Guard (whose reserve program administrators are classified as members of the active Coast Guard) use AGR members to provide full-time support. The Air Force Reserve limits its use of AGRs to officers in statutory tour and recruiting assignments and to enlisted members performing recruiting functions. Military technicians, most of whom also serve as military members of the units in which they work as a condition of employment, are employed only by the reserve components of the Army and Air Force. Other civil service members are employed solely in a civilian capacity in peacetime support roles such as clerical work.[1] With respect to the differences in function, the paramount full-time support activity in all reserve components is providing support to mobilizing units. Other functions include staffing at reserve personnel centers; Reserve Officer Training Corps (ROTC) programs; staff tours with the Office of the Secretary of Defense (OSD), the Organization of the Joint Chiefs of Staff (OJCS), the National Guard Bureau (NGB), service staffs, intermediate headquarters staffs, and state area commands. A small number are assigned as liaison to and staff at service schools, and as staff at headquarters overseas.

The size of the full-time support manpower structure and its complexity have resulted in widely divergent views as to the most cost-effective approach to this vital function. The discussion has focused primarily on support provided by military personnel: active component, AGR, and military technician members. The controversy arising out of these divergent views has centered on two questions: Which form of military full-time support is most cost-effective? Are individuals who perform full-time support functions receiving appropriate and fair compensation? These issues, which are the focus of the QRMC analysis, are not always clear and well-bounded; they may range in scope beyond the strict confines of compensation management. For example, compensation managers do not determine how many people are needed to perform a given function, nor do they determine the noncompensation benefits of a particular form of staffing. Nevertheless, reserve compensation is a key factor in any consideration of the full-time support program, and it is essential that compensation managers understand the full context of the issues.

Background

The practice of providing full-time support to reserve components is not a new one. When the modern reserve forces began to evolve at the turn of the century, full-time civilian caretakers were hired to maintain the horses and supplies in National Guard units. During the same period, active component members were detailed to reserve units as instructors and inspectors in the tradition of Baron Von Steuben. There is also a long tradition of calling reservists to full-time duty at the seat of government on so-called "statutory tours," to other tours of duty at state headquarters of the National Guard, and to intermediate military headquarters for the purpose of preparing and administering the policies and regulations affecting the reserve components. Descendants of all these programs exist in the reserve components today, encompassed by the term "full-time support" (FTS).

After World War II, it became apparent that the traditional concept of reserve forces constituted in the "civilian components" was inadequate to meet the challenges of modern defense requirements. The wartime experience had proven that reserve forces as organized and trained before the war simply would not be prepared for mobilization, deployment to an overseas theater, and employment in combat in a timely fashion and at the necessary levels of proficiency. To make matters worse, the Nation then as now strained under the enormous costs of large, peacetime military operational requirements and commitments. To make the most of scarce resources, the Total Force policy was devised and adopted in the early 1970s. This policy calls for maintaining only the minimum essential active

forces and for placing increased reliance on the reserve components, not only to provide forces to support a full mobilization in the event of war, but also to provide forces to be called upon in circumstances short of war. As a consequence, the Nation now relies heavily upon operational support from its reserve forces in peacetime. Thus, reserve units must train for a major war, train for other operations short of war, and perform peacetime operational missions both independently and in conjunction with the active forces. Understandably, the double challenge of improving on the ability to execute traditional missions while taking on new ones has increased the need for full-time support. Each of the reserve components has developed different approaches to this challenge within the context of their specific requirements and missions.

Full-time support is an especially important function in the Army because over half the Army's soldiers are reservists, and because the Army's fighting capability is predicated upon the early and sustained employment of significant numbers of reserve units. Moreover, based on Fiscal Year 1986 DoD totals, 65 percent of trained Selected Reserve members and 54 percent of all AGRs and military technicians were Army members. Sheer size and importance, then, are the first and most obvious factors that shape the Army FTS programs. There are others.

The National Guard, with its roots in the militia system, has long played a dominant role in the development of Army reserve component forces. This role was significantly reinforced in the modern era by the Guard's emphasis to a greater extent than in other reserve components on organizational unit structure. Before World War II, the National Guard had a paid, drilling unit structure while the Army Reserve consisted mostly of individual volunteers with no inactive duty training pay authorized. The Guard had a long tradition of employing civilians to provide full-time support, and this practice was continued and expanded after the war as the reserve force mission expanded and the Army Reserve was also organized into paid, drilling units.

As caretakers evolved into military technicians, their functional role also evolved. When the Army added trucks, tanks, howitzers, aircraft, and other modern combat and support equipment items to its reserve forces inventory, technicians were hired to maintain them. Along with added equipment came more supplies: everything from uniforms and individual equipment to rations, ammunition, and repair parts. Technicians were hired to manage these supplies. To the dismay of unit commanders, personnel and training administration requirements also flourished, and technicians were hired to meet this challenge as well.

In this way, the FTS program in Army units developed as a support system of full-time assistants. The goal was to take the load off the backs of unit commanders so that they could devote their time and attention to training. Traditionally, there has been a tendency to assign full-time members only at the assistant level, where they cannot block part-time members' access to key developmental positions nor stifle the initiative or usurp the prerogatives of the unit commander. In such an environment, the major role of FTS members is to provide sweat equity to the unit in a subordinate role that enhances unit performance during drills and annual training.

The functional requirements and the environment in the Army have been well suited to the use of civilian employees who can provide high levels of expertise developed over long periods of stable assignments in the same job skills. For example, a unit supply or administrative technician in the local armory or a tank turret mechanic in an area support activity maintenance shop does not have to be updated with periodic assignments in the active Army to keep current in job skills. In fact, such a practice could be counterproductive because it would introduce personnel turbulence as a price for relatively small gains in technical experience.

On the other hand, the Army has not been completely satisfied with its technician programs. In the late 1970s, its reserve component strength was rapidly declining, there were major administrative problems, and operational readiness was and had been at low levels at a time when increased mission capability and responsiveness were being demanded. The technician force, as then constituted, was no match for these major problems by itself; it was too small. The job at hand was larger than a skeleton force of caretakers could be expected to handle. Increased manning, with some increase in grade levels, was required to resolve these problems and to meet increased operational demands.

During this same period, objections to the use of military technicians emerged. Apprehension about military unions in general heightened apprehensions about technician unions in particular. Technicians were seen as an older force who could not keep up the pace. Indeed, in the Army Reserve, military membership was not initially a requirement for employment as a technician. About 25 percent of all technicians never had or had lost their military status. In Army National Guard units, the military nature of full-time support duty was stressed. Technicians were required to wear military uniforms and display proper military bearing while working in a civil service status. Additionally, some units were experiencing difficulty in hiring qualified technicians, especially in the lower grades and in areas remote from larger centers of civil service employment (e.g. large military installations).

In response to these concerns and to others that are outlined below, both Army reserve components added large numbers of AGRs to their full-time support forces during the 1980s, when the paramount need for additional manning was recognized; however, original plans for extensive conversion of technician positions to AGR positions have not been completed. As a result, technician strength has grown slightly, AGR strength has grown dramatically, and both components have a mixed AGR/technician force.

Full-time support programs in the Naval Reserve and the Marine Corps Reserve have evolved separately. Although each of these maritime components has its own unique program, a common characteristic is that neither has used military technicians to provide full-time support; that is, they do not depend on their civilian employees as mobilization assets by requiring them to be military members. A common historical characteristic, also shared by the Army Reserve, is the emphasis before World War II on training individual reservists as postmobilization fillers rather than on preparing organized units. Consequently, full-time support programs in these components date from the period after World War II.

The Navy relies primarily on active duty reservists called TARs (named for their mission of Training and Administration of Reserves) for full-time support of its reserve forces. TARs are categorized as AGRs, as the latter term is used within the DoD, although the name "TAR" is generally retained in discussions due to historical precedent and the special character of this group. In fact, the Navy pioneered the concept of reliance on uniformed, full-time active duty reservists to provide full-time unit support. The forerunner of the TAR program was established in December 1945 as the CAD (Continuous Active Duty) program. The name "TAR" was applied in 1953 after implementation of the provisions of the Armed Forces Reserve Act in 1952. Thus, it predates by over a quarter-century the widespread use of AGR members during the 1980s in units of the Army's reserve components and the Air National Guard.

Beginning in the late 1940s as more combat elements, both flying units and ships, were commissioned in the Naval Reserve, the need for full-time support grew. Full-time support was (and is) especially important, because ships and aircraft must be regularly operated and continuously maintained in operational status. Such large, complex systems cannot be kept in a ready state solely by part-time members. Furthermore, even if efficiency did not demand more frequent use of such major items of capital equipment, it is not feasible to bring ships and aircraft in and out of a storage condition to meet a typical reserve unit drill schedule.

Given the clear need for full-time support, however, there have been major differences of opinion over the form this support should take. The Navy's decision to use TARs as a specialized force of active duty career reservists, rather than simply assigning active Navy members to provide full-time unit support on a force-wide basis, was not an easy one. Over the decades, there have been several initiatives to phase out the TAR enlisted (e.g. during the early 1960s) or officer (e.g. in 1976) communities. Each has been defeated by either internal or congressional opposition. It was not until FY 1983 that TARs were transferred from the active Navy to the Naval Reserve for personnel strength accountability and funded from reserve personnel rather than from military personnel appropriation accounts.

Requirements for full-time manning in Naval Reserve units can reach relatively high proportions as compared to manning of reserve component units in general. The TAR force has not always been large enough to meet these requirements by itself, and additional members have been assigned to this mission from the active Navy. Today, Naval Reserve ship crews, for example, are manned at approximately one-half to two-thirds strength with full-time members. Even with maximum use of TARs, 30 percent or more of this full-time complement is provided from the regular Navy. As the Navy pursues the goal of a 600-ship fleet and the Nation pursues an aggressive maritime policy in international affairs, active force manning has become an ever more acute issue. Therefore, it seems likely that TAR program requirements will continue to increase in the foreseeable future as they have over most of the last decade.

At the beginning of this discussion, the special character of TAR service was alluded to. That special character lies in the career military aspects of the program. Within the DoD, a wide range of manning alternatives is used to provide full-time support to the reserve components. Support positions range from full careers to single, short tours, and those providing support range from civilian employees to active component military personnel. Were these two dimensions, career and civil-military status, arrayed on a matrix, TARs would be shown in the corner representing career military service with no FTS program in any component coming between them and this apex. TARs themselves typically do not acknowledge <u>any</u> difference between themselves and active Navy members. Indeed, as shown by analytical data presented later in this report, TARs do more closely resemble their active component counterparts in attitude and employment than do comparable full-time support personnel in any other service. In part, this condition is rooted in operational necessity. Naval Reserve ships and squadrons regularly operate with and under the operational control of active force

commanders. To keep in tune with developments in the active Navy and to hone operational skills, TAR officers regularly serve tours of duty in active Navy billets worldwide.

Although the Marine Corps Reserve does use some full-time reservists in its FTS program, most of its full-time unit support is provided by active Marine Corps Instructor-Inspector (I&I) teams attached to Marine Corps Reserve units. The Marine Corps Reserve is organized as a division/wing team that mirrors the three teams composing the bulk of the Corps' active component manpower structure. The nature of the training mission and day-to-day operational requirements generally does not demand a large proportion of full-time members with relatively narrow, highly technical skills in long-term, stable assignments. It is in this context that the active component provides full-time support for reserve units. The simplicity and flexibility of such a plan is self-evident. In addition to instructing and inspecting, I&I teams provide a natural means of coordination and liaison with active units. This assists the Corps as a whole in integrating the peacetime and wartime support provided by its reserve forces.

When the Air Force was established as a separate service in 1947, its full-time support force had its roots in the National Guard's system of unit caretakers. Caretakers, by then called technicians, were in exceedingly short supply in Air Force reserve component units during that period. In fact, the Air National Guard was seen as in danger of collapse unless additional full-time personnel were provided, and the fledgling Air Force Reserve was far behind the Air Guard in terms of equipment and organizational development.

Although the Air Force did experiment briefly with full-time active duty reservists in the Air Force Reserve (the Category R program), it did not follow the Navy's lead in this area. Instead, it continued in the National Guard tradition by adding full-time civilian technicians. A TAR model solution might have made sense, due to the two Services' obvious parallels in operating flying units, but other considerations of the day worked against it. Most important were the job stability and support skills so well provided by technicians. The applicable strengths of the TAR system (close ties to the active component, flying skills, and operational arts) were either not in short supply or not wanted at the time. (There was an ample supply of experienced veterans and the Air Force was embroiled in severe intramural command, control, and organizational controversy over the form its reserve components would finally take.)

Ultimately, both the Air National Guard and the Air Force Reserve developed extremely effective FTS programs through the use of military technicians. These technicians have played a major role in achieving the enviable readiness levels of their

units over sustained periods. Success in using technicians, as well as the perception that a mixed force would generate management problems, has led the Air Force Reserve to reject the use of AGRs in its units. The Air Force Reserve is the only component that relies almost exclusively on technicians for full-time unit support. Its AGRs perform primarily as recruiters and as statutory tour personnel. The Air National Guard maintains a full-time force that is predominantly technicians (second only to the Army National Guard in numbers of technicians employed) but uses AGRs in units at a ratio of approximately one AGR for every three technicians.

This brief review has omitted much of the detail in the historical development of full-time support programs within the DoD. The aim has been to provide an appreciation that major differences exist in FTS programs by service and by component and that there are important historical and functional reasons for these differences. The next section describes a third important factor, the unprecedented increase in full-time active duty military members during the 1980s, including their assignment in large numbers in National Guard and Army Reserve units.

Expansion of the FTS Program in the 1980s

The Services have traditionally called individual reservists to active duty for specific purposes and for specific periods of time necessary to accomplish those purposes. This practice continues today under a number of statutory authorities. However, the use of large numbers of full-time active duty reservists in connection with organizing, administering, recruiting, instructing, or training the reserve components, and paying them through reserve appropriations, is a significant new development in the 1980s. The roots of this development reach back to the previous decade. After the end of the draft and conversion to all-volunteer military forces in 1973, reserve forces unit strength began to decline. The prospect of being drafted had previously induced many young men to join a reserve unit as an alternative. With no draft, recruiting--heretofore a responsibility of the individual reserve unit commander--became a much more formidable task. The Army and the Air Force by the mid-1970s found it necessary to put reservists on full-time short tours as recruiters. These tours became progressively longer until, by the 1980s, a continuous full-time recruiting force was in the field. In this same period, AGR programs were initiated and rapidly expanded in the Army reserve components and in the Air National Guard. The TAR program also grew substantially in the Naval Reserve.

Growth in AGR strength, the diversity of the full-time support programs of the several components, and management problems created or exacerbated by the existence of mixed AGR/technician forces in mobilizing units have all contributed to the formation of widely divergent views as to the most cost-effective approach to full-time support. From a compensation perspective, two major questions have arisen:

- Should AGR/TARs and active component members receive essentially the same compensation, given the perceived differences in conditions of service between these two groups? This question potentially affects all components, and it stems from the perception that the hardships associated with military service occur less frequently and with less severity in AGR/TAR service than in active component service.

- Are military technicians or AGRs the most cost-effective form of full-time support manpower? This question potentially affects the components of the Army and Air Force.

Introduction to the Major Issues

The Sixth QRMC analysis of AGR/TAR and active component compensation is presented in Chapter 3, and cost comparisons for military technicians and AGRs, along with an historical perspective and analyses of attendant management questions, are examined in Chapters 4, 5, and 6. An introduction to these two major issues follows.

AGR/TAR Compensation

AGR/TARs are compensated in essentially the same manner as active component members. There are a few technical differences; however, regular military compensation for these two groups is virtually identical. When large numbers of AGRs were ordered to active duty in National Guard and Army Reserve units starting in 1980, these members were seen to be performing duties quite similar to those performed by members in active component units. AGRs were sometimes perceived as having appreciably less rigorous conditions of service than their active component counterparts. This perceived difference has led some to question why compensation is the same for the two groups. Publicity surrounding the perception that AGRs receive higher compensation than military technicians (who also perform similar duties) has added sharpness to the debate.

The most often mentioned hardships include frequent family moves and separations as a result of sea duty or remote assignments. These perceptions as well as the counterperception

that AGRs endure their own unique set of rigorous conditions, such as remoteness from base support, and long and extremely irregular work hours including frequent weekend duty, have been discussed frequently in recent years. Members of Congress have also noted and commented on these perceptions. As a result, the DoD informed the Congress that the 6th QRMC would review the issue.

AGR/TAR And Military Technicians: Relative Cost Effectiveness

The second major issue, AGR/TAR and military technician compensation costs, was a major issue well before the actual buildup in the AGR force. In the DOD Appropriation Authorization Act of 1975 (Public Law 93-365), the Congress established cost (hence compensation) as a fundamental consideration in selecting the form of military manpower to use for specified functions:

> It is the sense of Congress that the Department of Defense shall use the least costly form of manpower that is consistent with military requirements and other needs of the Department of Defense. Therefore, in developing the annual manpower authorization requests to Congress and in carrying out manpower policies, the Secretary of Defense shall, in particular, consider the advantages of converting from one form of manpower to another (military, civilian, or private contract) for the performance of a specified job.

Manpower analyses performed shortly after passage of this legislation indicated that, with respect to supporting reserve forces, full-time military personnel would be the least costly alternative. In 1976, the Defense Manpower Commission recommended that military technicians be replaced by AGRs in the Army and Air Force for the purpose of achieving savings in direct pay costs. However, a follow-on study by the Defense Department in June 1978, the Report on Full-Time Training and Administration of the Selected Reserve (Gerard Study), found that any cost difference was not of sufficient magnitude to justify a change in the (then) current system. The major reason for this shift in estimates was the addition of indirect costs, such as retirement[2], to the computations.

The cost findings of the Gerard Study, as well as the results of other studies and estimates made in the same period, tended to reduce the importance of cost in the debate about the mix of full-time forces. However, there were other concerns about the use of technicians, including apprehension about union activities, employment of competitive service military technicians in the Army and Air Force Reserve while National Guard military technicians were excepted service employees, high

pay scales for Wage Board employees as compared with General Schedule employees, and management of the Army Reserve technician force. Most significantly, the Gerard Study reported that increased numbers of Army military technicians were needed to achieve readiness standards.

Faced with a complex and uncertain issue, the House Appropriations Committee, also in June 1978, called for a test to determine whether the Army and Air Force could attract and retain qualified AGRs to fill vacant military technician positions. It directed that no additional technicians be hired before March 31, 1981, pending the outcome of the test. The DoD's December 1980 test report concluded that conversion to AGRs would not achieve significant cost savings and recommended that technician programs be continued. It also recommended that DoD and its components be authorized the flexibility to devise their own FTS programs in what they believed to be the best combination of military technicians and AGRs. Congress approved these recommendations in November 1981.

A summary of the program plans devised by the components following the congressional guidance follows (In all components, statutory tour and recruiter positions would be filled by AGRs):

- Army National Guard: Continue a mixed force of military technicians and AGRs, converting most deploying unit military technician positions (except for organizational maintenance shops) to AGR. Military technicians would man most positions in nonunit maintenance activities and equipment sites. State headquarters activities would be manned by a mixture of military technicians and AGRs.

- Army Reserve: Convert all technician positions at unit level to AGR positions. Retain about 450 military technician positions at Army Reserve Command headquarters and about 2,600 military technician positions at nonunit maintenance activities.

- Air National Guard: Retain a predominantly military technician force with only a few conversions from military technician to AGR in special areas such as security personnel.

- Air Force Reserve: Retain the Air Reserve Technician program whereby all unit FTS positions would be manned by technicians.

By 1982, however, there were several obstacles to the accomplishment of these plans. The most important was research conducted for the DoD indicating that, rather than achieving cost savings or at least relative cost neutrality as had been indicated a few years earlier, AGRs tended to cost more than

military technicians, especially general schedule technicians. Anecdotal reports from the field helped raise apprehension levels. Additionally, conversion programs did not always proceed smoothly, especially in the Army components. Technicians felt threatened and morale problems developed. Prohibition of "double-slotting," whereby only one incumbent--AGR, military technician, or part-time reservist--could be assigned against each unit mobilization position, added to the discontent. Finally, organizational hierarchies within units were frequently disrupted when AGRs and military technicians were mixed in the same units.[3]

Congressional interest remained high, and the FY 1983 Continuing Resolution providing DoD appropriations included the following provisions:

- Affirmation of the original 1975 guidance to use least cost forms of manpower consistent with military requirements and other needs
- Prohibition of further military technician conversions, with a specific ban against converting positions for 43 senior staff administrative assistants (SSAA) at Army Reserve Command headquarters
- Establishment of technician position floors in the Army components as follows: ARNG - 22,557, and USAR - 6,753

Today, technician floors have been established for Air Force components as well, and AGR ceilings are applied to all components. Otherwise, the approaches outlined above essentially represent the situation as it exists today. The 6th QRMC has examined the cost side of this issue by developing comparisons of compensation costs for AGRs and military technicians, and by reviewing compensation-related management aspects of the issue.

The purpose of this overview has been to provide a brief historical perspective and an introduction to the major full-time support issues addressed by the 6th QRMC. Chapter 2 provides a detailed comparison of the reserve component FTS management programs as they are now constituted. Analysis of these issues begins in Chapter 3. As a final point, it should be noted that, in this decade, full-time support programs have been recognized as essential to reserve force readiness. All the secondary issues including those concerning costs and force mix, no matter how controversial or intractable, are subordinate to this paramount consideration.

Notes

1. Approximately 5 percent of National Guard technicians are authorized to be employed without military membership as a condition of employment. These employees, although they may be called "technicians," are included in the civil service category rather than the military technician category in this report. See Appendix C for further details.

2. The Gerard Study used 38 and 39 percent of basic pay for officers and enlisted members, respectively, as the cost of military retirement. The normal cost percentage of military retirement under current law and actuarial assumptions is 40.3 percent for members who first enter military service on or after August 1, 1986.

3. Department of Defense, Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) Report on Full-Time Training and Administration of the Selected Reserve, June 1978, p. V-32. The Gerard Study was prophetic on this issue: "It is entirely conceivable under this concept (a liberal conversion policy) to have a mixed work force of technicians and active FTTA (Full-Time Training and Administration) personnel, together with their supporting personnel systems, for as long as 32 years...The compatibility and manageability of such a dual structure is highly suspect... Two such widely diversified programs as the technician and active military FTTA force will create serious morale and management problems."

Chapter 2. LIFE-CYCLE MANAGEMENT OF FULL-TIME SUPPORT PERSONNEL

Full-Time Support Personnel Management in the Reserve Components

There are significant differences in the full-time support (FTS) programs of the Military Departments. These differences emanate from the unique structure and functional needs of each component as developed over time, and they are reflected in both law and policy. Consequently, there are separate and distinct management procedures and force characteristics for each category of FTS personnel in each component.

Without a tool to provide organization, it is difficult to form a comprehensive perspective of the differences among the components. To assist in the analysis and understanding of these differences, a matrix was developed to display in general terms how each component's FTS program is structured, along with key data on force characteristics such as comparative strengths. (See Table 2-1).

Data Sources

Information included on the matrix was derived as follows:

- Strength statistics for military reservists (AGRs and military technicians) were extracted from the Reserve Components Common Personnel Data System (RCCPDS), dated September 30, 1986 and recorded in the "FY 1986 Official Guard And Reserve Manpower Strengths and Statistics" report RCS: DD-RA(M)1147/1148. Data discrepancies are noted later in this chapter, in the section "FTS Strength". Active component FTS strengths were provided by service points of contact.

- Statements of component policy were provided by points of contact in the military services for 6th QRMC matters, or by individuals designated by them. Published component policy and regulations were also used in developing the matrix. These are cited individually in the matrix.

- Civilian personnel policies applicable to military technicians were provided by the military departments and the Office Of Personnel Management (OPM).

- Miscellaneous comparative data was derived from the 1985 DoD Surveys of Officer and Enlisted Personnel (Instruments 1 through 3) and from the 1986 Reserve Components Surveys

of Selected Reserve officer and enlisted personnel (Instruments 1 and 2 for technicians; 3 and 4 for AGRs, 5 for technicians and AGR spouses). Additional supporting data for the survey analyses (such as computing distances from base support (commissaries), was provided by the Defense Manpower Data Center (DMDC) from RCCPDS and from their active component data files.

Matrix Format

Full-time support policy, congressional direction, and legislation have been subject to change as indicated in the overview. These governing factors are likely to continue to change in the future. The matrix, therefore, shows current FTS management and provides a point of departure for understanding the nature and characteristics of each component's FTS force as it now exists. Component FTS categories showing the FTS manpower categories used in each component are arrayed on the horizontal axis. Life-cycle management functions selected for comparison are arrayed on the vertical axis. These management functions include: acquisition, training, distribution, employment, sustainment, and separation. The matrix may be used for several purposes:

- Reading the labels in the first column, it is possible to review first the strength categories and then the management areas selected for comparison. The management areas are arranged in typical order as they affect an individual's career from accession through separation or retirement.

- Reading any other vertical column, it is possible to get complete information on a reserve component.

- Reading across in any row, it is possible to compare strength or management areas across components.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT							
ARMY							
STRENGTH & MANAGEMENT AREAS	ACTIVE ARMY with		ARMY NATIONAL GUARD			ARMY RESERVE	
	ARNG	USAR	TITLE 10	TITLE 32	MIL TECH	AGR	MIL TECH
FY 86 STRENGTH: 1. TOTAL SELRES			------ 446,194 -------			----- 309,709 -----	
2. FTS							
-OFFICERS			(932)	3,645	(2,713) 5,301	3,292	1,001
(STAT TOUR)			(88)	(88)		(277)	
-ENLISTED			(380)	20,135	(19,755) 18,373	8,867	2,548
(RECRUITERS)				(3,524)		(2,268)	
FTS TOTAL	953	1,230	(1,312)	23,780	(22,468) 25,292	12,159	7,624
MANAGEMENT: 1. ACQUISITION -AUTHORITY	10 USC 715, & 3541 32 USC 315		10 USC 175, 265, 672(d), 678, 3021, 3040 & 3496. NGR 600-10	32 USC - 502(f) AR 135-18 NGR 600-5	32 USC 709 ARNG supplements to FPM	10 USC 175, 265, 672(d), 678, 3021, & 3038. AR 135-18	5 USC NOU: HQDA & OPM AR 140-315
-TOUR LENGTH	3-4 years		2-4 years	3 years	Indefinite	3 years	Indefinite
-USUAL SOURCE	Active Army		SELRES	SELRES	SELRES	SELRES	SELRES
-ENLISTMENT/ AFFILIATION BONUS AR 135-7, para 2-3g	Eligible for active Army bonuses.		N/A ------ Payments for prior bonus continue.	Not eligible ------ Payments for prior bonus continue.	Not eligible ------ Payments for prior bonus stop; recoup if within 6 months of enlistment.	Not eligible ------ Payments for prior bonus continue.	Not eligible ------ Payments for prior bonus stop; recoup if within 6 months of enlistment.
2. TRAINING -ENTRY QUALIFICATION & TRAINING FPM AR 135-18 AR 140-315 NGR 600-5 NGR 600-10	Be fully qualified.		Be fully qualified. Be an active ARNGUS member with 4 years of ARNG service.	Be fully qualified; E5s & below show potential if not MOS qualified. Be an ARNGUS active member.	Meet OPM's basic & duty position requirements Be an ARNG member or join as an employment condition.	Be fully qualified; E5s & below show potential if not MOS qualified. Be an active USAR member.	Meet OPM's basic & duty position requirements Be a USAR member or join as an employment condition.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT						
ARMY - PAGE 2						
STRENGTH & MANAGEMENT AREAS	ACTIVE ARMY with ARNG USAR	ARMY NATIONAL GUARD			ARMY RESERVE	
		TITLE 10	TITLE 32	MIL TECH	AGR	MIL TECH
3. DISTRIBUTION -YRS BETWEEN PCS MOVES	Officers: 1.9 Enlisted: 2.2	Officers: 6.8 Enlisted: 14.1		Estimate > 30	Off: 4.1 Enl: 7.1	Estimate > 30
-ASSIGNMENT LOCATIONS AR 135-2	Selected ARNG & USAR locations where AC expertise is needed.	Federal and state/active & Guard HQ & spt elements	2,858 armories & 2,234 other posts & facilities in 50 states, PR, Guam, & the Virgin Islands.		1,800 reserve centers, posts, & recruiting stations in 50 states, PR, & Guam. > 100 AGRs o'seas.	
4. EMPLOYMENT -ASSIGNMENT FACTORS AR 135-2 AR 135-18 AR 140-315 NGR 600-5 NGR 600-7 NGR 600-10	Integrate into unit functions & missions; e.g. National Guard inspector general; master gunner in a tank battalion.	Typically, more senior officers & NCOs in key staff assignments; NGB, ARSTAFF MACOM & STARCs.	Most serve in category I positions in deployable units in training & unit support jobs. Some are recruiters.	Serve in OMS & other maintenance, admin, & supply activities. Also serve at state HQ, e.g. USP&FO.	Serve at all levels from small units to the DoD. Most serve in units - others in a variety of functions including recruiting, IG, & ROTC.	Serve at ARCOM & below in unit administratve, maintenance, training, supply, and supervisory positions. If not in a TPU, may serve as an IMA.
-INACTIVE DUTY TRAINING (IDT/DRILL)	Attend drills & admin meetings with unit. May deploy to field or installation training sites; e.g. a depot for maintenance training. Cannot perform state missions if in violation of 18 USC 1385-posse comitatus	Attends IDT if assigned unit drills. Many do not. May perform extensive travel visiting drilling units. e.g. as an IG or tng officer.	Attends IDT and admin meetings if assigned unit drills. Most do; at armory or tng site. Recruiters often visit drilling units.	Attends IDT in military status, usually at unit armory or training site. May attend admin meetings in military or civilian status. May work flex schedule.	Attends IDT and admin meetings if assigned unit drills. Units drill at reserve centers or other tng sites. May travel extensively visiting drilling units.	Attends IDT in military status, usually at reserve center or training site. May attend admin meetings in military or civilian status. May work flex schedule.
-ANNUAL TRAINING (AT)	Attends with unit.	Attends with unit if a unit member.	Attends with unit if a unit member.	Attends as mil unit member.	Attends with unit if a unit member.	Attends as mil unit member.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT						
ARMY - PAGE 3						
STRENGTH & MANAGEMENT AREAS	ACTIVE ARMY with ARNG USAR	ARMY NATIONAL GUARD			ARMY RESERVE	
		TITLE 10	TITLE 32	MIL TECH	AGR	MIL TECH
5. SUSTAINMENT -CONTINUATION RULES AR 135-18 AR 135-205 AR 140-10 AR 140-315 NGR 600-5 NGR 600-200 NGR 635-102	Subject to active Army policies. Assignment policies & priorities, not board action, govern continuation in FTS program.	NGB continuation board in 3d year of initial tour & every fifth year thereafter.	State continuation board before end of first tour & every third year thereafter. Qualitative retention board after 20 YOS for retirement.	State qualitative retention board after 20 YOS for military retirement. May be retained in a nonpromotable status til age 60.	OCAR continuation board in 3d year of initial tour & every fifth year thereafter.	ARCOM qualitative retention board after 20 YOS for military retirement. May be retained in a nonpromotable status til age 60.
-REENLISTMENT BONUSES AR 135-7, para 4-5	Eligible for active Army bonuses.	Not eligible --- Payments for prior bonus may continue	Not eligible --- Payments for prior bonus may continue	Not eligible --- Payments for prior bonus stop.	Not eligible --- Payments for prior bonus may continue	Not eligible --- Payments for prior bonus stop.
-PROMOTIONS OFF- ROPA, DOPMA AR 135-155 NGR 600-100 NGR 600-101 CIV PERS REGS	Compete with active Army peers. Can be promoted early. Promotion not affected by duty position.	Eligible for unit vacancy promotions. If not in a position authorized the higher grade, promotion is delayed til reassignment	Eligible for unit vacancy promotions. If not in a position authorized the higher grade, promotion is delayed til reassignment	Eligible for unit vacancy promotions. May decline promotion for 1-3 years. Civilian promotion: excepted serice rules.	No unit vacancy (early) promotions. If not in a position authorized the higher grade, promotion is delayed til reassignment	Eligible for unit vacancy promotions. May decline promotion for 1-3 years. Civilian promotion: competitive svc rules.
ENL- AR 140-158 NGR 600-200 CIV PERS REGS	Same as above.	E1-E4: Unit commander to auth vacancy E5-E9: State or lower board based on position vacancies.	E1-E4: Unit commander to auth vacancy E5-E9: State or lower board based on position vacancies.	E1-E4: Unit commander to auth vacancy E5-E9: State or lower bd. Civilian promotion: excepted svc rules.	E1-E5: Unit commander to auth vacancy E6-E9: HQDA AGR bd. Promoted by sequence # with PCS, if necessary.	E1-E4: Unit commander to auth vacancy E5-E9: ARCOM bd. Civilian promotion: competitive service rules.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT

ARMY - PAGE 4

STRENGTH & MANAGEMENT AREAS	ACTIVE ARMY with ARNG USAR	ARMY NATIONAL GUARD			ARMY RESERVE	
		TITLE 10	TITLE 32	MIL TECH	AGR	MIL TECH
5. SUSTAINMENT -BASE SUPPORT	(Overall-CONUS)					
<= 10 MILES-	96%	21%			35%	
<= 25 MILES-	98%	41%			57%	
<= 50 MILES-	99%	62%			73%	
> 50 MILES-	1%	38%			27%	
6. DEVELOPMENT -COMMAND - OPPORTUNITY	No	No	Yes	Yes	No	Yes
-CAREER DEVELOPMENT	Normal rotational assignment for all major specialties.	NGB tour program; mostly 3 yr, high level staff duty tours.	Unit duty in home state. All major specialties. Stability desired. May serve in active units for refresher training.	Duty in units & support activities: admin, maintenance, training, & supply. Stable assignments over long careers	Wide variety of duty assignments in all major specialties. May serve in active units for refresher training.	Duty in units & support activities: admin, maintenance, training, & supply. Stable assignments over long careers
7. SEPARATION -INVOLUNTARY 5 USC 10 USC 1174 32 USC 709	RA officers are eligible for separation pay if over 5 yrs total service; RA enlisted are not.	Off & Enl - eligible for separation pay w/5 yrs continuous active service.	Off & Enl - eligible for separation pay w/5 yrs continuous active service.	Eligible for severance pay <= 1 yrs pay after 12 months continuous civ employment.	Off & Enl - eligible for separation pay w/ 5 yrs continuous active service.	Eligible for severance pay <= 1 yrs pay after 12 months continuous civ employment.
-RETIREMENT 5 USC 10 USC 1293 10 USC 3911 10 USC 3914 32 USC 709 AR 135-18 AR 140-10 AR 635-100 AR 635-200 NGR 600-5/6	Eligible to retire with 20 years active military service.	Eligible for active duty retirement @ 20 qualifying YOS. Off are released when eligible unless Sec of the Army approves vol retention.	Eligible for active duty retirement @ 20 qualifying YOS. Off are released when eligible unless Sec of the Army approves vol retention.	Mil: elig @ 20 qual YOS; MRD @ age 60 CRS/FERS: elig @ age 55 w/30 YOS; mandatory @ age 60 w/20 YOS. FERS: @ age 50 w/25 YOS - invol loss mil job	Eligible for active duty retirement @ 20 qualifying YOS. Off are released when eligible unless Sec of the Army approves vol retention.	Mil: elig @ 20 qual YOS; MRD @ age 60 CRS/FERS: elig @ age 55 w/30 YOS; mandatory @ age 60 w/20 YOS. FERS: @ age 50 w/25 YOS - invol loss mil job

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT				
NAVY AND MARINE CORPS				
STRENGTH & MANAGEMENT AREAS	NAVY		MARINE CORPS	
	ACTIVE NAVY (Active Duty List)	NAVAL RESERVE AGR (TAR)	ACTIVE MARINE CORPS (Active Duty List)	USMC RESERVE AGR (FTS)
FY 86 STRENGTH:				
1. TOTAL SELRES		141,504		41,582
2. FTS				
-OFFICERS	839	1,942	498	240
(STAT TOUR)		(215)		(36)
-ENLISTED	6,004	16,449	4,682	1,238
(RECRUITERS)				(100)
FTS TOTAL	6,843	18,391	5,180	1,478
MANAGEMENT:				
1. ACQUISITION -AUTHORITY	10 USC 715	10 USC 175, 265, 672(d), and 678. Off: NAVPERS 15559 Enl: NAVPERS 15909C	10 USC 715	10 USC 175, 265, 672(d), and 678. MCO 1001.52C
-TOUR LENGTH	2 - 4 years	Off: Indefinite Enl: 3 - 6 years	1-5 years	1-5 years
-USUAL SOURCE	Active Navy	Active Navy, SELRES and NPS enlistments	Active Marine Corps	Ready Reserve; some Active Marine Corps
-ENLISTMENT/ AFFILIATION BONUS	Eligible for active Navy bonuses.	Not eligible. Payments for prior bonus stop; part of previous payments recouped (prorated for TAR portion of enlistment).	Eligible for active Marine Corps bonuses.	Not eligible. Payments for prior bonus continue.
2. TRAINING -ENTRY QUALIFICATION & TRAINING	Must be fully qualified for duty assignment. SECNAVINST 1427.1B	Must be fully qualified for duty assignment. Enlisted attend school if not rating qualified. NPS attend IADT.	Must be fully qualified for duty assignment. Officers must be in grades O3 to O5; enlisted are mostly senior NCOs.	Must be fully qualified for duty assignment and have 18 months active or Ready Reserve service immediately prior to duty tour.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT				
NAVY AND MARINE CORPS - PAGE 2				
STRENGTH & MANAGEMENT AREAS	NAVY		MARINE CORPS	
	ACTIVE NAVY (Active Duty List)	NAVAL RESERVE AGR (TAR)	ACTIVE MARINE CORPS (Active Duty List)	USMC RESERVE AGR (FTS)
3. DISTRIBUTION -YRS BETWEEN PCS MOVES	Officers: 2.1 Enlisted: 2.4	Officers: 2.8 Enlisted: 3.9	Officers: 1.8 Enlisted: 2.1	Officers: 4.8 Enlisted: 10.0
-ASSIGNMENT LOCATIONS	HQ USN, USN ships and stations, NRF ships, 53 RESFORONS, 8 NAS and NAF, 227 Reserve Centers, and 16 Readiness Commands.		HQ USMC, and 170 reserve training centers and flying facilities.	
4. EMPLOYMENT -ASSIGNMENT FACTORS	Perform as crew members aboard NRF vessels and flying units. Perform in other support billets as required	Perform as crew members aboard NRF vessels and flying units. Perform in other billets as required. Serve in active Navy units worldwide as well as in 10 USC 265 tour billets.	Perform in units as members of inspector-instructor (I-I) teams.	Perform in units as inspector-instructor team members and in other USMCR assignments including 10 USC 265 tour billets.
-INACTIVE DUTY TRAINING (IDT/DRILL)	Air and vessel crew members perform missions as an integral part of the unit during training and operational missions. Includes drills at sea or short overseas deployments. Others attend IDT with unit, if applicable (e.g. 10 USC 265 tour members do not). Prepare aircraft, vessels, and equipment for unit training.		Attend IDT with unit, if applicable (e.g. 10 USC 265 tour members do not) and perform missions as an integral part of unit training and operations. Aircrews may particpate in short deployments. Prepare aircraft and other equipment for unit training.	
-ANNUAL TRAINING (AT)	All unit TARs and active component FTS members participate in annual training with their units. Deployments at sea or to air training stations are common		All unit FTS members accompany their units to annual training. May include overseas deployment.	
5. SUSTAINMENT -CONTINUATION RULES	Subject to Regular Navy retention policies.	Subject to Regular Navy retention and TAR cont policies.	Subject to Regular Marine Corps retention policies.	CMC review for each new 3-year tour.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT				
NAVY AND MARINE CORPS - PAGE 3				
STRENGTH & MANAGEMENT AREAS	NAVY		MARINE CORPS	
	ACTIVE NAVY (Active Duty List)	NAVAL RESERVE AGR (TAR)	ACTIVE MARINE CORPS (Active Duty List)	USMC RESERVE AGR (FTS)
5. SUSTAINMENT -REENLISTMENT BONUSES	(Continued) Eligible for active Navy bonuses.	Not eligible. Prev bonus prorated - excess recouped.	Eligible for active Marine Corps bonuses.	Not eligible. Payments for prev bonus continue.
-PROMOTIONS OFF-	Compete with USN peers under DOPMA. HQ Navy selection boards. May be selected early.	Compete under ROPA. HQ Navy TAR selection boards. No early promotions; running mate timing	Compete with USMC peers under DOPMA. HQMC selection boards. May be selected early.	Compete under ROPA. HQMC selection boards. No early promotions; running mate timing.
ENL-	E4 and above compete fleet-wide by grade and rate.	Compete with other TARs under the same system as USN, but for fewer ratings.	Screening boards E2 -E5; selection boards E6-E9. Based on MOS requirements	Compete with other reservists. System is similar to active component.
-BASE SUPPORT	(Overall - CONUS)		(Overall - CONUS)	
<= 10 MILES-	92%	65%	95%	24%
<= 25 MILES-	97%	72%	98%	42%
<= 50 MILES-	98%	80%	99%	86%
> 50 MILES-	2%	20%	1%	14%
6. DEVELOPMENT -COMMAND OPPORTUNITY	Yes, if screened.	Yes, if screened.	No	No
-CAREER DEVELOPMENT	All warfare specialties open to TAR and regular members. Enlisted TARs have fewer ratings in the billet structure.		Since USMCR structure mirrors that of the USMC, all combat arms fields and most other specialties are available.	
7. SEPARATION -INVOLUNTARY	Reg off eligible for separation pay w/5 yrs total svc. Enlisted are not.	Off & Enl eligible for separation pay based on 5 years of cont active svc.	Reg off eligible for separation pay w/5 yrs total svc. Enlisted are not.	Off & Enl eligible for separation pay based on 5 years of cont act svc.
-RETIREMENT	Eligible to retire with 20 years active service.	Eligible to retire with 20 years active service. Screened.	Eligible to retire with 20 years active service.	Eligible to retire with 20 yrs active svc. May extend in 1 year increments.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT

AIR FORCE

STRENGTH & MANAGEMENT AREAS	USAF with ANG	USAF with USAFR	AIR NATIONAL GUARD TITLE 10	AIR NATIONAL GUARD TITLE 32	AIR NATIONAL GUARD MT (ART)	AIR FORCE RESERVE AGR	AIR FORCE RESERVE MT (ART)
FY 86 STRENGTH: 1. TOTAL SELRES			------ 112,592 -------			------ 78,519 -----	
2. FTS							
-OFFICERS	162	181	(208)	1,048 (840)	1,902	168	836
(STAT TOUR)			(87)	(87)		(153)	
-ENLISTED	557	632	(129)	6,050 (5,921)	19,656	444	7,512
(RECRUITERS)				(442)		(288)	
FTS TOTAL	719	813	(337)	7,098 (6,761)	22,005	612	8,348
MANAGEMENT: 1. ACQUISITION -AUTHORITY	10 USC 715 & 8541 32 USC 315		10 USC 175, 265, 672(D), 678, 3040, 8021, & 8496	32 USC - 502 (f) NGR 35-03	32 USC 709 NGR 35-03 FPM suppl.	10 USC 175, 265, 672(d), 678, 8021, & 8038.	5 USC AFR 33-1 MOU: DAF & OPM. FPM sup
-TOUR LENGTH	4 years		2-4 years	3 years	Indefinite	4 years	Indefinite
-USUAL SOURCE	Active Air Force		SELRES	Active component & SELRES	Active component & SELRES	SELRES	Active component & SELRES
-ENLISTMENT/ AFFILIATION BONUS	Eligible for active Air Force bonuses.		Not eligible ------ Payments for prior bonus stop.	Not eligible ------ Payments for prior bonus stop.	Not eligible ------ Payments for prior bonus stop; recoup if < 1/2 of enlistment complete.	Not eligible ------ Payments for prior bonus stop.	Not eligible ------ Payments for prior bonus stop; recoup if within 6 months of enlistment.
2. TRAINING -ENTRY QUALIFICATON & TRAINING	Must be fully qualified for assignment.		Must be fully qualified for assignment.	Must be fully qualified for assignment or attend school w/in 9 mos. 1st yr on probation.	Meet OPM's basic & duty pos reqmnts. Be unit member or join (empl cond). Hold same or lower mil gd	Must be fully qualified for assignment. Enl recruiters attend school at Lackland AFB	Meet OPM's basic & duty pos reqmnts. Be unit member or join (empl cond).

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT

AIR FORCE - PAGE 2

STRENGTH & MANAGEMENT AREAS	USAF with ANG USAFR	AIR NATIONAL GUARD TITLE 10	AIR NATIONAL GUARD TITLE 32	AIR NATIONAL GUARD MT (ART)	AIR FORCE RESERVE AGR	AIR FORCE RESERVE MT (ART)
3. DISTRIBUTION -YRS BETWEEN PCS MOVES	Officers: 2.2 Enlisted: 2.4	Officers: 8.7 Enlisted: 42.0		Estimate > 30	Off: 5.0 Enl: 3.7	Esitmate > 30
-ASSIGNMENT LOCATIONS	Selected ANG & USAFR locations where active component expertise is needed.	Federal and state headquarters.	86 flying bases and 110 other installations in 50 states, Guam, and Puerto Rico.		HQ USAF, MAJ COMS, AFRPC. Recruiters: bases & population centers.	41 air force bases and AFRES flying facilities & 4 other locations.
4. EMPLOYMENT -ASSIGNMENT FACTORS	Perform both flying and non-flying duties as required; e.g. Instructor pilot during unit conversion to new acft, or NGB staff off.	Typically, more senior officers & NCOs in key staff assignments at major HQ.	Perform as pilots and flight crew members and in other operational, technical, and staff assignments.	Perform as pilots and flight crew members and in other operational, technical, and staff assignments.	Fill stat ur and other staff assignments. Most enlisted are recruiters.	Perform all full-time support functions in units. Also perform in staff positions at or below MAJCOM
-INACTIVE DUTY TRAINING (IDT/DRILL)	Attend drills with unit, if applicable, including as members of reserve flight crews.	Only if - organization drills. Few operational deployment requirements	Drill with unit. Operational deployments common; e.g. air defense patrols.	Drill with unit. Operational deployments common; e.g. CAS training	Most do not attend IDT. Recruiters coordinate with units during IDT.	Drill with unit. Operational deployments common; e.g. aero-evac mission.
-ANNUAL TRAINING (AT)	Not common, but may accompany unit on o'seas deployment.	Few attend AT.	Attend with unit. Off-station ea 3 years.	Attend with unit. Off-station ea 3 years.	None	Attend with unit. Mostly at home station.
5. SUSTAINMENT -CONTINUATION RULES	Subject to active Air Force policies.	Mgt bd review at tour continuation points.	Sel retention bd at 20 yrs active service	Sel retention bd at 20 yrs active service	Mgt bd review at tour continuation points.	Qual retention @ age 55 w/25 YOS.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT

AIR FORCE - PAGE 3

STRENGTH & MANAGEMENT AREAS	USAF with ANG USAFR	AIR NATIONAL GUARD TITLE 10	AIR NATIONAL GUARD TITLE 32	AIR NATIONAL GUARD MT (ART)	AIR FORCE RESERVE AGR	AIR FORCE RESERVE MT (ART)
5. SUSTAINMENT -REENLISTMENT BONUSES	(Continued) Eligible for active Air Force bonuses.	Not eligible --- Payments for prior bonus stop.	Not eligible --- Payments for prior bonus stop.	Not eligible --- Payments for prior bonus stop.	Not eligible --- Payments for prior bonus stop.	Not eligible --- Payments for prior bonus stop.
-PROMOTIONS OFF-	Compete with USAF peers under DOPMA. HQ USAF sel bds. May be selected early.	Compete under ROPA Also eligible for unit vacancy promotions.	Compete under ROPA Also eligible for unit vacancy promotions.	Compete under ROPA Also eligible for unit vacancy promotions. Civ prom per excepted svc rules.	Compete under ROPA. No early promotions since there are no unit-level AGRs.	Compete under ROPA. Also eligible for unit vacancy promotions. Civ prom per competitive svc rules.
ENL-	E2-E7: unit vacancy. E8-E9: bds at wing & numbered air force. Appr by HQ USAF.	Unit vacancy Some states have E8 & E9 sel bds. NGR 36-04 NGR 39-29	Unit vacancy Some states have E8 & E9 sel bds. NGR 36-04 NGR 39-29	Unit vacancy Some states have E8 & E9 sel bds. NGR 36-04 NGR 39-29 Civ: same as officers.	HQ USAF sel bds.	Unit vacancy E8 & E9 sel bds at wing, numbered air force. Civ: same as officers.
-BASE SUPPORT	(Overall-CONUS)					
<= 10 MILES-	96%	38%			83%	
<= 25 MILES-	97%	57%			90%	
<= 50 MILES-	98%	72%			94%	
> 50 MILES-	2%	28%			6%	
6. DEVELOPMENT -COMMAND OPPORTUNITY	No	No	Yes	Yes	No	Yes
-CAREER DEVELOPMENT	Normal rotational assignment with some combat specialty/ flying opportunity.	Mostly higher level staff assignments.	Opportunity for most specialties incl airlift fighter, and combat suppt	Opportunity for most specialties incl airlift fighter, and combat suppt	Mostly higher level staff for officers; recruiting duty for enl	Unit duty w/ opportunity in most spec incl airlift fighter, and combat spt.

TABLE 2-1. ACTIVE & RESERVE COMPONENT FULL-TIME SUPPORT PERSONNEL LIFE CYCLE MANAGEMENT							
AIR FORCE - PAGE 4							
STRENGTH & MANAGEMENT AREAS	USAF with ANG	USAF with USAFR	AIR NATIONAL GUARD TITLE 10	AIR NATIONAL GUARD TITLE 32	AIR NATIONAL GUARD MT (ART)	AIR FORCE RESERVE AGR	AIR FORCE RESERVE MT (ART)
7. SEPARATION -INVOLUNTARY	Regular off are eligible for separation pay if over 5 yrs total service; Regular enlisted are not.		Off & Enl - eligible for separation pay with 5 years continuous active service	Off & Enl - eligible for separation pay with 5 years continuous active service	Eligible for severance pay <= 1 yrs pay after 12 months continuous civ employment.	Off & Enl - eligible for separation pay based on 5 yrs contin uous active service.	Eligible for severance pay <= 1 yrs pay after 12 months continuous civ employment.
-RETIREMENT	Eligible to retire with 20 years active military service.		Eligible for active duty retirement with 20 yrs active military svc. NGR 35-03	Eligible for active duty retirement with 20 yrs active military svc. NGR 35-03	Mil: elig @ 20 qual YOS MRD @ age 60 CRS/FERS: elig @ age 55 w/30 YOS; mandatory @ age 60 w/20 YOS. FERS: @ age 50 w/25 YOS if due to invol loss of mil position.	Eligible for active duty retirement with 20 yrs active military svc.	Mil: elig @ 20 qual YOS MRD @ age 60 CRS/FERS: elig @ age 55 w/30 YOS: mandatory @ age 60 w/20 YOS. FERS: @ age 50 w/25 YOS if due tp invol loss of mil position.

Narrative Description of Full-Time Support Personnel Strength and Life Cycle Management

Entries on the matrix (Table 2-1) are short, telegraphic descriptions similar to entries on a point paper or briefing slide. These provide a means for making comparisons of key management features; however, they do not provide much depth of understanding. Additional depth is necessary to clarify complex issues, highlight key points, and, in some cases, to record methodology. Accordingly, two means for increasing depth of understanding are provided. First, some key technical explanations, too long to be included either as endnotes or matrix entries, are provided in Appendix A. Second, the following narrative description is provided. This narrative is designed to be read in cross-reference with the matrix, and it

is organized according to the sequence of entries in the first column of the matrix so that a reader may either go from a particular matrix entry to the corresponding entry in the narrative for additional amplification or proceed in the opposite direction to see a particular subject in the narrative in the broader context of the matrix.

Fiscal Year 1986 Strength

FY 1986 data was chosen because it is the standard baseline for 6th QRMC analysis.

Total Selected Reserve Strength

Selected Reserve strength includes all unit members, individual mobilization augmentees, and members in the training pipeline as of September 30, 1986. Military technicians, AGRs, and TARs are included since they are members of the Selected Reserve. As described in Chapter 1, the Army reserve components have the largest personnel strengths.

FTS Strength

FTS military member categories include active component personnel, AGR/TAR personnel, and military technicians (MTs). A description of these categories is in Appendix A. The number of active component members assigned to duty with each reserve component was reported by service points of contact. Officer and enlisted subtotals were not available for the active Army FTS members. AGRs and TARs are divided into several categories as appropriate for each component. In the Army National Guard and Air National Guard, the majority of AGRs serve in full-time National Guard duty status and are not in federal service. These members are commonly called "title 32" AGRs, a term that simply reflects the fact that, in revising titles 10 and 32 of the United States Code in 1956, the Congress generally attempted to place laws relating to the National Guard not in the service of the United States in title 32 and laws relating to the National Guard of the United States as a federal reserve component in title 10. Thus, AGRs in federal service are commonly called "title 10" AGRs. More details on these differences are provided in the next section, "Acquisition-Authority." For applicable components, strengths were separately identified for statutory tour members and enlisted recruiters (the majority of Air Force Reserve AGRs fall into these two categories). In FY 1988, the Navy added over 1,000 recruiters, formerly "TEMAC" (short active duty tours) to its AGR community. Only the Army and Air Force reserve components use military technicians. These components have been experiencing problems in reporting military technician strength through the automated RCCPDS system.[1] Therefore, they have been

reporting correct totals manually (It would not be feasible to report detailed data manually). The correct manual totals, from page 1 of the RCCPDS FY 1986 Summary, are shown on the matrix. Except for the Air Force Reserve, these manually reported totals do not match the sums of the officer and enlisted strengths shown on the matrix. These officer and enlisted strengths represent the automated data available in RCCPDS. The difference is significant in the Army Reserve because detailed data for analysis is available for only 47 percent of the manually reported military technician total.

Management Function Comparisons

The following is a brief comparative summary of each of the functions of personnel management for the life cycle of FTS forces of the military departments.

Acquisition

Acquisition functions include the authority for service, tour length, source of personnel, and enlistment bonuses.

Authority - Authority means the general authorization in law and the major regulatory authorities for each FTS category.

Statutes cited for active component FTS members provide Secretarial authority to assign regular or reserve members to assist the reserve components and to detail regular members of the Army and Air Force to duty with the National Guard, as well as Presidential authority to assign regular or reserve officers to duty in the National Guard Bureau. See Appendix A.

Most AGR/TAR members serve under one of two general authorities provided in the United States Code. First, section 672(d) of title 10, as amplified by section 678, is the general authority for reserve officer and enlisted members to serve on active duty voluntarily in federal service. Second, section 502(f) of title 32 provides the same general authority for full-time National Guard duty not in federal service. The annual (or biannual) authorization process sets limits on the numbers of full-time members who may be on active duty or full-time National Guard duty for the purpose of organizing, administering, recruiting, instructing, or training the National Guard or Reserve. Limitations on senior grade authorizations are also provided by law.

Other AGR officers serve on so-called "statutory tours". Although there is no formal definition of statutory tours, the term has generally referred to officers on active duty under

section 265 of title 10, United States Code and other specific sections of law to perform narrowly defined duties described in the authorizing statute.

Incumbents of statutory tour billets are categorized as individual rather than unit AGRs. Only officers are authorized under these specific statutes, and they are considered to be additional members in grade against any headquarters ceiling when so serving. Thus the assignment of "statutory tour officers" to a headquarters billet does not reduce the total number of other officers who may be assigned to that headquarters. For example, section 265 of title 10, United States Code, provides authority for officers to serve at the seat of government or at headquarters responsible for reserve affairs to participate in preparing and administering reserve policies and regulations. Other sections provide for reserve component officers to serve as chiefs of their component, in the National Guard Bureau, on policy boards and committees, and for other specific purposes. A brief categorization of statutory tour authorities is in Appendix A. There are no comparable statutes for enlisted members.

Military technicians in their military status serve under the same statutory authority as other members of the Selected Reserve, and these references have been omitted in this report. In their civilian employee status, technicians serve in two different statutory categories, with important distinctions.

National Guard technicians serve as federal employees of the Department of the Army or the Department of the Air Force under Section 709 of title 32, United States Code, for the purposes of 1) administration and training of the National Guard, and 2) maintenance and repair of supplies and equipment issued to the National Guard or the armed forces. Positions are <u>outside</u> the competitive service if the technician is required, as a condition of employment, to be a member of the National Guard and hold the military grade specified by the Secretary concerned for that position. This status is commonly called "excepted service". Excepted service technicians who are separated from military status in the National Guard, or who cease to hold the prescribed grade for their position, are promptly separated from employment by the state adjutant general. Approximately 5 percent of National Guard technicians are in competitive federal status (primarily clerks and security guards), and are not included as <u>military</u> technicians in this report since they are not required to be military members.

Technicians in the Army and Air Force Reserve serve under the general Civil Service laws in title 5, United States Code, as competitive federal service employees. Both services have executed agreements with the Office of Personnel Management (OPM), specifying conditions of employment. The Air Force

agreement requires Air Reserve Technicians (ARTs) to maintain military membership as a condition of employment. As in the National Guard, loss of military status means loss of the military technician position. The Air Force has a program for transferring members in this situation to other Civil Service positions. Since 1970, military technicians in the Army Reserve have been required to have military membership as a condition of permanent appointment; however, maintenance of military membership once appointed was not made a condition of employment at that time. Consequently, between technicians who never had military membership and those who have lost it, the Army Reserve for a number of years has had a relatively large proportion of "status quo" technicians (technicians who are not military members who encumber positions in which military membership would normally be a requirement). This problem has been exacerbated by the congressional prohibition against converting technician positions (including those encumbered by status quo technicians) to military positions.[2] Conversion prohibition has been restated as recently as December 1987 in the Fiscal Year 1988 Appropriations Act. Since December 1983, however, newly hired Army Reserve technicians have been required by law to maintain military membership as a condition of employment. Thus, status quo technicians will slowly be eliminated from the force through attrition over the next quarter of a century. In 1976, approximately 25 percent of the USAR technician force was comprised of status quo technicians. By 1986, Army data indicated that the percentage could have been reduced to as low as 8 percent; however, only 62 percent of Army Reserve technicians can be identified in the official personnel data base.[3]

Tour Length - "Tour length," as used in this report means the typical period an active component member is assigned for a single tour of duty with reserve components, the period for which an AGR or statutory tour member is called to active duty, or the period a technician is employed in Civil Service status.

Reserve component tours are normal features of active component career development schemes. Upon completion of such tours, an active component member moves to a duty assignment consistent with component assignment policies. Tour lengths are comparable with most other active component tours of duty. Normal active component enlistment rules apply.

In general, the term of service for an AGR or TAR ranges from two to four years except that the initial tour for some enlisted TARs is six years. Periods of enlistment are adjusted to coincide with tour lengths. In most cases, the tour is served in a single geographical location although local duty assignment changes or permanent changes of station may be directed, especially if the member is selected for promotion or organizational changes occur. AGRs and TARs generally are

considered to have career status except in the Marine Corps Reserve, which manages all of its AGR members as a noncareer category, and in the Air Force Reserve, which has no unit AGRs. In all components except the Army Reserve, which manages AGRs as a single career category, statutory tour officers are normally limited to a single, specified period of service, usually one to three years, as stated on the tour assignment orders. The orders are typically "self-terminating," meaning that the member is automatically released from active duty on the last day of the tour unless the orders are amended. Although it is possible for a reservist to serve more than one statutory tour (and, in some cases, to achieve active duty retirement eligibility through consecutive tours), this is an exception and not the rule. Because statutory tour members are on active duty tours for periods of 180 days or more, they must be counted under the law as AGRs for strength accounting purposes.

Military technicians generally have indefinite tour length status in their civilian capacity. Enlistments follow normal Selected Reserve rules, except for bonuses as outlined below, and are for periods of two to eight years. Reenlistment is not ordinarily denied to an individual; nevertheless, as pointed out earlier, it is essential to continued employment in cases where military membership is a condition of employment.

Usual Source of Accessions - As indicated earlier, the source of active component FTS members is through normal career assignment. Army AGRs and technicians most frequently enter FTS programs from drilling reservist status. Some technicians may enter directly from active status, or from membership in the individual mobilization augmentee program. Navy accessions can be individuals without prior service, or those with prior service in the Selected Reserve or the active component. Most Marine Corps Reserve accessions come from the Ready Reserve, with a few coming from the active component. Accessions into Air Force reserve component programs are from either the Selected Reserve or the active component.

Enlistment Bonuses - Except for Navy TARs, FTS programs have few members without prior service, and enlistment or affiliation bonuses are not used directly to attract new FTS members. Nevertheless, existing enlistment and related bonus agreements do have an effect (that differs by category and component) on an individual who enlists for a bonus and later volunteers to become an AGR/TAR. Active component members are eligible for these bonuses under their components' programs, with no special requirements, such as automatic termination of payments, generated by assignment to reserve component duty. In contrast, AGRs and military technicians in all components who enter into a FTS program are currently ineligible to receive enlistment bonuses, including affiliation[4] and prior service enlistment bonuses. For lateral entry members who were previously paid

Selected Reserve enlistment bonuses, rules differ by component: they may retain portions of the bonus, may be exempted from payback provisions, or may continue to draw anniversary payments. In the case of previously paid affiliation bonuses, prior service enlistment bonuses, and bonuses for enlistment in elements of the Ready Reserve other than the Selected Reserve where the individual subsequently decides to become an AGR or military technician, all anniversary payments are, by policy, terminated; however, amounts previously paid to a member need not be refunded.

Training

Training comparisons focus on the basic entry qualification and training required as prerequisites for full-time support duty.

Entry Qualification and Training - In all components, new FTS members are ordinarily required to be fully qualified for assignment. This means that they must be trained in or show potential to learn the skill for the position to which they are hired/assigned, meet standards for physical condition and education, and meet any special requirements for the position, such as grade or experience levels and security clearance. Most applicants qualify by virtue of prior active or reserve service. Indeed, for the more senior positions, such as statutory tours for AGRs, having a strong military background is usually essential. For AGR and military technician applicants in military pay grades E5 and below, qualifying skill standards are generally not as strict as for the more senior grades, and entry regulations normally provide for initial training at schools or on the job, and even for basic training of accessions without prior service. Only the Naval Reserve depends upon accessions without prior service as an important source of new FTS members. Nevertheless, TARs from all accession sources are required to undergo the same training as active Navy personnel as appropriate for their warfare specialty or rating. For military technicians, the emphasis is on meeting the Civil Service standards for the job position. Because military membership is now a condition of initial employment for military technicians in all components, either by law or policy, there is an implicit requirement to be qualified in <u>some</u> military skill. However, the standards of compatibility between military and civilian positions required of a military technician depend upon the often tenuous definition of the term "compatibility". As a result, "MOS qualification" as an entry standard for a military technician may only mean that the individual has a military skill or the potential to qualify in one.[5]

Distribution

Distribution functions include frequency of movement and assignment locations.

Years Between Permanent Change of Station (PCS) Moves - Survey data was used for all categories except for military technicians. Calculation procedures are explained in Chapter 3. Because the surveys contained no questions about technician moves, estimates for these members were obtained from service points of contact. See "Promotions" in this chapter for a discussion on the relationships to member moves.

For the active components, the data represents all members worldwide, not active FTS members alone. However, assuming that FTS rates are comparable to the component as a whole, it is likely that most active component FTS members do not complete their Service's full prescribed tour of duty with reserve components. (That is, the average years between moves computed from survey data is less than the normal tour length reported by Service points of contact.)

Among the AGR/TAR categories, the Navy's TAR members move at a rate quite similar to that of their active component counterparts. Not only do they move frequently, but TAR officers are subject to worldwide assignment for refresher training with the active Navy.[6] Members in other AGR categories move infrequently, especially in the enlisted ranks. Unit AGRs move less frequently than nonunit AGRs (e.g. statutory tour officers). For example, Air National Guard AGRs, the majority of whom serve in units, move much less frequently than Air Force Reserve AGRs, who do not serve in units. In addition, National Guard unit AGRs rarely make PCS moves out of their home state. Other AGRs, whether serving in units or not, may be subject to nationwide assignment and, on occasion, overseas assignment. Components generally schedule AGR PCS moves to coincide with standard tour lengths; however, midtour moves may occur.

Military technicians rarely move. However, they may be moved involuntarily for cogent reasons such as unit reorganizations or to accommodate promotions. For example, the Army National Guard and Air National Guard technicians may be so moved within state boundaries by virtue of their excepted service status. Air Force Reserve technicians in pay grades GS-9 or WS-8 and above are required, by formal agreement between the department of the Air Force and the Office of Personnel Management (OPM), to sign mobility agreements; however, involuntary moves rarely occur for technicians below pay grade GS-12 and seldom occur for wage grade technicians at all. Under the Army's memorandum of understanding with OPM, Army Reserve technicians are not required to sign mobility agreements at any grade. Regardless

of the degree of authority, the estimated rates indicate that PCS moves are *not* a key factor in management of the majority of military technicians in any component.

Assignment Locations - For FTS personnel, characteristics of the duty location influence many of the differences in management and conditions of service among components, especially those relating to promotion and base support. For active duty members, the duty location directly affects the extent to which normal base support functions are available. Access to commissaries, medical facilities, and community support functions such as child care are important to the compensation of AGR members. For technicians, the size and location of the reserve units affect opportunities for both technician and nontechnician civil service jobs and also affect military advancement opportunities.

Employment

The stereotypical full-time reservist job would be work at an armory or reserve center as a caretaker, supporting a unit that assembles there for mobilization training one weekend per month, along with participation in one annual two-week training period per year, either at the home station or at a regional training site. However, this is an inadequate description of what either the units or FTS members actually do.

In FY 1986, for example, more than 85,000 reservists participated in overseas training.[7] Additional thousands participated in air and sea deployments, and in both training and operational missions away from unit home stations. Both the tempo and variety of such activities are expanding each year, and full-time members play a key role in the action. Categories selected for comparison include general assignment factors as well as the more specific categorization of use during inactive duty training and annual training.

Assignment Factors - Broad assignment factors governing the employment of FTS members derive from their category of assignment. The delineation is sharpest in the National Guard components where all title 32 AGRs perform state duty to include duty in mobilizing units. Title 10 National Guard AGRs all perform nonunit duty, typically in higher level staff assignments. Title 10 AGR/TARs in the other components perform in either unit or nonunit duties. A delineation of all assignment factors is beyond the scope of this report; however, those that contribute to an overall understanding of FTS programs are included. For example, Army Reserve technicians may serve in military status as Individual Mobilization Augmentees (IMAs), and Army National Guard and Army Reserve (AGRs) may perform a wide variety of functions such as recruiting or ROTC duty.

Inactive Duty Training (IDT) and Annual Training (AT) - FTS members who support units normally attend all IDT periods (drills) and annual training periods with their units. It should be noted that units, with FTS support, frequently conduct operations and training more than just one weekend a month through a combination of extra drills, additional active duty days, and extended or split annual training. The following are a few examples of daily or short term operational missions:

Air Force Reserve and Air National Guard units fly C-5B cargo missions to Europe virtually every day, with air crews that include USAFR and ANG technicians and Air National Guard AGRs as crew members. Technicians and AGRs who are weapons system security personnel may accompany the crew when the aircraft is scheduled to remain overnight in areas requiring special security measures.

Air National Guard and Air Force Reserve air crews that include AGRs and Air Force Reserve technicians regularly participate in air defense operational missions to intercept unidentified aircraft approaching U.S. airspace. Air National Guard and Air Force Reserve technicians and Air National Guard AGRs also support refueling operations for the active Air Force with aerial tankers. When assigned to duties outside the continental United States, Air National Guard members revert from state to federal control for the duration of the mission.

Members of the Navy TAR program assigned to Naval Reserve Fleet ships and aircraft squadrons go to sea during regular and additional drills to conduct training and readiness missions as well as during normal operations of these ships and squadrons (about 21 days per quarter). In addition, TARs typically serve one or more tours with the active Navy during their career, participating as ship's company in all underway periods including deployments with their units.

Army Reserve and Army National Guard units regularly move overland or by air during IDT and AT to the National Training Center, to active installations or to overseas locations where they practice mobilization and deployment procedures and combat operations. Army affiliation and roundout relationships (in which reserve component units merge with active component units for mobilization missions) are becoming more frequent and are compelling more and more long-range deployment exercises. In addition, the Army uses some AGRs in overseas forward-deployed elements of USAR units that have early mobilization and deployment missions in support of NATO war plans.

Sustainment

Sustainment functions include the means that are employed to develop and support FTS personnel throughout a career in support of general FTS manpower force objectives. Those selected for comparison include continuation rules, reenlistment bonuses, promotions and base support.

Continuation Rules - These are the procedures used by each component for continuation of members in FTS programs. The application of continuation rules alters the shape of the manpower force structure and hence also alters compensation costs. For example, continuation rules affect the number of members who eventually achieve retirement eligibility, and may alter average levels for pay grade, age, and years of service. For additional information, see the "Promotions" and "Separation" sections later in this chapter.

Continuation of active component members in FTS programs is based on active component assignment policies and priorities rather than on tenure rules.

AGR continuation management policies and procedures vary by component. A major factor in their development is the degree to which each component recognizes its AGRs as having career status: all, some, or none may be so recognized.[8] In general, due course promotion is a prerequisite in all components for reaching maximum allowable years of service. Officers who twice fail selection for the same grade are not continued. Enlisted members who are not selected for promotion may be eliminated from the program in components with management review or tour selection/continuation boards, or their maximum years of service may be limited by policy according to the highest grade attained. Regardless of the differences in management systems, it is also generally true that the majority of enlisted members and nearly all officers who become eligible for active duty retirement at 20 years of active service retire then or shortly thereafter.

The Army conducts periodic AGR continuation boards at fixed intervals throughout an AGR's career. By policy, Army AGR officers are released from active duty or full-time duty when they have attained 20 years and one month of qualifying service for retirement purposes (under the provisions of sections 1293 or 3911 of title 10, United States Code), unless they have been approved for voluntary retention by the Secretary of the Army.[9] Senior enlisted members are permitted to serve longer periods, depending upon the highest grade obtained.

Navy AGR members who are not TARs are managed on a tour-by-tour basis; continuation is managed through the tour selection process. TAR officer and enlisted members are careerists who

are subject to the same type of selection and screening boards as their active Navy counterparts, including those convened to select or screen members as applicable by grade and career field for promotion, command, executive officer, and schools. Assuming due course performance, continuation selection for officers occurs only in pay grade O6 during the second and fifth year in grade. TAR enlisted members are authorized to continue to 30 years of active service based on the Navy's High Year Tenure (HYT) program.

The Marine Corps selects AGRs on a tour-by-tour, noncareer basis. Continuation is controlled through the tour selection process. FTS members who have served on active duty for 20 years or more may request an extension of no more than one year. Air Force AGRs serving under title 10, United States Code, are subject to management board review at tour continuation points. In addition, Air National Guard members serving under title 32, United States Code, (military duty personnel), are subject to retention board action on reaching eligibility for reserve retirement (which would be earlier than active retirement eligibility, assuming the member has some part-time service and the last 8 years of service have been in a reserve component).

Military technicians are not directly quality-screened until after they complete 20 years of qualifying service for reserve retirement; then they may be subject to Selected Reserve qualitative management boards. On the other hand, there is an indirect promotion screening process. (This process also applies to AGRs, but it becomes of special significance to military technicians who depend upon attaining 25 to 30 or more years of military service to reach eligibility for civil service retirement.) During this period of service after 20 years, promotions are more difficult to achieve at the senior grades. Reserve officers are indirectly screened through the promotion selection process and removed from military status if they twice fail to be selected for promotion to a grade below O6. To preclude the loss of military status by technicians, the statutes provide that, notwithstanding mandatory separation under the law based on years of service or nonselection for promotion, technicians may be retained until age 60. In practice this exemption is typically not extended past age 55. Maximum tenure is reached at MRD/MSD (Mandatory Removal Date - Army; and Mandatory Separation Date - Air Force). Enlisted technicians are controlled through a system of maximum service in grade. As with officer technicians, under certain conditions enlisted technicians who fail promotion selection may be retained until they qualify for civil service retirement.

Reenlistment Bonuses - Active component members are eligible for active component bonuses, with no special effect caused by their assignment for duty with a reserve component.

Rules vary among components for authorization and anniversary payment of reserve reenlistment bonuses. The services have found it unnecessary to pay bonuses to retain reservists in FTS programs. The Navy recently considered paying a selective reenlistment bonus (TAR/AGR SRB); however, after examining improving retention rates, the 6th QRMC has concluded that such a bonus is not needed at this time. As with enlistment bonuses, reenlistment bonuses in effect prior to AGR/TAR status do have an effect on the individual that differs by component and category. Members who were awarded a bonus before their selection as AGRs may or may not continue to receive anniversary payments, under rules unique to each service. Army and Marine Corps components allow continuation; Air Force and Navy components discontinue payments. In addition, the Navy recoups a prorated portion of previous payments, based on the uncompleted portion of the bonus period.

Promotions - There are many differences in promotion rules and eligibility criteria within and among the active and reserve components of the DoD. These differences are significant regarding time in grade (TIG), time in service (TIS), completion of professional military education (as a requirement for promotion eligibility), and retention as affected by failure to be promoted. These differences may require longer TIG/TIS and more professional education for reserve component members than for active component members. All active component FTS members are promoted under active component promotion systems. These members may receive early promotions, and their FTS duty assignments do not affect promotion procedures.

All categories of reserve officers not on the active-duty list, whether they be AGRs, TARs, or military technicians, are promoted under Reserve Officer Promotion Act of 1954 (ROPA) rules. The ROPA rules are different for each Service, however, with major differences between Army and Air Force reserve components on one hand, and the Naval Reserve and Marine Corps Reserve on the other. The resultant differences in promotion timing affect compensation to some degree; however, they are largely offset by longevity pay increases that are almost always incrementally much greater than pay grade increases. Promotions of Navy and Marine Corps reserve officers are linked to active component promotions in a "running-mate" system. Under this system, promotion points are strictly tied to considerations for promotion in the active component. Army and Air Force reserve promotions are based on time in pay grade (TIG) and time in service (TIS) criteria, which are not linked to the active component.[10]

Army Reserve, Naval Reserve, and Marine Corps Reserve AGR/TAR officers cannot be considered for early promotion (unit vacancy) promotion. In the Air Force reserve components, unit vacancy promotions are made to fill authorized billets in all programs,

not just unit programs. In the Army National Guard, unit vacancy promotion is possible and does occur. AGR officer promotions in all components are affected by the duty assignment. In the Army, promotion is administratively delayed until assignment to a position authorized at the next higher pay grade. This is a statutory requirement for promotion of Army and Air Force AGRs to paygrade O4 and above. Unlike their part-time counterparts, Army AGR officers are not required to sign promotion declinations while awaiting a position vacancy at the higher grade. In the Navy and Marine Corps, AGR officers are promoted without regard to the pay grade authorized for their current duty assignment. Because Marine Corps FTS officers and enlisted members may not remain in a lower pay grade position indefinitely, they may face elimination from the FTS program if an appropriate position for reassignment is unavailable at the end of the their current contract. No Air Force or Army reserve component AGR officer may assume a higher pay grade unless assigned to a position that authorizes the higher pay grade. Even if selected by a selection board under ROPA, Army and Air Force Guard and Reserve AGRs can only be promoted if serving in a billet requiring the higher grade. In addition there are statutory limits on AGR and TAR officers in pay grades O4 through O6 which may not be exceeded.

Military technician officers are eligible for unit vacancy military promotions. Army officer technicians selected for mandatory military promotions must be in appropriate positions at the higher grade in order to be promoted and remain in the unit. If no position is available, they may decline promotion for a period of up to three years. If not promoted by the end of the declination period, an officer will be transferred from the unit and promoted. Such action could result in termination of full-time employment for members who must maintain active status as a condition of employment. Until age 55, Air Force officer technicians who are promoted may generally be retained in a position one pay grade below that to which they are promoted.

Enlisted AGRs and military technicians are generally constrained by position and skill vacancies; early promotions, based upon time-in-grade or time-in-service waivers, are authorized. The major differences in treatment of enlisted AGRs and military technicians include the degree of central selection, whether the individual competes with the full-time peer group or with part-time members, and whether the promotion is to a local vacancy or to service-wide vacancies that may require a PCS. In addition, enlisted members (except in the USMCR) are generally authorized to decline a promotion or accept a voluntary reduction in grade in order to conform to constraints of their duty position.

Civilian promotion for all military technicians is governed by Civil Service regulations. A position vacancy at the higher grade is required. The most notable variation in treatment depends upon whether the member is in the competitive service or excepted service category. Competition for excepted service technicians is among the technician population only whereas competitive service technicians can compete for promotion in any competitive service position, technician or nontechnician, for which they can qualify. There is no direct link between civilian and military promotions; however, individuals must meet the respective pay grade requirements for both their civilian position and their military position.

Access to Base Support - Access to base support activities for AGR and active component FTS personnel constitutes an element of compensation. The QRMC used distance to the nearest commissary as a proxy for relative access to base support because commissaries are generally located on larger military installations with a good range of base support activities.[11] As in the case of PCS moves, the general active component population was used; however, for this computation overseas and deployed members were not counted.[12] The overall results were as generally expected. Active component members have the greatest access, and unit AGRs in the National Guard have the least. Because the Air Force Reserve has no unit AGRs, the results in this component are likely to be representative of nonunit AGRs in general. For a more detailed discussion, see Chapter 3.

Development

Development is portrayed from the institutional perspective; that is, it shows what the organization offers and expects from FTS members in terms of command opportunity and career development.

Command Opportunity - Because command is important to career development for officers, the opportunity to command may affect the view individuals and professional communities have of a full-time support assignment (depending upon the pay grade level, career field, and other factors). From a broader organizational perspective, however, it is important to consider the whole question of leadership. Should full-time support members be put in charge of reserve units and other organizational elements? Should they be limited to a support role? Should they do both? Interpretations of this question embodied in the varying component FTS programs bear on such issues as supervisory and pay grade relationships and the impact on career opportunities for part-time reservists.

The categories of FTS officers currently authorized to command reserve units or other organizational elements include military technicians in the Army and Air Force reserve components, state AGR officers (title 32) of the Army National Guard and Air National Guard, and TAR officers in the Naval Reserve.[13]

Career Development - Because each component has differing requirements, it is necessary to examine the desirable career development characteristics inherent in each of the FTS categories and then to consider how these characteristics fit into the component FTS programs.

All components use active and AGR FTS members to fill staff assignments and in special, nonunit functions such as recruiting. In fact, in the Air Force Reserve, all FTS members are so employed.

Active component FTS members are used in relatively small numbers in most components. However, they are the predominant form of unit support in the Marine Corps Reserve, and they are a smaller but key element in the Naval Reserve. Using active component FTS members is one way to provide current active component experience and specialized knowledge about operating new and complex equipment such as ships and aircraft. On the other hand, rapid turnover in tour length, lack of reserve unit experience, and difficulty in adapting to the environment away from the active component may be problem areas. Another major consideration in their employment has been whether they can be spared from the active component. The strength ratios between active and reserve forces among the services provide some relative indication of the size of the forces to be supported. As of FY 1987, the ratio of Selected Reserve strength to active component endstrength was 1 to 1 in the Army, 1 to 3 in the Air Force, 1 to 4 in the Navy, and 1 to 5 in the Marine Corps.[14]

Unit AGRs (TARs in the Naval Reserve) are employed in every reserve component except the Air Force Reserve. They have been so employed since 1945 in the Naval Reserve (under the Continuous Active Duty program until transition to the TAR program in 1953), and in large numbers in units of other components' since 1980. Their career development characteristics overlap those of the active component on the one hand and those of military technicians on the other. On the active side, for example, they can be relocated more easily than technicians, and they reach retirement eligibility earlier and therefore can be more suitable for environments requiring youth and vigor, such as ships or tank companies. However, like technicians, they can also be kept in stable assignments longer when necessary, and they can adapt to the reserve environment easily. These characteristics may be seen as either strengths or weaknesses.

Military technicians are most valuable in situations requiring long, stable assignments and high levels of experience in staff or support functions such as personnel administration, finance and accounting, maintenance, and supply. They can also successfully perform certain operational functions as well: for example, as pilots or crew members. Relative immobility, long tenure to reach eligibility for Civil Service retirement, and conflicts between civilian and military management systems may be seen as disadvantages. The Navy, without technicians, hires civilians to perform staff and support functions, but does not require these employees to be military members.

Separation

Separation is the final category of life cycle functions. Topics include involuntary separations short of retirement eligibility and retirement eligibility itself.

Involuntary - All categories of FTS members may be subject to involuntary separation. Eligibility for separation pay differs by component and category.

All regular officers are authorized separation pay in amounts up to $30,000 if they have served a total of five years or more in active service. Regular enlisted members are not authorized separation pay.

Reservists (including AGRs and TARs, whether officer or enlisted) are authorized separation pay up to the same amount as regular officers if they have served five or more years in <u>continuous</u> active service. The contrast between the entitlement for this pay for active and reserve enlisted members is addressed in Chapter 3.

There is no separation pay for part-time military service; however, a military technician can qualify for separation pay as a civil servant if continuously employed for at least 12 months. Computation variables include length of service, salary level, and age. The maximum lifetime cumulative amount cannot exceed one year's pay at the rate received immediately before separation.

Retirement - When they have completed 20 years of active military service, AGR/TAR members may qualify to retire with the same active duty retirement benefits as active component members. Although, according to active component maximum service in grade rules, regular members and TARs may generally serve beyond 20 years without special application, the length of active service for AGRs is limited by policy. Under policies unique to each component, AGR members other than TARs are normally released from active duty at or shortly after attaining

20 years of active service unless they volunteer to serve longer (with approval dependent on service criteria and needs, as well as senior grade limitations).

Technicians can retire in both their military and civil service status. Under the Civil Service Retirement System (CSRS), technicians can achieve a civilian retirement with unreduced annuity at age 55 if they have completed 30 years of service. Under the new civilian system, the Federal Employee Retirement System (FERS), for most members hired since December 31, 1983 and those with longer service who elect it, technicians, as a special category of civil service employees, can retire with unreduced annuity at age 55 with 30 years of service (same as old system) although this will eventually be at age 57. Under FERS, there are also special retirement provisions for technicians who lose their military status through no fault of their own before achieving normal retirement eligibility. Under such circumstances, technicians can retire with unreduced annuity at age 50 with 25 years of service.

Military retirement for technicians is the same as for drilling reservists. A member may accept discharge or transfer to the Retired Reserve with 20 qualifying years of service. However, to be entitled to draw retired pay, a reservist must be 60 years old and have 20 qualifying years of service. Technicians typically continue to serve until at least age 55, when they are first eligible to draw their civil service retirement. Because they must maintain their military status until this point if military status is a condition of employment, force planning for this group must take into account the resultant longer service and somewhat older force profile.

Conclusion

The information in this chapter is meant to be generally descriptive in nature to provide an overall picture of the reserve component FTS programs as they were constituted at the time of this review. Although some issues are mentioned here, the purpose is to inform and to provide a sense of the significant differences that exist between FTS categories and between reserve components. Detailed analyses of those issues within the scope of this review may be found in subsequent chapters.

Notes

1. U.S., Department of Defense. Assistant Secretary of Defense (Reserve Affairs), Official Guard and Reserve Manpower Strengths and Statistics FY 1986 Summary, RCS: DD-RA(M)1147/1148, p. 6.

2. U.S., Congress. Pub. L. No. 98-151, 98th Cong., November 14, 1983.

3. 1986 Data provided by the Office of the Chief, Army Reserve. 1976 Data is found in Office of the Deputy Assistant Secretary of Defense (Reserve Affairs), Reserve Compensation System Study Supporting Papers, Volume III, Miscellaneous Compensation-Related Topics, June 1978, p. 56.

4. Section 308e(b)(5) of 37 U.S.C., excludes from eligibility for reserve affiliation bonuses members joining to become a Reserve, Army National Guard, or Air National Guard technician.

5. See Chapter 5 for more details on this issue.

6. Although TARs are ordered to active duty under 10 U.S.C. §672d in connection with organizing, administering, recruiting, instructing, or training the reserve components, 10 U.S.C. §678(b) authorizes detail to any armed force or otherwise as the Secretary sees fit to insure periodic refresher training in the categories for which the member is qualified. TAR enlisted members are less frequently assigned for such refresher training than TAR officers; however, TAR enlisted members may request general assignment with the regular Navy under provisions included in the enlisted transfer manual.

