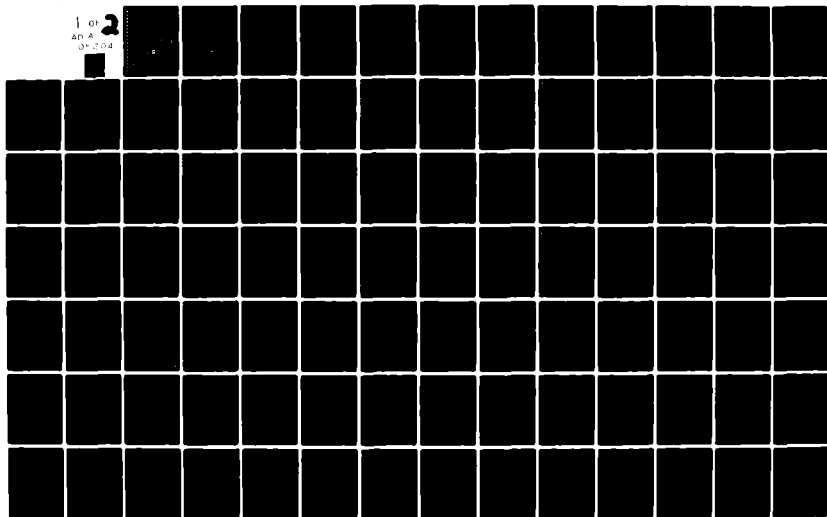


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Analysis of Pretrained Individual Manpower Strengths and Training

AD A105204

By:

James R. Loomer, Project Director
Robert E. Cottle
Robert E. Walsh
Mark Langberg

August 1981

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MANAGEMENT SYSTEMS DIVISION

**GENERAL
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Prepared For:

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Contract No. MDA903-80-C-0664

Contract Expiration Date: 12 February 1982

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CONTENTS

SECTION		PAGE
	EXECUTIVE SUMMARY	ix
	Strengths	x
	Management	xii
	Training	xiii
1	INTRODUCTION	1-1
	Purpose	1-1
	Background	1-1
	Methodology	1-3
	Organization of this Report	1-4
2	STRENGTHS OF THE INDIVIDUAL READY RESERVE AND INACTIVE NATIONAL GUARD	2-1
	Introduction	2-1
	IRR Strength Projections	2-1
	Effect of Recent Initiatives on IRR Strengths	2-6
	Cost-Benefit Analysis of IRR Strength Programs	2-13
	Summary of Alternative Program Cost- Effectiveness	2-27
	Inactive National Guard Strengths	2-28
	Summary	2-29
3	STANDBY RESERVE STRENGTHS	3-1
	Introduction	3-1
	Composition	3-1
	Strength Trends	3-2
	Summary	3-6
4	RETIREE STRENGTHS	4-1
	Introduction	4-1
	Background	4-1
	Retiree Strength Trends	4-4
	Evaluation	4-8
	Retiree Estimating Models	4-18
	Summary	4-20

Accession For	3-2
Re	3-6
For	
U	4-1
<i>Little on file</i>	4-1
Re	4-1
Dist	4-4
Ind	4-8
els	4-18
Dist	4-20
A	

<u>SECTION</u>		<u>PAGE</u>
5	PRETRAINED INDIVIDUAL MANPOWER MANAGEMENT STRUCTURE	5-1
	Introduction	5-1
	Army PIM Management Structure	5-1
	Navy PIM Management Structure	5-4
	Marine Corps PIM Management Structure	5-6
	Air Force PIM Management Structure	5-10
	Summary	5-13
6	REFRESHER TRAINING	6-1
	Introduction	6-1
	The Refresher Training Problem	6-2
	Skill Deterioration	6-3
	Refresher Training Policy	6-11
	Summary	6-14
7	TRANSFER PROCEDURES FROM THE ACTIVE FORCES AND SELECTED RESERVE TO THE IRR	7-1
	Introduction	7-1
	Army Procedures	7-5
	Navy Procedures	7-11
	Marine Corps Procedures	7-18
	Air Force Procedures	7-21
	Conclusions	7-25
	Recommendations	7-31
8	COMPREHENSIVE PROGRAM	8-1
	Introduction	8-1
	Strengths of Pretrained Individuals	8-1
	Management and Organization	8-6
	Refresher Training	8-8
	Transfer Procedures	8-10
	The Future of PIM	8-10

<u>APPENDIX</u>		<u>PAGE</u>
A	LIST OF VISITS	A-1
B	ABBREVIATIONS AND ACRONYMS	B-1
C	IRR PROJECTION MODEL	C-1
D	DMDC SHORT-TERM PROJECTIONS OF RETIRED MILITARY POPULATION	D-1
E	DMDC LONG-TERM PROJECTION OF RETIRED MILITARY POPULATION	E-1
F	RETIRED MILITARY PERSONNEL STRENGTH PROJECTIONS FROM THE MILITARY SERVICE'S FY 83-87 POM	F-1
G	BIBLIOGRAPHY OF SKILL DETERIORATION LITERATURE	G-1
H	NAVY SEPARATION ORDERS	H-1

FIGURES

<u>NUMBER</u>		
2.1	IRR Direct Enlistment Program: Cost Calculation	2-17
2.2	IRR Direct Enlistment Program: Expected Cost per Person-Year of IRR Service	2-18
2.3	Calculation of Active Duty Person-Years Accessed in FY 80 Case	2-21
2.4	Determination of Enlistment Alternative Case A	2-22
2.5	Reduced Term of Enlistment: Increased IRR Person-Years and Costs	2-23
2.6	Summary of the Costs of IRR Person-Years Produced by Alternative Programs	2-24
4.1	DMDC Long-Term Projections of the Retired Military Population	4-7
4.2	Projections of Army Retired Strengths	4-9
4.3	Projections of Navy Retired Strengths	4-11

<u>NUMBER</u>		<u>PAGE</u>
4.4	Projections of Marine Corps Retired Strengths	4-12
4.5	Projections of Air Force Retired Strengths	4-14
4.6	Summary of Retired Military Strength Trends--All DoD	4-15
5.1	Army PIM Management Structure	5-2
5.2	Navy PIM Management Structure	5-5
5.3	Marine Corps PIM Management Structure	5-7
5.4	Air Force PIM Management Structure	5-11
6.1	Hypothetical Forgetting Functions	6-4
6.2	Proficiency Versus Time	6-12
7.1	Retention/Separation Process	7-4
C.1	Enlisted IRR Gains from Active Army (First Term Enlistees) FY 80 to FY 86	C-4
C.2	Enlisted IRR Gains from Active Navy (First Term Enlistees) FY 80 to FY 86	C-5
C.3	Enlisted IRR Gains from Active Marine Corps (First Term Enlistees) FY 80 to FY 86	C-6
C.4	Enlisted IRR Gains from Active Air Force (First Term Enlistees) FY 80 to FY 86	C-7
F.1	Army Retiree Inventories	F-1
F.2	Navy Retiree Inventories	F-2
F.3	Marine Corps Retiree Inventories	F-3
F.4	Air Force Retiree Inventories	F-4

TABLES

<u>NUMBER</u>		<u>PAGE</u>
2.1	IRR Enlisted Gains from Active Duty (Thousands)	2-5
2.2	Percentage of Enlistees 26 Years and Older	2-8
2.3	Estimated Increase in IRR Strength by Extending the MSO to Women and Enlistees 26 Years and Older	2-8
2.4	IRR Person-Years Gained Due to Change in DEP Enlistments	2-10
2.5	Impact on IRR Strength of Eliminating Transfer to Standby Reserve During Year 6 of MSO	2-11
2.6	First-Term Soldiers Transferred to the IRR in Lieu of Discharge	2-12
2.7	Reduced Term of Enlistment Program: Cost and Yield of Enlistment Terms	2-19
2.8	Reduced Term of Enlistment Program: Enlistment Mixes for Cost Analysis	2-22
2.9	Army Enlisted ING Strength Projections	2-29
3.1	Summary Strength - Total Standby Reserve	3-3
3.2	Standby Reserve Strength Projections	3-5

EXECUTIVE SUMMARY

This is a report dealing with the pretrained individual manpower (PIM) programs of the Military Services. It is the result of research performed by a General Research Corporation (GRC) study team between February and August 1981 under contract to the Deputy Assistant Secretary of Defense (Reserve Affairs). The report reviews PIM strength, management, and training issues and recommends applicable management and policy changes.

For the purposes of this study, pretrained individuals are defined as personnel not on active duty or in Selected Reserve units who are qualified in a military occupation, are available for mobilization, and are cognizant of their military status. In the event of war, the available pretrained individuals will be recalled to fill urgent, time-sensitive positions required to bring military forces to wartime strength, expand the continental United States support base, and replace early losses until other individuals can be inducted and trained.

Pretrained individuals are members of the Ready Reserve, Standby Reserve, or the retired lists of the Military Services as follows:

Ready Reserve

- Individual Mobilization Augmentees (IMA)
- Individual Ready Reserve (IRR)
- Inactive National Guard (ING)

Standby Reserve

- Active Status
- Inactive Status

Retired Lists

- Regulars
- Reserves

The size of the pretrained manpower pool has diminished markedly since the early 1970s. The causes are many but one of the most significant is the reduction in the size of the active force since Vietnam, which means that fewer individuals are completing their enlistments and entering the Ready Reserve. In addition, the length of active enlistment has increased, reducing the time spent in the Ready Reserve. The result is that in the event of a major conflict requiring full mobilization, such as a war in Europe, there would be insufficient pretrained individual manpower to meet the needs of the Military Services during the first months of the conflict. The situation in the Army is particularly critical.

Previous work by the GRC study team¹ surveyed and evaluated Service PIM programs and recommended new policies and procedures to improve the mobilization potential of pretrained individuals. This report builds on the previous work by addressing additional strength, management, and training issues.

STRENGTHS

The Office of the Secretary of Defense and the Military Services have undertaken numerous initiatives in recent years to reverse the downward trend in IRR strengths. These efforts, which have reversed the declining strength trend, include:

- Extending the 6-year military service obligation (MSO) to all individuals regardless of age or sex
- Eliminating credit toward fulfillment of the MSO for time spent in the Delayed Entry Program
- Eliminating automatic transfer to the Standby Reserve for the sixth and final year of the MSO (Army and Marine Corps only)
- Transfer to the IRR in lieu of discharge
- IRR/ING bonus program

¹ Pretrained Individual Manpower Study, General Research Corporation, Report 1189-01-81-CR, February 1981.

During this study, each initiative was analyzed to determine the projected impact on future PIM strengths. The results of the estimates are provided in Section 2 of this report.

In addition, the study team reviewed the PIM strength projections made annually by the Military Services. We found that the projections are the product of estimates by many agencies and that, within each Service, no single office is totally responsible for the quality of the projections. The result is that many of the strength projections are of questionable accuracy and may impact adversely upon future management decisions. The study team recommends that the Services assign appropriate singular responsibility for this function and develop methods to validate strength estimates.

The study team's conclusions regarding future PIM strength trends are that:

- The downward trend in the strengths of all Services' IRRs has been reversed. IRR strength should increase substantially during the FY 1982 to FY 1987 time frame.
- Except in the Air Force, the strength of the Standby Reserve should continue to decrease in all Services.
- The retiree population of each Service is expected to continue its slow, steady growth. However, the portion of the retiree population considered to be a mobilization asset is not expected to change significantly.

After analyzing the current and projected strength of the IRR/ING, Standby Reserve, and retired military population, the study team concluded that PIM strength is, and will continue to be, short of the projected wartime demand for PIM. We recommend that the Services undertake steps to improve strengths as needed to meet mobilization requirements. In this regard, we developed measures of cost effectiveness for three alternative programs to increase the strength of the IRR/ING:

- The IRR reenlistment program
- The IRR direct enlistment program
- Offering a 2-year enlistment option in the active forces

Of the three alternative programs, the IRR reenlistment program is least costly and the IRR direct enlistment program is most expensive. However, given that the three programs produce individual reservists with different characteristics, we believe that each Service should examine its wartime requirements and implement the program that produces IRR members with characteristics to fulfill its requirements. Specifically, the Army should undertake a strength improvement effort that is a combination of all three programs.

We concluded that all three of the alternative IRR strength improvement programs produce pretrained individuals at a cost below the marginal value of PIM. Our rough calculation of the marginal benefit of PIM reveals that the Services can afford to significantly increase spending for PIM resources, with one qualification--spending must be driven by wartime requirements. However, the current PIM shortfall is real so the Services should implement necessary strength improvement programs now and modify the programs later as they refine wartime requirements.

MANAGEMENT

A major portion of the study was devoted to examining PIM management issues. At the *micro* level, we examined the Services' outprocessing procedures--the set of processes that create IRR resources. GRC found that there is a general lack of knowledge about the IRR among personnel in the active and reserve components. Thus, service members separating from active duty and entering the IRR are not well informed about responsibilities and privileges of membership in the IRR. The Navy and Marine Corps have created good outprocessing briefings which give IRR members the necessary information, but substantial numbers of separating members never receive the briefings. The Army and Air Force do not provide separatees with adequate IRR briefings. Except for the Navy, the Services do not provide written material to support or supplant the outprocessing briefings. In addition, we found that:

- Physical exam requirements are not well known in the field
- Services recruit members for IRR service in the correct precedence; i.e., only after they have been recruited for active and Selected Reserve duty
- The Services have not established adequate IRR recruiting incentive programs for their recruiters

At the *macro* level, we examined each Service's organization structure for PIM management and found that in each Service the organizational structure is decentralized. Each of the Services has established a focal point of responsibility for PIM policy and plans within its Manpower/Personnel Headquarters staff. These agencies establish policies and programs to improve manpower mobilization capabilities for all manpower including PIM. They coordinate with their respective reserve chiefs who are responsible for budget execution and personnel management/training of pretrained individuals. The responsibilities for PIM management at the Headquarters level are intermixed with responsibilities for active and Selected Reserve management. Thus PIM, its priority for resources being lower than the active and Selected Reserve forces, receives relatively little management attention and is not a highly visible program.

GRC believes that the Services should establish PIM management offices within their Manpower/Personnel Headquarters staffs in order to improve the visibility of the PIM program at each Service Headquarters and to focus increased attention on PIM matters.