7. U.S., Department of Defense. Office of the Secretary of Defense Annual Report of the Reserve Forces Policy Board, Fiscal Year 1986, February 10, 1987, table 19.

8. See Chapter 3 for more details on the career status of AGR members. A summary of component views follows: In ARNG and USAR, all have career status. In the USNR, TARs have career status; other AGRs (TEMACs on active duty for 180 days) do not. In the USMCR, none have career status. In the ANG, statutory tour officers do not have career status; other AGRs (military duty personnel) do. In the USAFR, none have career status.

9. See Army Regulation 135-18, paragraph 4-12.

10. When ROPA was enacted in 1954, the TIS promotion criteria for Army and Air Force reserve officers was essentially the same as that that had been established for the permanent promotion of regular officers under the 1947 Officer Personnel Act. With the

change in permanent promotion criteria for regular officers with enactment of the Defense Officer Personnel Management Act (DOPMA) in 1980 this linkage was broken. The Administration has proposed a new Reserve Officer Personnel Management Act to restore essential conformity between the two systems.

11. This was done by matching U.S. postal ZIP codes for commissaries with member home address ZIP codes as recorded in RCCPDS and Defense Manpower Data Center active component files as of August 1987. (Unit ZIP codes were used where home address ZIP codes were not available.)

12. The reason for using the general active component population rather than the active component FTS population has to do with the nature of the issues under review. One of these issues, to be addressed in detail in Chapter 3, deals with the comparison of service conditions between AGR/TARs and active component members in general. One of the conditions compared is access to base support; hence, the general active component population was chosen for comparison. (Active component FTS members generally have the same access to base support as the AGR/TAR members assigned at the same duty location; however, active component FTS member access to base support is not one of the major issues under review.)

13. In the TAR program, surface warfare officers and general unrestricted line officers may command active duty units, and air warfare officers may command both active duty and reserve units. TAR officers may also command reserve active duty commands such as naval bases and stations, naval air stations, reserve centers, readiness centers, and readiness commands.

14. Based on a comparison of FY 1987 RCCPDS Selected Reserve strength totals for each Service's reserve component(s) and FY 1987 active component end strengths shown in the FY 1988 Defense Military Manpower Report.

Chapter 3. AGR/TAR AND ACTIVE COMPONENT COMPENSATION

Introduction

The number of reservists on full-time active duty in support of the reserve components has grown rapidly since the end of FY 1980 when their total strength stood at just over 22,500. By the end of FY 1986, their total strength stood at slightly more than 63,500, an increase of 282 percent in the six-year period.[1] In FY 1986, these members were distributed among the Services as follows:

- Army - 57 percent
- Navy - 29 percent
- Air Force - 12 percent
- Marine Corps - 2 percent

Although management and specific use differs markedly between the reserve components, these members are used in accordance with the law[2] to organize, administer, recruit, instruct, and train part-time members of the reserve components.

Background

Full-time AGR (Active Guard/Reserve) members, including Navy TARs (Training and Administration of Reserves), are compensated under essentially the same pay and benefit systems as active component military members. Concern has been expressed about this situation, based on the perception that AGRs and TARs are not subject to the same rigors and hardships characteristic of service in the active military components. For example, Senator John Glenn, addressing Hon. James Webb, then Assistant Secretary of Defense (Reserve Affairs), before a Senate Armed Services Committee hearing in March 1986, made this statement:

> Last year Congress reduced the Department's requested increase of 19,500 in full-time active duty manning by approximately half.
>
> At the time we expressed the concern that the compensation and benefit program available to full-time reserve and guard members is virtually identical to active duty personnel, despite the different conditions of service between these two groups.[3]

Statement of the Issue

Most often mentioned among the hardships of the active component member are the frequent permanent change of station (PCS) moves brought about by changes in duty assignments and the family separations caused by remote overseas assignments or deployments aboard ship. The central issue, then, is this: Given the somewhat different conditions of service, should AGRs and TARs receive the same compensation and benefits as their counterparts serving in the active components?

Scope of the QRMC Analysis

The 6th QRMC analysis, as detailed below, entailed two major avenues of investigation. First, the conditions of service of AGRs and active component members were compared, and institutional policy and perspectives were reviewed. The analysis also included a comparison of active and reserve component member perceptions about service conditions, using the results of the 1985 DoD Survey of Officer and Enlisted Personnel (active component) (1985 DoD Member Survey) and the 1986 Reserve Components Survey: Full-Time Support Officer and Enlisted Personnel (1986 RC AGR Survey). Results of the surveys are supported by available objective data in the Reserve Components Common Personnel Data System (RCCPDS). The 1986 RC AGR Survey provides the first available comprehensive reserve component data in this area; therefore, this analysis provides a new and unique perspective on the issue. The second major avenue of investigation was a comparison of the compensation elements themselves, to validate the hypothesis that their application is essentially identical for both groups. Areas warranting structural/technical changes were analyzed, and appropriate recommendations are presented in this report. Finally, the report includes overall conclusions and a recommendation about the central issue, based on the results in both areas.

Comparison of Conditions of Service - Institutional Policies and Perspectives

Statutory Requirements

The policies that govern conditions of service for individuals must be developed within statutory authority and congressional guidance. The statutes cited in Chapter 2 are of particular importance: they provide specific guidance on the functional employment of all categories of full-time support members. AGR duty assignments must be made to accomplish the reserve support functions specified in the law. National Guard members ordered to full-time duty under the provisions of title 32, United States Code, are not in federal service; they generally serve in their home state. Guardsmen and Reservists ordered to active

duty under section 672(d) of title 10, United States Code, may be detailed to other duties only for the specific purpose of periodic refresher training under the authority of section 678 of title 10; they may not be detailed to other duties simply to meet the requirements of the active component.

Departmental View

In his reply to Senator Glenn at the March 1986 hearing mentioned in the introduction, Mr. Webb made this observation:

> It is a question we have looked at, but in our view the current system is the only one which provides essential fairness to all members on active duty and the compensation needed to attract the quality of military members needed.
>
> It is true that overseas and sea duty demands are less frequent for full-time Active Guard and Reserve members but there is little or no difference with respect to other aspects of service, and, like all military members, they must be prepared to go when and where they are needed in the interests of our national defense.[4]

Army Policy and Perspectives

The Army has expressed its views on conditions of service as follows:[5]

> AGR soldiers are required to meet the same physical, educational and professional standards as their Active component counterparts. Currently, all AGR soldiers are required to attend the same service schools as their Active Component contemporaries.
>
> The present AGR compensation and benefit program is comparable to that of the Active Component because the conditions of service are comparable. AGR compensation is authorized in the annual appropriations process to the National Guard Personnel, Army (NGPA) and the Reserve Personnel, Army (RPA) accounts. This compensation is essential in order to attract and retain quality individuals and to maintain a viable AGR force that is available for duty 24 hrs/day, 365 days/year with duty location dictated by the commander.
>
> The AGR Title 10 force[6] serves side-by-side with Active Component soldiers in Reserve Component support missions worldwide. They experience the same types of working conditions, temporary duty assignments,

military education requirements, and involuntary worldwide assignments as do their Active Component counterparts. An average of 28.3 percent of USAR Title 10 AGR soldiers made a permanent change of station (PCS) move requiring household movement in each of the last three years.

Army National Guard Title 32 soldiers serve under control of their respective state governors as directed by Congress. Title 32 soldiers are not subject to worldwide assignment short of mobilization. They may, however, be involuntarily reassigned within a state's boundaries and voluntarily reassigned interstate. In each of the past three years, 7 percent of Title 32 AGR soldiers have made permanent change of station moves. This has ensured personnel stability and unit cohesion. The Active Component, responding to Congressional direction to increase soldier stabilization and decrease PCS costs, recently has instituted a four-year stabilization policy. The Army is now evaluating the best time-on-station policy for the AGR force which will balance personnel management considerations with continuity of expertise and unit cohesion.

The majority of Title 32 and Title 10 AGR soldiers live and work in areas remote from military installations and are unable to routinely benefit from the support programs and facilities commonly afforded their Active Component counterparts. Routine military benefits, such as commissaries, post exchanges, on-post housing, military medical facilities and military recreational facilities, are virtually unknown to thousands of AGR soldiers serving in civilian communities across the nation. The 1983 AGR survey revealed that 47 percent of AGR soldiers lived more than 50 miles from the nearest active military installation. The FY 87 ARNG full-time support evaluation reports indicate the average ARNG AGR soldier resides 112.5 miles from a military facility.

All Title 32 AGR soldiers and most Title 10 AGR soldiers, in addition to working a standard 5-day week, must attend weekend drills, administrative work-nights and annual training with their ARNG or USAR unit at no additional compensation and without compensatory time off. An FY 86 ARNG AGR evaluation revealed the average workweek to be 51.0 hours, not including weekend drills or overseas deployments. USAR AGR soldiers work equally long hours.

> In that the demands on AGR soldiers are comparable to those of their Active component counterparts, and because of the need to maintain a quality force intimately knowledgeable of Reserve Component matters, and the deleterious effect of separating the AGR force from the Total Army policy, it is essential to maintain comparable compensation and benefit programs.

Navy Policies and Perspectives

Conditions of service for full-time active duty members of the Naval Reserve are quite similar to those for members of the active Navy.[7] The TAR force, which is the largest segment of the Navy's AGR population, plays a major role in the readiness of the Naval Reserve. In March 1987, Vice Admiral Kempf, then Director of Naval Reserve, summed up the Navy's perspective during congressional testimony:

> Navy TARs are unique in the Armed Forces. They are Reservists on full-time active duty whose job is to administer and train our drilling reservists. They are career military personnel who are in most cases indistinguishable from their regular component colleagues. TARs experience the usual Navy permanent change of station (PCS) moves, are on call seven days a week, and perform the same tasks as their regular Navy counterparts. At any given time, approximately one out of five TAR officers is serving with an active component activity, most as integral parts of the crews of active component ships or aircraft squadrons. Naval Reserve ships -- with TARs comprising the majority of their active duty manning -- are at sea about three fourths as often as active force ships operating from CONUS bases. TARs in our aircraft squadrons receive the same training and meet the same standards as active force personnel. They operate from coast to coast, deploy briefly aboard carriers, and -- in the case of patrol and transport squadrons -- deploy for short periods overseas to fly operational missions for the Navy.[8]

Navy manuals specify the following policies, which shape the conditions of service for full-time reservists:[9]

- TAR officers will be assigned to billets in the operating forces and elements other than the reserve complex for normal tours of duty, in order that Naval Reserve training may reflect current fleet practices. After such rotation, TAR officers normally are returned to reserve program billets to use their experience in the training of members of the Naval Reserve. When practicable, regular Navy officers replace TAR officers who have been rotated to

fleet assignments to further integrate the reserve program with the regular Navy. A tour of duty in a reserve program billet may not necessarily be followed by a tour in fleet assignments; instead, TAR officers may be reassigned within the Naval Reserve Program.

- In order to maintain a high level of operational experience in the program, TAR warfare officers in all grades follow a sea/shore rotation comparable to their USN contemporaries. TAR officers who are not warfare-qualified, but who possess designated subspecialties or significant experience in critical areas of management, are assigned to either a reserve or active component billet to best use their expertise. TAR officers assigned to USN shore billets must meet all billet requirements, including commanding officer and executive officer screening.

- Enlisted TARs are eligible for sea duty, overseas assignments, deployments, Class "A" schools, and general assignment with the active component upon request. They are informed specifically on TAR program entry that they will be subject to completion of 48 months (or 72 months in some cases) of obligated service, weekend work, possible extended separations from family (shipboard duty, air squadron deployments, carrier qualifications), and a lack of special medical facilities at remote locations. Assignments range from two to four years between PCS, with reassignments dictated by critical needs of the service.

Marine Corps Policies and Perspectives

Although the Marine Corps recognizes the possibility of retirement qualification with 20 or more years of active service for those most qualified, the Corps does not consider its full-time support (FTS) program to be a career program. Consequently, assignments are managed by bringing qualified Marine reservists to active duty for tours of one to five years. Requirements are generally filled by selection boards from a list of applicants. PCS reassignments during a tour are made only in special cases, such as promotion or change in position/skill requirements. Most Marine Corps FTS members serve with reserve units, as reserve recruiters, or on statutory tours.[10]

Air Force Policies and Perspectives

The Air Force Reserve AGR force is small (just over 600 members) because all full-time support positions in units are manned by military technicians. AGRs are normally assigned only to statutory tour billets at the seat of government or in major Air Force command headquarters, or as reserve recruiters. On the other hand, the Air National Guard's AGR force numbered just

over 7,000 members in FY 1986, with most serving in Guard units. The Air National Guard has used the AGR program from its inception in FY 1979 to provide the growth and flexibility in full-time manning needed to respond to changes in forces, missions, and equipment. Use of AGR's assists in the achievement of very high levels of combat readiness. National Guard Bureau analyses indicate that AGR compensation levels play an important role in maintaining effectiveness in the Air National Guard full-time support program.[11]

Comparison of Conditions of Service - Member Perceptions

The comparison in the previous section provides a general overview from a policy perspective. In contrast, the objective comparisons that follow measure the impact of policies on the individual in physical terms such as frequency of moves, as well as in attitudinal terms such as satisfaction with frequency of moves.

Survey and Supporting Data Analysis

The 1985 Member Survey and the 1986 AGR Survey offer a rich source of data on personal background, attitudes, and career plans for full-time active and reserve component military members. This data is a significant new source of information. In addition to providing fresh insights, it establishes a baseline from which trends may be measured in the future. Supporting data for this analysis was also provided by the Defense Manpower Data Center from RCCPDS and active component data files. Since the wording of most of the survey questions is identical in the 1985 and 1986 survey instruments, meaningful comparisons can be made between full-time active component members and reserve component members. The 6th QRMC evaluated all questions in the survey that might provide insights on relative conditions between active component service and full-time reserve component service. Where possible, potential reasons for differences are identified, and their significance is discussed along with the data for each subject.

Career Status

The first question evaluated was asked only of AGRs and TARs. The question read, "Do you have career status in the AGR/TAR program?" The responses are thought to be significant because they indicate a member's outlook on career earnings both while in the military and after retirement. Although interpretation of this question could vary, responses are most likely based on members' assessments of their ability to accumulate 20 years of active service in the reserve program and therefore qualify for

active duty retirement. The different management approaches of the six reserve components surveyed are reflected in the responses to this career status question.[12]

Tables 3-1 and 3-2 show AGR/TAR member responses for officer and enlisted categories, respectively:

Table 3-1. Do You Have Career Status in the AGR Program? - Officers (Percent responding by component)

Reserve Component	Population	% Yes	% No	% Don't Know
ARNG	2,938	46	15	38
USAR	3,015	49	21	30
USNR	1,814	80	10	8
USMCR	225	16	58	24
ANG	1,065	57	10	30
USAFR	164	20	80	0

Source: 1986 AGR Survey (Question 016)

Table 3-2. Do You Have Career Status in the AGR Program? - Enlisted (Percent responding by component)

Reserve Component	Population	% Yes	% No	% Don't Know
ARNG	17,241	58	12	28
USAR	7,713	56	11	32
USNR	15,793	62	16	22
USMCR	1,045	36	24	40
ANG	5,743	62	8	29
USAFR	426	38	11	46

Source: 1986 AGR Survey (Question E17)

Several differences emerge among components. Although the affirmative responses of Army Reserve and Army National Guard members are nearly identical for both officer and enlisted members, there are significant contrasts between other components. Overall, both tables show that the Naval Reserve and Air National Guard have the most members who believe they have career status. The Marine Corps Reserve has the least, followed closely by the Air Force Reserve. Naval Reserve officers had the highest overall percentage (80 percent) while Marine Corps Reserve officers had the lowest (16 percent).

To isolate the effect of the amount of active service performed, Tables 3-3 and 3-4 separate members into groups by years of active service: 0 to 5 years, 6 to 10 years, etc. Years of active service in this case reflects a combination of active duty time in an active component and active duty time performed as an AGR/TAR.

Table 3-3. Do You Have Career Status in the AGR Program? - Officers
(Percent responding "YES" by component and YOS groupings)

Years of Active Service	ARNG		USAR		USNR		USMCR		ANG		USAFR	
	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.
0- 5	39	1,437	28	983	47	165	36	24	71	223	0	22
6-10	50	1,047	55	1,011	71	656	17	86	55	416	0	11
11-15	62	326	60	731	80	377	4	81	51	309	15	76
16-18	50	64	73	159	94	24	18	18	100	66	50	44
19+	67	48	75	116	100	375	48	13	0	53	0	11

Source: 1986 AGR Survey (Questions 12 and 16)

Table 3-4. Do You Have Career Status in the AGR Program? - Enlisted
(Percent responding "YES" by component and YOS groupings)

Years of Reserve Service	ARNG		USAR		USNR		USMCR		ANG		USAFR	
	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.
0- 5	55	8,874	39	2,464	30	5,723	35	589	58	2,733	33	81
6-10	57	5,839	60	3,819	63	4,143	35	366	65	1,871	20	151
11-15	67	1,843	71	946	91	3,441	50	60	62	846	66	133
16-18	77	481	82	354	95	1,431	50	19	88	199	33	45
19+	100	139	67	62	93	915	0	10	83	70	0	15

Source: 1986 AGR Survey (Questions 12 and 17)

The general trend, as one might expect, is for the number of positive responses to vary in direct proportion to the number of years of active service. However, there are minor exceptions, most notably among Marine Corps Reserve officer members in the group with zero to five years of service, 36 percent of whom believe they have career status. This percentage declines to a significantly low 4 percent for those in the group with 11 to 15 years of service and then increases to a relatively low 48 percent for those in the group with 19 or more years of active

service. Also notable are Air Force Reserve officer members (recruiters) with 0 to 10 years of service. No members in this group believe they have career status in the full-time program. Naval Reserve officers and enlisted members show a steady increase with a relatively high overall percentage who believe they have career status. Finally, the percentage of Air National Guard officer members in the group with zero to five years of service is relatively high: 71 percent.

Satisfaction with Pay and Allowances

The next survey question dealt with satisfaction with pay and allowances. The responses to this question are thought to be significant because they directly communicate member attitudes toward current levels of compensation. Active component and full-time reserve members were asked to indicate their level of satisfaction or dissatisfaction with a number of issues, including pay and allowances. The spectrum of five possible responses ranged from Very Satisfied, Satisfied, Neither, Dissatisfied, and Very Dissatisfied. Tables 3-5 through 3-8 divide the responses by component and compare full-time reserve members with their active component counterparts. For example, the responses of Naval Reserve (USNR) (AGR/TAR) members are compared with the responses of active component (USN) members. (In this and subsequent comparisons dealing with levels of satisfaction, percent satisfied represents the sum of those responding very satisfied plus those responding satisfied. Percent dissatisfied is calculated in a similar manner.

Table 3-5. Satisfaction with Pay and Allowances - Army

	Satisfied						Dissatisfied		
	USA		ARNG		USAR		USA	ARNG	USAR
Grade	%	Pop.	%	Pop.	%	Pop.	%	%	%
E1-E4	29	279,719	59	1,990	70	68	40	17	0
E5-E7	29	253,410	65	13,858	63	6,596	42	14	15
E8-E9	35	22,645	63	1,358	56	988	39	12	17
W1-W4	25	13,327	76	604	76	407	51	11	17
O1-O3	54	47,714	78	1,079	74	938	23	7	13
O4-O6	54	37,409	78	1,255	78	1,670	24	5	11

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

Table 3-6. Satisfaction with Pay and Allowances - Navy

	Satisfied				Dissatisfied	
	USN		USNR		USN	USNR
Grade	%	Pop.	%	Pop.	%	%
E1-E4	24	188,875	22	4,983	45	46
E5-E7	25	210,962	24	10,240	47	49
E8-E9	36	16,611	35	570	38	38
O1-O3	56	36,685	64	600	22	5
O4-O6	53	25,016	53	1,214	24	24

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

Table 3-7. Satisfaction with Pay and Allowances - Marine Corps

	Satisfied				Dissatisfied	
	USMC		USMCR		USMC	USMCR
Grade	%	Pop.	%	Pop.	%	%
E1-E4	29	89,980	57	120	40	26
E5-E7	33	50,271	66	896	39	16
E8-E9	39	5,749	100	29	38	0
W1-W4	44	1,376	93	45	36	0
O1-O3	59	12,071	51	49	18	11
O4-O6	54	6,063	67	130	22	10

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

As in the question dealing with career status, the responses to this question show some general trends, and they also show a diversity between reserve and active component members. One general trend that emerges is the increase in satisfaction level as the pay grade gets higher. A notable exception to this trend occurs, however, with Army Reserve enlisted members. For this group, the percentage of satisfied members actually decreases as the pay grade gets higher. Another general trend indicated by the responses is that a higher percentage of full-time reserve members are satisfied with pay and allowances than are their counterparts in the active component. The percentage of Army Reserve and Air National Guard AGRs who responded that they were

Table 3-8. Satisfaction with Pay and Allowances - Air Force

	Satisfied						Dissatisfied		
	USAF		ANG		USAFR		USAF	ANG	USAFR
Grade	%	Pop.	%	Pop.	%	Pop.	%	%	%
E1-E4	28	215,205	44	450	-	0	42	22	-
E5-E7	22	204,130	59	5,000	66	320	54	18	12
E8-E9	30	14,735	65	269	57	106	49	9	0
O1-O3	52	61,037	76	387	-	0	25	13	-
O4-O6	47	38,810	80	666	87	164	29	9	0

Source: 1985 Member Survey & 1986 AGR Survey
(Questions AC-105 and AC-109; RC-99 and RC-100)

satisfied is nearly twice as high as the percentage for Army active component members. The exception to this trend occurs in the Navy. Here the percent satisfied is almost identical in all pay grades between the active Navy and the Naval Reserve. Additionally, the satisfaction level in the Navy--both for active and reserve component members--is the lowest of all components. The most satisfied group overall seems to be the Air Force Reserve. As in the case of the Army, more Air Force Reserve and Air National Guard members express satisfaction with their pay and allowances than do members of the active component.

Months Separated from Spouse or Dependents

Another measure of the conditions of military service affecting family life is the amount of time that a military member must spend away from spouse or dependents because of service commitments. Both active and reserve member surveys were asked the question: "In the past year, how many months were you separated from your spouse or dependents because of your military assignment? Include extended TDYs and schools." For active and reserve members who have spouses or dependents, the responses were compared and contrasted assuming that the more separation a member endures, the less favorable are the conditions of service. Tables 3-9 through 3-12 compare the responses of reserve AGR members with those of their active duty counterparts. Although members could respond with any number of months, responses have been grouped in ranges of months for ease of presentation.

Table 3-9. Months Separated from Spouse or Dependents in the Last Year - Army (Percent responding by months)

	Officer			Enlisted		
Months	USA %	ARNG %	USAR %	USA %	ARNG %	USAR %
None	22	10	10	21	10	21
< 1	18	20	20	10	21	19
1 - 2	26	43	42	17	43	37
3 - 4	19	20	13	19	19	12
5 - 6	7	4	5	12	4	4
7 - 8	3	1	3	6	1	0
9 - 10	2	0	2	4	1	3
11 - 12	4	2	5	11	2	5

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-66 and AC-69; RC-67 and RC-68)

Table 3-10. Months Separated from Spouse or Dependents in the Last Year - Navy (Percent responding by months)

	Officer		Enlisted	
Months	USN %	USNR %	USN %	USNR %
None	22	19	27	32
< 1	14	20	8	18
1 - 2	16	29	10	21
3 - 4	14	12	12	13
5 - 6	13	5	15	8
7 - 8	10	9	12	3
9 - 10	7	3	7	1
11 - 12	4	3	9	4

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-66 and AC-69; RC-67 and RC-68)

Table 3-11. Months Separated from Spouse or Dependents in the Last Year - Marine Corps (Percent responding by months)

	Officer		Enlisted	
Months	USMC %	USMCR %	USMC %	USMCR %
None	18	18	28	22
< 1	16	30	10	30
1 - 2	24	29	15	23
3 - 4	18	20	15	16
5 - 6	12	0	12	2
7 - 8	6	0	8	2
9 - 10	3	0	4	0
11 - 12	3	1	8	5

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-66 and AC-69; RC-67 and RC-68)

Table 3-12. Months Separated from Spouse or Dependents in the Last Year - Air Force (Percent responding by months)

	Officer			Enlisted		
Months	USAF %	ANG %	USAFR %	USAF %	ANG %	USAFR %
None	20	14	8	38	34	32
< 1	22	28	51	14	33	39
1 - 2	28	47	33	20	25	19
3 - 4	19	10	0	13	6	0
5 - 6	6	0	8	6	0	5
7 - 8	3	0	0	2	0	0
9 - 10	1	1	0	2	1	5
11 - 12	2	0	0	5	1	0

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-66 and AC-69; RC-67 and RC-68)

These tables show that, even when compared with active component members, a large percentage of AGR/TARs spend a significant amount of time away from their families. Active component members have longer separations, but AGRs in the Army's reserve components have more separations of periods up to four months. When comparing the reserve and active component members the greatest disparities in this area occur in the Air Force Reserve, the Air National Guard, and the Marine Corps

Reserve. Once again, Naval Reserve members are most similar to their active component counterparts. As Table 3-10 shows, active component members in the Navy are separated from their families only slightly more than are Naval Reserve members.

The final comparison in months separated from families was made between Naval Reserve AGR members and active component members of the Air Force and as shown in Table 3-13.

This comparison shows that Naval Reserve AGR/TAR members are separated from their spouses or dependents in a pattern very similar to that of active component Air Force members. This illustrates the difficulty that would be encountered should it be thought feasible to develop a separate compensation system for AGR members. In this case, comparisons can be made to show that certain groups of full-time reservists endure more separation from their families than corresponding groups in the active component in other services.

Table 3-13. Months Separated from Spouse or Dependents in the Last Year - USAF/Naval Reserve (Percent responding by months)

	Officer		Enlisted	
	USAF	USNR	USAF	USNR
Months	%	%	%	%
None	20	19	38	32
< 1	22	20	14	18
1 - 2	28	29	20	21
3 - 4	19	12	13	13
5 - 6	6	5	6	8
7 - 8	3	9	2	3
9 - 10	1	3	2	1
11 - 12	2	3	5	4

Source 1985 Member Survey & 1986 AGR Survey
(Questions: AC-66 and AC-69; RC-67 and RC-68)

Permanent Change-of-Station Moves

As pointed out in the introduction, one of the hardships most frequently mentioned in connection with military life is the relatively high (compared with the private sector) number of times that a full-time military member must relocate because of change-of-duty assignments and the involuntary nature of the relocation. Although the member is partially reimbursed for the many expenses incurred, PCS moves are expensive and burdensome, a source of anxiety for individuals, and disruptive to family

life. Computing meaningful PCS data comparisons required analysis of several survey questions. The 1986 RC AGR Survey asked, "In all the time you have been in the FTS-AGR/TAR program, how many times did you move to a new duty location because of your permanent change of station (PCS)? Do not count permanent change of assignment (PCA)." This information was then correlated with another question, on the length of time the member had been in the program, to determine the average years between PCS as an AGR/TAR member. Active component data about the number of moves and years of service was computed from corresponding active component survey questions. The result of these computations is expected number of years between PCS moves for both active component and AGR/TAR categories.

Table 3-14 shows that the frequency of moves for part-time reservists, in every case except for the Navy, is significantly lower than that for their active component counterparts, particularly in the National Guard. Naval Reserve members move much more often than any other full-time reserve member group and only slightly less than active component members.

Table 3-14. Expected Years Between Moves - Active Component/AGR

Component	Officer	Enlisted
USA	1.9	2.2
ARNG	6.8	14.1
USAR	4.1	7.1
USN	2.1	2.4
USNR	2.8	3.9
USMC	1.8	2.1
USMCR	4.8	10.0
USAF	2.2	2.4
ANG	8.7	42.0
USAFR	5.0	3.7

Source: 1985 Member Survey & 1986 AGR Survey (Questions: AC-6, AC-21, and AC-22; RC-13, RC-14, RC-21, and RC-22)

The survey question on satisfaction or dissatisfaction with issues of the military way of life provides information on how members feel about the frequency of moves. Tables 3-15 through 3-18 compare the satisfaction of active component and full-time reservist grade groupings for each Service.

Table 3-15. Satisfaction with Frequency of moves - Army

	Satisfied						Dissatisfied		
	USA		ARNG		USAR		USA	ARNG	USAR
Grade	%	Pop.	%	Pop.	%	Pop.	%	%	%
E1-E4	29	279,719	55	1,990	61	68	19	4	39
E5-E7	35	253,410	63	13,858	52	6,596	32	4	14
E8-E9	44	22,645	75	1,358	44	988	34	1	13
W1-W4	35	13,327	68	604	67	407	38	5	7
O1-O3	45	47,714	57	1,079	54	938	24	5	20
O4-O6	40	37,409	65	1,255	63	1,670	36	7	16

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

Table 3-16. Satisfaction with Frequency of Moves - Navy

	Satisfied				Dissatisfied	
	USN		USNR		USN	USNR
Grade	%	Pop.	%	Pop.	%	%
E1-E4	28	188,875	28	4,983	20	7
E5-E7	35	210,962	46	10,240	27	22
E8-E9	44	16,611	50	570	29	30
O1-O3	38	36,685	30	600	31	41
O4-O6	35	25,016	35	1,214	38	38

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

Table 3-17. Satisfaction with Frequency of Moves - Marine Corps

	Satisfied				Dissatisfied	
	USMC		USMCR		USMC	USMCR
Grade	%	Pop.	%	Pop.	%	%
E1-E4	32	89,980	41	120	20	0
E5-E7	42	50,271	62	896	24	2
E8-E9	47	5,749	100	29	28	0
W1-W4	52	1,376	61	45	29	0
O1-O3	44	12,071	58	49	23	8
O4-O6	44	6,063	61	130	32	10

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

Table 3-18. Satisfaction with Frequency of Moves - Air Force

	Satisfied						Dissatisfied		
	USAF		ANG		USAR		USAF	ANG	USAFR
Grade	%	Pop.	%	Pop.	%	Pop.	%	%	%
E1-E4	37	215,205	60	450	-	0	15	4	-
E5-E7	46	204,130	71	5,000	61	320	24	2	17
E8-E9	47	14,735	91	269	57	106	30	0	0
O1-O3	46	61,037	81	387	-	0	25	0	-
O4-O6	42	38,810	83	666	73	164	34	2	0

Source: 1985 Member Survey & 1986 AGR Survey
(Questions: AC-105 and AC-109; RC-99 and RC-100)

The preceding tables show that, in general, satisfaction levels are inversely proportional to the frequency of moves. Naval Reserve AGR/TAR officers are actually less satisfied than their active component counterparts. Army component AGRs are more satisfied than their active component counterparts in all pay grade groupings, while Air Guard AGRs show the highest satisfaction levels of all.

Base Support

The lack of base support is often cited as a hardship for full-time members serving at reserve unit locations. Examples are included earlier in this chapter, in the section on institutional policies and perspectives. The thrust of this

issue is that benefits provided on active military installations are either not available or are difficult for full-time support members to obtain because of the distances involved. The 1985 and 1986 surveys provide some attitudinal data on this subject. Additional objective data is contained in RCCPDS and the active component files maintained by the Defense Manpower Data Center (DMDC).

Using data from the DMDC files, distances to the nearest commissary were computed for active component members serving in the continental United States and for AGR/TARs. Computation was done by comparing the member's unit ZIP code (residence ZIP code for Navy and Marine Corps) with the ZIP code for the nearest military commissary. Distance between ZIP code access is used to approximate the distance a member would have to travel for other base support services. The results are shown in Table 3-19. The table groups distances from the nearest commissary into three successively larger mileage ranges and, for each component, shows the cumulative percentage of members who are located within each of these ranges.

Table 3-19. Comparison of Distances to the Nearest Commissary - Active & AGR/TAR (Cumulative percentages)

Component	population	Cumulative % Within Mile Ranges 0 - 10	0 - 25	0 - 50
USA	492,014	95.7	98.3	99.0
ARNG	24,933	20.9	41.1	61.7
USAR	12,302	35.3	57.1	73.1
USN	275,734	92.4	96.7	97.7
USNR	20,491	64.9	72.4	79.6
USMC	152,374	94.6	97.9	99.1
USMCR	1,581	23.7	41.9	86.2
USAF	425,289	96.0	97.3	97.8
ANG	7,455	38.2	56.6	72.0
USAFR	622	83.1	90.7	94.1

Source: DMDC active component files and RCCPDS - June, 1987

As expected, AGR/TARs are much farther away from base support than are their counterparts in the active components. National Guard AGRs are the most remote overall (only 20.9 percent live within 10 miles of base support services) with Marine Corps Reserve members at comparable distances through 25 miles (for both groups, only 41 percent live within 25 miles of base support services) and Army Reserve members next most distant

overall. Naval Reserve members are much more likely to be close to base support than are other full-time members. The one exception is the small number of Air Force Reserve members, but it is important to recall that these members serve in statutory tour or recruiting assignments and not in units.

Current Housing

The type and quality of available housing may have a strong impact on member's views about conditions of service. Some count the availability of military housing as an important benefit that allows them to take maximum advantage of a military life style. Living in a military community close to associates, work location, and base support facilities does provide attractive advantages. However, others prefer life in a civilian community for a variety of reasons including its diversity or the opportunity for home ownership.

The 1985 Member Survey and 1986 AGR Survey asked members to indicate the nature of housing in which they were living:

- Military housing
- Owned or being bought by the member or someone in the member's household
- Rented for cash
- Owned by someone else and let without payment of cash rent

Responses to this question were analyzed to show the differences in current housing among AGR/TAR members and active members. Component, category as an officer or enlisted member, pay grade as an indicator of career stage, and marital status were all thought to be strongly associated with housing patterns; thus, these factors were included in the analysis. The results are displayed below in Tables 3-20 through 3-27. Each table depicts marital status by component on the horizontal axis and responses by pay grade groupings on the vertical axis. By reading down in any column, results can be viewed for population groupings within a single component. By reading across in any row, results for like population groupings can be compared across components. For each population grouping, responses to the four options presented in the housing question are expressed as percents in columnar format with population size in numbers of individuals at the bottom.

Table 3-20. AGR/TAR and Active Component Housing: Army - Enlisted

Category	Single			Married		
	USA %	ARNG %	USAR %	USA %	ARNG %	USAR %
E1-E4: Military Qtrs	83.6	-	-	32.1	4.0	30.3
Own/Buying	0.6	29.0	-	4.6	45.0	-
Renting	8.6	62.8	-	57.7	48.7	69.7
Living Free	1.2	6.8	-	1.2	3.3	-
Population Size	166,543	894	0	13,176	1,096	68
E5-E7: Military Qtrs	53.3	0.5	6.1	51.5	2.5	8.4
Own/Buying	5.1	34.9	26.4	14.2	75.5	59.0
Renting	34.6	59.3	61.5	30.8	20.8	32.6
Living Free	1.4	2.5	4.7	0.9	0.2	-
Population Size	49,600	2,635	1,609	203,810	11,223	4,987
E8-E9: Military Qtrs	27.1	-	13.5	43.9	4.5	20.0
Own/Buying	23.9	41.7	28.1	36.0	79.8	50.1
Renting	47.0	58.3	58.5	18.0	13.3	27.4
Living Free	-	-	-	0.4	-	-
Population Size	1,599	74	154	21,045	1,284	834
E1-E9: Military Qtrs	76.2	0.3	6.7	44.6	2.8	10.3
Own/Buying	1.8	33.5	26.5	12.3	73.4	57.0
Renting	14.8	60.2	61.2	39.0	22.4	32.3
Living Free	1.2	3.5	4.3	1.0	0.4	-
Population Size	217,742	3,603	1,763	338,031	13,604	5,889

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-18 and RC-94)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-21. AGR/TAR and Active Component Housing: Army - Officer

Category	Single USA %	Single ARNG %	Single USAR %	Married USA %	Married ARNG %	Married USAR %
W1-W4: Military Qtrs	28.8	-	-	49.5	-	8.2
Own/Buying	28.9	23.4	60.1	33.3	88.6	58.8
Renting	40.7	76.6	40.0	17.2	11.4	24.7
Living Free	1.6	-	-	-	-	-
Population Size	1,504	44	55	11,823	559	352
01-03: Military Qtrs	22.1	-	7.4	41.6	4.0	16.6
Own/Buying	15.2	26.1	41.4	26.9	76.3	56.1
Renting	60.2	67.7	51.2	30.0	19.7	27.4
Living Free	1.1	-	-	0.3	-	-
Population Size	14,824	286	151	32,890	793	786
04-06: Military Qtrs	26.4	-	10.4	38.2	6.2	6.5
Own/Buying	34.0	38.9	43.0	41.3	71.4	70.7
Renting	37.3	61.1	46.6	19.1	20.0	21.9
Living Free	-	-	-	0.4	-	-
Population Size	3,266	76	213	34,143	1,180	1,457
W1-06: Military Qtrs	23.3	-	7.9	41.3	4.1	9.8
Own/Buying	19.5	28.2	44.7	34.1	76.7	64.6
Renting	54.9	67.4	47.4	24.0	18.0	23.9
Living Free	1.0	-	-	0.3	-	-
Population Size	19,594	406	419	78,856	2,532	2,595

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-19 and RC-93)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-22. AGR/TAR and Active Component Housing: Navy - Enlisted

Category	Single		Married	
	USN %	USNR %	USN %	USNR %
E1-E4: Military Qtrs	64.3	58.7	26.2	29.3
Own/Buying	1.9	4.4	7.0	11.9
Renting	23.2	30.0	61.0	50.0
Living Free	2.3	0.7	2.4	1.2
Population Size	131,141	3,189	57,734	1,793
E5-E7: Military Qtrs	39.8	17.4	34.3	32.7
Own/Buying	8.1	14.3	26.5	35.4
Renting	45.3	64.8	36.1	31.9
Living Free	1.2	-	0.8	-
Population Size	61,059	1,905	149,903	8,335
E8-E9: Military Qtrs	29.2	-	25.0	25.0
Own/Buying	33.5	-	57.9	62.5
Renting	35.3	100.0	16.3	8.3
Living Free	-	-	0.2	-
Population Size	1,179	49.0	15,432	522
E1-E9: Military Qtrs	56.4	42.9	31.6	31.7
Own/Buying	4.0	8.0	23.6	32.8
Renting	30.2	43.5	41.2	33.8
Living Free	1.9	0.4	1.2	0.2
Population Size	193,379	5,143	223,069	10,650

Source: 1985 Member Survey and 1986 AGR Survey (Questions AC-18 and RC-94)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-23. AGR/TAR and Active Component Housing: Navy - Officers

Category	Single		Married	
	USN %	USNR %	USN %	USNR %
01-03: Military Qtrs	12.1	-	27.3	24.8
Own/Buying	19.4	19.6	40.9	47.5
Renting	65.7	80.4	30.7	27.7
Living Free	0.9	-	0.2	-
Population Size	14,326	187	22,358	413
04-06: Military Qtrs	13.5	-	20.4	12.3
Own/Buying	47.2	61.4	59.2	68.9
Renting	37.5	38.6	19.0	17.7
Living Free	1.6	-	0.4	1.2
Population Size	3,266	66	21,749	1,148
01-06: Military Qtrs	12.3	-	23.9	15.6
Own/Buying	24.6	30.5	50.0	63.2
Renting	60.5	69.5	24.9	20.3
Living Free	0.9	-	0.3	0.9
Population Size	17,592	253	44,107	1,561

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-19 and RC-93)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-24. AGR/TAR and Active Component Housing: Marine Corps - Enlisted

Category	Single		Married	
	USMC %	USMCR %	USMC %	USMCR %
E1-E4: Military Qtrs	86.2	31.3	31.3	-
Own/Buying	1.0	-	7.9	50.0
Renting	7.4	68.8	56.2	50.0
Living Free	0.9	-	2.1	-
Population Size	61,958	101	28,022	19
E5-E7: Military Qtrs	47.7	17.4	39.1	14.8
Own/Buying	6.0	29.2	21.5	46.0
Renting	41.2	35.8	36.8	39.2
Living Free	1.5	3.0	0.8	-
Population Size	11,611	34[illegible]	38,660	550
E8-E9: Military Qtrs	2[illegible].9	-	35.3	33.3
Own/Buying	26.9	-	41.1	66.7
Renting	39.1	-	22.1	-
Living Free	3.9	-	0.7	-
Population Size	463	0	5,286	29
E1-E9: Military Qtrs	79.8	20.5	35.8	15.2
Own/Buying	2.0	22.6	17.7	47.2
Renting	12.9	43.3	43.3	37.6
Living Free	1.0	2.4	1.3	-
Population Size	74,032	447	71,968	598

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-18 and RC-94)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-25. AGR/TAR and Active Component Housing: Marine Corps - Officers

Category	Single		Married	
	USMC %	USMCR %	USMC %	USMCR %
W1-W4: Military Qtrs	32.5	-	45.0	3.8
Own/Buying	23.6	-	36.1	80.2
Renting	43.9	100.0	18.4	16.0
Living Free	-	-	-	-
Population Size	147	6	1,228	40
O1-O3: Military Qtrs	28.4	-	32.2	21.0
Own/Buying	17.5	50.0	37.0	37.0
Renting	51.9	50.0	29.1	42.0
Living Free	0.7	-	0.6	-
Population Size	4,191	18	7,880	30
O4-O6: Military Qtrs	22.5	-	30.7	8.9
Own/Buying	35.5	49.6	53.9	69.8
Renting	40.9	50.4	14.5	21.3
Living Free	-	-	0.1	-
Population Size	507	23	5,556	107
W1-O6: Military Qtrs	27.9	-	32.7	9.8
Own/Buying	19.6	43.8	43.3	66.5
Renting	50.5	56.2	22.6	23.7
Living Free	0.6	-	0.4	-
Population Size	4,845	47	14,664	177

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-19 and RC-93)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-26. AGR/TAR and Active Component Housing: Air Force - Enlisted

Category	Single			Married		
	USAF %	ANG %	USAFR %	USAF %	ANG %	USAFR %
E1-E4: Military Qtrs	70.0	-	-	30.5	-	-
Own/Buying	1.7	23.7	-	8.6	55.2	-
Renting	25.4	76.3	-	58.0	33.1	-
Living Free	0.9	-	-	0.8	6.7	-
Population Size	110,726	207	0	104,479	243	0
E5-E7: Military Qtrs	29.5	3.1	27.5	49.2	3.1	52.1
Own/Buying	12.3	49.1	27.5	24.1	81.9	29.8
Renting	55.0	46.7	45.0	25.2	14.2	18.2
Living Free	0.9	1.0	-	0.5	0.9	-
Population Size	35,128	1,152	87	169,002	3,849	233
E8-E9: Military Qtrs	20.2	-	-	43.9	13.6	42.9
Own/Buying	26.5	100.0	-	37.1	77.3	57.1
Renting	53.3	-	-	17.4	9.1	-
Living Free	-	-	-	0.2	-	-
Population Size	924	12	0	13,811	257	106
E1-E9: Military Qtrs	60.0	2.6	27.5	42.1	3.5	49.2
Own/Buying	4.4	45.7	27.5	19.1	80.1	38.4
Renting	32.7	50.8	45.0	36.7	15.0	12.5
Living Free	0.9	0.9	-	0.6	1.2	-
Population Size	146,778	1,371	87	287,292	4,349	339

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-18 and RC-94)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

Table 3-27. AGR/TAR and Active Component Housing: Air Force - Officers

Category	Single			Married		
	USAF %	ANG %	USAFR %	USAF %	ANG %	USAFR %
01-03: Military Qtrs	11.1	-	-	33.4	-	-
Own/Buying	21.9	37.4	-	39.6	87.4	-
Renting	65.4	62.6	-	26.1	12.6	-
Living Free	1.2	-	-	0.3	-	-
Population Size	17,566	73	0	43,471	314	0
04-06: Military Qtrs	9.4	-	-	24.0	4.0	14.4
Own/Buying	53.5	100.0	-	55.3	90.0	63.9
Renting	35.9	-	100.0	19.6	6.0	21.6
Living Free	0.6	-	-	0.1	-	-
Population Size	3,473	6	11	35,337	659	153
01-06: Military Qtrs	10.8	-	-	29.2	2.7	14.4
Own/Buying	27.1	42.3	-	46.6	89.2	63.9
Renting	60.5	57.7	100.0	23.1	8.1	21.6
Living Free	1.1	-	-	0.2	-	-
Population Size	21,039	79	11	78,808	973	153

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-19 and RC-93)
Note: Percentages for each pay grade grouping may not total 100% due to blank answers or missing data.

These tables show that the majority of active component members live in military quarters or rental housing. This is especially true for single members. On the other hand, AGR/TAR members show a relatively high percentage of home ownership. These patterns appear to correlate with the higher rate of permanent change of station moves among the active component members and with their greater access to military housing as well.

While the data is not conclusive, there is some indication that military housing, when available, is attractive for AGRs and TARs. For example, most TAR and Army Reserve, Marine Corps Reserve, and Air Force Reserve AGR population groupings have greater percentages of members living in military quarters than the National Guard AGR population groupings. The implication is that, since the former groups generally have greater access to military housing, they may choose it over other alternatives. In addition, contrary to the general pattern, a decrease in home

ownership and a corresponding increase in military quarters percentages exists as pay grade increases among the following married population groups:

- Army National Guard O4-O6 (As compared with O1-O3)
- Army Reserve E8-E9 (As compared with E5-E7)
- Air National Guard E8-E9 (As compared with E5-E7)

As with the previous conditions of service comparisons made in this chapter, the closest correlation between active component and full-time support members within a single service can be found between active component members of the Navy and Naval Reserve AGR/TAR members, and the least correlation can be found between National Guard AGRs and their active component counterparts. It is also significant that, as in previous comparisons, wide fluctuations exist between full-time support population groupings in the three significant housing categories:

- **Military quarters** use ranges from zero in many groups to a high of 58.7 percent for E1-E4 enlisted TARs.
- **Owning or buying** ranges from zero in many groups to a high of 90 percent for O4-O6 married Air National Guard AGRs.
- **Renting** ranges from zero in two small groups to a high of 60 - 100 percent in several groups.

Comparison of Compensation Elements

Except for the four technical and structural differences reviewed in the next section, all compensation elements for AGR/TARs and active component members were found to be essentially identical. Compensation elements compared include the following:[13]

- Basic pay
- Basic allowance for quarters (BAQ)
- Variable housing allowance (VHA) (or overseas station housing allowance (OHA))
- Basic allowance for subsistence (BAS)
- Federal income tax advantage (for the above nontaxable allowances)
- Special and incentive (S&I) pays
- Retirement pays and benefits
- Separation pays and related post-service benefits
- Supporting benefits
- Related compensation items: veterans benefits and reimbursements

The first five items on this list constitute "regular military compensation" as defined by section 101(25) of title 37, United States Code.

Elements of Regular Military Compensation

Equal entitlement to basic pay is provided for in section 204(a) of title 37, United States Code. Entitlement to allowances, which are the remaining cash elements of regular military compensation, derives from entitlement to basic pay as set forth in sections 402(a), 403(a), 403a, and 406(b) of the same title; therefore, entitlement to allowances is also equal for AGR/TAR and active component members. Since the federal income tax advantage is derived from these allowances, it too is equal for both groups.

Special and Incentive Pays

Twenty-nine special and three incentive pays are currently authorized in chapter 5 of title 37, United States Code. Although the number of these pays is large, entitlement is situational in that it is tied to a special duty or set of circumstances. Most members qualify for only a small number of these pays, or possibly none of them, during the course of a career. Within the law itself, there are generally no compensation distinctions made between AGR/TARs and active component members except for enlistment and reenlistment bonuses. AGR/TARs are not currently authorized any enlistment or reenlistment bonuses as a result of policy determination, and certain of these bonuses are provided only to members of a regular (or a reserve) component. On the other hand, both regular members and part-time reservists may be authorized enlistment and reenlistment bonuses. For example, reenlistment bonus figures for FY 1986 are shown below in Table 3-28. AGR/TAR selective reenlistment bonuses are addressed later in this chapter.

Retirement Pays

There are two types of retirement systems for regular and other active duty members: disability and nondisability. Generally, regular and reserve commissioned officers, warrant officers, and enlisted members may be retired under the nondisability retirement system after 20 years and with not more than 30 years of active service.[14] Authorities and computation procedures for nondisability retirement are covered in various sections of the law according to circumstance, service, pay grade, or component. Despite this somewhat complex arrangement, the retired pay of AGR/TARs and active component members of the same service, grade, and length of service is the same.

Table 3-28. Reenlistment Bonus Comparison for FY 1986

Component	Bonus Recipients # of People	Total Amount $ Millions
USA	63,455	140.5
USAR	40,642	9.6
ARNG	79,045	23.0
USN	89,020	253.8
USNR	11,535	2.6
USMC	31,843	80.8
USMCR	2,931	.8
USAF	83,687	79.4
ANG	18,116	2.4
USAFR	4,995	1.5

Source: Justification of Estimates for the President's Budget for FY 1988

Notes: Data includes new and anniversary payments. Reserve component entries reflect part-time members only; AGR/TAR members received no bonuses for service in that status.

Disability retirement is also the same and may be authorized for regulars and other members on active duty for more than 30 days, according to criteria specified in section 1201 of title 10, United States Code.

Separation Pays and Related Postservice Benefits

Separation pays include nondisability separation pay and disability separation pay. Unemployment compensation for ex-servicemen is a related benefit. Nondisability separation pay, authorized by section 1174 of title 10, United States Code, is not the same for AGR/TAR and active component members. The differences are addressed later in this chapter. Disability separation pay, authorized by section 1212 of title 10, United States Code, like disability retirement pay, and unemployment compensation benefits authorized by sections 8521-8525 of title 5, United States Code, are essentially the same.

Benefits Specially Applicable to Retired Personnel and Their Dependents

Additional benefits specially applicable to retired personnel and their dependents are also the same for AGR/TARs and active component retirees. These include retired members' medical care under the provisions of sections 1074, 1077, 1078, 1086, 1092, and 1097-1099 of title 10, United States Code; veterans' group life insurance (VGLI) authorized by sections 768 and 777 of title 38, United States Code; the death gratuity authorized by sections 1475-1480 of title 10, United States Code; as well as dependency and indemnity compensation (DIC) authorized by sections 410-417 of title 38, United States Code.

Supporting Benefits

Most supporting benefits, including those applicable to active duty members only as well as those applicable to both active duty and retired members, are also the same for AGR/TARs and active component members. Those applicable to active duty members only include annual leave (covered by sections 701-704 of title 10, United States Code), accrued leave payments (covered by section 501 of title 37, United States Code), payment of FHA mortgage insurance premiums (authorized by section 1715 of title 12, United States Code), and medical care for service members and dependents (authorized in sections 1071-1100 of title 10, United States Code). Those applicable to both active duty and retired members include the government contribution to social security (under the provisions of sections 3101, 3111 and 3121 of title 26, United States Code), the survivor benefit plan (SBP) (authorized by sections 1447-1455 of title 10, United States Code), commissaries (as authorized in various sections of title 10, United States Code), and military exchanges (regulated by DoD and service directives under congressional oversight). One category of supporting benefits, educational assistance, as applicable to AGR/TAR service, is not equal for both groups, and is addressed later in this chapter.

Other Compensation-related Items

Other compensation-related items include a number of benefits and reimbursements. Most are essentially the same for AGR/TARs and active component members; however, certain veterans' benefits are not available to National Guard AGRs serving under title 32, United States Code. These veterans' benefits are addressed later in this chapter. Reimbursements include compensation for such expenses as travel, transportation, clothing, and family separation. There are no major differences in this area.

Compensation for Hardships and Rigorous Conditions of Service

The conclusion that compensation is essentially the same for AGR/TAR and active component members means, in essence, that members of these two groups are paid under essentially the same set of compensation rules. In addition, a review of the compensation elements shows that all of the elements of regular military compensation except VHA/OHA, collectively called "basic military compensation," are equal. However, since many of the remaining elements are paid only under special conditions, the amount of compensation received by members of the same grade and length of service is not necessarily equal.

Compensation elements paid under special conditions often include those paid for enduring rigorous conditions or paid as reimbursement of expenses associated with various hardships of service. They include the following:

- **Variable housing allowance** when assigned to duty in an area of the United States that has been designated a high housing cost area (the overseas station housing allowance fulfills the same function when the member is stationed overseas)
- **Hazardous duty pays** awarded as an incentive to specialize in such hazardous duties as flying duty, carrier flight deck duty, parachute and halo jumping, demolition duty, and air weapons controller duty
- **Special pays** for sea duty, foreign service (certain places pay), diving duty, duty subject to hostile fire or imminent danger, and overseas tour extensions
- **Responsibility pay and special duty assignment pay** for unusual responsibility and extremely demanding duty, respectively
- **Allowances to defray expenses** for cost of living (COLA), interim housing, temporary lodging, evacuation of dependents, family separation, travel and transportation, household goods and trailer movement, dislocation allowance, and per diem

The information provided above shows that the single compensation system now in effect does provide additional pays and allowances to compensate for a number of conditions of service including those most often mentioned in connection with perceptions about AGR/TAR and active component service: change of station moves and family separations caused by remote overseas assignments or deployments aboard ship. While in many cases this compensation amounts to little more than reimbursement for expenses and may otherwise be perceived to be

inadequate, it does have two inherent advantages. First, it is efficient. Rather than paying premiums to or levying penalties against major population categories of military members, such as all AGR/TARs or all active component members, the system pays only those members who actually experience the particular conditions of service for which the compensation is designed. Second, it is more equitable. The system provides equal treatment for those who experience hardships and rigorous conditions, regardless of component. This is an important consideration in supporting the Total Force policy.

Survey Data on Special Monthly Pays and Allowances

The 1985 Member Survey and 1986 AGR Survey asked, "Which of the following special monthly pays and allowances do you currently receive?" The possible responses included, "I don't receive any special monthly pay", a selection of several special pays and allowances (10 on the member survey and 6 on the AGR survey), and a catch-all for all "other special pays and allowances". The response rates are displayed in Tables 3-29 through 3-31. Components are listed on the horizontal axis, the vertical axis shows population size in numbers of individuals and response data in percentages by category of pay or allowance. The 1985 Member Survey included more pays and allowances than the 1986 AGR Survey. These additional categories are included in the tables marked with an asterisk whenever there were positive responses for the service in question.

Table 3-29. Special Pays and Allowances - Army

Population Size	USA	ARNG	USAR
Enlisted	555,774	17,206	7,652
Warrant officers	13,327	604	407
Officers	85,123	2,334	2,608
Special Pays or Allowances	**USA %**	**ARNG %**	**USAR %**
None			
Enlisted	52.6	11.1	10.7
Warrant officers	30.7	7.2	22.3
Officers	39.7	14.7	17.8
VHA			
Enlisted	21.9	80.2	80.7
Warrant officers	32.1	83.9	74.1
Officers	38.5	76.5	81.4

Table 3-29 (Cont'd). Special Pays and Allowances - Army

Special Pays or Allowances	USA %	ARNG %	USAR %
No VHA, but received another pay or allowance			
Enlisted	23.6	7.7	8.3
Warrant officers	37.1	8.9	0
Officers	20.6	8.8	0.9
Jump pay			
Enlisted	8.0	5.1	1.7
Warrant officers	3.7	0	3.6
Officers	3.5	2.4	2.2
Sea pay			
Enlisted	0.2	0	0
Warrant officers	0.7	0	0
Officers	0	0	0
Flight pay			
Enlisted	1.3	0.6	0.3
Warrant officers	42.3	16.3	3.6
Officers	9.9	10.4	2.8
Pro pay			
Enlisted	1.9	18.0	21.4
Warrant officers	0.2	0	0
Officers	5.2	0	0
Rent plus			
Enlisted	7.3	1.8	1.5
Warrant officers	6.9	2.7	0
Officers	6.3	4.5	0.3
Foreign duty pay *			
Enlisted	2.7		
Warrant officers	0.7		
Officers	0.3		
COLA *			
Enlisted	6.4		
Warrant officers	5.7		
Officers	5.2		
OHA *			
Enlisted	0.3		
Warrant officers	0.2		
Officers	0.2		

Table 3-29 (Cont'd). Special Pays and Allowances - Army

Special Pays or Allowances	USA %	ARNG %	USAR %
Other			
Enlisted	4.3	5.4	5.0
Warrant officers	0.5	0	7.1
Officers	4.9	2.1	0.6

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-77 and AC-81; RC-72 and RC-73)
Notes: * indicates choices not listed on the 1986 AGR Survey
VHA - Variable Housing Allowance
COLA - Overseas Cost of Living Allowance
OHA - Overseas Housing Allowance

Table 3-30. Special Pays and Allowances - Navy and Marine Corps

Population Size	USN	USNR	USMC	USMCR
Enlisted	416,449	15,793	146,000	1,045
Warrant officers	3,169	0	1,376	45
Officers	61,701	1,814	18,135	179
Special Pay or Allowances	**USN %**	**USNR %**	**USMC %**	**USMCR %**
None				
Enlisted	30.4	41.3	49.0	15.5
Warrant officers	25.0		37.2	14.2
Officers	16.8	11.8	26.7	13.9
VHA				
Enlisted	37.8	52.3	31.8	75.0
Warrant officers	50.3		47.7	85.8
Officers	58.2	76.5	52.6	77.2
No VHA, but received another pay or allowance				
Enlisted	31.0	4.9	17.6	7.7
Warrant officers	22.8		14.7	0
Officers	24.6	10.9	20.4	7.2
Jump pay				
Enlisted	0.3	0	0.6	0
Warrant officers	0		0.4	0
Officers	0.3	0	0.9	1.8

Table 3-30 (Cont'd). Special Pays and Allowances - Navy and Marine Corps

Special Pay or Allowances	USN %	USNR %	USMC %	USMCR %
Sea pay				
Enlisted	27.5	3.4	1.7	0
Warrant officers	24.7		0.4	0
Officers	9.9	3.3	0.1	0
Flight pay				
Enlisted	3.2	5.9	1.6	3.7
Warrant officers	0		3.9	0
Officers	26.1	42.9	29.7	22.1
Pro pay				
Enlisted	4.2	1.7	3.0	14.8
Warrant officers	0		0	0
Officers	5.6	0	0	0
Rent plus				
Enlisted	2.8	0.5	2.2	0.8
Warrant officers	1.9		3.2	0
Officers	5.3	2.3	4.1	3.5
Submarine pay *				
Enlisted	7.7		0	
Warrant officers	9.5		0	
Officers	9.0		0	
Foreign duty pay *				
Enlisted	4.4		4.9	
Warrant officers	1.3		0.4	
Officers	0.1		0.3	
COLA *				
Enlisted	7.0		7.0	
Warrant officers	7.0		11.1	
Officers	7.0		6.7	
OHA *				
Enlisted	0.2		0.2	
Warrant officers	0.6		0	
Officers	0.4		0.1	

Table 3-30 (Cont'd). Special Pays and Allowances - Navy and Marine Corps

Special Pay or Allowances	USN %	USNR %	USMC %	USMCR %
Other				
Enlisted	6.3	2.8	6.1	7.7
Warrant officers	4.4		3.5	0
Officers	9.7	5.1	3.3	0

Source: 1985 Member Survey and 1986 AGR Survey (Questions: AC-77 and AC-81; RC-72 and RC-73)
Notes: * indicates choices not listed on the 1986 AGR Survey
VHA - Variable Housing Allowance
COLA - Overseas Cost of Living Allowance
OHA - Overseas Housing Allowance

Table 3-31. Special Pays and Allowances - Air Force

Population Size	USAF	ANG	USAFR
Enlisted	434,070	5,719	426
Officers	99,847	1,052	164
Special Pay or Allowances	**USAF %**	**ANG %**	**USAFR %**
None			
Enlisted	46.6	12.4	16.3
Officers	21.8	9.2	0
VHA			
Enlisted	33.9	82.2	65.9
Officers	54.7	84.7	86.5
No VHA, but received another pay or allowance			
Enlisted	18.8	4.4	17.8
Officers	23.0	6.1	13.5
Jump pay			
Enlisted	0.3	2.3	3.6
Officers	0.2	3.1	0
Flight pay			
Enlisted	2.8	1.7	0
Officers	36.1	42.2	47.1

Table 3-31 (Cont'd). Special Pays and Allowances - Air Force

Special Pay or Allowances	USAF %	ANG %	USAFR %
Pro pay			
Enlisted	0.8	7.0	55.4
Officers	3.2	0	6.7
Rent plus			
Enlisted	7.4	3.2	0
Officers	4.6	2.5	0
Foreign duty pay *			
Enlisted	7.5		
Officers	0.1		
COLA *			
Enlisted	7.8		
Officers	5.0		
OHA *			
Enlisted	0.4		
Officers	0.3		
Other			
Enlisted	2.9	1.6	3.6
Officers	3.9	1.3	0

Source: 1985 Member Survey (#77, 81); 1986 AGR Survey (#72, 73)
Notes: * indicates choices not listed on the 1986 AGR Survey
VHA - Variable Housing Allowance
COLA - Overseas Cost of Living Allowance
OHA - Overseas Housing Allowance

With the exception of enlisted TARs, the member groups with the greatest percentages responding "I don't receive any special monthly pays" were the active component groups. This is because most AGRs do not have access to military housing, and must live outside military installations in high cost housing areas. As indicated in Table 3-22, a large number of TAR enlisted members live in military housing. The response rates in the remaining categories, including "Didn't receive VHA, but received another pay or allowance", show the relative rates for members who do not draw VHA. The rates for pro pay, now "special duty assignment pay" reflect the use of AGRs as recruiters, most of

whom draw recruiting duty pay. For example, 55.4 percent of Air Force Reserve enlisted AGRs indicated that they received pro pay, and approximately 65 percent of them are recruiters (See Table 2-1). In addition, except in the Marine Corps, the AGR and TAR officer rates for flight pay are higher than those of their active component counterparts. However, the survey question did not differentiate between the various flight pay categories authorized in chapter 5 of title 37, United States Code: hazardous duty incentive pay (section 301), aviation career incentive pay (section 301(a)), and special pay for aviation career officers extending their period of active duty (section 301(b)). Consequently, the responses include career incentives and do not necessarily reflect the relative amount of current flying duty performed. With these exceptions, active component members generally draw special monthly pays and allowances at higher rates than AGRs and TARs.

Technical and Structural Issues

The 6th QRMC Staff identified several compensation elements that are applied differently for the active and reserve components. These were reviewed as separate technical or structural issues, and appropriate recommendations have been prepared for each of them. A summary of each issue and its corresponding recommendation follows. Copies of the more detailed decision papers prepared for consideration by the 6th QRMC Steering Committee and Coordination Council are included in the QRMC Work Papers in Volume 1D of the QRMC report.

Veterans' Administration Benefits for Title 32 AGR Members

Of the approximately 65,000 AGR members serving on full-time active duty in support of National Guard and Reserve units and missions, there are for FY 1987 some 27,000 members of the Army National Guard and Air National Guard who serve on full-time National Guard duty under section 502(f) of title 32, United States Code ("title 32 AGRs"). The remaining AGR members, including additional National Guard members in federal service as well as members of the Army Reserve and Air Force Reserve, are ordered to duty under title 10, United States Code ("title 10 AGRs") as described in Chapter 2. Title 32 AGRs are considered, for compensation purposes, to be serving on active duty. For purposes of title 38 (veterans' benefits), however, this duty is considered active duty for training. As a result, approximately 43 percent of all AGRs serve in a status in which they cannot qualify as veterans, and in which their reemployment rights are determined on a different basis from those of the rest of the AGR force.

Title 32 AGRs are authorized to be on full-time National Guard duty for the purpose of organizing, administering, recruiting, instructing, or training the National Guard. In this segment of the AGR program, members of the Guard are placed on full-time duty to support the Army National Guard and the Air National Guard in performing their federal mission. This segment of the program is approximately eight years old. Until 1983, these members were considered to be on active duty for training, primarily because that was the only status available to them under existing title 32 authorities.

In titles 10, 32, and 37 of the United States Code, active duty for training is included within the definition of active duty. In title 38, however, active duty and active duty for training are separately defined, and a somewhat different set of entitlements and benefits is associated with each status. A March 1982 Veterans' Administration General Counsel opinion, reproduced as Appendix B, outlines the consequences for National Guard members of having a status of active duty for training.

For title 32 AGRs who have already established their status as veterans based on prior service on active duty, the fact that their current service is considered as active duty for training has limited consequences for title 38 purposes. The most important difference, for those who are already "veterans," has to do with their reemployment rights status under chapter 43 of title 38.[15]

Preliminary estimates indicate that at least half the 27,000 title 32 AGR members on full-time National Guard duty have previously qualified as veterans. For those who are not already veterans, the benefits for which they would not qualify appear to be those covered by the following chapters of title 38:

- Chapter 17 - nonservice connected VA health care
- Chapter 23 - burial allowance
- Chapter 24 - plot allowance, headstone marker, and flag
- Chapter 37 - home loan guaranty benefits
- Chapter 30 - educational assistance

The Department of Defense Authorization Act, 1984 (Public Law 98-94) added a new section 335 to title 32, United States Code, providing that AGR members "shall be entitled to all rights, privileges, and benefits of members called to active duty under section 265 of title 10..." This new provision technically changed AGR status to that of members on active duty (other than for training) for title 38 purposes.

It appears, however, that this change in status was never implemented with respect to the administrative practices that determine title 38 benefits, perhaps because the implications of the new section 335 were not clearly understood. Section 335 was viewed as an interim solution to the general problem of the

status of National Guard members on full-time duty, which may have further hindered the needed administrative changes. The general problem with status of AGR members centered on the issue of whether these members served in a state or federal status. The interim nature of section 335 was clearly implied in section 504(c) of Public Law 98-94, which required the Secretary of Defense to submit a draft of legislation to the Committees on Armed Services of the Senate and House of Representatives "to provide on a permanent basis that members of the National Guard [as described in the new section 335 of title 32] are under State control except when explicitly ordered to the Federal service in accordance with law." As a result of the draft legislation submitted, section 414 of the Department of Defense Authorization Act, 1985 (Public Law 98-525) created a new status "Full-time National Guard duty," and section 335 was repealed.

As now set out in section 101(42) of title 10 and section 101(19) of title 32, full-time National Guard duty has the following definition:

> Training or other duty, other than inactive duty, performed by a member of the Army National Guard of the United States or the Air National Guard of the United States in the member's status as a member of the National Guard of a State or territory, the Commonwealth of Puerto Rico, or the District of Columbia under section 316, 502, 503, 504, or 505 of this title (title 32) for which the member is entitled to pay from the United States or for which the member has waived pay from the United States.

Members on full-time National Guard duty are not in federal service but, for the purpose of laws providing benefits for members, their dependents, and beneficiaries, full-time National Guard duty is deemed to be active duty in the federal service, "except that for purposes of title 38 such duty shall be considered to be active duty training." (See sections 3686 and 8686 of title 10.)[16]

There is limited legislative history for section 414 of Public Law 98-525, which created the full-time National Guard duty status and which also amended section 3686 and 8686 to treat this duty as active duty for training for title 38 purposes. The DoD legislative proposal did not contain this restriction, and there is no sectional analysis for section 414 in the conference report on Public Law 98-525. Informal discussion with individuals concerned with this issue indicates that they knew that National Guard members who performed full-time duty would receive increased VA benefits without this provision. Because VA benefits were not within the scope of the issue being considered by the Congress, the limiting "active duty for training" language was added to sections 3686 and 8686 of title

10 simply to maintain the status quo. Apparently it was felt that a change to the existing status, active duty for training, should be independently considered because it would cause a change in benefits. (AGR status with respect to military personnel and criminal law is also complicated in other respects. Major Thomas Frank England's article on this subject in Volume 106 of the Military Law Review is an excellent reference.[17])

Conclusions - VA Benefits for Title 32 AGR Members

National Guard title 32 AGRs perform essentially the same full-time duties as do their title 10 AGR counterparts in National Guard and the other reserve components, and they are subject to most of the same conditions of service life. The title 32 AGRs are entitled to the same pay and allowances and are provided all the benefits and privileges as their title 10 counterparts with the single exception of Veterans' Benefits. They also have differing reemployment rights under chapter 43 of title 38. This situation exists as the result of the available statutory authorities used to create the title 32 AGR program, rather than as the result of any decision with respect to the merits of VA benefits for these members.

Budget Impact

Cost analysis indicates that the added cost to the Veterans' Administration for the total population of title 32 AGRs without veteran status, and for those projected through FY 1992, ranges up to $147,000 dollars per year. Selected data is shown in Table 3-32, which follows.

Recommendation - VA Benefits for Title 32 AGR Members

- **The 6th QRMC recommends that remedial legislation be developed to amend the United States Code so that members serving on full-time National Guard duty (other than for training only) have the same status, with the same consequences for title 38 purposes, as members who serve on active duty.**

Nondisability Separation Pay for Reserve Enlisted Members

Officers and enlisted members of the National Guard and Reserve who serve on full-time duty may become entitled to nondisability separation pay (or "separation pay") authorized by section 1174(c) of title 10, United States Code. By law, reservists and regular officers are eligible to receive this pay; regular enlisted members are not. To receive separation pay, a member must have completed at least five but less than 20 years of active service immediately prior to an involuntary

discharge or release from active duty. For members not on the active duty list, the five years must be continuous. (This includes all reserve members except for reserve commissioned officers who serve in an active component and compete with regular officers for promotion.) The amount of separation pay is based on the years of active service completed and the monthly basic pay of the member at the time of release. The maximum payment is $30,000.

Historically, most involuntary separations of reservists have been officer separations. Relatively few reserve enlisted members served on extended active duty during the period from the end of the Korean conflict until the late 1970s; hence few reserve enlisted members have been subject to involuntary separation. Current law (10 USC, §1174) extends eligibility to reserve enlisted members but not to regular enlisted members. The issue is: "Why should reserve enlisted members serving on active duty be eligible for separation pay while regular enlisted members are not?"

Separation pay is a contingency payment for a member who is committed to a career but to whom a full military career may be denied. It is designed to encourage service members to pursue their career ambitions knowing that, if a full career is denied under the competitive system, adequate readjustment pay will be available to ease reentry into civilian life. Currently, reserve members not on the active duty list are entitled to separation pay after five years continuous active duty when they are involuntarily released from active duty or when they are not accepted after volunteering for an additional tour of active duty.

The legislative history of nondisability separation pay dates back as far as 1800. In recent history, the Officer Personnel Act of 1947 (Pub. L. 80-379) required, as part of its "up-or-out" promotion system, the involuntary discharge of regular officers who failed selection for promotion and who were not eligible for retirement. The act provided for the payment of a "severance pay" for affected officers. It did not extend eligibility to regular enlisted members.

The Act of July 9, 1956, (Public Law 84-676) established the first specific nondisability separation pay program for reserve personnel. It added a provision to the Armed Forces Reserve Act of 1952 that allowed payment of "readjustment pay" to reserve members, both officer and enlisted, who were involuntarily called to active duty and who, after five or more years of <u>continuous</u> active duty, were involuntarily released from active duty, or were released at the end of their tour after volunteering but not having been accepted for an additional tour.

Table 3-32. VA Benefits for Title 32 National Guard AGRs

Projected Number	Projected New Eligibles FY 1988	FY 1990	FY 1992
POM End Strength	14,712	17,408	21,002
Gains	2,151	3,558	3,819
Losses	1,323	1,461	1,936
By Benefit Category*			
Health Care	132	146	193
Burial Allowance	3	4	3
Death Benefits:			
Plot	17	28	31
Headstone	14	23	25
Headstone allowance	3	5	5
Flag	19	35	34
Home Loan Guarantee	-	226	273
Educational Benefits	-	-	881

Benefits	Cost of Their Benefits FY 1988	FY 1990	FY 1992
Health Care	$7,741	$8,562	$11,317
Burial Allowance	$367	$367	$734
Death Benefits:			
Plot	$2,550	$4,200	$4,650
Headstone	$854	$1,403	$1,525
Headstone allowance	$213	$355	$355
Flag	$532	$980	$952
Home Loan Guarantee **	-	-	$127,608
Total Cost	$12,257	$15,867	$147,141
Educational Benefits ***	-	($1.7 m)	($.9 m)

Notes:

* Loss rates are used to compute health care and burial allowances; gains (new eligibles) are used for all other computations.

** The VA home loan program is self-sustaining through the first year. Thereafter there is a cost, based on projected foreclosure rates.

*** Educational benefits are a net cash inflow through FY 1992 because mandatory member contributions exceed outlays. If proposed legislation is effective in FY 1989, the earliest date a veteran would be eligible to use the benefit is FY 1991.

Source: Data for computations provided by VA Staff.

The first reserve-specific separation pay legislation was passed in 1956 as the solution to an officer over-strength problem. Large numbers of reserve officers had been involuntarily called to active duty during the Korean conflict. When the hostilities ended, many of these officers were no longer needed to meet active duty requirements. Of the 268,000 reserve officers on active duty at the beginning of FY 1954, 83,000 were released during the year. The original draft of the 1956 bill to provide "readjustment pay" would have applied only to commissioned and warrant officers. The House of Representatives amended the proposal, however, to include enlisted members. The House Armed Services Committee stated that, although very few enlisted men were involuntarily released from active duty after having served five continuous years, "the rehabilitation problem will be as serious for one man as another, regardless of the fact that he is in enlisted or officer status when he is released from active duty."[18] Although the original intent of the legislation was to solve a reserve officer problem, the amended bill provided eligibility for separation pay to reserve enlisted members.

In 1980, in the Defense Officer Personnel Management Act (DOPMA) (Public Law 96-513), Congress unified separation pay authority for regulars and reservists. In addition to authorizing separation pay for regular officers, it provided that "a member of an armed force other than a regular member ...is entitled to separation pay...if (A) the member's discharge or release from active duty is involuntary; or (B) the member was not accepted for an additional tour of active duty for which he volunteered."

The new law standardized the name "separation pay," provided a standard formula for computing the amount of pay, and increased the maximum payment from $15,000 to $30,000. It also provided uniform rules governing eligibility for entitlement. House Armed Services Committee Report No. 96-1462 cited existing law as a basis for not including regular enlisted members in the new legislation.

There is no vesting in military retirement plans prior to retirement qualification. Members who volunteer for active military service (with the expectation of completing a career) may nevertheless be separated to meet service requirements prior to completion of 20 years of active duty. It has been argued during development of prior legislation that separation pay in these and similar circumstances is necessary in order to allow members to readjust adequately to civilian life.

Promotion, separation and retention matters for active duty list officers are detailed in laws as well as in DoD regulations. Officers on the active duty list are all potentially in a career track. As opposed to officer programs,

enlistment programs have historically always been for specified periods with no guarantee of career status. For the most part, enlisted personnel management is based on policy rather than law. Incentives and options have been offered at reenlistment points in order to retain members with the skills and experience needed. A case may be made, therefore, that separation pay for enlisted members is inconsistent with the nature of the status in which they serve.

Conclusions

Reserve enlisted members who now serve on extended active duty for more than five continuous years are almost all serving in support of the organization, training, administration, recruitment, or instruction of the reserve components in AGR status. These programs remain relatively volatile with respect to requirements and policies for PCS, career status, tenure, and other personnel management practices. Typically, members serving in these programs come from full-time civilian employment status and have entered at an older age than have regular enlisted members. Clearly, compared with the career status of regular enlisted members, the career status of the reserve AGR is more uncertain. The service of the AGR is typically based upon an agreed term of active duty service rather than a complete enlistment. This term is typically shorter than the maximum enlistment period otherwise allowed. (Normally, the enlistment period is adjusted to coincide with the tour length.)

The military services have ample authority in law and regulation to control active duty tour lengths (and thus entitlement to separation pay) for reservists. They also have authority to conduct screening boards for continuation in their FTS programs and to release program members from active duty to meet service manpower requirements. All of these management mechanisms allow for adequate controls over entitlement to separation pay. In fact, only a few enlisted reservists have drawn such pay during the past five years: the Marine Corps Reserve reported only two, and there were none reported in the Naval Reserve, the Air Force Reserve, or the Air National Guard. The Army Reserve and Army National Guard could not report numbers because their financial reporting system does not differentiate officers from enlisted or active component from reserve component members. The Army estimates that a total of no more than a dozen enlisted Guard and Reserve members drew separation pay in FY 1986.

Recommendation - Nondisability Separation Pay

- **Given the existing state of AGR enlisted program management within the reserve components and the fact that enlisted members typically have left established**

civilian careers to serve in AGR status, the 6th QRMC recommends no change be made to existing legislative authority at this time.

TAR/AGR Selective Reenlistment Bonus

Section 308 of title 37, United States Code, restricts eligibility for a selective reenlistment bonus (SRB), in amounts up to $30,000, to enlisted members of a regular component. As members of the Selected Reserve, TAR/AGR members are not eligible even though they serve on full-time active duty. The Navy has proposed paying this bonus to enlisted TARs in hard-to-man skills. Therefore, the 6th QRMC reviewed this issue along with its study of special and incentive pays. The review yielded the following results.

- Current retention of TAR personnel is very high and does not warrant a bonus incentive.
- There is no indication of a requirement for an SRB for AGRs in the other reserve components at this time.

Conclusion

Payment of TAR/AGR selective reenlistment bonuses is not required and cannot be justified at this time.

Budget Impact

The cost of paying a selective reenlistment bonus to TARs would be $7.0 million in FY 1988, and $8.9 million in FY 1989.

Recommendation - TAR/AGR Selective Reenlistment Bonus

- **The 6th QRMC recommends that section 308 of title 37, United States Code, not be amended to authorize payment of selective reenlistment bonuses (SRB's) to TAR/AGR members until such time as a requirement for such authority can be demonstrated.**

Educational Benefits for AGRs

Public Law 98-525 established the New GI Bill program that consists of educational assistance for active duty service personnel (chapter 30 of title 38, United States Code) and for members of the Selected Reserve (chapter 106 of title 10, United States Code). Public Law 100-48 on May 19, 1987 made the new GI Bill permanent and renamed it the Montgomery GI Bill (MGIB) Act of 1984.

AGRs, by virtue of their full-time active duty status and their membership in the Selected Reserve, may be entitled to receive educational benefits under both programs. AGRs entering on active duty during the period July 1, 1985, through June 30, 1988, qualify for chapter 30 active duty benefits. If these members are enlisted for a period of six years or, for officers, agree to serve for six years past any existing service commitment, they also qualify for chapter 106 Selected Reserve benefits.

The legislative history of the MGIB indicates that it was enacted for two primary purposes.[19] First, the program was created to assist in the readjustment of veterans to civilian life following their separation from military service. Second, it was designed to assist the Armed Forces in recruiting and retaining high quality personnel. Since the Selected Reserve is predominantly a part-time military force, the first purpose, assisting the transition to civilian life, is of little relevance to the chapter 106 reserve program; its purpose is clearly directed at recruiting and retaining quality personnel.

Dual entitlement to both active and reserve educational assistance programs, albeit that only one benefit can be received at one time and there is a 48 month cap on total benefits, provides AGR members benefits in excess of those received by their active component counterparts. This seems neither necessary nor equitable. A more logical arrangement would be to target the chapter 106 program benefits where they are needed most: for recruiting and retaining part-time members of the Selected Reserve. This would require limiting AGR entitlement to the chapter 30 active duty program. AGRs would then earn benefits on an equal basis with their active component counterparts, and they would retain the benefit most appropriate to assist their transition from active duty to civilian life, as is suitable to their active duty status.

Budget Impact

Detailed dollar projections were not possible based on limited data; however, broad estimate of savings is about $1 million annually. There are now about 1,000 AGRs using the chapter 106 benefit.

Conclusions

The intent of Congress and the needs of the Services would best be met by limiting AGR members to a single educational benefit program. The most appropriate single program is the MGIB active duty program authorized by chapter 30 of title 38, United States Code.

Recommendation - Educational Benefits for AGRs

- **The 6th QRMC recommends amendment of section 2132, chapter 106 of title 10, United States Code, so that full-time active duty service as AGR members of the Selected Reserve can be credited only for use with the educational assistance program established under chapter 30 of title 38, United States Code.**

Overall Summary of Issues

Having explored the details, it is time to return to the central issue and sum up the results of the analysis before moving on to the final conclusions and recommendations. Given the somewhat differing conditions of service, should AGRs and TARs receive the same compensation and benefits as their counterparts serving in the active components?

The summaries of institutional policies and perspectives show a great deal of diversity in management programs among the various components. The Marine Corps Reserve and the Air Force Reserve have minimal AGR programs that are used primarily to meet statutory tour and recruiting functional requirements. The other components have much larger AGR programs, covering a wide spectrum of functions. However, no matter how diverse these functions may be, the statutes require that they all relate to the performance of full-time support of the reserve components, and that other AGR duty assignments be made only for the purpose of periodic refresher training. Some AGR populations, such as those in the two National Guard components, will perforce serve near their homes for the most part. Others, such as those in the Naval Reserve and especially TARs, will serve under conditions much more similar to those of the active forces. Overseas and sea duty demands are less for AGRs than for active component members, but there is little or no difference with respect to other aspects of service. The view that equal treatment is required to maintain a high quality force is an additional important consideration.

Through the analysis of survey data and other supporting data, it has been possible for the first time to make across-the-board quantitative comparisons of many aspects of the conditions of service for active component members and AGR/TARs. As expected for the two most often-cited areas, frequency of moves and family separations, active component members do have the most rigorous service conditions, but the comparisons also depict a wide variation within and between components and reveal that a relatively high level of short term separation from family is experienced by the AGR population.

Naval Reservists are virtually identical to their counterparts in the active component, but there are wide differences between members of other reserve components and their counterparts. Within components comparing officer and enlisted populations, the difference in conditions is often far greater than the corresponding differences between active component members and AGR/TAR members. In other areas, the results are mixed. Sometimes the advantage is with active members and sometimes with AGR/TAR members. The net result is a complex interaction of advantages and disadvantages within each component. Due to the wide range in service conditions, it would be especially difficult to devise a general formula to relate rigors of service to compensation rates on a rational basis.

A systematic review of all compensation elements confirmed that compensation systems for active component members and AGR/TARs are essentially the same. However, equal application of compensation rules does not necessarily mean that compensation costs are identical for these two groups. The number of members drawing special pays, for example, was found to be higher on the active component side. Likewise, since enlistment, reenlistment, and other bonuses are paid by policy on the basis of service needs, AGR/TAR members do not currently receive such compensation even when the statutes authorize them. Finally, there are several types of allowances such as the variable housing allowance, family separation allowance, dislocation allowance, and hostile fire/imminent danger pay that are paid, all or in part, on the basis of exposure to a particular condition of service. Compensation elements that are related to conditions of service are inherently more efficient and equitable than any general remedy ever could be.

Finally, four technical or structural differences were found in examining elements of active component and AGR/TAR compensation:

- VA Benefits for active component members and title 10 AGRs differ from those for title 32 National Guard AGRs.
- Entitlement to nondisability separation pay for regular enlisted members differs from that for AGR/TAR enlisted members.
- Entitlement to selective reenlistment bonuses authorized by Section 308 of title 37, United States Code, for regular enlisted members differs from that for AGR/TAR enlisted members.
- Educational benefit entitlements for active component members differ from those for AGR members.

Each of these differences was reviewed as a separate issue and specific recommendations developed for each issue as indicated in the preceding section.

Conclusions

Although there are specific, measurable differences in conditions of service when comparing active component members and AGR/TARs, there is no rational basis for making a general corresponding adjustment in the compensation structure. Applying specific elements equally to each member on the basis of exposure to rigorous conditions appears to be an equitable and efficient approach to this issue. The compensation of active component and AGR/TAR members is essentially the same except for four technical or structural differences, two of which should be changed.

Recommendations

- **The 6th QRMC recommends that there be no overall change in the way the compensation system structure accounts for differences in conditions of service between active component and AGR/TAR members, but that these four specific recommendations on structural and technical issues be adopted:**
  - **Develop remedial legislation to amend the United States Code so that members serving on full-time National Guard duty (other than for training only) have the same status, with the same consequences for title 38 purposes, as members who serve on active duty.**
  - **Make no change to current statutes which authorize separation pay for enlisted reservists but not for enlisted regular members. Given the existing state of AGR enlisted program management within the reserve components and the fact that enlisted members have typically left established civilian careers to serve in AGR status, the QRMC recommends that no change be made to existing legislative authority at this time.**
  - **Do not amend section 308 of title 37, United States Code, to authorize payment of selective reenlistment bonuses (SRBs) to TAR/AGR members until such time as a requirement for such authority can be demonstrated.**
  - **Amend section 2132, chapter 106 of title 10, United States Code, so that full-time active duty service as AGR members of the Selected Reserve can be credited only**

for use with the educational assistance program established under chapter 30 of title 38, United States Code.

Notes

1. RCCPDS data.

2. These members are specifically authorized in the Defense Authorization Acts. For example, §412 of the National Defense Authorization Act for FY 1988 and FY 1989 (P.L. 100-180) provides: "Within the strengths prescribed in section 411, the reserve components of the Armed Forces are authorized, as of September 30, 1988 and as of September 30, 1989, the following number of Reserves to be serving on full-time active duty or, in the case of members of the National Guard, full-time National Guard duty for the purpose of organizing, administering, recruiting, instructing, or training the reserve components:
   (1) The Army National Guard of the United States, 25,725.
   (2) The Army Reserve, 13,329.
   (3) The Naval Reserve, 21,991.
   (4) The Marine Corps Reserve, 1,945.
   (5) The Air National Guard of the United States, 7,836.
   (6) The Air Force Reserve, 669."

3. U.S., Congress. Senate, Armed Services Committee, hearing on 20 March 1986, S-3-34, Part 3.

4. Ibid.

5. By Memorandum from Principal Deputy Assistant Secretary of the Army (Manpower and Reserve Affairs) to the Assistant Secretary of Defense (Reserve Affairs), Subject: Full-Time Support (FTS) of the Reserve Components-- Report to Congress (RE: Senate Report 99-331), February 13, 1987.

6. "The AGR title 10 force" is a euphemism for AGRs serving under the various sections of title 10, United States Code, including all Army Reserve AGRs and Army National Guard AGRs who are in federal service. Other Army National Guard AGRs serve under title 32, United States Code, on full-time training duty under state control and are not in federal service. See Chapter 2 of this report for further details.

7. The term "full-time active duty members of the Naval Reserve" is synonymous with "AGR" as defined in Reserve Component Categories of the Reserve Components of the Armed Forces, Office of the Assistant Secretary of Defense (Reserve Affairs), August 1987. It is applied to all members of the Selected Reserve who are ordered to active duty with their consent for the purpose of organizing, recruiting, instructing or training reserve component units including Navy TARS, TEMACs and T-AGR; and it also includes all individual members of the Selected Reserve who are ordered to active duty in an active component organization with their consent for the purpose of

organizing, administering, recruiting, instructing or training the reserve components. The latter are assigned in headquarters and support functions and include Navy TARs, TEAMACS, MCFTS, and all statutory tour personnel. It is this larger AGR population, and not the TAR sub population alone, that is the subject of this report. It is also the AGR population that was surveyed by instrument Forms 3 and 4 of the 1986 Reserve Components Surveys; the source of AGR/TAR survey data presented in this report. The term "active Navy members" means members of the active component of the Navy. It is used in preference to "regular Navy members" since there are also reservists who are active Navy members. These members are reservists who are paid from active personnel accounts. They are by definition neither AGRs nor TARs, but they may nevertheless be detailed to serve in full-time support of the Naval Reserve under the provisions of 10 USC §715. Conversely, TARs may be detailed to serve with the active Navy for the specific purpose of receiving periodic refresher training under the provisions of 10 USC §678.

8. Statement of Vice Admiral Cecil J Kempf, USN, Director of Naval Reserve, before the House Armed Services Procurement & Military Nuclear Systems Subcommittee of the House Armed Services Committee on National Guard & Reserve Procurement, 26 March 26, 1987, p. 5.

9. Information extracted from the Department of the Navy Officer Transfer Manual (NAVPERS 15559), Enlisted Transfer Manual (NAVPERS 15909C), and the Naval Military Personnel Manual (NAVPERS 1020200).

10. Marine Corps Order 1001.52C prescribes policies and procedures for FTS selection, assignment, utilization, and administration.

11. Letters, Chief, Manpower & Personnel Division, Air National Guard, to Chairman, Subcommittee on Defense, Committee on Appropriations, House of Representatives, February 15, 1984, and February 20, 1985.

12. Full-time support for the Coast Guard Reserve is provided by members who are accounted for as part of the active component of the Coast Guard, and who are paid from active Coast Guard funds. As a result, no Coast Guard members were included in the 1986 AGR/TAR Survey.

13. U.S., Department of Defense. Office of the Secretary of Defense, Military Compensation Background Papers, 3rd ed., June 1987, provides a comprehensive description and history of the various elements of military compensation.

14. Ibid.

15. There is also a difference in creditability of title 32 service as active military service in computing Civil Service retirement. This difference appears to be unwarranted, but it is not within the scope of the QRMC study plan and report.

16. It should be noted that members serving on full-time National Guard duty may perform active duty (other than for training) under certain circumstances. For example, when an Air National Guard aircrew member performs an air defense alert mission or any duty outside the CONUS, the member is, under the terms of the governing regulation and the basic orders governing the member's service, automatically placed under 10 U.S.C. §672(d) for the duration of the mission or duty. Similar rules apply to the Army National Guard. The effect of these frequent, short periods of active duty (other than for training) interspersed in title 32 tours, is unclear with respect to veterans status and VA benefit determinations.

17. England, Thomas F. "The Active Guard/Reserve Program: A New Military Status", Military Law Review, vol 106, 1984, pp. 1-75.

18. U.S., Congress. House, Committee on Armed Services, Providing Readjustment Pay for Members of the Reserve Components Involuntarily Released from Active Duty, House Report 84-1960, March 28, 1956, p.2.

19. U.S., Congress. House, The New GI Bill - Its Implementation and Effectiveness: Trip Report to the Committee on Veterans' Affairs, House Committee Print No. 5, 100th Cong., 1st sess., Govt Printing Office, 1987, p. 2.

Chapter 4. MILITARY TECHNICIAN AND ACTIVE GUARD/RESERVE COST COMPARISON - BACKGROUND

Report Organization for the Cost Comparison Analysis

This is the first of three chapters devoted to the relative cost-effectiveness of the AGR and the military technician. In this chapter, the historical context of the issue is developed in more detail than it is in Chapter 1 where the issue is introduced. The goal is to explain how the question of relative costs has evolved and to describe the results of previous analyses and cost comparisons. Chapter 5 focuses on the 6th QRMC military technician and AGR cost comparison model including its development, capabilities and limitations, operation, and results. Chapter 6 addresses the relationship between costs and other management considerations for full-time support manpower. The objective of this final chapter is to review the question of relative cost as it impacts upon management of the military technician and AGR force as a whole.

Scope of the Cost Comparison Analysis

During the past decade, much of the continuing controversy over full-time support for the reserve components has focused on the relative cost-effectiveness of using military technicians and AGRs to provide full-time support in the reserve components of the Army and the Air Force. If there has been a consensus about any aspect of the issue, it has been that additional full-time support is necessary to meet the increasing missions and responsibilities that have been assigned to these components. However, each new budget cycle has marked another round in the debate on which category of full-time support manpower is the most cost-effective, and there have been no easy answers on either the cost or the effectiveness side of the question.

The 6th QRMC analysis included a review of the historical development of the issue and an examination of prior work that has been done to measure and portray the actual compensation costs. Computer Based Systems, Inc. developed an automated cost comparison model for significant elements of military technician and AGR compensation costs as part of the study effort, and the results were used as the basis for objective comparisons in this report. Since compensation costs are intricately connected to manpower management systems, management practices for both military technicians and AGRs were reviewed. Available personnel information was examined, including manpower force

structure data submitted by the Services or available in RCCPDS and other data files maintained by the Defense Manpower Data Center, results of the 1986 Reserve Components Surveys of Selected Reserve officer and enlisted personnel, and data provided in published reports or by Service points of contact. Reports prepared by elements of the Legislative and Executive Branches, such as congressional committees and the General Accounting Office, were also reviewed along with Departmental responses.

Growth of the Full-Time Support Program in the Army and Air Force

Although the issue of cost-effectiveness centers on which category of manpower to use, it is also important to understand the major trends in the size of the forces involved. Significant changes have occurred in both the size of individual categories, especially for the AGR program, and in total full-time support strength.

Growth in the AGR Program

As described in Chapter 1, prior to Fiscal Year 1980, the predominant form of full-time support manpower employed in Army and Air Force reserve components was military technicians. There were some full-time active duty reservists employed then, as there are today, to meet statutory tour and recruiting requirements. However, full-time active duty reservists were not employed to provide full-time unit support in Army and Air Force reserve components. Today, military technicians continue their role as an important segment of the full-time support forces of these four components, while AGRs have been added in significant numbers in the Army National Guard, Army Reserve, and Air National Guard. Only the Air Force Reserve does not employ AGRs to provide unit support. Table 4-1 provides a comparison of military technician and AGR strengths at the end of Fiscal Year 1979 (before the assignment of significant numbers of AGRs to full-time unit support duties) and in December 1987.

Growth in Military Member Strength in the Full-time Support Program

By the late 1970s, new missions and the need for increased responsiveness had generated a basic requirement for more full-time support personnel in the reserve forces. Additional full-time active duty reservists had already been called to duty as recruiters after the 1973 transition from conscription to voluntary service in the Armed Forces; however, the need for additional support extended to the day-to-day operation of units as well. The requirement was especially great in the Army's

Table 4-1. Military Technician and AGR Strength Comparison - 1979 to 1987

Component	1979 MT	1979 AGR	1987 MT	1987 AGR	% Change MT	% Change AGR
ARNG	25,256	4,113	23,608	25,059	-7	509
USAR	5,384	2,549	7,330	12,478	27	390
ANG	21,693	1,253	23,084	7,525	6	501
USAFR	5,984	436	8,668	625	45	43
Total	58,317	8,351	62,690	45,687	7	447

Source: RCCPDS (September, 1979, and December, 1987), and OASD(RA) files (FY 1979 AGR strengths)

reserve components, where obtaining more full-time manpower to meet mission requirements was perhaps more important than whether the best choice of manpower was military technicians or full-time active duty members. Although "What kind?" has often overshadowed "How many?" in the debate over this issue, the need for growth has not been disregarded. Significant overall growth has been programmed by the relative need in each component. The results are shown in Table 4-2.

Table 4-2. Changes in Combined Strength of Military Technicians and AGRs - 1979 to 1987

Component	1979	1987	% Change
ARNG	29,369	48,667	66
USAR	7,933	19,808	150
ANG	22,946	30,609	33
USAFR	6,420	9,293	45
Total	66,668	108,377	63

Source: RCCPDS (September, 1979, and December, 1987), and OASD(RA) files (FY 1979 AGR strengths)

Note: During this period, the total strength of the Army and Air Force Selected Reserve increased 39% from 685,558 to 954,015.

Studies and Congressional Actions - 1968 to 1978

During the period from 1968 to 1978, a series of key studies and congressional actions set the stage for the subsequent major changes in the Army and Air Force full-time support programs.

The National Guard Technician Act of 1968

The National Guard Technician Act of 1968 provided a standard retirement and fringe benefit program for National Guard technicians. In 1967 the Cabinet Committee on Federal Staff Retirement Systems reported that there were over 38,000 National Guard technicians who were authorized retirement under a system in which the federal government would contribute up to six and one-half percent of compensation to the state to support state retirement programs. The study found that "today, years after Federal support of state retirement programs for this purpose was originally offered, less than one-third of the more than 38,000 National Guard technicians (including D.C. Technicians covered by CSR) are now covered by State retirement programs."[1] The Cabinet Committee noted that proposed remedial legislation had been regularly introduced without success and recommended that National Guard technicians be designated by statute as federal employees.[2] The 1968 Act finally solved this deficiency. The Act also defined the authority of the states with respect to the technician program as well as the legal status of technicians (including placing them under the provisions of the Tort Claims Act). In accomplishing these legislative objectives, the Act recognized the technicians as federal employees[3] and codified certain key status requirements. The result of these actions has had far-reaching impact on the full-time support programs of the Army and the Air Force. Due to the importance of this act, its legislative history, as described in U. S. Senate Report 90-1446, is included at Appendix C.

Among the key status requirements codified was the requirement to hold concurrent National Guard membership as a condition for civilian employment, a condition commonly known as "dual status." Dual status was required for about 95 percent of the technician force who were designated as excepted service employees. The remainder were designated as competitive service employees with no dual status requirement. The concept of the technician program with this dual status requirement, as stated in Senate Report 90-1446 (Appendix C, p. 2), serves as a concise statement of the basic requirements for most military technicians in both Guard and Reserve forces: "The concept of the technician program is that the technicians will serve concurrently in three different ways:

- Perform full-time civilian work in their units.

- Perform military training and duty in their units; and
- Be available to enter active Federal Service at any time their units are called."

These basic requirements were included in the Army's memorandum of agreement with the Civil Service Commission that was negotiated during this period.[4]

The Defense Manpower Commission

The Defense Manpower Commission (DMC) was a bipartisan panel chartered by title VII of the Department of Defense Appropriations Act of 1974.[5] Three of the members of the commission were appointed by the President and four by the Congress. This prestigious body was created out of concern for the rapidly rising costs of military manpower.[6] Because its conclusion about full-time support manning was controversial, and because this conclusion was based on an incomplete cost analysis, the DMC became a major stimulus for subsequent full-time support analyses as well as the focal point for debate in the last half of the 1970s.

In its April 1976 report, the DMC concluded:

> The objectives of the technician program can be accomplished at a substantial savings by ultimately replacing the technicians with full-time active duty Guardsmen and reservists. The use of Guardsmen and reservists on active duty would protect the citizen-soldier concept which is basic to this Nation's Guard and Reserve system. Implementation of this change would eliminate dual pay and retirement for what in essence is the same job.[7]

Savings were estimated as an approximate total figure "in excess of $270 million per year" in direct pay costs for the four Army and Air Force reserve components. No attempt was made to project retirement costs. Instead, it was asserted that the technician's "dual retirement" was generally in excess of the active duty retiree's retirement. "Protecting the citizen-soldier concept" was a euphemism for eliminating labor union influence.

The DMC analysis did not include complete data on all of the components involved nor did it consider elements of compensation beyond direct pay costs. According to the Commission's staff paper,[8] dollar and strength figures for direct pay costs were computed only for the Air Force Reserve technician program (roughly 10 percent of the total technician population), and the results were correlated with a "comparable active duty force"

that is not further identified in the Commission's report. The Air Force Reserve results were then projected for the technician populations in other components in proportion to their relative strengths. No attempt was made to determine actual indirect pay costs such as retirement, perhaps because it was assumed that, if technicians could qualify for both civil service and military reserve service retirement checks, their doing so would surely generate higher costs. Apparently a more detailed analysis was not made nor considered necessary.

Actions of the House Appropriations Committee

That the DMC would have a powerful influence soon became apparent. Public Law 93-365, the DoD Appropriation Authorization Act for Fiscal Year 1975, had directed the use of "the least costly form of manpower that is consistent with military requirements and other needs of the Department of Defense," and the House Appropriations Committee soon applied this imperative to the DMC's conclusion.[9] Using budget data, the Committee made its own cost estimate that showed FY 1978 annual savings of over $350 million in direct pay costs if technicians were to be replaced with active duty reservists. The Committee was unable to estimate potential retirement cost savings for such a plan but asserted, "We have every reason to believe they are substantial." Citing the conclusion of the DMC, the Committee recommended a general provision that would have prohibited the employment or replacement of any civilian technicians after October 1, 1977, and it advocated a gradual phase-out of the technician force through attrition.

The recommendation was not subsequently enacted because other studies were under way;[10] however, in explaining its rationale, the Committee enumerated several considerations other than cost that were later to become more important agenda items in the debate:[11]

- **Unionization of the military** was portrayed as a matter of grave concern to the Committee.
- **Lack of statutory authority for Army and Air Reserves** referred to the fact that, in these components, technician programs were not prescribed by statutory authority (which sets military membership as a condition of employment) as is the case in the National Guard. About 20 percent of Army Reserve technicians had no military membership (a condition called "status quo") and were therefore not mobilization assets.

- **Management problems with technicians** created by the unique status of technicians in holding both military and civilian positions were cited in the form of split supervision and disruption in the normal military chain of command.

- **Reserve morale problems associated with technicians** were reported as causing part-time reservists to perceive technicians as often having an unfair advantage in being selected for unit positions and also for promotions, travel, schooling, additional training and so forth.

- **Stagnation of military experience** was judged to be the result of the extended periods of assignment in a single reserve unit that are characteristic of technician employment patterns.

- **Navy and Marine Corps Experience,** using reserve and active military personnel to provide full-time support, was thought to be suitable for the Army and Air Force reserve components.

- **Absence of justification for technicians instead of active duty military was the final reason given for eliminating technician programs.** The Committee was unable to identify a single task or function performed by a technician that an active duty military serviceman could not also perform.

The Reserve Compensation System Study

The Reserve Compensation System Study (RCSS) had been established as a Department of Defense review in 1976 by direction of the President. This study was chartered, prior to publication of the Defense Manpower Commission's report, to devise ways to meet "quantitative and qualitative manning goals at minimum cost in achieving reserve readiness."[12] It performed a comprehensive review of reserve compensation and recommended major alternatives for changing the compensation system for part-time reservists. None of these alternatives was subsequently adopted. Its review also included an analysis of the comparative cost of full-time personnel support for the reserve components. By December 1, 1976, the RCSS had in its interim report noted the incompleteness of the DMC analysis and stated, "It appears that no satisfactory cost comparisons of the different reserve support systems have been made."[13] The RCSS did not publish its final report, however, until June 1978. Meanwhile, it worked closely with the Full-Time Training and Administration of the Selected Reserve study group (the "Gerard Study", described later in this chapter), exchanging views, information, and data.[14]

The RCSS included both management considerations and comparative costs in its analysis. Its comparative cost analysis included both direct costs and life cycle costs. Direct costs were based on a hypothetical conversion of 62,583 technician positions from reservist/civilian status to a full-time active duty military force. First, technician costs were computed by dividing FY 1979 budget estimates for technician civilian and military pay by the number of technician man years required by the Five Year Defense Program (FYDP). Then, direct costs of active military direct pay costs were computed "by multiplying the FY 1976 Regular Military Compensation (RMC) factor for each pay grade times the number of technician man-years in each grade for each component."[15] (Note: It is not clear how the pay raises implemented between these different base years were accounted for.) After comparing the results of these computations, the RCSS estimated that converting to a full-time military force would save approximately $325 million in direct pay costs annually. It noted that this finding was consistent with the findings of the DMC, House Appropriations Committee, and Gerard Study, and provided a special table showing details of the finding.

The RCSS life cycle cost analysis was based on a series of typical career patterns used to project life stream earnings. These showed that costs per productive man-year were less for technicians than for full-time military personnel. Based on the combination of direct and indirect costs, the RCSS concluded that, in the long term, the operating costs were comparable for either a technician program or a full-time active duty program. It also noted that the relatively high wage grade costs and high levels of participation by technicians in a reserve status contributed to higher current and deferred costs. The RCSS cost findings are in basic agreement with those of the Gerard Study, except that the RCSS did not concur in the Gerard Study's estimates of excess costs projected for active duty military personnel due to lower base operating costs and higher per capita productivity among technicians.

On the basis of management considerations rather than costs, the RCSS recommended that technician positions be converted to full-time active duty positions. These considerations included most of those expounded by the House Appropriations Committee, with emphasis on those affecting mobilization status (including status quo policies and the relative age of technicians) as well as problems in performing essentially military functions under a system designed for civilian personnel programs.

The Study on Full-Time Training and Administration of the Selected Reserve

The Study on Full-Time Training and Administration of the Selected Reserve (known as the Gerard Study) was generated in response to the DMC conclusion on full-time support and to respond to a House Armed Services Committee request to reexamine the Navy's TAR program. In addition, the House Appropriations Committee's legislative proposal for direct implementation of the Defense Manpower Commission's conclusion added impetus to the effort.[16] As discussed previously, this legislative proposal was included in the Committee's June 21, 1977 report on the Department of Defense appropriations bill for Fiscal Year 1978. The report also includes the following comment about the Gerard Study:

> The Department of Defense announced on June 3, 1977 that a study is underway to "analyze and evaluate the full-time training and administration systems of the Selected Reserve". The Committee was aware of this study prior to this time. The Committee is concerned about this review for two reasons: first, a major review[17] of the overall questions of reserve compensation was on-going when this second study began--these appear to conflict; second, the Committee is concerned about a possible lack of objectivity in the study.[18]

The Committee's concerns notwithstanding, the Gerard Study produced the most comprehensive cost analysis of its day. It arrived at the same basic dollar savings as did the Defense Manpower Commission in computing Air Force Reserve direct costs and savings. However, it found questionable the application of Air Force Reserve costs to other components without analysis of the composition and profile of those other forces. For example, it found that 70 percent of Air Force Reserve technicians were wage board employees (whose costs are relatively much greater than general schedule employees) while only 33 percent of Army Reserve technicians were wage board personnel. In addition, it recognized that total costs, and not simply direct pay costs, must be computed to arrive at the true cost to the government. It added two categories to its direct pay cost computations: "composite costs (i.e., how much of the Department of Defense Budget is attributable to the support of the employee or member, including direct costs and support costs), and total costs which consist of the fringe benefits such as retirement, dependency compensation, and benefits that will accrue to the individual after separation from the manpower force."[19]

The Gerard Study report was published in June 1978, in the same month that the final report of the RCSS was published. It found that on a one-for-one tradeoff basis, ignoring

additional manpower requirements generated by base operating support and relative productivity factors, the cost difference between a military Full-Time Training and Administration (FTTA) force and a technician FTTA force is not of sufficient magnitude to justify a change to the current systems."[20] The additional manpower requirements for converting to a full-time military force referred to in this finding were estimated at 11,520 personnel, or a 17.2 percent increase in strength over and above the existing technician force of 66,786, at an annual cost of $200 million.[21] Of these additional personnel, 6,533 were estimated as necessary to offset the greater number of productive work hours attributed to technicians (assuming that full-time military personnel would not be required to work in excess of 40 hours per week), and 5,498 were estimated as necessary for additional military base operating support. These two figures were balanced against an estimated savings of 480 individuals serving in exclusive civil service support functions not needed in a force that was all active duty members.

Although it was in basic agreement with the RCSS on the impact of costs, the Gerard Study differed with the RCSS, DMC, and House Appropriations Committee on the overall question of technician conversion. All of these groups found significant management problems, but the Gerard Study recommended retaining the existing full-time support forces contingent upon the accomplishment of specific enhancement actions. In the absence of these actions, it recommended at least partial conversion of the Army and Air Force technician forces to active duty military status. This position was, at least in part, due to uncertainties about the ability to attract qualified full-time active duty reservists (especially in remote locations and in competition with high wage grade salaries), the inevitable difficulties and disruptive effects of major personnel system changes, the past success of the technician system (especially in the Air Force Reserve), and the problems associated with an "orderly" transition period to an active duty force, a transition that could possibly extend through three decades.

The management actions necessary for retaining the existing full-tour support force that were recommended by the Gerard Study for the Army and Air Force full-time support programs included the following:[22]

- **Pass legislation to convert Army and Air Force Reserve technicians to excepted service status.** The Study found that "the sole reason for the technician force is to satisfy a military requirement to the same extent as military personnel." Military considerations of the technician program were considered paramount. The proposed legislation would make military membership a condition of employment, help insure that civil service requirements would not

take precedence over military requirements, facilitate insulation of the technician force from hiring freezes and reductions of general civilian personnel, provide less cumbersome hiring procedures, and make the force more responsive to mission needs.

- **Exclude the need to bargain and negotiate with labor organizations because of the adverse impact upon military command, discipline, and organizational effectiveness.** The study concluded, "union activities within the technician programs have adversely impacted upon the military command authority, organizational effectiveness, discipline, and combat readiness of the Selective Reserve units".[23]

- **Increase technician manning in the Army National Guard and the Army Reserve.** A sister study conducted at the same time as the Gerard Study, the "Study on the Full Time Personnel Requirements of the (Army) Reserve Components" (also known as the Stroud Study), found a need for additional military technicians in the Army reserve components. The Gerard Study verified that additional personnel were required to improve combat readiness within these components.

- **Improve the technician management structure in the Army Reserve.** The Army Reserve technician management system was characterized as fragmented and civilian personnel oriented. The significant status quo ratio of 20 percent in this component was attributed to management's inability to resolve the problem. (Status quo is a term applied to employees with no active reserve military status who encumber a military technician position.)

- **Reform the federal wage system.** Each of the four reserve components of the Army and the Air Force employs both general schedule technicians and wage board military technicians. More than half are wage board employees, and most of them earn more than general schedule technicians or active duty military personnel. This situation was cited as a special problem, not only because of overall costs, but also because it encouraged some technicians, for the sole purpose of receiving higher compensation, to switch from general schedule positions to wage board positions, even when doing so required a concurrent reduction in military grade.[24]

- **Establish an annual congressional strength authorization for military technicians exclusive of other DoD civilian employee programs.** It was felt

that the military essentiality of military technician positions was sufficient to warrant separate consideration rather than automatic inclusion in hiring freezes and reductions of general civilian personnel.

- **Increase Department of Defense emphasis on the military paramountcy of the technician program.** A proposed DoD regulation prescribing the details was included in the study report. Among other things, it emphasized use of the term "military technician," and prescribed that "each dual-status military technician will occupy a military position in the Selected Reserve unit supported, the duties of which are identical or substantially the same as the duties of his or her technician position."

The Study on Full Time Personnel Requirements of the Reserve Components

The Study on the Full Time Personnel Requirements of the Reserve Components (the Stroud Study mentioned above), was generated by a requirement in the April 7, 1977, report of the House Committee on Armed Services on the FY 1978 DoD appropriations bill. In this report, the Committee expressed concern about the adequacy of strength of full-time support personnel in the Army's reserve components. It suggested using full-time training noncommissioned officers in Army reserve component units and directed the Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs to conduct "a study and possibly a test program of such a concept and report back to the Congress with an assessment of the results by October 30, 1977."[25] The Study was conducted by a Department of the Army study group operating out of the National Guard Bureau. The study group was also conceived to respond to taskings from the Gerard study group concerning identification of full-time support requirements for the Army and to address recommendations of the House Appropriations Committee and the DMC as they impacted on the Army. Although the Study did not undertake a separate cost comparison analysis, it did document significant shortfalls in the Army's full-time manning levels for its reserve components. In addition to its major recommendation to increase technician strength, it also recommended the following actions:[26]

- Convert all technicians to excepted status with a requirement for unit membership with the same grade and management structure
- Provide manday spaces for additional support assemblies

- Remove technicians from DoD civilian manpower ceilings
- Limit the use of full-time support personnel from the active component

The Reserve Components Technician Position Conversion Test

By 1978 it was clear that converting the technician force to an active duty military force would not achieve the significant savings originally projected by the Defense Manpower Commission and others. It was also clear that the DoD did not favor replacing all technicians with full-time military personnel. On the other hand, the House Appropriations Committee remained concerned about the technician program problems it had cited during 1977. The Committee felt that there was not much likelihood that these problems would be resolved in the near future. Therefore, it recommended that technician conversion be tested within the four reserve components of the Army and Air Force to determine their ability to attract qualified full-time active duty reservists to fill technician positions.[27] The test would include the following positions:

- Vacancies occurring in positions held by status quo technicians
- Positions not manned at the end of FY 1978 and all new positions added to the structure in FY 1979
- Vacancies occurring in positions held by dual status technicians (optional)

Conduct of the Conversion Test

The test was originally scheduled for FY 1979 but was subsequently extended to FY 1980. Although the extended test was scheduled to end on September 30, 1980, the Department of Defense Appropriations Act, 1980, directed termination of the test on June 30 of that year, to allow for a six-month evaluation and review period and preparation of a detailed report to be submitted by the Department to the House Appropriations Committee no later than December 31, 1980. The report was required to contain the following information:[28]

- A summary of test program results
- Specific recommendations on the desirability of eliminating the civilian technician program either completely or only for certain Guard and Reserve components

- Cost-effectiveness comparisons of the civilian technicians versus the reserve full-time military program

- The impact on readiness of using each type of personnel

The Department of Defense directed the Departments of the Army and Air Force to develop test plans for participation by each of their reserve components. These plans were approved by the Deputy Assistant Secretary of Defense (Reserve Affairs) on April 27, 1979. Subsequently, on October 30, 1979, that office provided an evaluation checklist for the test and arranged for an independent analysis to be conducted by a contract research firm, Management Consulting & Research, Inc. (MCR).[29]

On conclusion of the test, the House Appropriations Committee further directed that no additional positions be converted before March 31, 1981, to allow time for the Committee to review the DoD test report due on December 31, 1980. After March 31, 1981, positions could be converted only if approved through the normal reprogramming process, and additional full-time reservists could be recruited only to fill new positions authorized after September 30, 1980, or new positions resulting from changes in the weapons system or mission.[30]

Results of the Conversion Test

Though not without difficulty, the four components successfully converted 5,396 dual status technician positions to active duty military positions.[31] All components met their targeted goals for numbers of conversions except the Air Force Reserve, which achieved only 62 percent. However, due to difficulties in converting wage grade positions, no component achieved conversions representative of the distribution of wage grade and general schedule technicians in their programs. Other significant results include the following:

- The test had little impact on unit readiness.

- There was no significant difference between the two groups in personnel quality, attrition rates, job satisfaction, or morale.

- No significant union problems were reported.

- All components except the Air Force Reserve saw some value in using full-time active duty reservists to insulate their full-time support programs from the effects of civilian personnel ceilings and hiring constraints.

- **The MCR analysis showed no significant difference, in the cost to the government, between the technician force and one converted to full-time military personnel.**

Problems With the Conversion Test

Significant problems were associated with the technician position conversion test. Even in hindsight, most of them seem to have been unavoidable, given the circumstances. It is important to understand these problems, however, because they had a strong influence in shaping the issue and the attitudes of the people affected. A summary of key problems follows:

- **Advance planning was neither complete nor timely.** The test was recommended by the House Appropriations Committee in June 1978, and was to begin in October 1978.[32] This provided only three months for planning and preparation for a complex personnel management action that included all echelons of the reserve structure. In fact, plans at the military department level were not approved until April 1979, and additional guidance was provided by Congress and the DoD later during the conduct of the test. Not surprisingly, the test reports show that some required data was not collected, and that uniform procedures and analytical methods were not employed across the components. Test reports also indicate that program members were quite apprehensive about the future but could not get answers to many of their questions about career management and program benefits. Midway through the test, the House Appropriations Committee noted that, contrary to the Committee's intent, some technicians who were not being converted to military status were being "frozen in place with no further opportunity to compete for advancement or reassignment;" it directed the DoD to consult with these individuals or their representatives. The Committee also found it necessary to ask the DoD to "notify any technician who has voluntarily converted or is considering converting that he retains return rights to his old position or to a generally comparable technician position."[33]

- **The nature of the test itself produced polarization and negative feelings that detracted from program goals.** It would be difficult to convince any professional group to participate enthusiastically in a test to determine the feasibility of its own extinction, and this test was no exception. Coming on the heels of the DMC report and a congressional recommendation to phase out the technician program,

the conversion test was perceived by many technicians as a direct threat to their professional livelihood. Others, who perceived that they could improve their livelihood by converting to full-time active duty, took an opposite view. The resultant polarization of the issue as "Technicians versus AGRs" did much to divert the debate from the fundamental question: How best to support reserve units? Its effects are still evident today.[34]

- **The test's validity is questionable in some areas.** Because objective criteria based on accepted statistical procedures were not preestablished for evaluation, caution is advisable in interpreting the results. Even some of the participants questioned the test validity; for example, 9 percent of the states commenting on the Army National Guard test included a recommendation to "Conduct a valid test."[35] MCR noted that "a successful conversion to an all military support force cannot be projected on the basis of the test because of the non-representativeness of the positions actually converted."[36] The House Appropriations Committee, especially concerned about the ability to convert wage grade positions, noted that some components' exclusion of wage grade positions from the test did not conform to the Committee's guidance.[37]

The Department of Defense Report and Recommendations on the Technician Conversion Test

In its report to the Committee on Appropriations,[38] the DoD recommended that Congress authorize the Services, in concert with the Office of the Secretary of Defense, to establish the mix of personnel (military technicians, AGR personnel, active component personnel, and Civil Service employees) that will provide the best full-time support to the Guard and Reserve, and that the Congress direct the DoD to request that mix in future budgets submitted to the Congress. It pointed out that differences among the reserve components have a distinct impact on the size and shape of their full-time support programs, and that there was no particular virtue in attempting to force all of these to be equal. The report also contained the following inclusions:

- The difference in cost, considering all entitlements including retirement, between a complete AGR force or a complete military technician force was insignificant.

- Due to the small numbers involved and short duration of the test, there was no significant impact on unit readiness.

- Union activity should not be a significant factor in determining whether military technicians should be replaced with AGR personnel. There were no substantiated incidents where union activity had affected readiness to a significant degree. However, it did report that the leadership of the National Guard, in particular, was very concerned about the possible adverse effects of technician unions on readiness. Specific issues of concern included union opposition to requirements for wearing the military uniform on official travel outside CONUS, while attending military schools, or at the National Guard Professional Education Center; traveling on military aircraft on official business; occupying government quarters based on military grade; and conforming to grooming standards.

- Much remained to be done in the management area. The report noted that appropriate legislative proposals would be presented to the Congress to improve the AGR program including its promotion policy and a clarification in the use of National Guard personnel on state missions. The DoD would work with the Army to see that status quo technicians would be replaced by mobilization assets as soon as possible. In addition, the best mix and functional uses of technicians and AGRs remained to be determined.

- While it would not be a good idea to convert all military technicians to AGR personnel, there was no doubt that many more positions could be converted. The report cautioned, however, that wholesale conversions would meet with great resistance and would produce great morale problems. Converting through attrition would take many years to accomplish, and the reserve program would be in a state of turmoil during that entire period.

- It held out little hope that skilled maintenance technicians could be replaced by AGRs. It reported that these members were highly paid according to what their skills would demand in industry, and that these individuals would not work as AGR personnel due to salary differences.

- It concluded that, as long as military technicians were counted against the civilian strength ceiling, the necessary increases in full-time support could only be achieved by increasing active component or AGR strengths.

- It explained that the Air Force Reserve did not want AGR personnel at bases and units and did not want to convert any of their technicians. Considering this component's past success in achieving readiness goals using technicians, it did not make sense to force them to change. In contrast, the other components were moving forward with their conversion plans, and the most reasonable outcome would be to continue with the requested FY 1981 programs.

The Congressional Response to Department of Defense Recommendations on the Technician Conversion Test

After conducting an extensive hearing on the Guard and Reserve technician conversion program, the House Appropriations Committee included the following direction to the Department of Defense in its November 16, 1981, report on the Department of Defense Appropriation Bill, 1982:[39]

> Each reserve component will be free to determine the appropriate mix of fulltime military and military technicians.
>
> Fulltime military and military technicians will have a mobilization assignment with the unit they support and be mobilized and deployed with that unit.
>
> Military technicians will, when directed by competent authority, travel on military aircraft on official business whether traveling in a military or civilian capacity.
>
> Military technicians will occupy government quarters based on military grade when in a travel status.
>
> DoD will take steps, including submission of any necessary legislative proposals, to clarify the authority of the states over military technicians serving in the National Guard not on active duty in a federal status.
>
> As a policy, similar skills within a reserve component will be standardized as either military technicians or fulltime military.

Evolution of the Army and Air Force Full-Time Support Forces Since 1980

As a result of the technician conversion test, the Congress had agreed to a mixed force of military technicians and AGRs. It had also addressed other concerns in its directions to the DoD. Three of them, technician travel by government aircraft, occupation of quarters based on military grade, and clarification of state authority, spoke to specific management concerns of the National Guard (state adjutants general employ and manage National Guard technicians under the provisions of section 709(c) of title 32, United States Code). Another emphasized congressional concern that full-time support members be employed in mobilization billets. The final direction, to standardize skill groups as either military technicians or full-time military, reflects concerns about potential problems in managing a mixed force.

Although the technician conversion test garnered considerable attention during this period, it was not the only force shaping the full-time support programs. In 1980, the Army's reserve components were directed to program substantial increases in full-time support personnel in response to congressional concerns about the readiness of these forces.[40] Accordingly, the Army planned to approximately double its full-time strength from a base of 4 percent of the total Selected Reserve strength. The Air Force also programmed increases, although their increases were not as great as those programmed by the Army. Most of these increases were for new AGR positions in the National Guard components and in the Army Reserve. The Air Force components programmed modest increases in the strength of military technicians, while the Army proposed to continue with additional technician conversions: 3,537 in the Army Reserve, and over 2,300 in the Army National Guard.

Development of Individual Component Plans for Full-Time Support Programs

As indicated by these changes in programmed strength, each component took a somewhat different approach in implementing AGR force expansion and technician conversion. The following are the overall program goals initially devised by the components in 1980 with Congressional approval (in all components, statutory tour and recruiter positions were to be filled by AGRs):

- Army National Guard: Continue a mixed force of military technicians and AGRs, converting most deploying unit military technician positions (except for organizational maintenance shops) to AGR. military technicians would man most positions in

nonunit maintenance activities and equipment sites. State headquarters activities would be manned by a mixture of military technicians and AGRs.

- Army Reserve: Convert all technician positions at unit level to AGR positions. Retain about 450 military technician positions at Army Reserve Command headquarters and about 2,600 military technician positions at nonunit maintenance activities.

- Air National Guard: Retain a predominately military technician force with only a few conversions from military technicians to AGRs in special areas such as security personnel.

- Air Force Reserve: Retain the Air Reserve Technician program wherein all unit FTS positions are manned by technicians.

Obstacles to the Component FTS Program Plans

By 1982, several obstacles to the component FTS program plans had arisen. The Congress was placing more emphasis on Guard and Reserve forces to the extent that it refused reductions in the accounts for these forces offered by the Defense Department to achieve outlay savings. The expressed motive for congressional actions was cost-effectiveness. According to the conference report on the extension of the FY 1983 continuing resolution: "The managers are convinced that by augmenting the strength and capabilities of the Guard and Reserve forces, the military readiness of the armed forces can be maintained at a lower cost with no degradation to combat effectiveness."[41] Component plans for full-time support program strength expansion supported the goal of increased reliance on Guard and Reserve Forces, but plans calling for increased use of AGRs and additional technician conversions were challenged increasingly on the basis of cost and management difficulties.

In January 1982, MCR published another in its series of research reports for the DoD on full-time support costs.[42] The purpose of this report was to develop a means of evaluating FTS manpower, in terms of cost and numbers of personnel, in suitable form for evaluating alternative force mixes and supporting the Defense Budget. The report contained improved and expanded cost evaluation methods. It also contained updated cost factors to account for changes such as recent large pay increases that were significantly greater for military pay than for civilian pay. To provide a means of making comparisons by grade, it introduced a grade equivalency table. This table was developed by MCR based on AGR grade limitations established by the National Guard Bureau's Army Manpower Division for use in converting technician positions. The data provided indicated that, rather than

achieving cost savings or at least relative cost neutrality as had been indicated a few years earlier, AGRs tended to cost more than MTs, especially in comparison with general schedule technicians in the Army components where further technician conversions were planned. On the other hand, the data also indicated that wage board technicians generally cost as much or more than AGRs.

Building on its previous reports, MCR produced another report[43] in October 1982 to provide the following information:

> Accurate and current information to explain and support FTS programs before congressional committees and to respond to inquiries from federal employee unions
>
> Precise costs for changes in the FTS program for military technician and AGR personnel as reflected in the FY83 Budget, using FY82 pay rates, and comparison costs for AGR versus MT staffing in typical Reserve Component units

In the years since the DMC first forecast substantial savings through replacement of military technicians with full-time active duty members, one of the major lessons learned was that making accurate cost comparisons between these two groups is a difficult and complex task. Furthermore, even as methodology improved through successive evolutions, changes in costing procedures--such as the method used by the actuaries to determine the normal cost percentage of basic pay required to fund military retirement and changes in compensation levels themselves--made it clear that there could be no final or definitive settlement of the cost issue. This MCR report also showed that costs were dependent on the specific changes to be made. The report concluded with the following:[44]

> The cost of FTS manpower programs continues to be a complex problem. There is no "rule of thumb" that will show that AGRs cost more than MTs or vice versus [sic]. A detailed, up-to-date cost analysis of the specific program planned by each component must be conducted.

The up-to-date analysis made by MCR showed that there were only slight differences (a savings of $876,700) in the cost of the conversion programs planned by the components (ARNG and ANG) for FY 1983. It also showed that "comparative costs depend upon comparative grade structures. Cost-effective FTS programs can be developed if the force structure is designed with that purpose in mind."[45] This latter conclusion was soon to prove significant, for the relationship between military technician civilian and military grades was not (and is not) consistent in

any component. For a comparable civilian grade, the range of military grades held by technicians in a component is typically spread across six to fifteen military grades (See Appendix J). Thus, in converting a technician position to a military position, a wide range of possibilities exists for selecting an appropriate military grade, and cost effectiveness depends on the particular choice made. Given that position conversions were to be voluntary, it is not surprising that there would be upward pressure on costs. The prospect of increased compensation was a powerful influence on the tendency to volunteer, just as the opposite condition discouraged wage board technicians from volunteering.

The importance of conversion grades was soon demonstrated in anecdotal accounts from the field. These reports, stressed by technician unions and sometimes confirmed by congressional investigators, helped raise apprehension levels about costs. For example, in one Army Reserve unit, an individual was reported to have converted from "a GS-9 making $40,877 to a Lieutenant Colonel making $65,395--an increase of $24,518."[46] Not surprisingly, there were no reports about GS-9s converting to E4s because technicians with such a combination of grades would have lost significant compensation by converting, and they did not do so. According to the MCR grade conversion table, a GS-9 equated to military grades of E9, W2, or O3.[47] Therefore, assuming that GS-9 represented the true level of expertise or responsibility for the position, conversion to lieutenant colonel (O5) represented a poor management decision.

Another question about cost-effectiveness arose when AGR positions were correlated with unit positions occupied by part-time reservists, a practice called "double-slotting." Having two people assigned against the same position was obviously not cost-effective, especially in comparison with positions occupied by other part-time reservists alone.

In addition to the question of conversion costs, other problems arose. Conversion programs did not proceed smoothly in the Army components, largely because Army technicians felt threatened by the major cutbacks projected for their programs, and morale problems resulted. The question of eliminating 43 Staff Supervisory Administration Assistant (SSAA) positions in Army Reserve commands, scheduled for October 1, 1982, became symbolic of these concerns. These were the positions occupied by the most senior military technicians in the Army Reserve. Their elimination was perceived as not simply reducing the number of technician positions by 43 positions but as permanently downgrading the importance of technicians and their career potential. Finally, some perceived the conversion of technician positions as merely a ploy to avoid the consequences

of congressional constraints on Civil Service employee strengths. In such a climate, further congressional direction was inevitable.

Revised Congressional Guidance Provided During the Fiscal Year 1983 Budget Cycle

The FY 1983 Continuing Resolution providing appropriations for the DoD[48] affirmed the original 1975 guidance to use the least costly forms of manpower consistent with military requirements and other needs. The conference report on this resolution enumerated the following specific reasons for doing so:[49]

- The quality of previous cost comparisons had been called into question by the General Accounting Office.
- Congress had approved significant pay increases for the military since the last comprehensive comparative cost assessment of conversions. (Note: These raises through FY 1982 were included in the MCR report published in October, 1982.[50])
- The managers understood that "a significant portion of the conversions planned for fiscal year 1983 are principally responsive to the requirement to reduce the number of civilian personnel to achieve personnel ceiling objectives, rather than considerations of relative cost and relative effect on readiness."
- Some of the AGR personnel included in the conversions were understood not to be deployable assets, contrary to congressional directives.

It also prohibited further MT position conversions, specifically banning conversion of the 43 Staff Supervisory Administrative Assistant (SSAA) positions at Army Reserve Command headquarters.[51] The purpose was to establish a floor for the strength of military technicians for each component at the September 30, 1982 levels, and the specific language used was "intended to put a stop to conversion of military technicians, by whatever means that may be accomplished administratively."[52] Since this meant that the 1200 conversions planned for FY 1983 could not take place, the military personnel accounts for AGRs were reduced proportionately. The conversion of military technician positions to AGR positions has been prohibited by the Congress each year since 1983 through language included in annual appropriations acts. Hence, the freedom of reserve components to determine the appropriate mix of FTS personnel has, from the outset, been severely circumscribed.

In its report on the FY 1983 Department of Defense appropriation bill, the House Committe on Appropriations also directed each component to submit a cost-benefit analysis to support future budget submissions.[53] These analyses were to show both the relevant cost data and the impact on readiness requirements on the benefit side of the equation. The General Accounting Office was directed to review the analyses. The managers also urged the DoD to "streamline" programming and budgeting for both AGRs and technicians, an approach it felt would remove technicians from overall personnel ceilings and allow them to be programmed solely on the basis of cost and readiness. Finally, it called for the development of component management plans to ensure that the following principles were met:

- Military technicians may change to AGR status only voluntarily. No involuntary conversion or change of status is allowed.
- No military technician or civilian position will be abolished while incumbered for the purpose of reestablishing it as an AGR position.
- Military technicians and AGR personnel are employed in approved, validated fulltime positions.
- Every position encumbered by AGR personnel has a maximum authorized military grade that is consistent with the day-to-day responsibilities and skill level required for the position.
- The annual grade ceilings authorized for each component are not exceeded.
- Technician position floors were to be established in the Army and Air Force reserve components, equal to the number of technician positions occupied at the end of FY 1982.

In a separate section of its report,[54] the House Committee on Appropriations noted that the Army Guard and Reserve were "double slotting" full-time manning personnel; that is, they were listing them in active duty positions comparable to those held by drilling reservists. This practice was considered to be wasteful because, in effect, it put two people in the same job and did not ensure that the full-time personnel would have mobilization positions in the unit. Noting that the Army intended to address the problem, the Committee directed the Army to submit a report on its plans for corrective action by April 1983, and reduced the FY 1983 budget by $5 million.

Congressional Action During the Fiscal Year 1984 Budget Cycle

The Congress had for several years been concerned about the numbers of Army Reserve technicians who were either status quo technicians or military technicians assigned to units other than the one in which they were employed as a civilian. In 1983, the Department of the Army estimated that approximately 50 percent of Army Reserve technicians fell into one of these two categories. In its report on the Department of Defense Appropriation Bill, 1984,[55] the House Appropriations Committee held that such a situation was detrimental to mobilization readiness and unit cohesiveness; it stated a wish to correct the situation. The Committee believed that "the (civilian) military technician policy (statutorily required for National Guard military technicians, but administratively required for Reserve military technicians) should be statutorily required for the Army Reserve technicians." Therefore, it recommended language for the bill, requiring that Army Reserve technicians be employed, after passage, as a military member of the unit they support as technicians.

During this budget cycle, the House Appropriations Committee, convinced through testimony that the military technician program was a cost-effective and highly successful method of providing full-time support personnel for the Guard and Reserve, took additional actions to protect the technician force. In bill language at section 770, it fenced military technicians from all statutory or administrative civilian personnel ceilings in Army and Air Force reserve components, and it further restricted conversion of vacant technician positions by adding the term "or programmed to be occupied by" to the position conversion prohibition language.[56]

The Committee also expressed its belief that the entire AGR program was not cost-effective and singled out the Army programs for specific criticism:[57]

> Questionable management and administration of the full-time unit support program is another concern of the Committee. Infusion of military personnel in the Guard and Reserve has created problems for both the (civilian) drilling reservists and (civilian) military technicians. The massive infusion of AGR's into the Army Guard and Reserve is threatening the traditional stability of both components. We believe the National Guard Bureau and the U.S. Army Forces Command would, unchecked, replace all (civilian) technicians at the troop unit level with Active Guard and Reserve (AGR) personnel plus augment the units with additional AGR and Active duty personnel. The Committee's investigation revealed that many Guard and Reserve officials expressed concern that the Full Time Manning

(FTM) program was filling too many management and supervisory positions rather than subordinate-worker positions. Several officials commented, "They are giving us too many chiefs and not enough Indians."

As a result of these concerns, the Committee halved the programed increase for Army reserve component AGRs in FY 1984 to provide time for turbulent conditions to stabilize.

Adjustment to a Mixed Force of Full-Time Support Personnel

During FY 1984 and later, the turbulent conditions did stabilize somewhat with the implementation of measures to protect the technician programs in the Army's reserve components. However, there was evidence of continued friction between military technicians and AGRs, especially when the two groups were integrated in the daily work environment. Meanwhile, MCR produced two additional cost analyses[58] that assisted the individual components in preparing their specific program cost analyses as required by the Congress. These two reports consisted largely of updated cost factors based on methodology developed previously. They did not show a major change in cost relationships established in previous analyses; however, both reports contain the following caveat:

> MCR has developed the grade comparability table on Exhibit III-1. This may be used as an aid in determining corresponding military and civilian grade levels. However, the best and most current equivalency information is specific manpower and organization classification guidance developed by the components.

One aspect of this caveat is that cost analyses developed on a grade equivalency table are not valid unless the table is followed during actual conversions in the field. Since 1983, the reserve components have included regulations restricting the grades of AGRs with respect to both manning document and converted technician positions. However, since technician position conversions have not been authorized during this period, the pertinent analytical question has actually been, at what combination of military and civilian grades would you employ a military technician in this new AGR position you are requesting? How this question may be answered is addressed later in this report.

In its report on the FY 1985 Defense Authorization Act,[59] the House Armed Services Committee found that "the overall goal of improving reserve and guard readiness through a higher level of full-time support could be jeopardized by the ongoing controversy regarding the appropriate mix of full-time support personnel. Both programs appear to be here to stay." It called

for restrained but steady growth toward the commitment to reach 14 percent full-time support by FY 1990, and it called upon the DoD to improve its long-term management planning.

A 1985 General Accounting Office report to the Secretary of the Army (GAO/NSIAD-85-95, June 4, 1985), Problems in Implementing the Army's Reserve Components Full-Time Manning Program, generally agreed with a March 1984 Army cost-benefit analysis. The Army analysis concluded that there was an insignificant direct cost differential between technicians and AGRs, and that, at the maximum possible range, life-cycle costs for AGRs would not exceed 16 percent more than technician costs. The GAO report also recommended development of a plan "for using the civilian technicians which removes their positions from the deployable troop units and also protects the rights of current technicians and ... that congressional restrictions affecting the movement of these positions be removed."

Later that year, the House Committee on Appropriations, directed[60] that "further conversion of technicians to AGR status should not be made until a report is submitted to the committee outlining the Department's efforts to resolve the problems associated with the full-time support program."

In April 1986, the DoD responded to the House Appropriations Committee. In its response,[61] the DoD supported the 1985 GAO recommendation that the Army be permitted to realign its FTS force while protecting the welfare of incumbent technicians, and noted that congressional approval would be required. (In effect, the continuing ban on converting technician positions to AGR positions prevents force realignment.) To date, the Congress has not revised its guidance on technician conversion.

Other Recent Congressional Developments

Two additional recent congressional developments are pertinent to the review of this issue. The first is an important factor in computing compensation costs for military technicians, and the second indicates concern about the use of AGRS.

There has been a major change in the normal cost percentage (NCP) factor used in computing military retirement costs (payments into the military retirement trust fund) for military personnel. Effective on passage of the National Defense Authorization Act for Fiscal Year 1987, the Congress directed[62] the use of "Dual Percentage Determinations", or separate NCPs, for determining the amounts to be paid into the Military Retirement Fund for active duty members (including AGRs) and part-time reservists (including military technicians). Previously, a single NCP had been used amounting to 51.7 percent of basic pay FY in 1987. Under the revised system, the separate reserve retirement NCP was set at 26.4 percent of basic pay and

the active duty retirement NCP was set at 52.5 percent. Thus, the cost estimates for a military technician's reserve retirement have been reduced by approximately half.

During 1987, there were reports that many National Guard AGRs were serving in support positions, such as those in state headquarters, and not in units subject to wartime mobilization and deployment. In House Report 100-58 of the House Armed Services Committee, on the National Defense Authorization Act for FY 1988 and FY 1989, the Committee expressed concern "about reports that a high percentage of Active Guard and Reserve (AGR) personnel, particularly in the Army National Guard, are not serving in deployable units," the Committee stressed that "AGRs should be used primarily to support and train wartime deployable units."

Conclusion

The purpose of this historical perspective on military technician and AGR cost comparisons and intimately related management considerations is intended to show the many complexities of this issue. Although it has consumed an entire chapter, this review should by no means be considered an exhaustive treatment. It is intended instead to provide a minimum background for understanding the 6th QRMC cost comparison analysis that follows in Chapter 5, and the discussion of related management issues in Chapter 6.

Notes

1. Federal Staff Retirement Systems: Appendix to the Report to the President of the United States by the Cabinet Committee on Federal Staff Retirement Systems, printed as Senate Document No. 14, 90th Congress, 1st Session, p. 104.

2. Ibid, p. 105.

3. By recognizing technicians as federal employees, this Act, in combination with the provisions of Executive Order 10988, set the stage for technician unions in the National Guard. Within a few years, a majority of the force was organized, and the number of union/management disagreements and grievances grew. Also during this same period, when the Armed Forces were in transition from the draft to an all-volunteer force, there was great concern about the potential effects of unions in the Nation's military forces. This combination of a newly organized work force, increased disagreements, and concern about military unions in general, became a major issue in the debate about converting technicians to full-time active duty reservists.

4. See U.S., Department of Defense. Office of the Assistant Secretary of Defense for Reserve Affairs, Annual Report of the Secretary of Defense on Reserve Forces for Fiscal Year 1967, January 16, 1968, p. 14. In describing the new memorandum of understanding between the Department of the Army and the Civil Service Commission requiring dual status for Army Reserve technicians, the report states that dual status will "ensure that technicians will be available at regular scheduled training assemblies; (ensure) that technicians will move with their unit upon mobilization; increase readiness of units by supervision of subordinate elements of the unit to which the technician is assigned; enhance stability and maintenance of high skill units in those functions performed by technicians; and promote esprit de corps."

5. U.S., Congress. Pub. L. 93-155.

6. Defense Manpower Commission, Defense Manpower: The Keystone of National Security, Report to the President and the Congress, April 19, 1976 page vii.

7. Ibid, p. 127.

8. Defense Manpower Commission, Defense Manpower Commission Staff Studies and Supporting Papers, Volume II, The Total Force and its Manpower Requirements Including Overviews of Each Service, May, 1976, Working Paper G., Full-Time Personnel Support for the Reserve Components, by Hugh M. Walton.

9. U.S., Congress. House, Committee on Appropriations, Report [to accompany H.R. 7933], Department of Defense Appropriation Bill, 1978, House Report 95-451, June 21, 1977, pp. 91-98.

10. U.S. General Accounting Office, Report to Stephen J. Solarz, House of Representatives, Information on Military Technician Conversions to Full-Time Active Duty Guard and Reserve, (GAO/FPCD-82-57), September 8, 1982, App I., p. 10.

11. U.S., Congress. House Report 95-451, pp. 94-98.

12. U.S., Department of Defense. Office of the Deputy Assistant Secretary of Defense (Reserve Affairs), Reserve Compensation System Study, Final Report, (RCSS), June 30, 1978, page X.

13. Ibid, p. H-3.

14. Ibid, p. H-109.

15. Ibid, p.76.

16. U.S. Department of Defense. Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), Report on Full-Time Training and Administration of the Selected Reserve, (Gerard Study) June, 1978, page 1.

17. Presumed to be the RCSS.

18. U.S., Congress. House Report 95-451, page 97.

19. Gerard Study, page IV-19.

20. Ibid, p. 1.

21. Ibid, pp. IV-5 to IV-8.

22. Ibid, p.3 and Chapter VI.

23. Ibid, p. 2.

24. Ibid, pp. 6, 7, & 10.

25. U.S., Congress. House, Committee on Armed Services, Report [To accompany H.R. 5970], Authorizing Appropriations, Fiscal Year 1978, for Military Procurement, Research and Development, and Civil Defense; and Prescribing Strengths for Active-Duty and Reserve Military Components and Civilian Personnel of the Defense Establishment, and Military Training Student Loads; and for Other Purposes, House Report 95-194, p. 87. That this is the correct reference can be confirmed by reading the tasking letter at page A-1 in the Stroud Study.

26. U.S., Department of the Army. NGB-PO (DA Study Group), Study on the Full Time Personnel Requirements of the Reserve Components (Stroud Study), December 31, 1977, p. ix.

27. U.S., Congress. House, Committee on Appropriations, Report [To accompany H.R. 13635], Department of Defense Appropriation Bill, 1979, House Report 95-1398, June 21, 1978. (See also, House Report 95-1764 Conference Report, October 11, 1978.)

28. U.S., Congress. House, Committee on Appropriations, Report [To accompany H.R.5359], Department of Defense Appropriation Bill, 1980, House Report 96-450, September 20, 1979, p. 104; and House, Committee on Appropriations, Report [To accompany H.R. 8105] Department of Defense Appropriation Bill, 1981, House Report 96-1317, September 11, 1980, p. 65.

29. Management Consulting & Research, Inc. Evaluation of the Reserve Components Technician Position Conversion Test, Report No. TR-8018-1, November 1980, p. I-6.

30. U.S., Congress. House Report 96-1317, September 11, 1980, p. 66.

31. MCR Report TR-8018-1.

32. The Committee's recommendation was published on June 21, 1978, in House Report 95-1398. House Report 96-1317, September 11, 1980, indicates that the test started in October, 1978; however, the DoD contract evaluation, MCR Report TR-8018-1, indicates that the test did not begin until "early 1979."

33. U.S., Congress. House Report 96-450, p. 103.

34. For example, see the testimony of "Other Interested Individuals and Organizations" in Part 3 of the transcript of hearings on the Department of Defense Appropriations Act for FY 1988 before the House Committee on Appropriations Subcommittee on Defense.

35. MCR Report TR-8018-1, p. II-14.

36. MCR Report TR-8018-1, p. v.

37. House Report 96-450, p. 103.

38. U.S., Department of Defense. Letter from Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) to the Chairman, Committee on Appropriations, House of Representatives, December 30, 1980.

39. U.S., Congress. Committee on Appropriations, Report [To accompany H.R. 4995], Department of Defense Appropriation Bill, 1982, House Report 97-333, November 16, 1981, pp. 42-43.

40. Specific details of these strength changes can be found in GAO/FPCD-82-57, September 8, 1982, pp.26-29.

41. U.S., Congress. House, Committee of Conference, Conference Report [To accompany H.J. Res. 631] Making Further Continuing Appropriations and Providing for Productive Employment for the Fiscal Year Ending September 30, 1983, House Report 97-980, December 20, 1982, p. 96.

42. Management Consulting & Research, Inc., Comprehensive Review of the Requirements for Fill-Time Support (FTS) to the Guard and Reserve: Development of an Analytic Cost Structure, Report Nr. TR-8142-1, January 29, 1982.

43. Management Consulting & Research Inc., Cost Analysis of Full-Time Support to the Reserve Components of the Army and Air Force, Report No. TR-8214-1, October 29, 1982.

44. MCR Report No. TR-8214-1, October 29, 1982, p. IV-3.

45. MCR, Report No. TR-8214-1, October 29, 1982, Exhibit III-8, and pp. IV-3 & IV-4.

46. U.S., Congress. House, Memorandum for the Chairman, House Appropriations Committee, from the Surveys and Investigations Staff, June 6, 1983.

47. MCR Report No. TR-8214-1, October 29, 1982, Exhibit III-9.

48. U.S., Congress. Public Law 97-276; and House, Committee of Conference, Conference Report [To accompany H.J. Res. 599, Making Continuing Appropriations for the Fiscal Year ending September 30, 1983, and for Other Purposes, House Report 97-914, September 30,1982, p. 15.

49. U.S., Congress. House Report 97-914, September 30, 1982, p. 15.

50. MCR, Report No. TR-8214-1, October 29, 1982, p. I-2.

51. Although this action was characterized as a "technician conversion", note that there was no intent to convert the 43 SSAA positions to AGR positions. According to MCR Report TR-8214-1, p. III-1, there were no FY 1983 military technician conversions programmed in the Army Reserve. These positions were actually scheduled for elimination. The active component colonels who were to be renamed Assistant Deputy Commanders for Mobilization were not new personnel assets but, rather, were already serving in Army

Reserve Commands as active Army advisors, as they had been doing for a number of years.

52. U.S., Congress. House Report 97-914, September 30, 1982, p. 15.

53. U.S., Congress. House, Committee on Appropriations, Report [To accompany H.R. 7355], Department of Defense Appropriation Bill, 1983, House Report 97-943, December 2, 1982, p. 30.

54. Ibid, p. 32.

55. U.S., Congress. House, Committee on Appropriations, Report [To accompany H.R. 4185], Department of Defense Appropriation Bill, 1984, House Report 98-427, October 20,1983, p.37.

56. Ibid, p. 36.; and U.S., Congress. Pub. L. 98-212, §770.

57. U.S., Congress. House Report 98-427, pp. 34-36.

58. MCR, Cost Analysis of Full-Time Support to the Reserve Components of the Army and Air Force, Report No. TR-8338-1, March 15, 1984; and Cost Analysis of Full-Time Support of the Army and Air Force, Report No. TR-8458-1, May 24, 1985.

59. U.S., Congress. House, Committee on Armed Services, Report [To accompany H.R. 5167], Department of Defense Authorization Act, 1985, House Report 98-691, April 19.1984, p. 240.

60. U.S., Congress. House, Committee on Appropriations, Report [To accompany H.R. 3629], Department of Defense Appropriation Bill, 1986, House Report 99-332, October 24, 1985, p. 15.

61. U.S., Department of Defense. Letter from Assistant Secretary of Defense (Reserve Affairs) to Chairman, Committee on Appropriations, House of Representatives, April 24, 1986.

62. U.S., Congress. House, Committee of Conference, Conference Report, [To accompany S. 2638], National Defense Authorization Act for Fiscal Year 1987, House Report 99-1001, October 14, 1986, pp. 78-80.

Chapter 5. 6TH QRMC COST COMPARISON ANALYSIS OF MILITARY TECHNICIANS AND ACTIVE GUARD/RESERVE MEMBERS

Since 1976, when the Defense Manpower Commission concluded that providing full-time support for the reserve components through active duty military manpower would cost less than through dual status military technicians, the relative costs of these two forms of manpower in the Army and Air Force reserves have been debated. The course of this debate was reviewed in Chapter 4. Previous analyses have shown that there is no single answer to the question of relative costs, but certain precepts and general trends have been identified:

- Manpower programming is based on costs to the government, not on benefit to the individual.
- To form a true picture of compensation costs, all significant immediate and deferred, direct and indirect costs must be considered.
- Because pay raises and other compensation system changes may alter relative costs, cost analyses must be updated periodically.
- The availability of accurate, integrated databases is essential to the computation of valid cost comparisons.
- Relative costs cannot be determined without establishing a linkage, such as military pay grade, as a basis of comparison. Such linkages may take the form of grade equivalency tables, service or component manpower organization classification guidance, or population averages.
- The more recent analyses show that AGRs generally cost more than general schedule military technicians but somewhat less than most wage board technicians. In addition, AGR officers are relatively more expensive than enlisted AGRs, and the relative costs of AGRs within enlisted, warrant officer, and officer categories increase with military pay grade as compared with military technicians.

The 6th QRMC's cost comparison analysis of full-time support is intended to provide up-to-date cost estimates reflecting compensation system changes since the last major analysis

(conducted by Management Consulting & Research, Inc., published on May 24, 1985[1]) and to advance the state of the art, where possible, using improved databases and procedures. The plan for attaining these objectives included developing a full-time support cost comparison model. This model would produce new cost estimates that would, in turn, provide a basis for 6th QRMC conclusions about the cost-effectiveness of military technician and AGR manpower from a reserve component compensation perspective. Accordingly, Computer Based Systems, Inc. (CBSI) was commissioned to build a full-time support cost comparison model for the 6th QRMC. This model is described in the next section. The description includes a detailed printout, with complete cost elements and results by personnel category, for each of the Army and Air Force reserve components.

The 6th QRMC Full-Time Support Cost Comparison Model - Description and Results

In past comparisons of the use of military technicians with the use of AGR members, cost has been frequently an important element for consideration. This is a reasonable approach because cost, in the narrow sense of the word, can usually be expressed in terms of dollars. Dollars have two desirable qualities relative to comparative analysis: (1) they are tangible items with a fixed value for a specific period of time, and (2) they are expressed in hard numbers, thus enabling the use of quantitative methods. However, these qualities can be diluted significantly when cost is used in its broader sense, i.e. when attempts are made to relate costs to effectiveness, which is more difficult to quantify. Further dilution occurs when attempts are made to determine indirect costs for services that, while universally available, are used on a variable basis, e.g. commissary, exchange, theater, medical treatment, child care centers, legal services and so forth. This is not to say that efforts to determine these costs should be abandoned just because it is a difficult and inexact process--quite the contrary. A comprehensive comparative analysis should include all measurable costs in the context of other relevant factors.

The 6th QRMC charter focuses on military compensation, and consequently the cost-related models, analyses, and studies engaged in by the 6th QRMC are focused primarily on compensation costs. In this regard, the costing model developed by CBSI deals for the most part with direct compensation costs to the federal government--more specifically to the DoD. This distinction is an important one because it is the rationale for excluding from the model one of the four elements of regular military compensation: federal income tax advantage.

The Cost Comparison Model

In support of the work of the 6th QRMC, CBSI developed a comprehensive database to enable the analysis of the relative cost of military technicians and AGRs as full-time support to the reserve components.

This model incorporates military and civilian income data for military technicians and AGRs, including data on reserve component, military and (if applicable) civilian grade, step and category, military specialty, marital status, and all elements of compensation: direct, indirect and in-kind. The model is configured to allow analysis of these data elements.

CBSI developed a computer program enabling the QRMC staff to estimate the effects of alternative force profiles and compensation for military technicians and AGRs under current and alternative compensation schemes. The program can be used to calculate relative costs under these alternatives.

Model Development Considerations

The model was planned to enable evaluations of cost while varying other elements, either force structure or compensation elements. A deterministic model was used instead of a stochastic model because there was not time to collect and analyze data on the associated random behavior patterns.[2] It was decided that the model would be most effective if it explicitly displayed the force structure and compensation variables; in essence, much of the database. These database variables include such items as military and civil service force structure by pay grade and reserve component, military allowances, social security contributions and so forth. Apart from using the model to project costs based on varying force structures and compensation schemes, it was important to be able to take a snapshot of actual costs for an actual military technician and AGR force structure. The snapshot time frame was calendar year (CY) 1986. The model provides a realistic, actual compensation cost for the average military technician and AGR for that period.

Determining a Common Base for Comparing Military Technicians with AGRs

The initial plan was to use a DoD-authorized scheme that would provide a direct linkage between military technicians and AGRs. Such a scheme or policy would be applicable to all DoD Services and would ensure uniformity and standardization. The DoD has not promulgated such a policy, however, and further investigation revealed that only the National Guard had published specific regulations dealing with the issue of military technician and AGR equivalency. These equivalencies

are contained in Air National Guard Regulation 35-03, dated August 15, 1985, and NGR 600-5, dated May 15, 1986. They provide the maximum military pay grades for AGRs who fill positions that could also be filled by military technicians.

Also considered were the comparability tables for military technicians and AGRs (published by Management Consulting and Research, Inc. (MCR) in their May 24, 1985, study entitled "Cost Analysis of Full-Time Support to the Reserve Components of the Army and Air Force.")[3] The MCR table also compared military pay grade to civil service pay grade and paralleled the Army and Air Guard equivalencies to some extent in the general schedule (GS)/general merit (GM) and wage grade (WG) categories. The wage leaders (WL) and wage supervisors (WS), however, were not well aligned. Additionally, the MCR table did not reflect actual conditions--many of the military pay grades had no civil service counterpart even though reserve component personnel records indicated otherwise. Finally, the methodology by which MCR developed the table was not well documented in their report. Consequently, the table could not be validated for use in CBSI's model.

Given these conditions and the requirement to develop an actual cost comparison between military technicians and AGRs in CY 1986, it was decided to survey the existing distribution of civil service grades versus military pay grades actually held by military technicians. The distribution would then be compared with the Army and Air National Guard and MCR equivalencies and, then, if the three distributions were essentially the same, the military pay grade would be used as the linkage between military technicians and AGRs.

The primary source for military technician data was the Reserve Components Common Personnel Data System (RCCPDS); however, the accuracy and currency of a portion of the military technician database was questionable. Data files from the Office of Personnel Management (OPM) on DOD civilians provided a secondary source of data on military technicians. The two databases were merged to produce a listing of all military technicians, by Social Security Account Number (SSAN), contained in both databases. As it turned out, there were about 54,000 matches. RCCPDS contained slightly less than 3,300 members identified as military technicians for which no SSAN match could be found in the OPM database. Similarly, the OPM database contained slightly less than 3,300 individuals identified as military technicians for which no SSAN match could be found in RCCPDS. Finally, another 3,000 persons identified as military technicians in the OPM database matched SSANs in RCCPDS; however, RCCPDS identified them as some reserve category other than military technicians.

The distribution of a mean civil service pay grade versus a specific military pay grade was developed from the approximately 54,000 individuals identified as military technicians by both RCCPDS and OPM. Before calculating the average, small population cells of 20 or less were deleted from the initial database of 54,000. Then, means and standard deviations were calculated for each military and civil service pay grade. For example, an average civil service pay grade for military pay grade E6 had to be calculated for all four civil service categories, i.e. GS/GM, WG, WS, and WL; and for all reserve components as well. Each mean pay grade was recalculated after first deleting civil service pay grades that were more than two standard deviations from the mean. The resulting database was slightly less than 50,000. The constructed mean pay grades and the equivalencies promulgated by the Air and Army National Guard regulations were fitted to cubic regression curves and plotted for the largest and most representative military/civil service pay grade community: the enlisted/wage grade community. The vast majority (88 percent) of enlisted pay grades in this community is represented by pay grades E5, E6, and E7. The regression curves for this group were virtually identical and were centered within a narrow 95 percent confidence interval band. The above calculations and graphics were done with suitable application packages from the Statistical Analysis Systems (SAS). These distributions and the development methodology were presented to and approved by the 6th QRMC Steering Committee on September 21, 1987.

Because one of the objectives was to calculate total costs for both the military technician and AGR programs, it was necessary to reintroduce the military technician records that had been deleted in calculating the mean distributions, as well as the approximately 3,000 records common to both RCCPDS and OPM but only identified as military technicians in RCCPDS. Before these records were incorporated, they were analyzed to determine whether significant bias existed; none was found. These records were forced on the newly derived mean civil service/military pay grade distribution, bringing the final number of military technicians in the model to approximately 57,000.

Determining and Validating the Elements of Compensation

As discussed earlier, only compensation costs were considered. For military and civil service personnel alike, the obvious direct forms of compensation, such as pay and allowances, were used. Where possible and significant, other indirect costs such as retirement and FICA were also considered. The rationale for including all cost elements in the model, but excluding other elements was presented to and approved by the Steering Committee at meetings held in September and November 1987. As might be expected, there was considerable discussion regarding inclusion

or exclusion of some cost elements. In the main, this discussion centered on the distinction between a compensation benefit to the individual and a compensation cost to the DoD.

An example of this cost element controversy is tax advantage. The tax advantage has been defined in law as an element of regular military compensation (RMC), and it is a compensation benefit for military personnel. With respect to its inclusion in the model the question is, Is there a cost associated with it? It may be argued that the lost tax revenue is a cost borne by the federal government and, therefore, should be included in the model. On the other hand, no cash outlays are made, and no line item exists in the DoD's budget for tax advantage. Inasmuch as the model considers only compensation costs to the DoD, it would appear inconsistent with the basic rationale to include tax advantage in the model.

The final reason for not including tax advantage in the model was based on the assumption that there would be no gain or loss in revenue if the tax advantage were eliminated in a way that would leave military personnel no better or worse off. In other words, if allowances were taxable, basic pay and allowances would be increased by an amount that would leave the Service member with the same after-tax income previously received with nontaxable allowances.

The consequences of including or excluding of such elements obviously affect the military technician and AGR cost comparison. In this case, for example, because AGRs receive nontaxable allowances in cash or in kind for 365 days a year, compared with about 14 days or more for military technicians, the tax advantage would be much greater for AGRs.

As stated at the beginning of this section, the basic premise for determining which cost elements to use was twofold: first, only compensation costs would be used; and second, the costs had to be significant. As work on the CY 1986 version of the model progressed, it was decided to use actual costs rather than budget estimates, survey extrapolations, or unvalidated data from earlier studies. The source of the cost elements, associated computations, and assumptions are detailed in Appendix D.

The cost elements used for the AGR population are listed below:

- Basic Pay
- Basic Allowance for Subsistence
- Basic Allowance for Quarters
- Variable Housing Allowance (Overseas Housing Allowance was not used due to the very small number of AGRs receiving it.)

- Special and Incentive Pays
- Retirement
- Death Gratuity
- FICA
- Health care (for dependents only)

The cost elements used to calculate the military portion of a military technician's pay are essentially the same as those used to calculate an AGR's pay, except that the Variable Housing Allowance (VHA) and health care cost elements were not used. VHA was not used because military technicians would seldom satisfy the eligibility requirement of 140 days of continuous active duty. Similarly, dependent health care costs are incurred only when the member is on active duty under orders specifying a period of more than 30 days.

The cost elements used to calculate the civil service portion of a military technician's pay are fewer, due to the absence of military allowances. Civil service cost elements are listed below:

- Basic pay
- Other pays (combination of several miscellaneous pays, such as overtime, hazard pay, night differential, holidays, etc.)
- Retirement
- FICA
- Health
- Workers compensation
- Terminal leave

Data Availability

Without question, difficulty in getting data was the most serious impediment to development of the model. It was anticipated that many elements of personnel data and compensation cost data would be available from a reserve components pay system similar to the active services' Joint Uniform Military Pay System (JUMPS). Unfortunately, such a system was not in place when the 6th QRMC convened (nor is one now), and alternative data sources had to be located and used. At best, this was a difficult and time-consuming process; at worst, it forced the use of data that was inaccurate or inconsistent with other data sources (See Appendix D). One of the major problems encountered in obtaining data is described here to illustrate the difficulties associated with getting accurate data on a timely basis.

Essential to development of the military portion of military technicians compensation is the actual number of active duty days and inactive duty drill periods. These data elements are foundation variables upon which other factors operate, in order

to generate dollar values for basic pay, VHA, BAS, FICA, retirement, and special/incentive pays. When it became apparent that consolidated pay data for the reserve components would not be available in time, data was requested directly from the Army National Guard, Army Reserve, Air National Guard, and Air Force Reserve. After several attempts, the appropriate databases for each reserve component were located. Shortly thereafter, data was received for actual CY 1986 active duty days and inactive duty drill periods for the Air National Guard and Air Force Reserve. This data was loaded into the model, and it yielded results with high confidence levels. Unfortunately, efforts to obtain similar data from the Army National Guard and Army Reserve were not successful. The effort was finally abandoned in late May 1988 when communications from the Army Reserve Personnel Center and the Army National Guard Personnel Center stated that the desired data could not be obtained in the near term. Imputed values, taken from the 1986 Reserve Components Surveys, ultimately were used to generate military costs for military technicians in the Army Guard and Army Reserve. This data is not only significantly less reliable, but it also pertains to CY 1985 instead of CY 1986 (while the survey instruments were administered in 1986, the questions about these costs asked for 1985 data). Consequently, the cost data for the military pay portion of Army Guard and Army Reserve military technicians is considered far less accurate and reliable than its counterparts for the Air National Guard and the Air Force Reserve.[4]

Model Description and Operation

The model comprises 45 spread sheets, one for each of the four reserve component AGR force structures and one for the total, eight for each of the four reserve component military technician force structures broken down by military and civil service compensation for each civil service category (GS/GM, WG, WS, and WL), and eight military technician spreadsheets for the reserve component totals. For continuity, two of the 45 are zero filled (because there are no WLs in the Air Force Reserve). The entering argument (leftmost column) for all 45 spreadsheets is military pay grade, which is broken down into enlisted, warrant officer, and commissioned officer groups. Not all military pay grades are represented in military technician spreadsheets because some grades do not contain significant civil service populations. Starting with pay grade cell populations, the model works from left to right rolling up costs that yield a mean individual cost for a particular pay grade cell as well as a total cost for that pay grade cell. Grand totals for military technician and AGR populations in each reserve component are generated at the bottom of appropriate spreadsheets. In turn, these grand totals (personnel and costs) are rolled into final totals for the combined components, ultimately yielding a mean DoD cost for individual military technicians and AGRs. The

model run for CY 1986 is contained in Appendix E. Appendix D contains details on the model's operation and a representative printout of the program.

Management Considerations

Only one model run was made. It uses CY 1986 actual military and civil service compensation factors in combination with the actual military and civil service force structures. The results of this run are analyzed and discussed later in this chapter. The model was designed primarily, however, to assist manpower managers in developing compensation costs for differing force structure and compensation schemes. For example, force structures can be altered to reflect differing mixes of military technicians and AGRs, lengthened or shortened years of service, increased or decreased marital status ratios, and differing military/civil service pay grade distributions. Optional compensation schemes are equally numerous. The cost impact of adjusting basic pay and allowances can easily be predicted, as can changes to retirement, health, and social security systems. The model can provide meaningful information for current issues such as the following:

- How much did military technician costs increase as the result of FICA contributions on inactive duty training earnings, effective January 1, 1988; how did this alter the military technician and AGR cost ratio?
- How will military technician costs change as the number of civil servants enrolled under the Civil Service Retirement System decreases and the number under Federal Employee Retirement System increases?
- How will the relative costs of military technicians and AGRs change under differing future military and civil service pay raise scenarios?
- How would implementation of proposed changes to the reserve retirement system affect the military technician and AGR cost ratio?

The above list represents just a few of the compensation related issues that the manpower analyst can address with the aid of the model. However, without periodic updating of embedded data, the model will quickly become inaccurate. Although data is accurate for CY 1986, numerous changes to compensation elements and force structure have since occurred, e.g. pay raises for both military and civil service communities, changes to the FICA tax rate and inclusion of compensation for inactive duty training as FICA taxable earnings, dramatic increases in health costs, etc. Many of these changes can quickly be captured and incorporated into the model. However,

until an accurate, current, and complete system like JUMPS is established for the reserve, obtaining critical data on active duty days, inactive duty periods, and special and incentive pays will continue to be a daunting and time-consuming process.

Model Enhancements

Model development as shown in the CY 1986 output version is essentially complete. A possible next step is the inclusion in the model of additional costs other than compensation costs, such as facility maintenance and other overhead costs. This would require substantial effort and could not be viewed as an evolutionary change; the model would be subject to more uncertainty as costing elements move farther from observable direct costs towards estimates of intangible costs.

Along more practical lines, major improvement could be achieved by replacing estimated active duty days and inactive duty periods (currently obtained from the 1986 Reserve Components Surveys) with actual data from Army Guard and Army Reserve records. Further, use of actual data for special and incentive pays for all components would yield more reliable results than using the current method; that is, imputing it by combining basic pay with taxable income from IRS W-2 forms.

Apart from producing better results, the availability of easily accessible, valid data for full-time support populations would dramatically decrease the time necessary to make model changes; many intermediate calculations would not be necessary. Because many intermediate calculations are performed external to the model, the possibility of making mistakes is reduced as well.

Analysis of Results From the Full-Time Support Cost Comparison Model

Results from the FTS cost comparison model, shown in Appendix E, form the basis for the following analysis. From the format of the results as received from the computer, the reader can gain an appreciation of the detail and complex associations necessary to make such a cost comparison. It is also possible to determine the specific cost elements that were used and how they fit into the overall scheme of computations. This format, however, does not provide a picture of the overall cost patterns between technicians and AGRs; to show these patterns, two additional data views were prepared from the base data provided by the model results.

Additional Views of the Results

The first of these views consists of four tables (Tables 5-1 through 5-4) showing for each reserve component, the average total annual cost, strength, and average civilian pay grade as a function of military pay grade for the three major military categories (enlisted, warrant officers, and officers as applicable for the reserve component) and the four major civil service categories--GS/GM, WG, WS, and WL. These tables were formed by eliminating the cost element columns from the model run and totalling the subtotals for population size and average annual costs. Note that the "Cost per individual" column for military technician represents the combined military and civilian cost per individual (i.e. the "total cost per individual" column from the model run).

By comparing the AGR data on the left with that for the four military technician categories on the right, these major relationships can be observed:

- Of the five major groups shown, GS/GM military technicians have lower average annual costs than AGRs in most military pay grades and lower than average costs than wage board technicians in all military pay grades.

- In the military pay grades with the highest population strengths, wage board military technicians generally cost more than AGRs. In the more senior military pay grades, AGRs generally cost more than wage board military technicians.

- Costs increase more rapidly for AGRs than for military technicians as a function of increasing military pay grade.