TRAINING

At the time of mobilization, many pretrained individuals may have been away from military service for an extended period during which their military skills may have deteriorated. It is important that the Services develop appropriate training policies recognizing that:

- Wartime requirements should be time-phased and specify skill proficiency levels

- The PIM inventory should be classified by skill proficiency level
- For skills where wartime requirements for immediately available, fully qualified, pretrained individuals exceeds the existing inventory, refresher training should be provided prior to mobilization

The Services need to be able to manage their PIM inventories by skill proficiency level. Skill deterioration rates must be developed to enable the Services to know how long a pretrained individual can be expected to retain skill qualification.

A large body of knowledge exists on skill deterioration oriented toward individuals who are on active duty rather than in the pretrained manpower pool. GRC reviewed the existing literature and found that many concepts are transferrable to the PIM skill deterioration problem. We recommend that the Services begin a two-phased effort to develop skill deterioration rates for pretrained individuals. First, the Services should make subjective estimates of skill deterioration rates. This should provide usable results in a relatively short time and enable the Services to begin formulating refresher training policies in the near term. Second, a longer term effort should concurrently refine the subjective estimates by conducting scientific research into the deterioration rates of selected skills.

SECTION 1
INTRODUCTION

PURPOSE

The purpose of this report is to present the results of a study of the Military Services' pretrained individual manpower (PIM) programs undertaken by the General Research Corporation (GRC) under contract to the Office of the Deputy Assistant Secretary of Defense (Reserve Affairs). This study concentrates on management, strength, and training issues and makes recommendations for improvements in these areas.

BACKGROUND

PIM consists of individuals who are not currently members of either the active force or Selected Reserve units but who have prior military experience: individual reservists, inactive National Guardsmen, and retired military personnel. Pretrained individuals are important military assets and are the only source of supply of military manpower which would be available to reinforce our regular forces and reserve units during the early phases of a major conflict. In the event of mobilization, pretrained individuals would be recalled to active duty and used as fillers to bring units to wartime strength, as replacements for early casualties, and to expand the support base in the continental United States (CONUS).

In recent years, wartime manpower planning has shown that, in the event of a major conflict such as a war in Europe, the supply of pretrained individual manpower would be insufficient to meet the early needs of the Military Services. In the Army, the situation is particularly critical because of the size of the expansion needed to fight a major war and the size of the estimated early wartime casualties.

Based on the estimated shortfall of pretrained manpower, the Office of the Secretary of Defense (OSD) and the Services have undertaken numerous initiatives to increase the supply of pretrained individuals. These include management and legislative actions to reduce losses of pretrained individuals, initiatives to increase the size of the pool of pretrained individuals, and programs to tap the wealth of experience held by military retirees who previously were not considered to be mobilization assets. Taken together, these initiatives have caused OSD and Service managers to focus substantial attention on the requirements for pretrained individuals and on methods to improve the supply of such individuals for mobilization.

GRC prepared a report¹ in February 1981 that detailed the OSD and Service initiatives undertaken to improve the availability and management of pretrained individuals. The report also provided an evaluation of the PIM programs and recommended actions to be taken to improve them.

As a result of the GRC investigation into Service PIM programs, OSD identified subjects requiring further research and contracted with GRC to undertake that effort. This report provides the results of the research which was concentrated in the following areas:

- PIM Strength Improvements
 - Evaluate Service Individual Ready Reserve (IRR) and Inactive National Guard (ING) strength projections
 - Perform cost analysis of programs to improve pretrained individual reservist strengths
 - Evaluate the future strengths of:
 - Standby Reserve
 - Retired military personnel

¹Pretrained Individual Manpower Study, General Research Corporation, Report 1189-01-81-CR, February 1981.

- Management Improvements
 - Survey and evaluate Service policies and procedures for outprocessing personnel from active duty to the IRR
 - Research and evaluate Service organizational structures and responsibilities for managing PIM programs
- PIM Refresher Training
 - Research the existing body of knowledge on skill decay rates and learning retention patterns
 - Evaluate PIM refresher training policy

METHODOLOGY

Generally, the research sequence undertaken in this effort has been approached as follows:

- Preliminary research
- Data collection
- Analysis
- Evaluation

These steps comprised a recurring process because, during the analysis or evaluation, we often discovered that additional research or data were required or that a different type of analysis was better suited to the problem.

During the preliminary research, the study team collected and reviewed all available and applicable literature to establish a body of knowledge relating to the subject area under investigation. The study team contacted each Service to establish points of contact, obtain required data, and seek support for the study effort.

Based on our preliminary research, the study team conducted visits with members of OSD and Service headquarters staff and Service field agencies. During these visits, individuals were requested to provide

their candid opinions of the programs for which they were responsible and to provide appropriate supporting data. These visits are listed in Appendix A.

The data which we collected during our site visits and received from OSD and the Services were analyzed in relation to the problem at hand. Often this involved calculating future pretrained manpower strengths or comparing alternative projections of pretrained manpower strengths. When the dimensions of the problem under review could not be quantified, our analysis consisted of examining, comparing, and contrasting all available qualitative information and synthesizing a conclusion based on judgment and reasonableness.

Following the analysis step, the study team evaluated the work already performed, revised the work where necessary, and prepared this report.

ORGANIZATION OF THIS REPORT

Following this brief introduction, Sections 2 through 4 address the supply of the various types of pretrained manpower--Individual Ready Reserve and Inactive National Guard; Standby Reserve; and Retirees. Methods of forecasting the future level of pretrained individual manpower are considered as are the costs and impacts of initiatives to improve the supply of pretrained individual manpower.

Sections 5 through 7 are devoted to a discussion of OSD and the Services' management of pretrained individual manpower. Section 5 covers the organizational relationships of the Service activities responsible for different aspects of pretrained manpower programs and proposes enhanced organizational structures. Section 6 considers actions to improve the quality of the pretrained individual manpower mobilization asset by providing refresher training to pretrained individuals and suggests an approach to dealing with the refresher training question. Section 7 reports on, and recommends improvements in, the Services' procedures for transferring individuals from active duty to the IRR.

Finally, Section 8 ties the preceding sections together and suggests that a comprehensive pretrained individual manpower program should be established. The OSD pretrained manpower policy implications are explored and improved pretrained manpower management procedures are recommended.

A list of abbreviations and acronyms used in this report may be found at Appendix B.

SECTION 2
STRENGTHS OF THE INDIVIDUAL READY RESERVE AND
INACTIVE NATIONAL GUARD

INTRODUCTION

This section discusses strength issues related to the Individual Ready Reserve (IRR) and the Inactive National Guard (ING). Emphasis is placed on the IRR because it is the principal source of pretrained individuals for each of the Military Services. The ING program, which is unique to the Army, is also discussed, but to a lesser degree.

Specifically, this section discusses the following areas:

- Service IRR strength projections
- Effect of recent initiatives on IRR strength
- Cost-benefit analysis of alternative programs to increase IRR strength
- ING strengths under the current Army program
- Summary of strength issues

IRR STRENGTH PROJECTIONS

The IRR is the primary source of pretrained individual reservists available to augment active force and Selected Reserve units in the event of mobilization. As such, the Office of the Secretary of Defense and the Military Services must estimate future IRR strengths as a basis for future initiatives and policy decisions. Currently, the Military Services submit IRR strength projections as part of their annual Program Objective Memoranda (POM). The accuracy of these strength projections, which has been questioned by OSD in the past, is critical to policy and resource decisions. Therefore, as part of this study effort, GRC was

tasked to review IRR strength projections made by the Services and to recommend changes that could improve future strength projections. The review is limited to enlisted strengths because they comprise the largest portion of the IRR and are the most critical mobilization resource.

IRR Gains and Losses

IRR strength estimation is a difficult process because of the multitude of ways a person may enter and leave the IRR. Most enlisted members enter the IRR to serve the remainder of their 6-year military service obligation (MSO) and they leave at the expiration of their MSO. Some individuals are lost to the IRR when they return to active duty. In addition, individuals may transfer between the IRR and the Selected Reserve and between the IRR and the Standby Reserve. In the future, IRR reenlistments and direct enlistments may also affect strength projections.

Working with OSD and the Military Services, it became apparent to the GRC study team that the major uncertainty surrounding IRR enlisted strength projections is that of estimating future IRR gains from active duty. Other gains and losses such as transfer to and from the Selected Reserve, constitute a significant flow into and out of the IRR. However, these are relatively stable and their projections may be based on historic trends. In addition, as discussed below, many external factors affect the number of enlisted gains from active duty. Thus, GRC concentrated on reviewing the Services' projections of enlisted gains from active duty on the assumption that if these were correctly estimated, then the total IRR strength estimates would fall within a reasonably accurate range.

IRR Enlisted Gains From Active Duty

The Services manage their active enlisted forces through the use of very complex models that consider force size, term of enlistment, attrition rates, retention patterns, etc. The outputs of these models assist the Services in determining:

- Personnel costs
- Recruiting requirements

- Training requirements
- Strength projections
- Estimated gains and losses
- Projected retirements

These outputs, in turn, enable the Services to establish policies related to enlistment/reenlistment incentives, reenlistment eligibility criteria, etc. As a byproduct, the models also output the number of obligors leaving active duty in a given year who will be transferred to the IRR.

As discussed previously, most enlisted personnel enter the IRR to serve the remainder of their MSO. Thus, all individuals who enlist in the active forces for less than 6 years, who do not reenlist or extend for continued active service beyond 6 years, and who are not discharged for administrative or disciplinary reasons,¹ should enter the IRR.² It is possible to make a gross estimate of the number of individuals who will enter the IRR in a given year by knowing or estimating:

- The number of enlistees by term of enlistment and fiscal year of enlistment
- Attrition rates
- Reenlistment rates

In order to make such an estimate, GRC constructed a simple (hand-calculator) model of enlisted IRR gains as follows:

¹Under current procedures, individuals released under the Trainee Discharge or Expeditious Discharge programs may be transferred to the IRR at the discretion of their commanding officer.

²The 6-year MSO did not apply to females who entered the military before 1 February 1978 and to individuals over the age of 26 who entered before November 1979.

Potential IRR gains (number completing active duty)
 Less: Females (who enlisted before 1 February 1978)
 Less: 26 year-old enlistees (before 9 November 1979)
 Less: Attrition (administrative/disciplinary)
 Less: First term reenlistments
 Equals: Total IRR enlisted gains

The data used for the model came from a variety of sources. The Defense Manpower Data Center (DMDC) provided special reports that displayed by Service, for the years FY 73-80, the number of male and female nonprior service enlistees, age of enlistees (over/under 26), term of enlistment, and attrition percentages by months of service. The number of enlistees (male and female) projected to enter after FY 1980 was obtained from the Services' FY 82-86 POMs. First term reenlistment data came from the DoD publication, Selected Manpower Statistics, Fiscal Year 1980. In this simple model, the calculations for future years assumed that current attrition rates and reenlistment rates would persist in the future. Appendix C displays the results of the GRC calculations and the assumptions/methodology involved.

Comparison of IRR Active Duty Gains Projections

Table 2.1 compares Service and GRC IRR active duty gains projections for FY 80-86 and shows:

- With minor exceptions, the year-to-year active duty gains trends are consistent. That is, the GRC model, which is based on cohort analysis, follows the same upward and downward trends that are predicted by the more complex Service models.
- The GRC prediction for FY 1980 was extremely close to Army and Marine Corps actual gains figures. Yet GRC estimates were considerably lower than the Navy's actual figure and considerably above the Air Force figure.
- In the case of the Navy, GRC's calculations include 3-year enlistees (about 15,000 enlistees each year)

TABLE 2.1
IRR ENLISTED GAINS FROM ACTIVE DUTY
(Thousands)

	FISCAL YEAR						
	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>
Army 83-87 POM (GRC)	78.8 (79.2)	58.6 (65.7)	60.6 (66.8)	74.6 (81.5)	66.1 (74.9)	74.6 (76.8)	76.4 (78.1)
Navy 83-87 POM (GRC)	37.1 (31.1)	38.8 (31.0)	25.6 (24.4)	28.4 (23.6)	32.7 (27.9)	34.4 (28.1)	32.9 (26.9)
Marine Corps 83-87 POM (GRC)	24.4 (24.4)	23.8 (20.4)	23.9 (19.9)	22.3 (20.1)	23.8 (19.2)	22.9 (19.8)	22.3 (19.3)
Air Force 83-87 POM (GRC)	21.8 (25.9)	19.8 (25.9)	23.2 (25.9)	24.0 (26.2)	25.1 (27.2)	29.3 (30.4)	30.1 (31.9)

who are in the "Active Mariner" program. Upon the completion of active duty, Active Mariners are transferred to the Selected Reserve for the remainder of their MSO. Discounting Active Mariners, our estimate for FY 1980 becomes 25,300 rather than 31,100, widening the difference between the GRC and Navy estimates. We were unable to resolve this discrepancy or to determine how the Navy's calculations were made.

- The lower Air Force estimate probably reflects the Air Force policy of discharging individuals who are released with less than "honorable" discharges rather than being transferred to the IRR.
- Navy outyear projections remain consistently above the GRC estimate despite a projected increase in the first term reenlistment rate (44% to 47%) which should reduce the input to the IRR from the active Navy.
- The Army FY 81 and FY 82 projections fall considerably below GRC's projections, probably reflecting the improved reenlistment rate which has been experienced in recent months. This is not unreasonable given the Army's new

emphasis on retention. However, an improvement in economic conditions in the United States could reverse this trend.

- Although the FY 80 Marine Corps figure was accurately predicted by the GRC model, the Marine Corps outyear projections are consistently higher than the GRC projection. If this is true, it reflects a lower rate of first term reenlistment than has been experienced in recent years, a trend counter to the other Services.

The foregoing discussion raises many questions about the overall accuracy of IRR strength estimates. In each Service, many agencies are involved in calculating IRR projections.¹ The agency that has the primary staff responsibility for estimating IRR strengths receives inputs from various active and reserve agencies but often has no method available to validate these estimates or to understand the underlying assumptions. The Services should assign appropriate responsibility for this function and develop methods to validate IRR strength estimates. The simple cohort attrition model developed in this study could help identify obvious errors and identify problems relating to the assumptions underlying the Services' manpower programs as they impact on future IRR strengths.

EFFECT OF RECENT INITIATIVES ON IRR STRENGTHS

The Office of the Secretary of Defense and the Military Services have undertaken initiatives in recent years to increase the strength of the IRR and ING. The initiatives include:

- Extending the 6-year military service obligation (MSO) to all individuals regardless of age or sex.
- Eliminating credit toward fulfilling the MSO for time spent in the Delayed Entry Program (DEP).

¹For additional details about Service PIM management structures, see Section 5 of this report.

- Eliminating automatic transfer to the Standby Reserve for the sixth and final year of the MSO (Army and Marine Corps only).
- Transfer to the IRR in lieu of discharge.
- IRR/ING bonus program.

This section briefly describes each initiative and presents an estimate of its impact on IRR/ING strengths.

Extending the 6-Year Military Service Obligation to all Members

Prior to 1977, Title 10, US Code required persons entering military service to serve a total of 6 years and prescribed that any part of such service not served on active duty shall be served in a reserve component. However, the law did not apply to women or to those men who were over the age of 26 at the time they entered the armed forces. The impact of these "loopholes" was a reduction in strength of the IRR because these two groups were not required to serve beyond their contractual period of active duty.

In order to stop this loss of potential IRR manpower, OSD submitted legislative proposals that resulted in the following changes to Title 10, US Code:

- PL 95-79, July 30, 1977. This law extended the 6-year MSO to females who entered the military after 1 February 1978.
- PL 96-107, November 9, 1979. This law extended the 6-year MSO to persons entering the armed forces, regardless of age, effective on the date of enactment.

The first effects of these changes on the strength of the IRR will be seen in the fourth year after enactment--FY 1981 for women, FY 1983 for persons over the age of 26.

To estimate the impact on IRR strength of extending the MSO to females, the study team used historical accession data and Service FY 82-86

projected accessions as shown in Appendix C. Attrition and reenlistment rates were then applied on a year-by-year basis to estimate female gains and losses to the IRR.

The percentage of individuals entering service over the age of 26 increased over the period FY 73-77 and has leveled off since that time. Therefore, the study team assumed that the percentage would remain constant over the period FY 80-86 at FY 80 levels as shown in Table 2.2.

TABLE 2.2
PERCENTAGE OF ENLISTEES 26 YEARS AND OLDER

<u>Service</u>	<u>Male</u>	<u>Female</u>
Army	3.3	7.3
Navy	2.4	5.6
Marine Corps	1.1	3.1
Air Force	2.2	5.9

The net effect of the MSO extension to all individuals is shown in Table 2.3. As could be expected, the data show that the MSO extension

TABLE 2.3
ESTIMATED INCREASE IN IRR STRENGTH BY EXTENDING
THE MSO TO WOMEN AND ENLISTEES 26 YEARS AND OLDER

	<u>81</u>	<u>82</u>	<u>Fiscal Year</u>		<u>85</u>	<u>86</u>
			<u>83</u>	<u>84</u>		
Army	5992	15001	28063	34124	37375	38693
Navy	40	1322	4592	7414	9106	9411
Marine Corps	<u>1/</u>	756	1784	2411	2559	2832
Air Force	<u>1/</u>	<u>3766</u>	<u>10445</u>	<u>13582</u>	<u>14312</u>	<u>14951</u>
Total DoD	6032	20845	44884	57531	63352	65887

1/ No 3-year female enlistees

increases IRR strengths rapidly from FY 1981 through FY 1985. By FY 1986 the impact of extending MSOs levels off as annual gains are almost matched by the number of those whose MSOs expire. It should be noted that changes in male/female mix of the Services' accessions will affect the impact of this initiative in future years.

Eliminating Credit for Time Spent in the Delayed Entry Program (DEP)

DEP is a program that was begun by the Marine Corps in 1963 to stimulate enlistments by providing variable active duty reporting dates for enlistees. Under the program, a person could enlist and specify a future reporting date that would coincide with personal plans such as high school graduation. Under the agreement, the individual enlists in the Reserve of his or her Service pending entry on active duty, at which time the reserve enlistment is terminated and replaced by a regular enlistment contract. The individual begins to accrue longevity for the purposes of pay upon entry into the DEP, a point used by recruiters to sell enlistees on the program. Prior to October 1979, the time spent in the DEP also counted toward completion of the 6-year military service obligation incurred by all personnel entering military service.

The impact of granting credit toward completion of the 6-year MSO, however, was to reduce the effective strength of the IRR. Under the all-volunteer force, most enlistees (70% to 90%) enter through the DEP and spend 2 to 4 months in it before entering active duty.

The study team obtained data from OSD and the Defense Manpower Data Center (DMDC) showing, for each Service, the number of individuals entering through the DEP, the average length of time spent in the DEP and the associated person-years. Using these data and adjusting for attrition and reenlistment rates (Appendix C), the study team estimated the impact on IRR average strengths (person-years of IRR service) due to this initiative. The estimates are shown in Table 2.4.

TABLE 2.4
IRR PERSON-YEARS GAINED DUE TO
CHANGE IN DEP ENLISTMENTS

<u>Service</u>	<u>1985</u>	<u>Fiscal Year</u>	
		<u>1986</u>	<u>1987</u>
Army	12,921	15,411	11,325
Navy	5,666	6,838	7,963
Marine Corps	4,945	5,724	5,709
Air Force	<u>6,532</u>	<u>8,448</u>	<u>9,005</u>
Total DoD	30,064	36,421	34,002

Eliminating Automatic Transfer to the Standby Reserve

Section 269, Title 10, US Code formerly provided that members of the IRR could be transferred from the IRR to the Standby Reserve for their final (sixth) year of Military Service. Although the transfer was not mandatory under law, the Army and Marine Corps had interpreted the law to mean that the person should be automatically transferred to the Standby Reserve for the final year of service. The individual was simply transferred to the Standby Reserve and notified after the transfer had taken place.

In order to stop this drain on IRR strength, OSD directed in April 1978 that the Army and Marine Corps eliminate the practice. OSD also sponsored remedial legislation (Public Law 95-485, 20 October 1978) which provides that members with Ready Reserve obligations may be transferred to the Standby Reserve under regulations prescribed by the Secretary of Defense. The net result of these two actions is that very few persons now transfer from the IRR to the Standby Reserve.

Table 2.5 provides an estimate of the Army and Navy IRR strength impact of this initiative. The strength figures shown reflect the number of individuals who remain in the IRR for one additional year. Thus, the figures show the increase in person-years as well as changes in end strength of the IRR.

TABLE 2.5
IMPACT ON IRR STRENGTH OF ELIMINATING TRANSFER TO
 STANDBY RESERVE DURING YEAR 6 OF MSO

	<u>Increase in Strength</u>									
	<u>78</u>	<u>79</u>	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Army	81,669	73,306	74,471	72,658	73,085	66,348	54,218	56,166	70,970	52,333
Marine Corps	27,242	23,806	21,942	27,510	24,776	20,617	18,202	18,749	19,921	19,735

Transfer to the IRR in Lieu of Discharge

With the advent of the all-volunteer force (AVF), the Services have been more prone to discharge personnel for reasons of poor performance or unsuitability for military service. During the period of the draft, poor performance, poor attitude, and misconduct generally resulted in discharge under less than honorable conditions, an adverse personnel action requiring a significant administrative workload. Under the AVF, however, new programs were established to allow the Services to discharge poor performers more quickly and without prejudice. During the period of an individual's initial training, discharges were made under the "Trainee Discharge Program." If the individual performed poorly in his or her unit, the discharge was made under the "Expeditious Discharge Program." When added to the normal discharges for pregnancy, hardship, etc., the Services were discharging some 100,000 persons a year prior to completion of a normal active duty enlistment term. A similar situation existed in the Selected Reserve where many were discharged for lack of satisfactory participation.

Each person discharged was no longer obligated to spend a total of 6 years on active duty or in the Reserve. An alternative to discharging these individuals is to transfer them to the IRR for the remainder of their obligated service so that they will be available in the event of mobilization.

The Army, which has the most serious IRR shortfall, has undertaken a major effort to transfer individuals to the IRR in lieu of discharging them. Table 2.6 shows Army FY 83-87 POM estimates of the number of first-term enlisted personnel who will be transferred from active service to the IRR in lieu of discharge.

TABLE 2.6

FIRST-TERM SOLDIERS TRANSFERRED
TO THE IRR IN LIEU OF DISCHARGE

	<u>Fiscal Year</u>						
	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Male	9,997	10,386	10,218	10,497	10,815	10,847	10,735
Female	<u>4,092</u>	<u>4,131</u>	<u>3,799</u>	<u>3,731</u>	<u>3,780</u>	<u>3,797</u>	<u>3,789</u>
Total	14,089	14,517	14,017	14,228	14,595	14,644	14,524

The other Services have not undertaken any program to transfer individuals who do not complete their first term of enlistment to the IRR. The exception is that the Selected Reserve units of the Army, Marine Corps, and Air Force have begun to transfer their nonparticipants to the IRR in lieu of discharge. No estimates have been made of the number of such transfers.

IRR/ING Reenlistment Bonus Program

The IRR/ING reenlistment bonus program was authorized, on a test basis, by Public Law 96-342, 8 September 1980. The program authorized the payment of a \$600 bonus for reenlistment of 3 years in the IRR or ING. The individual must repay a pro rata share of the bonus if he fails to complete the terms of his reenlistment.

Each of the Services implemented the bonus program during FY 1981 and began seeking reenlistments for the IRR/ING. Letters were mailed to individuals whose MSO was about to expire and persons leaving active duty without a remaining service obligation were encouraged to reenlist in the IRR.

The results of the program were disappointing. As of 15 July 1981, only 1261 individuals had actually reenlisted for continued IRR service, as shown below:

IRR Reenlistments
(as of 15 July 1981)

Army Reserve	759
Army National Guard	30
Navy	150
Marine Corps	223
Air Force	<u>99</u>
Total DoD	1261

Despite the fact that the Services' programs did not begin to function until the period January-March 1981, it appears that the Congress will not authorize the bonus to be paid in FY 1982 because of the poor results attained. This will impact on all Services' IRR strength programs, but will be particularly hard on the Army's program that calls for about 10,000 IRR bonus reenlistments a year from FY 1982 through FY 1987. The impact on the ING program is discussed in the final portion of this section of the report.

COST-BENEFIT ANALYSIS OF IRR STRENGTH PROGRAMS

This section assesses the relative costs and benefits of three programs that can improve the strength of the IRR:

- Reenlistment in the IRR. Under this program, which was discussed previously, the service member received a \$600 bonus for reenlisting in the IRR for three additional years beyond the expiration of the MSO.

- Direct enlistment in the IRR. The Army tested an IRR direct enlistment program in 1979. Under this program, individuals were enlisted, trained in combat skills, and, upon completion of training, given the option of transferring to the active force, the Selected Reserve, or going to the IRR for the remainder of their MSO. Each individual who goes into the IRR serves approximately 5-1/2 years compared to 2 to 3 years for individuals separating from active duty.
- Reduced terms of enlistment on active duty. Reducing the minimum term of enlistment on active duty would have a positive effect on IRR strength. The shorter term of enlistment would require more enlistees to maintain a given trained strength and the enlistees would remain in the IRR longer than those who choose the normal 3- or 4-year term of enlistment.

In our analysis of the cost-benefit of these three programs, we used a simple measure of program benefit--person-years of IRR service. The costs of the three programs were difficult to quantify because the costs are both direct and hidden: direct costs which can be expressed in financial terms have been used in our analysis. Enlisted pay, recruiting and training costs, administrative costs, and the cost of a clothing bag are examples of direct financial costs which are included. Hidden and/or nonfinancial costs, such as the cost of active duty enlistments that might be lost to an IRR direct enlistment program, or the reduction in unit cohesiveness and teamwork due to the increase in enlisted turnover which 2-year enlistments might introduce, have not been included. However, hidden costs are recognized in the concluding paragraphs of this section.

The analyses presented below deal with the costs and benefits of implementing the three programs in the Army. The Army was selected for analysis because it has the most critical shortfall in IRR strength.

However, the relative costs and benefits of the three programs are not expected to vary significantly between Services.

IRR Reenlistment Bonus Program

The costs and benefits of the IRR reenlistment bonus program are almost self-evident. The current minimum reenlistment term under the IRR reenlistment bonus program is 3 years. This results in a benefit of 3.0 person-years of IRR service. However, not all persons who reenlist in the IRR will complete all 3 years of service due to failure to comply with the conditions set forth in the IRR reenlistment contract. When this occurs, the bonus recipient is required to repay the unearned portion of the bonus, thus keeping the relation of bonus cost to IRR service intact.

In addition to the dollar amount of the bonus, there are administrative expenses involved in the processing of the reenlistment contract and the payment of the bonus.

Since the Army IRR reenlistment bonus program has only recently been implemented and is not yet operational on a significant scale, meaningful historical cost data are not available for analysis. Therefore, GRC's costing for the IRR reenlistment bonus program is based on the Army's Reserve Components Personnel and Administration Center (RCPAC) estimate that each reenlistment requires 4 hours of clerical support by a GS-4 (\$24). GRC assumed that processing of the IRR bonus payments would incur an equal cost. In addition, GRC assumed that 80% of the individuals who reenlist will complete their term of enlistment. Using these assumptions, the cost of an IRR person-year is calculated as follows:

Bonus Cost (\$600 ÷ 3 years) = \$200

Administration $\frac{(\$24 \times 2)^a}{(0.8 \times 3)^b} = \underline{20}$

Total \$220

^a\$24 of GS-4 time will be required twice; once to process the reenlistment and an equal amount to process payments.

^b80% will complete 3 years.

IRR Direct Enlistment Program

Under the IRR direct enlistment program, individuals would be enlisted, trained, and then go into the IRR if they did not choose to transfer to the active force or the Selected Reserve. During the Army's 1979 IRR direct enlistment program test, about 10% of those who enlisted failed to complete training and were discharged. Training in combat arms skills categories requires about 13 weeks of the 6-year MSO. Thus, the expected person-years of IRR service resulting from an IRR direct enlistment can be computed as follows:

IRR portion of MSO	$6 - 13/52 = 5.75$
Probability enlistee will complete training	<u>.90</u>
Expected IRR service years	5.18

The benefit of the IRR direct enlistment program is, therefore, 5.18 person-years of IRR service.