- Although the three observations listed above are valid for all four reserve components, there are significant differences among these components. The <u>average</u> civilian pay grade held among military technicians at any military pay grade varies by as much as 3.4 civilian pay grade levels across the components. Air Force Reserve AGR and military technician forces cost more per capita than in other components because the AGR force consists largely of higher grade statutory tour officers and recruiters. The Air National Guard generally has the least difference between AGR and military technician compensation costs while the Army Reserve has the greatest.[5]

Table 5-1. Comparison of FTS Annual Compensation Costs, Strengths, and Military Technician Civilian Pay Grades by Military Pay Grade

Reserve Component - ARMY NATIONAL GUARD

AGRs			Military Technicians												
				GS/GM			WG			WS			WL		
Military Pay Grade	Population Size	Cost Per Individual	Military Pay Grade	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Total MT Strength
E-1	6	$17,583	E-1	GS-	0		WG-	0		WS-	0		WL-	0		0
E-2	46	$18,989	E-2	GS-4.3	51	$22,133	WG-5.8	47	$29,593	WS-	0		WL-	0		98
E-3	277	$19,939	E-3	GS-4.4	174	$24,008	WG-6.4	167	$32,056	WS-	0		WL-	0		341
E-4	2,790	$25,435	E-4	GS-4.8	970	$24,325	WG-7.5	1,401	$32,722	WS-	0		WL-	0		2,371
E-5	4,943	$29,327	E-5	GS-5.5	1,455	$26,831	WG-8.3	3,205	$34,716	WS-	0		WL-	0		4,660
E-6	5,213	$34,648	E-6	GS-6.3	1,410	$29,908	WG-9.4	3,736	$37,818	WS-8.4	67	$46,186	WL-9.1	50	$41,125	5,263
E-7	5,646	$40,267	E-7	GS-6.9	1,066	$32,940	WG-9.6	2,318	$39,628	WS-8.5	252	$47,810	WL-9.7	117	$43,612	3,753
E-8	942	$46,263	E-8	GS-7.0	675	$35,505	WG-9.7	584	$42,114	WS-8.4	171	$49,923	WL-9.8	45	$46,086	1,475
E-9	272	$58,073	E-9	GS-7.5	300	$38,285	WG-9.2	63	$42,533	WS-8.3	51	$51,088	WL-	0		414
Subtotal	20,135	$34,257		Subtotal	6,101	$29,614	Subtotal	11,521	$36,826	Subtotal	541	$48,586	Subtotal	212	$43,551	18,375
W-1	36	$36,162	W-1	GS-7.7	70	$34,564	WG-10.9	22	$41,440	WS-8.3	31	$46,796	WL-	0		123
W-2	358	$46,786	W-2	GS-8.0	568	$37,555	WG-11 .0	153	$43,763	WS-8.6	391	$49,489	WL-	0		1,112
W-3	149	$54,781	W-3	GS-8.6	421	$40,818	WG-11.1	36	$45,302	WS-8.8	249	$51,279	WL-	0		706
W-4	197	$65,252	W-4	GS-9.4	519	$44,974	WG-	0		WS-8.8	210	$52,888	WL-	0		729
Subtotal	740	$52,795		Subtotal	1,578	$40,733	Subtotal	211	$43,783	Subtotal	881	$50,710	Subtotal	0		2,670
O-1	146	$36,971	O-1	GS-8.5	144	$38,315	WG-	0		WS-	0		WL-	0		144
O-2	206	$45,283	O-2	GS-8.8	203	$42,588	WG-	0		WS-	0		WL-	0		203
O-3	977	$58,843	O-3	GS-10.0	574	$47,813	WG-	0		WS-12.5	32	$59,802	WL-	0		606
O-4	1,001	$67,955	O-4	GS-10.8	553	$53,764	WG-	0		WS-13.9	41	$65,836	WL-	0		594
O-5	435	$81,530	O-5	GS-11.9	562	$61,949	WG-	0		WS-15 .0	42	$69,278	WL-	0		604
O-6	138	$97,229	O-6	GS-13.7	301	$79,197	WG-	0		WS-	0		WL-	0		301
Subtotal	2,903	$65,147		Subtotal	2,337	$55,624	Subtotal	0		Subtotal	115	$65,414	Subtotal	0		2,452
TOTAL	23,778	$38,606		TOTAL	10,016	$37,435	TOTAL	11,732	$36,951	TOTAL	1,537	$51,063	TOTAL	212	$43,551	23,497

Source: 6th QRMC FTS Cost Comparison Model

Table 5-2. Comparison of FTS Annual Compensation Costs, Strengths, and Military Technician Civilian Pay Grades by Military Pay Grade

Reserve Component - ARMY RESERVE

AGRs			Military Technicians													
				GS/GM			WG			WS			WL			
Military Pay Grade	Population Size	Cost Per Individual	Military Pay Grade	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Total MT Strength
E-1	0		E-1	GS-	0		WG-	0		WS-	0		WL-	0		0
E-2	0		E-2	GS-	0		WG-	0		WS-	0		WL-	0		0
E-3	8	$20,402	E-3	GS-4.5	14	$21,909	WG-6.4	17	$32,016	WS-	0		WL-	0		31
E-4	583	$23,598	E-4	GS-5.0	133	$25,369	WG-8.3	132	$34,574	WS-	0		WL-	0		265
E-5	2,140	$28,283	E-5	GS-5.9	247	$27,908	WG-8.6	263	$35,442	WS-	0		WL-	0		510
E-6	2,354	$33,935	E-6	GS-6.1	328	$29,328	WG-9.0	299	$37,100	WS-	0		WL-	0		627
E-7	3,044	$39,859	E-7	GS-6.8	387	$32,088	WG-9.0	200	$37,981	WS-8.8	22	$47,941	WL-9.5	14	$42,782	623
E-8	646	$45,813	E-8	GS-7.3	261	$34,935	WG-8.9	73	$39,237	WS-9.2	18	$50,010	WL-	0		352
E-9	92	$57,702	E-9	GS-8.6	140	$42,086	WG-	0		WS-	0		WL-	0		140
Subtotal	8,867	$35,025		Subtotal	1,510	$31,538	Subtotal	984	$36,568	Subtotal	40	$48,872	Subtotal	14	$42,782	2,548
W-1	34	$37,528	W-1	GS-	0		WG-	0		WS-	0		WL-	0		0
W-2	241	$44,828	W-2	GS-8.1	199	$37,273	WG-9.1	74	$39,622	WS-8.5	29	$48,828	WL-	0		302
W-3	97	$53,050	W-3	GS-9.7	125	$44,317	WG-10.0	21	$43,240	WS-8.8	19	$51,315	WL-	0		165
W-4	131	$63,971	W-4	GS-10.1	208	$46,827	WG-10.0	20	$44,396	WS-8.8	24	$52,472	WL-	0		252
Subtotal	503	$50,906		Subtotal	532	$42,664	Subtotal	115	$41,113	Subtotal	72	$50,699	Subtotal	0		719
O-1	22	$35,783	O-1	GS-8.0	13	$34,506	WG-	0		WS-	0		WL-	0		13
O-2	180	$44,620	O-2	GS-8.0	39	$38,269	WG-	0		WS-	0		WL-	0		39
O-3	850	$58,214	O-3	GS-8.1	92	$40,183	WG-	0		WS-	0		WL-	0		92
O-4	1,172	$68,598	O-4	GS-9.6	79	$48,704	WG-	0		WS-	0		WL-	0		79
O-5	483	$80,773	O-5	GS-10.5	65	$53,584	WG-	0		WS-	0		WL-	0		65
O-6	80	$96,392	O-6	GS-11.0	42	$59,150	WG-	0		WS-	0		WL-	0		42
Subtotal	2,787	$66,531		Subtotal	330	$46,827	Subtotal	0		Subtotal	0		Subtotal	0		330
TOTAL	12,157	$42,905		TOTAL	2,372	$36,160	TOTAL	1,099	$37,043	TOTAL	112	$50,046	TOTAL	14	$42,782	3,597

Source: 6th QRMC FTS Cost Comparison Model

Table 5-3. Comparison of FTS Annual Compensation Costs, Strengths, and Military Technician Civilian Pay Grades by Military Pay Grade

Reserve Component - AIR NATIONAL GUARD

AGRs			Military Technicians												
				GS/GM			WG			WS			WL		
Military Pay Grade	Population Size	Cost Per Individual	Military Pay Grade	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Total MT Strength
E-1	2	$20,006	E-1	GS-	0		WG-	0		WS-	0		WL-	0		0
E-2	6	$18,125	E-2	GS-4.0	33	$24,545	WG-	0		WS-	0		WL-	0		33
E-3	33	$19,213	E-3	GS-4.8	105	$25,665	WG-7.5	110	$34,085	WS-	0		WL-	0		215
E-4	309	$24,017	E-4	GS-5.3	435	$25,622	WG-9.6	922	$36,454	WS-	0		WL-	0		1,357
E-5	1,971	$29,145	E-5	GS-5.7	977	$27,192	WG-10.3	3,517	$38,356	WS-	0		WL-	0		4,494
E-6	1,966	$34,368	E-6	GS-7.1	1,188	$31,942	WG-10.6	4,394	$39,985	WS-8.5	210	$46,300	WL-10.0	18	$42,806	5,810
E-7	1,467	$40,829	E-7	GS-8.0	2,014	$35,766	WG-10.8	2,116	$41,611	WS-9.0	1,019	$48,481	WL-10.0	21	$44,051	5,170
E-8	247	$48,043	E-8	GS-8.6	890	$39,389	WG-11.1	158	$43,885	WS-9.3	717	$50,621	WL-	0		1,765
E-9	49	$57,888	E-9	GS-9.5	475	$43,214	WG-	0		WS-12.0	337	$55,728	WL-	0		812
Subtotal	6,050	$34,350		Subtotal	6,117	$33,804	Subtotal	11,217	$39,488	Subtotal	2,283	$50,022	Subtotal	39	$43,476	19,656
O-1	37	$38,946	O-1	GS-10.0	79	$44,768	WG-	0		WS-	0		WL-	0		79
O-2	40	$47,610	O-2	GS-10.5	92	$47,410	WG-	0		WS-	0		WL-	0		92
O-3	269	$60,603	O-3	GS-11.6	280	$57,237	WG-	0		WS-	0		WL-	0		280
O-4	430	$69,647	O-4	GS-12.3	540	$65,296	WG-	0		WS-	0		WL-	0		540
O-5	202	$81,036	O-5	GS-13.1	754	$75,868	WG-	0		WS-	0		WL-	0		754
O-6	68	$98,876	O-6	GS-14.4	157	$92,675	WG-	0		WS-	0		WL-	0		157
Subtotal	1,046	$69,492		Subtotal	1,902	$68,843	Subtotal	0		Subtotal	0		Subtotal	0		1,902
TOTAL	7,096	$39,530		TOTAL	8,019	$42,115	TOTAL	11,217	$39,488	TOTAL	2,283	$50,022	TOTAL	39	$43,476	21,558

Source: 6th QRMC FTS Cost Comparison Model

Table 5-4. Comparison of FTS Annual Compensation Costs, Strengths, and Military Technician Civilian Pay Grades by Military Pay Grade

Reserve Component - AIR FORCE RESERVE

AGRs			Military Technicians													
				GS/GM			WG			WS			WL			
Military Pay Grade	Population Size	Cost Per Individual	Military Pay Grade	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Civilian Pay Grade	Population Size	Cost Per Individual	Total MT Strength
E-1	0		E-1	GS-	0		WG-	0		WS-	0		WL-	0		0
E-2	0		E-2	GS-	0		WG-	0		WS-	0		WL-	0		0
E-3	0		E-3	GS-	0		WG-	0		WS-	0		WL-	0		0
E-4	0		E-4	GS-5.8	38	$26,534	WG-9.8	159	$36,480	WS-	0		WL-	0		197
E-5	37	$29,922	E-5	GS-6.9	260	$30,231	WG-10.1	1,548	$37,855	WS-	0		WL-	0		1,808
E-6	143	$35,971	E-6	GS-7.5	570	$33,120	WG-10.3	2,153	$39,430	WS-8.0	94	$45,363	WL-	0		2,817
E-7	146	$41,562	E-7	GS-8.5	873	$37,494	WG-10.7	571	$41,594	WS-8.6	443	$47,889	WL-	0		1,887
E-8	95	$47,534	E-8	GS-9.1	263	$40,769	WG-	0		WS-9.7	228	$50,901	WL-	0		491
E-9	23	$55,411	E-9	GS-10.2	125	$46,119	WG-	0		WS-12.7	187	$57,861	WL-	0		312
Subtotal	444	$40,787		Subtotal	2,129	$36,151	Subtotal	4,431	$39,053	Subtotal	952	$50,320	Subtotal	0		7,512
O-1	0		O-1	GS-10.2	17	$47,179	WG-	0		WS-	0		WL-	0		17
O-2	2	$47,115	O-2	GS-11.0	35	$51,302	WG-	0		WS-	0		WL-	0		35
O-3	5	$60,437	O-3	GS-12.0	157	$62,589	WG-	0		WS-	0		WL-	0		157
O-4	44	$70,175	O-4	GS-12.5	358	$70,213	WG-	0		WS-	0		WL-	0		358
O-5	53	$82,119	O-5	GS-12.6	150	$72,901	WG-	0		WS-	0		WL-	0		150
O-6	61	$97,746	O-6	GS-13.8	75	$87,794	WG-	0		WS-	0		WL-	0		75
																0
Subtotal	165	$83,630		Subtotal	792	$69,545	Subtotal	0		Subtotal	0		Subtotal	0		792
TOTAL	609	$52,394		TOTAL	2,921	$45,206	TOTAL	4,431	$39,053	TOTAL	952	$50,320	TOTAL	0		8,304

Source: 6th QRMC FTS Cost Comparison Model

The second view prepared from the model data consists of the series of ten line graphs in Figures 5-1 through 5-10. These graphs were prepared by arraying military pay grades on the X-axis and annual cost ranges from the "cost per individual" columns in Tables 5-1 through 5-4 on the Y-axis. AGR costs are shown by the solid line on each chart, and the applicable military technician categories are shown by the remaining lines according to the legend. The length of the lines corresponds to the military grade spread in the population, and the slope of the lines indicates the rate of change in costs as military grade increases. When the average annual costs for military technicians are higher than those for AGRs, the technician lines are above the AGR line. When the cost relationship is reversed, the technician lines are below the AGR line. These graphs vividly display most of the relationships outlined above on an average cost basis. They do not, however, show the impact of grade linkages and strength by grade relationships that are indicated in the tables.

Cost Model Management Indicators

If hypothetical total program costs were the sole criterion for choice, the 6th QRMC cost comparisons, as well as the conclusion that AGRs should continue to receive essentially the same compensation as active component members, would generally support the use of general schedule military technicians over AGRs in the full-time support forces of the Army and Air Force Reserve Components. As discussed below, however, this would be unlikely to produce actual savings.

There are currently some 46,000 AGRs and 65,000 military technicians in the reserve components of the Army and the Air Force. Changing the force mix, however, either through program growth or through realignment, will likely achieve only marginal cost changes at best, especially in the near term, for the following reasons:

- Some of the functions performed by AGRs are not likely to be considered appropriate for general schedule military technicians. Statutory tour officers and recruiters are notable examples, and nearly all Air Force Reserve AGRs fall into this category.

- Recruiting qualified general schedule technicians would be difficult in many cases. Some AGR positions have been established or converted from technician positions specifically because of the difficulty in attracting and retaining qualified technicians. This is especially true for lower grade, general schedule equivalent positions.

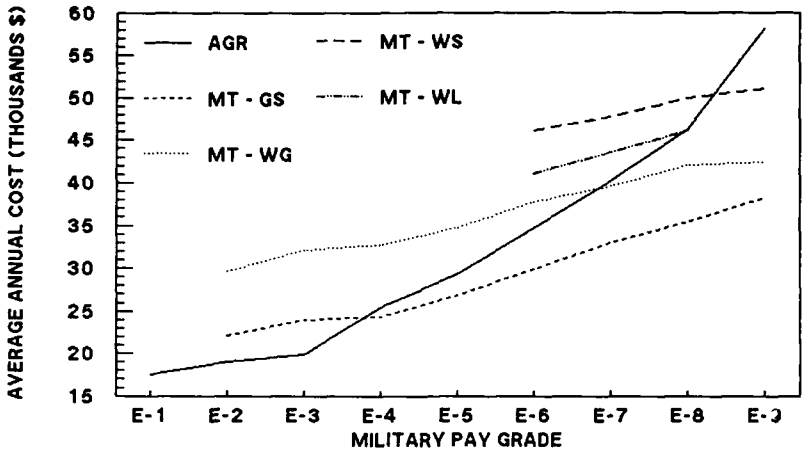


FIGURE 5-1. FULL-TIME SUPPORT COMPENSATION COST (ARMY NATIONAL GUARD - ENLISTED)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

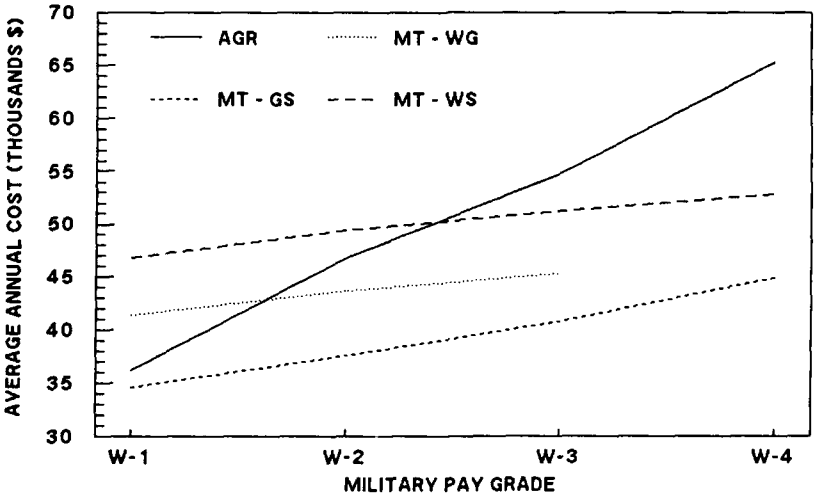


FIGURE 5-2. FULL-TIME SUPPORT COMPENSATION COST (ARMY NATIONAL GUARD - WARRANT OFFICER)

SOURCE: 6TH QRMC FTS COST COMPARISON MODEL

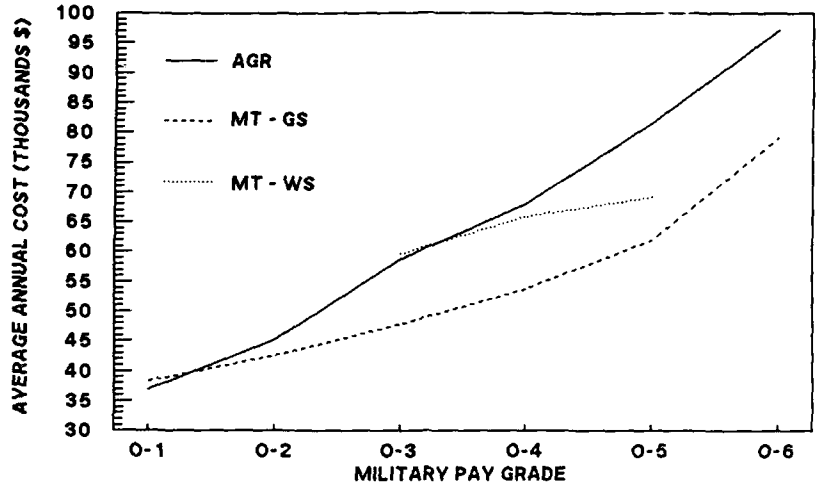


FIGURE 5-3. FULL-TIME SUPPORT COMPENSATION COSTS (ARMY NATIONAL GUARD - OFFICERS)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

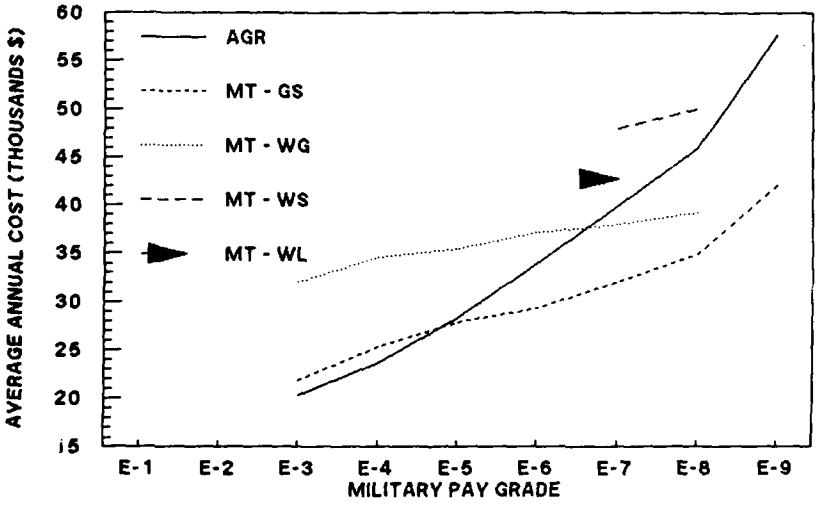


FIGURE 5-4. FULL-TIME SUPPORT COMPENSATION COSTS (ARMY RESERVE - ENLISTED)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

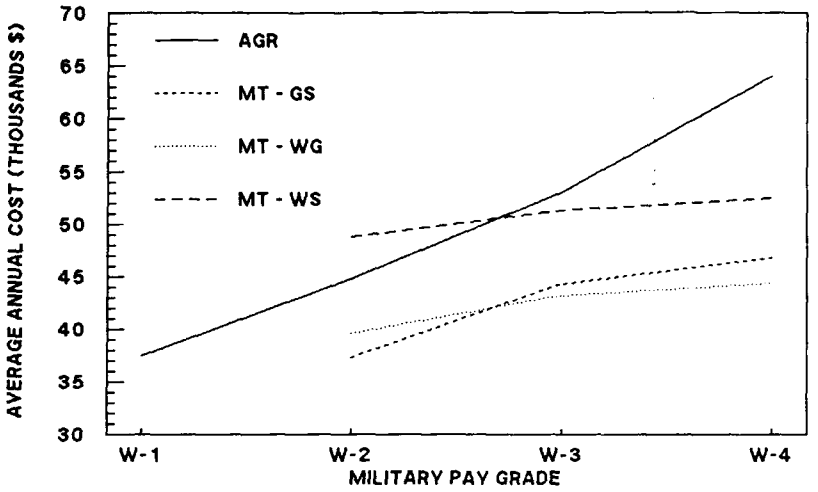


FIGURE 5-5. FULL-TIME SUPPORT COMPENSATION COSTS (ARMY RESERVE - WARRANT OFFICERS)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

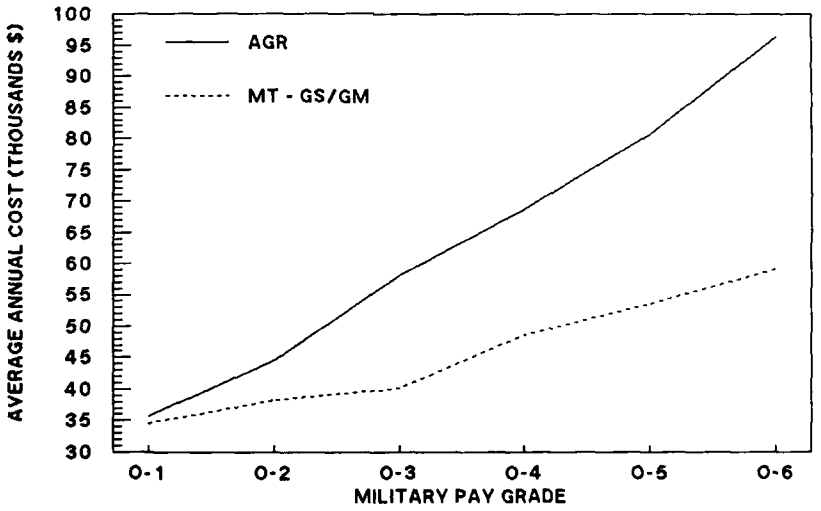


FIGURE 5-6. FULL-TIME SUPPORT COMPENSATION COSTS (ARMY RESERVE - OFFICERS)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

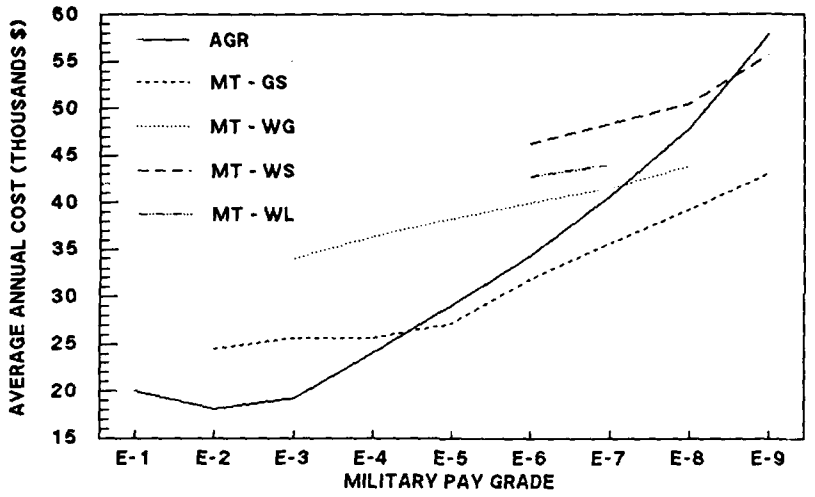


FIGURE 5-7. FULL-TIME SUPPORT COMPENSATION COSTS
(AIR NATIONAL GUARD - ENLISTED)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

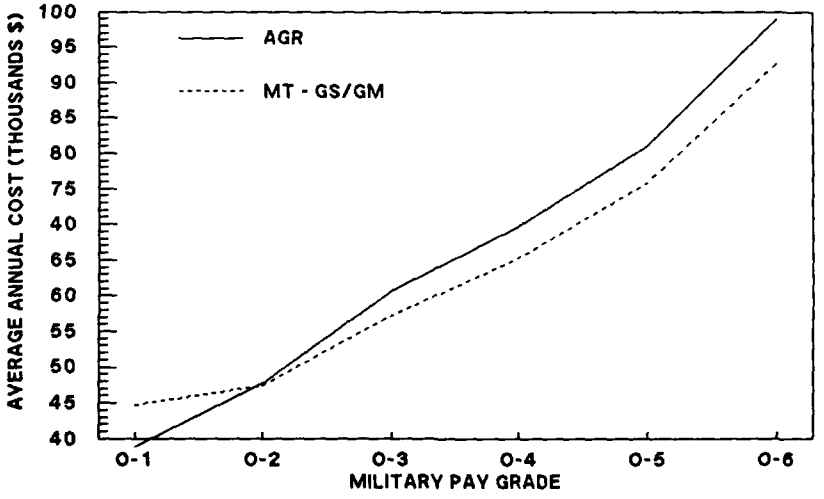


FIGURE 5-8. FULL-TIME SUPPORT COMPENSATION COSTS
(AIR NATIONAL GUARD - OFFICERS)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

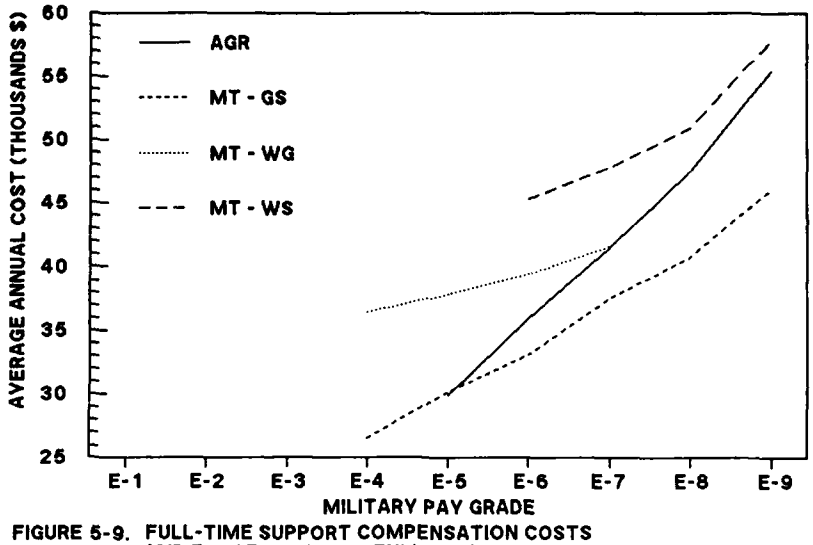


FIGURE 5-9. FULL-TIME SUPPORT COMPENSATION COSTS (AIR FORCE RESERVE - ENLISTED)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

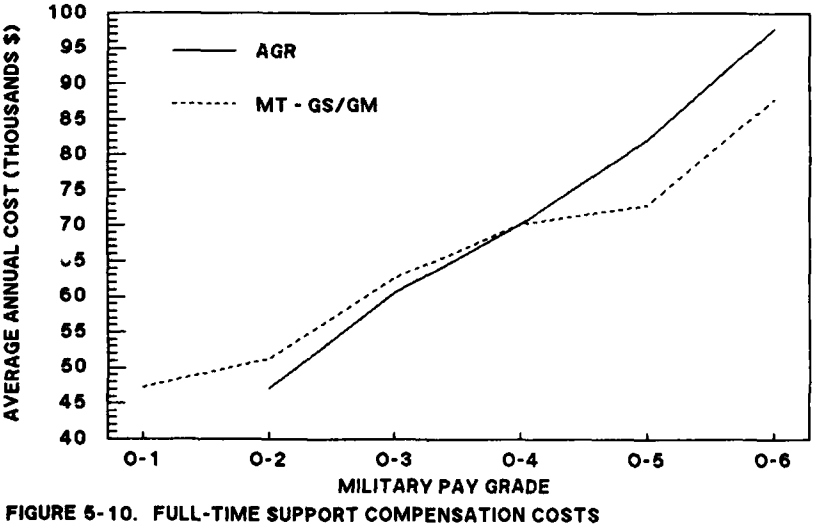


FIGURE 5-10. FULL-TIME SUPPORT COMPENSATION COSTS (AIR FORCE RESERVE - OFFICERS)

SOURCE: 6th QRMC FTS COST COMPARISON MODEL

- Assuming that any hypothetical conversion program would be voluntary to protect the legitimate expectations of current force members, it would likely be difficult to attract volunteers because conversion would require that the individual accept reduced compensation. Thus one could expect to see an inverse relation between the cost disparity for any particular position and the propensity to volunteer. During the technician conversion program conducted in fiscal years 1979-1980, attempts to enlist the voluntary conversion of wage grade military technicians were resisted for this very reason; members converted only when there was an advantage to be gained.

- Basing a force mix decision on cost considerations alone ignores the military requirements and other needs of the DoD. The probable result of doing so would be resistance to the decision that, at best, would delay execution and, at worst, would impair readiness.

All of this is not to say that force mix decisions on the basis of cost should be avoided. On the contrary, they should be pursued, as mandated by the Congress, based on a balanced consideration of cost and readiness requirements. What is being suggested, however, is that there is little prospect for substantial cost savings based on any feasible force mix decisions.

The cost issue should also be pursued from a containment perspective. Although the possibility for savings is not judged to be great, the same cannot be said be cost increases. One has only to inspect the AGR officer strength by grade profiles, for example, to see that strength increases in the senior pay grades (O5 and O6) would be extremely costly. The potential for such increases is in place, considering the number of officers in pay grade O4. However, the combination of existing statutory constraints on grade levels, as well as individual component constraints on the number of AGR officers allowed to continue beyond 20 years of active duty service (there are generally less than a dozen at any point in time in any of the four components), serves to constrain costs. These constraints also serve the readiness goal since most unit AGR positions are in grades O4 and below.

Cost Comparison Conclusions

Relative cost savings from using one form of full-time support rather than another will occur only at the margins as the result of program growth or realignment; thus, cost savings in the short term are very unlikely to result from any FTS force mix decision. Given the difficulties with compensation and other related problems of a mixed force with no clear delineation

between requirements for AGR and technician positions, and given the fact that short-term costs (and probably longer term costs) will not be affected significantly by the choice of AGRs or technicians to perform full-time support, it seems apparent that military requirements and effectiveness should be the primary consideration in force-mix decisions. This is consistent with congressional guidance indicating that the choice of manpower should not be based on cost alone, but also requires consideration of "military requirements and other needs of the Department of Defense."

Notes

1. Management Consulting & Research, Inc. (MCR), Cost Analysis of Full-Time Support of the Army and Air Force, Report No. TR-8458-1, May 24, 1985.

2. In a deterministic model, a unique outcome is generated as a function of observable variables. In a general sense, a deterministic model can be represented by the expression y = f(x), where "y", the unique outcome, is the dependent variable and "x" is the observable, independent variable. While this model can generate a cost (dependent variable) for a specific force structure as defined by given continuation rates (observable, independent variables), it cannot reverse the process. In other words, for a given cost (compensation scheme) it cannot generate force profiles based on continuation rates reflecting the behavioral reactions of members to compensation changes or, for that matter, changes to other force management factors. A model that considers behavioral reactions generally incorporates unobservable variables or variable coefficients, referred to as parameters. Because these variables/parameters are unobservable, they are assumed to take on a random distribution of some kind, e.g. normal, exponential, etc. Statistical techniques are then employed to estimate the parameters and the distribution of the variables. Models of this nature are referred to as stochastic. In a general sense, a stochastic model can be represented by the expression y = g(x,u), where "u" is an unobservable, random variable. The random nature of the variable "u" means that the relationship y = g(x,u) will not generate a unique outcome for "y" given a value for "x", although an average or expected value can usually be predicted. Inasmuch as economics typically requires the estimation of random events, econometric models are generally stochastic in nature and the terms are often used interchangeably. Econometric models are frequently used in force structure analysis to estimate or predict the effects of factors such as compensation changes on recruiting or retention.

3. MCR Report No. TR-8458-1, p. Exhibit III-1. According to MCR Report No. TR-8142-1, Comprehensive Review of the Requirements for Full-Time Support (FTS) to the Guard and Reserve: Development of an Analytic Cost Structure, January 29, 1982, p.IV-1, this table was developed by MCR because previous analysis (the Gerard Study) had succeeded in linking only four sets of civilian and military grades. MCR based its table on data obtained from the National Guard Bureau Army Manpower Division, which used it for detailed grade guidance for "military/ civilian conversions." MCR subsequently used the table, with slight modifications, in its intervening reports TR-8214-1, October 29, 1982 and TR-8338-1, March 15, 1984.

4. Previous analyses generally have used budget data as an estimate of additional military active duty days (mandays) performed by military technicians. The basic computation has been to divide the budget figures by the total number of people paid on the assumption that mandays are allocated equally across the population. The 1986 Reserve Components Surveys data suggests, however, that such an assumption is not valid. Instead, the data shows that mandays are allocated unequally by grade and category. The patterns that emerge indicate that junior enlisted members will have fewer mandays than more senior NCOs, company commanders will serve more mandays than most staff officers, and so forth, according to operational patterns in units. In analyzing the survey data, the major pattern that emerges is that only a portion of the population works some additional mandays; the remaining portion works none. Most military technicians fall into the first category. On the average, they work more mandays than the average for the component as a whole and less than the average for the portion of the component who work some additional mandays. Moreover, the distribution by military grade is not equal. These observations indicate that actual pay data are necessary to provide more accurate cost estimates.

5. These relationships are largely attributable to the degree of control over military and civilian pay grade compatibility. See the discussion in Chapter 6 on "Problems with a mixed force" for an analysis of the management implications.

Chapter 6. FULL-TIME SUPPORT MANPOWER MANAGEMENT

Once the costs of available forms of manpower have been determined, they must be examined in relationship to military requirements and other needs of the DoD before any determination can be made about which form of manpower is most suitable for a specific function. This evaluation considers the relationships between costs and military requirements of military technician and AGR programs in the reserve components of the Army and Air Force.

Military Requirements and Needs of the Department of Defense

Military readiness is the fundamental benefit sought from the full-time support program. The compensation system promotes readiness as "an integral part of the overall system by which military manpower is managed. Compensation, by the very nature of its basic purpose, must support defense manpower policies that, in turn, support the military, strategic and operational plans of this nation."[1] This means that compensation is to manpower management as an individual sculler is to the crew of a racing shell; maximum efficiency is achieved when every member of the manpower management "crew" is rowing hard in the same direction. This evaluation follows the role of compensation in the FTS manpower management scheme by examining first the overall readiness objectives and second the relationship between compensation costs and the military manpower requirements that support the readiness objectives.

Full-Time Support Force Structures

To enable the QRMC to identify and understand the overall objectives of full-time support manpower, each Service was asked[2] to provide appropriate force structures for its reserve components. The Army and Air Force were asked to provide separate structures for military technicians and AGRs. These structures were to be based on three separate and distinct strength profiles. The first was a profile of the existing force as of September 30, 1986. The data array included strength by pay grade and years of service as in the standard RCCPDS report A8. The second was a steady-state structure for FY 1986 showing where the Service would like its reserve component(s) to be, and the third was a steady-state structure showing where the Service would like its component(s) to be heading assuming FY 1992 program strengths. The steady-state profiles were to include the basic force configuration required

for the actual force, and they were to include additional flow dynamics and age distribution data as well. A more complete description of these profiles, covering their constraints, assumptions, and data requirements, is included in Chapter 4 and Appendix G of Volume II of this report. In designing steady-state force structures, the Services were asked to consider several factors that are especially relevant to FTS issues including the following examples:[3]

- Youth versus experience
- Stagnation versus turnover
- Maintenance of a career progression plan
- Physical limitations (aging)
- Job knowledge and technical skill requirements
- Mobilization status/requirements

Graphical representations of the force configuration (strength by pay grade and years of service) portions of the FTS manpower force structures submitted by the Services are included in this volume at Appendix F. The 6th QRMC staff constructed profiles of the FTS FY 1986 actual force structures, using RCCPDS data in cases where the Services did not provide their own actual data. No attempt was made to do the same for missing steady-state structures, because the 6th QRMC staff could not determine the Service objectives necessary to construct them. While not specifically a part of the military technician and AGR cost effectiveness analysis, available data on Marine Corps Reserve AGRs (FTS) and Naval Reserve AGRs and TARs is also included here. No FTS structures were prepared for the Coast Guard Reserve because the reserve program administrators, who provide full-time support in that component, are active component members. Table 6-1 shows the array of FTS manpower force structure graphics by page number in Appendix F, and the data source is indicated for reference purposes.

Comments on Army FTS Force Structures

The Army did not submit separate force structure data for military technicians. Army representatives attempted to provide the FY 1986 actual structures; however, they were unable to overcome problems with missing or inaccurate data. This was an especially significant problem in the Army Reserve because RCCPDS FY 1986 data is not available for over 50 percent of the military technicians in this component,[4] and no alternative data source could be identified (in the Army National Guard, the data discrepancy is only 6 percent). Army policy is to manage military technicians, for the purposes of objective force designs, as military members reflected in the objective force model of the Selected Reserve. The Army felt that a direct linkage between separate military and civilian force grades would be necessary to a develop a military technician force structure based on military grade, but reported that development

Table 6-1. Full-Time Support Manpower Force Structure Graphics

Category	ARNG	USAR	USNR	USMCR	ANG	USAFR
AGR/TAR						
ENL	F-1	F-7	F-13	F-15*	F-17	F-21
OFF	F-2	F-8	F-14	F-16*	F-18	F-22
WO	F-3	F-9	N/A	N/A	N/A	N/A
Technician						
ENL	F-4*	F-10*	N/A	N/A	F-19	F-23
OFF	F-5*	F-11*	N/A	N/A	F-20	F-24
WO	F-6*	F-12*	N/A	N/A	N/A	N/A

Source: 6th QRMC staff based on Service and RCCPDS data.

Notes: An appendix page entry indicates that a graphic is available.
If not followed by an asterisk, the graphic is constructed from service-supplied data.
If followed by an asterisk, the graphic is constructed from RCCPDS data.
"N/A" indicates that the category does not apply or the population is too small to be depicted in a meaningful graphic.

of a force model depicting such linkages would be rendered impractical by the wide band of grades associated with a given position.[5]

The most striking feature of the Army National Guard AGR graphics is that the steady-state profiles are closely aligned with the FY 1986 actual profiles. Although FY 1992 curves reflect increases in program strength, their shapes reflect strength distributions in the same general proportions as the FY 1986 actual force distributions. Presumably, the intended message is that the component is satisfied with current strength distribution and wants it to continue without change. There is a problem with this point of view: the actual force structure was not and is not now in equilibrium, and it would take unrealistically strong and possibly wasteful management actions to prevent change (i.e. to maintain the 1986 actual force in a steady-state). For example, to maintain the enlisted structure for 1992, more than 600 net losses would be required each year from the total combined strength in year groups 11 and 12, and this would have to be followed each year by approximately 400 net gains in year group 13. Since there are no apparent management requirements for such dynamic changes, the Army National Guard AGR steady-state profiles have limited utility as

objectives for the development of compensation or other personnel management policies. However, some useful observations can be made, such as the following:

- The majority of officer and enlisted AGRs have less than 20 years of service, and this distribution is desirable. A large proportion of warrant officers have over 20 years of service. (Note that the years-of-service data is calculated from pay entry base date (PEBD), and therefore is not a precise indicator of active duty retirement eligibility.)

- Large humps in years-of-service groups (stemming from the large Vietnam era accessions) are identifiable in all categories of the actual force. These humps are now approaching or just passing the 20th year of service.

- The AGR officer force is relatively senior in years of service (RCCPDS data also shows that 55 percent are in pay grades O4 through O6).

The Army National Guard's actual force profiles for military technicians were constructed from RCCPDS data by the 6th QRMC staff. By depicting both FY 1986 and FY 1987 data, the graph reveals that the force does not approach equilibrium except in the more junior year groups. Note that, in the middle and senior years of service groups, the curves generally tend to change each year, displacing to the right as the population ages and shrinking slightly due to net attrition. The following additional characteristics can be observed:

- The "Vietnam era humps" now crossing the 20th year of service suggest a somewhat increased potential for promotion stagnation or perhaps increased losses through qualitative management programs. (Using RCCPDS data for Selected Reservists with over 20 years of service, the percentages of military technicians with over 20 years are 24 percent enlisted, 49 percent warrant officers, and 20 percent officers.)

- There is a high propensity for retention from the 25th to 35th year of service and after (note that the strength shown at the 35th year of service represents 35 years and greater). This is attributed to the draw of civil service retirement.

Army Reserve steady-state profiles for AGRs reflect a good understanding of steady-state modeling. By smoothing the steeply sloped peaks and valleys of the actual force curve whenever force objectives permit, a more stable ideal force is

portrayed. This means that specific management procedures could be used to support the objectives that they depict. Other observations about the AGR profiles include the following:

- Although they show curtailed strength beyond 30 years of service, the steady-state curves also show a desire to increase strength between 20 and 30 years of service in all three pay grade categories.

- Significant strength increases are projected by FY 1992.

- In the 1986 actual structure, warrant officer strength in years-of-service groups for 29 years and above is relatively high.

Due to incomplete data for the actual Army Reserve technician force, care must be taken in interpreting the profiles. First, it is not possible to determine whether differences between the 1986 and 1987 curves are attributable to endstrength changes or to database changes. Second, assuming that the data is representative of the entire technician strength distribution, the technician data must be weighted by a factor of approximately two in any comparison with the Selected Reserve as a whole. The overall shape of the curves does suggest, however, that they roughly approximate the whole population because they parallel the general shape of technician force curves in the other components to include the presence of Vietnam Era peaks and trailing valleys. These force structure curves suggest the following:

- The warrant officer curves are relatively smooth and coincident, especially for a small population size. This suggests a fairly stable force structure. A large proportion of the population (about 66 percent) has over 20 years of service (in fact, most of the population has over 15 years of service) and retention in these senior year groups appears to be high.

- Either the enlisted and officer populations are growing rapidly in years-of-service groups of 13 years and below and/or most database corrections are for these junior year groups. In any event, the identified portion of the force is growing larger and younger.

- Although the existing force declines rapidly after the 20-year mark, lateral displacement in the years-of-service groups near this mark indicates that, in the coming years, high retention may increase the percentage of the population with over 20 years of service.

- Steady-state curves for the Army's Selected Reserve as a whole[6] indicate a desire for no retention in any pay grade category beyond 31 years of service. Special management actions would be required to achieve such a result because not all military technicians reach civil service retirement eligibility by their 31st year of military service. On the other hand, 6th QRMC staff estimates indicate that, for the Army's Selected Reserve population, the percentage of military technicians with over 20 years of service is quite low (2 percent for officers and 13 per cent for enlisted). Therefore, any senior grade stagnation that might be attributed to the relatively long careers of technicians other than warrant officers is probably insignificant in the aggregate for the Army Reserve.

Comments on Air Force FTS Force Structures

The Air Force FTS force has unique major characteristics in each component. The Air National Guard uses AGRs and military technicians in a ratio of 1:3. In comparison with the Army's reserve components, Air Guard AGRs are used in greater proportions in special functional areas and to meet statutory tour requirements. In the Air Force Reserve, all unit support is provided by military technicians. AGRs are used only in small numbers and for special purposes, primarily statutory tours and recruiting, and they are not considered to be a career force. Neither component uses warrant officers.

The following can be observed from the Air National Guard AGR force structure:

- The steady-state curves for enlisted AGRs indicate a desire for some accessions of individuals without prior service.

- Enlisted strength reductions are desired in groups with between 4 and 12 years of service and for groups with 25 years of service and over. Enlisted strength increases are desired in groups with 13 through 24 years of service, and significant overall growth is projected through FY 1992.

- Officer steady-state profiles indicate a desire for a much younger force, with gains below 16 years of service and corresponding reductions above that point. Significant changes in promotion points or grade structure would be required to achieve this result, and the number of AGR officers reaching active duty retirement eligibility would be significantly reduced. No overall strength changes are programed through FY 1992.

The following observations pertain to Air National Guard military technician force structures:

- Modest overall strength growth is projected for both officers and enlisted members.

- For the enlisted force, major strength increases are desired between 11 and 19 years of service, and major reductions are desired beyond the 26th year with no retention beyond the 30th year. The high rates of attrition portrayed from year 20 and beyond are not compatible with normal civil service career patterns for military technicians. However, such high rates would be required to achieve the desired structure for the enlisted force as a whole[7] because, in this component, 51 percent of enlisted members of the Selected Reserve who have over 20 years of service are military technicians.[8]

- For officers, an even younger force is desired, with major growth between 8 and 14 years of service and major reductions after year 20. No retention is desired beyond year 29. The shortening of the career span and the extremely high rates of accessions and losses that would be required to support these steady state curves would be difficult to achieve.

The following comments apply to the Air Force Reserve FTS force structures:

- AGR profiles reflect the need for minor strength changes only. Due to the small size of this noncareer force, force structure modeling is clearly less useful than it is for the larger FTS career forces.

- Profiles for military technicians project modest strength increases between FY 1986 and FY 1992.

- Steady-state curves indicate relative satisfaction with the existing structure. Their major features include smoothing to minimize strength differences between adjacent years-of-service groups, and a more gradual strength decline after 20 years of service They appear to be quite compatible with existing military technician career patterns.

Overall Objectives as Depicted by Manpower Force Structures

None of the Services now uses force structure modeling routinely in reserve force manpower management. Until recently, there has been insufficient accurate data available to provide meaningful results. Force structuring was developed by the Air

Force reserve components in the early 1970s, however, and for all components during the 1976-1978 Reserve Compensation System Study. Most of the information provided to the 6th QRMC by the Services represents a new effort. The actual inventories for both AGRs and military technicians all show a Vietnam Era "hump" that includes the groups with 17-21 years of service. This hump implies specific management challenges with respect to military technicians who, in some categories (e.g. Army National Guard warrant officers and Air National Guard enlisted), already constitute large proportions of the total Selected Reserve membership with over 20 years of service. Since the data also shows that technicians tend to continue in service at high rates until beyond 35 years of service (in order to achieve an unreduced civil service retirement eligibility), there may be conflicts with policies aimed at achieving overall Selected Reserve objective structures that do not include a requirement for any substantial numbers past 30 years of service. The problems may be especially acute in the Army Reserve. Since most of the increasing numbers of Army Reserve technicians now reaching reserve retirement eligibility are "grandfathered" and not required as a condition of employment to maintain military membership, the number of status quo technicians may increase over the next five years despite the 1983 legislation that requires new entrants to maintain military membership.

Due to the draw of civil service retirement, it is not likely that significant numbers of military technicians in any component would elect an early reserve retirement annuity under the Two-Tier option recommended by the 6th QRMC. This is a positive factor because it supports one of the most important strengths of the technician program: high levels of skill and experience gained through long, stable assignments. On the other hand, the draw of civil service retirement works against the achievement of more youthful forces with better promotion opportunities, especially in populations where military technicians now constitute significant proportions of the senior segments of the force (such as warrant officers in the Army reserve components and enlisted members of the Air National Guard). One of the strengths of force structure modeling is that it does not allow such relationships to go unnoticed.

Only for the Air National Guard are steady-state objective manpower force structure profiles available for both AGRs and military technicians. (The Air Force Reserve developed AGR force structures, but the structures are not for populations comparable with the Air Reserve technician structures, because the AGR officer profiles reflect objectives for statutory tour officers and the AGR enlisted profiles are for the recruiting force.) The Air National Guard profiles for military technicians and AGRs properly reflect a more senior technician force based on the very different retirement systems available

to military technicians and AGRs although the relatively early maximum retention points (the points at the right edges of the profiles) shown for technicians would be difficult to achieve.

The 6th QRMC analysis of FTS manpower force structure data was not extensive, and the results must be considered tentative. Members of the 6th QRMC staff worked with Service contacts throughout most of calendar year 1987 to produce the profiles in this report. The need to produce these structures from "scratch" required considerable effort, including hundreds of hours just to overcome the learning curve. Some problems were encountered with data availability and accuracy; however, these types of problems are diminishing over time. Increasing visibility as well as technical advances in computing tend to discipline the databases. The major obstacle to achieving maximum benefit from force structure modeling is lack of commitment to their use. Maximum advantage would be gained by institutionalizing the process (so that proficiency increases) and by continuing efforts to improve the requisite databases. This would also allow the FTS force structures produced for this review to be validated by feedback loops and to be tempered and improved through successive iterations. Without such action, their usefulness in diagnosing problems and defining objectives is limited.

Is force structure modeling of the FTS force worth the effort? For small noncareer populations such as Air Force Reserve and Marine Corps Reserve AGRs, force structure modeling is of limited utility. On the other hand, there is significant potential utility for supporting active management of the remaining large, career populations. Specifically, modeling provides a disciplined method for developing and expressing program goals and requirements in objective terms. Without clearly expressed program goals and requirements, management may suffer. Clearly, institutionalized force structure modeling is worth the effort for all career elements of the FTS forces.

Conclusions about FTS Force Structures

Based on the preceding discussion and analysis, the 6th QRMC has formed the following conclusions about FTS force structure analysis:

- Since the FTS force structures produced for this review generally represent a new, single iteration effort, they should be viewed as a "first draft" rather than as a definitive statement of existing status and Service force structure objectives.

- FTS force structure analysis, if institutionalized, can provide a disciplined method for defining force structure objectives and requirements as a basis for improved, active program management.

- Efforts should be continued to improve integration of data on FTS manpower, personnel, and pay so that it can be used more effectively in the analysis of FTS manpower costs and personnel management issues.

The Relationship Between Compensation Costs and Military Requirements

The focus of this section is the relationship between compensation costs and the military requirements of the DoD. The analysis relates costs to effectiveness (or benefits); however, it does not constitute a complete review of the relative effectiveness of military technicians and AGRs. That is, it concentrates on force management areas most directly related to compensation rather than on the full spectrum of operational effectiveness considerations.

Assignment Considerations

The paramount reason for employing reservists full-time in support of the reserve components is to promote readiness. Military technicians and AGRs promote readiness by serving in reserve units with a mobilization mission and in other assignments. This dichotomy is recognized within the DoD by the establishment of the following categories:[9]

- Unit AGRs: Active Guard/Reserve (AGR) assigned in reserve units with a mobilization mission.

- Unit Military Technicians: Military technicians assigned in units with a mobilization mission. Members must also be assigned to a drilling billet (dual status).

- Individual AGRs: Individual AGRs who are not assigned to reserve component units with a mobilization mission, or who are assigned outside the reserve component to active component units, Office of the Secretary of Defense, Organization of the Joint Chiefs of Staff, Defense Agencies, etc.

- Individual Military Technicians: Military technicians assigned (in their civilian capacity) to units without mobilization missions, such as Army National Guard/Air National Guard state headquarters, Numbered Air Force headquarters, and Army National Guard maintenance

depots. Individuals must retain dual status by assignment to a drilling billet in a unit with a mobilization mission.

The cost-effectiveness issue largely concerns military technicians and AGRs who are assigned to units. Most of the functional overlap occurs within units, and this is where the two groups have the most frequent daily contact. Possibilities for manpower tradeoffs between military technicians and AGRs to achieve cost savings in the "individuals" categories are not great; however, some other important cost considerations associated with assignment categories should be understood before turning to the problems of a mixed FTS force in reserve units.

Individual AGRs are assigned in positions that require uniformed active duty incumbents; they perform such duties as recruiting, higher level staff work, or refresher training in active component units. Although individual AGR assignments may be as vital to readiness as unit assignments are, the Congress has expressed concern that their number be kept to a minimum. For example, the House Appropriations Committee[10] recently stressed that "AGRs should be used primarily to support and train wartime deployable units" and further directed the Chief of the National Guard Bureau to "ensure that all AGR personnel currently serving in nondeployable positions are also required to maintain their primary military skill so that they may be utilized if needed as effective individual fillers."

Assignments of individual military technicians have an entirely different character than assignments of individual AGRs. Most individual technicians are assigned in equipment maintenance and storage facilities of the Army's reserve components. These facilities provide direct support to reserve units on an area basis. Much reserve unit equipment is stored and maintained at unit training sites to save time and costs of hauling it back and forth between these sites and the unit reserve centers and armories (where storage space may also be inadequate). The reduced amounts of equipment at home station and the lower rates of unscheduled maintenance for peacetime make it efficient to consolidate full-time maintenance support at area support shops. There are also some individual staff assignments for military technicians, but these are normally not more than one echelon above the mobilizing unit level.

As with individual AGR assignments, the Congress has for many years been concerned about individual technician assignments outside of mobilizing units. For example, in 1983, the House Appropriations Committee noted that approximately 50 percent of the Army Reserve technicians either had no active reserve membership (i.e. were status quo technicians) or were assigned to units other than the one in which they were assigned as a

civilian. It declared this situation to be "detrimental to mobilization readiness and unit cohesiveness."[11] Table 6-2 shows the number of military technicians who drill in the same unit in which they are employed full-time.

Table 6-2. Percent of Military Technicians Who Drill With the Same Unit Where They Work as Military Technicians

Category	Army Guard %	Army Reserve %	Air Guard %	Air Force Reserve %
Officers*	76	69	98	100
Enlisted	71	57	99	100

Source: 1986 Reserve Component Surveys (Question 60)

Note: * Includes warrant officers.

Cost effectiveness considerations favor the existing policy of limiting individual military technician and AGR assignments and maximizing unit assignments in mobilizing billets. To achieve maximum readiness, the skills and teamwork developed in peacetime must go to war with the unit. This has long been a basic tenet of the military technician program, and it is the reason the Congress has prohibited the double-slotting of AGRs and part-time reservists. The tasks that military technicians and AGRs perform are too time-consuming to be performed during unit training periods, and they are performed during the week so that part-time reservists can devote their military duty time to operational training in their assigned mobilization billets. However, these full-time tasks are also vital wartime support functions and not simply peacetime functions as they are sometimes mistakenly described. In wartime, members must be paid, personnel actions must be processed, medical and personnel records must be kept, equipment must be maintained, supplies and rations must be drawn, operations (predominantly training operations in peacetime) must be conducted, and so forth. The most cost-effective way to be ready to do these things in wartime is to use the same people for both peace and war. Then, two separate cadres, one for peace and one for war, will not have to be trained and managed in support of the same unit in peacetime, and the inefficiencies of transition between cadres on mobilization will be avoided.

A corollary to the concept of using the same people to perform peacetime and wartime functions is that functions needed only in peacetime can often be performed at least cost by civil service

workers or by contract personnel. There are some exceptions (such as recruiting) where the military character of the duty is paramount. A principal design feature of the personnel and other support systems used in peacetime should be the ability to make a transition to and support the wartime mission. It is rarely efficient to operate a peacetime only support system and keep a separate system ready to perform in wartime. For example, if Army maintenance technicians who work in area support shops did not also fill mobilization billets in the units they support, the most capable maintenance personnel available would not go to war with the unit and the wartime maintenance capability of those units would be seriously degraded. The principal design feature that provides for wartime support in this system is manning by dual status technicians.

Problems with a Mixed Force

Friction between military technicians and AGRs in the daily work environment has existed since the inception of the AGR program. The individual problems that exist are generally attributable to the existence of two separate military personnel management systems for the performance of one set of functions. These systems are frequently seen by members as competitive rather than mutually supportive programs to the extent that some members feel a threat to their livelihood. Additionally, wherever there are differences between the two systems, they are normally a source of frustration for one category of members or another. Comments from the 1986 Reserve Components Surveys (see Appendix H) indicate that the resultant problems affect not only the military technicians and AGRs but part-time reservists as well in the Army National Guard, Air National Guard, and the Army Reserve.

One of the most frequently mentioned problems has been "pay inversion," which means that a supervisor (usually a technician) earns less pay than one or more subordinates (usually AGRs). Sometimes the accounts are exaggerated. For example, one warrant officer technician (pay grades W2/GS7) commented in the 1986 Reserve Components Surveys that a specialist AGR (pay grade E4) will take home more money than a technician with a military grade of chief warrant officer (pay grade W2) with 18 years of service. During 1986, the average warrant officer (pay grades W2/GS7) earned about $2,350 per month in direct military and civilian pay and allowances (before deductions), and the average specialist (pay grade E4) earned about $1,580 in military pay and allowances (before deductions). Although the data indicates that this warrant officer's assertion is an exaggeration, the basic perception is valid. As shown in the previous chapter, this may be particularly true for technicians in the general schedule. As a result, military technician supervisors

sometimes do earn less than subordinate AGRs, as suggested by the examples computed from 6th QRMC cost model data shown in Table 6-3.

Table 6-3. Average Annual Compensation Costs for Notional General Schedule Military Technician Supervisors and AGR Subordinates

	MT Supervisor		AGR Subordinates	
Component	Avg GS Grade for MT E7	Cost	E6 Cost	E5 Cost
Army Guard	6.9	$32,940	$34,648	$29,327
Army Reserve	6.8	32,088	33,935	28,283
Air Guard	8.0	35,766	34,368	29,145
	Avg GS Grade for MT O5	Cost	O4 Cost	O3 Cost
Army Guard	11.9	$61,949	$67,955	$58,843
Army Reserve	10.5	53,584	68,598	58,214
Air Guard	13.1	75,868	69,647	60,603

Source: 6th QRMC cost comparison model

Table 6-3 is based on total data for each component, not on actual supervisory relationships. Dependent on component policies for assignment and technician and military grade compatibility it would be possible, if unlikely, for an AGR with a lower military grade than a technician to be the supervisor. It is significant that, in Table 6-3, the variance in cost for military technicians in the same military grade across the three components (shown vertically, in the MT Supervisor column) is much greater than the difference in costs, in any of the components, between a technician and an AGR who is one military pay grade junior (shown horizontally, in any row on the table). This means that the policies governing the linkage between a technician's military and civilian grade have a greater impact on compensation costs than the actual pay scales themselves.

Data from the 1986 Reserve Components Surveys provides another perspective on the relative differences between active duty military pay and military technician pay. Military technicians were asked, if they were to be mobilized, whether their income would increase (greatly or somewhat), remain the same, or decrease (greatly or somewhat). The responses to this question are portrayed graphically in Figures 6-1 (enlisted) and 6-2 (officers). Although the data is sensitive to the specific military and civilian pay grade linkages of each member, the

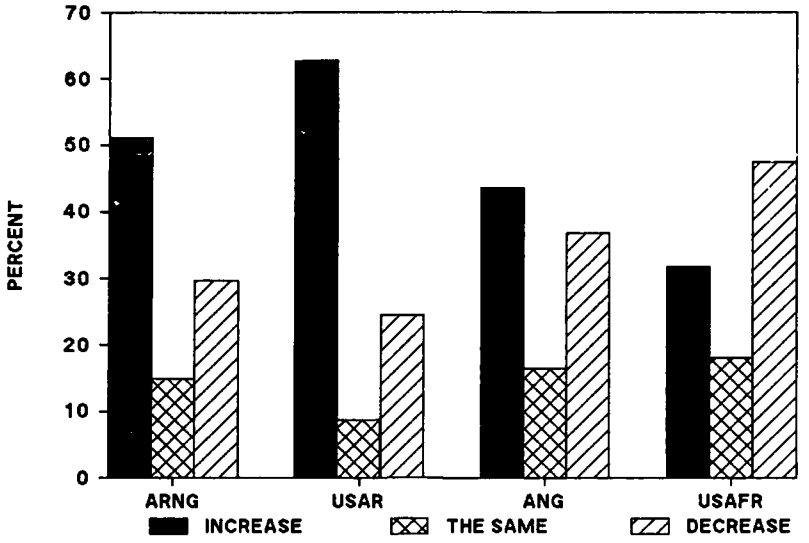


FIGURE 6-1. PERCIEVED PAY INCREASE/DECREASE IF MOBILIZED (ALL ENLISTED TECHNICIANS)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

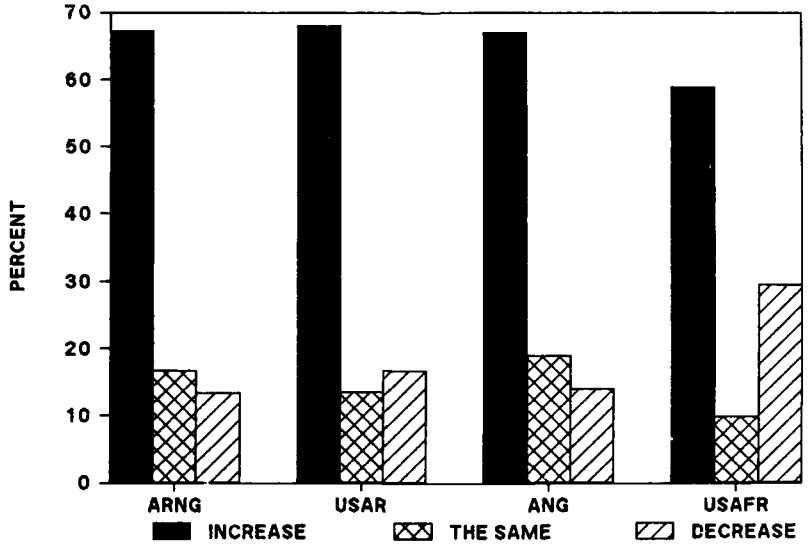


FIGURE 6-2. PERCIEVED PAY INCREASE/DECREASE IF MOBILIZED (ALL OFFICER TECHNICIANS)

SOURCE: 1986 RESERVE COMPONENTS SURVEYS

general schedule technicians are generally represented in the "increase" column and the wage board technicians are generally represented in the "decrease column. This response pattern follows strength distribution patterns for the general schedule and wage board technicians within the components, as shown in Tables I-1 through I-4 in Appendix I. Since most wage grade technicians are enlisted military members, there were, as expected, a higher number of "increase" responses among the military technicians who are officers than among those who are enlisted members.

Another frequently mentioned problem is "grade inversion," which occurs when there is a disparity in level of responsibility between a military technician's civilian and military duties. The result of this disparity is that the superior-subordinate relationship, or the level of responsibility, between a technician and an AGR (as well as between a technician and part-time unit members) may be reversed between the regular work week and unit training periods.

Due to the large numbers of pay grades and categories, summarizing the relationships between military and civilian grades held by military technicians is a complicated task. Nearly all of the individual linkages have been compiled and are displayed in Tables J-1 through J-24 in Appendix J. These tables show strength by military and civilian grade for the matches found in developing the 6th QRMC cost comparison model. A description of how these matches were made can be found in Chapter 5. The average grades shown in the bottom and right-most columns are arithmetic means for the data shown; they will differ slightly with the cost model because the model averages have been improved by eliminating small population cells and Civil Service pay grades more than two standard deviations from the mean.

There is a wide military grade spread associated with most civilian grades. Table 6-4 shows the spread, using three of the most populous civilian grades as examples. While the table includes all cases and thus shows extremes of the range, the range may be partly attributable to progression paths for new members in a program. For example, a member in pay grade O3 could be hired as a new civilian employee into a position classified at the GS-7, 9, or 11 level.

The data indicates that the Air Force Reserve has tighter grade compatibility. Technicians in this component are generally required to maintain the military and civilian grade authorized for their position and 100 percent drill in the same positions in which they work as full-time civil service employees (See Table 6-2). At the other extreme, in the Army Reserve, there are very few constraints on the military grades of technicians. In this component there are a large number of

Table 6-4. Examples of Military Technician Military-Civilian Grade Spreads

Reserve Component	Civilian Pay Grades GS-7	GS-9	WG-10
Army Guard	E2 - O4	E4 - O5	E3 - E9
Army Reserve	E4 - O5	E5 - O5	E4 - E9
Air Guard	E3 - O3	E4 - O5	E3 - E9
Air Force Reserve	E4 - E9	E4 - O3	E4 - E8

Source: RCCPDS & OPM Files - FY 1986

technicians who do not drill in the same unit where they are employed full-time. For these members, the standard is any assignment (in any military grade or skill for which the individual qualifies) in the Selected Reserve to include individual mobilization assignments with the active Army. In Army Reserve units, the military technician position is specified on the unit manning document, but there is no specified military grade for the technician position. Consequently, a unit administrator could join a company as a GS-5 or GS-7 and progress through the ranks from private to first sergeant (or even company commander). This provides a flexibility which may be useful in keeping positions in isolated units filled; however, it carries with it the potential for severe incompatibility between military and civilian grade and responsibilities.[12] In the National Guard components, section 709(b) of title 32, United States Code, requires military technicians to "hold the military grade specified by the Secretary concerned" for the full-time position; however, the administrative apparatus for applying this requirement allows for considerable accommodation as the grade tables indicate.

Pay grade is an indicator of level of job responsibility. When grade inversion is severe, the level of responsibility between officers and enlisted members can also be reversed. DoD occupation codes[13] indicate officer and enlisted levels of responsibility for both military and civilian duty skills. Data on DoD occupation codes for the civilian and military duty positions of military technicians was provided by the Defense Manpower Data Center so that the relationships between levels of responsibility for these positions could be determined. Table 6-5 shows the amount of inversion when comparing officer responsibility levels with enlisted responsibility levels. Most of the inversion is in the two Army reserve components, where standards for the linkage between military and civilian positions are less restrictive than in the reserve components of the Air Force.

Table 6-5. Inversion Between Military and Civilian Duty Positions for Responsibility Levels of Military Technician Officers and Enlisted Members

Category	Army Guard %	Army Reserve %	Air Guard %	Air Force Reserve %
Enlisted members w/officer level civilian jobs	2	8	6	9
Warrant officers w/enlisted level civilian jobs	71	52	-	-
Officers w/enlisted level civilian jobs	26	39	4	1

Source: RCCDPS and OPM Files as of December, 1987.

Note: 1987 data was used because DODOCC entries for FY 1986 are not accurate. Total population sizes: Army Guard - 23,318 (18,424 Enl, 2,565 WO, and 2,329 Off), Army Reserve - 5,375 (4,177 Enl, 688 WO, and 510 Off), Air Guard - 21,883 (20,005 Enl and 1,878 Off), and Air Force Reserve - 8,380 (7,570 Enl and 810 Off).

Although the actual number of individuals involved in these inversions is not great, the maintenance of traditional relationships between officers and enlisted members plays a major role in the maintenance of order and discipline in military units. Even one such relationship in a unit can be seriously disruptive. If supervisory relationships that exist during the week are reversed during unit training, or vice versa, the relationships required for success on the battlefield are likely to be disrupted. In addition, where a significant difference exists between civilian and military responsibilities, it is difficult to assess the costs and benefits of full-time support.

There is another potential cost impact when the unit or career areas to be encumbered by technicians and by AGRs are not clearly delineated: individuals will opt for the most advantageous alternative if an alternative is available. For example, during the 1979-1980 technician conversion test, there were difficulties in attracting wage grade technicians to convert to AGR status because there was little financial advantage in doing so. On the other hand, many general schedule

technicians converted to improve their financial status. There are also indications in the results of the 1986 Reserve Components Surveys[14] that some individuals switch between technician status and AGR status to maximize pay and retirement benefits. For example, a technician might convert to AGR status for several years to build reserve retirement points and perhaps increase current pay. Then, before his "military furlough" restoral rights expire, he could reclaim his technician job and make his contribution to the civil service retirement fund so that his AGR service also counts towards civil service retirement. The extent of such practices is unknown, and the practical availability of such options to most technicians may be slight. However, the existence of both AGR and technician employment opportunities in the same units or career field potentially increases the opportunity for unwarranted "gaming" attempts by some members.

According to members responding to the 1986 Reserve Components Surveys, friction continues to create tension in the Army's reserve components and in the Air National Guard. This friction manifests itself in several ways as another problematic aspect of mixing technician and AGRs in units. For example, active duty rules for duty hours differ from civil service rules; promotion rules and opportunities differ. The result has been allegations of "politics" and favoritism on both sides by members of these two groups. This friction, much of which centers on compensation or compensation-related matters, tends to work against organizational effectiveness. It demonstrates that employing military technicians and AGRs in the same working environment in mobilizing units is not sound personnel management practice. It specifically disrupts the very efficiency and organizational cohesiveness that compensation systems, grade structure, and other personnel management mechanisms are designed to promote. Although management can ameliorate some problems, it cannot eliminate the structural differences that are a root cause of friction between the two groups.

After examining the Army's reserve components full-time manning program, in 1985, the General Accounting Office, concluded, "In our opinion, mixing technicians and AGR personnel in deployable troop units is not organizationally sound and detracts from effectiveness."[15] A primary reason cited by the GAO was compensation variances and perceived inequities between the two groups. The Department of the Army and the Department of Defense agreed with this conclusion and indicated to the Congress that they would implement a program to reduce such mixing, were necessary authority granted. Congressional approval necessary to implement such a program has not been forthcoming.

Conclusions about Full-Time Support Manpower Management

Although the separation of military technician and AGR forces in mobilizing units is highly desirable from a compensation perspective, the means of achieving such separation is an equally important consideration. Plans to achieve separation should focus on improving combat readiness in a cost-effective manner as the fundamental objective. In achieving this objective, the QRMC analysis indicates that the following key points should be addressed:

- Mixed forces should be aligned to separate AGRS and technicians in their daily work environment, or provide clear and separate career patterns. Any program of change should pay particular attention to existing commitments to and expectations of current members.

- The separation should not be based on the performance of "peacetime" and "wartime" functions. With few exceptions, both military technicians and AGRs should perform functions, applicable to both peace and war, that require military members on a full-time basis for the efficient and effective accomplishment of mission objectives. Peacetime-only functions do not require a military status.

- Separation of the AGR and military technician full-time forces would be facilitated by clearer conceptual standards for delineating the difference between military technicians and AGRs. These cannot be formulated in absolute terms, but guidelines could be developed based on Service functional requirements and the characteristics of each force. Clearer role definitions, in addition to contributing to the development of cost-effective force mixes, would assist in allaying some of the animosity and counterproductive competition that exists between these two groups.

- Increased emphasis should be placed on the compatibility of military and civilian grade and position for military technicians. Associated with each military technician position should be a specific range of military grades and skills within limits specified by the Service.

- Finally, opportunities for support system modernization should be sought in conjunction with force realignment. Obsolete systems and procedures employed in the support of reserve units are one of the major causes of data problems noted throughout

this review. During the 6th QRMC unit visit program, full-time support personnel were observed to be overburdened with administrative work, much of which is no longer even performed at the unit level in the active components. This obsolescence may also limit wartime capability. The full-time force should be organized in peacetime to provide support through the same up-to-date systems required to support their units in combat.

Notes

1. U.S., Department of Defense. Office of the Secretary of Defense, Military Compensation Background Papers, U.S. Govt. Printing Office, June 1987, p. 6.

2. U.S., Department of Defense. Assistant Secretary of Defense (Force Management and Personnel) Memorandum, Subject: Reserve Component Manpower Force Structures, March 4, 1987.

3. Ibid, p. 5.

4. Based on data from the RCCPDS report, U.S., Department of Defense. Assistant Secretary of Defense (Reserve Affairs), Official Guard and Reserve Manpower Strength Statistics, FY 1986 Summary, RCS: DD-RA(M)1147/1148; specifically, a comparison of the "official numbers" on page 1 with the data in the Summary Strength Report (Report A1) on page 12.

5. U.S., Department of the Army. Office of the Assistant Secretary of the Army, Memorandum for Acting Assistant Secretary of Defense (Force Management and Personnel), Subject: Military Technicians, July 23, 1987. See Appendix G (in this volume).

6. See Appendix G, Volume II of this report.

7. The steady-state structure for the Air National Guard enlisted force is shown in Appendix G, Volume II of this report.

8. Computed from data in the RCCPDS Report A8 for September 30, 1986.

9. U.S., Department of Defense. Department of Defense Instruction Number 7730.54, Reserve Components Common Personnel Data System, May 7, 1986, pp. 2-4.

10. U.S., Congress. House, Committee on Armed Services, Report on H.R. 1748, National Defense Authorization Act for Fiscal Year 1988/1989, Report 100-58, April 15, 1987, p. 197.

11. U.S., Congress. House, Committee on Appropriations, Report [To accompany H.R. 4185], Department of Defense Appropriation Bill, 1984, Report 98-427, October 20, 1983, p. 37.

12. Further information on the wide range of military grades that may be associated with a given military technician position and the management considerations involved can be found in two Army Reserve technician studies: 1. U.S., Department of the Army. U.S. Army Forces Command, Army Reserve Technician (ART) Study, 1976 (e.g. see page 79, para 24b(3)(a), which states that the senior technician position (SAA) in a major U.S. Army reserve command (MUSARC) is compatible with any of the following

military positions: chief of staff, deputy commander, secretary of the general staff, or command sergeant major. The military pay grade spread for these military positions is E9 to O7.); and 2. U.S., Department of the Army. Military Technician Task Force, Office of the Chief, Army Reserve, USAR Technicians. Final Report, 1986, Appendix N.

13. See U.S., Department of Defense. Office of the Assistant Secretary of Defense (Force Management and Personnel) Occupational Conversion Manual, Enlisted/Officer/Civilian January, 1987.

14. See the survey comments in Appendix H.

15. U.S., General Accounting Office. Report to the Secretary of the Army, Problems in Implementing the Army's Reserve Components Full-Time Manning Program, GAO/NSIAD-85-95, June 4, 1985, p. 6.

Appendix A. Supplemental Technical Information on Full-Time Support Management

This appendix contains selected technical information used in preparing the descriptions of reserve component FTS management programs. The information is not conveniently placed in endnotes or on the matrix at Table 2-1, and it is too detailed for the main chapter text. Nevertheless, it will be useful to the reader who wishes to do further research, and it provides a record of some key working definitions used in the preparation of the chapter.

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FTS Military Categories

Active component FTS personnel are regular and reserve members of active components detailed to assist reserve components under 10 U.S.C. §715, regular and reserve officers of the active Army and Air Force assigned to duty in the National Guard Bureau under 10 U.S.C. §3541 and §8541, respectively, as well as other regular members of the Army and Air Force detailed to duty with the National Guard under 32 U.S.C. §315.

AGR/TAR FTS personnel include members categorized as Active Guard/Reserve in paragraph F.1.a., DODI 7730.54, May 7, 1986, Subject: Reserve Components Common Personnel Data System (RCCPDS). This category consists of "Guardsmen and reservists on active duty (for periods of 180 days or more) to provide full-time support to the Ready Reserve and who are paid from the reserve personnel appropriations of the Military Department concerned." (Information in parentheses added by 6th QRMC.)

Military technician FTS personnel include members categorized as Military Technicians in paragraph F.1.b., DODI 7730.54; that is, "Federal civilian personnel of a Military Department who occupy Military Technician positions and are members of the reserve component they support."

Categorization of Statutory Tour Authority

A brief categorization of statutory tour authorities is presented below. Several of the title 10 section numbers were renumbered as a result of posting Public Law 99-433, § 501(a)(7), Oct. 1, 1986, 100 Stat. 1038, and the former section numbers are provided for reference. See also DODI 7730.54, p. 2-13, which provides AGR identifiers in 11 authority statute categories for use in the RCCPDS.

10 U.S.C. §175. Reserve Forces Policy Board. (Note that sections 3021, 5251, 5252, and 8021 of title 10 authorize service-level reserve policy committees or boards; however, service with these bodies is not full-time under these statutes.)

10 U.S.C. §265. Reserve component officers on active duty (other than for training) at the seat of government, and at headquarters responsible for reserve affairs, to participate in preparing and administering the policies and regulations affecting those reserve components.

10 U.S.C. §3021 (formerly §3033). Authority for Army reserve component officers to serve on the Army Staff.

10 U.S.C. §3038 (formerly §3019). Chief, Office of Army Reserve.

10 U.S.C. §3040 (formerly §3015). Chief of National Guard Bureau and successor.

10 U.S.C. §3496. Authority for federally recognized Army National Guard officers to serve in the National Guard Bureau.

10 U.S.C. §8021 (formerly §8033). Authority for Air Force reserve component officers to serve on the Air Staff.

10 U.S.C. §8038 (formerly §8019). Chief, Office of Air Force Reserve.

10 U.S.C. §8096. Authority for federally recognized Air National Guard officers to serve in the National Guard Bureau.

Other related statutes applicable to the National Guard only:

32 U.S.C. §503. Participation in field exercises. Not a usual authority for AGRs since AGRs serve on tours of 180 days or more. There are no AGRs listed in RCCPDS (as of January 1988) as being called to duty under this statute.

32 U.S.C. §708. Federally recognized National Guard officers on active duty to serve as property and fiscal officers.

Defense Policy on Reserve Incentive Programs

Defense policy on each Fiscal Year's Incentives Program is published by the Assistant Secretary of Defense (Reserve Affairs). His cover memorandum for the Assistant Secretaries of the Military Departments, Subject: Implementation of the FY 1986 Ready Reserve Incentives Program, February 24, 1986, provides that "Bonus payments will continue to be terminated upon acceptance of employment as a military technician in the Selected Reserve. However, recoupment of a previously received bonus will not be required provided the member has served at least 6 months in the skill/unit for which a bonus was granted following receipt of the initial bonus payment. Those members serving less than 6 months in the skill/unit for which a bonus was granted and who become military technicians will have their bonus payment recouped." The basic memorandum, Subject: FY 1986 Incentives Program for the Ready Reserve, February 24, 1986 also states, in paragraph G, "At the time of enlistment, reenlistment, extension, affiliation or loan repayment contract is signed, the member will be required to sign a written agreement that he has been advised of and understands the conditions under which continued entitlement to unpaid incentives may be terminated and a prorata portion of advance bonus payments recouped. This agreement will clearly specify the terms of the Ready Reserve commitment which entitles the member to an incentive." The above policies have been reaffirmed annually since 1986.

AGR Service Beyond Active Duty Retirement Eligibility

In analyzing Selected Reserve issues, "years of service" is most often expressed as a function of total service computed from the pay entry base date. This is the parameter used in standard RCCPDS reports, and it is also the one used to produce the manpower force structures for this review. Since such computations include part-time reserve service, they do not provide an accurate view of years of service qualifying for active duty retirement. For example, RCCPDS Report A8 lists hundreds of AGR officers with over 20 years of service, yet few of these officers have qualified for active duty retirement. While there is a requirement to report active federal military service in RCCPDS, the reported data now in the database is unreliable. Accordingly, each service POC was asked to provide the actual or estimated number of AGR officers approved for continued active duty beyond 20 years. The results are as follows: ARNG - 5, USAR - 3, USN - No data provided since TARs do not require approval to serve beyond 20 years. However, historically, 6 TAR officers have been continued to 30 years of active service, USMCR - 8, ANG - 8, USAFR - 12.

Appendix B. VETERANS' ADMINISTRATION OPINION ON ELIGIBILITY FOR VA BENEFITS OF MEMBERS OF THE AIR NATIONAL GUARD

GENERAL COUNSEL'S OPINION, VETERANS ADMINISTRATION-Op. G.C. 3-82

March 25, 1982 (Opinion date)

June 4, 1982 (Publication date)

Subject: ELIGIBILITY FOR VA BENEFITS OF MEMBERS OF AIR NATIONAL GUARD

QUESTION PRESENTED: To what extent are Air National Guard members and former members eligible for benefits administered by the Veterans Administration under title 38, United States Code?

COMMENTS: The Air National Guard is organized, state by state, pursuant to authorities in title 32, United States Code. The Air National Guards of the several states and territories, the District of Columbia, and Puerto Rico, together comprise the Air National Guard of the United States, which is a reserve component of the Armed Forces. Individuals serving in the Air National Guard may serve part-time (for example, weekends) or full-time.

Questions have arisen among Department of Defense personnel and National Guard personnel as to the matters here discussed, particularly as more and more Guard members are assigned to full-time operational duty. At least since 1964, there has been authority under section 502(f) of title 32, United States Code, to place Guard members in operational positions even though they are not activated. In recent years Congress has specifically authorized such positions; see, for example, section 401(b) of Pub. L. No. 96-107, the Department of Defense Authorization Act, 1980. Moreover, the Department of Defense has administratively adopted new terminology ("Active Guard Reserve" and "Active Duty Support") for those operational positions.

The purpose of this opinion is to clarify that, notwithstanding these changes in terminology, title 38 provisions preclude veteran's benefits to Guard and former Guard members, with exceptions as outlined below. Full-time Air National Guard service is, for title 38 purposes, "active duty for training" under section 101(22)(C) of title 38, if performed under the authority of sections 316, 502, 503, 504, or 505 of title 32. This is true regardless of whether the Guard member

is performing operational duty (for example, as a recruiter or instructor) or is undergoing training. Except as discussed below, Air National Guard service does not meet the definition of "active military, naval, or air service" that is a general prerequisite for veterans' benefits by virtue of section 101(2) of title 38. Therefore, such service differs, for title 38 purposes, from full-time active duty in a regular component of the Armed Forces, such as the Army.

There are three exceptions. The first applies when the Guard unit or the member individually is "activated" pursuant to authority under title 10, United States Code. Activation means that the unit or the individual is called to active Federal duty for operational purposes, ordinarily but not necessarily because of an emergency such as armed conflict or a serious disaster. For example, section 672(a) of title 10 authorizes the activation of a unit, and 672(d) authorizes the activation of an individual. Guard members who report for active duty under such circumstances have qualifying service for title 38 purposes until deactivated. Upon separation under conditions other than dishonorable, a Guard member who was activated would be eligible for veterans' benefits to the same extent as a veteran of a regular component of the Armed Forces with a comparable period of service.

In some cases, a Guard member may be ordered to active duty in order to receive training, pursuant to authority under section 672(d), title 10, United States Code; under section 101(22)(A) of title 38, this also constitutes "active duty for training" for title 38 purposes and, except as described below, does not constitute an exception to the general title 38 requirement of "active military, naval, or air service".

A second exception applies when the member, whose service is characterized as "active duty for training", is disabled from a disease or injury incurred or aggravated in the line of duty. This exception is specifically provided for under section 101(24) of title 38. In such event, the member, upon discharge or release under honorable conditions, meets the definition of "veteran" for title 38 purposes and is eligible for almost all benefits available to service-connected disabled veterans of the regular forces. This includes vocational rehabilitation, VA compensation, health care, service-disabled life insurance coverage, and other service-connected benefits that are keyed to a particular level or type of disability. Home loan benefits are, however, not included.

The third exception, related to both of the above, applies when a Guard member is activated and incurs a line-of-duty disability enroute to, from, or at the duty station. This

exception is provided for under section 106(b)(3) of title 38 and confers eligibility for certain, but not all, title 38 benefits.

Even though non-activated, nonservice-connected Guard members are not "veterans" for title 38 Purposes, Congress has specifically authorized, under 767(a)(1) of title 38, coverage under the Servicemen's Group Life Insurance (SGLI) program for these individuals. If the Guard member elects SGLI coverage, he or she is also eligible to convert to post-service Veterans' Group Life Insurance.

An opinion of this office dated August 3, 1979, addressed the question of a former Guard member's eligibility for chapter 34 educational assistance benefits, available generally to Vietnam-era veterans. We held that the Guard member whose Vietnam-era service was in question was eligible for chapter 34 benefits because he had been activated pursuant to 10 U.S.C. § 672(d) and because the service department had certified that he was not in a training status. This individual's service was thus within the first exception described above.

Hence, unless one of the exceptions is applicable, Guard members and former Guard members are not eligible for chapter 37 (of title 38) loan guaranty benefits; chapter 17 nonservice-connected VA health care; chapter 23 nonservice-connected burial benefits; chapter 24 nonservice-connected burial rights; or chapter 32 Post-Vietnam Era Educational Assistance benefits.

Held: With limited exceptions, nonservice-disabled members and former members of the Air National Guard are not eligible for benefits administered by the Veterans Administration.

(signed)

JOHN P. MURPHY
General Counsel

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Appendix C. LEGISLATIVE HISTORY OF THE NATIONAL GUARD TECHNICIAN ACT OF 1968

Calendar No. 1426

90TH CONGRESS, 2d Session } SENATE { REPORT No. 1446

NATIONAL GUARD TECHNICIAN ACT OF 1968

JULY 22, 1968.—Ordered to be printed

MR. STENNIS, from the Committee on Armed Services, submitted the following

REPORT

[To accompany S. 3865]

The Committee on Armed Services, having had under consideration the question of legislation affecting the National Guard technicians, reports the following bill (S. 3865), the National Guard Technician Act of 1968, and recommends that it do pass.

PURPOSE OF LEGISLATION

In authorizing Federal employee status for the National Guard technicians, the purpose of this legislation is—

(*a*) To provide a retirement and fringe benefit program which will be both uniform and adequate;

(*b*) To recognize the military requirements and the State characteristics of the National Guard by providing for certain statutory administrative authority at the State level with respect to the technician program;

(*c*) To clarify the technician's legal status which in certain areas has been the subject of conflicting court decisions, especially on the matter of whether technicians are covered under the Federal Tort Claims Act regarding third party actions against the U.S. Government.

BASIC PROBLEM JUSTIFYING LEGISLATION

The technicians, now numbering about 42,000, are full-time civilian employees of the National Guard whose salaries are paid in full by the Federal Government and who must meet all the mental and physical standards as well as professional qualifications prescribed by the military departments. About 95 percent of the technicians are

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required to hold concurrent National Guard membership as a condition for their civilian employment. The concept of the technician program is that the technicians will serve concurrently in three different ways: (*a*) Perform full-time civilian work in their units; (*b*) perform military training and duty in their units; and (*c*) be available to enter active Federal service at any time their units are called.

Despite uniformity with respect to salaries and required standards there has been no program, on a uniform national basis for a retirement and fringe benefits program for technicians. The technicians except for those in the District of Columbia, are considered State employees. About 16,000 or 40 percent are covered under Federal retirement systems which may be combined with the social security program. About 24,000 depend on social security alone for their civilian retirement coverage. It should be noted that a total of 92 percent of the technicians, however, are covered under social security which may be combined with State retirement programs.

The fringe benefit program of technicians, such as group health and group life insurance, is dependent solely on coverage which may vary from no coverage to whatever may be provided for other State employees.

In addition there is the matter of clarifying the precise legal status of the technicians to prevent conflicting court decisions regarding third party claims against the Government arising out of accidents within the scope of employment.

SUMMARY OF LEGISLATION

This bill implements the purpose by converting the technicians to Federal employee status with certain controls on administration and supervision which would as a matter of law remain at the State level. In effect, the technicians will become Federal employees receiving the salaries, fringe and retirement benefits, but with certain administrative control regarding employment supervision remaining with the adjutants general of the jurisdiction concerned under regulations prescribed by the Secretary concerned.

The principal features of this bill which are later discussed in detail may be summarized by item as follows:

(*a*) A broadened statutory scope of the technician employment program thereby eliminating the permanent provisions of law relating to "caretakers and clerks" which have been suspended by various appropriation acts.