The cost of the IRR direct enlistment program is incurred in increments. The majority of the cost is experienced during initial training with additional costs being incurred during periods of refresher training in the third and fifth years of service. Training costs for this analysis are treated as follows:

- Initial training costs attributable to IRR direct enlistees who fail to complete initial training are assigned to the IRR direct enlistment program.
- Reductions in cost and decreases in IRR service years resulting when IRR direct enlistees transfer to the active or Selected Reserve component are assumed to be about equal, and therefore, are not considered.
- Refresher training costs for only that portion of IRR direct enlistees who actually transfer to the IRR are assigned to the program.

- Initial training costs are assumed to equal the variable portion of the cost of training an infantryman [Military Occupational Skill (MOS) 11B10] (IRR direct enlistments are limited to combat arms skills). Fixed costs of the training base are not included.
- Refresher training costs are assumed to equal 4/13 of initial training costs (two 2-week training periods similar to the 13-week initial training period).

These assumptions are reflected in the cost calculations shown in Figure 2.1 and result in an expected cost of \$6,925 per direct enlistment.

Cost of Initial Training

Variable portion of the cost of training an infantryman (MOS 11B10)	\$5353 ^a
---	---------------------

Cost of Refresher Training

Variable portion of refresher training (4/13 x \$5353)	\$1647
Cost of 2 round trips to training site (@ \$550 ^b each)	<u>1100</u>
Cost of refresher training	\$2747
Probability of IRR direct enlistee successfully completing training	<u>0.9^c</u>
Expected variable cost of an IRR direct enlistee's refresher training	<u>2472</u>
Total expected cost of obtaining and training an IRR direct enlistee	<u>\$7825</u>

Figure 2.1 IRR Direct Enlistment Program: Cost Calculation

Data Sources:

^a Military Occupation Specialty Cost Handbook, Directorate of Cost Analysis, Office, Comptroller of the Army, September 1980.

^b FY 82 Army Budget Justification Book.

^c "Army Individual Ready Reserve Direct Enlistment Test, Final Report," unpublished, prepared by OASD(RA), January 1980.

The calculation of the expected cost per person-year of IRR direct enlistment service is shown in Figure 2.2 and results in an expected cost of the IRR direct enlistment program of about \$1,511 per person-year of IRR service.

Total expected cost of obtaining and training an IRR direct enlistee	\$7825
Expected IRR service years	5.18
Expected cost per person-year of IRR service (\$7825 ÷ 5.18 years)	\$1511

Figure 2.2 IRR Direct Enlistment Program: Expected Cost per Person-Year of IRR Service

Reduced Terms of Active Duty Enlistment

In assessing the effectiveness of reduced terms of enlistment for active duty as a means of increasing the strength of the IRR, it was necessary to determine the IRR person-year yield and the cost of alternative terms of enlistment. Two-, three-, and four-year terms of enlistment were evaluated. After determining the yield and cost associated with each term of enlistment, several accession cases--each featuring a different mix of enlistment terms but yielding an equal quantity of trained, active duty person-years--were examined. The marginal analysis of changes in IRR yield and active duty costs between each accession case provides a measure of the cost effectiveness of reducing enlistment terms to increase IRR strength.

To compute the benefit of reduced terms of enlistment, attrition and reenlistment rates must be considered. On an individual basis, it is simple to compute the IRR person-year yield of a specific enlistment option. Each enlistee who is released from an initial active duty enlistment is transferred to the IRR for a period equal to the 6-year MSO

less the term of enlistment. On an aggregate basis, the calculation must consider that some enlistees never enter the IRR because they are discharged prior to completing their initial term of service or because they reenlist for a second term and remain on active duty beyond the expiration of their MSO. Thus, the expected IRR person-year yield of any enlistment can be calculated by:

- Subtracting the term of enlistment from the MSO to determine the IRR term of service.
- Reducing the IRR term of service by:
 - The probability of discharge prior to the expiration of the enlistee's term of service.
 - The probability of the enlistee reenlisting.

Table 2.7 shows the expected active duty person-years, the IRR person-years, and costs associated with each term of enlistment considered in the analysis.

TABLE 2.7
REDUCED TERM OF ENLISTMENT PROGRAM:
COST AND YIELD OF ENLISTMENT TERMS

Enlistment Term	Expected Person-Years		Expected Cost Per Active Duty Person-Year
	Active	IRR	
2	1.2559	2.05	\$14,070
3	1.8935	1.42	13,319
4	2.6325	0.94	12,971

Expected person-years reflect:

- The time lost during initial training based on the 15 weeks required to train for a typical skill.

- The probability of attrition during each successive year of service (derived by analysis of DMDC produced data on accession cohorts for FY 73 through FY 79).

For example, after considering time lost in training and the probability that the enlistee might not complete the entire enlistment term, the expected (average) period a 2-year enlistee spends on active duty is 1.26 years. Similarly, although each enlistee who is released after concluding a 2-year enlistment will spend 4 years in the IRR, after accounting for attrition and reenlistments, only about half of those who enlist will ever be transferred to the IRR. Thus, only 2.05 years of IRR service can be expected from each 2-year enlistment.

The expected person-year cost figures represent:

- The variable training cost of training all enlistees based on the cost to train for a typical skill, (MOS 36K20).
- The standard person-year cost of maintaining enlisted persons.

The Army's Office of the Deputy Chief of Staff for Personnel (ODCSPER) provided the study team with the average time from enlistment to grade promotions and with standard factors for the annual cost of maintaining an enlisted member of a specified grade. Cohort analysis was applied to adjust the person-year cost factors to reflect the probability of attrition in each successive year of the enlistment term. These data were used to determine the total expected cost of the enlisted person during the term of active duty enlistment. The expected cost per person-year for each enlistment option was derived as follows:

$$\text{Expected Cost per Person Year} = \frac{\text{Total Expected Cost}}{\text{Expected Person-Year Yield}}$$

Referring to Table 2.7, note that the expected cost per active duty person-year is highest for 2-year enlistments and lowest for 4-year enlistments. Short enlistments are subject to the same training costs

and training time as long enlistments. Since a relatively greater portion of a short enlistment is spent in training and there are fewer years in the term of enlistment over which training costs can be spread, 2- and 3-year enlistments are subject to higher person-year costs.

After determining the active duty person-year costs and the active duty and IRR person-year yields for each term of enlistment, the study team evaluated different enlistment mix accession cases using FY 80 accessions data as the base case as shown in Figure 2.3.

<u>Enlistment Term</u>	<u>Number of Enlistments</u> (x)	<u>Expected Person-Years per Enlistment</u> (=)	<u>Person-Years Accessed</u>
2-year	1,552	1.2559	1,949
3-year	108,024	1.8935	204,543
4-year	48,503	2.6325	<u>127,684</u>
Total			334,176

Figure 2.3 Calculation of Active Duty Person-Years
Accessed in FY 80 Case

The study team then assumed that FY 80 accessions yielded a number of trained, active duty enlisted person-years that represented a steady-state requirement for enlisted persons. Each alternative accession case was formulated to yield the same number of trained, active duty person-years as the FY 80 accession case. In each successive accession case, 3- and 4-year enlistments were arbitrarily forced downward and 2-year enlistments were expanded to meet the requirement for trained active duty person-years. Figure 2.4 illustrates the calculation of alternative case A.

Person-Years from 3- and 4-year enlistments:

<u>Enlistment Term</u>	<u>Number of Enlistments</u>	<u>(x)</u>	<u>Expected Person-Years per Enlistment</u>	<u>(=)</u>	<u>Person-Years Accessed</u>
3-year	90,750		1.8935		171,835
4-year	40,750		2.6325		<u>107,274</u>
Total					279,109

Requirement for 2-year enlistments:

$$\frac{334,176 - 279,109}{1.2559} = 43,847$$

Figure 2.4 Determination of Enlistment Alternative Case A

Table 2.8 shows the various accession cases formulated in this manner and evaluated during the analysis.

TABLE 2.8

REDUCED TERM OF ENLISTMENT PROGRAM:
ENLISTMENT MIXES FOR COST ANALYSIS

<u>Enlistment Case</u>	<u>2 Yr</u>	<u>Term of Enlistment 3 Yr</u>	<u>4 Yr</u>
FY 80	1,552	108,024	48,503
A	43,847	90,750	40,750
B	86,175	73,450	33,000
C	128,570	56,175	25,200
D	170,755	38,900	17,500
E	213,188	21,600	9,700

By applying the cost and yield data shown in Table 2.7 to the enlistment mixes shown in Table 2.8, the total IRR person-year yield and total active duty cost of each accession case may be computed. As the accession mix is varied by increasing the number of 2-year enlistments

from the FY 1980 base case, both the IRR person-year yield and the active duty cost increase at a relatively steady rate.

The results of the evaluation are graphically displayed in Figure 2.5. The marginal cost of procuring additional IRR strength by a program of reduced terms of enlistment turns out to be \$855 per person-year of IRR service.

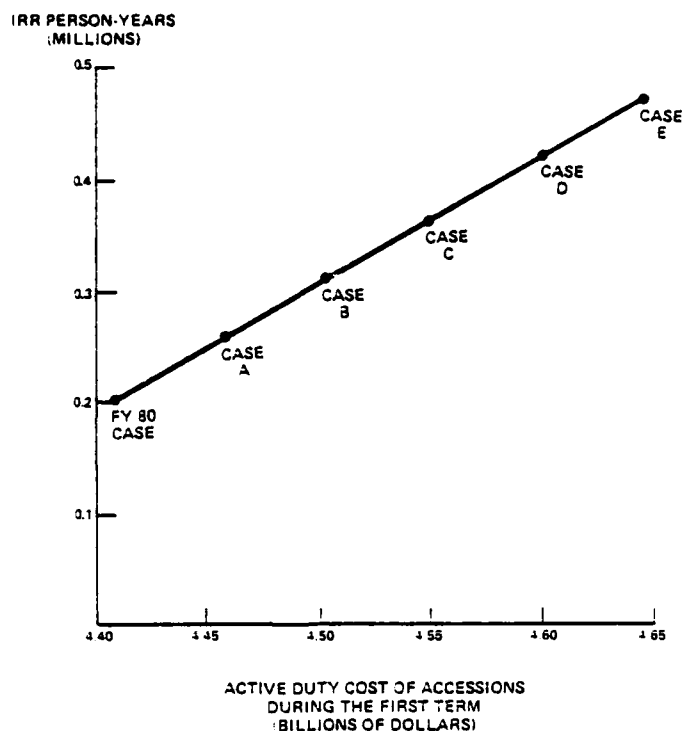


Figure 2.5 Reduced Term of Enlistment:
Increased IRR Person-Years and Costs

This analysis ignores the real world limitation on the total number of accessions obtainable in any single year. While offering 2-year enlistments probably would expand the total number of accession to the Services, it is unclear whether the gain would be sufficient to offset the loss in active duty person-years which would occur as a result of enlistees switching from 3-year to 2-year enlistments.¹ In other words,

¹An Evaluation of the Army Two-Year Travel and Training Option. The General Research Corporation, GRC Report OAD-CR-113, June 1975.

a portion of enlistees who would be willing to enlist for 3 years might choose a 2-year enlistment if it were available. Thus, while the 2-year enlistment option might increase total accessions by attracting individuals who would not enlist for three or more years, the increase might not be sufficient to replace active duty person-years lost due to a reduction in 3-year enlistments.

In addition to the feasibility of enlistment mixes, our analysis also ignores some types of costs which would increase as a result of an expanded 2-year enlistment program. For example, shorter enlistments would mean the average duty tour would become shorter, increasing permanent change of station (PCS) costs and probably reducing unit efficiencies. In addition, there would be a larger number of accessions, escalating recruiting and bonus payment costs. Thus, the cost estimates developed in this analysis should not be regarded as all encompassing, but should serve as a rough guide for decision-making.

Evaluation of Alternative Programs for Increasing IRR Strengths

The preceding discussion provides the relative cost-effectiveness of three alternative programs for increasing IRR strength. The resulting estimates of the program costs per incremental IRR person-year are summarized in Figure 2.6. As previously mentioned, no attempt has been made to capture hidden or nonfinancial costs in the cost-effectiveness analysis. Similarly, qualitative differences in the IRR resources produced by the alternative programs have not been addressed. The paragraphs which follow consider some of the nonquantifiable benefits and costs of the alternative programs and discuss the ramifications of GRC's cost estimates.

IRR Reenlistment Bonus Program	\$220
IRR Direct Enlistment Program	1511
Reduced terms of enlistment in the active service	855

Figure 2.6 Summary of the Costs of IRR Person-Years
Produced by Alternative Programs

IRR Characteristics

The characteristics of the IRR resource generated through the alternative programs would differ due to the level of skill at the time of entry into the IRR and the length of time an individual remains in the IRR without skill refresher training.

The IRR reenlistment bonus program is restricted to prior-service personnel who have no remaining MSO. Individuals may reenlist at the time of their release from active duty if they have no remaining MSO or they may reenlist upon expiration of their MSO while serving as members of the IRR. Although the skills of these individuals will have deteriorated by the end of the 3-year IRR reenlistment period if they do not attend refresher training, they are the best qualified of the IRR assets because of their length of active service. However, they also tend to be more senior in grade and age and they may not meet the early wartime demand for large numbers of junior personnel to serve as replacements or fillers for combat units (particularly in the Army and Marine Corps).

The IRR direct enlistee, on the other hand, will enter the IRR as a young, recently trained individual who is in good physical condition. However, the initial skill level of the direct enlistee is marginal because of the lack of unit experience. Although the initial skill level is relatively low, mandatory refresher training in the third and fifth years will keep that skill at about the same level throughout the 5-3/4-year period of service.

The 2-year active duty enlistee provides an IRR resource who has sufficient active duty to be a fully-trained mobilization asset and is young and more junior in grade than the 3- and 4-year enlistee. However, the 2-year enlistee spends a longer time in the IRR and, without refresher training, undergoes greater skill deterioration than the 3- or 4-year enlistee.