(*b*) Conversion of National Guard technicians to a Federal employee status with the authority for requiring National Guard membership as a condition for civilian employment. About 95 percent of the technician force would be in this latter category. Federal status would be in the noncompetitive category for this group.

(*c*) Conversion of technician positions to classified or wage board Federal positions.

(*d*) Requirement for adjutants general to be the sole agent for employment and administration of technician program under regulations prescribed by the Secretary concerned.

(*e*) Provision for final level of appeal in adjutants general for all technicians for certain adverse personnel actions.

(f) Provision for termination of civilian employment upon loss of Guard membership, failure to meet military security standards, or separation for cause, with requirement of 30 days' notice by adjutants general prior to termination.

(g) Provision for nonapplication of veterans preference provisions for technicians because of the military nature of the National Guard program.

(h) Provision for compensatory time off in lieu of overtime and differential pay for technicians (other than those assigned to operational duties at air defense sites) which is the practice under the present program.

(i) Credit for past technician service for Federal employee purposes with respect to leave, Federal employee death and injury compensation, group health and life insurance, severance pay, tenure, and status.

(j) Credit for past technician service in full for civil service retirement eligibility purposes but with a limit of 55 percent for retirement computation purposes.

(k) Provision of election to remain under a State retirement system with the consent of the State in lieu of coming under Federal civil service system.

(l) Permissive authority to retain technician Reserve officers until age 60.

(m) Provision requiring technicians to be in the program either now or in the future in order to receive credit for past technician service.

(n) An effective date of Jan. 1, 1969 for legislation.

PRESENT TECHNICIAN EMPLOYMENT AND RETIREMENT PROGRAM

Legal status

Except for those in the District of Columbia National Guard, technicians are considered employees of the State. Their salaries, however, are paid from Federal funds based on comparable classified and blue-collar Federal rates.

By regulations about 95 percent of the technicians are required to be military members of the National Guard as a condition for their civilian technician employment.

Number of technicians as of January 1, 1968

There were 40,546 technicians employed throughout the various States on a full-time civilian basis with about 95 percent required to hold dual status in the National Guard as a condition for employment.

Of this total approximately 18,000 occupied positions comparable to the general schedule rates with about 22,000 holding so-called blue-collar positions and receiving pay under rates comparable to the Federal wage board schedules.

Salaries of technicians

For the technicians paid at comparable general schedule rates, the range is from the equivalent of GS–1 through GS–14. As of July 1, 1968, this range is from GS–1 ($3,889 to $5,057) to GS–14 ($16,946 to $22,031). The average salary for all technicians (male and female) as of January 1, 1968, was $7,696.

With regard to special pays, overtime, differential and premium pay, none is authorized under the present system, only compensatory time off.

Federal employes compensation coverage and other benefits

All technicians are presently covered under the Federal Employees Compensation Act providing for injury and death benefits occurring within the scope of employment. (This coverage began in 1938 under a Labor Department ruling.)

A number of the technicians are also covered under various State plans for the purpose of health insurance, life insurance, and other fringe benefits.

PRESENT RETIREMENT PROGRAM

Social security coverage

The following factors should be noted regarding the social security coverage for the technicians.

(a) About 92 percent technicians are presently covered under social security (under a 1954 provision recognizing technicians as a separate group for State coverage).

(b) The technicians not covered under social security are all covered under some State retirement system.

(c) About 20,000 of the technicians have completed the 40 quarters of coverage and therefore have vested social security rights.

(d) Through fiscal year 1968 the Federal Government since 1955 has paid $58,348,000 to the social security fund as the employer contribution for the present technicians.

Coverage under State retirement systems

The following aspects should be noted with respect to present coverage of technicians under State retirement systems.

(a) Since 1961 congressional legislation has authorized the use of Federal funds for the payment to State retirement systems as the employer share for technicians subject to a maximum of 6½ percent which also includes any amounts used as the employer share to the social security system. Many of these States couple the social security as a part of the State system.

(b) About 16,000, or 40 percent, of the technicians are presently covered under State retirement systems in 19 States and Puerto Rico.

(c) Federal contributions to the State retirement system exclusive of social security payments from fiscal year 1962 through 1968 total $19,606,000 for the present technicians.

(d) All but 4,483 would necessarily lose their State coverage if they came under the Federal civil service system.

PRINCIPAL FEATURES OF BILL

BROADENED STATUTORY SCOPE OF THE TECHNICIAN EMPLOYMENT PROGRAM

EXISTING LAW

Existing permanent law (title 32, sec. 709) defines technicians as "caretakers and clerks" with their duties generally limited to the care of supplies and equipment of the National Guard. Various appropriation acts have suspended the permanent law limitations on the numbers and grades of technicians who may be employed.

Technician duties presently extend beyond the concept of the permanent law regarding the maintenance of equipment and involve

such Guard functions as training, employment in State headquarters, air defense, military support of civil defense, and aircraft operations.

THE BILL

The bill eliminates all limitations on grades, numbers, and terminology and contains broad language authorizing the employment of technicians in two broad categories:

(1) Administration and training of the National Guard.

(2) Maintenance and repair of supplies of the National Guard or the Armed Forces.

NONCOMPETITIVE CIVIL SERVICE STATUS AND MEMBERSHIP IN THE NATIONAL GUARD AS A CONDITION FOR EMPLOYMENT

Unless the Secretaries make an exception, the bill provides that the technicians as a condition of civilian employment will be required to be members of the National Guard and hold a military grade required for that position. In addition, such civil service positions would be noncompetitive.

About 95 percent of the technicians would hold noncompetitive positions and would be required to be members of the Guard as a part of their civilian employment. About 5 percent, or 2,000, would be in a competitive Federal status and would constitute principally female employees, clerk-typists, and security guards.

The noncompetitive status is necessary for the technicians in view of (*a*) requirement for holding a concurrent military Guard status as a condition for employment and (*b*) the fact that civilian employment is terminated where the concurrent military status ceases to exist.

PERMANENT STATUTORY CEILING OF 42,500 ON THE NUMBER OF TECHNICIANS

In the bill the committee recommends a numerical ceiling in the form of permanent statutory authority which would limit to 42,500 the number of technicians who might be employed at any one time. The committee also considered, but did not adopt, a provision which would have provided for the number of technicians to be authorized on an annual basis.

The committee was of the firm opinion that a permanent statutory ceiling is desirable. The committee recognizes that the technician program is an essential element of the National Guard in connection with its training, administration, and equipment. In any employment program, however, there is always the tendency for expansion. There should always be a goal, or a numerical limit, within which personnel programs should be expected to operate. If firm plans are made to remain within the permanent ceiling greater economies and efficiency in terms of personnel should be accomplished. The committee would observe that in 1955, when the total strength of the National Guard was about 420,000, there were only 25,000 technicians. For fiscal year 1967, however, with a total Guard strength of approximately 500,000 the technicians' strength had risen to slightly over 40,000.

In the budget for fiscal year 1969, the end strength for June 30, 1969, is 42,173. The ceiling of 42,500, therefore, will not result in any hardship with respect to present technicians.

STATUTORY FEDERAL EMPLOYEE STATUS FOR TECHNICIANS ON THE EFFECTIVE DATE OF THE ACT

Basic provision.—Under the bill all technicians on the effective date of the Act and those to be employed in the future will become Federal employees as a matter of law. As hereafter explained in detail, technicians will receive Federal salary and certain fringe benefits together with Federal job designations. In addition, however, they will be subject to certain supervisory controls at the State level which would not apply in the case of the typical civil service employee.

Salaries and positions.—Under the bill all technician positions will be converted as a matter of law into comparable Federal general schedule or wage board positions. The technicians will receive Federal salaries based on the positions designated for them.

It might be observed that under present arrangements technicians are paid salaries from Federal funds comparable to GS graeds, ranging from GS–1 through GS–14 which, as of July 1, 1968, encompassed a salary range of $3,889 to $22,031 with the average salary for all technicians as of January 1, 1968, being $7,696.

Federal fringe benefits.—As Federal employees the technicians would be covered under the laws providing for the various fringe benefits for Federal employees including group, health and life insurance, leave, Federal employees death and injury compensation, severance pay, tenure and status.

Additionally, they will also receive coverage under the Federal Tort Claims Act with respect to accidents which might occur within the scope of their employment.

RECOGNITION OF PAST TECHNICIAN SERVICE

CREDIT FOR CERTAIN FEDERAL FRINGE BENEFIT PURPOSES

The bill provides that past technician service will be recognized in full for the purpose of computing length of service with respect to enumerated fringe benefits. The significance for this purpose is as follows:

Group health and life insurance.—A retired Federal employee, other than those retired for physical disability, must have completed 12 years of Federal service in order to be covered under the Federal group health and life insurance programs. Recognition of past service will enable the technician to combine his past State service with his future Federal service in order to be covered for these programs in a retired status without being required to complete at least 12 years of Federal service subsequent to the enactment of this bill.

Leave.—The Federal system provides for a sliding scale ranging from 10 to 26 days of leave annually based on length of Federal service. Since technicians presently have a leave arrangement similar to Federal employees, they will be permitted to carry over into their Federal status the annual or sick leave with which they were credited prior to the conversion of their positions to a Federal designation.

Severance pay.—Present provisions recognize length of service as well as basic salary in awarding these payments. Severance pay is authorized in instances where a Federal employee is involuntarily separated without cause from his Federal position due to a reduction in force or for other reasons. If no past technician service were to be recognized and the technician were to receive credit only for his

service after the effective date of this act, severance payments would be nominal for any technicians separated within the next few years. The committee was of the opinion therefore that recognition of past service for this purpose is justified.

FEDERAL COMPENSATION FOR INJURY AND DEATH

As a result of an administrative ruling, technicians in their State status have been covered under the Federal Employees Compensation Act for injury and death benefits since 1938. The recognition of past technician service for the purposes of this act is therefore more in the nature of a statutory clarification than the granting of a new right. In order to leave no doubt on the matter, however, the past service is recognized for this purpose.

As Federal employees, technicians would also receive coverage under the Federal Tort Claims Act with respect to accidents which might occur within the scope of their employment involving third party claims against the Federal Government.

TENURE

Recognition of past technician service for the purpose of tenure as a Federal employee will have very limited significance with respect to the technicians. About 95 percent of the technicians will be required to hold military National Guard membership as a concurrent condition for civilian technician employment. Moreover, they will be subject to a number of other supervisory controls at the State level as set forth in the bill. Tenure would be significant mainly in the event of a reduction in force or reorganization resulting in the separation of technicians from Federal employment. If there were two technicians equal in all respects (military grade, job classification, etc.) and the necessity arose for separating one of the technicians, tenure or length of service would be significant. The technician with the greatest length of service or tenure would be retained if all other circumstances were equal.

STATUS

Recognition of past technician service for the purpose of status is significant in the following manner.

For 95 percent of the technicians, who will be required to hold military membership in the Guard and who will be in the noncompetitive category, past service is relevant for the purpose of completing the 1-year probationary period of Federal employment which is generally required prior to entering a career status.

For 5 percent of the technicians who will be in the competitive category, past service is significant not only for the 1-year probationary period but for credit in order to complete the 3-year period of career conditional employment prior to becoming a career employee.

RECOGNITION OF PAST TECHNICIAN SERVICE WITH RESPECT TO CIVIL SERVICE RETIREMENT

RECOGNITION OF PAST SERVICE IN FULL FOR CIVIL SERVICE RETIREMENT ELIGIBILITY AND CERTAIN OTHER PURPOSES

The bill recognizes past technician service in full for the purposes of retirement eligibility. For instance if a technician on the effective

date of the act has completed 20 years of past service, this period would be recognized for the purpose of years of service required for retirement eligibility. This period would count as 20 years toward the 30 years required for voluntary retirement at age 55. Moreover, the past technician service would be recognized for all the other elements relating to civil service retirement except for the creditable service as discussed below which will be limited to 55 percent. For instance, the technicians' past service will be recognized in full for the purpose of the high-5-year salary average should these past years be a part of the computation.

Moreover, past active military service will be recognized in full for all civil service retirement purposes. This latter credit is recognized under existing law which would not be amended by this bill.

In other words, the committee would emphasize that the full recognition would be extended for past technician service for the purpose of title eligibility, and average salary computation. Moreover, the existing law with respect to unpaid deposits is not affected except to reduce the amount of required unpaid deposit to conform to the 55 percent credit formula.

RECOGNITION OF PAST TECHNICIAN SERVICE TO THE EXTENT OF 55 PERCENT FOR CIVIL SERVICE RETIREMENT COMPUTATION

The bill in effect provides that each year or fraction thereof of past technician service will be recognized to the extent of 55 percent as creditable service for retirement computation purposes. The 55 percent provision would operate in the following manner. Under existing provisions creditable service for civil service retirement is based on the high-5-year average salary with the years of creditable service computed at the rate of 1.5 percent for the first 5 years, 1.75 percent for the second 5 years, and 2 percent for each year thereafter. On the basis of full credit for 20 years of service, a total percentage multiplier of 36.25 percent would result. This sum is based on 7.5 percent for the first 5 years at the rate of 1.5 percent for each year, 8.75 percent at the rate of 1.75 percent for the second 5 years, and 20 percent at the rate of 2 percent for each year after the first 10 years.

Under the 55-percent formula a technician with 20 years of past service would receive a retirement multiplier of 19.94 percent. This sum would result by applying 55 percent to each past technician year or fraction thereof. As an example, for the first 5 years based on the 1.5-percent formula, there would be a total percentage of 4.13 percent for the next 5 years, a sum of 4.81 percent and for the next 10 years based on 2 percent for each year, a sum of 11 percent.

Alternatively, the percentage of 19.94 could be obtained by taking 55 percent of 36.25.

DISCUSSION OF PAST SERVICE CREDIT FOR RETIREMENT COMPUTATION PURPOSES

The committee had a wide range of choices in considering the degree to which past technician service (which is considered State service except for the District of Columbia) should be creditable for future civil service retirement. It could have recommended no credit for past service on the premise that the technicians were similar to any other non-Federal employee and as such would accrue retirement credit

only from the period in which he was a statutory Federal employee covered under the civil service retirement system. The other extreme would have been to recognize past technician service to the extent of 100 percent for civil service retirement purposes. The committee, after long and careful examination of all aspects of this matter, has unanimously concluded that the 55-percent credit represents a fair, equitable, and generous treatment of this matter.

AMOUNTS ALREADY CONTRIBUTED BY THE FEDERAL GOVERNMENT AS THE EMPLOYER'S SHARE ON BEHALF OF TECHNICIANS TO RETIREMENT SYSTEMS

The committee would observe that since fiscal year 1955 the Federal Government has contributed as the employers' share $58,348,000 to the social security fund and $19,606,000 to State retirement funds (fiscal years 1962 through 1968) totaling $77,954,000. If these same technicians had been under the civil service retirement system during this same period of time the Federal Government would have contributed to the civil service retirement fund as the employers' share $142,805,000. In terms of past Government investment, therefore, it could be stated that the Federal Government has already contributed 54.59 percent ($77,954,000 out of $142,805,000) of the amount that would have been contributed to the civil service fund during this period. This contribution would leave a remainder of only 45.41 percent.

Rather than limiting the contribution under this concept to approximately 45 percent, however, the committee is recommending that 55 percent of the past technician service be creditable.

GENERAL FAIRNESS OF 55 PERCENT FORMULA

In determining the appropriate percentage for crediting past technician service, the committee had a dual obligation. There is the duty to exercise restraint in terms of causing additional financial obligations on the part of the U.S. Government, in view of the problems of financial soundness with which the Federal Government is being confronted. At the same time there is the necessity for recognizing the need of an adequate retirement and fringe benefit program for the National Guard technicians. The committee realizes that there is no formula for achieving exact justice for every individual technician in view of the many complexities and the different retirement systems under which the program now operates. At the same time the committee is of the firm opinion that the recommended legislation provides for a generous and equitable retirement and fringe benefit program for the technicians within the 55-percent formula. In support of this conclusion, the committee would cite the following:

(a) Approximately 20,000 of the technicians have already acquired a vested interest in future social security payments since they have completed the 40 quarters or 10 years of coverage as a result of their technician employment. Others may complete the 40 quarters and add to their social security credits through the annual Reserve training duty as Federal civilian employees. It should be observed that Federal employees are not covered under social security as a result of their Federal employment.

(b) Approximately 4,450 of the technicians have acquired a vested interest in a future annuity under one of the State retirement systems based on past service.

(c) All of the technicians will become eligible for Reserve retired pay at age 60 if they complete the required 20 years of satisfactory Reserve service. All reservists whether or not they are Federal employees are eligible for this pay upon meeting the requirement. Since the Reserve retired pay program, however, is in effect part of the employment program for technicians, the Reserve retired pay matter should not be ignored.

EFFECT OF PAST TECHNICIAN SERVICE ON CIVIL SERVICE RETIREMENT FUND LIABILITY

If the average retirement age of 60 is assumed which is the oldest age for technician employment, the past service cost to the civil service retirement fund would be $279,300,000 if an appropriation were immediately made to the civil service retirement fund. If no immediate appropriation is made and the amount is paid out as the persons retire, the total cost to the civil service fund for past service at age 60 will be $750,050,000. If age 55 is assumed to be the average age at retirement, these amounts would be $372,400,000 and $1,000,066,000 respectively. Charts I and II of this report set forth in detail the cost aspects of both the 55-percent formula together with the cost-of extending full credit for past service.

EXTENT OF PAST TECHNICIAN SERVICE

As of January 1, 1968, of the 40,558 technicians the length of civilian technician service ranged from less than 1 year to over 30 years. The following percentages might be noted:

11.08 percent (4,496) had completed 18 or more years.
47.38 percent (19,212) had completed 10 or more years.
68 percent (27,575) had completed 5 or more years.

If prior active military service which would also be creditable for civil service retirement purposes is included, these percentages would be as follows:

21.3 percent (8,640) had completed 18 or more years.
57.41 percent (21,891) had completed 10 or more years.
79 percent (32,054) had completed 5 or more years.

Chart VII and chart VIII set forth the extent of past service.

REQUIREMENT TO CONTRIBUTE 1 YEAR TO CIVIL SERVICE RETIREMENT FUND

Normally, in order to be eligible for civil service retired pay, technicians coming under the bill would be required to contribute 6½ percent of their pay over a period of 1 year. After the 1-year period technicians, if otherwise eligible, could be retired under civil service based on the retroactive credit for past technician service plus the 1 year of contributory service.

The 1-year contribution required, however, would not apply to civil service death benefits and to those retiring for physical disability. In these two instances payments could be made immediately without regard to the 1-year rule. A person entering Federal employment is generally required to contribute for a period of 5 years before acquiring a vested interest and certain other retirement rights. The past service credit under the bill, however, would result in only requiring the technician to contribute the 1 year if his past service is sufficient to meet the required periods of service.

REQUIREMENT TO BE A PRESENT OR FUTURE TECHNICIAN AS A REQUIREMENT FOR RECEIVING CREDIT FOR PAST TECHNICIAN SERVICE

The bill provides that in order to receive credit for past technician service for civil service retirement and other purposes, a person must be a technician either on the effective date of the act or at some future date. The basic purpose of the legislation is to provide an incentive for participation in the technician program. To omit this requirement would credit persons who might have served for some years in the technician program in the past but who would never be a technician either on or after the effective date of the act.

Explicit language is contained in the bill in order to make certain that this requirement would not apply to members of the District of Columbia National Guard who have been covered under the civil service retirement program.

DISCUSSION OF THE OPERATION OF THE CIVIL SERVICE RETIREMENT SYSTEM FOR TECHNICIANS

Preliminary comment

It can be anticipated that the civil service retirement system will operate in the same manner with respect to technicians as with other Government employees except for certain factors discussed below which might cause the technicians to be retired under the so-called involuntary separation provisions of the Civil Service Retirement Act.

Use of voluntary civil service provisions (age 55 with 30 years; age 60 with 20 years)

The voluntary retirement provisions would apply to technicians as Federal employees in the normal manner.

Under existing law Federal employees may apply for voluntary civil service retirement under the following criteria: At age 55 with 30 years of service and at age 60 with 20 years of service, both without annuity reduction. Technicians would therefore be eligible to apply for voluntary retirement under the above provisions based on any completed technician service past or future and active military service which would be recognized for civil service retirement purposes.

Another civil service provision which might be noted but may be little utilized by the technicians will be deferred annuity provision under which civil service retirement is possible at age 62 after having completed only 5 years of previous service.

Involuntary civil service retirement based on separation from job

A. Existing law:

An immediate civil service annuity is presently authorized where there is an involuntary separation of the employee without cause where the employee has completed 25 years of service (without regard to age) or has reached age 50 and completed 20 years of service. Generally, the use of this provision for civil service employees is limited to instances where Federal jobs are abolished. For each year a person is under 55 when retired, civil service annuities are reduced by 2 percent.

B. Discussion of use of involuntary provision:

The normal use of the involuntary separation provision with respect to civil service employees occurs as result of the reorganization or a reduction in force where the employee is separated from his job through no fault of his own. It would be anticipated that these instances might occur in the technician program.

The added factor is added to the potential use of the involuntary separation provision with respect to the technician program, however, since about 95 percent of the technicians will be required to hold an active military status in the National Guard as a concurrent condition for civilian technician employment. If a technician loses his military Guard membership and is therefore involuntarily separated from his job he may be eligible for civil service retired pay if he meets the length of service or age criteria.

The committee would make the following comments with respect to any involuntary retirement through the operation of the military personnel laws. Normally, under the Reserve Officer Personnel Act a lieutenant colonel or colonel is eliminated from an active status at about ages 53 and 55 respectively, since they will have completed 28 and 30 years of Reserve service. Reserve officers who are technicians under normal circumstances would therefore lose their active National Guard membership and consequently be separated from their civilain technician job because of the requirement for a dual status. Such persons would therefore be retired within immediate civil service annuity under the involuntary separation process if they had completed 25 years of service or had reached age 50 and completed 20 years of service.

The bill, however, contains a provision which will permit the Secretaries of the Army and the Air Force on a permissive basis to retain Reserve officers who are technicians in an active military status until age 60, notwithstanding the operation of the Reserve personnel laws which would eliminate them because of promotion passover or length of service. The committee made this provision permissive with the result that all Reserve technician officers could remain until age 60. It is the intention of the committee, that where the officer is fully qualified to hold his military position and properly performing his technician job, he should be retained in his technician employment.

Enlisted technicians

Under present regulations technicians holding enlisted grades are permitted to enlist in the Guard up to age 60. The committee has been informally advised that the National Guard intends to continue this policy, with the result that enlisted members should not be involuntarily retired through separation of job due to military promotion or elimination factors. In other words, so long as an enlisted technician properly performs his job there should be no grounds for his involuntary retirement. Among the specific grounds that would not be any basis for involuntary retirement would be the voluntary resignation from a military status on the part of either a commissioned or enlisted technician, thereby causing disqualification for further civilian employment, failure on the part of the enlisted technician to reenlist in the Guard, or failure on the part of the National Guard to accept his reenlistment application if properly qualified, or the discharge from enlistment for failure to meet military standards.

Involuntary retirement because of failure to meet military physical standards

Generally, standards for retirement for physical disability under the civil service laws require disabilities to a greater extent than the minimum standards required for disability retirement under the military laws. Civil service provisions generally require total disability for physical retirement. One element of the required concurrent military Guard status for civilian employment is the meeting of military physical standards. It can be anticipated that instances will occur where technicians would not be eligible for physical disability civil service retirement but would at the same time fail to meet the military physical standards.

If an employee fails to meet military physical standards even though he would be physically qualified for continued civil service employment, he will be eligible for civil service retirement under the involuntary, separation provisions if he has completed 25 years of service or is age 50 and completed 20 years of service.

If, however, the employee has not met any of the foregoing age and length-of-service requirements, he would not be retired for physical disability under the Civil Service Act but would be separated from service with civilian severance pay.

The following might be such instances—failure to permit reenlistment for medical reasons, or removal of Reserve officer technician from active status because of failure to pass military medical exam.

POLICY ON UNPAID DEPOSITS

Under existing laws pertaining to civil service retirement creditable service must be matched with a contribution by the individual. If the contribution is not paid existing law provides for an annuity penalty under which there would be deducted from the person's retired pay an amount equal to 10 percent of the unpaid deposit plus accrued interest.

As an example, if the unpaid deposit plus interest owed by the employee was $2,000, his annuity would be reduced by $200 per year. Where the employee repays the deposit, the amount repayable would be the required deduction for each year in the past with interest compounded at the rate of 4 percent through 1947 and 3 percent since that time.

The Civil Service Commission has advised informally that from an actuarial standpoint the 10-percent system is sufficient to offset the nonpayment of contributions for the system as a whole. Whether an employee should repay the deposit or accept the penalty would depend on the facts in each case.

Under the bill a special provision has been inserted which would permit reduced required deposits to conform to the 55-percent credit formula. In other works, unpaid deposits would be computed on the basis of 55 percent of what would have been owed for 100 percent credit. Set forth below is chart III which shows the effect of unpaid deposits under varying circumstances. It should be emphasized that most of the technicians will complete varying degrees of service in the future under which full credit will be received as Federal employees with full deposits made as required by law. The chart therefore does not represent typical cases with respect to unpaid deposits.

ELECTION TO REMAIN UNDER STATE RETIREMENT SYSTEMS

The bill contains a provision under which technicians with the consent of the State concerned may elect to remain under the State retirement system under which they are now covered. Such election, which must be made by the effective date of the act, would be in lieu of their participation in the Federal civil service retirement system, even though such technicians would remain Federal employees for other purposes.

For such persons the Federal Government would continue to pay the employer's share to the State in an amount not to exceed the contribution of the Federal Government's employer contribution to the civil service retirement fund.

It should be emphasized that an election to remain in a State system would be final. Furthermore, technicians who remain in a State system would not be covered after retirement for any of the fringe benefits such as health and life insurance which are available to persons retired under the Federal civil service system. Any benefits of this nature would depend on coverage under the State retirement system.

PRELIMINARY COMMENT ON EMPLOYMENT AND ADMINISTRATION OF TECHNICIANS BY ADJUTANTS GENERAL

The bill places certain authority for the supervision and administration of the technician program at the level of the adjutants general of the States concerned. In discussing these specific provisions which are outlined in detail below, the committee would make the following observations:

(*a*) Under the U.S. Constitution and the many laws pertaining to the National Guard, the Federal Government supports the National Guard in terms of funds, equipment, and training procedures which require that the members of the Guard must meet Federal standards with respect to mental, physical, and professional qualifications. Until the National Guard is called into active Federal service, however, it is a State military organization, subject to the sole command and control of the Governor concerned.

(*b*) All members of the National Guard including 95 percent of the technicians hold a dual military status in the form of a State military rank and a Federal Reserve rank, both of which correspond. All members of the National Guard take a dual oath, one to their Governor, and one to the President of the United States.

The technicians as full-time civilian employees are an essential element with respect to the training and the maintenance of equipment for the National Guard.

(*c*) The technicians, however, numbering about 42,000, constitute only about 8 percent of the total drill paid strengths of approximately 500,000 members of the National Guard. In order that there be some degree of supervision and control at the State level of all National Guardsmen, including technicians in their dual status, the Committee feels it is essential that the controls enumerated be provided as a matter of law. Otherwise there would be varying rules and regulations applying to guardsmen who were technicians as compared

to the remaining personnel who are also a part of the National Guard program.

(*d*) The committee would also observe that most of the supervisory provisions set forth in the bill are by implication contained in the provision requiring military Guard membership as a condition for civilian employment. This requirement was contained in the legislation as passed by the House. In order to remove any statutory ambiguity the lines of authority with respect to administration and control are explicity set forth as a part of the legislation.

SUPERVISORY AUTHORITY OF THE ~~ADJUTANTS~~ GENERAL

REQUIREMENT FOR EMPLOYMENT AND ADMINISTRATION OF TECHNICIANS BY THE ADJUTANTS GENERAL

The bill provides that the Secretaries concerned under the regulation will designate the adjutants general of the various States to employ and administer the technicians. This is the current arrangement although not required by law.

This requirement is intended to achieve two purposes: (*a*) recognize the State character of the Guard and (*b*) meet the requirement of giving the adjutants general (who are State officers) the statutory function of employing Federal employees.

AUTHORITY FOR SEPARATION OF TECHNICIANS FROM CIVILIAN EMPLOYMENT BY ADJUTANTS GENERAL IN INSTANCES INVOLVING LOSS OF REQUIRED MILITARY MEMBERSHIP, FAILURE TO MEET MILITARY SECURITY STANDARDS, AND SEPARATION FOR CAUSE

The bill provides that notwithstanding any other provision of law and other regulations of the Secretary concerned, the Adjutant General of the jurisdiction concerned may separate technicians from their civilian employment where (*a*) the technician is employed in a position requiring military Guard membership and is separated from that membership or ceases to hold the required specified military grade; (*b*) the technician who is employed in a position requiring military Guard membership fails to meet the military security standards prescribed by the Secretaries for the respective Reserve components; and (*c*) there are grounds for separation for cause in the case of any technician.

JURISDICTION OF ADJUTANTS GENERAL REGARDING REDUCTIONS IN FORCE AND CERTAIN ADVERSE ACTIONS

The bill provides that the Adjutants General shall accomplish any actions involving reduction in force, removal, or an adverse action involving discharge from technician employment, suspension, furlough without pay, or reduction in rank or compensation. This authority would be subject to secretarial regulations.

This proposed statutory authority conforms to the present arrangement of meeting these problems in the technician program.

RIGHT OF APPEAL

The bill provides that any right of appeal which may exist with respect to the actions enumerated above shall not extend beyond the adjutant general of the jurisdiction concerned.

REQUIREMENT FOR NOTIFICATION IN WRITING

The bill provides that a technician, upon any termination of his employment, shall be notified in writing at least 30 days prior to any termination.

OTHER PROVISIONS

PREMIUM PAY FOR TECHNICIANS EMPLOYED AT AIR DEFENSE SITES

The bill authorizes the Secretary concerned, in the case of technicians assigned to perform operational duties at air defense sites, to prescribe the hours of those duties, fix the rates of basic compensation, and authorize additional compensation not to exceed 12 percent of such part of the rate of basic pay as does not exceed the minimum rate of basic pay for GS–10 of the General Schedule.

There are approximately 5,100 technicians affected by this provision. About 4,500 are on duty 62 hours a week as a part of their normal employment; 350 are normally on duty about 50 hours a week. The Department of Defense has indicated that those on duty for 62 hours will be authorized annual premium pay in the amount of 12 percent of basic compensation and those on duty for 50 hours annual premium pay at 8 percent.

AUTHORITY OF THE SECRETARY TO PRESCRIBE THE HOURS OF WORK WITH AUTHORITY FOR COMPENSATORY TIME OFF

The bill provides that the Secretary concerned may prescribe the hours of duty for all technicians (other than those employed at air defense sites where separate authority will apply) and directs the Secretary to grant compensatory time off to a technician from a regularly scheduled tour of duty in an amount equal to the amount of time spent in irregular or overtime work in lieu of being paid for that work. This authority will continue the existing practice regarding hours of work and compensatory time off. It is the firm view of the committee that the irregular hours of work to which technicians are subjected on frequent occasions make it impractical, both from the standpoint of the Government and the individual, to be limited to the normal provisions regarding a straight 40-hour week with overtime or differential pay for additional hours of work. The frequent irregular hours are inherent in the technician job and position.

NONAPPLICATION OF VETERANS' PREFERENCE PROVISIONS FOR TECHNICIANS

The so-called veterans' preference provisions contained in title 5, United States Code, are not presently applicable to technicians since they are State employees. The bill, in containing a provision making the veterans' reference provisions not applicable to technicians, will continue the existing practice on this matter.

The committee is of the view that the application of the veterans' preference provisions would pose a number of problems which could make the National Guard program less efficient and less responsive to its mission as a military and State organization. There is the problem generally of applying the concept of veterans' preference to an organization organized and operated along military lines. About 95 percent of the technicians will hold a dual status, that is, be required to hold a military grade as a condition for their civilian Federal job. The complications arising out of the application of the veterans' preference

provisions both with respect to employment and retention would make efficient administration of the program difficult.

With respect to initial employment there could well be an instance where a person with veterans' preference would have priority in employment for the civilian job but would be less qualified to hold the military rank required for the position as compared to another applicant.

Another example might occur with respect to a reduction in force. Any such action in the technicians program would probably be caused by the deactivation of a National Guard unit caused by a reorganization. If the situation were to result where persons with veterans' preference in the unit being deactivated were in a position to "bump" persons in another unit not being deactivated, the efficiency of the remaining unit could well be impaired in terms of the requirement for specified military grades.

MATTER OF UNCOMMITTED FUNDS IN STATE RETIREMENT SYSTEMS CONTRIBUTED BY FEDERAL GOVERNMENT

Since 1961 legislation enacted by the Congress has authorized the use of Federal funds for the payment to State retirement systems as the employer's share for contributions, subject to a maximum of 6½ percent, which also includes any amounts used as the employer's share to the social security system. About 16,000, or 40 percent, of the technicians are presently covered under State retirement systems in 19 States and Puerto Rico.

For fiscal years 1962 through 1968, Federal funds in the form of contributions to State retirement systems totaled $19,606,000 for the persons who were technicians as of January 1, 1968. For all technicians, including those on board January 1, 1968, as well as those who were in the program during these fiscal years but no longer on board at this latter date, the Federal contributions totaled $22,456,000.

The bill will remove the overwhelming portion of the technicians from the State retirement systems by providing for Federal employee status for all new technicians to be employed and by providing for civil service retirment for those presently employed except for those who elect to remain under a State retirement system with the consent of the State concerned.

It is the desire of the committee that the Department of Defense negotiate with the various States where such Federal contributions have been made with a view toward determining the portion of the Federal contributions which is uncommitted to pay for technician retirement and which otherwise will constitute Federal windfalls to the retirement systems of these States. It is recognized that actuarial commitments of these funds will have been made in the following instances: (a) where claims have been or are being paid; (b) to the extent that some 4,400 technicians with a vested interest to a future State annuity remain eligible; and (c) to the extent that technicians elect to remain in the State retirement system in lieu of coming under the Federal civil service system.

It would appear that a substantial portion of the funds which have been paid on behalf of some 16,000 individuals would be uncommitted and therefore available for return to the Federal Government. The committee as a part of this report is hereby requesting the Depart-

ment of Defense to first determine, with the cooperation of the States, the portion of these funds which are uncommitted with a view to thereafter determining the most equitable means of either a return of the money to the Federal Government or an offset from Federal funds which might otherwise be made available to the States.

ALTERNATIVES EXAMINED BY THE COMMITTEE

The committee in 1967 conducted extensive hearings on title II of H.R. 2. This title, in converting the technicians to Federal employee status would, among other things, have granted complete credit for past service for all civil service retirement purposes, and in addition most of the civil service procedures would have become operative with respect to the technician program. The committee in reexamining the House-passed provision also examined other alternatives in an effort to make certain that legislation would be formulated which would best serve the objective of providing both for an adequate technician retirement system and at the same time recognize the National Guard as a military and State organization. Several alternatives are discussed below.

1. Greater participation under State retirement systems

At the present time technicians as State employees are covered under the retirement systems of 19 States and the Commonwealth of Puerto Rico. Since 1961 legislation has authorized the use of Federal funds for the payment to State systems as the employers' share for technician subject to a maximum of 6½ percent which also includes any amounts used as the employers' share to the Social Security System. For the present technicians from fiscal year 1962 through fiscal year 1968, a total of $19,606,000 has been used for this purpose.

One alternative which was examined was the possibility of a greater Federal contribution to the State retirement system as a means of encouraging a greater number of States to permit technicians to participate in their State systems. The committee on February 16, 1968 submitted to the Governors of the 50 States and the Commonwealth of Puerto Rico an extensive questionnaire for the purpose of examining this alternative and to seek further information on the operation of the State retirement systems as it related to the National Guard technicians. The States were very cooperative in providing the requested information. This approach, however, presented a sufficient number of problems to preclude it as a practical alternative. These problems include (*a*) the fact that some States were uncertain as to whether the technicians would be taken in even with a contribution that might go as high as 11¾ percent; (*b*) in some States an increase to 11¾ percent would be insufficient; (*c*) some States could not credit past technician or past active military service; (*d*) the fact that the States cannot be compelled as a matter of Federal law to incorporate the technicians in their State systems along with the above factors preclude any uniform approach to the technician retirement.

2. State militia approach in lieu of Federal employee status

Another approach which was examined is what might be termed a militia status for the technicians. Instead of becoming Federal employees as a matter of law the militia approach would have provided for technicians required to have military Guard membership, to be

ordered to State military duty (militia status), to be paid salaries based on Federal civil service or wage board rates but for fringe benefit purposes to receive all such benefits including disability retirement that are authorized for career military members (those on active duty for more than 30 days).

Under this concept retirement would have been based on the basic pay of the technician's military rank computed under a point system formula which recognized civilian technician duty including both the 5-day workweek and Reserve training to the extent of 87 percent of active military service. For physical disability under the percentage system, the technician would receive the same benefits as active military personnel. Voluntary retirement would have been authorized at age 50 for enlisted technicians and age 55 for officers upon the completion of approximately 25 years of technician service, with involuntary retirement occurring at earlier ages through the operation of the personnel laws.

After careful examination the committee did not adopt this approach for two basic reasons. First, a system would have been established under which the amount of a person's retired pay would be computed under a system unrelated to his civilian compensation. There is a wide range in salaries for technicians having the same military grade. A number of inequities would arise if retired pay were to be based on a system which gives no direct recognition to a person's civilian compensation. The second basic reason related to cost since the militia approach would involve considerably more cost to the Government as compared to the version recommended by the committee.

COMMITTEE OBSERVATIONS

Although the subjects discussed below are not dealt with in explicit language in the bill, the committee would make the following observations regarding them.

Use of Reserve general officers in the technician program

The committee observed during the course of the hearings on the technician program that there were 37 National Guard general officers who are technicians, or slightly more than one-third of the total of 101 in an active status. The committee is not suggesting any change in the promotion policy which would affect those technicians now holding general officer rank. It is the opinion of the committee, however, that with respect to the technician program as implemented in the future, there should be no general officers in the National Guard who are technicians unless they are assigned to a tactical combat unit organized to serve as such. In other words general officers should not be employed as technicians unless they are assigned to such units organized as such and are employed as a technician for that express purpose. Such technicians would be commanders only on the assumption that they would be called into active service in the event the unit which they command is ordered to active duty.

It should not be inferred from the foregoing that it is the committee position that general officers assigned to such units should necessarily be technicians. The committee is concerned that the nontechnician officer be appropriately recognized in terms of assignments as a part of the National Guard program.

As a general rule joint regulations of the National Guard Bureau would specify the appropriate military position and grade to which technicians employed in the various positions would be assigned. For instance, in the case of technician positions authorized for the Army or Air National Guard State headquarters, the maximum grade for officers employed would be that of colonel.

The Department of Defense has indicated its informal agreement to such a change in policy.

Requirement for mobilization position to be in unit in which the technician is working as a civilian

The concept of the full-time civilian technician program is that his civilian work will be performed in the same unit in which he holds a mobilization assignment. In other words, the technician would perform his civilian work, his training duty, and be mobilized to active duty in the same unit.

While the foregoing is the general practice the committee did learn in some instances technicians hold military assignments in units different from the units in which they are employed. It is the view of the committee, therefore, that technicians who are required to be military members of the National Guard should occupy a military position which is compatible with their civilian technician position.

The Department of Defense has indicated its informal concurrence with this view.

SECTIONAL ANALYSIS

SECTION 1. TITLE OF THE BILL

This section provides that the act may be cited as "the National Guard Technician Act of 1968."

SECTION 2. NEW AUTHORITY AND PROVISIONS FOR THE TECHNICIAN PROGRAM

Section 2 replaces existing law with respect to the authority for the technician program and as enumerated below, provides for new statutory authority along with certain other provisions which will apply to the bill.

NEW AUTHORITY FOR THE EMPLOYMENT OF TECHNICIANS

The proposed language of subsection 709(a) provides authority under which, pursuant to secretarial regulations, technicians may be employed in the administration and training of the National Guard and the maintenance and repair of supplies issued to the National Guard or the Armed Forces. One result of this provision is to eliminate existing law defining technicians as "caretakers and clerks." In addition, this language repeals existing limitations on grades, numbers, and terminology, all of which have been suspended under various appropriations acts for a number of years.

REQUIREMENT FOR A TECHNICIAN TO BE A MEMBER OF THE NATIONAL GUARD AND HOLD SPECIFIED GRADE UNLESS AN EXCEPTION IS MADE BY THE SECRETARY

The proposed language for 709(b) provides that except as prescribed by the Secretary concerned, a technician while employed will be a military member of the National Guard and hold the military grade specified by the Secretary for that position. This language will convert to a statutory requirement what has long been the practice and

procedure—that of requiring civilian caretakers and clerks, now termed technicians, to be members of the National Guard.

REQUIREMENT THAT THE SECRETARY SHALL DESIGNATE THE ADJUTANTS GENERAL TO EMPLOY AND ADMINISTER THE TECHNICIANS

This provision will provide by statute what is the current practice by regulation with respect to the employment and administration of technicians.

PROVISION THAT TECHNICIANS WILL BE EMPLOYEES OF THE U.S. GOVERNMENT WITH AUTHORITY FOR DESIGNATING TECHNICIAN POSITIONS IN THE NONCOMPETITIVE CATEGORY

Subsection 709(d) would provide that technicians who are to be employed will be employees of the United States. In addition, if a technician is required to hold military membership in the National Guard as a concurrent condition for civilian employment, his position will be outside the Federal competitive service. About 95 percent of the technicians would be in this category.

AUTHORITY FOR SEPARATION OF TECHNICIANS FROM CIVILIAN JOB BY ADJUTANT GENERAL IN INSTANCES INVOLVING LOSS OF REQUIRED MILITARY MEMBERSHIP, FAILURE TO MEET MILITARY SECURITY STANDARDS, AND SEPARATION FOR CAUSE

New subsection 709(e) provides that, notwithstanding any other provision of law and under the regulations of the Secretary concerned, the adjutant general of the jurisdiction concerned may separate technicians from their civilian employment where (*a*) the technician is employed in a position requiring military Guard membership and is separated from that membership or ceases to hold the required specified military grade; (*b*) the technician who is employed in a position requiring military Guard membership fails to meet the military security standards prescribed by the Secretaries for the respective Reserve component; (*c*) there are grounds for separation for cause in the case of any technician.

In addition, this subsection provides that the adjutant general of the jurisdiction concerned shall accomplish any actions involving reduction in force, removal, or an adverse action involving discharge from technician employment, suspension, furlough without pay, or reduction in rank or compensation.

RIGHT OF APPEAL

Under subsection 709(e)(5) a right of appeal which may exist with respect to the actions described above shall not extend beyond the adjutant general of the jurisdiction concerned.

REQUIREMENT FOR NOTIFICATION IN WRITING

Subsection 709(e)(6) provides that a technician shall be notified in writing at least 30 days prior to any termination of his employment.

NONAPPLICATION OF VETERANS' PREFERENCE PROVISIONS FOR TECHNICIANS

The so-called veterans' preference provisions contained in title 5, United States Code, are not presently applicable to technicians since they are State employees. The bill (709(f)) in containing a provision making the veterans' preference provisions not applicable to technicians, will continue the existing practice on this matter.

The committee is of the view that the application of the veterans' preference provisions would pose a number of problems which could make the National Guard program less efficient and less responsive to its mission as a military and State organization. There is the problem generally of applying the concept of veterans' preference to an organization organized and operated along military lines. About 95 percent of the technicians will hold a dual status, that is, be required to hold a military grade as a condition for their civilian Federal job. The complications arising out of the application of the veterans' preference provisions both with respect to employment and retention would make efficient administration of the program difficult.

With respect to initial employment there could well be an instance where a person with veterans' preference would have priority in employment for the civilian job but would be less qualified to hold the military rank required for the position as compared to another applicant.

Another example might occur with respect to a reduction in force. Any such action in the technicians program would probably be caused by the deactivation of a National Guard unit caused by a reorganization. If the situation were to result where persons with veterans' preference in the unit being deactivated were in a position to "bump" persons in another unit not being deactivated, the efficiency of the remaining unit could well be impaired in terms of the requirement for specified military grades.

PREMIUM PAY FOR TECHNICIANS EMPLOYED AT AIR DEFENSE SITES

Subsection 709(g)(1) authorizes the Secretary concerned, in the case of technicians assigned to perform operational duties at air defense sites, to prescribe the hours of those duties, fix the rates of basic compensation, and authorize additional compensation not to exceed 12 percent of such part of the rate of basic pay as does not exceed the minimum rate of basic pay for GS–10 of the General Schedule.

There are approximately 5,100 technicians affected by this provision. About 4,500 are on duty 62 hours a week as a part of their normal employment; 350 are normally on duty about 50 hours a week. The Department of Defense has indicated that those on duty for 62 hours will be authorized annual premium pay in the amount of 12 percent of basic compensation and those on duty for 50 hours annual premium pay of 8 percent.

AUTHORITY OF THE SECRETARY TO PRESCRIBE THE HOURS OF WORK WITH THE AUTHORITY FOR COMPENSATORY TIME OFF

Subsection 709(g)(2) provides that the Secretary concerned may prescribe the hours of duty for all technicians (other than those employed at air defense sites where separate authority will apply) and directs the Secretary to grant compensatory time off to a technician from a regularly scheduled tour of duty in an amount equal to the amount of time spent in irregular or overtime work in lieu of being paid for that work. This authority will continue the existing practice regarding hours of work and compensatory time off. It is the firm view of the committee that the irregular hours of work to which technicians are subjected on frequent occasions make it impractical, both from the standpoint of the Government and the individual, to be limited to the normal provisions regarding a straight 40-hour week with overtime or

differential pay for additional hours of work. The frequent irregular hours are inherent in the technician job and position.

PERMANENT STATUTORY CEILING OF 42,500 ON THE NUMBER OF TECHNICIANS WHO MAY BE EMPLOYED AT ANY ONE TIME

Subsection 709(h) provides that the number of technicians who may be employed may not exceed 42,500. In effect the committee is adopting a numerical ceiling in the form of permanent statutory authority. The committee considered but did not adopt a provision which would have provided for the number of technicians to be authorized on an annual basis.

The committee was of the opinion that a permanent statutory ceiling was desirable for the following reasons. While it is recognized that the technician program is an essential element of the National Guard in connection with its administration training, and equipment, it should be the objective of all personnel programs to remain within specified numerical limits with regard to the number of its employees. There is always a tendency toward expansion in any program. If plans are made with the permanent ceiling in mind, it should permit greater economies in terms of personnel.

SECTION 3. SAVINGS PROVISIONS FOR APPROVED CLAIMS

Section 3(a) provides for a savings provision for any claim accrued under section 715 of title 32, United States Code, prior to the amendment to that section as provided in this act and permits such a claim, if otherwise allowable, to be settled and paid under that section as it existed on the day before the enactment of this act.

CONVERSION OF TECHNICIANS ON THE EFFECTIVE DATE OF THE ACT TO FEDERAL EMPLOYEE STATUS AND POSITIONS

Section 3(b) in effect provides that the positions of the technicians employed on the day before the effective date of the act and the persons holding those positions shall, as the case may be, be considered to be positions in, and employees of the U.S. Government. As discussed in detail in other parts of this report this provision is the authority under which existing technicians become Federal employees. This subsection also provides that positions will be outside the competitive service where the persons employed therein must hold military Guard membership as condition for their civilian employment.

CREDIT FOR PAST TECHNICIAN SERVICE FOR CERTAIN PURPOSES

Section 3(c) credits past technicians service performed before the effective date of this act in the determination of length of service for the purpose of leave, Federal death and disability compensation, group life and health insurance, severance pay, tenure, and status. However, such service would only be creditable to a technician who performed service as a technician on or after the effective date of this act.

PREVENTION OF LOSS OF ACCRUED ANNUAL AND SICK LEAVE

Section 3(d) prevents the loss of accrued annual leave and sick leave which the technician has standing to his credit at the time his position is converted.

SECTION 4. AUTHORITY OF THE ADJUTANT GENERAL TO EMPLOY TECHNICIANS

Amends section 2105(a) of title 5, United States Code, codified under the title of "Government Organization and Employees," to

provide that a person employed as a technician under section 709 of title 32, United States Code, by the adjutant general of the jurisdiction concerned, is an employee of the United States.

SECTION 5. CREDITING OF PAST TECHNICIAN SERVICE FOR CIVIL SERVICE RETIREMENT PURPOSES

Section 5 contains the various provisions under which, as explained below, past technician service will be creditable for civil service retirement purposes.

CREDITING OF PAST TECHNICIAN SERVICE FOR RETIREMENT ELIGIBILITY AND OTHER PURPOSES

Section 5(a) in effect recognizes past technician service for the purpose of eligibility for civil service retirement. In substance, the effect of this provision is to recognize past technician service in full for civil service retirement eligiblity purposes and other factors relating to retirement, except that the computation for retired pay, which is explained below, will be limited to a 55-percent formula. This credit would apply only to persons who are technicians on or after the effective date of this act. There is a savings clause in order to make certain that this provision will not deprive technicians of the District of Columbia National Guard of rights already accured as particpants in the civil service retirement system.

CHANGE IN UNPAID DEPOSIT PROVISIONS TO CONFORM WITH THE BILL

Section 5(b) in effect provides that technicians will be required to pay only 55 percent of the deposits computed under the normal formula in order to conform with the 55-percent provisions relating to computation for past service.

RECOGNITION OF PAST TECHNICIAN SERVICE TO THE EXTENT OF 55 PERCENT FOR CIVIL SERVICE RETIREMENT COMPUTATION

Section 5(c) of the bill in effect provides that for each year or fraction thereof of past technician service, recognition will be given to the extent of 55 percent as creditable service for retirement computation purposes. This provision is discussed in detail elsewhere in this report under the same heading. The 55-percent formula, in technical terms, provides that 45 percent of each year of past technician service shall be disregarded in computing the annuity.

SECTION 6. ELECTION TO REMAIN UNDER STATE RETIREMENT SYSTEM

Section 6(a) provides for an election between the date of the enactment of this legislation and its effective date (the first day of the first pay period that begins on or after January 1, 1969) by technicians who were covered by a State retirement program as to whether they will remain under that program. The consent of the State would also be required if an affirmative election is made. This would protect the equity of technicians with long periods of covered State service. Those who do not so elect, together with technicians not covered by a State program, and all persons employed in the future as National Guard technicians will be covered by the Civil Service Retirement Act.

Section 6(b) permits members of the National Guard on active Federal duty on the effective date of this act, who were ordered to active Federal service subsequent to January 1, 1968, from a technician position or a person who entered on active Federal duty from a tech-

nician position for the purpose of performing a statutory tour in the National Guard Bureau or other headquarters or agencies bearing a responsibility for National Guard matters, to make the same election if reemployed within 60 days of their release from that active Federal service and 30 days after such reemployment.

AUTHORITY FOR CONTINUATION OF FEDERAL CONTRIBUTIONS FOR THOSE WHO ELECT TO REMAIN IN STATE SYSTEMS

Section 6(c) continues the authority contained in current law (32 U.S.C. 709(f)) for a Federal contribution to the retirement system of any State or the Commonwealth of Puerto Rico which covers its National Guard technicians under its retirement program, reduced by the Government's contribution toward the employer's social security tax in those jurisdictions which cover their employees under that program as well. Instead of imposing a permanent 6½-percent ceiling on the total authorized contribution as under current law, this section would authorize a corresponding increase in the maximum in the event the Government's contribution under 5 U.S.C. 8334 is increased. Provides further, that a person who retires under a retirement system of a State or the Commonwealth of Puerto Rico, shall not, after such retirement, be eligible for any rights, benefits, or privileges to which retired civilian employees of the United States may be entitled.

SECTION 7. AUTHORITY TO CONTINUE SOCIAL SECURITY PAYMENTS FOR THOSE WHO ELECT TO REMAIN UNDER STATE SYSTEMS

This section amends section 218(b)(5) of the Social Security Act, as amended (42 U.S.C. 418(b)(5)), to include technicians who have elected to remain covered by a State retirement system. Since section 5 of the act would cover all other technicians under the Civil Service Retirement Act, this category would be denied concurrent coverage under the Social Security Act by reason of the provisions of section 210(a)(6) of the latter act, as amended (42 U.S.C. 410(a)(6)).

SECTION 8. PROVISIONS RELATING TO CONVERSION OF TECHNICIAN POSITIONS TO GENERAL SCHEDULE AND WAGE BOARD POSITIONS OF THE UNITED STATES

Subsection (a) provides for fixing the compensation of technicians whose pay immediately prior to the conversion was (1) lower than the minimum rate for his new grade, (2) equal to a rate of the appropriate grade, (3) between two rates of the appropriate grade, or (4) in excess of the maximum rate of the appropriate grade.

(b) Provides that the conversion from National Guard technicians to Federal pay scales shall not be considered to be transfers or promotions within the meaning of section 5334(b) of title 5, United States Code.

(c) Provides for crediting a technician with a salary increase if it has been earned but not credited before the conversion.

(d) Would, on the date of conversion, credit the length of service of a technician in his grade and step since his last salary increase toward his first in-grade increase thereafter.

(e) Would prevent a salary increase resulting from the conversion of a position from being considered as a step increase.

SECTION 9. AUTHORITY FOR THE RETENTION OF NATIONAL GUARD OFFICERS WHO ARE TECHNICIANS UNTIL AGE 60

(1) Restates existing authority which permits the Secretary of the Army to retain in an active status until age 60 any Army National Guard officer who is assigned to a headquarters or headquarters detachment of a State, territory, the Commonwealth of Puerto Rico, or the District of Columbia. Provides, further, that any Army National Guard officer, who is employed as a technician in a position in which membership in the Army National Guard is required as a condition of employment, may be retained in an active status until age 60.

(2) Provides that the Secretary of the Air Force may retain in an active status until age 60 any Air National Guard officer who is employed as a technician in a position in which membership in the Air National Guard is required as a condition of employment.

SECTION 10. REQUIREMENT FOR UNIFORM REGULATIONS AS APPROVED BY THE SECRETARY OF DEFENSE

Requires that the regulations prescribed by the Secretary of the Army and the Secretary of the Air Force under this act be approved by the Secretary of Defense and that they shall, so far as practicable, be uniform.

SECTION 11. EFFECTIVE DATE OF JANUARY 1, 1969

Provides that the effective date of this act shall be January 1, 1969, and that no deductions or withholding from salaries which result therefrom shall be initiated before the first day of the first pay period that begins on or after January 1, 1969.

The committee adopted January 1, 1969, as the effective date in view of the administrative details required in converting over 42,000 technicians to Federal employee status. Among other things this task involves the conversion of all job descriptions to Federal classified or wage board positions. This date was recommended by the Department of Defense.

Appendix D. FULL-TIME SUPPORT COMPENSATION COST COMPARISON MODEL - DATA SOURCES, COMPUTATIONS, AND ASSUMPTIONS (COMPUTER BASED SYSTEMS, INC.)

Introduction

Documentation for the AGR/MT compensation cost comparison model, developed by Computer Based Systems, Inc., is contained in four separate areas of this report. Chapter 5 contains a general explanation of the model, including background information, basic description, discussion of AGR/MT equivalencies, and data availability. Output from the model is contained in Appendix E. The output is fairly descriptive; much of the database is apparent, as well as the associated operations. Taken together, Chapter 5 and Appendix E should provide sufficient information for most analytical needs.

The analyst or programmer interested in more detailed documentation should refer to Appendix D and the Lotus 1-2-3 program. This appendix contains a column-by-column explanation of the model, the sources and applications of data, the assumptions, and the logic/arithmetic operations. All columns for AGR, MT (military compensation), and MT (civil service compensation) for the 45 spreadsheets are addressed. Because the specifics of most columns are the same for each of the reserve components, column explanations are held to a minimum.

The Lotus 1-2-3 program (Release 2.01) is not shown, due to its prohibitive length and repetitive nature. The entire menu-driven program is available, however, on a double-sided, high density floppy disk that has been delivered to the Contracting Officer's Technical Representative. The approximate file size is 400-500 kilobytes. The program can be run on an IBM PC AT compatible with extended memory. It is important to remember that many factors and data elements used in generating the model output can only be found in the Lotus 1-2-3 program. Accordingly, the only way to access all information associated with the model is via the program.

Column Explanations

The following is an explanation of each column in the model, starting with AGR spreadsheets, progressing to MT spreadsheets (military compensation), and concluding with MT spreadsheets (civilian compensation). For the nine spreadsheets providing reserve component totals, no explanation is required; they are

simply a cost roll up of the four reserve components. Columns are described in the order they appear on the spreadsheets. Each column heading is printed in boldface below. Unless otherwise indicated, a column explanation applies for all four reserve components. For computed values, variables and constants are described and the formula is given.

AGR Spreadsheets

Pay Grade: the vertical axis of the spreadsheet. Pay grades in this column are always military.

Personnel Distribution: value taken from RCCPDS.
Average Years of Service: value taken from RCCPDS.
Married or Single Parent: value taken from RCCPDS.

For these three columns taken from RCCPDS, the distributions were later verified by data from CY 1986 JUMPS records. JUMPS and RCCPDS totals differed slightly as did the pay grade distributions expressed as percentages of the totals. For example, the largest pay grade grouping was the combined ARNG and USAR enlisted population. The CY 1986 RCCPDS endstrength for that population was 29,000 and the December 1986 JUMPS report for the same population was 28,576, a difference of about 1.5 percent. Similarly, the difference in the largest pay grade (E7) was 1.15 percent.

Basic Pay: taken from FY 1986 military pay tables.

BAS: taken from FY 1986 military pay tables (authorized to mess separately rate was used).

BAQ: taken from FY 1986 military pay tables (rate shown is for those with dependents; the rate without dependents is calculated internally).

Since the FY 1987 pay raise did not go into effect until January 1, 1987, Basic pay, BAQ and BAS were constant in CY 1986. Additionally, all members were assumed to receive BAQ (and also VHA) at either the "with dependents" or the "without dependents" rate according to the status indicated in the Married/Single Parent column.

Average VHA: values provided by OSD Compensation Directorate. The VHA values are weighted averages by pay grade, taking into account the differing military populations occupying the ZIP code costing regions. The average VHA values shown are at the with dependents rate; rates without dependents are calculated internally.

Special and Incentive Pays: taken from DMDC's report of Monthly Pay Information (FTS/AGR). In the original version of the model, S&I pay data was taken from the May 24, 1985, study by Management Consulting and Research, Inc. (MCR). There were three problems with using MCR data in the model: (1) the data was for FY 1985 but the AGR/MT model uses CY 1986 costs, (2) MCR appeared to use budget data versus actual data, and (3) MCR's data could not be verified.

For later versions of the model, including the version in Appendix E, DMDC was able to provide actual CY 1986 reserve component pay data. Unfortunately the data was provided in hard copy and was grouped by DOD Service, i.e. total Army and total Air Force. Although actual pay data is preferable to budget data, the fact that it could not be sorted by reserve component weakened its analytical value. In December 1986, DMDC was requested to provide the same JUMPS pay data broken out by the four reserve components: ARNG, USAR, ANG and USAFR. DMDC responded to the request but gave data for FY 1987 instead of CY 1986 as requested. Operating under the assumption that S&I pays in the aggregate do not vary significantly from year to year, those values were loaded into the model pending receipt of CY 1986 data from DMDC as originally requested. Eventually, CY 1986 data was received from DMDC and remains in the final version. As earlier assumed, the FY 1987 values closely matched CY 1986 values.

Retirement: a computed value. Formula:

Retirement = Basic Pay x 0.512

where 0.512 is the Normal Cost Percentage (NCP) for FY 1986. All NCPs used in this model were obtained from the DOD Actuary.

Death Gratuity: taken from the April 1986 Comparative Study of Total Compensation among Military and Civilian Occupations conducted by Computer Based Systems, Inc. (CBSI). The value represents the cost of a $3,000 group life insurance policy, which is what the Death Gratuity is in essence.

FICA: a computed value. Formula:

FICA = Basic Pay x 0.0715

where 0.0715 is the FICA contribution percentage for CY 1986. FICA cost does not exceed $3003.00.

Health: a computed value for dependents only. Formula:

Health = $1919.30 x Married/Single Parent

Health costs for service personnel were viewed as a cost of doing business, not as a compensation cost. However, dependent medical care is considered a benefit and, accordingly, a compensation cost was determined. The basic cost was taken from the CBSI study referred to above in the discussion of the Death Gratuity. In turn these costs were obtained from Blue Cross/Blue Shield for a high-option coverage medical insurance plan. An inflation rate of 15 percent, also obtained from Blue Cross/Blue Shield, was applied to the CBSI study values, yielding an annual cost per family of $1919.30.

Cost per Individual: a computed value. Represents a composite individual reflecting the Married/Single Parent average for a particular pay grade. Formula:

Cost per Individual = Basic Pay + BAS + Special Pays + Retirement + Death Gratuity + FICA + Health + (Married/Single Parent x BAQ) + ((1 - Married/Single Parent) x BAQ without dependents) + (Married/Single Parent x Average VHA) + ((1 - Married/Single Parent) x Average VHA without dependents)

Total Cost per Pay Grade: an extension. Formula:

Total Cost per Pay Grade = Personnel Distribution x Cost per Individual

Military Technician Spreadsheets (Military Compensation)

There are two components of MT pay: the military part when drilling or on active duty as a reservist, and the civil service part. The following notes apply to the spreadsheet depicting the military portion of the pay. Otherwise, in general, the MT military compensation spreadsheet replicates the AGR spreadsheet insofar as practicable; the unavoidable differences are explained here as well.

Military pay grade: one of the military pay determinants. As for AGRs, pay grades of O7 and higher are excluded from the model. In addition, depending on the reserve component and civil service labor category (GS, WG, WS, or WL), not all military pay grades may be shown because military pay grade equivalencies do not exist.

Civilian Pay Grade: the linkage from military to civilian pay grade, as determined by CBSI. In the military compensation spreadsheet, this value is displayed for reference only--it has no effect on the calculation of military compensation.

People Distribution and Distribution (not used for USAFR commissioned officers): values result from a combination of databases and reflect the distribution by numbers of personnel and the percent of the various civil service categories (GS, WG, WS, WL) according to the CBSI-developed military equivalencies.

This distribution was obtained by matching the RCCPDS MT database with the Office of Personnel Management (OPM) database, creating a third database of individuals that were identified as MTs by both the RCCPDS and OPM databases. This database comprises about 54,000 individuals. The records in the third database yielded a distribution by reserve component and military pay grade/civil service grade equivalency. The RCCPDS MT population was then fitted to the third database distribution. The value in the Distribution column is the percent (expressed as a decimal) of the number of MTs in a particular pay grade divided by the number of MTs in that reserve component. For example, for ARNG wage grade MTs, pay grade E6 shows a People Distribution of 3,736, resulting in a Distribution of 0.203 = 3,736 / 18,375, where 18,375 is the entire ARNG MT enlisted population as shown in RCCPDS.

For USAFR commissioned officers, distribution values came directly from RCCPDS because only three military pay grades (O3, O4, O5) had civil service equivalencies in the OPM/RCCPDS matched database, even though USAFR records verified significant numbers of General Schedule MTs in all commissioned ranks.

Average Years of Service: values taken from the FY 1986 RRCCPDS endstrength.

Married/Single Parent: values taken from FY 1986 RCCPDS endstrength.

Active Duty Days and Drill Days (ARNG and USAR only): taken from the 1986 Reserve Components Surveys. There are two problems associated with using survey data in the model. First, the survey data is inconsistent with the model because it focuses on a different time period, i.e. the survey captures data from CY 1985 whereas the model calculates costs based on CY 1986 data. Second, the survey did not accurately elicit information on paid active duty days and inactive drill periods in excess of the 14 and 48 per year, respectively.

For most of the approximately 1.1 million members of the Selected Reserve, an assumption of 14 paid active duty days and 48 inactive duty periods per year is accurate. However, for the small population of MTs (about 5 percent of the Selected Reserve), this assumption does not hold--at least not for the ANG and USAFR. Because no other source was available, CBSI used data from the survey, even though the values for paid active duty days and inactive duty periods were imputed. This imputing process required several assumptions which, though rigorously developed and applied, considerably weakened the integrity of the data. However, CBSI determined that the flawed survey data was more accurate than an assumption of 14 days and 48 drills.

Active Duty Days and Drill Days (ANG and USAFR only): taken from the Air Force ARPAS file maintained in the Pay Center in Denver. These values are actual pay data for CY 1986.

Basic Pay, BAS, and BAQ: taken from military pay table values for FY 1986 expressed in daily rates.

VHA: these values were left in the MT military pay portion of the model to preserve the formatting style of the AGR spreadsheet. Because of the requirement to be on continuous active duty for 140 days in order to qualify for VHA, virtually no MTs were eligible for VHA. Accordingly, the VHA value was arbitrarily set to zero.

Special Pays (ANG and USAFR only): a computed value. Special and Incentive Pays were taken from USAF pay files (ARPAS) for CY 1986. Formula:

Special Pays = CY 1986 taxable income - Basic pay

where Basic Pay was calculated from an individual's actual active duty days and inactive duty periods.

Special Pays (ARNG and USAR only): Special and Incentive Pays were taken from the 1985 MCR study referred to earlier. Comparisons of actual S&I pays for the ANG and USAFR with results from the MCR study reveal significant differences. CBSI attempted to get actual data from the ARNG and USAR to enable calculation of S&I pays, but was forced to abandon the effort in May 1988 when told the data was unobtainable. Consequently, S&I pay data in the model for the ARNG and USAR, taken from the MCR study, is of a lesser quality as similar data for the ANG and USAFR.

Retirement cost: a computed value. Formula:

Retirement for part-time military = Basic pay x .264

where 0.264 is the Normal Cost Percentage (NCP). In FY 1986, there was only one rate for both full- and part-time military, 51.2 percent. Since future calculations will incorporate the separate rates, the 6th QRMC Director decided to use FY 1987 rates in the model, which thus reflects what 1986 retirement costs would have been had the change in NCPs been made a year earlier.

Death Gratuity and FICA: these values were developed in the same way as explained earlier in the AGR spreadsheet section.

Health: assumed to be essentially zero because dependent health costs for part-time military are insignificant due to the very limited time spent on active duty.

Cost per Individual: same method of calculation as used in the AGR spreadsheet.

Military Technician Spreadsheets (Civil Service Compensation)

Insofar as practicable, this spreadsheet parallels the format of the others; however, significant differences between civil service and military compensation preclude an exact replication.

Military Pay Grade: used only for reference to the military/civil service equivalency, not in any compensation calculations in this portion of the model.

Civilian Grade: represents the linkage to the military pay grades. These linkages were developed by CBSI using cubic regression analysis of the actual military pay grades held by MTs. Because for a given military pay grade there can be a variety of civilian pay grades, the value is an average. For example, E6 ARNG MTS could hold civil service classifications ranging from GS4 to GS9. The weighted average in this case works out to be GS6.3.

People distribution and Percent Distribution: repeated from the MT military compensation spreadsheet for reference purposes primarily.

Average Years of Service and Married/Single Parent: repeated from the MT military compensation spreadsheet for reference; not used in cost calculations.

Basic Pay: a computed value that reflects the average civil service pay according to the previously determined military/civil service pay grade linkage. The calculation is a simple interpolation between the next highest step 4 civilian grade and the next lowest. The following procedure uses the previously cited ARNG E6/GS6.3 equivalency to calculate a sample pay.

To calculate pay, the decimal value from Civilian Grade (the 0.3 portion of 6.3) was multiplied by the pay differential between the next lowest step 4 pay grade and the next highest step 4 pay grade. This result was added to the next lowest step 4 pay grade. In the example case, the calculation is as follows:

Next highest step 4 grade (GS7)	19,606.00
Next lowest step 4 grade (GS6)	-17,645.00
Difference	1,961.00
Times	x 0.3
Result	588.30
Next lowest step 4 grade (GS6)	+17,645.00
Average Pay	18,233.30

Identical calculations were performed on the other civil service grades, i.e. WS, WL, and WG. Average pay grades, comparable to the GS step 4 average, were provided by OPM.

Other Pay: a computed value that includes miscellaneous pays such as overtime, holiday pay, night differential, hazard pay, etc. Formula:

Other Pay = Basic Pay x .00397

The value .00397 is derived from the 1985 MCR study.

Retirement: a computed value. Formula:

Retirement = Basic Pay x .2788

where .2788 is the NCP for the Civil Service Retirement System (CSRS). There are two civil service retirement plans in effect: the CSRS and the new Federal Employees Retirement System (FERS). Most employees belong to the CSRS. Participation in the FERS plan was made mandatory for new hires just recently. The 1986 normal cost percentage for CSRS was 27.88 percent. The CSRS NCP was used because so few employees are covered under FERS and insufficient actuarial data has been accumulated to develop and verify a cost percentage for FERS.

Health: a computed value that includes life insurance costs. Formula:

Health = Basic Pay x 0.044

where 0.044 represents the percent of Basic Pay that OPM spends on health costs.

Workman's Compensation: values taken from the MCR study.

Terminal Leave: a computed value. Formula:

Terminal Leave = Basic Pay x MCR study value

where the MCR study value represents a percentage of Basic Pay that varies for each component as follows:

ARNG - 1.39% USAR - 0.93% ANG - 0.63% AFR - 0.43%

Cost per Individual (Civilian): a computed value. Formula:

Cost per Individual = Basic Pay + Other Pay + Retirement + FICA + Health + Workman's Compensation + Terminal Leave

Total Cost per Individual: a computed value. Formula:

Total Cost per Individual = Civilian Cost per Individual + Military Cost per Individual

Total MT Costs: a computed value. Formula:

Total MT Costs = People Distribution x Total Cost per Individual

Appendix E. FULL-TIME SUPPORT COST COMPARISON MODEL - RESULTS

Total Compensation for Active Guard/Reserve (AGR) in the Army National Guard

Military Pay Grade	Personnel Distribution	Average Years of Service	Married/ Singleparent	Basic Pay	BAS	BAQ	Average VHA	S&I Pays	Death Retirement	Gratuity	FICA	Health	Cost Per Individual	Total Cost Per Pay Grade
E-1	6	3.00	0.500	7668.00	1901.65	2948.40	819.57	507.00	3926.02	2.88	548.26	959.65	17583.08	105,498.48
E-2	46	1.50	0.435	8595.80	1901.65	2948.40	958.24	507.00	4401.56	2.88	614.67	834.90	18988.99	873,493.54
E-3	277	2.60	0.336	9421.20	1901.65	2948.40	928.60	507.00	4823.65	2.88	673.62	644.89	19938.77	5,523,039.29
E-4	2790	6.10	0.621	11876.40	1901.65	3207.60	1007.55	507.00	6080.72	2.88	849.16	1191.89	25435.16	70,964,096.40
E-5	4943	9.10	0.783	13428.00	1901.65	3711.60	1168.17	507.00	6875.14	2.88	960.10	1502.82	29327.25	144,964,596.75
E-6	5213	12.90	0.889	16070.40	1901.65	4176.00	1315.83	507.00	8228.04	2.88	1149.03	1706.26	34648.16	180,620,858.08
E-7	5646	16.80	0.951	19044.00	1901.65	4604.40	1454.93	507.00	9750.53	3.24	1361.65	1825.26	40266.55	227,344,941.30
E-8	942	20.50	0.969	22474.80	1901.65	4950.00	1563.95	507.00	11507.10	3.24	1606.95	1859.81	46262.92	43,579,670.64
E-9	272	26.70	0.971	25607.60	1901.65	5313.60	1706.81	507.00	15159.09	3.24	2116.94	1863.64	58073.00	15,795,856.00
Subtotal	20,135													$689,772,050.48
W-1	36	11.10	0.000	18482.40	1312.44	4089.60	1315.83	1484.00	9462.99	3.24	1321.49	0.00	36162.13	1,301,806.68
W-2	358	18.00	0.757	23194.80	1312.44	4690.80	1477.48	1484.00	11875.74	3.24	1658.43	1452.91	46786.48	16,749,559.84
W-3	149	23.10	0.899	27630.00	1312.44	5018.40	1586.51	1484.00	14146.56	3.24	1975.55	1725.45	54780.80	8,162,339.20
W-4	197	26.20	0.888	33768.00	1312.44	5608.80	1755.69	1484.00	17289.22	3.24	2414.41	1704.34	65251.54	12,854,553.38
Subtotal	740													$39,068,259.10
O-1	146	8.00	0.705	18482.40	1312.44	3569.60	1022.58	382.00	9462.99	2.88	1321.49	1353.11	36970.81	5,397,738.26
O-2	206	9.30	0.636	23432.40	1312.44	4460.40	1259.43	382.00	11997.39	2.88	1675.42	1220.68	45283.25	9,328,349.50
O-3	977	13.70	0.895	30816.00	1312.44	5202.00	1537.64	382.00	15777.79	2.88	2203.34	1717.78	58842.68	57,489,298.36
O-4	1001	16.50	0.956	35526.40	1312.44	6238.80	1966.22	382.00	18190.54	3.24	2540.26	1838.69	67955.11	68,023,065.11
O-5	435	23.20	0.968	43660.80	1312.44	6825.60	2176.75	382.00	22354.33	3.96	3003.00	1857.89	81530.10	35,465,593.50
O-6	138	31.20	0.978	53514.00	1312.44	7408.80	2364.73	382.00	27399.17	3.96	3003.00	1877.08	97229.15	13,417,622.70
Subtotal	2,903													$189,121,667.43
Total:	23,778													$917,962,007.01

Average Individual AGR Cost for ANG ==> $38,606

Military Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS 4.30	51	0.003	2.00	0.220	15.00	48.00	23.88	5.21	8.19	0.00	13.00	392.66	2.88	25.61	0.00	1,982.81
E3	GS 4.40	174	0.009	2.40	0.310	52.00	48.00	26.17	5.21	8.19	0.00	13.00	683.04	2.88	97.30	0.00	3,629.23
E4	GS 4.80	970	0.053	5.20	0.540	22.00	48.00	31.74	5.21	8.91	0.00	13.00	579.89	2.88	49.93	0.00	3,035.25
E5	GS 5.50	1455	0.079	9.60	0.720	26.00	48.00	37.30	5.21	10.31	0.00	13.00	720.41	2.88	69.34	0.00	3,856.36
E6	GS 6.30	1410	0.077	16.90	0.840	26.00	48.00	47.52	5.21	11.60	0.00	13.00	917.80	2.88	88.34	0.00	4,905.63
E7	GS 6.90	1066	0.058	22.40	0.951	29.00	48.00	58.79	5.21	12.79	0.00	13.00	1181.50	3.24	121.90	0.00	6,342.89
E8	GS 7.00	675	0.037	26.60	0.959	36.00	48.00	73.47	5.21	13.75	0.00	13.00	1610.76	3.24	189.11	0.00	8,642.17
E9	GS 7.50	300	0.016	31.40	0.930	39.00	48.00	82.26	5.21	14.76	0.00	13.00	1867.88	3.24	229.38	0.00	9,994.43
Subtotal		6101															
W1	GS 7.70	70	0.024	14.20	0.600	24.00	48.00	55.49	3.65	11.36	0.00	139.00	1042.77	3.24	95.22	0.00	5,701.89
W2	GS 8.00	568	0.197	22.60	0.898	31.00	48.00	69.15	3.65	13.03	0.00	139.00	1425.80	3.24	153.27	0.00	7,835.24
W3	GS 8.60	421	0.146	29.60	0.850	34.00	48.00	79.44	3.65	13.94	0.00	139.00	1700.17	3.24	193.12	0.00	9,251.78
W4	GS 9.40	519	0.180	32.50	0.930	34.00	48.00	93.80	3.65	15.58	0.00	139.00	2007.51	3.24	228.03	0.00	10,861.32
Subtotal		1578															
O1	GS 8.50	144	0.059	7.30	0.470	47.00	48.00	51.34	3.65	11.11	0.00	139.00	1272.98	2.88	172.53	0.00	7,056.86
O2	GS 8.80	203	0.083	9.40	0.710	62.00	48.00	65.09	3.65	12.39	0.00	139.00	1868.73	2.88	288.54	0.00	10,405.96
O3	GS 10.00	574	0.234	14.10	0.840	46.00	48.00	87.71	3.65	14.45	0.00	139.00	2151.88	2.88	288.48	0.00	11,728.43
O4	GS 10.80	553	0.226	20.50	0.964	54.00	48.00	101.42	3.65	17.33	0.00	139.00	2700.00	3.24	391.58	0.00	14,853.09
O5	GS 11.90	562	0.229	26.80	0.880	42.00	48.00	121.28	3.65	18.96	0.00	139.00	2848.87	3.96	364.20	0.00	15,300.43
O6	GS 13.70	301	0.123	31.90	0.940	29.00	48.00	148.65	3.65	20.58	0.00	139.00	2987.42	3.96	308.23	0.00	15,726.72
Subtotal		2337															

Military Compensation for Wage Grade (WG) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG 5.80	47	0.003	2.00	0.220	15.00	48.00	23.88	5.21	8.19	0.00	13.00	392.66	2.88	25.61	0.00	1,982.81
E3	WG 6.40	167	0.009	2.40	0.310	52.00	48.00	26.17	5.21	8.19	0.00	13.00	683.04	2.88	97.30	0.00	3,629.23
E4	WG 7.50	1401	0.076	5.20	0.540	22.00	48.00	31.74	5.21	8.91	0.00	13.00	579.89	2.88	49.93	0.00	3,035.25
E5	WG 8.30	3205	0.174	9.60	0.720	26.00	48.00	37.30	5.21	10.31	0.00	13.00	720.41	2.88	69.34	0.00	3,856.36
E6	WG 9.40	3736	0.203	16.90	0.840	26.00	48.00	47.52	5.21	11.60	0.00	13.00	917.80	2.88	88.34	0.00	4,905.63
E7	WG 9.60	2318	0.126	22.40	0.951	29.00	48.00	58.79	5.21	12.79	0.00	13.00	1181.50	3.24	121.90	0.00	6,342.89
E8	WG 9.70	584	0.032	26.60	0.959	36.00	48.00	73.47	5.21	13.75	0.00	13.00	1610.76	3.24	189.11	0.00	8,642.17
E9	WG 9.20	63	0.003	31.40	0.930	39.00	48.00	82.26	5.21	14.76	0.00	13.00	1867.88	3.24	229.38	0.00	9,994.43
Subtotal		11521															
W1	WG 10.90	22	0.008	14.20	0.600	24.00	48.00	55.49	3.65	11.36	0.00	139.00	1042.77	3.24	95.22	0.00	5,701.89
W2	WG 11.00	153	0.053	22.60	0.898	31.00	48.00	69.15	3.65	13.03	0.00	139.00	1425.80	3.24	153.27	0.00	7,835.24
W3	WG 11.10	36	0.012	29.60	0.850	34.00	48.00	79.44	3.65	13.94	0.00	139.00	1700.17	3.24	193.12	0.00	9,251.78
W4	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		211															

Military Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS	8.40	67	0.004	16.90	0.840	26.00	48.00	47.52	5.21	11.60	0.00	13.00	917.80	2.88	88.34	0.00	4,905.63
E7	WS	8.50	252	0.014	22.40	0.951	29.00	48.00	58.79	5.21	12.79	0.00	13.00	1181.50	3.24	121.90	0.00	6,342.89
E8	WS	8.40	171	0.009	26.60	0.959	36.00	48.00	73.47	5.21	13.75	0.00	13.00	1610.76	3.24	189.11	0.00	8,642.17
E9	WS	8.30	51	0.003	31.40	0.930	39.00	48.00	82.26	5.21	14.76	0.00	13.00	1867.88	3.24	229.38	0.00	9,994.43
Subtotal			541															
W1	WS	8.30	31	0.011	14.20	0.600	24.00	48.00	55.49	3.65	11.36	0.00	139.00	1042.77	3.24	95.22	0.00	5,701.89
W2	WS	8.60	391	0.136	22.60	0.898	31.00	48.00	69.15	3.65	13.03	0.00	139.00	1425.80	3.24	153.27	0.00	7,835.24
W3	WS	8.80	249	0.086	29.60	0.850	34.00	48.00	79.44	3.65	13.94	0.00	139.00	1700.17	3.24	193.12	0.00	9,251.78
W4	WS	8.80	210	0.073	32.50	0.930	34.00	48.00	93.80	3.65	15.58	0.00	139.00	2007.51	3.24	228.03	0.00	10,861.32
Subtotal			881															
O1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O3	WS	12.50	32	0.013	14.10	0.840	46.00	48.00	87.71	3.65	14.45	0.00	139.00	2151.88	2.88	288.48	0.00	11,728.43
O4	WS	13.90	41	0.017	20.50	0.964	54.00	48.00	101.42	3.65	17.33	0.00	139.00	2700.00	3.24	391.58	0.00	14,853.09
O5	WS	15.00	42	0.017	26.80	0.880	42.00	48.00	121.28	3.65	18.96	0.00	139.00	2848.87	3.96	364.20	0.00	15,300.49
O6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			115															

Military Compensation for Wage Leader (WL) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAD	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL 9.10	50	0.003	16.90	0.840	26.00	48.00	47.52	5.21	11.60	0.00	13.00	917.80	2.88	88.34	0.00	4,905.63
E7	WL 9.70	117	0.006	22.40	0.951	29.00	48.00	58.79	5.21	12.79	0.00	13.00	1181.50	3.24	121.90	0.00	6,342.89
E8	WL 9.80	45	0.002	26.60	0.959	36.00	48.00	73.47	5.21	13.75	0.00	13.00	1610.76	3.24	189.11	0.00	8,642.17
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		212															
Total		23497															

Civilian Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS 4.30	51	0.003	2.00	0.220	14653.30	58.17	4085.34	213.32	644.75	292.00	203.68	20150.56	1982.81	22133.37	1,128,801.87
E3	GS 4.40	174	0.009	2.40	0.310	14821.40	58.84	4132.21	215.76	652.14	292.00	206.02	20378.37	3629.23	24007.60	4,177,322.05
E4	GS 4.80	970	0.053	5.20	0.540	15493.80	61.51	4319.67	225.55	681.73	292.00	215.36	21289.62	3035.25	24324.87	23,595,119.63
E5	GS 5.50	1455	0.079	9.60	0.720	16737.50	66.45	4666.42	243.66	736.45	292.00	232.65	22975.13	3856.36	26831.49	39,039,624.35
E6	GS 6.30	1410	0.077	16.90	0.840	18233.30	72.39	5083.44	265.43	802.27	292.00	253.44	25002.27	4905.63	29907.90	42,170,139.56
E7	GS 6.90	1066	0.058	22.40	0.951	19409.90	77.06	5411.48	282.56	854.04	292.00	269.80	26586.84	6342.89	32939.73	35,113,754.31
E8	GS 7.00	675	0.037	26.60	0.959	19606.00	77.84	5466.15	285.42	862.66	292.00	272.52	26862.59	8642.17	35504.76	23,965,709.65
E9	GS 7.50	300	0.016	31.40	0.930	20660.00	82.02	5760.01	300.76	909.04	292.00	287.17	28291.00	9994.43	38285.43	11,485,629.57
Subtotal		6101														$180,676,301.00
M1	GS 7.70	70	0.024	14.20	0.600	21081.60	83.69	5877.55	306.90	927.59	292.00	293.03	28862.36	5701.89	34564.25	2,419,497.78
M2	GS 8.00	568	0.197	22.60	0.898	21714.00	86.20	6053.86	316.10	955.42	292.00	301.82	29719.40	7835.24	37554.64	21,331,035.03
M3	GS 8.60	421	0.146	29.60	0.850	23076.60	91.61	6433.76	335.94	1015.37	292.00	320.76	31566.04	9251.78	40817.82	17,184,300.54
M4	GS 9.40	519	0.180	32.50	0.930	24955.40	99.07	6957.57	363.29	1098.04	292.00	346.88	34112.25	10861.32	44973.57	23,341,282.62
Subtotal		1578														$64,276,115.97
O1	GS 8.50	144	0.059	7.30	0.470	22849.50	90.71	6370.44	332.63	1005.38	292.00	317.61	31258.27	7056.86	38315.13	5,517,378.71
O2	GS 8.80	203	0.083	9.40	0.710	23530.80	93.42	6560.39	342.55	1035.36	292.00	327.08	32181.60	10405.96	42587.56	8,645,274.23
O3	GS 10.00	574	0.234	14.10	0.840	26411.00	104.85	7363.39	384.48	1162.08	292.00	367.11	36084.91	11728.43	47813.34	27,444,856.01
O4	GS 10.80	553	0.226	20.50	0.964	28496.60	113.13	7944.85	414.84	1253.85	292.00	396.10	38911.37	14853.09	53764.46	29,731,746.65
O5	GS 11.90	562	0.229	26.80	0.980	34205.60	135.80	9536.52	497.95	1505.05	292.00	475.46	46648.38	15300.49	61948.87	34,815,265.84
O6	GS 13.70	301	0.123	31.90	0.940	46618.50	185.08	12997.24	678.65	2051.21	292.00	648.00	63470.68	15726.72	79197.40	23,838,417.64
Subtotal		2337														$129,992,939.08
TOTAL FOR GS		10016														$374,945,356.05