In evaluating alternative programs to increase IRR strength, a decision must be made on what type of IRR resources the Service needs.

If a Service needs relatively senior grade, highly skilled personnel, then the IRR reenlistment program is probably the best alternative. On the other hand, if a Service needs relatively junior grade, young individuals with low skill levels to assign to combat positions, then perhaps the IRR direct enlistment program is best. The 2-year enlistment option would probably produce the best all-around IRR asset for both purposes.

Enlistment Market

A hidden cost of each of the programs considered in this section is the effect of the program on the total manpower pool. There is a limited manpower pool and the IRR must compete with active and Selected Reserve components for both prior service and nonprior service enlistees.

The IRR reenlistment program affects only the recruitment of prior service personnel. For persons leaving active duty with no remaining MSO, the IRR offers an alternative to the Selected Reserve. However, service in the Selected Reserve involves far more participation by the individual (48 drills and 2 weeks of annual training) for a substantial level of annual income plus skill dependent reenlistment bonuses. It is doubtful that an individual who is interested in joining the Selected Reserve would instead choose IRR service for a small bonus payment.

For members of the IRR who are reaching the expiration of their MSO, the IRR reenlistment bonus program competes even less with active and Selected Reserve recruiting. Most of these individuals have been in the IRR 2 or 3 years and have been contacted by both active and Selected Reserve recruiters. If these recruiting efforts have not been successful by the time the individual reaches the end of his MSO, it is unlikely that the IRR bonus will divert the individual from reenlisting in the active or Selected Reserve component. It should be noted that some Services believe the active/Selected Reserve recruitment period is effectively limited to the first year after the individual enters the IRR because experience shows that few individuals return after that time.

For nonprior service personnel, both the 2-year enlistment option and the IRR direct enlistment program affect the enlistment market. The impact of the 2-year enlistment option on the number of accessions was discussed previously. In the case of the IRR direct enlistment program, there can be both positive and negative effects on active and Selected Reserve enlistments.

Under the Army's recent test, an individual who enlisted in the IRR was permitted to choose transfer to the active Army or the Selected Reserve following initial entry training. This allowed the enlistee to try 3 months in the Army and return home to serve 5-3/4 years in the IRR plus two 2-week periods of skill refresher training in the third and fifth years. If implemented on a nationwide basis, the program might well increase the supply of nonprior service accessions willing to enlist in the Army. Alternatively, the program undoubtedly would attract some individuals who would otherwise enlist for 3 years. Data available from the recent Army test are insufficient to make any estimates of the trade-offs involved.

SUMMARY OF ALTERNATIVE PROGRAM COST-EFFECTIVENESS

Although the cost analysis presented above is based on Army cost factors and enlistment cases, GRC believes that the results of the cost benefit analysis should be applicable to all Services.

Based on the foregoing discussion of IRR characteristics, the manpower pool, and the cost-effectiveness of the various programs, it would appear that the most economical means available for increasing IRR strengths is the IRR reenlistment bonus program. In fact, it would be cost effective to increase the amount of the IRR bonus payment in order to increase the number and/or quality of IRR reenlistees. The total IRR bonus payment could be increased to about \$4400 (\$1467/IRR person-year) before becoming as expensive as the direct enlistment program.

Increasing the amount of the IRR reenlistment bonus to \$4400 would increase the number of reenlistments and improve IRR strengths. Unfortunately,

it would probably have a very negative impact on Selected Reserve recruiting. Currently, the Selected Reserve offers \$900 and \$1800 bonuses for 3-year and 6-year reenlistments, respectively. A substantial increase in the IRR bonus above those figures would make the IRR more attractive and, at some bonus level, begin to cause individuals to choose IRR service instead of the Selected Reserve. GRC believes that the Congress should authorize continuation of the bonus program and that the Services should increase the amount of the bonus. However, Selected Reserve enlistments/reenlistments should be monitored to determine how they are impacted by increases in the IRR reenlistment bonus amount. GRC believes that the IRR reenlistment bonus amount should initially be doubled, to \$1200, but that further increases should only be made on a gradual basis and after an evaluation of the service-wide recruiting effects of increased IRR bonuses.

As discussed previously, the IRR reenlistment bonus program provides a higher quality IRR resource than the IRR direct enlistment program. However, a major war would undoubtedly require (at least in the Army) IRR resources such as the direct enlistment program could provide--young, able-bodied, and junior grade reservists, trained in the combat arms. Even though our analysis shows the direct enlistment program is more expensive than the reenlistment bonus program, the Services should implement IRR enlistment programs to the extent that a wartime demand for this type of IRR resource exists.

A 2-year enlistment program, while more expensive than the IRR reenlistment bonus program, might be less expensive than the IRR direct enlistment program. It would provide a young, but experienced, IRR resource and would improve IRR strengths. However, it is difficult to assess the cost-effectiveness of a 2-year enlistment program due to our inability to quantify the cost impact of variables such as recruiting costs, changes in recruit quality, and increased turbulence in the force.

INACTIVE NATIONAL GUARD STRENGTHS

The Inactive National Guard (ING) program, which is provided for in Title 32, US Code, enables individuals to remain affiliated with the

National Guard even though they are unable to train on a regular basis with their unit. Thus, individuals who might otherwise be lost from the National Guard will remain available for military service in the event of mobilization. At the present time, only the Army has established an ING program.

In order to increase the number of available pretrained individuals, the Army plans to increase the strength of the ING over the period FY 1981-87. This will be accomplished by transferring increased numbers of individuals from National Guard units and obtaining reenlistments under the ING bonus program that was discussed previously. Army ING enlisted strength projections submitted in the FY 83-87 POM are presented in Table 2.9.

TABLE 2.9
ARMY ENLISTED ING STRENGTH PROJECTIONS
(End-FY Strengths)

	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Non-bonus	9198	13474	14552	15543	16399	17024	17343
Bonus	<u>2450</u>	<u>7105</u>	<u>11295</u>	<u>13879</u>	<u>15019</u>	<u>16045</u>	<u>16531</u>
Total	11648	20579	25847	29422	31418	33069	33874

Table 2.9 shows that the Army plans to make a major increase in strength over the period FY 81-87 and that the ING bonus program is responsible for a significant element of that growth. If the ING bonus program is not reinstated by the Congress, the ING will achieve only about half of its projected strength. This will exacerbate the Army's pretrained manpower shortfall.

SUMMARY

In summation, the IRR and ING strength trends are upward, due to initiatives taken by OSD and the Military Services. Despite these

initiatives, the available supply of pretrained individuals remains far short of projected needs, particularly in the Army.

The initiatives undertaken to date have closed former loopholes that reduced potential IRR strengths. These have accomplished the "free" options that were available to OSD and the Services to increase strengths. Future improvements will require difficult decisions on the allocation of resources among competing programs such as reduced terms of active enlistments, improved bonus programs, IRR direct enlistment, etc.

In order to make decisions about future strength improvement programs, the Services should improve the strength projection process by developing methods for independent evaluation of strength projections and assigning singular responsibility for review and analysis of the projections. These steps could offset the problem associated with the large number of agencies that are involved in the process.

If Congress authorizes continuation of the IRR/ING reenlistment bonus, the Services should increase the bonus amount. However, the amount should not be increased to a level which would interfere with Selected Reserve recruiting.

SECTION 3
STANDBY RESERVE STRENGTHS

INTRODUCTION

Section 267, Title 10, US Code provides that in each armed force there are a Ready Reserve, a Standby Reserve, and a Retired Reserve, and states that each Reserve shall be placed in one of these categories. This section also provides for the existence of both active status and inactive status members in the reserve components.

In order to involuntarily recall the Standby Reserve, Congress must have declared war or a national emergency (Section 672a, Title 10, US Code). However, a member in inactive status may not be ordered to active duty unless the Secretary concerned, with the approval of the Secretary of Defense, in the case of a Military Department, determines that there are not enough qualified Reserves in an active status or in the Inactive National Guard in the required category who are readily available. This same section of Title 10 formerly required the Director of Selective Service to screen members of the Standby Reserve prior to recall to determine their availability for active duty. However, this requirement was removed from Title 10 by PL 96-357, 24 September 1980.

COMPOSITION

Section 273, Title 10, US Code provides for a Standby Reserve that is composed of an active status list and an inactive status list as follows:

- The active status list is composed of reservists who:
 - Are completing their obligation
 - Are being retained under Section 1006, Title 10, (retention of twice passed over officers with over 18 years' service until credited with 20 good years)

- Were screened from the Ready Reserve as being key personnel and requested assignment to the active status list
- Are temporarily assigned for hardship or other cogent reason, with the expectation of being returned to the Ready Reserve
- The inactive status list is composed of members who are not required by law or regulation to remain members of an active status program but who:
 - Desire to retain their reserve affiliation in a non-participating status
 - Have skills which may be of possible future use to the armed forces concerned
 - Do not volunteer for assignment to the active status list
 - Desire to be placed in the Standby Reserve to avoid promotion passover (Army and Air Force only)

The foregoing lists are general and there are some differences between the Services in the categories of individuals assigned to each list.

STRENGTH TRENDS

The total strength of the Standby Reserve of the Military Services has declined in recent years from about 576,000 in FY 1973 to about 86,000 in FY 1980. Table 3.1 provides details. Several factors are responsible for the decline in strength:

- The overall size of the armed forces has declined since the Vietnam conflict, resulting in fewer people transferring from the active component and Selected Reserve to the IRR and Standby Reserve.
- Increase in the length of active duty enlistments, which reduces the amount of time spent in the IRR or Standby Reserve.

TABLE 3.1

SUMMARY STRENGTH - TOTAL STANDBY RESERVE *

	FISCAL YEAR							
	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
USAR	415,268	340,481	282,698	217,426	152,784	82,677	30,544	19,407
USNR	48,657	48,679	50,442	50,587	48,668	36,684	26,019	23,337
USMCR	65,899	60,112	40,698	30,020	28,796	20,773	2,712	1,929
USAFR	45,968	46,442	38,628	42,081	44,234	42,932	44,146	41,359
TOTAL	575,792	495,714	412,466	340,114	274,482	183,066	103,421	86,032

* From DASD(RA) Official Guard and Reserve Manpower Strengths and Statistics (Reserves not on Active Duty) RCS:DD:M(M)1147/114, September 30, 1980.

- Discontinuing the automatic transfer of IRR members to the Standby Reserve of personnel in their last, or sixth year of obligated military service. See Section 2 of this report for details.

At the direction of the Office of the Secretary of Defense,¹ the Services initiated actions in 1980 and 1981 to retain members in the Ready Reserve, thus reducing the flow of individuals to the Standby Reserve and to transfer individuals who are mobilization assets from the Standby to the Ready Reserve. These actions were intended to comply with OSD guidance that members of the Standby Reserve should no longer be considered as mobilization assets.

However, as a result of a continuing OSD-Service dialog and GRC Report 1189-01-81-CR, February 1981, OSD revised the earlier guidance and allowed the Services to consider the Inactive Status List of the Standby Reserve to be mobilization assets.² Despite this change in guidance, the Services were to continue screening members of the Standby Reserve, identifying those who are mobilization assets and requesting them to transfer from the Standby Reserve to the Ready Reserve.

Table 3.2 provides strengths of the Standby Reserve of each Service as of end-FY 1980 and Service strength projections for FY 1983 and FY 1987. All Services appear to be managing the input to the Active Standby List in accordance with OSD guidance. The Army projection of 400 individuals by end-FY 1983 seems particularly low in the Active Standby List which includes individuals who are designated as key employees and those temporarily assigned with the expectation of returning to the Ready Reserve. The Navy, which has a high percentage of enlisted members in the Active Status List, reduces that number from 3100 to 600 by FY 1983.

¹ OASD(MRA&L) Memorandum, subject: Standby Reserve Policy, 23 January 1980.

² OASD(MRA&L) Memorandum, subject: Summary of DASD (Reserve Affairs) Verbal Policy/Guidance Statements of 27 February 1981.

TABLE 3.2
STANDBY RESERVE STRENGTH PROJECTIONS¹
(Thousands)

	End-FY Strengths					
	FY 80 (Actual)		FY 83 (Projected)		FY 87 (Projected)	
	Active	Inactive	Active	Inactive	Active	Inactive
Army						
Officer	8.1	10.4	0.3	0.4	0.3	0.4
Enlisted	.9	*	0.1	0.0	0.1	0.0
Subtotal	9.0	10.4	0.4	0.4	0.4	0.4
Navy						
Officer	0.1	20.0	0.1	15.6	0.1	12.4
Enlisted	3.1	0.1	0.6	0.1	0.6	0.1
Subtotal	3.2	20.1	0.7	15.7	0.7	12.5
Marine Corps						
Officer	1.6	0.1	1.2	0.1	1.2	0.1
Enlisted	0.2	0.0	0.2	0.0	0.1	0.0
Subtotal	1.8	0.1	1.4	0.1	1.3	0.1
Air Force						
Officer	6.3	29.7	4.8	30.5	4.1	32.3
Enlisted	3.5	1.6	3.1	1.3	1.0	1.3
Subtotal	9.8	31.3	7.9	31.8	5.1	33.6

¹Source: Service FY 83-87 POMs

*Fewer than 100

The Navy has few officers in the Active Status List. The Marine Corps projection appears reasonable in that it achieves a modest decrease over the projection period.

Air Force Active Standby List strengths show a decrease of about one-half over the period, reaching a level of 5100 by FY 1987. On a proportional basis, the Air Force achieves a level roughly comparable to that of the Marine Corps, a figure that appears reasonable.

Projections of the Inactive Status List strengths show a major reduction in the Army, a moderate reduction in the Navy, no change in the Marine Corps, and a slight increase in the Air Force. The Navy and Air Force continue to show relatively high officer strengths, reflecting their policy of retaining pilots and doctors in the Standby Reserve. The Army's drastic reduction from 10,400 to 400 officers appears to be a

continuation of earlier OSD guidance to screen the Inactive Status List and eliminate its future consideration as a mobilization asset. The Army should reassess this projection in view of recent changes in OSD guidance.

SUMMARY

All of the Services are reducing the strengths of their Standby Reserve, reflecting the effects of recent OSD policy directives. In the case of the Army, the reductions appear to be more drastic than required under current OSD policy. GRC recommends that the Army reassess its Standby Reserve program before the next POM cycle.