Civilian Compensation for Wage Grade (WG) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG 5.80	47	0.003	2.00	0.220	20158.00	80.03	5620.05	293.45	886.95	292.00	280.20	27610.68	1982.81	29593.49	1,390,894.03
E3	WG 6.40	167	0.009	2.40	0.310	20760.40	82.42	5788.00	302.22	913.46	292.00	288.57	28427.07	3629.23	32056.30	5,353,401.77
E4	WG 7.50	1401	0.076	5.20	0.540	21690.00	86.11	6047.17	315.75	954.36	292.00	301.49	29686.88	3035.25	32722.13	45,843,697.97
E5	WG 8.30	3205	0.174	9.60	0.720	22555.10	89.54	6288.36	328.35	992.42	292.00	313.52	30859.29	3856.36	34715.65	111,263,672.35
E6	WG 9.40	3736	0.203	16.90	0.840	24069.80	95.56	6710.66	350.40	1059.07	292.00	334.57	32912.06	4905.63	37817.69	141,286,891.33
E7	WG 9.60	2318	0.126	22.40	0.951	24345.20	96.65	6787.44	354.41	1071.19	292.00	338.40	33285.29	6342.89	39628.18	91,858,125.88
E8	WG 9.70	584	0.032	26.60	0.959	24482.90	97.20	6825.83	356.41	1077.25	292.00	340.31	33471.90	8642.17	42114.07	24,594,613.98
E9	WG 9.20	63	0.003	31.40	0.990	23794.40	94.46	6633.88	346.39	1046.95	292.00	330.74	32538.82	9994.43	42533.25	2,679,594.87
Subtotal		11521														$424,270,892.18
M1	WG 10.90	22	0.008	14.20	0.600	26155.10	103.84	7292.04	380.75	1150.82	292.00	363.56	35738.11	5701.89	41440.00	911,680.09
M2	WG 11.00	153	0.053	22.60	0.898	26295.00	104.39	7331.05	382.79	1156.98	292.00	365.50	35927.71	7835.24	43762.95	6,695,731.22
M3	WG 11.10	36	0.012	29.60	0.850	26385.30	104.75	7356.22	384.11	1160.95	292.00	366.76	36050.09	9251.78	45301.87	1,630,867.18
M4	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		211														$9,238,278.48
TOTAL FOR WG		11732														$433,509,170.66

Civilian Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS 8.40	67	0.004	16.90	0.840	30244.80	120.07	8432.25	440.29	1330.77	292.00	420.40	41280.58	4905.63	46186.21	3,094,476.10
E7	WS 8.50	252	0.014	22.40	0.951	30382.50	120.62	8470.64	442.30	1336.83	292.00	422.32	41467.21	6342.89	47810.10	12,048,145.70
E8	WS 8.40	171	0.009	26.60	0.959	30244.80	120.07	8432.25	440.29	1330.77	292.00	420.40	41280.58	8642.17	49922.75	8,536,789.40
E9	WS 8.30	51	0.003	31.40	0.990	30107.10	119.53	8393.86	438.29	1324.71	292.00	418.49	41093.98	9994.43	51088.41	2,605,509.01
Subtotal		541														$26,284,920.21
W1	WS 8.30	31	0.011	14.20	0.600	30107.10	119.53	8393.86	438.29	1324.71	292.00	418.49	41093.98	5701.89	46795.87	1,450,672.09
W2	WS 8.60	391	0.136	22.60	0.898	30520.20	121.17	8509.03	444.30	1342.89	292.00	424.23	41653.82	7835.24	49489.06	19,350,222.12
W3	WS 8.80	249	0.086	29.60	0.850	30795.60	122.26	8585.81	448.31	1355.01	292.00	428.06	42027.05	9251.78	51278.83	12,768,427.67
W4	WS 8.80	210	0.073	32.50	0.930	30795.60	122.26	8585.81	448.31	1355.01	292.00	428.06	42027.05	10861.32	52888.37	11,106,557.62
Subtotal		881														$44,675,879.51
O1	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O2	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O3	WS 12.50	32	0.013	14.10	0.840	35257.00	139.97	9829.65	513.26	1551.31	292.00	490.07	48073.26	11728.43	59801.69	1,913,654.02
O4	WS 13.90	41	0.017	20.50	0.964	37403.90	148.49	10428.21	544.51	1645.77	292.00	519.91	50982.79	14853.09	65835.88	2,699,271.10
O5	WS 15.00	42	0.017	26.80	0.880	39614.00	157.27	11044.38	576.68	1743.02	292.00	550.63	53977.98	15300.49	69278.47	2,909,695.81
O6	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		115														$7,522,620.92
TOTAL FOR WS																$78,483,420.64

Civilian Compensation for Wage Leader (WL) Military Technicians (MTs) in the Army National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WL	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL 9.10	50	0.003	15.90	0.840	26510.10	105.25	7391.02	385.92	1166.44	292.00	368.49	36219.22	4905.63	41124.85	2,056,242.52
E7	WL 9.70	117	0.006	21.40	0.951	27284.70	108.32	7606.97	397.20	1200.53	292.00	379.26	37268.98	6342.89	43611.87	5,102,589.02
E8	WL 9.80	45	0.002	25.60	0.959	27413.80	108.83	7642.97	399.08	1206.21	292.00	381.05	37443.94	8642.17	46086.11	2,073,874.73
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		212														$9,232,706.27
TOTAL FOR WL																$9,232,706.27
GRAND COMPONENT TOTAL		23497														$896,170,653.62

Total Compensation for Active Guard/Reserve (AGR) in the Army Reserve

Military Pay Grade	Personnel Distribution	Average Years of Service	Married/ Singleparent	Basic Pay	BAS	BAQ	Average VHA	S&I Pays	Retirement	Death Gratuity	FICA	Health	Cost Per Individual	Total Cost Per Pay Grade
E-1	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E-2	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E-3	8	5.90	0.125	10191.60	1901.65	2948.40	928.60	763.00	5218.10	2.88	728.70	239.91	20401.78	163,214.24
E-4	583	5.50	0.348	11426.40	1901.65	3207.60	1007.55	763.00	5850.32	2.88	816.99	657.92	23597.67	13,757,441.61
E-5	2140	8.70	0.537	13428.00	1901.65	3711.60	1168.17	763.00	6875.14	2.88	960.10	1080.67	28283.41	60,526,497.40
E-6	2354	12.40	0.716	16070.40	1901.65	4176.00	1315.83	763.00	8228.04	2.88	1149.03	1374.22	33984.77	79,882,448.58
E-7	3044	16.30	0.835	19044.00	1901.65	4604.40	1454.93	763.00	9750.53	3.24	1361.65	1602.62	39859.33	121,331,800.52
E-8	646	20.80	0.841	22474.80	1901.65	4950.00	1563.95	763.00	11507.10	3.24	1606.95	1614.13	45812.51	29,594,881.46
E-9	92	28.60	0.859	29607.60	1901.65	5313.60	1706.81	763.00	15159.09	3.24	2116.94	1648.68	57702.44	5,308,624.48
Subtotal	8,867													$310,564,908.29
W-1	34	13.90	0.441	19249.20	1312.44	4089.60	1315.83	212.00	9855.59	3.24	1376.32	846.41	37528.42	1,275,966.28
W-2	241	18.80	0.556	23194.80	1312.44	4690.80	1477.48	212.00	11875.74	3.24	1658.43	1067.13	44828.13	10,803,579.33
W-3	97	25.50	0.742	27630.00	1312.44	5018.40	1586.51	212.00	14146.56	3.24	1975.55	1424.12	53049.93	5,145,843.21
W-4	131	30.80	0.885	33768.00	1312.44	5608.80	1755.69	212.00	17289.22	3.24	2414.41	1698.58	63971.41	8,380,254.71
Subtotal	503													$25,605,643.53
O-1	22	7.50	0.409	18482.40	1312.44	3999.60	1022.58	132.00	9462.99	2.88	1321.49	785.00	35782.76	787,220.72
O-2	180	9.90	0.506	23432.40	1312.44	4460.40	1259.43	132.00	11997.39	2.88	1675.42	971.17	44619.54	8,031,517.20
O-3	850	13.30	0.767	30815.00	1312.44	5202.00	1537.64	132.00	15777.79	2.88	2203.34	1472.11	58213.91	49,481,823.50
O-4	1172	18.10	0.737	36511.20	1312.44	6238.80	1966.22	132.00	18693.73	3.24	2610.55	1414.53	68597.80	80,396,621.60
O-5	483	23.00	0.818	43660.80	1312.44	6825.60	2176.75	132.00	22354.33	3.96	3003.00	1569.99	80773.43	39,013,566.69
O-6	80	27.70	0.813	53514.00	1312.44	7408.80	2364.73	132.00	27399.17	3.96	3003.00	1560.39	96392.20	7,711,376.00
Subtotal	2,787													$185,422,125.71
Total:	12,157													$521,592,677.53

Average Individual AGR Cost for USAR ==> $42,905

Military Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	GS 4.50	14	0.006	6.20	0.560	33.00	48.00	28.31	5.21	8.19	0.00	109.00	598.50	2.88	66.80	0.00	3,317.92
E4	GS 5.00	133	0.052	8.70	0.600	25.00	48.00	32.99	5.21	8.91	0.00	109.00	628.56	2.88	58.97	0.00	3,419.48
E5	GS 5.90	247	0.097	11.40	0.737	20.00	48.00	38.79	5.21	10.31	0.00	109.00	688.44	2.88	55.47	0.00	3,722.27
E6	GS 6.10	328	0.129	14.80	0.819	23.00	48.00	46.04	5.21	11.60	0.00	109.00	853.17	2.88	75.71	0.00	4,626.25
E7	GS 6.80	387	0.152	17.40	0.770	26.00	48.00	52.90	5.21	12.79	0.00	109.00	1021.71	2.88	98.34	0.00	5,506.89
E8	GS 7.30	261	0.102	21.20	0.820	31.00	48.00	62.43	5.21	13.75	0.00	109.00	1287.24	2.88	138.38	0.00	6,951.43
E9	GS 8.60	140	0.055	27.00	0.929	40.00	48.00	82.26	5.21	14.76	0.00	109.00	1889.35	2.88	235.26	0.00	10,217.46
Subtotal		1510															
W1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W2	GS 8.10	199	0.297	19.90	0.960	28.00	48.00	64.43	3.65	13.03	0.00	25.00	1278.03	2.88	128.99	0.00	6,959.23
W3	GS 9.70	125	0.186	25.20	0.910	34.00	48.00	76.75	3.65	13.94	0.00	25.00	1642.60	2.88	186.58	0.00	8,881.16
W4	GS 10.10	208	0.310	28.90	0.944	29.00	48.00	93.80	3.65	15.58	0.00	25.00	1885.10	2.88	194.49	0.00	10,037.64
Subtotal		532															
O1	GS 8.00	13	0.039	11.50	0.670	15.00	48.00	51.34	3.65	11.11	0.00	25.00	844.18	2.88	55.06	0.00	4,503.15
O2	GS 8.00	39	0.118	11.40	0.821	41.00	48.00	65.09	3.65	12.39	0.00	25.00	1511.98	2.88	190.81	0.00	8,265.59
O3	GS 8.10	92	0.279	14.30	0.796	33.00	48.00	87.71	3.65	14.45	0.00	25.00	1854.28	2.88	206.95	0.00	9,868.84
O4	GS 9.60	79	0.240	19.70	0.902	47.00	48.00	101.42	3.65	17.33	0.00	25.00	2514.71	2.88	340.82	0.00	13,599.75
O5	GS 10.50	65	0.197	23.90	0.880	43.00	48.00	121.28	3.65	18.96	0.00	25.00	2680.52	2.88	372.88	0.00	15,367.36
O6	GS 11.00	42	0.127	29.10	0.940	45.00	48.00	148.65	3.65	20.58	0.00	25.00	3608.18	2.88	478.28	0.00	19,148.77
Subtotal		390															

Military Compensation for Wage Grade (WG) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WG 6.40	17	0.007	6.20	0.560	33.00	48.00	28.31	5.21	8.19	0.00	109.00	598.50	2.88	66.80	0.00	3,317.92
E4	WG 8.30	132	0.052	8.70	0.600	25.00	48.00	32.99	5.21	8.91	0.00	109.00	628.56	2.88	58.97	0.00	3,419.48
E5	WG 8.60	263	0.103	11.40	0.737	20.00	48.00	38.79	5.21	10.31	0.00	109.00	688.44	2.88	55.47	0.00	3,722.27
E6	WG 9.00	299	0.117	14.80	0.819	23.00	48.00	46.04	5.21	11.60	0.00	109.00	853.17	2.88	75.71	0.00	4,626.25
E7	WG 9.00	200	0.079	17.40	0.770	26.00	48.00	52.90	5.21	12.79	0.00	109.00	1021.71	2.88	98.34	0.00	5,506.89
E8	WG 8.90	73	0.029	21.20	0.820	31.00	48.00	62.43	5.21	13.75	0.00	109.00	1287.24	2.88	138.38	0.00	6,951.43
E9	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		984															
W1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W2	WG 9.10	74	0.110	19.97	0.960	28.00	48.00	64.43	3.65	13.03	0.00	25.00	1278.03	2.88	128.99	0.00	6,959.23
W3	WG 10.00	21	0.032	25.20	0.910	34.00	48.00	76.75	3.65	13.94	0.00	25.00	1642.60	2.88	186.58	0.00	8,881.16
W4	WG 10.00	20	0.090	28.90	0.944	29.00	48.00	93.80	3.65	15.58	0.00	25.00	1885.10	2.88	194.49	0.00	10,037.64
Subtotal		115															

Military Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAD	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E7	WS	8.80	22	0.009	17.40	0.770	26.00	48.00	52.90	5.21	12.79	0.00	109.00	1021.71	2.88	98.34	0.00	5,506.89
E8	WS	9.20	18	0.007	21.20	0.820	31.00	48.00	62.43	5.21	13.75	0.00	109.00	1287.24	2.88	138.38	0.00	6,951.43
E9	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			40															
W1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W2	WS	8.50	29	0.043	19.90	0.960	28.00	48.00	64.43	3.65	13.03	0.00	25.00	1278.03	2.88	128.99	0.00	6,959.23
W3	WS	8.80	19	0.029	25.20	0.910	34.00	48.00	76.75	3.65	13.94	0.00	25.00	1642.60	2.88	186.58	0.00	8,881.16
W4	WS	8.80	24	0.036	28.90	0.944	29.00	48.00	93.80	3.65	15.58	0.00	25.00	1885.10	2.88	194.49	0.00	10,037.64
Subtotal			72															
O1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			0															

Military Compensation for Wage Leader (WL) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E7	WL	9.50	14	0.006	17.40	0.770	26.00	48.00	52.90	5.21	12.79	0.00	109.00	1021.71	2.88	98.34	0.00	5,506.89
E8	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			14															
Total			3597															

Civilian Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	GS 4.50	14	0.006	6.20	0.560	13376.50	292.24	3729.37	198.20	588.57	282.00	124.40	18581.28	3317.92	21909.20	306,728.83
E4	GS 5.00	133	0.052	8.70	0.600	15830.00	345.84	4413.40	234.55	696.52	282.00	147.22	21949.53	3419.48	25369.01	3,374,078.33
E5	GS 5.90	247	0.097	11.40	0.737	17463.50	381.53	4868.82	258.75	768.39	282.00	162.41	24185.40	3722.27	27907.67	6,893,195.68
E6	GS 6.10	328	0.129	14.80	0.819	17841.10	389.77	4974.10	264.35	785.01	282.00	165.92	24702.25	4626.25	29328.50	9,619,747.99
E7	GS 6.80	387	0.152	17.40	0.770	19213.80	419.76	5356.81	284.69	845.41	282.00	178.69	26581.16	5506.89	32088.05	12,418,075.35
E8	GS 7.30	261	0.102	21.20	0.820	20238.40	442.15	5642.47	299.87	890.49	282.00	188.22	27983.60	6951.43	34935.03	9,118,043.67
E9	GS 8.60	140	0.055	27.00	0.929	23076.60	504.15	6433.76	341.92	1015.37	282.00	214.61	31868.41	10217.46	42085.87	5,892,021.13
Subtotal		1510														$47,621,890.97
W1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W2	GS 8.10	199	0.297	19.90	0.960	21941.10	479.35	6117.18	325.10	965.41	282.00	204.05	30314.19	6959.23	37273.42	7,417,409.86
W3	GS 9.70	125	0.186	25.20	0.910	25683.20	561.10	7160.48	380.54	1130.06	282.00	236.85	35436.23	8881.16	44317.39	5,539,674.20
W4	GS 10.10	208	0.310	28.90	0.944	26671.70	582.70	7436.07	395.19	1173.55	282.00	248.05	36789.26	10037.64	46826.90	9,739,994.80
Subtotal		532														$22,697,078.86
O1	GS 8.00	13	0.039	7.30	0.670	21714.00	474.39	6053.86	321.73	955.42	282.00	201.94	30003.34	4503.15	34506.49	448,584.31
O2	GS 8.00	39	0.118	9.40	0.821	21714.00	474.39	6053.86	321.73	955.42	282.00	201.94	30003.34	8265.59	38268.93	1,492,488.26
O3	GS 8.10	92	0.279	14.10	0.796	21941.10	479.35	6117.18	325.10	965.41	282.00	204.05	30314.19	9868.84	40183.03	3,696,839.00
O4	GS 9.60	79	0.240	20.50	0.902	25440.60	555.80	7092.84	376.95	1119.39	282.00	236.60	35104.18	13599.75	48703.93	3,847,610.31
O5	GS 10.50	65	0.197	26.80	0.880	27714.50	605.48	7726.80	410.64	1219.44	282.00	257.74	38216.60	15367.36	53583.96	3,482,957.17
O6	GS 11.00	42	0.127	31.90	0.940	29018.00	633.96	8090.22	429.95	1276.79	282.00	269.87	40000.79	19148.77	59149.56	2,484,281.69
Subtotal		330														$15,452,760.74
TOTAL FOR GS																$85,771,730.57

Civilian Compensation for Wage Grade (WG) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WG 6.40	17	0.007	6.20	0.560	20760.40	453.55	5788.00	307.60	913.46	282.00	193.07	28698.08	3317.92	32016.00	544,272.03
E4	WG 8.30	132	0.052	8.70	0.600	22555.10	492.76	6288.36	334.19	992.42	282.00	209.76	31154.59	3419.48	34574.07	4,563,777.24
E5	WG 8.60	263	0.103	11.40	0.737	22968.20	501.79	6403.53	340.31	1010.60	282.00	213.60	31720.03	3722.27	35442.30	9,321,326.16
E6	WG 9.00	299	0.117	14.80	0.819	23519.00	513.82	6557.10	348.48	1034.84	282.00	218.73	32473.97	4626.25	37100.22	11,092,965.77
E7	WG 9.00	200	0.079	17.40	0.770	23519.00	513.82	6557.10	348.48	1034.84	282.00	218.73	32473.97	5506.89	37980.86	7,596,172.00
E8	WG 8.90	73	0.029	21.20	0.820	23381.30	510.81	6518.71	346.44	1028.78	282.00	217.45	32285.49	6951.43	39236.92	2,864,295.39
E9	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		984														$35,982,808.60
W1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W2	WG 9.10	74	0.110	19.90	0.960	23656.70	516.83	6595.49	350.52	1040.89	282.00	220.01	32662.44	6959.23	39621.67	2,932,003.31
W3	WG 10.00	21	0.032	25.20	0.910	24896.00	543.90	6941.00	368.88	1095.42	282.00	231.53	34358.73	8881.16	43239.89	908,037.77
W4	WG 10.00	20	0.030	28.90	0.944	24896.00	543.90	6941.00	368.88	1095.42	282.00	231.53	34358.73	10037.64	44396.37	887,927.36
Subtotal		115														$4,727,968.44
TOTAL FOR WG																$40,710,777.04

Civilian Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade		People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E7	WS	8.80	22	0.009	17.40	0.770	30795.60	672.79	8585.81	456.29	1355.01	282.00	286.40	42433.90	5506.89	47940.79	1,054,697.38
E8	WS	9.20	18	0.007	21.20	0.820	31251.80	682.76	8713.00	463.05	1375.08	282.00	290.64	43058.33	6951.43	50009.76	900,175.74
E9	WS		0	0.000	27.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			40														$1,954,873.12
W1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W2	WS	8.50	29	0.043	19.90	0.960	30382.50	663.77	8470.64	450.17	1336.83	282.00	282.56	41868.47	6959.23	48827.70	1,416,003.20
W3	WS	8.80	19	0.029	25.20	0.910	30795.60	672.79	8585.81	456.29	1355.01	282.00	286.40	42433.90	8881.16	51315.06	974,986.21
W4	WS	8.80	24	0.036	23.90	0.944	30795.60	672.79	8585.81	456.29	1355.01	282.00	286.40	42433.90	10037.64	52471.54	1,259,316.91
Subtotal			72														$3,650,306.32
U1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			0														$0.00
TOTAL FOR WS																	$5,605,179.44

Civilian Compensation for Wage Leader (WL) Military Technicians (MTs) in the Army Reserve

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E7	WL	9.50 14	0.006	17.40	0.770	27026.50	580.45	7534.99	400.45	1189.17	282.00	251.35	37274.91	5506.89	42781.80	598,945.20
E8	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																$598,945.20
Subtotal		14														$598,945.20
TOTAL FOR WL																$132,686,632.25
GRAND COMPONENT TOTAL		3597														

Total Compensation for Active Guard/Reserve (AGR) in the Air National Guard

Military Pay Grade	Personnel Distribution	Average Years of Service	Married/ Singleparent	Basic Pay	BAS	BAQ	Average VHA	S&I Pays	Retirement	Death Gratuity	FICA	Health	Cost Per Individual	Total Cost Per Pay Grade
E-1	2	0.50	1.000	7668.00	1901.65	2948.40	819.57	272.00	3926.02	2.88	548.26	1919.30	20006.08	40,012.16
E-2	6	0.50	0.333	8592.00	1901.65	2948.40	887.24	272.00	4399.10	2.88	614.33	639.13	18124.68	108,748.08
E-3	33	1.80	0.394	8935.20	1901.65	2948.40	928.60	272.00	4574.82	2.88	638.87	756.21	19212.62	634,016.46
E-4	309	4.10	0.528	11426.40	1901.65	3207.60	1007.55	272.00	5850.32	2.88	816.99	1013.39	24017.16	7,421,302.44
E-5	1971	8.90	0.793	13428.00	1901.65	3711.60	1168.17	272.00	6875.14	2.88	960.10	1522.01	29145.08	57,444,952.68
E-6	1966	13.20	0.881	16070.40	1901.65	4176.00	1315.83	272.00	8228.04	2.88	1149.03	1690.91	34368.34	67,568,156.44
E-7	1467	18.00	0.943	19576.80	1901.65	4604.40	1454.93	272.00	10023.32	3.24	1399.74	1809.90	40829.49	59,896,861.83
E-8	247	22.90	0.955	23796.00	1901.65	4950.00	1563.95	272.00	12183.55	3.24	1701.41	1832.94	48042.77	11,866,564.19
E-9	49	28.80	0.980	29607.60	1901.65	5313.60	1706.81	272.00	15159.09	3.24	2116.94	1880.92	57888.35	2,836,529.15
Subtotal	6,050													$207,817,143.43
O-1	37	10.80	0.784	18482.40	1312.44	3999.60	1022.58	2107.00	9462.99	2.88	1321.49	1504.73	38946.16	1,441,007.92
O-2	40	11.90	0.825	23432.40	1312.44	4460.40	1259.43	2107.00	11997.39	2.88	1675.42	1583.43	47609.74	1,904,389.60
O-3	269	13.10	0.907	30816.00	1312.44	5202.00	1537.64	2107.00	15777.79	2.88	2203.34	1740.81	60603.19	16,302,258.11
O-4	430	17.20	0.947	35528.40	1312.44	6238.80	1966.22	2107.00	18190.54	3.24	2540.28	1817.58	69647.08	29,948,244.40
O-5	202	21.80	0.970	42188.40	1312.44	6825.60	2176.75	2107.00	21610.46	3.96	3003.00	1861.72	81035.58	16,369,187.16
O-6	68	27.40	0.956	53514.00	1312.44	7408.80	2364.73	2107.00	27399.17	3.96	3003.00	1834.85	98875.88	6,723,559.84
Subtotal	1,046													$72,688,647.03
Total:	7,096													$280,505,790.46

Average Individual AGR Cost for ANG ===> $39,530

Military Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS 4.00	33	0.002	1.10	0.233	122.25	25.33	29.88	5.21	8.19	0.00	60.00	919.82	2.88	208.73	0.00	5,097.33
E3	GS 4.80	105	0.005	1.60	0.414	82.15	36.87	24.82	5.21	8.19	0.00	60.00	771.01	2.88	145.79	0.00	4,389.49
E4	GS 5.30	435	0.022	4.30	0.515	26.73	44.03	31.74	5.21	8.91	0.00	60.00	586.19	2.88	60.66	0.00	3,150.03
E5	GS 5.70	977	0.050	8.90	0.756	24.08	46.59	37.30	5.21	10.31	0.00	60.00	687.99	2.88	64.22	0.00	3,733.61
E6	GS 7.10	1188	0.060	16.00	0.900	23.27	48.46	47.52	5.21	11.60	0.00	60.00	889.65	2.88	79.06	0.00	4,792.25
E7	GS 8.00	2014	0.102	24.00	0.936	24.80	48.75	58.79	5.21	12.79	0.00	60.00	1128.57	2.88	104.25	0.00	6,037.53
E8	GS 8.60	890	0.045	28.00	0.955	27.18	49.58	73.47	5.21	13.75	0.00	60.00	1471.92	2.88	142.78	0.00	7,809.28
E9	GS 9.50	475	0.024	31.80	0.961	27.54	49.56	82.26	5.21	14.76	0.00	60.00	1655.33	2.88	161.98	0.00	8,750.96
Subtotal		6117															
O1	GS 10.00	79	0.042	9.70	0.768	60.89	45.12	51.34	3.65	11.11	0.00	661.00	1420.51	2.88	223.52	0.00	8,656.94
O2	GS 10.50	92	0.048	11.10	0.856	41.75	54.21	65.09	3.65	12.39	0.00	661.00	1630.22	2.88	194.30	0.00	9,527.48
O3	GS 11.60	280	0.147	14.10	0.820	42.98	57.16	87.71	3.65	14.45	0.00	661.00	2292.44	2.88	269.54	0.00	12,883.92
O4	GS 12.30	540	0.284	19.80	0.939	42.74	59.59	101.42	3.65	17.33	0.00	661.00	2708.74	2.88	309.93	0.00	15,129.87
O5	GS 13.10	754	0.396	25.70	0.966	42.93	63.09	121.28	3.65	18.96	0.00	661.00	3355.97	2.88	372.27	0.00	18,423.48
O6	GS 14.40	157	0.082	29.40	0.994	35.80	66.66	148.65	3.65	20.58	0.00	661.00	3975.21	2.88	380.50	0.00	21,356.59
Subtotal		1902															

Military Compensation for Wage Grade (WG) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAD	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WG 7.50	110	0.006	1.60	0.414	82.15	36.87	24.82	5.21	8.19	0.00	60.00	771.01	2.88	145.79	0.00	4,389.49
E4	WG 9.60	922	0.047	4.30	0.515	26.73	44.03	31.74	5.21	8.91	0.00	60.00	586.19	2.88	60.66	0.00	3,150.03
E5	WG 10.30	3517	0.179	8.90	0.756	24.08	46.59	37.30	5.21	10.31	0.00	60.00	687.99	2.88	64.22	0.00	3,733.61
E6	WG 10.60	4394	0.224	16.00	0.900	23.27	48.46	47.52	5.21	11.60	0.00	60.00	889.65	2.88	79.06	0.00	4,792.25
E7	WG 10.80	2116	0.108	24.00	0.936	24.80	48.75	58.79	5.21	12.79	0.00	60.00	1128.57	2.88	104.25	0.00	6,037.53
E8	WG 11.10	158	0.008	28.00	0.955	27.18	49.58	73.47	5.21	13.75	0.00	60.00	1471.92	2.88	142.78	0.00	7,809.28
E9	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		11217															

Military Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS	8.50	210	0.011	16.00	0.900	23.27	48.46	47.52	5.21	11.60	0.00	60.00	889.65	2.88	79.06	0.00	4,792.25
E7	WS	9.00	1019	0.052	24.00	0.936	24.80	48.75	58.79	5.21	12.79	0.00	60.00	1128.57	2.88	104.25	0.00	6,037.53
E8	WS	9.30	717	0.036	28.00	0.955	27.18	49.58	73.47	5.21	13.75	0.00	60.00	1471.92	2.88	142.78	0.00	7,809.28
E9	WS	12.00	337	0.017	31.80	0.961	27.54	49.56	82.26	5.21	14.76	0.00	60.00	1655.33	2.88	161.98	0.00	8,750.96
Subtotal			2283															
01	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			0															

Military Compensation for Wage Leader (WL) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL 10.00	18	0.001	16.00	0.900	23.27	48.46	47.52	5.21	11.60	0.00	60.00	889.65	2.88	79.06	0.00	4,792.25
E7	WL 10.00	21	0.001	24.00	0.936	24.80	48.75	58.79	5.21	12.79	0.00	60.00	1128.57	2.88	104.25	0.00	6,037.53
E8	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		39															
Total		21558															

Civilian Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS 4.00	33	0.002	1.10	0.233	14149.00	213.93	3944.74	208.26	622.56	220.00	89.14	19447.63	5097.33	24544.96	809,983.66
E3	GS 4.80	105	0.005	1.60	0.414	15493.80	234.27	4319.67	228.06	681.73	220.00	97.61	21275.14	4389.49	25664.63	2,694,786.33
E4	GS 5.30	435	0.022	4.30	0.515	16374.50	247.58	4565.21	241.02	720.48	220.00	103.16	22471.95	3150.03	25621.98	11,145,560.26
E5	GS 5.70	977	0.050	8.90	0.756	17100.50	258.56	4767.62	251.71	752.42	220.00	107.73	23458.54	3733.61	27192.15	26,566,734.98
E6	GS 7.10	1188	0.060	16.00	0.900	19816.80	299.63	5524.92	291.69	871.94	220.00	124.85	27149.83	4792.25	31942.08	37,947,192.74
E7	GS 8.00	2014	0.102	24.00	0.936	21714.00	328.32	6053.86	319.61	955.42	220.00	136.80	29728.01	6037.53	35765.54	72,031,807.43
E8	GS 8.60	890	0.045	28.00	0.955	23076.60	348.92	6433.76	339.67	1015.37	220.00	145.38	31579.70	7809.28	39388.98	35,056,192.22
E9	GS 9.50	475	0.024	31.80	0.961	25198.00	380.99	7025.20	370.90	1108.71	220.00	158.75	34462.55	8750.96	43213.51	20,526,417.64
Subtotal		6117														$206,778,675.26
01	GS 10.00	79	0.042	9.70	0.768	26411.00	399.33	7363.39	388.75	1162.08	220.00	166.39	36110.94	8656.94	44767.88	3,536,662.73
02	GS 10.50	92	0.048	11.10	0.856	27714.50	419.04	7726.80	407.94	1219.44	220.00	174.60	37882.32	9527.48	47409.80	4,361,701.99
03	GS 11.60	280	0.147	14.10	0.820	32475.80	491.03	9054.25	478.02	1428.94	220.00	204.60	44352.64	12883.92	57236.56	16,026,236.92
04	GS 12.30	540	0.284	19.80	0.939	36754.10	555.72	10247.04	540.99	1617.18	220.00	231.55	50166.58	15129.87	65296.45	35,260,080.60
05	GS 13.10	754	0.396	25.70	0.966	42109.50	636.70	11740.13	619.82	1852.82	220.00	265.29	57444.26	18423.48	75867.74	57,204,273.70
06	GS 14.40	157	0.082	29.40	0.994	52319.00	791.06	14586.54	770.10	2302.04	220.00	329.61	71318.35	21356.59	92674.94	14,549,965.80
Subtotal		1902														$130,938,921.74
TOTAL FOR GS																$337,717,597.00

Civilian Compensation for Wage Grade (WG) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WG 7.50	110	0.006	1.60	0.414	21690.00	327.95	6047.17	319.26	954.36	220.00	136.65	29695.39	4389.49	34084.88	3,749,336.99
E4	WG 9.60	922	0.047	4.30	0.515	24345.20	368.10	6787.44	358.34	1071.19	220.00	153.37	33303.64	3150.03	36453.67	33,610,281.54
E5	WG 10.30	3517	0.179	8.90	0.756	25315.70	382.77	7058.02	372.63	1113.89	220.00	159.49	34622.50	3733.61	38356.11	134,898,454.80
E6	WG 10.60	4394	0.224	16.00	0.900	25735.40	389.12	7175.03	378.81	1132.36	220.00	162.13	35192.85	4792.25	39985.10	175,694,535.68
E7	WG 10.80	2116	0.108	24.00	0.936	26015.20	393.35	7253.04	382.92	1144.67	220.00	163.90	35573.08	6037.53	41610.61	88,048,061.13
E8	WG 11.10	158	0.008	28.00	0.955	26385.30	398.95	7356.22	388.37	1160.95	220.00	166.23	36076.02	7809.28	43885.30	6,933,877.40
E9	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		11217														$442,934,547.55

TOTAL FOR WG $442,934,547.55

Civilian Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade		People Distribution	Derived ROPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS	8.50	210	0.011	16.00	0.900	30382.50	459.38	8470.64	447.21	1336.83	220.00	191.41	41507.97	4792.25	46300.22	9,723,046.50
E7	WS	9.00	1019	0.052	24.00	0.936	31071.00	469.79	8662.59	457.34	1367.12	220.00	195.75	42443.59	6037.53	48481.12	49,402,266.27
E8	WS	9.30	717	0.036	28.00	0.955	31342.20	473.89	8738.21	461.33	1379.06	220.00	197.46	42812.15	7809.28	50621.43	36,295,565.33
E9	WS	12.00	337	0.017	31.80	0.961	34407.00	520.23	9592.67	506.44	1513.91	220.00	216.76	46977.01	8750.96	55727.97	18,780,326.17
Subtotal			2283														$114,201,204.27
01	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			0														$0.00
TOTAL FOR WS																	$114,201,204.27

Civilian Compensation for Wage Leader (WL) Military Technicians (MTs) in the Air National Guard

Military Pay Grade	Civilian Grade	People Distribution	Derived RCOPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL 10.00	18	0.001	16.00	0.900	27672.00	604.55	7714.95	410.01	1217.57	220.00	174.33	38013.41	4792.25	42805.66	770,501.91
E7	WL 10.00	21	0.001	24.00	0.936	27672.00	604.55	7714.95	410.01	1217.57	220.00	174.33	38013.41	6037.53	44050.94	925,069.84
E8	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		39														$1,695,571.75
TOTAL FOR WL																$1,695,571.75
GRAND COMPONENT TOTAL		21558														$896,548,920.56

Total Compensation for Active Guard/Reserve (AGR) in the Air Force Reserve

Military Pay Grade	Personnel Distribution	Average Years of Service	Married/ Singleparent	Basic Pay	BAS	BAQ	Average VHA	S&I Pays	Retirement	Death Gratuity	FICA	Health	Cost Per Individual	Total Cost Per Pay Grade
E-1	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E-2	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E-3	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E-4	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E-5	37	7.40	0.757	12902.40	1901.65	3711.60	1168.17	2071.00	6606.03	2.88	922.52	1452.91	29921.57	1,107,098.09
E-6	143	12.00	0.846	16070.40	1901.65	4176.00	1315.83	2071.00	8228.04	2.88	1149.03	1623.73	35971.21	5,143,883.03
E-7	146	16.70	0.904	19044.00	1901.65	4604.40	1454.93	2071.00	9750.53	3.24	1361.65	1735.05	41561.83	6,068,027.18
E-8	95	21.90	0.916	22474.80	1901.65	4950.00	1563.95	2071.00	11507.10	3.24	1606.95	1758.08	47534.42	4,515,769.90
E-9	23	24.30	0.957	26988.20	1901.65	5313.60	1706.81	2071.00	13817.96	3.24	1929.66	1836.77	55410.87	1,274,450.01
Subtotal	444													$18,109,228.21
O-1	0	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O-2	2	19.50	1.000	23432.40	1312.44	4460.40	1258.43	1055.00	11997.39	2.88	1675.42	1919.30	47114.66	94,229.32
O-3	5	17.40	0.800	31575.60	1312.44	5202.00	1537.64	1055.00	16166.71	2.88	2257.66	1535.44	60437.39	302,186.95
O-4	44	18.40	0.955	36511.20	1312.44	6238.80	1966.22	1055.00	18693.73	3.24	2610.55	1832.94	70175.37	3,087,716.28
O-5	53	22.50	0.943	43660.80	1312.44	6825.60	2176.75	1055.00	22354.33	3.96	3003.00	1809.90	82118.65	4,352,288.45
O-6	61	27.60	0.934	53514.00	1312.44	7408.80	2364.73	1055.00	27399.17	3.96	3003.00	1792.63	97745.63	5,962,483.43
Subtotal	165													$13,798,904.43
Total:	609													$31,908,132.64

Average Individual AGR Cost for USAFR => $52,394

Military Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	GS 5.80	38	0.005	5.00	0.715	25.66	35.18	31.74	5.21	8.91	0.00	66.00	504.01	2.88	58.23	0.00	2,821.24
E5	GS 6.90	260	0.035	8.80	0.770	23.08	45.55	37.30	5.21	10.31	0.00	66.00	668.13	2.88	61.55	0.00	3,634.27
E6	GS 7.50	570	0.076	15.20	0.896	25.06	49.02	46.04	5.21	11.60	0.00	66.00	890.18	2.88	82.49	0.00	4,829.64
E7	GS 8.50	873	0.116	20.60	0.904	27.71	53.00	55.09	5.21	12.79	0.00	66.00	1160.49	2.88	109.15	0.00	6,235.73
E8	GS 9.10	263	0.035	24.10	0.946	29.78	53.00	66.10	5.21	13.75	0.00	66.00	1428.13	2.88	140.74	0.00	7,643.65
E9	GS 10.20	125	0.017	27.70	0.958	30.73	51.12	82.26	5.21	14.76	0.00	66.00	1757.31	2.88	180.74	0.00	9,327.81
Subtotal		2129															
01	GS 10.20	17	0.021	12.10	0.778	76.30	46.70	51.34	3.65	11.11	0.00	1033.00	1646.17	2.88	280.08	0.00	10,387.41
02	GS 11.00	35	0.044	12.50	0.771	57.28	57.44	65.09	3.65	12.39	0.00	1033.00	1948.92	2.88	266.58	0.00	11,684.41
03	GS 12.00	157	0.198	12.80	0.816	50.42	68.07	85.60	3.65	14.45	0.00	1033.00	2647.26	2.88	308.59	0.00	15,161.47
04	GS 12.50	358	0.452	17.40	0.815	48.65	78.30	98.69	3.65	17.33	0.00	1033.00	3269.99	2.88	343.29	0.00	18,328.35
05	GS 12.60	150	0.189	23.50	0.877	43.89	70.93	121.28	3.65	18.96	0.00	1033.00	3634.52	2.88	380.59	0.00	20,125.25
06	GS 13.80	75	0.095	26.10	0.963	41.00	69.00	148.65	3.65	20.58	0.00	1033.00	4267.74	2.88	435.77	0.00	23,304.95
Subtotal		792															

Military Compensation for Wage Grade (WG) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAD	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WG		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WG		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WG	9.80	159	0.021	5.00	0.715	25.66	35.18	31.74	5.21	8.91	0.00	66.00	504.01	2.88	58.23	0.00	2,821.24
E5	WG	10.10	1548	0.206	8.80	0.770	23.08	45.55	37.30	5.21	10.31	0.00	66.00	668.13	2.88	61.55	0.00	3,634.27
E6	WG	10.30	2153	0.287	15.20	0.896	25.06	49.02	46.04	5.21	11.60	0.00	66.00	890.18	2.88	82.49	0.00	4,829.64
E7	WG	10.70	571	0.076	20.60	0.904	27.71	53.00	55.09	5.21	12.79	0.00	66.00	1160.49	2.88	109.15	0.00	6,235.73
E8	WG		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WG		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			4431															

Military Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAD	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS	8.00	94	0.013	15.20	0.896	25.06	49.02	46.04	5.21	11.60	0.00	66.00	890.18	2.88	82.49	0.00	4,829.64
E7	WS	8.60	44	0.059	20.60	0.904	27.71	53.00	55.09	5.21	12.79	0.00	66.00	1160.49	2.88	109.15	0.00	6,235.73
E8	WS	9.70	228	0.030	24.10	0.946	29.78	53.00	66.10	5.21	13.75	0.00	66.00	1428.13	2.88	140.74	0.00	7,643.65
E9	WS	12.70	187	0.025	27.70	0.958	30.73	51.12	82.26	5.21	14.76	0.00	66.00	1757.31	2.88	180.74	0.00	9,327.81
Subtotal			952															
O1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			0															

Military Compensation for Wage Leader (WL) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E7	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E8	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		0															
Total		8304															

Civilian Compensation for General Schedule (GS/GM) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	GS 5.80	38	0.005	5.00	0.715	17282.00	68.44	4818.22	251.58	760.41	292.00	240.22	23712.87	2821.24	26534.11	1,008,296.17
E5	GS 6.90	260	0.035	8.80	0.770	19409.90	76.86	5411.48	282.56	854.04	292.00	269.80	26596.64	3634.27	30230.91	7,860,037.70
E6	GS 7.50	570	0.076	15.20	0.896	20660.00	81.81	5760.01	300.76	909.04	292.00	287.17	28290.79	4829.64	33120.43	18,878,645.62
E7	GS 8.50	873	0.116	20.60	0.904	22849.50	90.48	6370.44	332.63	1005.38	292.00	317.61	31258.04	6235.73	37493.77	32,732,062.10
E8	GS 9.10	263	0.035	24.10	0.946	24227.60	95.94	6754.65	352.69	1066.01	292.00	336.76	33125.65	7643.65	40769.30	10,722,325.07
E9	GS 10.20	125	0.017	27.70	0.958	26932.40	106.65	7508.75	392.07	1185.03	292.00	374.36	36791.26	9327.81	46119.07	5,764,884.33
																$76,966,250.99
Subtotal		2129														
O1	GS 10.20	17	0.021	12.10	0.778	26932.40	106.65	7508.75	392.07	1185.03	292.00	374.36	36791.26	10387.41	47178.67	802,037.31
O2	GS 11.00	35	0.044	12.50	0.771	29018.00	114.91	8090.22	422.43	1276.79	292.00	403.35	39617.70	11684.41	51302.11	1,795,573.88
O3	GS 12.00	157	0.198	12.80	0.816	34781.00	137.73	9696.94	506.32	1530.36	292.00	483.46	47427.81	15161.47	62589.28	9,826,517.71
O4	GS 12.50	358	0.452	17.40	0.815	38069.50	150.76	10613.78	554.19	1675.06	292.00	529.17	51884.46	18328.35	70212.81	25,136,187.11
O5	GS 12.60	150	0.189	23.50	0.877	38727.20	153.36	10797.14	563.77	1704.00	292.00	538.31	52775.78	20125.25	72901.03	10,935,154.80
O6	GS 13.80	75	0.095	26.10	0.963	47370.00	187.59	13206.76	689.59	2084.28	292.00	658.44	64488.66	23304.95	87793.61	6,584,520.76
																$55,079,991.58
Subtotal		792														
TOTAL FOR GS																$132,046,242.57

Civilian Compensation for Wage Grade (WG) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WG 9.80	159	0.021	5.00	0.715	24620.60	97.50	6864.22	358.41	1083.31	292.00	342.23	33658.27	2821.24	36479.51	5,800,242.06
E5	WG 10.10	1548	0.206	8.80	0.770	25085.90	99.14	6980.01	364.46	1101.58	292.00	348.00	34221.09	3634.27	37855.36	58,600,103.83
E6	WG 10.30	2153	0.287	15.20	0.896	25315.70	100.25	7058.02	368.53	1113.89	292.00	351.89	34600.28	4829.64	39429.92	84,892,619.71
E7	WG 10.70	571	0.076	20.60	0.904	25875.30	102.47	7214.03	376.68	1138.51	292.00	359.67	35358.66	6235.73	41594.39	23,750,397.27
E8	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		4431														$173,043,362.88

TOTAL FOR WG $173,043,362.88

Civilian Compensation for Wage Supervisor (WS) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade		People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS	8.00	94	0.013	15.20	0.896	29694.00	117.59	8278.69	432.27	1306.54	292.00	412.75	40533.84	4829.64	45363.48	4,264,167.21
E7	WS	8.60	443	0.059	20.60	0.904	30520.20	120.86	8509.03	444.30	1342.89	292.00	424.23	41653.51	6235.73	47889.24	21,214,933.77
E8	WS	9.70	228	0.030	24.10	0.946	31703.80	125.55	8839.02	461.53	1394.97	292.00	440.68	43257.55	7643.65	50901.20	11,605,472.88
E9	WS	12.70	187	0.025	27.70	0.958	35597.00	140.96	9924.44	518.20	1566.27	292.00	494.80	48533.67	9327.81	57861.48	10,820,097.62
																	$47,904,671.48
Subtotal			952														
01	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	$0.00
Subtotal			0														
TOTAL FOR WS																	$47,904,671.48

Civilian Compensation for Wage Leader (WL) Military Technicians (MTs) in the Air Force Reserve

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E7	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E8	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E9	WL	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		0														$0.00
																$0.00
TOTAL FOR WL																
																$352,994,276.92
GRAND COMPONENT TOTAL																

Total Weighted Compensation for Active Guard/Reserve (AGR) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Personnel Distribution	Average Years of Service	Married/ Singleparent	Basic Pay	BAS	BAQ	Average VHA	S&I Pays	Retirement	Death Gratuity	FICA	Health	Cost Per Individual	Total Cost Per Pay Grade
E-1	8	2.38	0.625	7668.00	1901.65	2948.40	819.57	547.00	3926.02	2.88	548.26	1199.57	18287.59	146,300.72
E-2	52	1.38	0.423	8596.80	1901.65	2948.40	887.24	547.00	4401.56	2.88	614.67	811.87	18867.70	981,120.40
E-3	318	2.60	0.336	9421.20	1901.65	2948.40	928.60	547.00	4823.65	2.88	673.62	644.89	19978.77	6,353,248.86
E-4	3682	5.84	0.570	11426.40	1901.65	3207.60	1007.55	547.00	5850.32	2.88	816.99	1094.00	24504.61	90,225,974.02
E-5	9091	8.96	0.727	13428.00	1901.65	3711.60	1168.17	547.00	6875.14	2.88	960.10	1395.33	29071.34	264,287,551.94
E-6	9676	12.83	0.845	16070.40	1901.65	4176.00	1315.83	547.00	8228.04	2.88	1149.03	1621.81	34441.61	333,257,018.36
E-7	10303	16.82	0.915	19044.00	1901.65	4604.40	1454.93	547.00	9750.53	3.24	1361.65	1756.16	40100.72	413,157,718.16
E-8	1930	20.98	0.922	22474.80	1901.65	4950.00	1563.95	547.00	11507.10	3.24	1606.95	1769.60	46043.54	88,864,032.20
E-9	436	27.21	0.947	29607.60	1901.65	5313.60	1706.81	547.00	15159.09	3.24	2116.94	1817.58	57978.74	25,278,730.64
Subtotal	35,496													$1,222,551,695.30
W-1	70	12.46	0.210	19249.20	1312.44	4089.60	1315.83	969.00	9855.59	3.24	1376.32	403.05	37539.48	2,627,763.60
W-2	593	18.32	0.670	23194.80	1312.44	4690.80	1477.48	969.00	11875.74	3.24	1658.43	1285.93	45974.40	27,538,665.60
W-3	246	24.05	0.840	27630.00	1312.44	5018.40	1586.51	969.00	14146.56	3.24	1975.55	1612.22	54093.37	13,306,969.02
W-4	328	28.04	0.890	33768.00	1312.44	5608.80	1755.69	969.00	17289.22	3.24	2414.41	1708.18	64741.97	21,235,366.16
Subtotal	1,243													$64,708,764.38
O-1	205	8.45	0.688	18482.40	1312.44	3999.60	1022.58	592.00	9462.99	2.88	1321.49	1320.48	37362.87	7,659,388.35
O-2	428	9.94	0.600	23432.40	1312.44	4460.40	1259.43	592.00	11987.39	2.88	1675.42	1151.58	45378.68	19,422,075.04
O-3	2101	13.47	0.844	30816.00	1312.44	5202.00	1537.64	592.00	15777.79	2.88	2203.34	1619.89	58901.76	123,752,597.76
O-4	3047	17.51	0.858	35528.40	1312.44	6238.80	1966.22	592.00	18190.54	3.24	2540.28	1646.76	67864.85	179,638,257.95
O-5	1173	22.85	0.905	43660.80	1312.44	6825.60	2176.75	592.00	22354.33	3.96	3003.00	1736.97	81527.29	95,631,511.17
O-6	347	29.02	0.928	53514.00	1312.44	7408.80	2364.73	592.00	27399.17	3.96	3003.00	1781.11	97261.28	33,749,664.16
Subtotal	6,901													$459,853,494.43
Grand Total:	43,640													$1,751,968,607.64

Average Individual AGR Cost for All Components ==> $40,146

This model run is dated December 31,1987. This version revises the AGR Special and Incentive Pays. It contains the following information:

Total Weighted Military Compensation for General Schedule (GS/GM) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	GS	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS 4.20	84	0.002	1.65	0.225	57.00	48.00	23.88	5.21	8.19	0.00	28.15	654.43	2.88	97.32	0.00	3,462.04
E3	GS 4.50	293	0.006	2.29	0.359	62.00	48.00	26.17	5.21	8.19	0.00	38.53	751.34	2.88	116.01	0.00	4,085.72
E4	GS 5.00	1576	0.033	5.24	0.542	24.00	48.00	31.74	5.21	8.91	0.00	47.39	596.46	2.88	54.47	0.00	3,170.15
E5	GS 5.70	2939	0.061	9.45	0.738	25.00	48.00	37.30	5.21	10.31	0.00	47.39	710.68	2.88	66.67	0.00	3,836.86
E6	GS 6.70	3496	0.073	16.12	0.868	25.00	48.00	47.52	5.21	11.60	0.00	47.39	905.40	2.88	84.94	0.00	4,874.35
E7	GS 7.70	4340	0.090	22.33	0.918	27.00	48.00	58.79	5.21	12.79	0.00	47.39	1150.81	2.88	113.49	0.00	6,169.97
E8	GS 8.00	2089	0.043	26.21	0.938	31.00	48.00	66.10	5.21	13.75	0.00	47.39	1362.92	2.88	146.51	0.00	7,332.92
E9	GS 8.90	1040	0.022	30.55	0.947	33.00	48.00	82.26	5.21	14.76	0.00	47.39	1739.06	2.88	194.09	0.00	9,270.56
Subtotal		15857	0.33														
W1	GS 7.70	70	0.001	14.20	0.600	24.00	48.00	55.49	3.65	11.36	0.00	103.95	1042.77	2.88	95.22	0.00	5,666.48
W2	GS 8.00	767	0.226	21.90	0.914	30.00	48.00	66.47	3.65	13.03	0.00	110.26	1353.20	2.88	142.58	0.00	7,435.56
W3	GS 8.90	546	0.161	28.59	0.864	34.00	48.00	79.44	3.65	13.94	0.00	110.26	1700.17	2.88	193.12	0.00	9,229.31
W4	GS 9.60	727	0.215	31.47	0.934	33.00	48.00	93.80	3.65	15.58	0.00	110.26	1983.03	2.88	221.32	0.00	10,691.15
Subtotal		2110	0.62														
O1	GS 9.10	253	0.046	8.59	0.594	52.00	48.00	51.34	3.65	10.59	0.00	464.86	1339.97	2.88	190.88	0.00	7,824.69
O2	GS 9.30	369	0.067	10.39	0.764	54.00	48.00	65.09	3.65	11.11	0.00	464.86	1732.83	2.88	251.31	0.00	9,921.71
O3	GS 10.50	1103	0.201	13.93	0.828	45.00	48.00	87.71	3.65	14.45	0.00	464.86	2128.98	2.88	282.21	0.00	11,913.82
O4	GS 11.70	1536	0.279	19.49	0.917	48.00	48.00	101.42	3.65	17.33	0.00	464.86	2541.18	2.88	348.07	0.00	14,206.51
O5	GS 12.50	1591	0.280	25.81	0.922	43.00	48.00	121.28	3.65	18.96	0.00	464.86	2880.52	2.88	372.88	0.00	15,841.46
O6	GS 13.70	575	0.105	30.26	0.958	34.00	48.00	148.65	3.65	20.58	0.00	464.86	3181.41	2.88	361.37	0.00	17,169.45
Subtotal		5361	0.98														

Total Weighted Military Compensation for Wage Grade (WG) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade	People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WG	0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG 5.80	47	0.001	2.00	0.220	15.00	48.00	23.88	5.21	8.19	0.00	5.32	392.66	2.88	25.61	0.00	1,975.13
E3	WG 6.80	294	0.006	2.32	0.363	62.00	48.00	26.17	5.21	8.19	0.00	33.04	751.34	2.88	116.01	0.00	4,083.55
E4	WG 8.40	2614	0.054	5.05	0.545	24.00	48.00	31.74	5.21	8.91	0.00	43.42	596.46	2.88	54.47	0.00	3,167.20
E5	WG 9.50	8533	0.177	9.22	0.744	24.00	48.00	37.30	5.21	10.31	0.00	43.42	700.94	2.88	64.01	0.00	3,773.98
E6	WG 10.10	10582	0.220	16.12	0.876	25.00	48.00	47.52	5.21	11.60	0.00	43.42	905.40	2.88	84.94	0.00	4,873.74
E7	WG 10.20	5205	0.108	22.66	0.933	27.00	48.00	58.79	5.21	12.79	0.00	43.42	1150.81	2.88	113.49	0.00	6,173.29
E8	WG 9.90	815	0.017	26.39	0.946	34.00	48.00	66.10	5.21	13.75	0.00	33.04	1414.67	2.88	160.69	0.00	7,641.31
E9	WG 9.20	63	0.001	31.40	0.930	39.00	48.00	82.26	5.21	14.76	0.00	5.32	1867.88	2.88	229.38	0.00	9,986.39
Subtotal		28153	0.59														
W1	WG 10.90	22	0.006	14.20	0.600	24.00	48.00	55.49	3.65	11.36	0.00	89.97	1042.77	2.88	95.22	0.00	5,652.50
W2	WG 10.40	227	0.067	21.72	0.918	30.00	48.00	66.47	3.65	13.03	0.00	98.79	1353.20	2.88	142.58	0.00	7,425.66
W3	WG 10.70	57	0.017	27.98	0.872	34.00	48.00	79.44	3.65	13.94	0.00	98.79	1700.17	2.88	193.12	0.00	9,221.63
W4	WG 10.00	20	0.006	28.90	0.944	29.00	48.00	93.80	3.65	15.58	0.00	8.82	1885.10	2.88	194.49	0.00	10,021.46
Subtotal		326	0.10														

Total Weighted Military Compensation for Wage Supervisor (WS) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAQ	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS	8.40	371	0.008	15.96	0.888	24.00	48.00	47.52	5.21	11.60	0.00	54.20	893.00	2.88	81.54	0.00	4,811.31
E7	WS	8.80	1736	0.036	22.82	0.928	26.00	48.00	58.79	5.21	12.79	0.00	55.35	1135.47	2.88	109.29	0.00	6,087.75
E8	WS	9.20	1134	0.024	26.90	0.952	29.00	48.00	66.10	5.21	13.75	0.00	55.35	1328.41	2.88	137.06	0.00	7,136.85
E9	WS	11.90	575	0.012	30.43	0.957	30.00	48.00	82.26	5.21	14.76	0.00	54.20	1674.65	2.88	176.45	0.00	8,897.80
Subtotal			3816	0.08														
W1	WS	8.30	31	0.009	14.20	0.600	24.00	48.00	55.49	3.65	11.36	0.00	128.50	1042.77	2.88	95.22	0.00	5,691.03
W2	WS	8.60	420	0.124	22.41	0.902	31.00	48.00	66.47	3.65	13.03	0.00	130.39	1370.54	2.88	147.33	0.00	7,554.96
W3	WS	8.80	268	0.079	29.29	0.854	34.00	48.00	79.44	3.65	13.94	0.00	130.39	1700.17	2.88	193.12	0.00	9,244.70
W4	WS	8.80	234	0.069	32.13	0.931	33.00	48.00	93.80	3.65	15.58	0.00	130.39	1983.03	2.88	221.32	0.00	10,709.73
Subtotal			953	0.28														
O1	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O2	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O3	WS	12.50	32	0.006	14.10	0.840	46.00	48.00	87.71	3.65	14.45	0.00	143.17	2151.88	2.88	288.48	0.00	11,732.60
O4	WS	13.90	41	0.007	20.50	0.964	54.00	48.00	101.42	3.65	17.33	0.00	143.17	2700.00	2.88	391.58	0.00	14,856.90
O5	WS	15.00	42	0.008	26.80	0.880	42.00	48.00	121.28	3.65	18.96	0.00	143.17	2848.87	2.88	364.20	0.00	15,303.58
O6	WS		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			115	0.02														

Total Weighted Military Compensation for Wage Leader (WL) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade		People Distribution	Distribution	Average Years of Service	Married/ Single Parent	Active Duty Days	Inactive Duty Periods	Basic Pay	BAS	BAD	VHA	Special Pays	Retirement	Death Gratuity	FICA	Health	Cost per Individual (Military)
E1	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL	9.30	68	0.001	16.66	0.856	25.00	48.00	47.52	5.21	11.60	0.00	25.44	905.40	2.88	84.94	0.00	4,847.35
E7	WL	9.70	152	0.003	22.16	0.932	28.00	48.00	58.79	5.21	12.79	0.00	28.34	1166.16	2.88	117.70	0.00	6,252.85
E8	WL	9.80	45	0.001	26.60	0.959	36.00	48.00	66.10	5.21	13.75	0.00	13.00	1449.18	2.88	170.14	0.00	7,842.18
E9	WL		0	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal			265	0.01														
Total			56956															

Total Weighted Civilian Compensation for General Schedule (GS/GM) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Workman's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	GS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	GS 4.20	84	0.002	1.65	0.225	14485.20	119.361	4038.47	211.77	637.35	263.71	210.09	19965.95	3462.04	23427.99	1,967,950.82
E3	GS 4.50	293	0.006	2.29	0.359	14989.50	132.860	4179.07	219.27	659.54	265.72	207.13	20663.09	4085.72	24738.81	7,248,470.51
E4	GS 5.00	1576	0.033	5.24	0.542	15830.00	137.030	4413.40	231.52	696.52	271.28	212.74	21792.49	3170.15	24962.64	39,341,125.30
E5	GS 5.70	2939	0.061	9.45	0.738	17100.50	157.713	4767.62	250.24	752.42	267.22	227.79	23523.50	3836.86	27360.37	80,412,118.61
E6	GS 6.70	3496	0.073	16.12	0.868	19017.70	180.923	5302.13	278.38	836.78	266.59	240.15	26122.65	4874.35	30997.00	108,365,512.00
E7	GS 7.70	4340	0.090	22.33	0.918	21081.60	226.917	5877.55	306.97	927.58	757.70	243.03	28923.36	6169.97	35093.33	152,305,030.50
E8	GS 8.00	2089	0.043	26.21	0.938	21714.00	241.127	6053.86	318.35	955.42	260.08	242.06	29784.90	7332.92	37117.82	77,539,117.37
E9	GS 8.90	1040	0.022	30.55	0.947	23757.90	278.354	6623.70	348.53	1045.36	257.77	247.30	32558.90	9270.56	41829.47	43,502,645.13
Subtotal		15857														$510,681,970.25
W1	GS 7.70	70	0.021	14.20	0.600	21081.60	83.690	5877.55	306.90	927.58	292.00	298.03	28862.36	5666.48	34528.84	2,417,019.08
W2	GS 8.00	767	0.226	21.90	0.914	21714.00	188.204	6053.86	317.58	955.42	289.41	276.45	29794.92	7435.56	37230.49	28,555,783.22
W3	GS 8.90	546	0.161	28.59	0.864	23757.90	199.094	6623.70	347.38	1045.36	289.71	302.01	32565.14	9229.31	41794.46	22,819,772.67
W4	GS 9.60	727	0.215	31.47	0.934	25440.60	237.440	7092.84	372.33	1119.38	289.14	318.60	34870.34	10691.15	45561.49	33,123,200.87
Subtotal		2110														$86,915,775.85
O1	GS 9.10	253	0.046	8.37	0.594	24227.60	207.863	6754.65	354.31	1066.01	269.00	279.47	33158.90	7824.69	40983.60	10,368,850.02
O2	GS 9.30	369	0.067	10.12	0.764	24712.80	216.908	6889.93	361.48	1087.36	272.99	283.83	33825.30	9921.71	43747.01	16,142,647.49
O3	GS 10.50	1103	0.201	15.91	0.828	27714.50	238.800	7726.80	405.32	1219.44	272.89	305.47	37883.22	11913.82	49797.04	54,926,131.81
O4	GS 11.70	1530	0.279	19.53	0.917	33052.10	301.000	9214.93	483.62	1454.28	266.07	301.35	45073.36	14206.51	59279.87	90,698,196.94
O5	GS 12.50	1531	0.280	25.93	0.922	38069.50	404.149	10613.78	557.87	1675.06	256.12	322.43	51898.91	15841.46	67740.37	103,710,502.12
O6	GS 13.70	575	0.105	30.46	0.958	46608.50	383.654	12984.45	681.39	2050.77	271.61	457.08	63447.45	17169.45	80616.91	46,354,720.81
Subtotal		5361														$322,201,049.19
TOTAL FOR GS																$919,798,795.29

Total Weighted Civilian Compensation for Wage Grade (WG) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WG	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WG 5.80	47	0.001	2.00	0.220	20158.00	80.030	5620.05	293.45	886.95	291.99	280.19	27610.66	1975.13	29585.79	1,390,532.13
E3	WG 6.80	294	0.006	2.32	0.363	21078.80	195.745	5876.77	308.48	927.47	264.48	257.39	28909.14	4083.55	32992.69	9,699,849.51
E4	WG 8.40	2614	0.054	5.06	0.545	22692.80	206.800	6326.75	332.04	998.48	266.10	267.54	31090.51	3167.20	34257.71	89,549,652.89
E5	WG 9.50	8539	0.177	9.22	0.744	24207.50	224.847	6749.05	354.27	1065.13	262.02	267.99	33130.81	3773.98	36904.78	314,908,505.83
E6	WG 10.10	10582	0.220	16.12	0.876	25035.90	230.228	6980.01	366.36	1101.58	261.82	275.06	34250.96	4873.74	39124.70	414,017,543.65
E7	WG 10.20	5205	0.108	22.66	0.933	25175.80	233.936	7019.01	368.44	1107.74	262.35	280.58	34447.86	6173.29	40621.14	211,433,054.52
E8	WG 9.90	815	0.017	26.39	0.946	24758.30	192.746	6902.61	361.79	1089.37	277.15	305.98	33887.95	7641.31	41529.26	33,846,343.18
E9	WG 9.20	63	0.001	31.40	0.930	23794.40	94.460	6633.88	346.39	1046.95	292.00	330.73	32538.81	9986.39	42525.20	2,679,087.72
Subtotal		28155														$1,077,524,569.44
M1	WG 10.90	22	0.006	14.20	0.600	26155.10	103.840	7292.04	380.75	1150.82	291.99	363.54	35738.08	5652.50	41390.58	910,592.85
M2	WG 10.40	227	0.067	21.72	0.918	25455.60	238.842	7097.02	372.57	1120.05	288.74	318.07	34890.89	7425.66	42316.55	9,605,856.44
M3	WG 10.70	57	0.017	27.98	0.872	25875.30	266.542	7214.03	379.06	1138.51	288.31	316.93	35478.68	9221.63	44700.32	2,547,917.96
M4	WG 10.00	20	0.006	28.90	0.944	24896.00	543.900	6941.00	368.88	1095.42	281.99	231.52	34358.71	10021.46	44380.17	887,603.36
Subtotal		326														$13,951,970.61
TOTAL FOR WG																$1,091,476,540.05

Total Weighted Civilian Compensation for Wage Supervisor (WS) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WS 8.40	371	0.008	15.96	0.888	30244.80	311.504	8432.25	443.07	1330.77	251.24	274.43	41288.06	4811.31	46099.38	17,102,868.51
E7	WS 8.80	1736	0.036	22.82	0.928	30795.60	332.635	8565.81	451.36	1355.01	249.61	268.58	42038.61	6087.75	48126.36	83,547,359.22
E8	WS 9.20	1134	0.024	26.90	0.952	31251.80	353.815	8713.00	458.28	1375.08	246.32	265.82	42664.12	7136.85	49800.96	56,474,291.68
E9	WS 11.90	575	0.012	30.43	0.957	34303.70	361.344	9563.87	502.64	1509.36	249.80	261.02	46751.73	8897.80	55649.53	31,998,481.30
Subtotal		3816														$189,123,001.71
W1	WS 8.30	31	0.009	14.20	0.600	30107.10	119.530	8393.86	438.29	1324.71	291.99	418.48	41093.96	5691.03	46784.99	1,450,334.81
W2	WS 8.60	420	0.124	22.41	0.902	30520.20	158.635	8509.03	444.84	1342.89	291.31	414.45	41681.36	7554.96	49236.32	20,679,254.34
W3	WS 8.80	268	0.079	29.29	0.864	30795.60	161.290	8585.81	448.87	1355.01	291.29	418.02	42055.89	9244.70	51300.59	13,748,558.61
W4	WS 8.80	234	0.069	32.13	0.991	30795.60	178.725	8585.81	449.13	1355.01	290.97	413.53	42068.78	10709.73	52778.51	12,350,171.19
Subtotal		953											$166,899.98			$48,228,318.95
01	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	WS 12.50	32	0.006	14.10	0.840	35257.00	139.970	9829.65	513.26	1551.31	291.99	490.05	48073.23	11732.60	59805.83	1,913,786.50
04	WS 13.30	41	0.007	20.50	0.964	37403.90	148.490	10428.21	544.51	1645.77	291.99	519.90	50982.77	14856.90	65839.67	2,699,426.49
05	WS 15.00	42	0.008	26.80	0.880	39614.00	157.270	11044.38	576.68	1743.02	291.99	550.62	53977.96	15303.58	69281.54	2,909,824.75
06	WS	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		115														$7,523,037.73
TOTAL FOR WS																4244,874,358.40

Total Weighted Civilian Compensation for Wage Leader (WL) Military Technicians (MTs) for the ARNG, USAR, ANG, and USAFR

Military Pay Grade	Civilian Grade	People Distribution	Derived RCCPDS Dist.	Average Years of Service	Married/ Single Parent	Basic Pay	Other Pay	Retirement	FICA	Health	Work-Man's Comp	Terminal Leave	Cost Per Individual (Civilian)	Cost Per Individual (Military)	Total Cost per Individual	Total MT Costs
E1	WL	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E2	WL	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E3	WL	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E4	WL	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E5	WL	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E6	WL 9.30	68	0.001	16.66	0.856	26768.30	237.418	7463.00	391.58	1177.81	272.94	329.18	36640.23	4847.35	41487.58	2,821,155.58
E7	WL 9.70	152	0.003	22.16	0.932	27284.70	221.265	7606.97	398.84	1200.53	281.13	345.47	37338.93	6252.85	43591.77	6,625,949.50
E8	WL 9.80	45	0.001	26.60	0.959	27413.80	108.830	7642.97	399.08	1206.21	291.99	381.04	37443.92	7842.18	45286.10	2,037,874.28
E9	WL	0	0.000	0.00	0.000	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal		265														$11,484,979.35
TOTAL FOR WL																$11,484,979.35
GRAND COMPONENT TOTAL		58956														$2,267,634,673.09

Average Cost -- MT $39,814

Average Cost -- AGR $40,146

Appendix F. FULL-TIME SUPPORT FORCE STRUCTURE GRAPHS

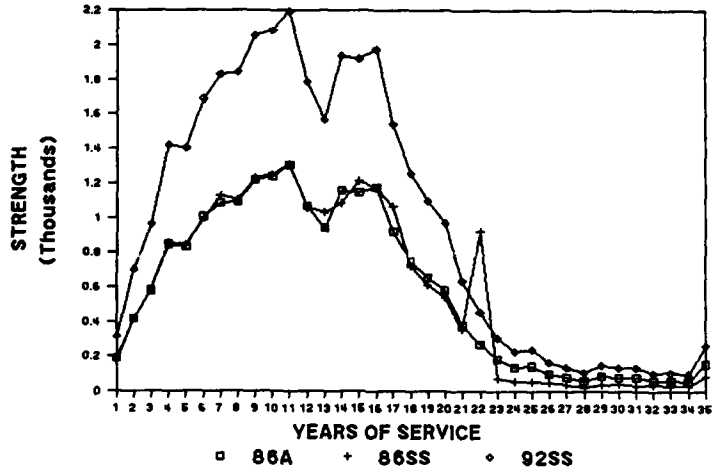


FIGURE F-1. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY NATIONAL GUARD - AGR ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

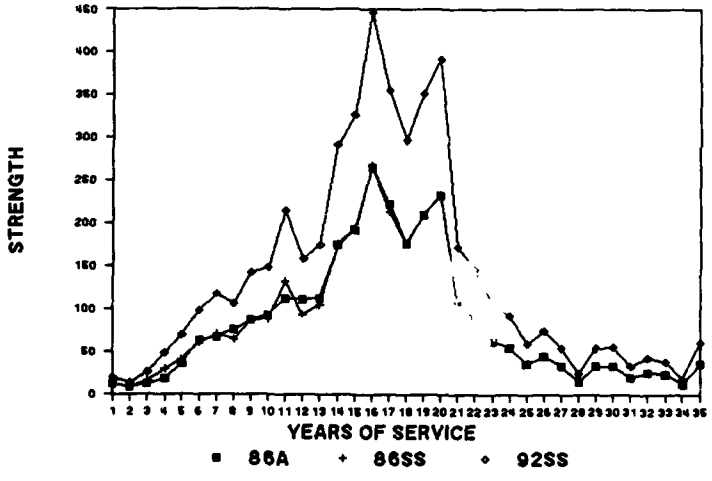


FIGURE F-2. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY NATIONAL GUARD - AGR OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

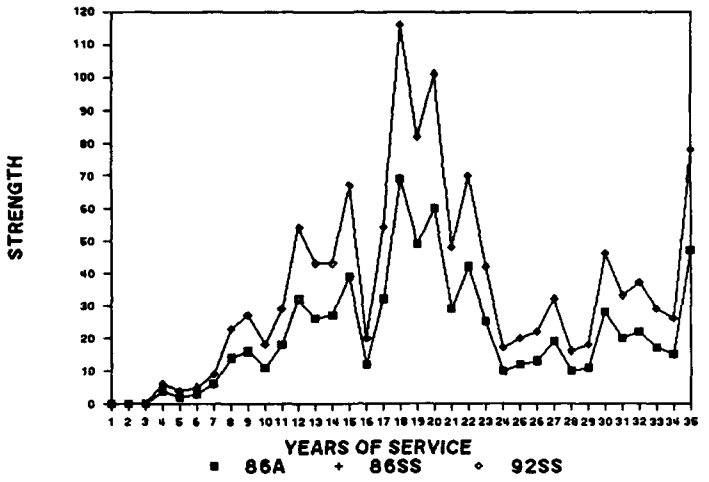


FIGURE F-3. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY NATIONAL GUARD - AGR WARRANT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

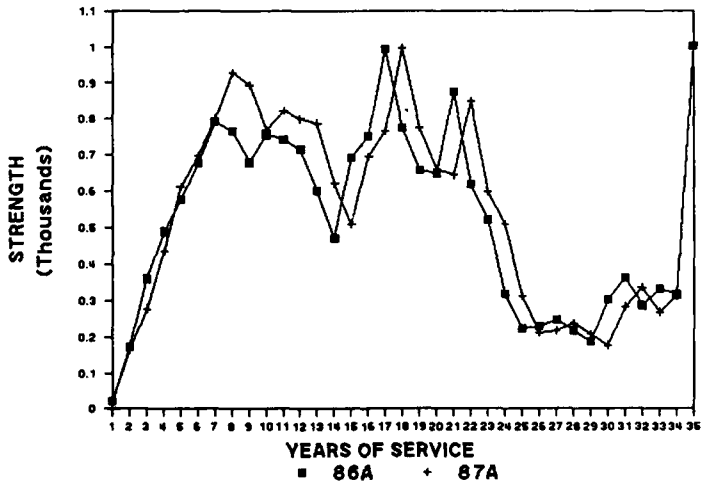


FIGURE F-4. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY NATIONAL GUARD - MT ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

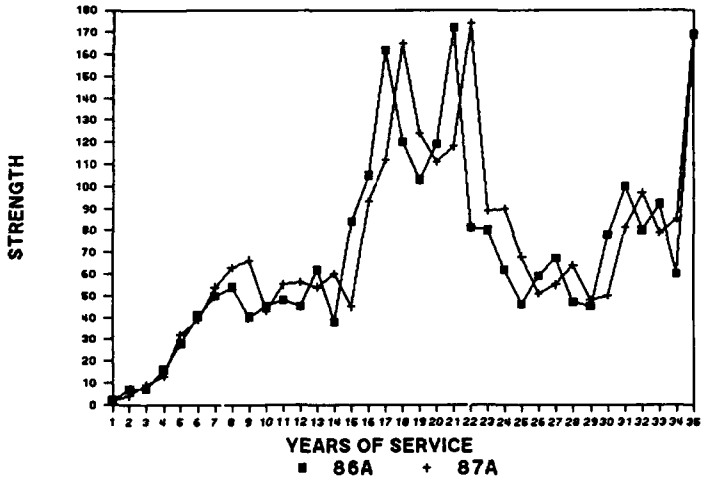


FIGURE F-5. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY NATIONAL GUARD - MT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS)

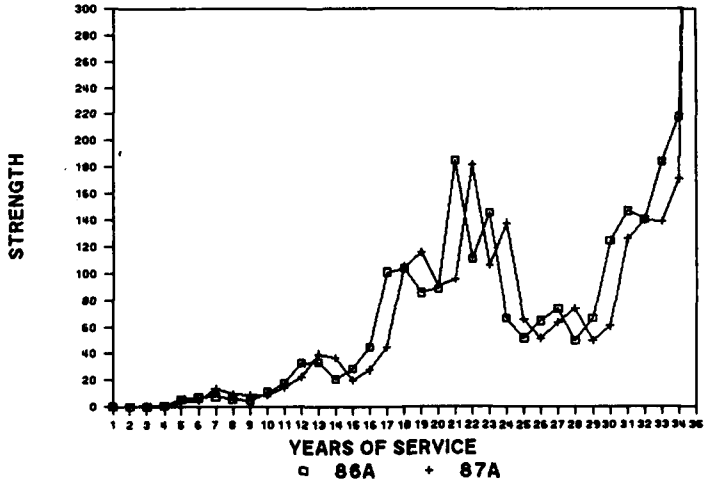


FIGURE F-6. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY NATIONAL GUARD - MT WARRANT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

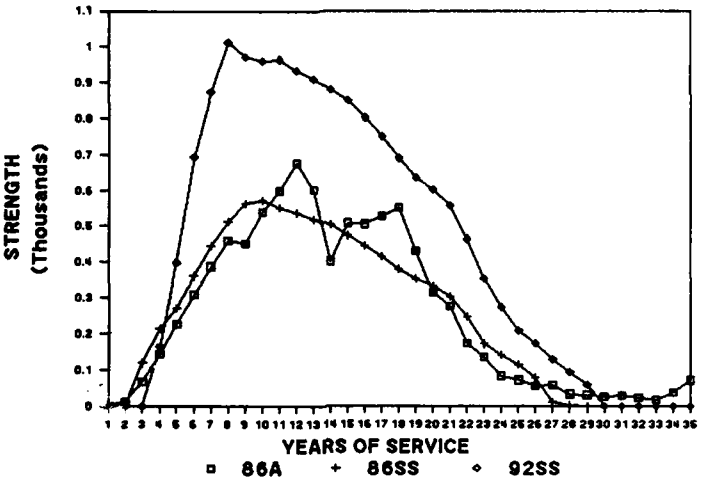


FIGURE F-7. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY RESERVE - AGR ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

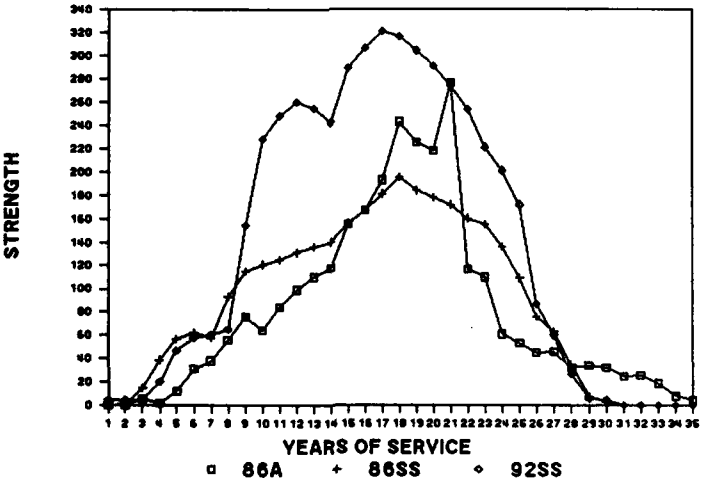


FIGURE F-8. FULL-TIME SUPPORT FORCE STRUCTURES
(ARMY RESERVE - AGR OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

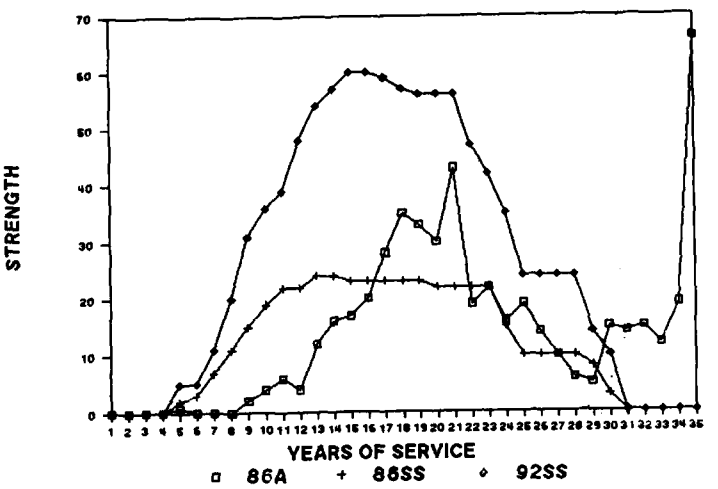


FIGURE F-9. FULL-TIME SUPPORT FORCE STRUCTURES (ARMY RESERVE - AGR WARRANT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

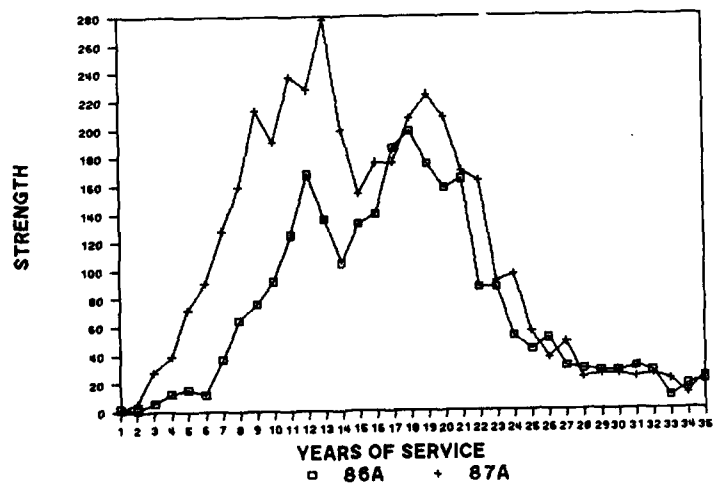


FIGURE F-10. FULL-TIME SUPPORT FORCE STRUCTURES (ARMY RESERVE - MT ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

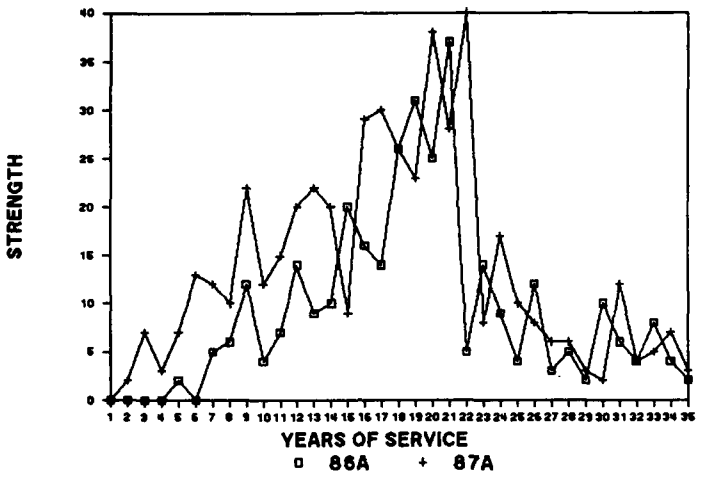


FIGURE F-11. FULL-TIME SUPPORT FORCE STRUCTURES (ARMY RESERVE - MT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

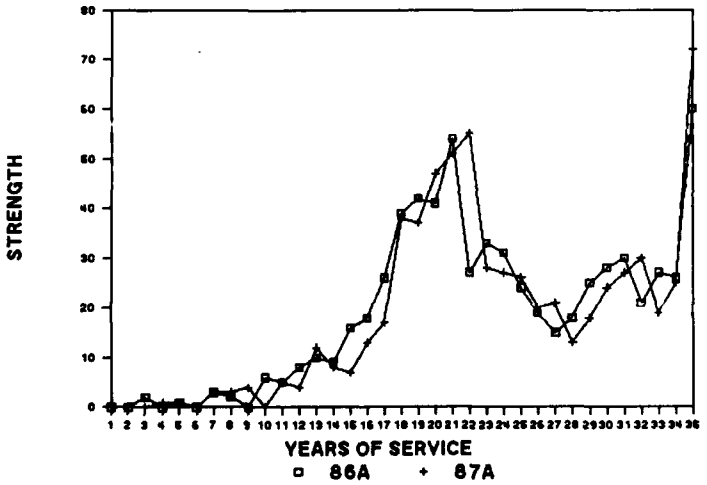


FIGURE F-12. FULL-TIME SUPPORT FORCE STRUCTURES (ARMY RESERVE - MT WARRANT OFFICERS)

SOURCE: SERVICE DATA & RCCPDS

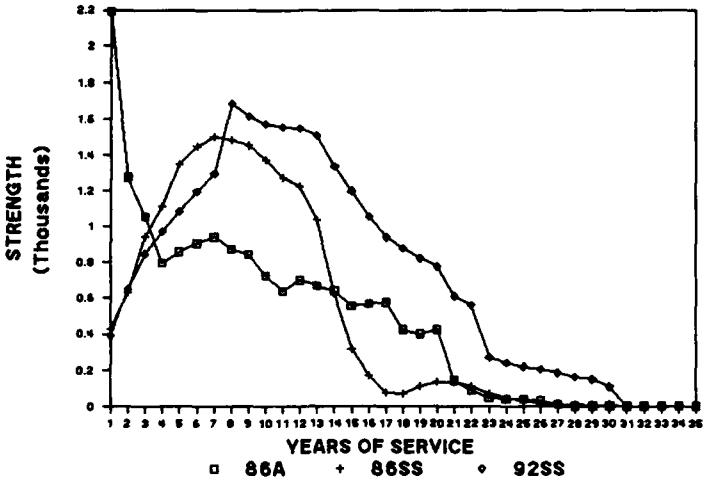


FIGURE F-13. FULL-TIME SUPPORT FORCE STRUCTURES
(NAVAL RESERVE - TAR/TEMAC ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS)

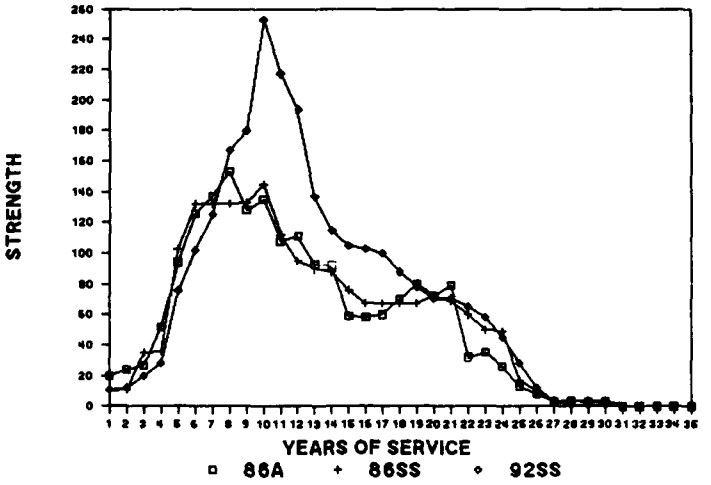


FIGURE F-14. FULL-TIME SUPPORT FORCE STRUCTURES
(NAVAL RESERVE - TAR/TEMAC OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

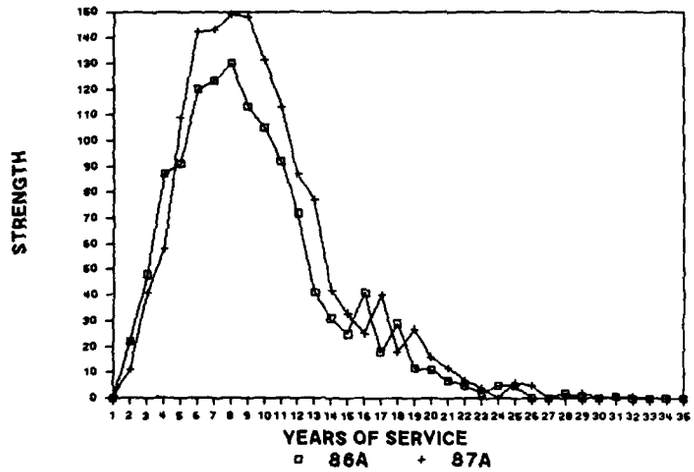


FIGURE F-15. FULL-TIME SUPPORT FORCE STRUCTURES (MARINE CORPS RESERVE - AGR ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

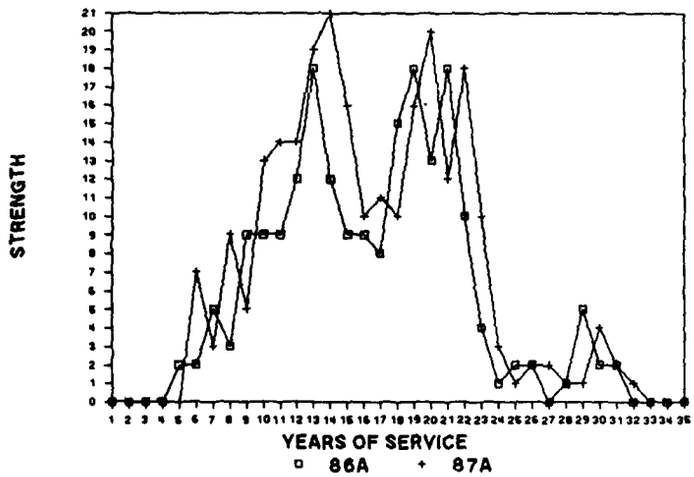


FIGURE F-16. FULL-TIME SUPPORT FORCE STRUCTURES (MARINE CORPS RESERVE - AGR OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

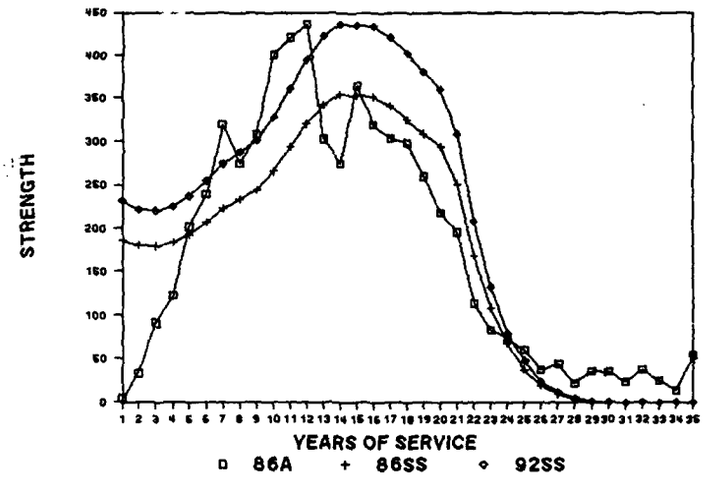


FIGURE F-17. FULL-TIME SUPPORT FORCE STRUCTURES
(AIR NATIONAL GUARD - AGR ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

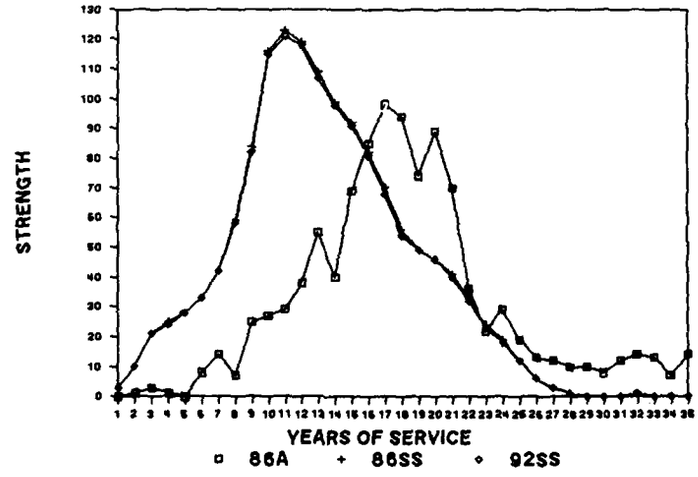


FIGURE F-18. FULL-TIME SUPPORT FORCE STRUCTURES
(AIR NATIONAL GUARD - AGR OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

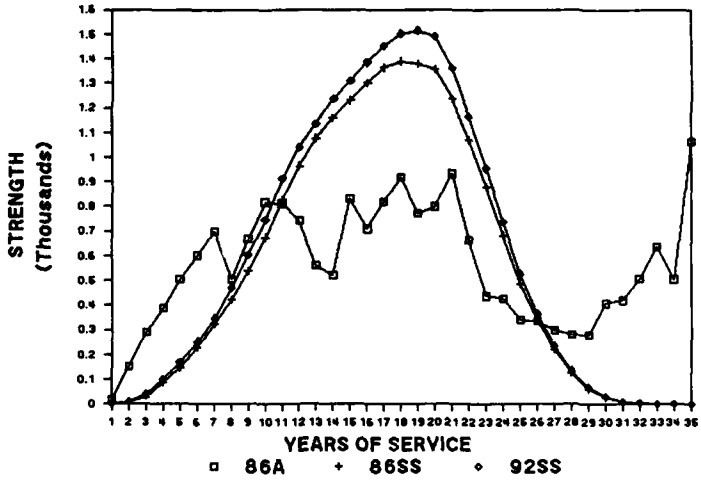


FIGURE F-19. FULL-TIME SUPPORT FORCE STRUCTURES
(AIR NATIONAL GUARD - MT ENLISTED)

SOURCE: SERVICE DATA & 1986 RCCPDS

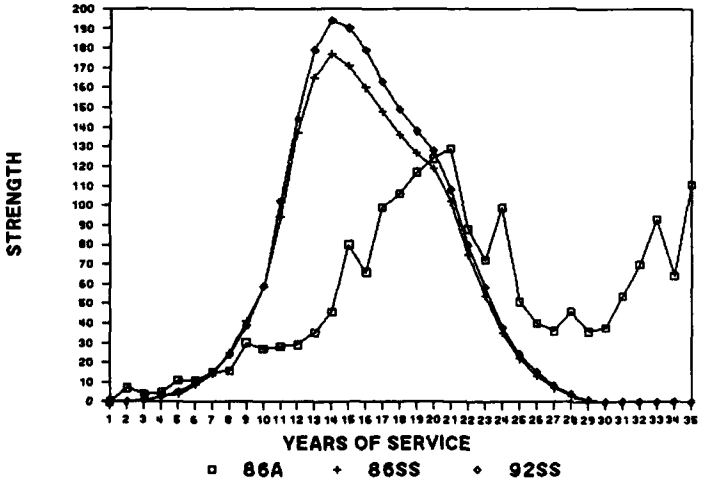


FIGURE F-20. FULL-TIME SUPPORT FORCE STRUCTURES
(AIR NATIONAL GUARD - MT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

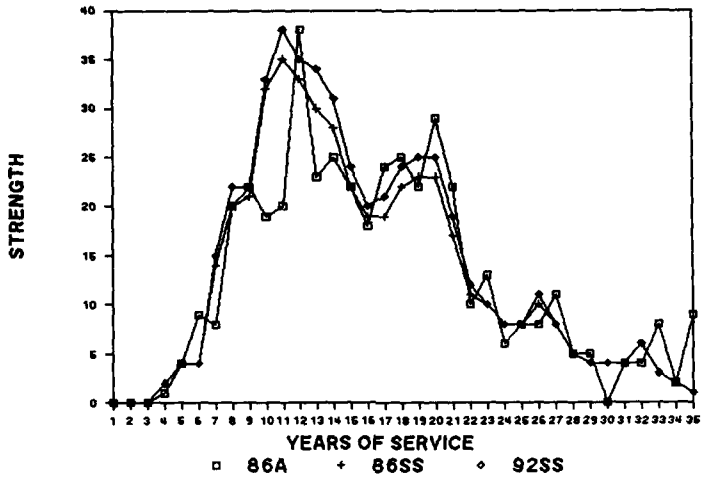


FIGURE F-21. FULL-TIME SUPPORT FORCE STRUCTURES
(AIR FORCE RESERVE - AGR ENLISTED)

SOURCE: SERVICE DATA & RCCPDS

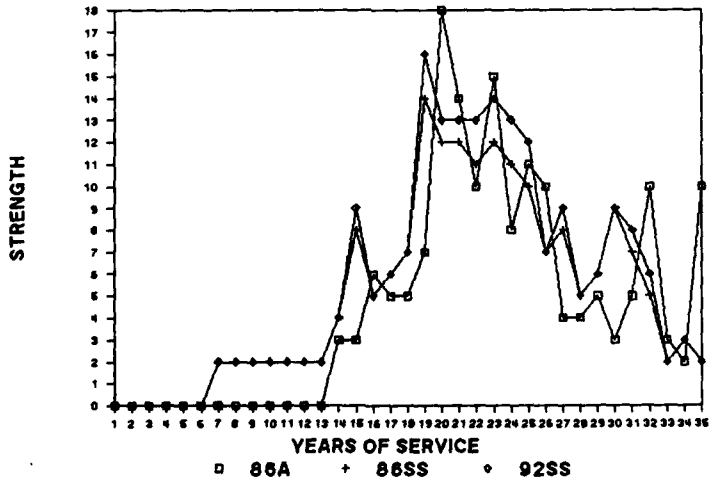


FIGURE F-22. FULL-TIME SUPPORT FORCE STRUCTURES
(AIR FORCE RESERVE - AGR OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

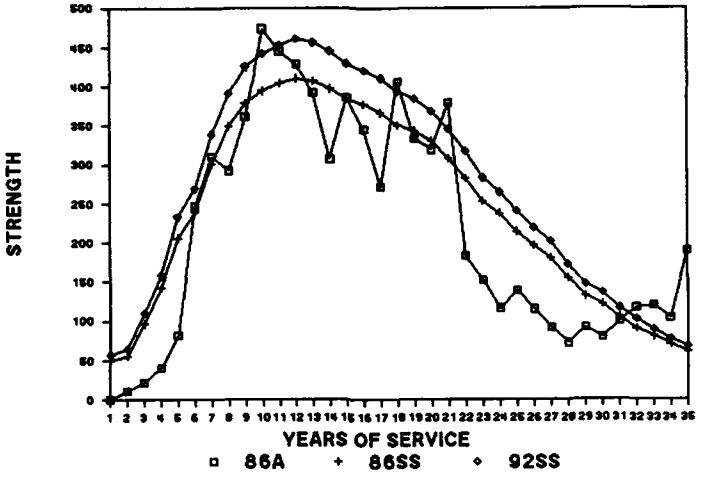


FIGURE F-23. FULL-TIME SUPPORT FORCE STRUCTURES (AIR FORCE RESERVE - MT ENLISTED)

SOURCE: SERVICE DATA & RCCPDS

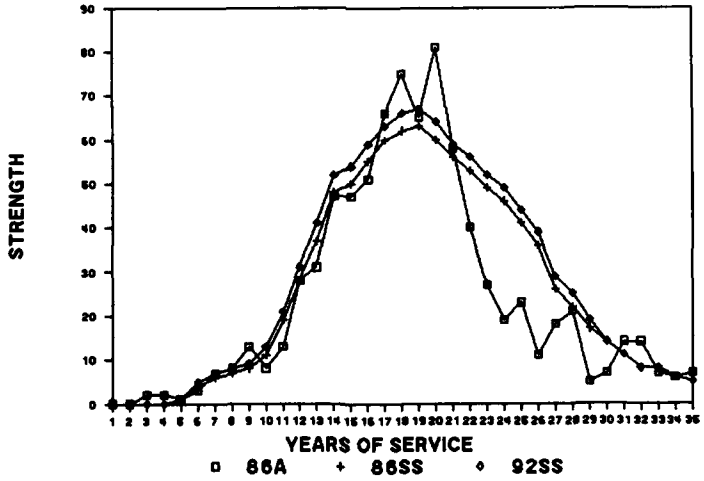


FIGURE F-24. FULL-TIME SUPPORT FORCE STRUCTURES (AIR FORCE RESERVE - MT OFFICERS)

SOURCE: SERVICE DATA & 1986 RCCPDS

Appendix G. ARMY MEMO ON MILITARY TECHNICIAN FORCE MANAGEMENT

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310

23 July 1987

MEMORANDUM FOR ACTING ASSISTANT SECRETARY OF DEFENSE
(FORCE MANAGEMENT AND PERSONNEL)

SUBJECT: Military Technicians

Department of the Army policy is to manage military technicians for the purpose of objective force designs as military members reflected in the objective force model of the Selected Reserve. The concept of a linkage between separate military and civilian force models has been rejected for the reasons discussed below.

The Army Reserve Technicians employed by the U.S. Army Reserve are competitive civil service workers. Consequently, although compatibility between military and civilian positions may be desirable, it cannot be mandatory. In the case of Army National Guard technicians, Public Law 90-486 does set goals for compatibility between positions but provides flexibility to allow for different types of units. Consequently, within the Army National Guard, the development of technician job descriptions may lead to fill of GS-11 and above positions by commissioned officers with warrant officers most frequently found at grades GS-7 to GS-11 or WG-11 to WS-12, and enlisted soldiers in positions ranging from GS-4 to GS-10, WS-5 to WS-13, and WG-5 to WG-13. Although position compatibility is quite good, development of a force model depicting such linkages is rendered impractical by the wide band of grades associated with a given position. The attached Compatibility Criteria Report is the Army National Guard's management tool providing the compatibility linkage between technician and military assignments.

In view of this policy, requested technician objective force models cannot be provided.

William D. Clark
Principal Deputy Assistant Secretary
(Manpower and Reserve Affairs)

Attachment

18 June 1987

FROM: NGB-TNS

SUBJECT: Transmittal of ARNG Military Technician Compatibility Criteria

ATTN: Action Officer - Military Technician Compatibility

1. As stated in the January 1987 edition of our Technician Information Bulletin we will no longer send the Compatibility Criteria via electronic mail. Starting with this update we will furnish you with one copy which you may reproduce and distribute as required. We will update in January, May and September. Attached is the updated Compatibility Criteria.

2. Changes or additions are identified with an asterisk (*) placed to the left of the position number. The following positions have been deleted.

R8411, RZ363

3. Please familiarize yourself with the introduction to the criteria which starts on the next page. If you have any questions concerning the criteria or compatibility policy you may contact Dick Brown; 756-0402.

FOR THE CHIEF, NATIONAL GUARD BUREAU:

KERMIT R. LUSK
Chief, Personnel Services Div
Office of Technician Personnel

19 June 1987

ARNG Technician Compatibility Criteria

1. This listing reflects the current military assignments which are compatible with technician positions. They are the only assignments considered to be compatible.

2. The criteria has been jointly developed by the various staff offices of the National Guard Bureau and represents those military specialities which most closely approximate duties found in the corresponding technician position description. The criteria has been made as broad as possible to accommodate various unit structures and missions and may be defined more restrictively at State level depending on local requirements and position availability.

3. The criteria is to be used to insure technician assignments are consistent with current policy and regulations.

4. Military assignments of technicians serving under excepted appointments must be in accordance with this criteria and the policy contained in TPR 300(302.7)

5. All technicians must be assigned to the same military unit by which employed except as follows:

- USPFO personnel may be assigned to any MTO&E or TDA unit in the state. Supervisory Examiners/Examiners may not be assigned to any military position which causes a conflict of interest to occur and where possible, the military position will be in the STARC or in the chain of command that causes the incumbent to report directly to the USPFO or Chief of Staff.

- Maintenance personnel employed in the CSMS, MATES or UTES may be assigned to any MTO&E or TDA unit in the State

- Personnel employed in aviation positions (AASF, AAOF, Flight Activities, AVCARD) are to be assigned to MTOE/TDA units or as follows:

- o Aviator technicians must be assigned to operational flying positions in units supported by the aviation activitie(s).
- o All other technicians must be assigned to a unit supported by the aviation activity(s).
- o Personnel employed in the AVCRAD must be assigned to the AVCRAD TDA.

- Technicians employed in Organizational Maintenance Shops must be assigned to a unit supported by the OMS. "Shop Chiefs" are to be assigned to the parent unit supported by the OMS.
- When employed in positions on the State Headquarters staff, technicians may be assigned to any unit in the State; however, in most cases assignment at State level is more desirable.
- Military technicians employed by WA ARNG who are assigned to the CSMS, MATES or UTES may be assigned duty MOSs 61B, C, F, or Z in the unit supported by the WSMC.

6. MOS 09S is compatible for enlisted technicians while attending OCS.

7. Officers assigned to technician positions which permit military assignment to any unit in the State may be assigned to a position requiring multiple skills identifier, provided the secondary position code is one which is identified as a compatible assignment and the technician is qualified in that skill.

8. Officer training technicians in medical units may be assigned in SSI 67B, E, F, K.

9. The following MOSs are compatible assignments for aviation support personnel when serving as first sergeant or detachment sergeant:

91A - Air Ambulance units, flight surgeon sections or detachments
19Z - Air Cav units - HQ Trp; Trp; Regiment; Hq Co, Btn Hq

R0122	Aircraft Pilot Supervisor GM-2181-13	O: 15A, B, C, M, S; 67J
R0125	Supervisory Aircraft Pilot GM-2181-14	O: 15A, B, C, M, S, 67J or assigned as Commander, Exec Officer or Staff Officer in branch SSI appropriate to org of employment
R0202	Heavy Mobile Equip Mech Foreman WS-5803-11	O: 21A, C, D, J; 91A, B; 92A, B
R0203	Heavy Mobile Equip Mech Foreman WS-5803-9	O: 21A, C, D, J; 91A, B; 92A, B WO: MOS 271A, 310A, 441A, 621A; Occ Gp 63 E: CMF 63
R0204	Heavy Mobile Equip Mech Foreman WS-5803-8	O: 91A, B; 92A, B WO: MOS 271A, 310A, 441A, 621A; Occ Gp 63 E: CMF 63
R0206	Admin/Trng Clerk (Typing) GS-0303-5	E: CMF 71 (except 03C, 71M, 00J)
R0207	Training Specialist GS-1712-9	E: CMF 11, 12, 13, 16, 19, 71 (except 03C, 71M, 00J) WO: 711A
R0208	Military Personnel Mgmt Officer GS-0205-12	O: 42A, B; 41A, B
*R0209	Training Administrator GS-1712-12	O: 11,12, 13, 14, 21, 25, 31, 35; 41A,B; 01A, 42A, B; 44, 54A, 74, 91, 92
*R0210	Training Administrator GS-1712-11	O: 11, 12, 13, 14, 21, 25, 31, 35; 41A, B; 01A, 42A, B; 44, 54A, 74, 91, 92
R0213	Air Traffic Control Spec (Station) GS-2152-9	WO: MOS 152B, C, D, F, G; 153A, B, C, D; 154A, B, C; 155A, D, E; 156A E: MOS 93P,E,H
R0215	Supv Helicopter Pilot GS-2181-12	O: 15A, B, C, M, S; 67J

R0216	Administrative Officer GS-0341-11	O: 42A, B; Principal or assistant S-1, S-2, S-3, S-4; Cmdr, Dep Cmdr or Exec Off in Branch occupational skill appropriate to orgn of empl; when posiiton is Auth in a Medical unit, may also be assigned in SSI 67B, E, F, K
R0223	Computer Asst GS-335-6	None (Competitive)
R0224	Training Technician GS-1702-11	O: 25A, 1SM; principal or assistant G1, G2, G3, G4, G5, S1, S2, S3, S4, S5, CE officer; any position within area of responsibility in line with FM 101-5, FM 71-100, FM 71-101, FM 54-2
R0225	Marksmanship Info and Trng Off GS-301-12	O: 01A
R0226	File Clerk GS-305-3	None (Competitive)
R0227	File Clerk GS-305-3	E: CMF 71 (except MOSs 03C, 00J, 03C, 00U, 71M)
*R0228	Computer Assistant GS-355-5	E: 74D, Z, F
R0229	Data Transcriber GS-356-4	None (Competitive)
R0232	Administrative Officer GS-341-12	O: 42A, B; principal or assistant G-1, G-2, G-3, G-4, G-5, S-1, S-2, S-3, S-4, S-5; Cmdr, Dep Cmdr, or Exec Off in Branch SSI appropriate to org of employment (except Gen Off); Chief of Staff in HQ & Co, Trans BGD. Corps Spt Cmd

R0233	Administrative Officer GS-341-13	O: 42A, B; Chief of Staff Secretary of Gen Staff, Div AG, principal or asst G1, G2, G3, G4, G5 in branch SSI appropriate to org of employment
R0234	Command Admin Asst GS-301-12	O: 42A, B; principal or asst S1, S2, S3, S4; Cmdr, Exec Off in branch SSI appropriate to org of employment
R0235	Data Transcriber GS-356-4	E: CMF 71 (except MOS 03C, 71M, 00J, 00U), 74, 76
R0242	Administrative Officer GS-341-11	O: 42A, B; principal or asst S1, S2, S3, S4; Cmdr, Exec Off in branch appropriate to org of empoyment; Fire Support Officer in FA Bn of Separate AR & IN Brigades. When position is authorized in a medical unit, may also be assigned 67B, E, F, or K.
R0243	Administrative Officer GS-341-10	O: 42A, B; principal or asst S1, S2, S3, S4; Cmdr, Exec Off in branch appropriate to org of empoyment; Fire Support Officer in FA Bn of Separate AR & IN Brigades. When position is authorized in a medical unit, may also be assigned 67B, E, F, or K.
R0244	Flight Instr (Aircraft) GS-2181-12	O: 15A, B, C, M, S; 67J WO: 152B, C, D, F, G; 153A, B, C, D; 154A, B, C; 155A, D, E; 156A
R0249	Administrative Officer GS-341-11	O: 42A, B; principal or asst S1, S2, S3, S4, Cmdr, Dep Cmdr, Exec Off in branch SSI appropriate to org of employment; Fire Support Officer in FA Bn of Separate AR & IN Brigade. When position is authorized in a Medical Unit, may also be assigned in SSI 67E, F, or K.

AND SO ON . . .

Appendix H: COMMENTS ON FULL-TIME SUPPORT ISSUES BY RESPONDENTS TO 1986 RESERVE COMPONENTS SURVEYS

All respondents to the 1986 Reserve Components Surveys were given the opportunity to comment at the end of the questionnaire, where the following prompt appeared:

> We're interested in any comments you'd like to make about Guard/Reserve personnel policies - whether or not the topic was covered in this survey. Do you have any comments?

Respondents also marked a coded response block indicating whether or not they had filled out a comment sheet. This enabled the QRMC to determine the percentage of respondents, in various categories and with varying attitudes on major issues, who filled out comment sheets. By comparing the characteristics and attitudes of those who provided comments with those who did not, it was then possible to judge the extent to which those who provided comments were representative of all respondents.

Overall, one of four officers and one of every five enlisted members provided written comments. Senior members in both officer and enlisted categories were somewhat more likely to have provided comments. There were only slight differences between those who commented and those who did not; differences related to the sex of the respondent, their intent to stay in the reserve, or their overall satisfaction. Those dissatisfied or very dissatisfied with pay and benefits or with leadership or training were more likely to comment than those who were satisfied with these aspects of their service.

About one of every five spouses who responded to the survey provided written comments. Unlike the members, the percent of spouses who provided comments did not vary by the member's pay grade. Whether or not the spouse had previously served in the military did not affect the percentage who provided comments. Neither the participation status of the member--part-time unit member, IMA, military technician or AGR/TAR--nor the likelihood of the member staying in the reserve for a full career affected the rate at which spouse comments were provided. Spouses who were dissatisfied with the member's pay and allowances or with the member's participation in the reserve were about twice as likely to have provided comments than those who were satisfied, favorable or indifferent on these matters. About one out of five spouse comments was written by an individual who was

dissatisfied with their spouse's reserve pay and allowances. In aggregate, it appears that those providing comments were representative of the population surveyed.

Although the National Guard and Reserve members and their spouses who provided additional written comments appear to be generally representative of the population surveyed, the comments included in this appendix cannot be said to be representative. The process of screening over 20,000 comment sheets was systematic, however, and does provide additional insight into the issues being considered. QRMC staff members who had participated in the unit visit program read through the comments and used predesignated codes to identify categories of comments for subsequent review. Most of these categories related to compensation or other personnel issues affecting overall satisfaction with the Guard and Reserve. The coded comments were then reviewed, and representative comments on each subject recorded. Comments of Active Guard and Reserve members and their spouses, Military Technicians and their spouses, and part-time reservists concerning full-time support programs follow. These comments appear in three major sections of this appendix:

- Active Guard and Reserve (AGR/TAR) Members and Spouses
- Military Technician Members and Spouses
- Part-Time Members and Spouses

Active Guard and Reserve Members and Spouses

Army National Guard

Officers

"Have been AGR since '79. Very dissatisfied with the way 'on board' military technicians have been treated since the AGR program came into being."

"The thing that dissatisfies me with the AGR program is the lack of information that is given to the 'Field units' from State Staff level. Current policies and programs that appears in "The Guardsman Magazine,' or Army Times or programs you hear about from personnel of other states don't get down to the technicians or AGR personnel. When I accepted AGR status 5 years ago I was told I could revert back to my Technician status at the end of my tour, but at the end of 4 years I was expected to change residence and unit in order to get back to Technician status. To date I haven't been given a chance to revert to a position comparable to my former Technician position."

"I have been in my current position for four years, and feel a need to move to a different position/functional area to increase my experience at this grade level. The opportunities to move are limited."

"Family programs and other services (recreation, PX, commissary) are not available to personnel like myself for whom a base or military housing is not available, yet the level of pay is the same. An increased allowance to offset the high cost of civilian recreational facilities and subsistence expenses would help to eliminate this discrepancy."

"I am a 50 year old LTC who enlisted in the Army National Guard in 1954. I started working full-time for the guard in 1956 as a state employee. In 1958 I started in the federal technician program and worked for 23 years. In 1981 I went on the AGR program where I am at the present time. The reason I have given the above information is that I want you to know my situation before I tell what is happening to some of us. I knew that when I went to AGR that if I stayed AGR for more than 4 years that my technician retirement would be deferred to age 62, and be based on the amount of pay I was receiving when I left the civil service program. My Reserve Officer Promotion Act (ROPA) elimination date is Dec 1988. I will be involuntarily eliminated from federal service when I am 53 years with no retirement until age 60 for the title 10 retirement and 62 for my civil service retirement. In Dec 1988 I will have over 30 years of continuous federal service, yet I won't be able to draw any retirement for over 7 years. I fully realize that this is my personal problem and I was told when I went AGR what would happen. However, it does seem unfair that I will have to wait 7 years to draw any retirement after giving all of my working life to the National Guard."

"The major concern I have, as an officer, is the ability to get promoted in the AGR program with the current grade limitations/ceilings in each state. Since I plan on remaining in the AGR program long enough to retire, promotions will be mandatory or I will be subject to ROPA. At the same time, regardless of how well I may do my job, the slots for promotions may not exist due to the limitations/ceilings."

"I disagree with the policy of AGR being on 24 hr call and working seven days a week. The policy may not be an NGB policy however it is a Group Policy that AGR employees can be recalled any time for any reason. This hampers the family life. I am currently on the road three-four days a week checking on subordinate units therefore neglecting my office work that must be done during my off time. Working hours at this office is normally ten hour days. Holidays are not allowed except for Christmas and Thanksgiving. AGR personnel are made to come to

all periods of training besides drill and AT's and ATA's even if you are qualified for the school. This is a waste of time and energy."

"The constant requirement for 'Time' to accomplish all the readiness requirements is making the 'Guard' life harder to accept. The extra drills and nights required to assist the unit(s) and the amount of travel time required to support all units under my supervision: 180 miles north of my duty position and 750 miles south takes too much time."

Spouses of Officers

"I would like to comment that we were a proud Guard family while serving in our hometown, but are finding active duty a chance of a lifetime. I am very proud that my husband has shown what good officers the Alabama National Guard produces."

"As the wife of an AGR officer, the thing that bothers me the most is the amount of time that is required of him - not just ordinary work hours but an excessive number of meetings, extra week-ends, etc. If we, as a family, have one week-end a month together I feel most fortunate. There is just not enough compensation time allowed for the extra hours and weekends demanded of him. This also doesn't include the large amount of time spent away on TDY's to schools and other job related trips."

"My husband and I would like to use the commissaries and PX/BX facilities more often, but both are not readily accessible. The closest commissary and BX is at least 30 miles from our home. We also have to travel through a city that has some of the worst problems in this part of the country in order to get to the Air Force Base. My husband and I are concerned that he will be involuntarily separated from the National Guard at age 53 without any retirement. He is an AGR officer who will be eliminated because he will have 27 years of commissioned service when he is 53. He has worked full time for the guard for almost 28 years and will have to get a job in the civilian job market until he is 60 years old."

"My pet peeve is CHAMPUS and lack of any dental care. Thom's only dislike is so much paperwork. He loves his job and working with 'young' people."

"Blue Cross and Blue Shield is slow when processing claims and almost impossible to call - the lines are either busy or we get a recording."

Enlisted Members

"AGR personnel should be administered under Title 10, and not come under the 'Political Eye' of the State. As it now stands, AGR personnel cannot depend career stability, no matter how good a job they may do. Also, as Title 32, AGR members must place their careers in the hands of unknowns every other year, if the member has reached 20 years Guard/Reserve time. This is without regard to AGR/Active Duty time."

"The AGR program needs to be stable. At the present time, there is no job security. Somebody cannot decide on what kind of education you need. It changes every six months. Therefore I have not attempted to attend any active Army schools. When DA makes up its mind as to what military education is required, then I will attend."

"The uncertainty of the AGR program is of great concern to all the personnel that I know in the system."

"Recently a letter came through the channels stating that our PT time has been revoked. I feel that this is very unfair, because we deserve the time just like the Regular Army. How can we be expected to do our job in an Active Component, have the responsibilities of an Active Component, but have the line drawn for us when it comes to the beneficial side of being in an Active Component?"

"I am AGR - and think we should get comp. time for hours worked over the normal work day and IDT weekends. In other words where will the line be drawn as to the number of hours one has to work, or how many continuous days. Sometime I feel as if I'm making a minimum wage."

"I am on AGR status. For some reason we work more hours than required. We figured out our wages for 1985 and made less than minimum wage."

"If VHA is to take up the slack that BAQ doesn't cover in a high cost area, WHY do I only get $3.10 a month? As you might see by this survey I exceed my BAQ/VHA by about $200.00. If it were not for my wife working we would not make it."

"I feel as though the Variable Housing Allowance and Basic Allowance for Quarters should be at a higher rate in order to cover costs for lodging and utilities, otherwise government quarters should be made available in these remote ares."

"Most AGR personnel live too far from military posts to take advantage of the services. AGR personnel living in these areas should be entitled to the same additional pay Recruiters and Retention NCOs receive due to their living in areas where

military facilities are not nearby. In my opinion it would be a good idea to provide some other medical benefits, such as CHAMPUS, to those AGR members who live too far from military posts."

"Medical benefits or care for myself is poor. For example, the closest military medical facility is approximately 160 miles from where I live and work. If I have an emergency illness or injury I am authorized to utilize local civilian hospital facilities (Emergency Room) however, any follow-on treatment must be accomplished at a military facility. If the injury is non-emergency I must utilize military medical facilities, or I may elect to use a local civilian doctor as long as I pay for it myself. I would not consider a normal case of flue as an emergency, is it reasonable for me to have to drive 160 miles for treatment for this? Dental benefits for myself and family are equally as poor."

"CHAMPUS. When I came on board as AGR, we really had a hard time with them. Seems as they couldn't get everybody picked up on computer and we were about nine months getting on. Anyway, now things are working smoothly and they have been paying our claims regularly. Our daughter is diabetic and we have about a $85 - $100 a month medical/doctor bill. So this benefit has really paid off for us. We would like to know if there is any other benefits available to us on this condition or if we can get medical supplies thru the Army Hospital once a month."

"CHAMPUS is not very good, the individuals don't seem to get paid for the bills that they incur. They might as well pay for them themselves."

"It is almost impossible to deal with an insurance company that is hundreds of miles from your home of record (CHAMPUS)."

"As we are stationed 250 miles from a Military Post would like to have that medical and dental benefits can be gotten from a local civilian even if it is not an emergency."

"Military medical care: I feel that the state does not get the information out to AGR personnel on proper medical care procedures, everything is printed in a negative manner. Such as Don't do this or if you do this you will not get paid."

"The retirement system currently mandates retirement at 20 years service for AGR's. This seems to run counter to what the active components and Congress are attempting to do with retirement. I am sure the system could better be served if this policy were changed."

"Our battalion went from 18 full time employees in 1978 to 46 in 1986. The additional people has not brought up the training standard enough to warrant that many employees."

"At the present time, I am 43 years old, I have worked with the National Guard a total of 15 years as a Personnel Staff NCO or as a Battalion Supply Sergeant. For the past five years my primary MOS and duty MOS has been 76Y40, Battalion Supply Sergeant. According to NGR 600-5, I must attend an Active NCOES course before May of next year. The course is 10 weeks long. This means I will be away from my job at the armory, and my family for 2 1/2 months. This is fine, with the exception that we never stay up on our work now. What will it be after being gone for 10 weeks. I will be so far behind, I'll never catch up. I am qualified in my Duty MOS as proved by the last Two SQT Tests, which I made 91 and 97, in that order, but I must set in class at service school learning something I already know."

"I would like the ability to transfer within the R system. I feel that transfers would keep an individual from 'stagnating' in a particular position. In the true military, transfers are about three-fours apart. I would like to see the hiring practices changed. When an individual enters into ADG/R, he applies for a position--just as if he were applying for a job on the civilian market. In the military, people don't 'apply' for jobs."

"I'm quite satisfied with the AGR program and my position. I feel that I do a good job for my unit and wish to stay with this unit until retire, but I'm worried about PCS moves. It would be a difficult decision given orders to move from my HOR and residential property, on whether to remain in the program or not."

"The promotion scheme for AGR personnel is a serious problem. For example, an E-4 starts as a clerk, and for promotion he/she will have to (in most cases) change jobs and career fields to be promoted. An AGR person can move from clerk, to supply, to training NCO but will constantly be changing career fields. Once an AGR personnel makes E-7 as a training NCO there are little possibilities to advance. NGR 600-5, par 4-5 states that if an individual is outstanding in leadership and is selected that a waiver can be submitted to NGB-ARM to promote for example an E-7 training NCO to E-8 First Sergeant for up to 2 years, then either transferred to another E-8 slot or administratively reduced back to E-7. This is something that has not yet been seen."

"The lock into a unpromotable slot in training NCO job that I have. Should be able to be promoted up to 1SG in the same unit without having to transfer to another unit outside of my field or to Sqdn Hq or to STARC."

"There is no upward mobility in this battalion because they will not let MOS's 75B, 76Y cross over to 11B were the senior ranks are."

"The promotion system for AGR's is non-existent. A SM can work hard for a year and will not be recognized for his/her achievements or quality of work. There should be a system set up where the AGR can get promoted outside his slot he is required to maintain to keep the job. Our unit has lost three unit clerks in the last year and a half because the E-4 pay was not satisfactory for the surrounding economy. I'm just making it with E-5 pay. If the NGB wishes to have stability they must produce a system where the AGR can get promoted."

"I presently perform as a Team Leader (AGR) in an Infantry Company Detachment. This demands that I have an 11B MOS. Absolutely none of the tasks in my job description are even remotely related to the 11B MOS. For example, I administer the payroll, 201 files, finance records, supply records, and other general administrative and supply functions. I have, in the past, had the proper MOSs for these jobs. Now, due to my AGR status, I have an MOS that is not related my job. I feel that this hinders my career since I not only have to do my administrative job well, but I must also demonstrate success in an MOS that I don't even do (either on a day-to-day basis or during drill)."

"I'm very dissatisfied with the promotion opportunities in the AGR program. It's disappointing looking for a career in the Guard but stuck in an E-6 slot and no possibility of getting promoted. If it were possible to be promoted one rank over the slot, morale and work quality would improve immensely. Most AGR personnel I've talked with enjoy their job except for the fact that they can't be promoted where they are at. The only way to advance career-wise is to apply for a different position in another location, and those aren't available as a Supply Sergeant or unit clerk! Something must be done to retain those who become proficient and highly qualified at their jobs."

"It is grossly unfair to the full-timer to have to handle more responsibility than a week-end. Platoon Sergeant, and not be recognized for his efforts by being senior in rank."

"I feel there should be one program for full-time employees of the National Guard and not the separation between technicians and AGR. There are many hard feelings between the two forces."

"A problem is the Civil Service/AGR differences throughout the state. For instance, in one battalion you have an AGR E-9 Operations Sergeant, and in another battalion you have an E-5 NBC NCO/OTRS doing basically the same full-time job as a Civil servant. In the same sense, there is a like problem in having

some AGR training technicians and some Civil servants doing the same job. The only justification for this that has been heard is the state has either misappropriated the slots, or there aren't any more AGR slots funded for that position. If this is true it still doesn't answer the question of why this is so."

"One of the biggest problems we AGR people have is that most Civil Service Technicians are very jealous of our status. This includes my supervisor a GS-10. Because of my benefits, Pay and etc, he makes such statements as 'You get paid 24 hrs a day, 30 days a month so don't complain when you have to work 30 days a month.' All Reserve Technicians need to be AGR or all need to be Civil Service Technicians."

"Were Active Army <u>when</u> <u>they</u> <u>want</u>, and when it does not suit certain needs, we are then Guardsmen!! Let us fall under one type of system then we all can do the job we were paid to do. Protect the country!!!"

"I am overall dissatisfied with the direction that the full-time AGR program slowly is taking. In my present assignment, there is constant threats and intimidation by the full-time technician supervisors and the AGR personnel's tours are constantly being held over their heads, threatened with termination, receiving counseling statements for any and all minor infractions. The present Stress level within the full-time force in this armory is to the point that approximately 60-70% of the full-time AGR employees are looking for civilian employment. This wouldn't be such a dramatic percentage, but these same employees want to totally leave the ARNG due to the constant abuse they have taken. I, like several of my peers, plan to leave the ARNG totally, taking with us the many hours of formal training, experience and knowledge that we have received. If the NGB and DoD want to save this country some valuable dollars, they would take a serious look at the monster that has been created and stop all of this nonsense so we can get back to the job we're trained for."

"AGR tours should be for 4 years at a time rather than the current 2 year tour. In recruiting I feel that a PCS move would not be wise, because the majority of the Recruiters in the Guard and Reserves are from that area and reside in that Area and if moved to a new area they would have less production until they became known in the New Area which could take many months."

"The med requires AGR personnel to attend active component PLDC, BNCOC/BYC, ANCOC, etc. This is fine for active component NCOs, as they have other NCOs that can effectively fill in for them while they are attending NCOES. This is not the case with NCOs serving on AGR tours. These NCOs will have to be away from their jobs from anywhere between 4 to 12 weeks with nobody to take over for them. I know from personal experience that an AGR

employee can't be away from the job for more than two to three weeks or he will be completely bogged down for days or even weeks with a backlog of work that has piled up in his absence. Although my co-workers take care of the large projects and such in my absence, the small stuff piles up."

"AGR/Technician mix does not work effectively. At unit level, supervisors often make less money than their subordinates even though they have greater responsibility because they are technician's and their subordinates are AGR. Somehow, it seems to me as a former manager in industry, that I should not be making more than my boss who wears CPT's bars. This situation only leads to jealousy and low morale at the work place because of the 'them and us' syndrome. This situation is bade enough, but it's amplified when the personnel who are responsible for career management at the state level are technician instead of AGR. As a result, AGR's in the field are not informed of <u>all</u> benefits and requirements. Many times, a person must find out on his own what he's entitled to and how to get it because the information is never disseminated. Because of the lack of definition, the recent policy of allowing states to designate which positions will become AGR provides a 'legitimate' way for them to abuse it. Since this policy was adopted, there have been more technicians converted to AGR at the state level than in the field. I will offer my recommendations: (1) Require that all positions at Brigade and lower units be AGR. (2) Go to a federal (NGB) level AGR management/assignment program. (3) <u>Clearly</u> define what DA policies, regulations and directives apply to NG AGR's (eliminate double standards wherever possible). (4) Require MWR activities at the supporting installation to support AGR's in their area. (As an example, since we do not have athletic facilities here, have the MWR activity pay the membership fee for the AGR member at the local YMCA). FTS personnel should be required to periodically serve with the AC to provide a solid base of current Army training & branch doctrine. All newly commissioned officers should incur a 3-year active duty obligation. Active Army advisors (1 off & 1 NCO) should be assigned to all Battalion & higher headquarters to provide guidance & assistance. Finally, we must eliminate the 'partying and the politics' from the system. We must enforce the standards we and the Army have set for ourselves. As a truly concerned senior NCO, I hope these comments are of use in your survey."

"I feel that all AGR tours should be served on Title 10 tour instead of Title 32 tour. Under Title 32 our benefits are not as good as they could be under Title 10. For example, my duty station is 65 miles from the nearest military hospital. I am not allowed to use civilian hospitals except for emergencies. Sometimes I may need to see a doctor and am not sick enough to travel 65 miles to see a doctor. Army Reserve AGR tours are under Title 10 and have the same privileges as regular army

personnel assigned to outlying areas as I am and can seek treatment locally without having to travel 65 miles to get medical treatment. We are doing the same job as they are without the benefits they have."

"Career stagnation as a civil service employee led to my decision to become a member of the AGR Force. While there was a significant increase in dollar renumeration, the fact is that because of the nature of the organization; any loyalty to your organization is penalized by lack of promotion opportunities. I feel that most of us have resigned to this situation as a trade off for not having to move frequently; but high quality soldiers are not being recognized or utilized to their full potential. There are some problems in units with both GS and AGR employees. I work in an Armory that has a Battalion level headquarters and a line unit. There appears to be no clear delineation of supervision either in the units themselves or at the Battalion Staff. Add to this the grade inversions and pay differentials, and the situation worsens. I fell that situations of this nature need to be addressed at Bureau level; policy formulated, and command emphasis placed on the issue."

"The difference in standards for AGR & Technician and the over abundance of Technicians and their influence on the AGR Program and the job welfare of AGR personnel. It seems that Technicians are only interested in their job security and see the AGR program as a threat to their job security. I feel that the AGR program is looked on as a stepchild by Technicians. I feel that the AGR program should be administered by AGR personnel and not Technicians."

"I have been a guard technician for 15 years. I converted to AGR because of the money. A GS-7 does not make enough money to live on. 10 or 15 years ago a GS-7 was as good a job as anyone could ask for but not today. I have 191 in my unit and authorized 161. I have 19 years service (6 AGR) and now I being reduced to SGT (from SFC). If I get reduced will the work load be reduced. I think may older guard technician will be leaving the system because most like me converted because on the money."

"AGRs are not permitted to apply for fulltime positions vacated by someone who takes a job which allows reemployment rights to old job. Example: AGR works in military personnel specialty as records clerk, military personnel superintendent (Civil Service Technician) takes AGR job across base. Thereby giving him reemployment rights. His mil. pers. Supt. position is announced as airtech only. This does not permit upward mobility to AGR without giving up AGR status."

"My only dissatisfaction with the AGR program is the restriction of rank in association to your GS rating. An AGR is limited to the equal rank of the GS rating of the civilian/ technician position, regardless of his/hers military slot rating or time in service."

Spouses of Enlisted Members

"Do not appreciate husband working at night & weekends (extra time) without extra pay or time off to compensate."

"Better control of payroll. Example: A. My husband was promoted first of Dec. & hasn't received his pay increase as of yet. B. Not receiving pay check every week. Sometimes its 4-6 weeks."

"I'm very dissatisfied when my husband must attend to two consecutive weekend drills (in addition to his normal full-time job with the guard) because then he works for a total of about 19 days without any days off in-between."

"I really dislike my husband's working so much overtime and being gone so much of the time but having a good job makes it worth it."

"I am very satisfied with my husband's service as an AGR member. The time required by these Guard activities is not excessive and therefore does not infringe on family/personal time. This is very important to both of us."

"Why is it that part-time guardsmen get paid for summer camp and my husband (full-time worker) has to pay to go to summer camp? He has to pay for all his meals, his lodging and usually has to provide his own transportation. This year he has been asked to attend two summer camps. I foresee many extra expenses and a big pinch in our budget because of this."

"I am very dissatisfied with the dependents health insurance plan, and also my spouse's health insurance plan. I am very dissatisfied with 'CHAMPUS', and the way they do things. For example, last year I had the unfortunate opportunity to go into the hospital for some tests. I had so much trouble getting CHAMPUS, just to pay the hospital and the doctor. I was covered for this and entitled to it. Everywhere I went in the system they told me to go to somebody else. Finally, after six months, I had to go to our Congressman to get it all straightened out."

"I am not satisfied with the medical care that the government provides for the dependents. I think the system should change. Paying 20% is fine. But by the time CHAMPUS sends back your money we all could be poor."

"On October 1985 my husband's unit was reorganized and became a split unit with another unit in a town 75 miles away, and since that time my husband has to travel to the other part of the unit at least twice a month, remain overnight, and work there. This has caused him to be gone even more than in the past and has caused more inconvenience. Since my husband is AGR he does not get paid for drills like the other full time people who are civil service and he is required to spend about 2 weekends every month and numerous evenings during the week at the armory and away from home. We cannot use some of the facilities available to other full time army personnel such as commissary, PX and medical facilities as our closest base is approximately 250 miles away."

"My husband is a full time National Guardsman. He was supply technician for the unit. It involves every Tuesday night 'for the Flag'."

"My biggest complaint is my husband's medical care. They have to get everything O.K'd before going to the doctor. As far as CHAMPUS is concerned I really feel that we aren't getting a fair shake. I feel that having to pay 20% of everything and all of routine tests such as pap tests is too much. If we were on or near a base we'd get that all free."

"My husband spends all day working in the guard from 8 to 5. On Tuesdays he works from 8 to 8. Plus drills and AT. This is an awful lot of time. I don't understand why he does not get paid like the other men for his extra time, week-end drills and A.T."

"My comment deals with the issue that my husband is literally 'on call' to the Guard at all times yet his salary doesn't reflect that. Excluding summer camp, my husband works much more than an average of 55 hours per week which at his current salary does not represent a very equitable hourly pay rate. If I included summer camp, that rate would really drop. How about a bonus for the full-time people who work week-ends, nights, holidays (because the Army is open) and 24 hrs a day at summer camp!"

"The work load my husband was under was crushing. He was a Supply Sgt so we expected some long hours but what he got was outrageous. He worked months at a time without a day off, worked overtime every day, and sometimes worked all night to meet a deadline. If I wanted to spend time with my husband I had to go to his office. When I did I always ended up helping him. The training NCO had the same problem. Finally his P.B.O. and Admin Officer were troublesome. They were civil service so they were paid comp time and over time so they didn't mind long hours so much. I think if all of them were required to follow the same rules things would have been better."

"I must express my dissatisfaction with our medical benefits with CHAMPUS. Although the method of payment (80% coverage) is satisfactory the hassles we've had are not! Claims made over 6 months ago not paid and trying to get through to them takes up to a week of calling every day. You would think a more satisfactory system would be set up. You also have to be an eagle eye so they pay what they are supposed to."

"My husband works approximately 12 hours a day preparing training for the part timers that attend two days of drill a month. We both accept this as part of the job, but I feel that if he is that dedicated to doing a good job eh should be promoted and recognized for doing a good job. As it is there is not promotion because of the low rank structure of his unit. I think the FTM/AGR should be separated from the host units MTOE and be promoted on achievement rather than slot."

"My husband is a training NCO (fulltime AGR) for the local ANG unit. While I and most of our friends work 40-hours a week, my husband often puts in 70- and 80-hour weeks. Lately he has been assigned to schools, meetings, etc. almost constantly. (We have one weekend together in April and are thankful for it, but wouldn't be surprised to see it disappear!) While I think he is well paid, when you figure out his wages by-the-hour, the pay looks much poorer!! I hope you will try to make more reasonable demands on people."

"The full time guard is overworked and underpaid."

"I feel that the ARNG as well as the RA leaves a lot to be desired when it comes to medical benefits paid by CHAMPUS. CHAMPUS has done nothing but cause us financial hardships and embarrassment."

Army Reserve

Officers

"The problem .. having civilian personnel (SSAA, SAA) in charge of military personnel needs to be addressed by FORSCOM. This is a frequent problem with AGR assignments."

"At local duty stations where there is a mix of military and civilian personnel, the civilians are pushing their work loads over on the AGR personnel using the excuse that the AGR personnel are receiving better benefits and pay."

"The AGR officers (and enlisted) are often expected to do work that is not in their job description, not pertinent to mobilization, and not appropriate due to rank and/or position. The DAC/dual-status personnel try to use the AGR as release valves for their many duties, give AGR personnel work not

completed by reservists during IDT and do not have the need to change the system as 'that's the way its been done.' The system is in need of drastic revision.

"ROPMA - Where is it? Having a MRD for Reserve officers based on age is blatantly discriminatory. Also, a USAR AGR officer, although on active duty, must wait 7 years for promotion to MAJ or LTC even though he or she may already be in the higher grade slot (and often already selected for promotion), while a USAR TPU officer may be promoted via unit vacancy in 4 years, and an ARNG AGR may be promoted if in a higher ranking slot. Based on my experience, and most of my associates, AGR careers are not managed - it is all based on reaction to crisis."

"Please develop an improved career management program for AGR officers. Let's make AGR assignments equitable for all AGR officers - it is perceived that the 'good old boy association' still takes care of its own."

"AGR tours being extended only one year at a time presently. At my age does not have much job security as it may be difficult for me to find civilian job if out of AGR before age 60. I'm now age 57."

"The problem of frequent PCS moves for AGR officers needs to be addressed. Conditions should exist to allow promotions in the AGR system without the necessity of a PCS move. The PCS move should be an option of the AGR officer (and his C.O.). Following the initial tour - at least the initial tour should be followed by the option of one additional tour of equal length without the necessity of PCS move."

"As a Warrant Officer in the AGR program and knowing of shortages in my field 621A, I feel it would benefit the service to be able to stay in one assignment for a longer period of time, rather than having to request extensions of one year. If I leave present assignment for elsewhere, the probability is higher, there would be no replacement."

"I am very dissatisfied with the way officers must go in front of the continuation board every five years after (1) being boarded to enter the AGR program (2) being boarded the 3rd year of being in the program. Are we conducting a witch hunt every 5 years?"

"Have been relatively happy with my AGR program. Am somewhat concerned that we have to stop at 20 years. We are just beginning to reach the best management levels of experience."

"Uncertainty of the AGR program and continuation in the program are my chief concern. I find my job as training officer for a major command to be both challenging and satisfying. I

feel that AGR personnel enable our reserve components to be mostly ready to perform the functions expected in wartime. Also the ability to serve beyond 20 active years is desirable to many of the career minded AGR officers. Current promotion criteria limits advancement in the AGR program. We serve along side RC officers that are eligible for vacancy promotions and we are even restricted from being considered below the zone. It would seem appropriate to receive parity under either system (RC or AC) but we appear to be penalized by being in between either status."

"The re-assignment process leaves a lot to be desired. Career managers don't know what positions are coming open and each move appears to be a crisis. Short notification times make it difficult to sell homes, etc. and make a smooth move. I still don't understand why officers must go before a continuation board every five years. There are regulatory provisions for removing substandard performers and these should be used. Officers should be promoted on their eligibility date and moved into an appropriate position as soon as possible. Promotions are earned and should not be held up because of positions. If a soldier refuses to move to the position he/she should be immediately removed from tour."

"The present promotion regulations concerning USAR officers needs to be updated concerning AGR officers. We are categorized as USAR Officers, but serve on Active Duty. This delays our promotion opportunities, we must wait until we reach our 'mandatory' date for promotion to the next higher grade. Our Active Army counterpart is governed under different criteria and gets his/her promotion in a more timely manner if qualified. AGR personnel stationed outside of commuting distance from Defense installations do not have the chance to use many of the programs and services provided for Active Duty personnel. There does not seem to be any great concern about compensating for missing out on these programs or notify the individual of optional services available. The whole process of assignments needs to be looked at closely. The present system seems to be geared solely for individuals who have problems with their present assignments. There does not seem to be an orderly transition from one assignment to the next. This in addition to attending resident Active military schools causes great concern with us personnel out in the field. We want to make orderly transitions from one assignment to the next, go to the Active schools to keep us up to date on our specialties, but the system seems to fail us."

"I am an AGR officer. I find that it is almost impossible to attend professional courses. It would enhance my career and personal/professional development if I could attend courses in health care administration and courses that would help me remain current in my primary MOS."

"After 3 years of separation from the Active Army and serving in the Reserves, I entered the AGR program. As a Major, I strongly believe the promotion to Lieutenant Colonel should be less than the present 7 years in grade. I understand consideration is underway to change promotion eligibility requirements for promotion from Major the Lieutenant Colonel from 7 years to 5 years. I strongly believe this is a positive step and an incentive. Active duty is active duty - AGR or Regular Army. In addition, I believe AGR high quality performers should have the opportunity to remain on active duty beyond 20 years."

"There is no organized program for AGR's assigned to the Pentagon. We dont know who we are. Status of career potential is clouded and opportunities are not clear. Unlike the ARNG AGR program the USAR AGR's have no idea what positions, at what locations, exist for AGR's. Placement seems to reflect only where you are most easily put with little choice. Simply limiting knowledge of where positions exist stifles opportunity. Up or out policies, tenure and MRD's substantially diminish career and retirement opportunities."

"Uncertainty in AGR Program is a problem. Specifically, officer promotion opportunities and stability of career. Time in grade for promotion is mandatory years service, active component not so double standard. No incentive to do good job."

"The AGR assignments are poorly managed. Assignment personnel are unwilling to spend time discussing career progression (it takes 10 phone calls to resolve one question.) Officer promotions cannot be obtained without PCS to next higher position; and in the AGR program PCS is not permitted solely for promotion purposes."

"If the US Army is going to get and keep good UA's in the program, the grade levels should be reviewed so that good people are recruited and paid well for the duties and responsibilities of the job. Good unit administrators are hard to find and keep due to the low pay grades."

"As a previously 'riffed' officer, am dissatisfied with the requirement to pay back the readjustment pay I received upon separation. Somehow that leaves a sour taste."

"No military facility within 50 miles, therefor none of the benefits associated with being 'on post'. This is a very normal condition for AGR soldiers. AGR's should be compensated in some way for not having a commissary etc. available to them."

"CHAMPUS is not a soldier's friend; people running the program are not providing the assistance required for soldier's using the program. An HMO, even at a fee of $20 will be better than CHAMPUS."

"Of seven majors in the AGR program that I have sampled, we all have the same problem. Those of us with at least 5 years in TPU's will have a hard time obtaining 20 years (active) for retirement due to mandatory removal dates. The only chance this leaves us is to be promoted to 06/Colonel. As a result, several are contemplating leaving the program soon so as to allow them time to obtain a vesture in another career. Some sort of stability/waiver should be addressed."

"A double standard exists in that the active component soldier enjoys a 'lock in' provision for retirement after 18 years. Such is not the case for soldiers in the AGR program. The AGR soldier is subject to the same liabilities/occupational hazards (combat) as the AC soldier, yet after 18 years of sacrifices, family separations, relocations, etc he/she is not assured of reaching retirement. This is just one of many policies that adds credence to the perception of 'second class citizen'."

"Would like to see laws/regulations change to allow continuation on active duty past 20 years Active Federal Service even at lower pay."

"Many personnel in AGR positions are at sites distant from active military bases which make it very difficult to utilize those facilities and services normally available on post for service members. I am 70 miles (1 1/2 hrs) from the nearest military installation. The savings at the commissary & PX are not worth the trip and the lost time. I utilize the medical facilities for myself because I am required to do so. A trip for sick call causes a minimum of 4 hours lost time, 3 due to transportation time. The whole day is lost if tests are required due to waiting periods in the various labs and clinics. It would be much more efficient and less time consuming to see a local civilian doctor on an appointment. Appointments at military installations take weeks or even months to be set up. An appointment to see a dermatologist for an initial visit took 3 months! A follow-up visit was set for 6 weeks later, by then that doctor was no longer available and the tests etc. had to be re-initiated by another doctor at another military hospital."

"Medical/dental service are very poor in many AGR assignments unless you use civilian facilities. The cost to use these facilities greatly reduce my disposable income as compared to contemporaries assigned to military facilities. I'd like to see some program(s) to help reduce these costs."

"Time in grade requirements for AGR personnel should be reduced to reflect full-time nature of duties. TIG should approximate active component requirements."

"Reserve policy regarding AGR promotions discriminates against full time soldiers as they cannot be promoted based on merit. Reservists can be promoted under unit vacancy system. Soldiers choosing the military their primary career are promoted slower than part-time soldiers."

Spouses of Officers

"Moving costs are an extreme burden. We go into debt to resettle. Not enough money is received up front. The new PRIMUS center for military dependents in this area is WONDERFUL!"

"Since the beginning of this AGR 3-year tour, my husband has worked 14-hour days - 7 days a week with less than 5 weekends off in over 9 months. that time requirement seems to be the 'norm' for all AGR people. The job demands are consuming to the officer creating stress on him and his family. Our acquaintances in the regular Army work fewer hours and fewer week-ends."

"My husband is a full time reservist on active duty. I feel that the full time personnel are exploited. If anything goes wrong they get all the blame. If things go well, the reservists get the credit, even if the AGR personnel did all or most of the work."

"My husband is in the AGR program which involves his working weekends, a training time and TDY. In the 4 1/2 years that he has been involved with the reserve components he has never received comp time off for any of the extra time worked."

"The health care available to FTM/AGR reservists and families is deplorable."

"I am very dissatisfied with the differences in the USAR AGR and the National Guard AGR. A National Guard officer in the AGR program can be promoted in a unit vacancy promotion if he/she is in a higher grade slot. A USAR AGR officer can only be promoted at the mandatory date even if he/she is in a higher grade slot. Since both are Reserve Forces personnel policies should be the same for both."

"I do not think it is fair that a AGR O3 has to serve a full 7 yrs before promotion. This time should be cut in half."

"My husband is on active duty (AGR). We use military medical facilities and a civilian pediatrician. CHAMPUS isn't worth much."

"Medical - we have a diabetic daughter. Very, very unhappy with the care she has received - now use a civilian doctor."

"The last TDY of 6 months was terrible for our children."

"I feel my AGR husband should be treated equally to his counterpart officers on active duty as far as retirement and mandatory removal time."

"Recommend strongly the passage of the ROPMA bill."

Enlisted Members

"In June of 1985, I completed an AGR tour spanning 6 years. During that time I sought to do the best job I was capable of. Instead of being rewarded or encouraged, I found that I was often spending as many as 60-70 hours per week on the job, just to accomplish the administrative requirements necessary to maintain the day-to-day operations of a Reserve Unit (with additional AGR personnel there under the FTUS program). Even now I find myself wondering how any technician, administrative or otherwise, can continue under that program."

"I have contributed on many occasions extra weekends to attend staff visits, preparation for CRI, project pride, etc. (not to mention the difficulty in securing care for my child) was unable to utilize the comp time by direction of the civilian in charge, the SSAA. 'There is no such thing as comp time for military personnel'."

"The good ole boy hiring practices in the AGR program have ruined any valid ideas about this program. A survey should be taken to determine how much time and thought went into these hiring practices. At my last assignment I would say that 15 out of 24 personnel were not qualified, of these 20 were hired from the unit."

"Concerned personnel should take a long look at stabilization periods and upward mobility possibilities of AGR personnel. It would appear that some members, such as myself are being stationed at one assignment for what seems to be an entire career In doing so, it is my opinion that AGR soldiers become stagnated, not current in some critical areas, reach a 'dead-end' on promotion attitude which leads to a hum-drum working condition with very little or none at all respect for the mobilization posture of the unit they service."

"I've PCS'd 6 times in almost 9 years (7 of those years was w/recruiting)."

"AGR should be allowed to attend regular military school - not nonproducing 2-weeks course."

"Even though I have been successful as a Reserve recruiter, it has been a long hard road. Recruiters generally live with no quality of life whatsoever and USAR members have to live with a double standard, that is to say that in the eyes of the RA, we are second-class citizens. Recruiters work extremely long hours and are under constant pressure to produce numbers of people. The Recruiter School does not prepare a USAR recruiter for his duties, only the RA side is taught. RA recruiters can enlist USAR members, however USAR recruiters cannot get enlistment for RA enlistees."

"Although not totally dissatisfied with my current assignment, I feel that detailed AGR recruiters should be returned to their original CMF as the RA is done."

"I think it would be to the benefit of the USAR if someone would take a long hard look at the requirements, regulations and volume of mission assigned to USAR recruiters vs active Army and Army National Guard, recruiting.

"We in recruiting service with Active Army people but can not be station commander, 1st Sgt or any other position because we are reservist even if we are better qualified than active Army people serving in the same position we are also given missions of 4 to 6 a month while the active recruiters get 2 to 3. We get no credit for enlisting people in the Active Army but active recruiters get credit for USAR enlistments. I feel that USAR people are discriminated against when serving with the active Army."

"I am a member of the USAR Recruiting force attached to USAREC. My gripe is that we (USAR RECRUITERS) are given Missions or Objectives that are of the same Quality (i.e. high school grades W/the mental or ASVAB results the upper three mental categories- 3A, 2 or Cat #1-) BUT as much as two times as many as the Regular Army Recruiter. Example; an R.A. Recruiter will have a mission of two (2) in the 3A class while I would have Four (4) in my mission Box. I have to work twice as hard to make my mission and going into the Army Reserve in many cases is less attractive for a person who can receive over $15,000 for higher education and only have to wear a uniform 2 (TWO) years. A Reservist must wear that uniform for 6 (Six) years."

"I'm currently an In-Service Recruiter. There are 4 different organizations that have some type of control over me. They are ARPERCEN, OCAR, USAREC and FORSCOM. HQ USAREC is currently

responsible for the assignment of Recruiters. Their current practice is to take care of the good Ole Boys that have contacts within the command, and use the other recruiters that have no contacts to accomplish this. I feel that ARPERCEN should manage the USAR AGR personnel. They are the ones that control our Records, Tours and Promotions. They should also be the ones that control our Assignments."

"My major problem with the AGR/TAR program is the forced compatibility structure between the technician force and AGR's. This ties AGR rank to an unrelated pay scale structure thus causing dead ending with no promotion possibilities or possible demotion due to circumstances completely beyond the AGR's control."

"I feel that more realistic cost of living surveys' should be conducted at remote sites, and those soldiers (AC/AGR) paid much more 'incentive pay' to deal with the non-availability of post privileges such as commissary, 20% of CHAMPUS care, housing, gasoline, most remote areas I'm aware of indicate a much higher cost of living rate than soldiers be stationed on or near a post (i.e., housing in some areas more than double cost, rent or owning). In summation, I feel that some commands are expecting AGR member production to parallel that of active Army personnel, however are being forgotten when it comes to active Army privileges."

"BAQ & VHA combined do not adequately cover living expenses."

"We get little or no benefit from post exchanges, commissaries and military medical or dental facilities and have to drive long distances to purchase common military clothing items."

"The pay is good, but the military bases are too far away to reap all benefits."

"The availability of medical and dental care is a joke; if one plans to make early sick call (0800) traveling West it takes 45 min-1 hr going North minimum travel time is 1 hr. 30 min depending on traffic."

"Medical bills or reimbursement take to long in getting paid for AGR personnel. Medical facilities are constantly sending notices to the AGR personnel for unpaid bills for which we have submitted paper work for payment, some times as much as (60) days prior to receiving unpaid bill. We then in turn receive poor service from these civilian medical facilities."

"Recommend that on post housing on military bases be more readily available for soldiers on AGR tour. The installation I'm currently on is run by the Navy for housing and in my opinion most AGR's especially myself were and are treated badly."

"Very dissatisfied with personnel management of AGR on reenlistment & pay."

"Tour Lengths. It does not make good sense to me that an individual should be reassigned every three years just because a three year time period has elapsed. If the individual is doing a good job, continues to come up with fresh ideas, and doesn't need to move for promotional or career advancement, then he should be left in place. Each time an individual moves, he requires phase out time and a learning period on the new job before he can be fully productive. It is also costly, both to the individual and the government."

"Dissatisfied with USAREC 4/6 year rule on PCS. Four yrs ago when I was ready and willing to move, I was not allowed to do so. I did make 5 PCS move between 1979 and 1982 to better serve the needs of the Army but not me. Now that I am stabilized (home bought children set in school) I have to move."

"Chances for promotion have greatly diminished also because of hiring practices, how can there be room at the top when hiring practices allow E-8's and E-9's to be brought aboard. Those personnel in charge need to protect those personnel already in the program, if there is no room at the top for me, then why should I stay."

"Promotions in the AGR/FTS above the E7 level are too few."

"I am dissatisfied with the number of AGR positions available when I make E-8. I have been not selected 3 times in secondary zone (75Z) and I am at least in the top 5% of the best three is. I can function highly successfully at any E-8 75Z position in the Army right now!"

"Dissatisfied with 15 yr rule before being considered for E-8."

"No quality of life in recruiting - 16 hour days, 6 days per week."

"I am stationed at the Reserve center where I first enlisted into the Army Reserve. I am FTS. I was told I would be able to stay at this Reserve center as long as I wished and would at least be able to go to E6 without moving. Now the tables have turned. If I make E6 I will be over 1 grade and have to move or get out of the program."

"The AGR program in my opinion is very good, but just about the time that a person settles down and masters his/her job the three year tour is up and there you go to somewhere else to learn another job. It would be better for the same individual to stay more than one or two tours in one place. I have seen new personnel come aboard that even though they are qualified still need to be trained to do the job - knowing that before that person, one very well qualified just left to another assignment. This in my opinion affects the unit."

Spouses of Enlisted Members

"My comment regards active duty Reserve policy of mandatory relocation every six years from one area to another. This has proven to be very disruptive to our family life; and has resulted in my husband and I living apart for the past five years."

"Permissive TDY expenses not covered. Finding housing & schools must be accomplished at great out-of-pocket expense & inconvenience. Moving expenses (ie: school fees, curtains, drapes, other furnishings) are costly & not reimbursable."

"I think that the Medical Benefits are lousy. My Spouse is on Active Duty with the Army Reserves, and our Medical Bills just keep piling up, due to the fact that CHAMPUS will not pay them. They have ruined our credit, threatened to put a lean on our home, and automobile, etc. I have unpaid bills for Doctors, Prescriptions, etc, that will be a year old in Jun, that no one wants to touch."

"Health care is poor at best. Too little facilities/personnel for too many people."

"Being a family of six, the military medical benefits we have had while my husband has been on the AGR tour have been superb, however in recent months I have found after waiting on the average of two and one half weeks for an appointment when seen at the Family Practice Center, members of our family have been 'rushed in and out' (in less than ten minutes for total examination, diagnosis and prescription) only to wait another three hours for a prescription to be filled. I have been shocked at the unprofessionalism, lack of caring and mis-diagnosis in just our family alone."

"My spouse is enlisted on an AGR tour. Although he is full time, his promotion opportunities are not even near equitable to those of the reservists in his unit."

"My only dissatisfaction with my spouse' military career (AGR) is he is limited to serving only 20 years while others are allowed to put in over the 20. With 20 years service, my spouse will be 55 and too young to retire. It will be had at that age to find other work."

"Another major problem I have seen, although because of my background do not have, is that the spouses of reserve members are totally uneducated when it comes to the military. I would like to see more information available to the spouses about such items as getting ID cards, how to obtain health care, CHAMPUS benefits, etc."

"After many lay-offs in the civilian field, my husband, who had been in Vietnam and served as a reservist joined the AGR program. We have been very disappointed. Medical benefits are terrible. We have to travel 1 hour, sit all day, and the doctors rarely cure whatever is wrong. I continue to use my civilian doctors, therefore we pay in full for everything."

"We have been trying for 3 1/2 years to get RCPAC and later ARPERCEN to update his address. Change of address cards don't help. Luckily the USPS still forwards the mail from the military. I have contacted the unit to no avail. Why is this such a problem for AGR personnel?"

"My husband is an Army Reserve Recruiter. He has been very successful in his job (Top USAR in Recruiting Battalion). But the excessive paperwork and road time require him to spend too much time on the job (minimum 60 hours a week).

"Being on a full time tour he shares some of the same problems as those in Regular Armed Forces (especially Recruiters) who do not have the benefits a Poster Base provide. Most acutely felt is in the area of medical/dental coverage."

"I feel there is a serious problem with morale of the men and their families. Often the command does not consider the health or welfare of the men. They are asked to work sometimes as many as three weeks straight (with long hours) without any time off."

"Being in the full-time Army Reserve we find that military benefits are few and far between. Since rejoining the Army last summer our family has not received any information in reference to CHAMPUS, or any other benefits available to us. Its as if we have no military benefits at all."

"Advancement opportunities for AGR enlisted personnel are poor to nonexistent. This ruins morale for the backbone of the Reserve units."

"He works Monday-Friday, every Tuesday night and at least one weekend a month."

"As a new member of the military community (my husband and I had been married less than 30 days when this survey was completed) I have found it difficult to get information on benefits and/or responsibilities."

Naval Reserve

Officers

"Personnel assignments severely degrade readiness, ie - 'as soon as' a man gets up to speed (usually requiring 1-2 years) he is moved out of the unit. CO's should have major voice in pers assignments before those assignments are made."

"The Naval Reserve program is separating a wealth of experienced personnel (TAR/Canvasser Recruiters) at a time when the program is growing in Reserve personnel, missions and complexity. E7/8/9 canvasser recruiters are involuntarily retired at the 20 year mark and senior TAR officers are involuntarily retired (due to no fault of their own) prematurely of their USN counterparts - all at the height of their productivity/contribution/corporate memory. Experience and manpower shortfalls at all levels will effect the future of the Naval Reserve adversely because of policy vice statutory regulations."

"I'm currently a TAR in a Naval Air Reserve squadron. I am highly dissatisfied with the overall workload when compared to the number of active duty (TAR) personnel. We are constantly chasing more and more ambitious workloads to the point where, even though we have good morale, there is a pervasive feeling of 'never seeing a light at the end of the tunnel.' We must continually do more with less."

"There are no medical facilities, exchanges, commissaries, day care facilities, etc. - there are no benefits at isolated reserve centers."

Spouses of Officers

"I feel that my husband's promotion opportunities have decreased since becoming a TAR."

"CHAMPUS doesn't cover a lot of medical care - for example - lab test when my son was tested for hepatitis. They don't cover what the aver doctor now charges."

"I am very unhappy about medical care for dependents. We were fortunate to live until recently in an area where HMO options were available to military. We were extremely happy with these services even at the greatly increased cost the last year."

Enlisted Members

"When I decided to come in the TAR program, it was to cut out most of the deployment time to be with my family. I threw away 3 years of shore duty and an SRB of $15,000, and all my family and friends on the West Coast, to do the exact same thing as if I was in the USN."

"I've/we have moved 5 times in the past 9 years and not enough time to put down any roots any where."

"I have been a TAR since I began my military career in 1974 and have seen a lot of improvements. Let's keep in that direction."

"...as my family grew we wanted to establish roots. So we bought a house at my last duty station (Bay Area of California). When I received my last orders to PCS we decided we could not afford to sell our property and to buy back in two or three years when I would retire, therefore I cemented my plans to retire with as short a tour as possible and become a geographical bachelor."

"I feel that all Navy medical/dental facilities should be closed and we should use local HMOs. The facilities on this base are not even minimal and provide a pathetic excuse for medical/ dental care. My dependents can not even get an appointment."

"As for dependent care, unless you live near a military installation it is usually non-existent. The biggest asset to the military person is his family. Let's give them a break especially for those military families not near a military base. Yet let's not forget CHAMPUS - this program is a big joke. In a community of 20,000 I could only find 1 doctor who was willing to take CHAMPUS. And his reputation was something to be desired. Both these areas need much attention and I feel they need improvement."

"CHAMPUS is a farce and there is no preventative medicine for dependents."

"Since the attrition of Health Care experienced in the area of allergy we have resorted to different means to take care of this. My wife sought employment that offered a health with full coverage for medical and dental. This has sufficed until last month when she was laid off. She is currently seeking other

employment in this same scheme. We are willing to pay something monthly for a group health plan that meets our needs."

"The medical care for military personnel & dependents is getting worse every day that passes. The insurance offered by civilian companies pay more and you get better care."

"Living here in the Boston area I have discovered that cost of living far exceeds the amount of money that would make life anywhere near comfortable, and having shipped 5000 lbs of furniture here living in the barracks as a single person is impossible. Those of us who are single suffer trying to live in this kind of situation. It would be nice if the single people of the military were considered as wanting to have this job so that they can live a reasonably comfortable lifestyle. I personally feel that it is time those of us who are single be thought of as having goals with our money and note to suffer because we *cannot* find room in the barracks for the belongings that we have acquired during our years in military service."

"Reserve Enlistment Bonus: As a TAR, this program is the worst excuse for wasting money. Why pay reenlistment bonuses to SELRES when over half of them are not able to function in their rating. As a TAR, its like telling us we don't need you we only need the SELRES. If you are in the backwoods like us TARs, you pay $100.00 a year for CHAMPUS, plus you have to pay the doctors up front because most refuse to accept CHAMPUS as payment."

"I feel that the TAR's should receive an "SRB" as an incentive to stay in the program. I'm underway just as much as if I were in the USN, but they are receiving SRB's."

"TAR personnel are not getting anything for staying on weekends for SELRES two weeks underway/month and for doing both things that active (sometimes worst) and reserves are doing and being experienced."

Spouses of Enlisted Members

"At the Reserve center, the building is not large enough and two weekends a month are required by the full time days off. To compensate the four days they work, they receive two days off. (The Monday after the weekend). (That is if they don't have 'THE DUTY'). If they have 'the duty' they must work, losing a day off. This is not to mention the extra time spent at meetings on Sundays and Thursdays to discuss how the weekend went or is going to go. Where is the incentive??"

Marine Corps

Officers

"Health care for active duty service personnel is inadequate and below par. Excessive cost in travel, per diem and lost work days required by sending service personnel to regional medical hospitals vice using local civilian facilities is a serious waste of time and money. The Service should provide a more comprehensive medical/dental plan for dependents for a reasonable cost to the member."

"The FTS program of the USMCR needs to be developed into a program with career potential and managed accordingly."

"The FTS Program is not considered a career program. Why not? Why can't FTS be comparable to the Navy TAR Program?"

"The administrators of the FTS program for USMCR have gone out of their way to establish a non-retirement program. A general presception exists that only about 10% of the officers will ever be able to retire with 20 active duty years. A new policy is about to go into effect which will ensure very few officers will be able to remain on active duty for more than two to three continuous years. Effectively, these officers won't even be eligible for separation pay. In essence, a temporary hire with no future. Good people will size up the situation and will not have any part of it."

"The USMC FTS Program must be a career program or it will continue to operate at less than it's full potential."

"As a member in the FTS program, I feel as though I am in a limbo status. I came to this unit directly from my initial tour of duty w/no broken time at all. I can't attend AWS for regulars since I am not considered w/them and I can't attend AWS for reservists since I am not considered w/them, yet for promotions how am I to be competitive with my peers when they are eligible to attend these schools?"

"The FTS program should be career track. FTS officers and enlisted should allowed to serve with regular units between FTS assignments."

"Once a Marine successfully completes his first FTS tour, he ought to be subject to an overseas assignment (WESPAC tour). Such an assignment could only benefit the Reserve Marine by exposing him to the Regular establishment of which he may not have had any experience with in some time."

"I am on the FTS program. Currently that program has little or no career potential for most people. I think that is counter productive and it is overly optimistic to expect field grade officers to serve 3 of the most productive years out of their lives with no probability of continue service. The FTS program is new for the Marine Corps so growing pains are to be expected, but currently most FTS officers, other than aviators, do not serve in their MOS and have no means of periodic tours to maintain proficiency."

"I think HQMC could do a better job of administering the Reserve Full-Time Support (FTS) Program, to wit: selectees from a given FTS board may have to wait six months or longer before receiving their orders. I understand that not all selectees can report to their duty stations immediately (for various reasons), but I think it's counterproductive and detrimental to the FTS program to make selectees wait an inordinate length of time before reporting for duty. Many selectees are unemployed and are faced with deciding whether to wait for FTS orders or try to find a job immediately. It just seems to me that it creates a potential hardship for many FTS selectees."

"The economic impact of PCS moves on active duty (AGR/FTS/TAR) personnel is significant. Too many transfers result in geographic bachelor situations due to economic conditions and not by choice. It's unfortunate that the civilian sector of the Govt. gets a fairer "shake" in relocation costs than the military."

"FTS personnel should be rotated periodically to Fleet Marine Force for update of skills and knowledge. FTS personnel should be selectively offered an opportunity to attend resident professional development schools to enhance their skills and knowledge for high level staff jobs. Career status should be extended to FTS officers and SNCO's who have completed a specified number of years of satisfactory service."

Spouses of officers

"My husband has had to work 3 of the last 5 4th of July's and Saturdays and Sundays. He has over 67 days of leave on the books but is told 'don't request more than a week's leave at a time. Nothing can be planned because of his schedule. It seems like there is no more life after his work because he spends the good hours 10-12 hours on weekdays; 5-6 hours on weekends at work.

"In the best interest of family and continuity of my husband's job, I would like to see the length of tours extended from 3 to 5 years. Not necessarily in the same job but in the same area."

Enlisted Members

"There appears to be a shortage of definitive guidance concerning the USMCR-FTS program. There is little policy pertaining to AGRs in Marine Corps directives. Next time a program of this magnitude is started there should be a firm delineation of status and benefits"

"Do you have career status in the FTS program? Good question...but who knows?"

"Reenlistment bonus's are totally out of FTS personnel reach. Although FTS people don't get PCS orders as do regular service persons, we still fill a niche in the workplace & work and perform just as hard as the regular counterparts: this I feel is a little unfair. Even if FTS people could receive a portion of a reenlistment bonus as an incentive, it beats getting nothing."

"I...feel that there should be some type of SRB Program for people on FTS. The regular marines can receive one and the SMCR marine can receive one but not the FTS marine."

"FTS should be eligible for bonuses, [and]...be more career oriented."

"FTS personnel should be handled separate from SMCR personnel in terms of promotions and reenlistment bonuses."

Air National Guard

Officers

"The AGR Program should be expanded. As the civilian personnel officer (AGR) it is clear to me our AGR Force is extremely stable, whereas, we experience an inordinate turnover of civilian personnel."

"My wife has completed her doctorate during my time in service but has found it impossible to land a full time faculty job in her area of expertise at a local university. We have been told the reason is my potential (and real) instability as a military man. I think job placement service for sponsors desiring full time employment should be support by the Federal Government."

"Because I am living in low rent housing I have lost what VHA I was receiving monthly. If I would go out and find housing which is more expensive and better quality I understand that I could qualify for the allowance. This seems to favor those who can afford higher quality property."

"Areas that need immediate attention and improvement: Retirement benefits, pay and allowances, family medical (CHAMPUS) and dental benefits, use of the commissary. I genuinely resent my active-duty counterpart (same time in grade, 19 years) being a Lt Col or even a full Colonel, and here I am a Major looking for a Lt Col billet - and will probably be ROPA'ed to Lt Col at 20 years service. Yet, I am and have been a good officer, have done a good job, and have not stepped on anyone's toes. My OER's are good. I could understand, perhaps, if all I had to do was fly my F-4, but in today's Air National Guard this, as in the Air Force, is not the case either. Unfortunately, there is a lot of paperwork and additional duties that seem to crush every flying hour - the very reason I left the Regular Air Force over nine years ago. Yes, the Air National Guard appears to be becoming more and more like the Air Force - and this is the reason I am somewhat dissatisfied."

"Dependent health care at military hospital is totally unsatisfactory. Courtesy of a 'sense of care' is non-existent. My wife and I both feel very hesitant about relying on their services. We had our first child in a civilian hospital because of this feeling."

Enlisted Members

"Re-enlistment bonus should be equal across the board. AGR personnel should not be restricted to extension of current enlistments."

"Once I started working as an AGR I decided to make a career and one day get retired from the Active Duty service as an AGR. Today, after four years of service I really don't know if I can do it. For example, there is a case in our unit where an AGR after 8 years or more of service, outstanding recruiter, individual who thought he can make a career of this program (AGR) his orders were not extended without any explanation."

"As far as job security I don't feel secure at all. An AGR member can be terminated at any time and an AGR member can be settled with his family, have a secure home a good school for his/her children then get orders to move two hundred miles away and start all over again. In my opinion the AGR member is in the same status as an active army member but the AGR member has nothing that the active army member has such as promotions, health care facilities, commissary privileges, etc. I believe the AGR program is far from being suitable or secure enough to satisfy AGR members so that they feel secure about their jobs and future."

"The only change I know of that would ruin the AGR program would be to PCS people on AGR without their approval. I would leave the program before going PCS as would most of the other AGR members I work with."

"My major problem with the AGR/TAR program is the forced compatibility structure between the technician force and AGR's/ This ties AGR rank to an unrelated pay scale structure thus causing dead ending with no promotion possibilities or possible demotion due to circum

"I went under the AGR program some five years ago. I was briefed and made very important decisions based on their information and now have been told five yrs. later that this or this does not apply. One of these changes according to my figures has added over 2 1/2 yrs to the total time I need to acquire in order to qualify for 20 years of active duty. While displeased with this info I'm to the point were I have to stay in order to qualify for some type of retirement."

"With the AGR program, I do not agree with the policy of mandatory retirement upon completing 20 years. I do not agree with retiring at rank held at retirement, instead of highest rank held as in Active Duty Status and reserve status."

"The policy of not allowing enlisted AGR personnel to retire with highest rank held is unfair in my estimation."

"Family's ability to handle cost of living: Upon reporting to my new duty station in AUG 85, I was over paid not once but three times. For the next four months I received little or no pay at all. No pay coupled with the total cost of the move (Furnished to unfurnished House) has put an extreme financial strain on my family. I did not receive a LES for 4 months and found out that I was credited for receiving $220.00 a month Recruiters Pro Pay. I contacted the NCO in charge of AGR personnel for the state and was assured that would be taken care of. Four months later I'm told it's recruiting's responsibility to drop the Pro Pay."

"On 31 Dec 1985 I began a 3 year AGR tour taking a reduction from E-6 to E-5. My pay was delayed for approx. 2 months. In between the time of my last civilian job and first military check I received a casual pay and an advance pay both as E-6. The advance pay has started being taken out of my regular pay. A request has been forwarded thru channels to get my base pay to what it should be. My comment is this that more care should be taken at the pay centers cause it only causes hardships on families in the long run."