SECTION 4
RETIREE STRENGTHS

INTRODUCTION

Retired military personnel constitute a significant pool of thoroughly experienced individuals, many of whom are young enough to perform additional military service in the event of mobilization. Under the all-volunteer force, IRR strength has declined below the level of manpower required for mobilization. Thus, retired military personnel are now being viewed as an important mobilization asset. Consequently, the Military Departments have developed programs to recall retirees during a mobilization to fill line, staff, administrative, and training positions and for force sustainment during the initial stages of a conflict. This section presents estimates of retired military personnel strengths and discusses the sources of data available for managing retired military personnel as a mobilization asset.

BACKGROUND

When considering retired military personnel as a mobilization asset, two dimensions should be considered: vulnerability for recall and fitness for service. Vulnerability for recall varies by Service and by type of retirement as summarized below:

- Regular retirees
 - Retirees may be recalled involuntarily by the Secretary of the retiree's Military Service at any time according to regulations prescribed by the Secretary of Defense (effective 13 September 1981).
- Reserve retirees
 - Reserve retirees of all Services may be recalled involuntarily only upon declaration of war or national emergency by the Congress.

- Reservists who reach 20 qualifying years of service for retirement may elect discharge from the Service rather than transfer to the Retired Reserve. They may then request reinstatement in the Retired Reserve upon reaching age 60 in order to draw retired pay. These reservists who elect discharge from the Service are not subject to involuntary recall until they are reinstated in the Retired Reserve at age 60.

Regarding fitness for service, three classifications have been established by OSD as follows:

<u>Retiree Class</u>	<u>Status Membership</u>
I	Under age 60, nondisability retirement, retired less than 5 years
II	Under age 60, nondisability retirement, retired between 5 and 10 years ¹
III	All others

In most instances, Class III retirees are not considered to be viable mobilization assets, but the Services may make case by case exceptions to this general rule. By definition, all retired reservists who are receiving retired pay (other than those with 20 years active duty) fall in Class III and are not mobilization assets. Further details of Service retiree programs are provided in the GRC Pretrained Individual Manpower Study, Report 1189-01-81-CR, February 1981.

Since retirees constitute a major source of pretrained individuals under current mobilization plans, it is important that the future population of retirees be estimated correctly. Accordingly, the study team was tasked to estimate the future strength of the retiree pool, to compare these estimates to Service projections, and to recommend changes (if

¹The Army's definition for Class II retirees varies slightly in that it does not impose an upper limit on years since retirement.

appropriate) to the Services' projection methodologies. The independent CRC estimates were to be based on a simple methodology within the range of sophistication of a hand-held calculator and were not to be based on the development of computer-based manpower models.

The study team reviewed the strength projection methods used by the Services and the DMDC. The procedures used were found to range from sophisticated, data intensive, computerized methods to subjective estimates based on experience and judgment. The study team tested several different estimating procedures for projecting retired military strengths but none were considered feasible for use with the available data. In the course of the effort, we compared our estimates and methods with the methods and projections of DMDC and the Services. We found a general consistency of trends (upward). Before reviewing these estimates, projections, trends, and methods, however, it will be useful to highlight the factors which underlie the retired military personnel strength trends.

The determinants of the number of retired military personnel have remained fairly stable over the recent past. No drastic changes are foreseen in the near future. The military strength of the Services is probably the prime determinant of retirements. With the exception of the force buildups during Korea and Vietnam, military strength increased slowly between the end of World War II and the advent of the all-volunteer force in the seventies. Since then, military strength has declined slightly and leveled off.

After the military strength of the Services, a number of other interrelated variables impact on the number of retirements. Essentially, the number of retirees is determined by the number of service members who achieve 20 or more years of military service. This, in turn, is determined by pay levels, promotion policies, reenlistment policies, and the availability and quality of competing career opportunities in the private sector. These second order variables affect both a service member's decision to continue in a military career at each reenlistment decision point and the member's propensity to elect retirement once he has achieved

the minimum 20 years of service required for retirement. Thus, retirements are related to the interplay of a complex set of variables over a 20-30 year span rather than those encountered at any point in time. The projection of military retiree strengths using these factors would require the development of a very complex model.

RETIREE STRENGTH TRENDS

The methodologies developed by DMDC and the Services embody, to varying degrees, some or all of the factors mentioned above. Thus, these methodologies involve complex computer-based modeling efforts of a nature far beyond what the study team could accomplish within the available study resources.

Overall, the retired strength estimates produced by DMDC and the Services reflect the stable, gradual increase in the number of career military personnel that occurred over the past several decades and, therefore show a steady upward trend in retired military strength. It should be noted, however, that the Service and DMDC retiree strength projections are dissimilar in many respects. Although each shows a gradual upward trend, the absolute numbers of retirees projected are quite different. Several reasons apply:

- Service retiree strength figures are based primarily on the retiree personnel data files maintained by the Services. These files are not yet accurate because the Services have only recently begun to manage retirees as mobilization assets.
- DMDC retiree strength figures are based upon personnel and military pay files furnished by the Services. The DMDC strength projections consider only those retirees who are drawing pay. These projections omit retired regular¹ and reserve personnel who are not drawing pay.

¹Regular retirees who do not draw pay include individuals whose pay is totally offset by VA disability payments and/or civil service offsets and those who refuse retired pay. At the end of FY 1980, approximately 126,000 regular officer and enlisted retirees were in this category.

- Reserve retiree personnel data files appear to be suspect in that they include honorary retirees who probably are not mobilization assets. Some Services now exclude honorary retirees from their reported mobilization assets.

The data sources and projection methods are described in the following sections.

DMDC Projections

The Office of the DoD Actuary, located within DMDC, produces two sets of retired military strength projections. Both sets of strength projections are used in managing the military retirement system and are produced only as an intermediate step for calculating the future financial liability of the U.S. Government as a result of funding the Retired Pay, Defense appropriation. Thus, DMDC strength projections figures correctly exclude retirees who are not drawing retired pay.

The two sets of retired strength projections DMDC produces are a short-term (5 years) projection, used by OASD Comptroller in budgeting; and a long-term (100 years) projection, used to price anticipated changes to the military retirement system. Both projections use data submitted to DMDC from the military pay systems, generally thought to be highly reliable data sources. The long-term projection also utilizes data submitted to DMDC through the Services' reserve and active personnel systems. Of course, there are no data in the military pay files on reserve retirees who retire from the Selected Reserve on the basis of qualifying points, but who will not be eligible to draw retired pay until age 60. The DMDC short- and long-term projections handle this omission differently.

The DMDC short-term projection is prepared for each Service using a 3-year weighted trend method. The number of individuals drawing retired pay is analyzed for each month of the most recent 3 years. A trend line is computed and then projected for 5 years. No special consideration is given to retired reservists eligible to draw pay at age 60. The assumption is that the retired reservists will become eligible for retired pay during

the projection period at the same rate as during the most recent 3 years. Since the DMDC projection is primarily concerned with fiscal liability, the number of retirees does not really matter until such time as they begin to draw retired pay. Thus, the DMDC short-term projection method can achieve acceptable financial results even though retired reservists are not explicitly considered. The DMDC short-term retired military strength projections for each Service for FY 1981-86 are in Appendix D.

The DMDC long-term projection methodology is an actuarial model which estimates gains and losses to the DoD retiree rolls and associates dollars with the total number of each type of retiree on the roll. The model does not estimate the retiree strengths for each Service. This is a complex model which utilizes 3636 actuarially produced rates and 15 crude rates. It allows the user to vary force size, economic assumptions, and other parameters. Like the short-term projection, the long-term projection utilizes input data from the military pay files and additional data from the military personnel files. However, in the long-term projection, a "blow-up factor" is computed and applied to the Selected Reserve gains to the retired rolls in order to account for reservists who elected a discharge prior to drawing pay at age 60 and those eligible retired reservists who have not yet reached age 60. It is interesting to note that while the long-term model is principally a financial model, DMDC has found the retired military strength projections to be highly accurate.

DMDC's long-term retired military strength projections through FY 2000 are displayed in Appendix E. Figure 4.1 summarizes the long-term projections for DoD officers and enlisted retirees. As can be seen, the retired military strength increases steadily over the 20-year period.

Service Projections

Each Service includes a projection of retired military strength in its annual POM. Separate projections are made for regular and reserve retirees and for officer and enlisted retirees. In addition, the Services project the number of retirees considered to be mobilization assets

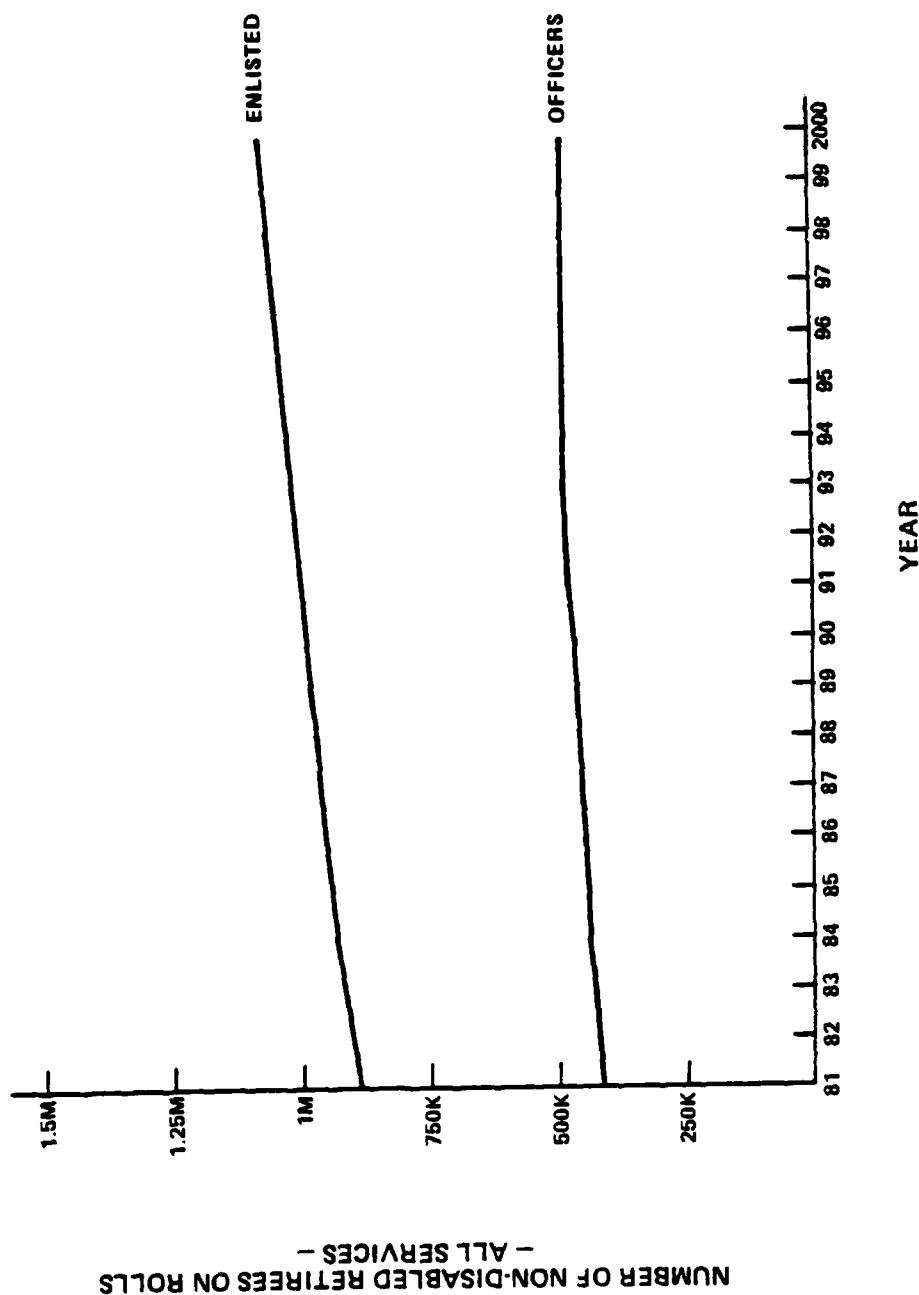


Figure 4.1 DMDC Long-Term Projections of the Retired Military Population

(Classes I and II). FY 1983-87 POM projections for each Service are displayed in Appendix F.

Although the projection methods vary by Service, each Service estimates changes in the regular retired rolls by category and applies those estimates to the current inventory to project the future retired military strength. The estimates of future retiree inventories are tempered by the impact of projected pay raises, economic conditions, etc. Losses to the regular retired population are primarily due to death and are projected as a function of the total retiree population.

Projections of inventory changes to the reserve retiree population appear to be based solely on straight line trends. The Services have little management data on reservists that would permit a projection to be developed on any other basis. Even the current reserve retiree inventory data are suspect based on anomalies discovered during the GRC review of reserve retiree figures. These anomalies are discussed in more detail below.

EVALUATION

This section compares Service retiree projections with those made by DMDC and discusses trends and data problems.