"I am a Security Policeman in the AGR Program. It seems unfair to me that, we, who work, holidays, weekends, nights, and evenings, should in addition work additional days to make up (UTA's)."

"My BAQ + VHA exceeds my housing costs by a figure of $7.95 per month. However in order to acquire housing at that figure I am forced to live 60 miles one way from the base at which I am stationed. If I were to attempt to live in the area of the base my housing costs would equal approximately double the amount I am receiving for BAQ + VHA. Couple this with the fact that there is no base housing available at the base I am stationed at."

There are no Dental or Medical facilities on this base either on normal days or on UTA weekends. I am forced to get care a distance of 67 miles one way.

"Because we are located over 50 miles from our servicing military installation, Medical, Dental, BX, Commissary, etc. are not a benefit for us."

"Geographically separated AGR's should be able to have contract doctor's and dentist rather than traveling more than 30 miles to the nearest military medical facilities at no expense to the AGR."

"I am satisfied with my job, and the people I work with. But the only complaint I have as being an AGR is the medical. I would like to be able to buy a health plan like a technician in the guard. I have tried but I have been told the I have to use the base hospital. If I could afford it, I would pay for a health plan for my family and be able to go to a civilian hospital or Dr."

"We are having problems with dependent care at the Army Medical Center. a. We are required to go to civilian support for my wife's annual mammogram, cost, $400.00. Don't advertise quality, cost free medical programs! b. The pharmacy support is adequate; however, there has been exceptionally long lines of waiting periods for service, i.e., 3-4 hours in line or waiting area. Inexcusable, inappropriate and certainly does not proved 'Quality of Life' as advertised. The medical care provided for me as a military member is satisfactory. However, the dependent medical care must be improved!"

"Under the AGR program when there are no military medical facilities available in the vicinity of your base, the nearest active duty facility must be used for non-emergency medical care. In my case, this is roughly 5 hours driving time away. I feel this is a waste of government money and time when a civilian doctor is readily available where I am located. My

complaints concerning the medical care available to me, in particular, are listed below: 1. Although the medical care at a gov't hospital is 'free', I am paid approx. $130 for mileage to and from the facility, plus I am absent from my place of work for 2-3 days depending on what time my appointment is for, and any tests etc. that need done while I am there, so it is also costing the government my wages and BAS of approx. $125 or a total of $255 for ONE visit for non-emergency medical care, not to mention the wear and tear on my own civilian vehicle, i.e. tires, oil etc. 2. In order to obtain an appointment the average time you have to wait is two weeks to 30 days. Then you see the general practitioner who listens to your complaint then does some blood tests, or x-rays and most often than not, refers you to a specialist. Upon trying to make an appointment with the specialist, they have to have a form 'referring' you before you get an appointment (which is on the average, 30 days from then!) By the time this is all accomplished, the problem you had could have been cleared up by a civilian practitioner in two or three visits. I am very dissatisfied with the medical care I receive as an AGR member. There are a lot of AGR's on my base who feel the same way as I do. If anything could be done to help make medical care more easily obtainable as well as a higher quality for those of us who do not have government facilities available in the locality, I think that the morale would improve greatly, plus a lot more people could effectively be treated and not suffer in silence because it takes so long to get an approval. In short, our work would improve immensely."

"There is a very strong difference between the active components and those of us that are AGR in the Guard, in my opinion. Although we share the common goal of defense of our country, I feel in most cases, mostly hospital care we should have a HMO or some outside hospital plan for ourselves and families. (I would not mind if its cost was contributory). In my own case my duty station and my medical records are about 50 miles away, and the military medical facility is yet another 35 miles away from my home. Personally speaking, the active duty benefits available to myself and family have never been fully explained to me. Therefore, we are unaware of thing that are available to us. Benefits are a very valuable asset to any working person and the fact that we really don't know whats available to us, bothers me. Medical care for myself is my biggest concern."

"Being on an AGR tour, we are so far away from the medical and dental picture that as an example, to get Eye Glasses we can pay from our own pocket/Go on a four hour drive to the other side of the States to a guard medical site/or go thru 3/4 weeks of waiting for paperwork approval to get Eye Glasses."

"Under the AGR program there is very little opportunity for upward mobility. Even if one could go one grade over his rank this would provide a positive incentive. If a person as an E7 could be promoted to E8 before he retired this would help in keeping people in the program."

"Under the present policy a person in the AGR program who has over 15 years of active duty is locked into the grade he/she presently has and is not given the opportunity for advancement or promotion. I am presently the full time Training NCO for a unit in the grade of E-7. The maximum pay grade for the Operations NCO position I wanted to make application for is E-9. I would like very much to be given the opportunity to possibly retire as an E-9 or E-8, but under the present policy in fact I am being told that I am as high as I will EVER go (MSG/E-7) and that is what I will retire at."

"Promotion policy for the AGR member is undoubtedly the worst I have ever witnessed. I have been at my present rank for ten (10) years and can't be promoted because of the position NGB put me in. Merit promotions do not apply to AGR members. I feel that as a Training NCO for my unit which has a strength of 135 I am one of the key personnel in the unit. In July of this year I am being reduced one grade because of the position I am holding. Other AGR members in my unit have been doing their jobs for eight years and are fully qualified but not for AGR members, these same members are being forced to attend 10-13 week MOS producing schools. I feel this is a waste of valuable time and a big misuse of government monies."

"The promotion of AGR Support Personnel doesn't move well, we must attend Active duty Schools for up to 10 weeks at a time, which is hard to work into our Schedule. We should be promoted on a separate basis than Part timers because our Duty Positions in the unit hold Back good Part timers from advancing in Rank and Position."

"The fact that an AGR takes home more money than a given supervisor or even the chief of supply, is not a reason to pass the person by for promotion. I believe that the disparity between AGR's and technicians in this area is the greatest cause of poor morale in the Air National Guard today."

"So far since starting on the AGR program I have had some negative experiences as to how certain rights, privileges and programs are available to me. I seem to be running into the attitude that if something is of a benefit to me that Active Forces normally are able to take advantage of it's not available to me because I am 'only a Title 32 and that isn't like regular active duty.' On the other hand if there is something more

restrictive that applies to the Active Forces then I am told that I have to conform because 'that is normal procedure for the Active Forces and you are on active duty."

"I attend weekend UTA with no extra pay for the hours worked during my normal off-duty hours (Sat. & Sun.) and no time off to compensate for this time. If I take a Friday and the following Monday off I am charged with leave on Sat. and Sunday as well. Technicians receive Drill Pay for UTA and may take a Friday and the following Monday off with out being charged with the weekend. On regular Air Force bases there is a mixture of Civilian and Military personnel and a set of procedures that covers these things for each. I fail to see why the same can't be true on ANG bases between the AGR and Technician personnel. Promotion stability is another policy I contend with. I started this tour as a TSgt in a position that the UMD listed as a TSgt slot. The Support Personnel Manning Document listed it as a GS-7 slot. The Support Personnel Manning Document has been re-classified as a WG-8. Due to 'Rank Comparability' I am now considered a 'Military Overgrade' and if I wish to remain on AGR status and in the same position I would have to accept a demotion to SSgt. The UMD still shows this position as a TSgt slot and I feel this should be the only bearing as to my rank and not because of any civilian classification."

"Great disparity in the application of rights and benefits between the AGR/Guard Technician personnel. It is the lack of concern for the AGR member that has soured me toward the AGR program as a whole and I have 21 good years of service. This matter may not be finished yet."

"The AGR program has several areas of built-in, unintentional discrimination. (1) The requirement that AGR's perform drills with technicians (who receive additional pay). (2) The quota system on E7-E9 promotions allows technicians to be promoted to these top 3 grades and restricts AGR's. (3) The 'Grandfather Clause' for technicians to be promoted to E6 at 12 yrs and E7 at 20 yrs service does not apply to AGR's. This could conceivably allow a technician with 12 yrs of service to move ahead of an AGR (in a SSgt slot) with more time in service."

"1) Dismissal Policy - Being an AGR we are subject to being dismissed from Active Duty within 60 days if we displease the technician in charge or reduction in force as required by budget restraints.
2) Lack of Opportunity to Advance - Because technicians control the major operations of this facility they also control who gets what position even the AGR positions that are available from time to time. In a word they put who they want in these positions not especially who might be qualified.
3) Lack of Recognition for AGRs - As a vital part of the operation of this facility."

"I am interested in seeing a stable promotion system for Active Duty Air National Guard Personnel. Currently, the only way for me to be a supervisor or hold a grade above E-6 is to get out of the Active Duty program and be a civilian technician. This is a very important issue because I have invested 15 years of military service and would like very much to continue my career in a Active Duty Military status."

"Do not think personnel on AGR should be required to work the drill weekend as two added work days per month. A non-AGR person receives compensation for all time he participates. All GS or WG personnel who work along side AGR personnel do not get penalized for there full time employment status."

"There is still a lot of inequity in the AGR program. I think a survey of the AGR personnel that have changed from AGR to technician would show this."

"Promotion potential is almost nil for AGR personnel. Most are frozen in a low enlisted slot with no advancement opportunities. Many have had to convert to civil-service positions to increase pay and rank. I have attempted to convert on many openings, all though my applications have been received as 'highly-qualified', I have yet to receive one of these positions. It is my opinion that less qualified civil-service personnel are given these positions for up grade. The overall view by AGR personnel is that politics play a major role in whether AGR or civil-service personnel are selected for the vacancy. As you can imagine morale is quite low. AGR personnel used to get 2 days compensatory time off for attending the 2 day monthly UTA but for unexplained reasons no long do so. We are expected to work alongside, doing the same job as civil-service technicians for less pay, less benefits, and with no way to voice our unhappiness about any situation. The most inequitable situation occurs when we are sent TDY alongside our civil-service technicians, who draw as much as 2 times as much per-diem and travel money as AGR personnel for the same TDY period. Some of us have been working in our present positions for several years and if we were to convert to civil-service, even in the same job, we would have to start in the pay grade of step I."

"I became an AGR 5 years ago. Since that time regs have changed and no compensation time can be given for any extra duty no matter what. There is a normal duty week for full time federal techs (5 days a wk) but none for AGR's. AGR's are required to attend all unit training assemblies, annual training, special activities, etc. etc. with out any comp time. The last two AGR's picked as the best most qualified for supervisory positions were given the option to take the jobs federal tech or not take the jobs at all. One chose to convert the other didn't. Now how fair is? Who do the AGR's contact

for input into their future? We can't depend on the regulations like I learned to in the AF. They can be changed on a whim by the states."

"On promotion we are not treated fairly. We have to compete against part time people for our promotions even though we are full time military. Our air-technician counter parts do not have to compete against part time people for their promotions. I would rather compete for promotion with people in the active A.F. or at least with other people in the same status as I am in (AGR). In the five years have been an AGR I have seen the rules for opportunities for advancement and promotion erode. The attitude toward people in my status (AGR) on my base is, if you don't like it, there's the gate."

"Enlisted AGR grades should be those the individuals hold in the military UDL. They should not be based on comparability to the technician (civilian) grades they substitute. Downgrading from hard earned grades in order to be able to continue in the AGR program does not bolster member's morale, nor does it foster retention of critical skills and dedicated people."

Spouses of Enlisted Members

"My husband works fulltime on his position. He works five full days a week and two weekends a month. He does not get extra pay for his weekends and comp time is seldom used because his work load is so great. This only gives us two weekends a month for family activities. On top of this he is complete CDC courses which take more of his home time away from the family."

"Promotion capability for AGR is lousy. One stays in slot to long - upward mobility is nil without having to make major relation to undesirable areas."

"My husband is an AGR in a staff slot and he cannot be promoted."

"We came into the Guard out of the active Air Force for stability - something we feel would benefit our children. With all things considered, we still feel it was one of the wisest decisions we've ever made - just a bit lonely being so far from home. But it's nice not to have to worry about moving all the time, and nice to know we don't have to be constantly leaving friends behind."

"My husband is in the AGR program. At the time he took the job, we were promised all benefits of active duty personnel, including base housing, base exchange, commissary, and medical clinic. We have been provided with none of these services.

"I wish someone would explain why these men in Security Police and Law Enforcement on Active Duty must pull their UTA's each month, with no extra pay or training. They must give up 2 days of their days off to do this."

"It would be beneficial if the military provided a medical and dental plan for dependents. It's very 'time consuming' to drive several children a distance of 46 miles (one way) for medical and dental work - not to mention loss of school time. Also, there are long distance telephone charges to be paid while trying to set up appointments."

"In the ANG any person who is AGR gets all the overtime because its cheaper for the government, because AGR is salary. When there is only one or two AGR that means a lot of late nights and weekends spent at work and little time spent with family."

"I think that the only reason that anyone would seek other employment would be for the pay. It is unfortunate that there is such a difference between what the full-time guard personnel earn and what they could earn at civilian employment. Many guard members leave for just that reason. It seems to be a waste for them after all their military training to have to go elsewhere for better pay."

"His rank tied into civilian pay grades. He's running a chance of losing a stripe because of the position he's in that's tied to civilian pay. He has over 60 days leave on the books because he can get so little time off."

Military Technician Members and Spouses

Army National Guard

Officers

"I am a National Guard Technician with 21 years GS service, and 25 years of pure ARNGUS time. The Guard has been good to me and my family. There have been some tense times, while the State, and I imagine all States, were figuring out 'what is what' with the Selective Retention Boards. But, all in all the Guard is a good program, with benefits, opportunities for gratifying work and recognition."

"There are certain discrepancies in the Civil Service/AGR pay compatibility for full-time technicians.
EXAMPLE: A CW2 Technician (Civil Service-GS7) can have all of his/her Full-Time AGR Technicians making as much as twice the salary as him/herself.
PROBLEM: Having individuals of a lower enlisted grade make more

than their supervisor is both demoralizing and inadequate, resulting in many of our qualified leaders with the expertise that is so desperately needed, with no alternative but to leave the full time technician force.
SOLUTION: Place priority on making first level/second level supervisors AGR positions prior to the lower ranks. This will attract higher caliber supervisors while maintaining the ones currently aboard from going to the civilian market where the benefits are markedly higher."

"As a NG Technician I am not authorized to be paid overtime. I am however authorized comp time; but working an average of 84 hours a pay period I do not have the opportunity to take this time off. Not being able to utilize my annual leave as I deem necessary. I feel I should be given the same opportunity as any other federal employee, e.g. to be placed on AT, FTTD, etc...., to accomplish specified tasks/missions when funding is available. If I am an employee of the Postal Dept., IBM or TI etc...., I could take annual leave when approved, and pull additional AT, FTTD etc.... But as a NG Technician, I am discriminated against by NGR 37-111, in that if the task/mission has any thing to do with my day-to-day employment I will not be placed on active duty."

"The big problem is some enlisted members will not be able to attain the 20 years for technician or military retirement by age 60."

"I no longer receive the benefits that the common Guard member receives and have actually been treated as a second class citizen in some respects simply because I work for the guard 'full time.' I was informed after I took the position that technicians were not eligible for loan repayment bonuses that other members receive because I am a full-timer."

We have been informed that we (full time employees) must attend regular army service schools to receive military promotions. Not only is this procedure grossly unfair, it is prejudicial and (in my opinion) unconstitutional. Why should the fact that my civilian employer happens to be the federal government force me to be gone from my family for over 17 weeks to get a promotion from W2 to W3 and an additional 22 weeks to be promoted from W3 to W4, when any other warrant in the guard can qualify by correspondence. The situation for full timers is getting to the point where no one wants to stay for any length of time. We spend thousands of dollars and many weeks of time to train new people only to see them leave to the private sector as soon as they are trained."

"In my full time job as a National Guard Technician they want me to impersonate my regular army counterpart. I feel I am a civilian employee and should not be required to wear the

military uniform. We do not receive the same benefits and are often confused with regular Army personnel when we are in uniform."

Spouses of Officers

"I am very disturbed with what appears to me to be unfair wage practices in regard to AGR classification. The decision to classify an employee or position as AGR seems to be at the whim of the Adjutant General and the end result can be two employees doing the same job with a large discrepancy in salary. Also, an employee can be promoted into a position that was AGR for the previous employee but the AGR status is removed for the new employee."

"The gap between AGR/Civil Service (Technician) pay is too great. My husband is an officer, and a AGR-SP4 makes more money. This is not only unfair, but it is a poor placement of priority on the part of the full-time force. You're gonna mess around and lose probably the best logistician the Army has, based on an, inadequate at best, manning arrangement."

"The difference in pay between the AGR and the Technician, penalizes the technicians who have given the Guard the most years of service. I feel there should be only 1 program for all."

"Full time tech's should have more medical coverage, free clinic - dental - eye-glasses."

"I believe that the National Guard & the technician jobs should get better annual raises than 3%."

"My spouse's 'civilian' job is full-time technician for the ARNG. My husband's civilian job requires that he retain an appropriate position in the Guard. My husband's duties, civilian & guard-wise, do crossover, time-wise, and there is no overtime pay for time spent on the guard during the week or on off-weekends. Compensatory time is very limited, also. Because of all this extra time required, the educational opportunities (to take advantage of the GI Bill, e.g.) are nil."

"Because my husband works full time for the Guard, he spends much more time in Guard activities than one weekend a month and one two-week period a year, yet we receive no family medical benefits. Neither do we have full commissary or PX privileges. If we are, in fact, a 'Total Force' why are Guardsmen's families treated as second class citizens?"

"He has to take several trips to Ft. Polk a year. This would not be so bad, if it didn't take six weeks to get the pay for this. He usually has to take enough money for motel, gas and

meals, and we can't recover these expenses for six weeks. At one time the guard furnished him a vehicle to drive on these trips, but not any more. He has to take our private vehicle."

"The only real problem, is that I miss him. I understand and encourage his dedication. I would like to see a massive increase in the use of ATA's. Much of his time is volunteered."

"May I say I'm happy being the wife of an Army National Guard Technician. My husband is very happy with his job so that makes me happy. Maybe you could make available more ways the wives could travel with their husbands."

"I feel my husband spends far too much of his precious life traveling for the National Guard. His small children have really missed seeing their daddy these past years. We cannot have a consistent life with all the extra interruptions besides the drills! Since the beginning of January 1986 my husband has had 3 free weekends off of guard drills or guard related trips he has had to make! (It is now April 17th). He has to drive 6 1/2 hours to drill and home again after drill until he has a position here in our new location. My husband is a full-time Guard technician. He feels frustrated with this time schedule as he has no consistent time to complete a project. He works overtime at work and brings a lot of his work home to finish. We wish we could have some of the pressure taken off - but there is so much to be done and he is very dedicated to his work."

"Because my husband is both a loyal and dedicated individual in his position as a Military Technician, he puts in far more many hours than I prefer. Drill schedules are fair, however, the number of extra weekends he works due to additional responsibilities and volunteered time affects our personal life continually. Additional time away from home includes 4 'Admin' nites a month (which is ridiculous), 3-4 days on the advance at 'AT' and staff support for other units. I feel that these additional responsibilities should be distributed more equally among M-Day personnel."

"There is no possible way you could increase his schedule. He is a very dedicated man and may have 1 weekend a month free now."

"I would truly love it if Training Technicians really worked only 40 hour weeks and National Guard Officers obligations only involved 1 weekend a month and 2 weeks at summer camp. That, gentlemen is pure fiction! In 15 years, there has never been a time that has held true. I feel, that by advertising it as such, you contribute to family problems. In this house at least, the Army National Guard has always been my husband's other full-time job."

"Out of the past four months, he has had a total of three full weekends free. He has also attended two required schools during these four months, in two eastern states. This is why we would not be happy about increased drill time. He has been in the National Guard for 33 years, 32 years as a Technician. Unless he is not retained (which is very unlikely) he will have served for 37 years when he retires. We maintain that the military has been good to us, overall (I put nine years in, resigning in 1984)."

"I personally think the National Guard is taking absolutely too much of the guardsmember's off time. It is no longer the exception to the rule, but the 'norm' that my spouse will spend additional weekends for drills, schools, conferences. It is extremely difficult to have a family life when your spouse is always away doing something for the National Guard. I think that what my husband does is important and I do not complain to him, however for the last 2 years I think he is overly involved with National Guard activities. My friends who are married to guardsmen feel the same way."

"I feel the Guard is demanding more and more time of my husband and others like him, this puts a great stress on our relationship. I have an opportunity to talk with other Guard wives and they all have the same complaint. The Guard stresses the importance of the family and their support, but do little if nothing to make any improvement of the situation."

"My husband works as a supply technician with his guard unit. He makes really good money for our community. My only complaint is the added drills he's been having to make. Once or twice a month would not be so bad, but three or four times a month is ridiculous."

Enlisted Members

"I am concerned with the unfairness to technicians in requirements for job alignment which limits upward mobility in rank and the threat of the retention board for technician who hold senior enlisted ranks but have not attained age 55 and eligible for maximum retirement benefits."

"I feel I am a very qualified solider but never get any credit for my full time work with the 20 year retention board. I feel that my & my fellow workers attitude toward the Guard has went from a perfect 10 to a perfect 0. My wife of 20 years is very upset with my full time job & my military career. With 2 children wanting to start college & another with an illness which costs extra money every month I do not know from one year to the next whether I'll have a job or not."

"Disagree with the policy of compatibility for technicians. Non-technicians benefit from the diversity offered by membership in a unit other than their work site & in many cases in totally different activities that performed on their civilian job."

"Because of mandatory meetings and service schools, I have recently completed 48 days with only one day off. This is not counting evenings spent in the Armory and phone calls at home. All of the evenings are 'free time' without pay or compensation."

"Selective Retention worries alot of Technicians that get in 20 yrs military and may only have 10-15 years of federal service. The 30 year service by age 55 seems like it no longer exists as it's impossible to stay in the service that long anymore."

"Technicians should not be forced out of a job when eligible for military retirement if they wish to retire from guard."

"I feel that the retirement for Reservists is not all that it is cracked up to be. Everyone say's that the retirement point that you receive over and above 60, count's towards your retired pay. This is a lie. I think that this should be dealt with at the signing of the contract for any one coming into the reservists, not after the fact."

"I received a reenlistment bonus. Shortly after, I received a federal technician job. I soon forfeited my bonus because of the job. I resigned from the job 7 months later. I still have 4 yrs left on my reenlistment and am still paying my bonus back. I don't think this is <u>FAIR</u>."

"I feel that full time Technicians should be eligible for enlistment and reenlistment bonuses."

"An inequity pertains to Re-enlistment Bonus. Before many technicians are hired they reenlist under one of the bonus programs. Upon reenlisting there are no promises of full time jobs: however if you do find a Technicians job your bonus is prorated and you lose anything paid to cover time since your entrance in the full time Technicians ranks. When this is done one may get only 1/3 of your normal drill check for a year or more. This policy doesn't seem fair because when one enlists he doesn't know that he's going to become a full-time Technician. The Guardsman executed a contract in good faith but it seems that the Guard has reneged on their end of the contract. I am told that since membership in the Guard is a requirement of employment there is no provision for a bonus. However when the Guardsman enlists employment as a Technician is not a condition of enlistment. Therefore any bonus he receives should be due him."

"Why are technicians not eligible for bonuses?! Just because I am in the technician program, does not mean I have to stay until I retire! I am not obligated to stay. I have to stay in the Guard to stay in my job, but the reverse is not true. However, if I received a bonus to stay in the Guard, it would certainly have a large influence on staying with my full time job. The existing attitude that full-time technicians <u>have</u> to stay in the Guard is wrong!"

"As a unit technician, my viewpoint on the successes or failures of various ARNG programs have different considerations than those of the member who is a strictly part time member. While they might complain about pay problems, promotions or receiving benefits, I would stress the problems in managing those areas and the endless changes, paperwork and red tape in administering those policies and programs that are presented to the part-time member as 'good' reasons to join or remain in the guard."

"If it wasn't for my full time technician job I wouldn't stay in the Army Guard 5 minutes."

"The first problem that I would like to address concerns the policy of technicians being required to hold slots in the Guard that are compatible with their full time technician duties. Some people say that they would like to do something different on drill time. However, by and large the biggest complaint is that this policy severely limits our promotional possibilities. For instance how many E-6 and above slots are available in the Maintenance field. I feel that I, and many others like myself have the education and intelligence to perform in many other MOS's. While there are some exceptions to this policy they are few and far between. The full time technicians should not have to take a back seat to part timers. After all the Guard is a larger part of our lives than most part-timers therefore we should at least have equal opportunity to advance ourselves."

"Full-time people, both AGR and Technician, fill an MTO&E position in the unit of employment. This blocks promotions chances in the unit for the part-time member, for example: I am an E-7, filling an E-7 position, the AGR person assigned is an E-6 filling an E-7 position. This blocks two hard working part-time people from making E-7. The assigned recruiter, on the other hand, is assigned to HQ STARC, and is assigned full-time with this unit. His rank, and position does not take from the units MTO&E and he can be promoted without regard to the unit's manning. I feel all AGR/Technicians should be assigned to a state MTO&E and placed in units such as the recruiter. The Guard requires its full-time people to be a member of the unit in which they are employed. The Reserve does not require this.

The full-time Technician can be a civilian employee or a member of a control group and can be promoted over and above the units MTO&E."

"I am a full time technician with the Guard. I feel that technicians are discriminated against in many areas. Promotion is the one area I am most dissatisfied with! As a technician, I am required to attend two additional schools (both of which are 10 weeks long) to be eligible for promotion, yet my M-Day counterpart does not. I fail to see why I need more training to be promoted. If I were to quit my full-time job today, I would be eligible for promotion immediately! I am a single parent, and going away for twenty weeks would be a hardship. I will make the necessary arrangements because I have no choice if I want to be promoted."

"The technician program is controlled too heavily by the part time guard. (1) Retirement from Guard and full time employment are locked together leaving personel in the guard far past there best potential. (2) Guard advancement is held back due to compatability between guard and full time employment. (3) Unable to qualify for bonus MOS because your a full timer. Joining full time if you have already a bonus you have to pay it back. (4) Schooling and retention are much stricter. I don't think we should be singled out as people to be used with out concideration just because we are locked in to our jobs."

Spouses of Enlisted Members

"The policies of the National Guard Bureau, at the present time, are very discriminatory towards "Excepted" National Guard Technicians when one is required to have Battle Skills Course for promotion and AGR/M-DAY personnel do not have this requirement. In addition to this, National Guard Technicians are considered last for these schools behind AGR & M-DAY personnel whose promotion(s) are not pending on mandatory attendance. The fact still remains that AGR personnel have greater opportunity to meet the requirement of the "lengthy schools" (2-6 weeks)."

"National Guard Technicians wear the same uniform, serve the same country, put in the same or longer hours for less pay and limited benefits - exclusively the use of full-time commissary and medical/dental privileges. In fact, National Guard Bureau is "making an example" of the National Guard Technicians when in most cases is better adapted and more qualified to perform his/her duties."

"GS-07 mil tech pay not in line with civilians or AGR member doing same job. GS-07 under paid by 25%."

"Full time technicians do not receive bonus for re-enlisting but they should."

"I would like to see more attention given to the problems of the full time technicians. I think they are in a limbo of confusion as far as status is concerned. There should be a more definitive designation for them and they should receive the same (or better because I think all enlisted personnel deserve better than they now receive) considerations than they now receive. My husband is employed by the state military department as a civilian who wears an Army uniform to work and is paid by the federal government. He is threatened with dismissal if he gains too much weight (he is not fat - or even plump) because of military regulations, but he is not classified as 'military' in other areas. There is too much inconsistency."

"I do not understand why my husband as a military technician is required war skills training and other part-timers are not, because it would interfere with their civilian jobs. My husband is a civilian Federal Employee full time. You would not require any other Federal Employee to do so, and be let go. We are not dumb people, we know it is a plan to eliminate the technician program, for AGR's."

"Do not like the training requirements instigated this year for full time technicians, (i.e. 17 weeks 1 day) for promotion. The part-time guardsman only has to attend a state level school of 2 weeks for promotion!! This seems grossly unfair, as it would present a very real hardship on our young family to be without our father/husband for almost 4 months. I understand this is voluntary but without it - no promotion!"

Army Reserve

Officers

"I love the reserves and my civilian technician job. I am only asking for a short term leave of absence to fulfill some critical mission training. I am asking if there is anything the Department of the Army can do for me in this regard to let me go in a 'Leave without pay' status."

"Military Technicians earn approximately 1/3 less than their AGR counter-parts. The use of more Military Technicians in personnel, training, supply and maintenance positions would be much more cost effective than AGR personnel. The plethora of AGR personnel at Continental U.S. Armies, Forces Command and installations is another situation where costs could be saved. By replacing AGR personnel with Department of the Army civilians, costs would be reduced because DAC's make 1/3 less than AGR personnel. Military Technicians are a proven, capable and readiness enhancing work-force. Military Technicians,

particularly Senior Staff Administrative Assistants, Senior Administrative Assistants, and Unit Administrators supervise Active Guard Reserve personnel on a daily basis. Theireservist will ever get that opportunity. By making over 25% of the E-7 positions in an Engineer Battalion AGR, the promotion 'pyramid' for E-6's is severely restricted!"

"Increasingly, I find additional AGR's being assigned and tying up scarce reserve positions on the 'promotion ladder'. Example AGR Bn XO ties up half (1 of 2) of all reserve O-4 spots. O-3's making O-4 must go to the IRR."

Spouses of Officers

"From my observations of the civilian portion of my husband's job with the Army Reserve, I have come to the following conclusions:

1. The positions are understaffed.
2. The GS levels are very out of line, based on job responsibility.
3. The salaries are demeaning.

My husband is a college graduate, a Warrant Officer and a veteran and his civilian job with the Army Reserve as a GS6 pays $16036.80 per year or $7.71 per hr. His job description states he is to supervise the staff as a unit administrator. This includes an AGR supply sergeant. The hours for the civilian are 7:30-4:00 with a half hour for lunch, a total of 40 hours per week. The AGR position enables the sergeant to take an hour for lunch, an hour per day for Physical Training, and whatever time is necessary for counseling etc. This equates to less than 30 hours per week. For this plum position he receives approximately $22K per year, plus housing and all other Army benefits. Private industry would go broke with an AGR Program."

"My husband is a civilian technician for a 170+ member unit and also a member of a smaller unit. My main concerns center around what appears to me to be a lack of knowledge on the part of persons in higher command as to the amount of paperwork involved with the operation of individual units. It would be impossible for this man to work harder or longer at his Reserve obligation than he does at his civilian technician position. There are just not enough hours in the day or week for that. He enjoys his work as a Technician and also his Reserve obligations, but both are very demanding on him and his family."

"I feel that the 'dual-status' requirement imposed sec 83 is to demanding on civilian technicians. It hampers career advancement both in civilian and military positions. It also causes 'burn-outs' with the demands of time & requirements. Also, civilian pay is not comparable to AGR personnel. I also think that 'Military Leave' should be upped to 25 days a year

because of the demands to attend conferences & schools. Overtime is unheard of and there's no way to accomplish the mission in just 40 hours."

Enlisted Members

"Units are staffed with personnel in the ART technician program. These people have been unit a long period a time & well qualified. However over the years we have been promoted to and now hold most of the key positions in our units - preventing straight reservists from being promoted and filling these positions that would gain them essential training and advancement goals. ART technicians should be attached to units as overstrength equal in rank to position attached. Straight reservist should hold position."

"A lot of these questions I had to answer the way I did, because of the fact that my job is a dual status job, not the way I really feel. Almost every person in my shop that is in dual status, is against the idea completely. It makes sense that people that are forced to be in reserves because of a job, are not going to do as good a job as people that want to be there."

"With the advent of the AGR program it seems that the Dept. of the Army has no faith in their civilian personnel. It seems to me that this AGR program is a big waste of my TAX DOLLAR and it should be looked at very carefully in the future."

"I believe it is waste, abuse and ignorance on behalf of all AMSA/ECS technicians to be obligated dual status. We should all be status quo at <u>our</u> own choice because of the AGR/FTUS program."

"I propose <u>separating</u> technicians under a <u>separate</u> TDA or TO&E sheet - completely separate from the Reserve Force. Equally so AGR - full-time manning should not be integrated into this stream by my evaluation. They, too, should be separate."

"I am a Reserve technician under the <u>mandatory</u> dual status requirement. I find this situation at best 'trying.' My reasons include: (1) lack of upward mobility in the military grades and also in the civilian grades. (2) time required of the dual status individual is often more than a 'regular' reservist. (3) there is no strict delineation of duties from reservist to technician. The reservists often depend on the technician for answers to their questions rather than searching for the answers and upgrading their own MOS skills and requirements. (4) spend extra time that overtime or compensatory time is never reimbursed as a civilian. I feel that the mandatory dual status requirement should be lifted. My reasons are: (1) more upward mobility in the civilian and military grades. (2) give the

reservists opportunities to perfect their own areas of expertise and dependability upon themselves to perform the mission. (3) as a member of another reserve unit, if this requirement was lifted, the technician/reservist could perfect their own MOS skills rather than being interrupted several times during the drill time to perform technician related jobs."

"There still exists a large problem area between the civilian FTUS and the AGR FTUS. The only solution I can foresee is one in which both sides are given direction on how they both aid to prepare the unit for mobilization. A more detailed brief on how the two halves each have a distinct function and different part to perform in the mobilization mission."

"I am a National Guard Technician, GS-7, in a fairly responsible position with 12 years of technician service. It really hurts to see a new employee in an E-4 AGR position working for me and taking home more money than I do. "

"Why is it that civilian technicians cannot receive a reenlistment bonus but AGR personnel can? Civilian technicians MUST be a participating member in the Reserve component. If you take into account ALL pay and allowances an AGR E6 and above make over a GS-6 and above, the system is not a fair system; the civilian gets penalized and the 'green suiter' gets all the benefits and spends less time around the Reserve center than does the civilian technician. When is the Army going to come to some equitable terms on the civilian technicians and the AGR personnel????"

"I am strongly opposed to the military views by which AGR, full-time manning support receive better than double wages to the civilian work force. I consider this a labor problem more than a military problem and although the military instigated its present outcome, it has severely obstructed the civilian work force with technicians throughout our Nation; it has caused morale problems and in all probability, caused a weakness in unit operations directed towards a strong mobilization need."

"The USAR pay system is for the most part OK. But we do have a few problems with the USAFAC, JUMPS-RC, Army, and 'all reading off the same sheet of music.' I have seen problems that should've taken only a short time to correct drag on for a year, simply because the different factions were not using the same regulation and policies. This is very frustrating to the reservist and to the technician trying to untangle the situation."

"Promotions to E9 are very hard for full time employees. Commands do not like to promote the full-time employees to E-9 because they know these senior positions will be frozen for many years and no one can be promoted in them by other unit members

and with the simple fact that full-time personnel must divide their time at drills with the whole unit as assistors and can not dedicate the majority of their time to the particular mos/duty assignment they have."

"As a Department of the Army civilian, I do not feel that I should have to remain in the Army Reserve to keep my civilian job."

"I would like to see the Army dual status program voluntary instead of mandatory. This would ensure dedicated personnel and offer a better selection of more qualified people for those positions. It would also eliminate unit commanders from holding your job in jeopardy and allowing for more equal promotion opportunities within reserve units."

Spouses of Enlisted Members

"I am not satisfied with my wife being in Reserves as I do not like her to be away overnight as I am self employed and on call 24 hrs. a day. It causes great problems as we have two children who are not old enough to care for themselves. Because my wife is a dual status Army Reserve Technician, she has to stay in Reserves to keep her civilian job which I feel is unfair. She likes her civilian job, is very good at it, & should be allowed to keep it without being in the Reserves."

Air National Guard

Officers

"In a unit where there are a lot of full time personnel there is too much made over job compatibility."

"Very dissatisfied with loss of civilian technician insurance benefits as a result of required military duty."

"I think that Guard technician personnel who spend up to eight times the amount of time in uniform over those who participate only on weekends and annual training, should receive some additional military benefit."

"Technician fighter pilots should be able to retire at the age of 50. FAA federal employee pilots can now retire at the age of 50. It is the exception when a ART fighter pilot can stay effective as an IP until the age of 55. With the coming of new super high performance aircraft as the F16, a man has to have a little luck to stay physically fit to be an effective IP until the age of 55. When his effectiveness as an IP goes down, so does the effectiveness of the unit."

"As a Technician working at my military duty station in uniform everyday, I feel that the opportunity for promotion should be the same as my active duty counterparts."

"I think that if a person is forced to wear a military uniform in his Full Time employment he should have full benefits of same as a regular military person."

"The only comments that I have about the Reserve components (ANG) is the AGR program. I feel that program should be abolished, and all full timers be in the same status. The program has hurt the morale of the technician force, which is the back bone of all units. I feel as others feel, the affected areas not fair are benefits, pay, reasonability, supervision, leave. The program needs to be looked at."

Enlisted Members

"When I first entered the Air Guard as a guardsman and technician, we could look for <u>three</u> retirement checks. a. Military Retirement. b. Civil Service Retirement. c. Social Security. I am concerned now that Congress, or others, will erode those benefits soon, before I retire, or am old enough to collect that compensation. A secure retirement was for me, and others, considerable incentive when I began as a technician."

"Job responsibilities for Air Technicians and AGR's in the same AFSC are equal however, there is an abnormal pay differential between technician pay and AGR pay. There should be a special pay scale for air technicians rather than the GS pay scale to make compensation between these programs more equitable for the work performed."

"It is my preference that all Technicians be given the opportunity and choice of conversion to the AGR program, therefore eliminating a conflict of interests within the same organization."

"There is a great disparity between my pay grade as a civil service employee and that of military grade doing the sam job - AGR. Their is a problem of equity in pay rates and benefits provided by the Federal Government for doing the same job. This does not include the responsibility or lack of manpower which a person(s) incur doing the same job. It is my opinion that a dual system for pay grades is a poor morale incentive producer. In some cases, GS/WG supervisors are making less take-home pay than AGR-Technical Sergeant."

"I am a air guard technician, our pay and benefits has been frozen or limited to 1 to 2 percent raises a year for several years. Seems to me it is unfair."

"For air technicians hired after Jan 1, 1984, we need a good retirement program. (Like the old Civil Service Retirement)."

"I believe in total force concept but if you look at the average of active personnel, traditional guardsmen, full time technician and AGR's you would find many people 10 to 15 years older in the full time Guard. I am one. A full time technician 51 years old and I do sedentary work. It is extremely difficult for me to keep my weight like it was when I was 30 years old."

"Upon military retirement I feel the individual should start drawing retirement pay."

"I feel the military technician program needs to be re-aligned using air traffic controller's and federal law enforcements agencies as a guide for retirement. Men fifty years and older have little to offer if exposed to a real combat scenario. If personnel could retire after thirty years service it would provide upward mobility in ranks for younger people. There may be some exceptions for highly qualified individuals needed in staff positions at headquarters level. If the balloon ever goes up we don't need a reserve force staffed with a high percentage of grandfather's to face the enemy."

"Change retirement benefits to aid the Guard and Reservists instead of hurting them like they are at present time, such as taking away money from the retiree, and benefits should begin like they do for active duty."

"Selective retention is a discriminatory practice. After being assured of a retirement annuity at age 55, when we came under civil service in 1969, the Guard Bureau has now deemed it necessary to force members of the Guard out before reaching the age of 55. As title 32 technicians, this policy makes it impossible, in some instances, to continue to serve until the age of 55. If the members are to be separated before 55 years of age, they should be, at least, authorized Guard retirement upon separation, rather than having to wait until the age of 60 years old, providing they have 20 good years of service."

"I think Military Technicians should be treated the same as Firefighter, F.B.I. agents and air traffic controllers, when technicians grow older especially over 55 years, its very difficult to pass physicals and work in chemical gear as required."

"As a Technician, I feel career bonuses should apply to us as well as straight guardsmen."

"Why can't Air techs receive reenlistment bonuses!!"

"I am a technician with the Air National Guard and feel the restriction on us pertaining to re-enlistment bonuses and education assistance is unfair and discriminating against technicians."

"Since I am an Air Technician (WG11) Accepted Federal Civil Service, I am not eligible for an Air Force Bonus, even though my Career Field has a selective Reenlistment Bonus. I feel cheated because of that because the money sure could have been put to good use in my household. I feel a little bitter because my peers who work for civilian company who make more per hour get a bonus and I do not get one. Discrimination in the biggest way."

"As a requirement of the Civil Service Technician program, it is required to be in the ANG program, with no special pay or reenlistment bonus. If the AN[illegible]s not required for a civil service job I would not reenlis[illegible]

"In reference to question 15 concerning reenlistment bonus, I feel its justly unfair to be illegible for the bonus because your a civil service employee."

"Ineligible for any re-enlistment bonuses for my AFSC because I am a full time technician. Because my membership in the Guard is a condition of employment I am not eligible for re-enlistment bonuses."

"As an Air Guard Technician, I feel compelled to complain about the reenlistment bonus program. I feel that there is an illegality here! Just because I must reenlist to keep my job, I can't get the bonus?"

"Presently I'm a Pay Technician with the ANG, I used to occupy a similar position with the ARNG under the AGR program. The ANG has no military or reliable OJT program for this field. I have been given the regulations and am expected to execute my job without any other type of guidance, not even a briefing. Supposedly we are short of personnel and there is no time to train me. I question this - is it feasible from an economic and training viewpoint to have untrained personnel making costly mistakes which affect not only their morale but the troops who don't receive the check complete or on time; when it can be resolve by organizing at least 1-2 hours training daily for a month, or establishing a school, like the Army has."

"In my career field, additional proficiency training is a necessity. I have personnel in my section ready and willing to spend the extra time, and have done so, <u>WITHOUT PAY</u>. This should not be! Additional paydays should be made available for

those fields where proficiency is a requirement. These past two years have seen a significant decrease in ST and PT mandays at our unit."

"Being an ANG technician, I feel I have a fairly knowledgeable insight on the needs of the reserve program. I feel we are currently tasked with too many additional duties and ancillary training programs to properly performed our assigned duties."

"It seems that after 20 yrs. of military service participation in UTA's and summer camp should be voluntary for Air National Guard technicians. Technicians would still be required to participate in mobilizations of over 30 days. This move would make guardsmen more self-reliant. This would happen because technicians wouldn't be as abundant to make all of the decisions for them. This would also save funds because technicians with over 20 yrs. of service have high rank and therefore expensive pay and benefits. This would also possibly open up promotion possibilities which are now nil."

"When the unit goes on active duty there is no program for informing families what is going on and up to date information on when the unit is returning other then what is stated before the unit leaves."

"I am in an overage slot, in other words I am staff in a SGT slot. ANG rank structure is inadequate and needs revamping. All ANG slot are based on active duty requirements but the personnel section that makes decision on slots forgets that the Air Force moves people from base to base to maintain proper grade with slots. The Air National Guard people stay for 20, 30, or more years. Rank tends to stagnate, the blocking lower ranking individuals from advancing to higher ranks. Because of this, some people tend to leave. Remember, people equate rank with money, and that's what it is all about."

"Hopes for making rank in the Guard are just that!!"

"Can anything be done to make promotion opportunities more readily available to ANG/Reserve members? It seems as though we are discriminated upon when it comes to this aspect of the defense system. Classifiers from NGB come down and determine that certain positions are not critical and thus downgrade those positions. This creates morale problems, since they are done nationwide and not taken on a individual basis. In this respect, a person in the Reserve does more than their regular Air Force counterparts, but are <u>not</u> given the same rank. Morale wise it is very perplexing since their is no room to get promoted. By the time my retirement comes around, I will have served 35 years in the ANG and <u>32</u> years as an E-5 (was promoted to E-6 as a drill status in the personnel AFSC, but took a one

grade bust to take the E-5 admin position - which was downgraded from GS-6 to GS-5). This downgrade thus prevented me and everyone in the same position to get promoted."

"What about Promotions? I have very little chance to get another stripe for many years but there are several people who have made master in 9 years! There must be a more equitable way!"

"As a Guard Technician, promotions are very slow as for the career of personnel. The opportunity for promotions is being bypassed especially if the working shop has only 1 to 4 personnel. The only way a promotion can be made was to have been in your present grade to qualify for the grandfather clause, which now has been abolished. As far as retirement, I am concerned about promotions I will never expect to have. I believe there should be an automatic up grade to the next rank for the sole purpose of retiring, with a descent amount to live on after spending 30 years or more serving in the Air National Guard."

"As a technician in the Air National Guard, the main complaint I have is that when you work at the same job 40 hrs. a week and drill week-end comes up, you are doing the same job on the week-end and it makes for a long 12 day week. Also when you start your annual training at this station, you must now work the Saturdays. When the week-end is the only time you have to do your outside activities and your home duties, it seems like you are spending all of your time at work and you get behind at home."

"Why should technicians be required to wear military uniform during the week and receive no benefits?"

"Being a 'civilian' technician (title 32), one of my pet peeve's is the requirement put on us by the National Guard Bureau to wear the uniform while performing a civilian civil service function. They, the Guard Bureau have succeeded in one thing, the demoralization of the civilian work force, and it's not getting any better! Don't get me wrong, I enjoy being in the Air National Guard and the wearing of the uniform while performing military duty, but as a civilian, you're completely wrong and it's absurd! I feel like an imposter, posing in a military uniform."

"As a Air National Guard civilian/military technician I feel that it is inappropriate to require the wear of the military uniform while performing work in a civilian status. This requirement places the wearer in a questionable position. Are we full time military? No. If not, then wearing of the uniform is a misrepresentation of our status. I believe in a strong military, I believe in the concept of the Guard. I dont believe

that wearing the uniform while working as a civilian is fitting or proper. Let civilians wear proper civilian attire, then stand back and watch as we stand proudly in uniform as military members of the Air National Guard."

"I would like to see an opportunity for the workforce to be free to select a 'civilian' work attire similar to or the same as we had during a previous period."

Spouses of Enlisted Members

"The pay is not nearly good enough for technicians."

"Pay scale for enlisted civilian employees is low - pay raises do not keep up with inflation. Very far behind private or civilian sector especially since they are the ones who are defending our country. Are their lives worth so little?"

"Local Guard policies require mandatory retirement at age 55. This policy is for the military and civilian technicians. I feel this is age discrimination. My spouse will only have 25 years as a civilian technician at age 55 which reduces our retirement pay."

"I dislike the fact that it seems that those civilian employees that are military technicians spend more time & effort before, during and after drill weekends but when promotions are handed out the promotions are given to "weekenders" (those not in technician status) over the technicians because the technicians must stay in unit since their families' incomes depend upon the salary."

"Spouse works as an AGR. As a full time technician employed at same unit I feel that my spouse is often treated unfairly as an AGR. Working extra (overtime) hours and also drill weekends without any compensation."

Air Force Reserve

Spouses of Officers

"The low pay for ARTs is very hard to swallow especially in our town of Delco & Chrysler factory workers - I feel my husbands job salary should be higher - especially when flying. I also wish the spouses received the same travel benefit as active duty wives - they certainly deserve it & put in enough time. Reservists who pull more than 30 mandays a year should qualify for spouse travel benefits."

"Between the Air Reserve Technician job and USAFR requirements, my husband is almost NEVER home! Active duty was not nearly as demanding on his personal or our family time -

plus we had the added benefits of comraderie with the other officers and their families and full base privileges. We have lovely neighbors and a large community of friends - none of whom has any idea of exactly what it is my husband does, all of whom share a common background from which we are excluded. We are very involved in the community itself and in service to the community but are not actually a part of it. The problem is that we were transplanted here by the military but are neither a part of the military nor civilian population."

Enlisted Members

"I am an Air Reserve Technician and feel as though I have been deeply cheated as far as military rank. I have been a Tsgt (E-6) for 15 years and have not been recommended for promotion one time. I have had 3 supervisors for the past 15 years and everyone has told me that I have done an outstanding job, but I couldn't get promoted because of the Tsgt slot. I now have people that are higher rank than I who I used to train and that have worked for me."

"The Reserve forces have to come up with a viable solution to stagnated promotion problems. Dissatisfied people like myself who have given up family and promotions, civilian wise, to remain as Air Force Tech. because they like the job and feel they are helping the country are getting satisfaction of accomplishments are being forced to leave low paying positions to make more money elsewhere. Reserve rank after staff sergeant is stagnated and causes low morale and less leadership then what is expected."

"As a new Air Reserve Technician (ART) and a Staff Sergeant for over seven years, I feel my civilian and military careers have come to a standstill. As a GS-7, I have no chance of promotion unless another Technician transfers, retires, or dies. Most enlisted ARTs enjoy being able to settle down in one place; this is the only plus in an otherwise dead-end career field. The PEP Program has become a joke; it was designed to pacify the enlisted ranks. It is a game played with numbers, dependent on who like you and who does not. In our unit, I have seen only administrative types, whose supervisors have the time and talent to inflate their Airman Performance Ratings, get promoted. The enlisted aircrew members who sacrifice so much time and effort to fulfill mission requirements and maintain currency receive only a pat on the back, if that, for a mission well done. These men work hard at their civilian jobs and are then asked to sacrifice more time than any other people in the Reserves today to fulfill AFRES missions to support the active force and maintain combat readiness. It is frustrating time after time to reward people who have given so much time and effort in support

of exercises around the world with a mere 'thanks.' We have men in our unit with 10 to 20 years of experience in their career field, and we have nothing to offer them anymore."

"As an ART I feel we need to be able to get more rank other than the Pep program. In only two years we have only had one E-9 & one E-8. At least with our program we should be able to retire with over 30 yrs as an enlisted with at least an E-8, can't we go one over grade or a retirement slot for those with 28 years service. There is a lot of dissatisfaction over this."

"As a technician I feel I am at work far to much. The reserve obligation consumes more than the 20 days of annual leave I earn each year. I would like to see ARTs with additional time off, as an extra allowance. Or remove the mandatory obligation of my civilian job to belong to the reserves. Then at least the choice is mine."

Spouses of Enlisted Members

"I support the Reserves and the position my husband holds as an Air Force Reserve technician. My husband explained that his career field was eligible for a reenlistment bonus but could not qualify for it because he is a Technician. Now I don't think that's fair when I know my husband is working as hard or harder as anyone else at the UTA Drills. I know my husband works many long hours during UTA's and always brings work home trying to make his unit the best it can be."

"I think that your policy for someone in the ART program is very unfair on how they are treated as reservists. I do not think it is fair that my husband and others in the ART program are not given any type of reenlistment bonus. I think by cheating these people your only hurting our defense system. These are the people that need that little extra because they work in this job every day."

"My husband works in the ART program. The Air Force Reserve side of his job is a requirement to maintain the civilian side of the job. First of all, I feel it is unfair to demand him to be in the reserves as a prerequisite to employment. However, we were informed of that stipulation before he was hired. Nevertheless, I did not realize they would require so much of his extra time. Many of the UTA's are a workless waste of time (too many workers - not enough work). The same is true of the summer tour. But the most annoying of them all are the TDY's. Gone out of the state, sometimes the country, again with very little work to do but unable to return home when there's nothing left to do. Many of these trips have seemed like an open waste of taxpayers money, not to mention the strain it puts on a

family as a unit. Extra week-ends, nights, and time spent away from home is a terrible destruction to day to day family stability."

"I don't really like it when my spouse has to go TDY & leave the family. It is sometimes inconvenient for me because I have to do all housekeeping chores & yard work which leaves no time for me to relax. I also work 40 hours per week. My husband is an Air Reserve Technician which requires 2-6 weeks of TDY per year. I don't like staying by myself with 2 children under 6 years of age."

"Due to the fact that my husband is an "ART", he is not eligible for the promotions/rank as regular reserves. This is very unfair. As a general rule, because he works the same job weekdays as he does on UTA's he has added responsibilities for training regular reservists, and is expected to take up the slack of regular reservist's lack of experience. His rank should reflect his responsibilities instead of having a Tech Sgt. babysitting a Mst. Sgt. Because of this unfair practice he is looking for a change in status. (From ART to regular civilian)."

"Bad military promotion opportunities for technicians."

Part-Time Members and Spouses

Army National Guard

Officers

"The AGR program is a valuable program in terms of what it accomplishes, but by virtue of the influence and positioning of these individuals in key positions, rank structures tend to 'freeze out' Guardsmen whose careers are stalemated by virtue of their inability to occupy such positions in the normal upward movement process. With 23,000 AGR personnel in the system today and 45,000 slated for authorization by 1991, the problem of locking in positions that would normally be assignable to mobilization Guardsman is becoming a problem of increasing dimensions. In part, the problem is caused as a byproduct of a lack of formal personnel management skills and techniques at the Battalion Command level. It appears that we expect more sophistication from our Battalion Commanders in manipulating the AGR authorizations than they now possess, or conceivably are likely to possess in the future."

"Eliminate the mixed FTUS force in troop units. Convert all technician positions to AGR or vice versa. It is not equitable

for an E4 w/deps who is an armorer to be compensated equally in take home pay as his GS-10 supervisor, who may be an O-1 to O-5 in ARNG grade."

"I have a concern that full time slots in ARNG are not being filled by the best quality of personnel. They seem to be filled by individuals that cannot 'cut-it' elsewhere."

Spouses of Officers

"My complaint w/the Guard is that active duty personnel forget that guardsmen have families and civilian jobs."

"Full-time personnel often expect too much from part-time personnel, failing to realize that part-time personnel also have a full-time civilian job which is their primary source of income, thus their primary responsibility."

Enlisted Members

"I think that our unit and the Army National Guard in general could use more full time people. The reason being that unit administrators can't serve the unit's personnel as he should because there are just to many people for him to handle at a drill."

"Too many Guard jobs being filled by full time Guard personnel, there is to much politics and favoritism. Many positions (until the last few years) could not be held by full time people but can now which leaves the part timers unable to obtain higher rank. The Guard was the citizen soldier but less and less nowdays."

"The full time employees in our unit need help. They are very qualified but are putting in way too much time & labor."

"The comment I would like to make concerns a problem with full time AGR position within the unit structure. This problem effects several upper ranks ex. (E-6 & above). When a full time position is implemented into a unit NGB selects a slot in MTOE for that particular position. In several cases this roots out personnel (manday soldiers) who have trained and studied hard for that position, only to have it taken away by a full time position."

"One item that needs improvement in the system is the petty politics between the AGR program/tech program/state employees all serving the same ARNG."

"Technicians and part time Guardspeople should be in two different classes when it comes to promotions, as it stands the promotion policy is too discriminatory against the Guardspeople.

I have been an E-5 for seven years and every time a promotion comes up it goes to a technician. Many others say and feel the same way I do and that is why I am thinking about going to the Reserves. 'If your not a technician you won't go any where in the Guards'."

"Our company training is dictated down to the last detail by full-time (AGR) people who act as though they are in command of the unit. NCOs on the individual detachments (I'm in a special forces company) have virtually no practical input into our training. The exponential increase in the number of AGR personnel in my state over the last couple of years seems to be paralyzing us through an inundation of paperwork, administrative inspections, and other bureaucratic requirements. Even annual training is being jeopardized by this trend."

"The AGR program has to be revamped because it's not accomplishing its goals of improving training and readiness."

Army Reserve

Officers

"The backbone of the Army Reserve System is the full-time staff. We have two units with identical MTOE's in our battalion. One of the units has nine full time personnel. The other unit only has three full-time positions authorized with one of these positions vacant and no authorization to hire a replacement. Yet both units have exactly the same requirements for mission, administration, training, supply accountability, maintenance, etc.

"Weekend drills and Annual Training have been characterized by poor organization, confusion and lack of planning. This appears to be the result of very poor quality technicians rather than poor leadership. Technicians withhold information, demonstrate little competence, have no supervision and are rude to unit members! In the last 2 two years I have attended AT - appropriate paperwork re credentials, housing, numbers of personnel etc. was not sent to active duty stations causing a number of problems when the main party arrived."

"The stated policy of replacing civilian technicians with AGR personnel in deploying units to improve mob[illegible]tion readiness is not valid. Technicians are required [illegible] dual status which has the same effect on mobilization. Recognizing that there are some status quo personnel, in units, other actions could be taken to reassign these personnel rather than replace with AGR. In my experience, civilian technicians are better full-time assets in units than are AGR personnel. This is due to technicians functioning in all major areas of units whereas AGR personnel work in their MOS, normally covering only 1 functional

area. Additionally, technicians usually have a much broader background and a higher level of training than AGR personnel. Combined with cost benefits and longevity of assignments to units, the technician is a much greater asset to a unit."

"A serious problem that has developed as a result of the increased number of Full-time Manning AGR positions in the USAR Program is that the administrative burden placed on subordinate units has increased to the point where it is a training distractor. The full-time personnel at ARCOM level and higher are requiring more and more management type reports than ever before. Units which do not have full-time technicians must spend a great deal of time (est. 50%) to respond to the paperwork requirements. The consequence is that training suffers and unit readiness suffers also. The reserve program is doomed to become burdened with "management criteria and reporting" and lose sight of its real mission to train its soldiers. The administrative burden must be reduced."

"FTM personnel are not sufficient to handle everything coming their way. A lot of drill dates time is occupied in meetings for planning and reacting for unscheduled visits, meetings, requirements from higher headquarters, reports etc. That's why serious consideration should be given to increase the number of drill dates (hours) and AT/ACDUTRA for reserve personnel."

"There should be more effective guidance on how AGR personnel are to be utilized. Why do AGR officers go by the USAR promotion schedule when the RA officers get promoted in half the time."

"Avoid the present conflicts involving AGR-FTM with civilian FTUS and AGR-FTM with drilling reservist 'counterparts'."

"Commanders of reserve units need more supervisory control over their civilian technicians."

"The AGR program is a waste of funds. Hiring civilian technicians would be far more effective, less costly and would get more work done. The civilian technician has provided the continuity needed to allow USAR units to train and operate. The constant turnover of AGR personnel does more to hamper the unit than assist."

"Quality and quantity of AGR personnel is inadequate."

"Once and for all design the reserve units to function with <u>all</u> AGR people or <u>all</u> civilian technicians. Not both... Too much friction and inefficiency."

"The AGR staff assigned to the unit is very inefficient. Personnel are not responsibly supervised and take the attitude that the reservists are there to do the AGR people's work."

"Administration at unit levels falls farther and farther behind. Without enough adequately trained and supervised technicians (like the USAFR) to accomplish the paper mountain, training and readiness, if not morale, will continue to be sorely hurting."

Spouses of Officers

"Qualified full time staff seem to be hiding.... I find it hard to believe qualified people are that hard to find by the PMO. The result is much of necessary work must be done here at home."

"My husband has to spend too much time doing tedious, mundane, clerical tasks because of lack of adequate full-time support in his headquarters company. The disparity between salaries for full-time military vs. full-time civil service employees for similar work causes rapid turn-over & frequent vacancies in the civil service positions, resulting in much frustration & inefficiency."

"Many of the AGR/civilians have forgotten what it was like to be a drilling reservist with family and civilian job responsibilities."

"Another policy to which I'd like to address concerns the maintenance of certain people at their positions despite their obvious lack of ability to perform their jobs. I mention this not for my sake, but for my husband. It's because of people like these that keep my husband from doing <u>his</u> job. They're incompetent and they arent worried about it, because they know it'll take an Act of Congress to fire them. (I refer to civilian techs, mostly). They need to be cleared out! When you do, you'll probably see enumerable problems clear up - <u>overnight</u>!"

Enlisted Members

"Provide full time manning with their own rank structures that does not result in unit members who are in promotable positions not being promoted because FTM are filling the slots."

"Full time personnel/technicians should not stall or eliminate career progression for part-time soldiers."

"The policy of full time manning taking slots on the TOE from reservists is an outrage. I have served long and hard at my unit for 13 yrs. and now I'm not secure in my own home. It's

also absolutely ridiculous that a plumber or carpenter can't climb in rank but a 91C can become an E-7. In civilian life, skilled trades make twice as much as practical nurses."

"All available time is being spent shuffling paperwork and very little time is being spent on training. Full time personnel seem to be creating little paperwork empires to justify their own positions. For the most part the full-time personnel, especially the active Army are not expediting training or making it any easier to training. In fact, with the addition of more full time personnel more and more paperwork is being required of the reserve supervisors during weekend drills."

"Full-time unit support personnel in my unit are incredibly inept at administrative and SIDPERS duties. As a result, training time on weekends must be needlessly spent doing their work and correcting mistakes which are not our responsibilities."

"Full time technicians should not occupy <u>most</u> top grade slots."

"In units containing both AGR/FTM and civilian personnel, it might be a good idea if military was supervised by military and civilian by civilian. In this unit there is a great deal of conflict because military is supervised by civilian. The civilian personnel feel that military should not be stationed at the Reserve centers, and there is harsh discussion about the difference in benefits for Federal workers and Military."

Spouses of Enlisted Members

"One comment I would like to elaborate on is the fact that some full-time military personnel have already made it impossible for some people to remain in my husband's unit (5 retirements or transfers to other (distant) units in the last 4 months.) One officer in particular <u>demanded</u> that one gentleman take a week's vacation and spend that time at the reserve center helping him complete paperwork which he was supposed to have completed himself."

Naval Reserve

Officers

"Too many of the Reserve Center Personnel (TARS) have a negative attitude toward the Reservist - the exact people whose job it is to assist."

"Poor administration by the TAR community (understaffed & a higher % of low quality performers)."

"The Selected Reservist must contend with the 'world-of-TAR's' to serve the country and mobilization site. The TAR's have demonstrated themselves to be most able adversaries of the Regular Navy and to be most able 'kingdom builders" of their own. They serve their own motives; not those of the regular navy mobilization sites."

Spouses of Officers

My husband, in almost all aspects of the military, is very pleased & proud, especially, with the co-operation of his current unit. The "red tape" is never a pleasure for anyone: A group of workers called "TAR" seem to cause some unreasonable problems for my husband & his unit. From my observation point, it appears to me that this "TAR" group create work just for the sake of justifying their jobs. The "TAR" groups right hand doesn't know what its left hand is doing & vise versa. Any information given by them must be verified through another source if possible. They make many errors and appear to be quite incompetent."

Enlisted Members

"At our reserve unit times it is hard to get any assistance. Due to under manning of personal station keepers, we have only 1 person non-military. Would like feed back on why with the personnel or manpower we have why we can't get more help. Here we have over 100 people with veterans & SAM personnel and that makes it very bad for morale due to the over work on the one man trying to see everyones needs."

"The regular Navy personnel assigned to Reserve Center duty seem, in general, to be the worst sailors the Active Duty Navy has to offer. They are incompetent, don't know their job and they don't care to learn or do their job. Their support of Reserve Units and the Center is as minimal as they can make it. For most, duty at Reserve Center is a two to three year vacation."

Marine Corps Reserve

Officers

"Attitude of regular Marines assigned to reserve sites is poor, too many of them 'retire on active duty.'"

"Dislike the "we-they" attitude the active duty (regulars) have about Reserves."

"I&I training staffs spend most of their time in admin. matters instead of training reservists."

Enlisted Members

"I'm dissatisfied with the way most staff NCO's on active duty treat the reserve enlisted. I realize that being sent to a reserve unit is not considered a good duty station, but there is no need to let this attitude come across to the reserve enlisted, especially the junior troops."

"...The next biggest problem is the working attitude of active duty personnel to reservists. There is a definite atmosphere of resentment towards reserves which, in some instances, becomes very hostile. The problem appears to be helped along by local active training command who foster the idea that reservis s are there strictly for the money."

"Need more efficient use of time from I&I staff stationed for the USMCR. They are always on "details" that require their time away from USCMR related activities."

"I feel the system of having two commanding officers in our battery (I&I and Reserve C.O.) is confusing to the members in our battery. There seems to be competition between the two on who runs the battery. This is not a good system for the troops to see. I wish this situation could be stopped."

"Active duty personnel should treat reservist as part of the team and not a half civilian."

"The FTS personnel here are out of control. Rank & chain of command seem to make no difference to them."

Air National Guard

Officers

"Technician/AGR positions should be exempt from holding command/managerial guardsmen position, i.e. Wing Commanders, Squadron Commanders, Section Leaders, NCOIC's. Technicians/Managers tend to conflict interests with guardsmen activities. Guardsmen should make decisions on policies for Guard Units. Technician/AGR position holders should not be place in higher grade positions of Unit Manning. This bottle necks promotion opportunities for guardsmen whos military career time is less than technician/AGR career time."

"Enlisted AGR grades should be those the individuals hold in the military UDL. They should not be based on comparability to the technician (civilian) grades they substitute. Downgrading

from hard earned grades in order to be able to continue in the AGR program does not bolster member's morale, nor does it foster retention of critical skills and dedicated people."

"The technician system puts more emphasis on longevity than it puts on performance. The average unit has several senior LTC technician types that are looking for that command position and in the finest traditions of the Air Force (and Peter principle) they reach a level and stagnate. The result is the below average (sr.) technician takes up staff slots that could be assigned to capable Guard (part-time) pilots. Most of these technicians are no longer interested in flying which is another good reason for reducing their number, or putting them in other areas."

Enlisted Members

"I feel strongly that there is a lot of contention between G.S. employees and AGR employees. The two pay systems are not working well side by side. The personnel will not let them be separate and different from Commanders down to the lower ranked Enlisted. There is constant comparing, back biting and bitterness between the two types of employees. I feel they need one pay system for all Air Guard Technicians."

"Several of the military technicians in our section are not capable of performing the work required, are unorganized and unable to supervise their subordinates. I cannot understand why the Guard hires & keeps these personnel."

"Advancement opportunities stop at E7 because the majority of E8 & E9 slots are filled by technicians. The general attitude of 'weekenders' needs to be improved. They lack a sense of belonging due to inadequate training and no true responsibilities."

"With the distinct separation between ANG Technician and Weekenders, weekender Supervisors are never really given the authority to carry out their responsibilities. No confidence is place on weekenders abilities as supervisors."

"Full time Guardsman (Air Tech) get promoted ahead of Guardsman even if they are less qualified than the part timer."

"I see no logical reason for air technicians to serve any active duty days annually over and above their UTAs. The way it works only adds to the feeling that too many people are eating at the government trough. Increase training for traditional members, that's where it's sorely needed. I feel something should be done to make full career opportunities more equitable

for traditional members as opposed to full time members. Too many times, traditional members are forced out at '20', while that very seldom, if ever, occurs within the full time force."

"Guard/Reserve are treated as underdogs by the technicians of the unit. Guard/Reserve are not asked if they would like to be moved, you come in on drill and find out you were moved or put on a team(DP). It would be nice if they could ask what you think. This is the main reason I'm getting out after 11 years."

"As a whole, technicians are not prepared to train their trainees. Technicians do not have any plans or realistic goals for their trainees. Technicians are not required to submit their training plans, regularly, and their are no follow ups to determine if their goals were met. Mostly, technicians give their workers work that wasn't accomplished by themselves during the previous week."

"Kill the AGR program or the Technician program. The two don't mix."

"I was told today 12 Apr 86, because of a new change to the AGR Regulation I will no longer be NCOIC of my section because the AGR in the section must hold the assigned slot. To me this is totally unfair."

"I think the programs the Guard is now being tasked to implement along with the requirements for training and production are out of balance considering the manpower given to perform them. In the past 5 years, the paperwork aspects have tripled and manpower has been cut. I also feel having to answer to the State, NGB, Ninth Air Force and USAF creates extra workloads for all concerned. There doesn't seem to be enough coordination between commands. This leaves the Guardsmen double-timing in efforts to meet standards set forth by persons who seem to have no knowledge of what we encounter."

"I do not like the AGR program. It is unfair for AGR personnel to receive dependent travel privileges, quicker retirement, higher pay for the same job with less years service, free medical benefits, more educational benefits, not having to pay money into their retirement. The air technician counterpart gets none of these benefits. I believe there is a problem when AGR personnel can take families on government aircraft as space A passengers and fellow guardsmen cannot."

Air Force Reserve

Officers

"Air Reserve Technicians ART's) have received approximately 18 out of 20 Unit vacancy promotions in the 8 years I've been in my unit. I feel a true reserve force should have more non-technician leaders in its officer force to bridge the community/military gap and to avoid the dissatisfaction and conflict between ART's and non-ART's.

"Why is it that when an ART is fired at one unit he then is made operations officer and ART at another. This just ruins another unit."

Enlisted Members

"The largest single handicap to readiness in my unit is management. Many things either don't get done or take too long. The technicians spend a great deal of time spinning their wheels, yet reservists must depend on them to keep the place in working order."

"The opportunities for promotion concern I have relates to those applicable to Air Reserve Technicians. In our unit, those are the most highly qualified members due to the fact that they work their military job full-time as a civilian and have therefore become highly competent. There are currently not nearly enough allocations for high ranking military positions open to ARTs."

Appendix I. MILITARY TECHNICIAN STRENGTH TABLES

Table I-1. Army National Guard Military Technicians
Strength By Military and Civilian Category

Category	GM	GS	WS	WL	WG	PR	Total
Officers	59	1865	138		6		2068
WO		1582	923	6	248	3	2762
Enlisted		5502	585	239	11207	21	17554
Total	59	8949	1646	245	11461	24	22384

Source: DMDC, RCCPDS & OPM Files - FY 86

Table I-2. Army Reserve Military Technicians
Strength By Military and Civilian Category

Category	GM	GS	WS	WL	WG	PR	Total
Officers	15	276	5	1	4		301
WO	10	410	64	33	119		636
Enlisted		1164	54	115	1097		2430
Total	25	1850	123	149	1220		3367

Source: DMDC, RCCPDS & OPM Files - FY 86

Table I-3. Air National Guard Military Technicians
Strength By Military and Civilian Category

Category	GM	GS	WS	WL	WG	PR	Total
Officers	772	1049	22			1	1844
WO			1				1
Enlisted		5678	2332	48	11035	123	19216
Total	772	6727	2355	48	11035	124	21061

Source: DMDC, RCCPDS & OPM Files - FY 86

Table I-4. Air Force Reserve Military Technicians
Strength By Military and Civilian Category

Category	GM	GS	WS	WL	WG	PR	Total
Officers	381	422					803
WO							
Enlisted		1942	907	26	4538		7413
Total	381	2364	907	26	4538		8216

Source: DMDC, RCCPDS & OPM Files - FY 86

Appendix J. MILITARY TECHNICIAN GRADE COMPARISONS

Table J-1. Army National Guard Military Technicians
GS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
GS2			1							1	3.0
GS3		1	12	23	16	6				58	4.2
GS4	1	11	47	200	172	53	7	2		493	4.5
GS5		8	36	358	477	338	109	20	3	1349	5.1
GS6			9	81	215	222	130	46	8	711	5.8
GS7		1	3	59	292	624	740	564	191	2474	6.8
GS8				1	8	19	51	58	56	193	7.7
GS9				3	16	27	58	53	47	204	7.4
GS10									2	2	9.0
GS11						2	2	7	4	15	7.9
GS12							2			2	7.0
TOTAL	1	21	108	725	1196	1291	1099	750	311	5502	6.1
AVG CIVGR	4.0	4.5	4.5	5.0	5.6	6.2	6.8	7.1	7.5	6.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-2. Army National Guard Military Technicians
GS/GM - Officer Pay Grade Comparison

GRADE	O1	O2	O3	O4	O5	O6	TOTAL	AVG MILGR
GS5	5	1					6	1.2
GS6	2	1					3	1.3
GS7	17	22	13	1			53	2.0
GS8	10	23	13	2			48	2.1
GS9	53	97	208	64	16		438	2.8
GS10	2	8	134	123	34		301	3.6
GS11	4	16	93	172	161	15	461	4.1
GS12	2	2	61	163	261	66	555	4.6
GM13			2	20	83	163	268	5.5
GM14					4	55	59	5.9
TOTAL	95	170	524	545	559	299	2192	4.0
AVG CIVGR	8.4	8.8	9.9	10.9	11.7	12.9	10.9	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-3. Army National Guard Military Technicians
WG - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WG1					3					3	5.0
WG3			1	1	3	1				6	4.7
WG4		2	5	27	23	11	2			70	4.6
WG5		12	40	268	459	264	102	20	1	1166	5.1
WG6			5	40	141	194	143	43	12	578	6.1
WG7			4	36	68	31	12	5	1	157	5.2
WG8		6	36	354	673	469	135	38	3	1714	5.2
WG9			4	160	676	1366	1234	301	19	3760	6.2
WG10			4	143	633	782	352	60	6	1980	5.8
WG11				19	164	791	576	171	20	1741	6.4
WG12						12	7	10	3	32	7.1
TOTAL		20	99	1048	2843	3921	2563	648	65	11207	5.9
AVG CIVGR		5.8	6.5	7.5	8.3	9.0	9.2	9.3	9.2	8.7	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-4. Army National Guard Military Technicians
GS/GM - Officer Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WS4					2	1	10	4	2	19	7.2
WS5							6	11	5	22	8.0
WS6						1	1	1	5	8	8.3
WS7						4	22	17	3	46	7.4
WS8					5	32	121	95	15	268	7.3
WS9						27	77	36	7	147	7.2
WS10					1	3	30	22	13	69	7.6
WS11						1	1	1	3	6	8.0
TOTAL					8	69	268	187	53	585	7.4
AVG CIVGR					7.3	8.4	8.2	8.1	8.1	8.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-5. Army National Guard Military Technicians
WS - Officer Pay Grade Comparison

GRADE	01	02	03	04	05	06	TOTAL	AVG MILGR
WS5				1			1	4.0
WS6					1		1	5.0
WS7								
WS8	2	2	1				5	1.8
WS9	1		2	2	1		6	3.3
WS10	1	4	6	4	2		17	3.1
WS11			3	1	1		5	3.6
WS12	1	1	1				3	2.0
WS13		1	1	3			5	3.4
WS14			7	18	8	1	34	4.1
WS15		1	8	14	20	5	48	4.4
WS16				2	11		13	4.8
TOTAL	5	9	29	45	44	6	138	4.0
AVG CIVGR	9.4	10.7	12.5	13.5	14.4	14.8	13.3	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-6. Army National Guard Military Technicians
WL - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WL9					6	44	60	20	3	133	6.6
WL10						7	36	16	4	63	7.3
WL11						7	23	11	2	43	7.2
TOTAL					6	58	119	47	9	239	7.0
AVG CIVGR					9.0	9.4	9.7	9.8	9.9	9.6	7.2

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-7. Army National Guard Military Technicians
PR - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
PR8				1						1	4.0
PR10					3		2			5	5.8
PR11				1	5	7	2			15	5.7
TOTAL				2	8	7	4			21	5.6
AVG CIVGR				9.5	10.6	11.0	10.5			10.6	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-8. Army Reserve Military Technicians
GS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
GS3							1			1	7.0
GS4				4	4	3	2			13	5.2
GS5			1	13	39	66	34	16	2	171	6.0
GS6				9	42	88	96	37	6	278	6.5
GS7				2	31	89	169	113	40	444	7.1
GS8				1		3	20	12	4	40	7.4
GS9					1	14	42	39	39	135	7.7
GS10						1	3	15	29	48	8.5
GS11						2	5	14	10	31	8.0
GS12								1	2	3	8.7
TOTAL			1	29	117	266	372	247	132	1164	6.9
AVG CIVGR			5.0	5.4	5.9	6.3	6.9	7.5	8.6	6.9	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-9. Army Reserve Military Technicians
GS/GM - Officer Pay Grade Comparison

GRADE	01	02	03	04	05	06	TOTAL	AVG MILGR
GS4		1					1	2.0
GS5	1		7	1	2		11	3.3
GS6	1	5	11	2			19	2.7
GS7	3	11	23	11	5		53	3.1
GS8			6	4			10	3.4
GS9	2	3	19	22	9		55	3.6
GS10		1	4	17	9	6	37	4.4
GS11	1	2	13	17	15	4	52	4.1
GS12		1	7	13	13	4	38	4.3
GM13			1	3	3	7	14	5.1
GM14				1			1	4.0
TOTAL	8	24	91	91	56	21	291	3.8
AVG CIVGR	7.6	7.6	8.4	9.8	10.3	11.6	9.3	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-10. Army Reserve Military Technicians
WG - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WG5			1	6	7	10	2	1		27	5.3
WG6				3	25	17	10	7		62	5.9
WG7				4	5	2		1		12	5.1
WG8		1	4	42	103	141	88	35	2	416	5.9
WG9			1	22	48	86	87	36	4	284	6.3
WG10				8	68	94	62	14	1	247	6.0
WG11				1	8	20	11	4	1	45	6.3
WG12					1	2	1			4	6.0
TOTAL		1	6	86	265	372	261	98	8	1097	6.0
AVG CIVGR		8.0	7.7	8.2	8.5	8.7	8.9	8.6	9.1	8.6	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-11. Army Reserve Military Technicians
WS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WS4						2				2	6.0
WS5						1				2	5.0
WS6						2				2	6.0
WS7						1	2	3		6	7.3
WS8						7	10	8	2	27	7.2
WS9						1	2	2	2	7	7.7
WS10						1	6	1		8	7.0
TOTAL				1		15	20	14	4	54	7.1
AVG CIVGR				5.0		7.1	8.6	8.1	8.5	8.0	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-12. Army Reserve Military Technicians
WL - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WL6				1	2					3	4.7
WL7					1					1	5.0
WL8					5	14	29	8	3	59	6.8
WL9					1	4	11	5	3	24	7.2
WL10					3	10	8	5	1	27	6.7
WL11							1			1	7.0
TOTAL				1	12	28	49	18	7	115	6.8
AVG CIVGR				5.0	6.0	6.9	6.6	6.8	8.7	6.6	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-13. Air National Guard Military Technicians
GS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
GS2		1								1	2.0
GS3				3	2					5	4.4
GS4	1	8	24	56	77	18	2			186	4.4
GS5	1	9	28	171	313	146	41	1		710	5.0
GS6			9	65	218	209	112	9	2	624	5.6
GS7			2	38	129	301	591	96	8	1165	6.5
GS8			1	8	61	205	434	172	31	912	6.9
GS9				4	53	215	710	508	242	1732	7.4
GS10					1	15	34	50	70	170	8.0
GS11					1	4	14	53	101	173	8.4
TOTAL	2	18	64	345	855	1113	1938	889	454	5678	6.6
AVG CIVGR	4.5	4.4	4.9	5.3	5.9	7.1	7.9	8.7	9.5	7.5	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-14. Air National Guard Military Technicians
GS/GM - Officer Pay Grade Comparison

GRADE	01	02	03	04	05	06	TOTAL	AVG MILGR
GS7	4	1	1				6	1.5
GS8	1						1	1.0
GS9	26	22	17	17	1		83	2.3
GS10	13	12	15	16	4		60	2.8
G311	17	31	90	119	52		309	3.5
GS12	4	14	93	222	254	3	590	4.2
GM13		2	36	154	400	88	680	4.8
GM14					15	55	70	5.8
GM15						6	6	6.0
TOTAL	65	82	252	528	726	152	1805	4.2
AVG CIVGR	9.8	10.5	11.4	11.9	12.5	13.4	12.1	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-15. Air National Guard Military Technicians
WG - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WG3		1	1		1	1				4	4.0
WG4				4	3					7	4.4
WG5	1	3	24	51	73	25	5			182	4.6
WG6		2	6	41	120	244	160	5		578	5.9
WG7				10	26	16	10			62	5.4
WG8			16	120	183	99	39	1		458	5.1
WG9			5	31	133	178	74	7	2	430	5.7
WG10			10	398	1891	2043	778	35	2	5157	5.6
WG11			9	101	421	673	406	40	4	1654	5.9
WG12			1	49	473	1093	697	67	2	2382	6.1
WG13				6	22	29	41	11	5	114	6.4
WG14						3	4			7	6.6
TOTAL	1	6	72	811	3346	4404	2214	166	15	11035	5.8
AVG CIVGR	5.0	5.0	7.5	9.4	10.0	10.3	10.5	11.1	11.4	10.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-16. Air National Guard Military Technicians
WS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WS5						3	24	46	10	83	7.8
WS6					1	6	16	37	2	62	7.5
WS7					4	67	187	22	1	281	6.8
WS8					1	9	63	24	4	101	7.2
WS9					2	66	355	297	21	741	7.4
WS10					1	46	306	254	70	677	7.5
WS11						5	54	20	13	92	7.4
WS12						3	14	25	56	99	8.4
WS13							5	19	99	124	8.8
WS14							2	13	47	62	8.7
WS15							1		9	10	8.8
TOTAL					9	205	1028	758	332	2332	7.5
AVG CIVGR					7.8	8.5	8.9	9.2	11.7	9.4	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-17. Air National Guard Military Technicians
WS - Officer Pay Grade Comparison

GRADE	01	02	03	04	05	06	TOTAL	AVG MILGR
WS10			2				2	3.0
WS11				1			1	4.0
WS12			2				2	3.0
WS13			2	4			6	3.7
WS14		1	3	3	1		8	3.5
WS15				3			3	4.0
TOTAL		1	9	11	1		22	3.5
AVG CIVGR		14.0	12.4	13.6	14.0		13.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-18. Air National Guard Military Technicians
WL - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WL10					2	17	20			39	6.5
WL11						3	4	1		8	6.8
WL12							1			1	7.0
TOTAL					2	20	26	1		48	6.5
AVG CIVGR					10.0	10.2	10.3	11.0		10.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-19. Air National Guard Military Technicians
PR - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
PR5					1					1	5.0
PR7						2		1		3	6.7
PR8				1	2		1			4	5.3
PR9					2	2	3	2		9	6.6
PR10				2	8	22	9	5		46	6.2
PR11					5	22	4	1		32	6.0
PR12					2	19	4	1	2	28	6.4
TOTAL				3	20	67	21	10	2	123	6.2
AVG CIVGR				9.3	9.9	10.8	10.3	9.8	12.0	10.5	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-20. Air Force Reserve Military Technicians
GS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
GS4				1	6	2				9	5.1
GS5			1	12	53	48	16			130	5.5
GS6				10	21	51	12			94	5.7
GS7				8	68	161	223	16	5	481	6.4
GS8					11	80	104	33	9	237	6.8
GS9				2	61	165	300	123	31	682	6.8
GS10						8	71	14	9	102	7.2
GS11						16	80	42	59	197	7.7
GS12						1		3	6	10	8.4
TOTAL			1	33	220	532	806	231	119	1942	6.7
AVG CIVGR			5.0	6.0	6.9	7.7	8.5	9.2	10.1	8.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-21. Air Force Reserve Military Technicians
GS/GM - Officer Pay Grade Comparison

GRADE	01	02	03	04	05	06	TOTAL	AVG MILGR
GS9	8	6	5				19	1.8
GS11	6	17	28	32	17		100	3.4
GS12	3	11	83	140	54	6	297	3.8
GS/GM13		1	41	179	57	13	291	4.1
GM14				7	22	45	74	5.5
GM15						11	11	6.0
TOTAL	17	35	157	358	150	75	792	4.0
AVG CIVGR	10.2	11.0	12.0	12.4	12.6	13.8	12.4	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-22. Air Force Reserve Military Technicians
WG - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WG5		1				1				2	4.0
WG6				1		1				2	5.0
WG7				6	29	39	2			76	5.5
WG8			4	23	111	47	3			188	5.1
WG9				6	49	60	12	1		128	5.6
WG10				66	1152	1350	180	2		2750	5.6
WG11				10	207	580	298	6		1101	6.1
WG12				11	116	126	29			282	5.6
WG13					1	5	3			9	5.2
TOTAL		1	4	123	1665	2209	527	9		4538	5.7
AVG CIVGR		5.0	8.0	9.7	10.1	10.3	10.6	10.6		10.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-23. Air Force Reserve Military Technicians
WS - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WS3						1				1	6.0
WS5						1	1			2	6.5
WS6					1	6	8			15	6.5
WS7					1	9	20	1		31	6.7
WS8					4	54	187	28		273	6.9
WS9					3	8	119	48	3	181	7.2
WS10					1	7	73	89	38	208	7.8
WS11							10	36	26	72	8.2
WS12							1	4	12	17	8.6
WS13							1	7	17	25	8.6
WS14							2	5	31	38	8.8
WS15								4	20	24	8.8
WS16									11	11	9.0
WS17									9	9	9.0
TOTAL					10	86	422	222	167	907	7.5
AVG CIVGR					8.2	7.9	8.7	10.0	12.7	9.7	

Source: DMDC: RCCPDS & OPM Files - FY 86

Table J-24. Air Force Reserve Military Technicians
WL - Enlisted Pay Grade Comparison

GRADE	E1	E2	E3	E4	E5	E6	E7	E8	E9	TOTAL	AVG MILGR
WL10						7	15	1		23	6.7
WL11							2			2	7.0
WL12							1			1	7.0
TOTAL						7	18	1		26	6.8
AVG CIVGR						10.0	10.2	10.0		10.2	

Source: DMDC: RCCPDS & OPM Files - FY 86

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