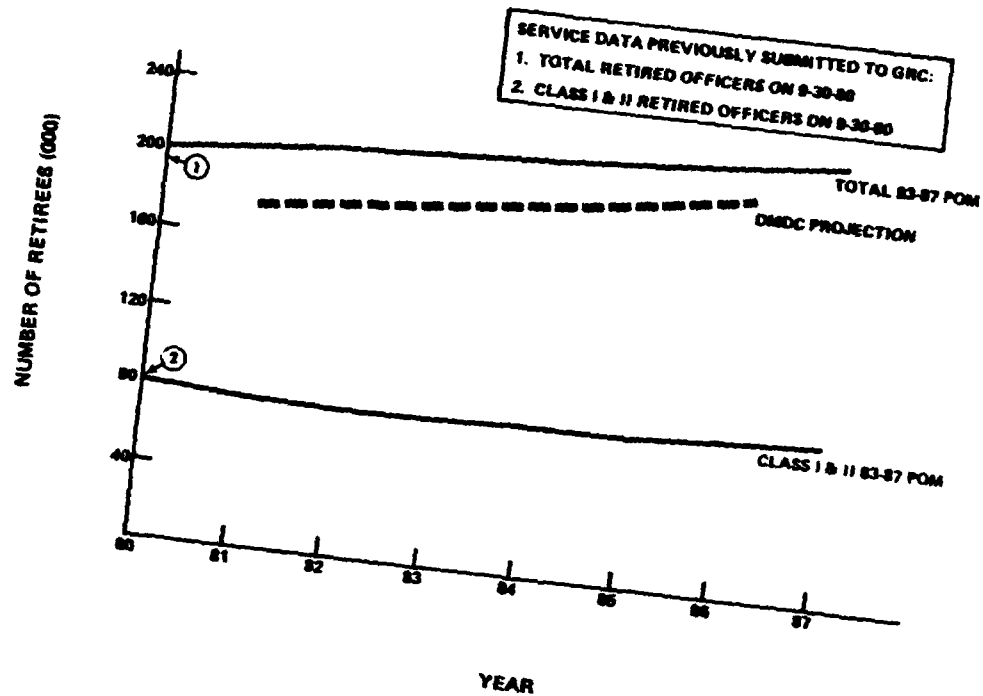
Trends

Each Service's projection of officer and enlisted retirees is presented graphically on the following pages. Services projections for both total and Class I and II strengths are shown. For comparison purposes, the DMDC short-term projections and Service-reported FY 80 end-strengths are also shown. The retiree end-strengths were furnished to GRC by each Service early in 1981.

Army Trends

Army retired strength projections are displayed in Figure 4.2. The strengths of both officer and enlisted retirees are expected to increase at a modest rate throughout the projection period. However,

OFFICERS



ENLISTED

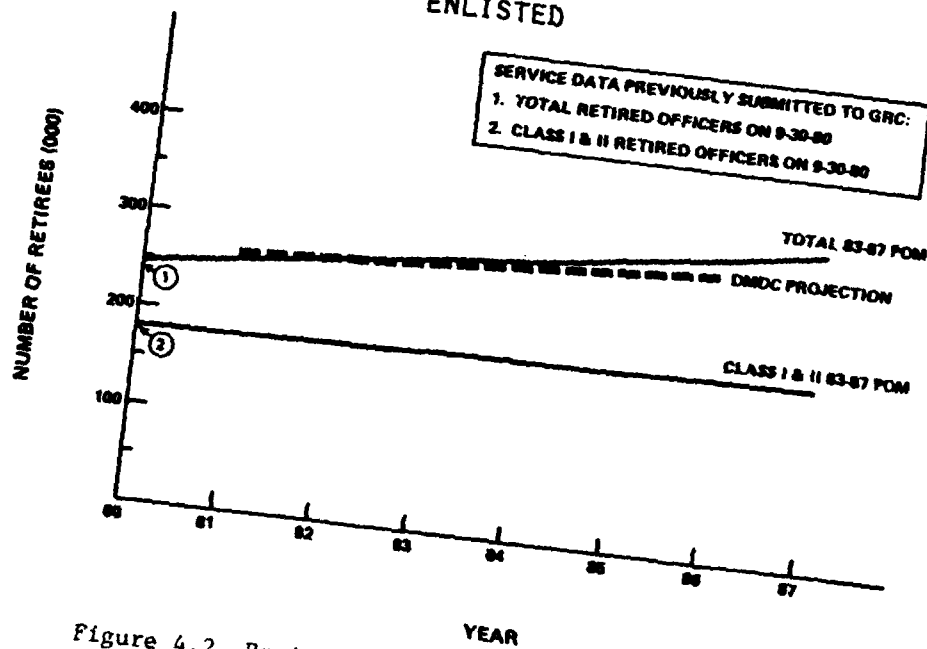


Figure 4.2 Projections of Army Retired Strengths

the number of retirees who are considered mobilization assets (Class I and II) is not expected to increase significantly.

The Army projections are highly congruent with DMDC's projections and FY 80 end-strengths with one exception. The Army's projection of the total retired officer population runs about 20,000 above DMDC's. However, this is to be expected because the DMDC projection is a retired pay appropriation projection and therefore excludes retirees not drawing pay (retired reserves under the age of 60 and regular retirees not drawing pay). The Army's projections include this group of retirees.

Navy Trends

Navy retired strength projections, Figure 4.3, show only modest increases in the officer and enlisted retired inventories and almost no change in the number of Class I and II retirees.

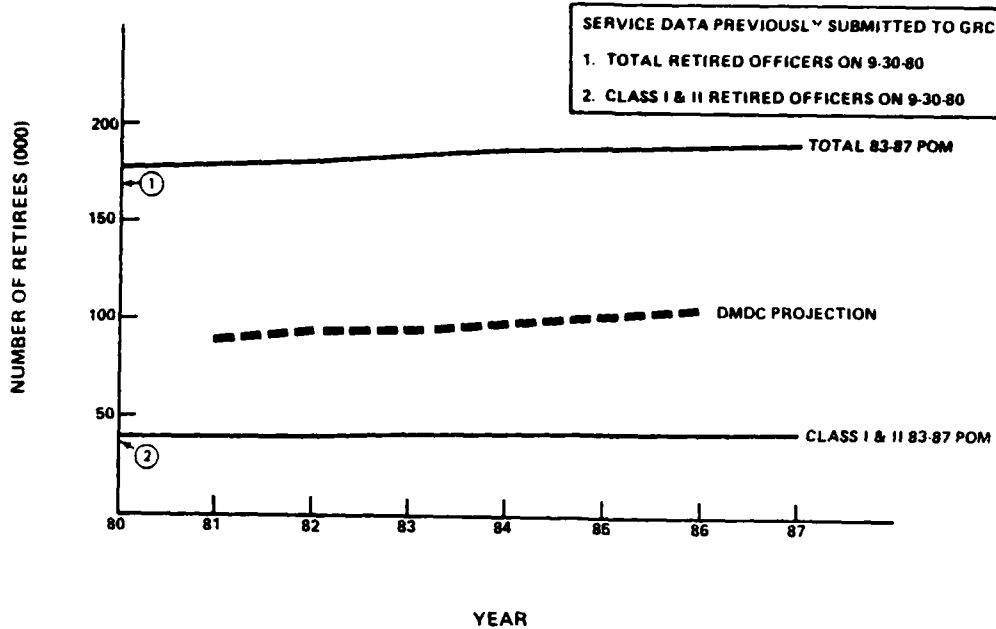
There is a small difference between FY 80 retired end-strengths shown in the Navy FY 1983-87 POM and those previously provided to GRC by the Navy. These differences are not as troublesome as the large difference between the DMDC and Navy projections of the total retired officer population. The Navy's projections for both officer and enlisted retirees are higher than those of DMDC, with the Navy's officer projection being almost double that of DMDC. GRC was unable to resolve the differences between the projections.

Marine Corps Trends

Marine Corps retired strength projections, shown in Figure 4.4, closely parallel DMDC's projections and reflect a slow but steady increase in the retired population. The projected Class I and II retiree populations remain constant through the projection period at levels slightly above the FY 80 end-strengths previously reported.

The projections of retired enlisted personnel are unusual in that the DMDC projects a larger population than does the Marine Corps. As explained above, DMDC retired population estimates should fall below

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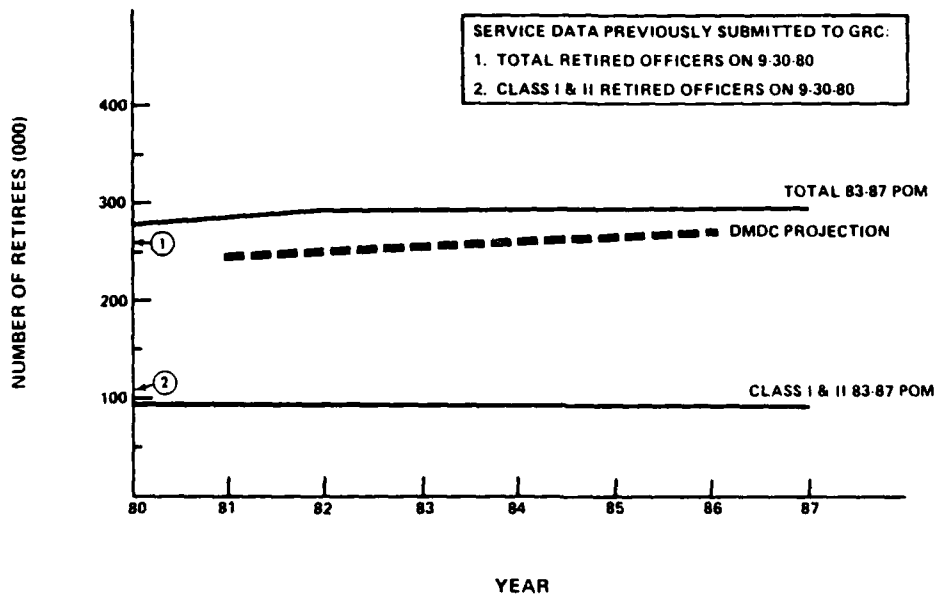
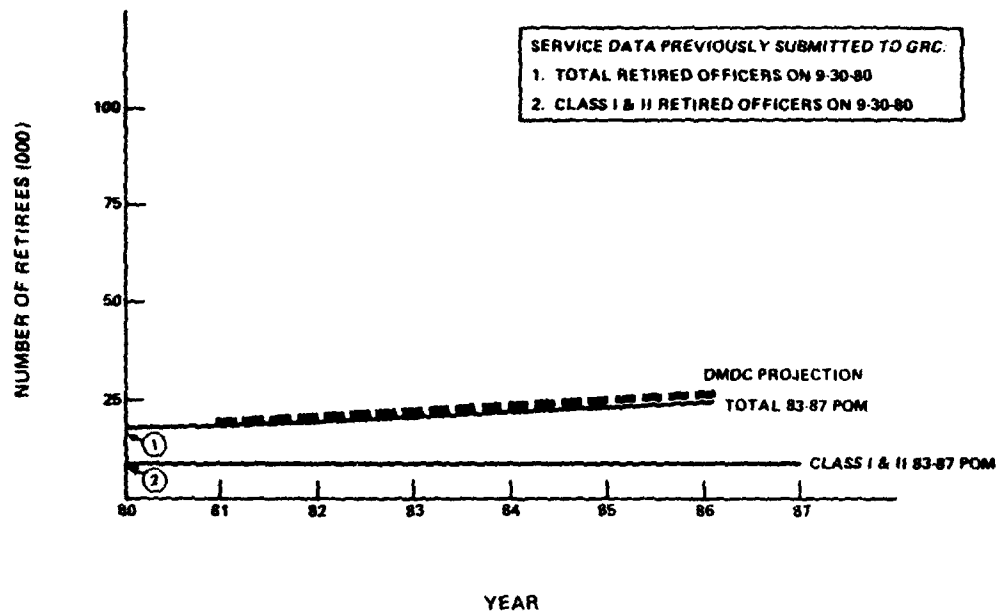


Figure 4.3 Projections of Navy Retired Strengths

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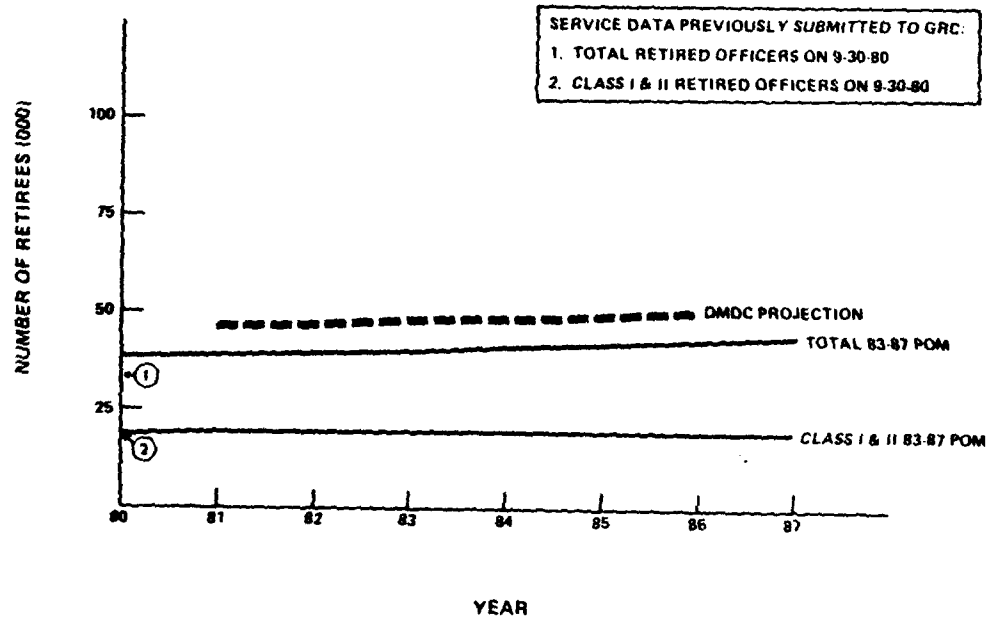


Figure 4.4 Projections of Marine Corps Retired Strengths

Service estimates because DMDC's estimates exclude retired regulars and reservists who do not draw pay. If the pay files are accurate, it appears that the Marine Corps retired personnel files exclude a substantial number of retirees.

Air Force Trends

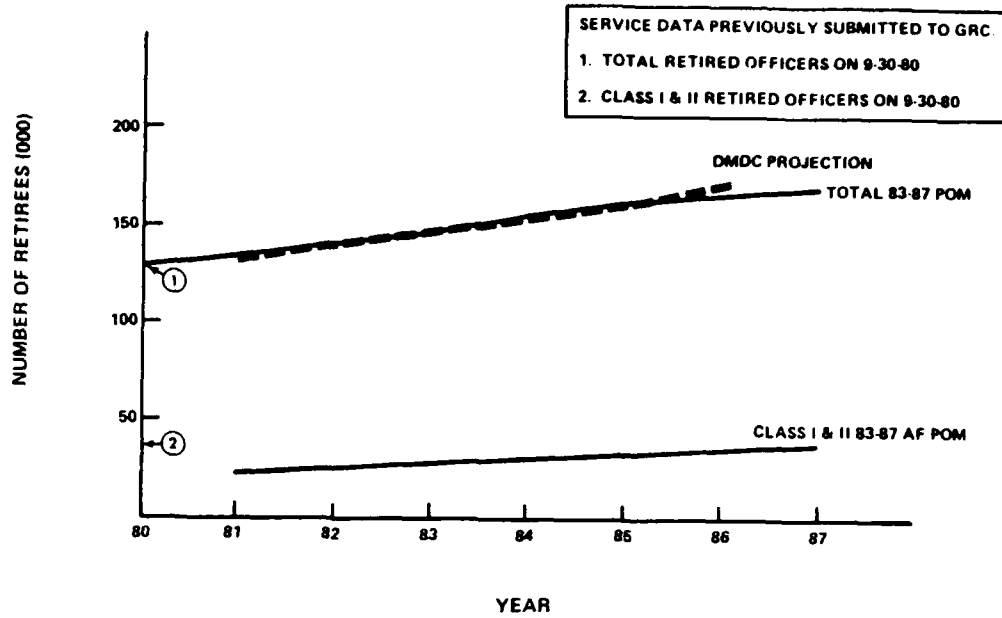
Air Force retired military strength projections are shown in Figure 4.5. The Air Force projection of the total retired population was based on DMDC figures so it is not surprising that the two projections are similar. For enlisted retirees, the Air Force projection falls below the DMDC projection. As discussed previously, the situations should be reversed.

It is interesting to note that the Air Force estimates of the Class I and II retiree end-strengths for FY 81 are far lower than the FY 80 end-strengths previously reported. The difference between Class I and II enlisted FY 80 end-strength and the FY 81-87 projected end-strengths is especially striking. The Air Force is developing a retiree classification system that is more refined than the present OSD defined classes and will incorporate skill deterioration rates. On the basis of early results, it appears that the mean skill deterioration period will approximate 5 years. Therefore, the Air Force is presently using Class I as a surrogate for the refined classification and includes only Class I retirees in its POM estimates of retiree mobilization assets. The Air Force maintains this practice gives a more accurate assessment of retiree mobilization potential.

DoD-wide Trends

DoD-wide retired military population trends are summarized in Figure 4.6. The figure displays the DMDC short- and long-term projections as well as the sum of projections from the Services' FY 1983-87 POMs. Figure 4.6 includes both regular and reserve retirees. All projection lines show that a gradual increase in retired military strength is expected to occur during the next 10 years.

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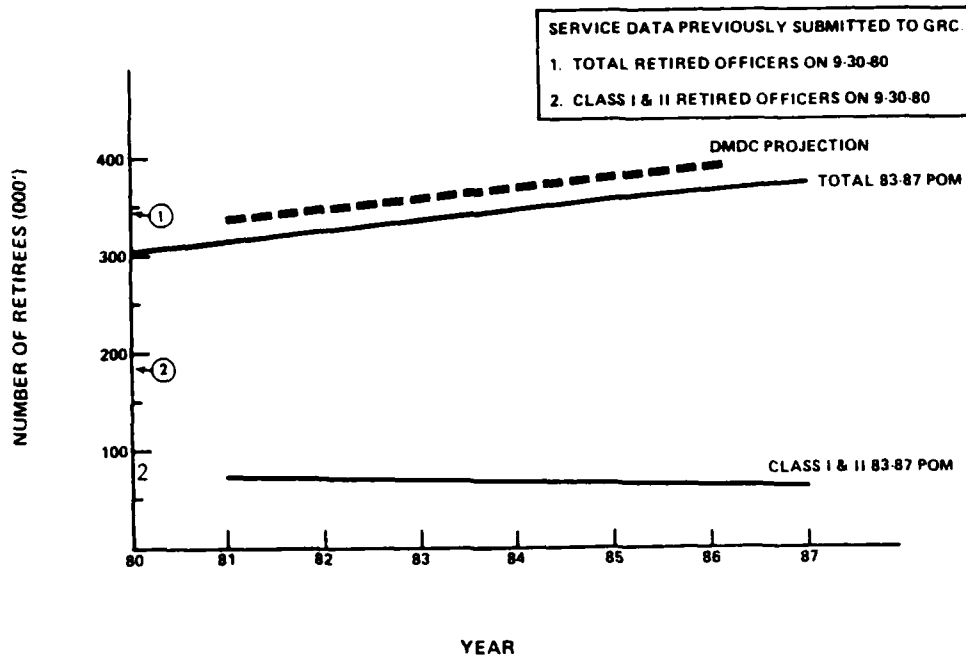


Figure 4.5 Projections of Air Force Retired Strengths

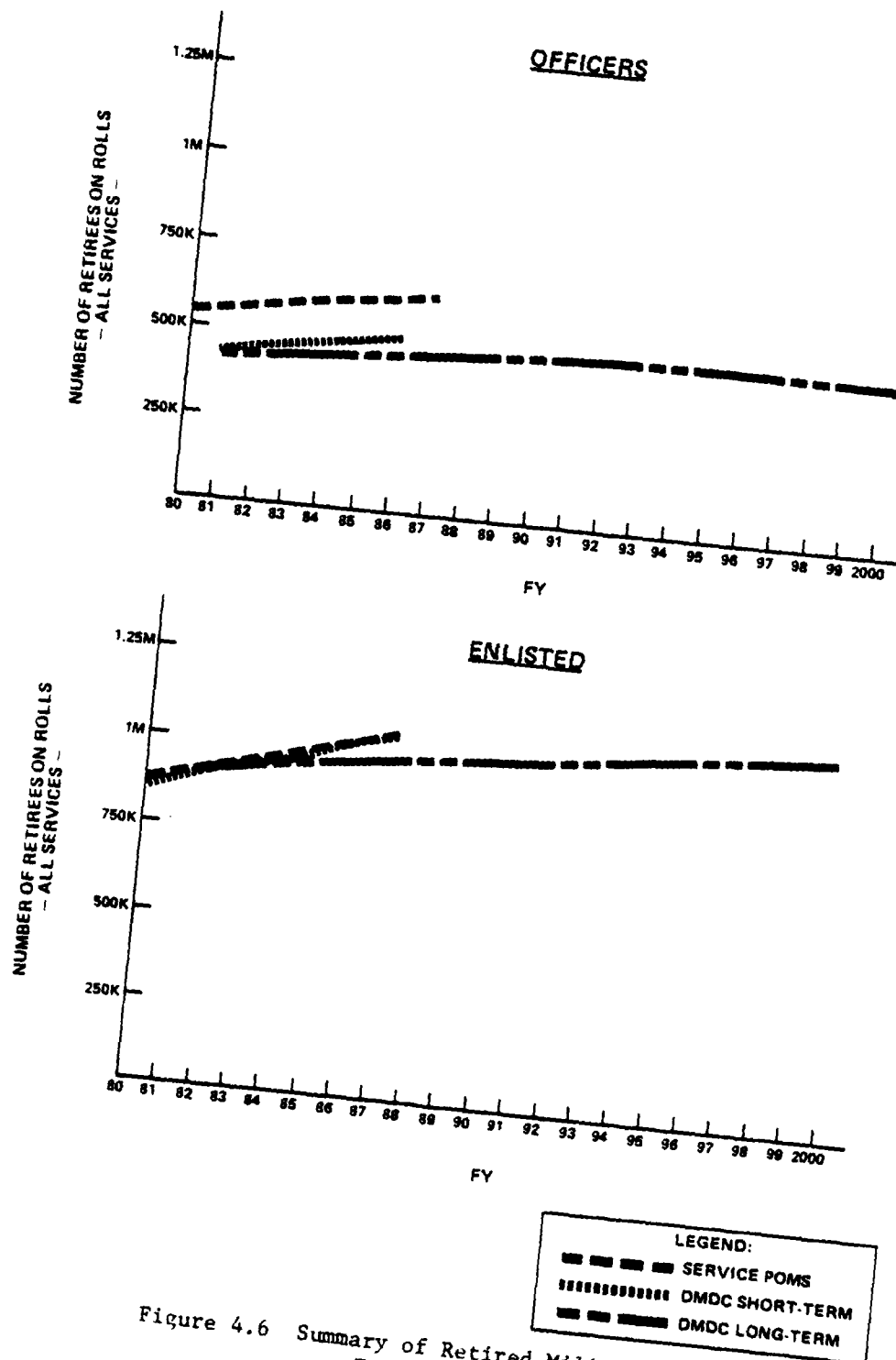


Figure 4.6 Summary of Retired Military Strength
Trends--All DoD

Aside from showing the upward trends predicted for the retired military population, Figure 4.6 illustrates several interesting characteristics of the retired military strength statistics.

First, the trend-lines for both the combined Services' and DMDC's short-term projections have a markedly steeper slope than the trend-line for DMDC's long-term projection. This is due to a basic difference in projection methods. Both short-term projections rely on trend analysis of retiree data from the past few years whereas the long-term projection takes into account many more variables and attempts to predict how these variables will behave in the future. The short-term projections "look" backward and predict the future retired population on the assumption that what happened in the recent past will continue to occur. The long-term projection is "forward-looking," relying on assumptions about the future and how the retired population will change as a result of these assumptions.

Second, there are relatively few retired enlisted reservists. Thus, the retiree data in Figure 4.6 show that the combined Services' short-term projections trend-line lies virtually on top of the short-term, DMDC projection trend-line for enlisted retirees. The wide gap between the Service and DMDC short-term, retired officer projections, on the other hand, can be attributed to the fact that there are a large number of unpaid retired officer reservists and some regular officers whose numbers are known to the Services but are not counted by DMDC because they are not receiving retired pay. GRC believes that the Services should take steps to reconcile personnel and pay files for all retirees in order to improve the overall accuracy of retiree data.

Data Problems

As discussed previously, the GRC study team discovered many anomalies in the Services' retiree data. In general, the problems exist because retired personnel data systems were designed before retired personnel were considered to be mobilization assets. There was no need for the Services to maintain information beyond the "Retired List" specified by

Title 10, US Code. Thus far, efforts to improve retiree management data have, quite properly, concentrated on Class I and II regular retirees. Despite the progress made, numerous retiree data problems remain as illustrated by the example that follows.

Consider the Army officer retiree data (Appendix F) as shown below:

	<u>Class I/II</u>	<u>Class III</u>	<u>Total</u>
Regular	17.4	2.1	19.5
Reserve	<u>63.4</u>	<u>117.5</u>	<u>180.9</u>
Total	80.8	119.6	200.4

The Army data show that two-thirds of the reserve officer retirees are in Class III compared to about 10% of the regular officer population. Either reserve officers live much longer than regular officers or the data are erroneous. Based on the relative agreement between Army and DMDC projections of the total number of retirees (Figure 4.2), GRC suspects that regular and reserve Class III retiree data are intermixed in the Army's automated files.

Within the Navy retiree data files there is a problem of missing data that affects the management of retirees as mobilization assets. According to the Naval Reserve Personnel Center, dates of release from active duty are missing from some 53,000 regular and 3,600 reserve enlisted retirees. In addition, birthdates are missing from the records of some 18,000 enlisted personnel. Thus, more than 25% of the enlisted retirees cannot be accurately classified as mobilization assets.

The lack of accurate information on retired reservists is one of the data problems which impeded the study team in its efforts to estimate the retired military population. This problem extends throughout most of the Services and DMDC. We found only one source of information on the number of reservists who are retired and waiting to draw retired pay--the Reserve Components Common Personnel Data System (RCCPDS), operated by DMDC.

The RCCPDS contains a coded data element with which retired reservists who are not drawing pay can be uniquely identified. The element is training/pay/reserve category (T/P/RC). DMDC defines a T/P/RC value of 3 to represent a retired reservist waiting to draw retired pay at age 60. When GRC examined the characteristics of reservists identified by the Services as being members of this category, we found many (over half in the Navy) were over the age of 60, an illogical result. DMDC is quick to point out that RCCPDS information is only as good as the source data submitted by the Services. Apparently, some Services have adopted independent, and inconsistent, definitions of the data element T/P/RC, reducing the quality of the RCCPDS data.

The data problems discussed above are but a few examples illustrative of many which the study team encountered during its attempt to develop a simple retiree estimating model. The discussion which follows describes several types of estimating models which were considered and, in turn, rejected, either because they were not theoretically valid or insufficient data exist to support them.

RETIREE ESTIMATING MODELS

The study team explored several methodologies for estimating retired military strengths. Our aim was to independently develop retired strength estimates for use in assessing the validity of Service and DMDC estimates. A criteria for the methodology was that it had to be simple--within the range of sophistication of a hand-held calculator. The following discussion describes methods we considered, their strong points, and the reason each method proved infeasible.

First, the method of applying gains and losses to the current retired inventory was considered. This method, which resembles typical inventory accounting procedures, adds projected retirements (gains) and subtracts projected deaths (losses) to determine the future number of retirees at any given time. This method would have the advantage of specifically enumerating gains on a year-by-year basis. Aggregating the gains for five or ten consecutive years would produce the maximum strength

which could be expected for Class I or II retirees. Gains data are available--each Service produces projections of the number of retirements expected to occur during future years. However, gains data alone are insufficient; the number of losses to the retired rolls must also be considered in order to compute the net change in the retired inventory. Unfortunately, not all Services produce projections of retiree losses, and there is very little historical data available to use as a basis for estimating losses. For this reason, we were unable to estimate retired inventories using a gains/losses model.

GRC also considered the method of trend analysis to project historical retiree data into the future based on statistical growth rates over time. As described previously, this is the primary method used by the Services and DMDC to project short-term retiree strengths. A big advantage of this technique is that it has relatively few and simple data requirements.

The conditions under which trend analysis is most useful and accurate are where historical data show a steady, consistent trend and the trend can reasonably be expected to continue. Given the relatively steady growth in the size of the Military Services from World War II to the early 1970s, trend analysis is appropriate for projecting total retiree strengths. However, it is infeasible to estimate Class I and II retired strengths using a model based on trend analysis because insufficient historical data are available in Service retiree files.

During our analysis, GRC developed trend curves for the projected strength of each Service's retiree population. The curves were fitted to DMDC historical data and the resulting projections almost duplicated DMDC short-term projections. Thus, our trend curves provided little information beyond what was presented in the above discussion of retiree trends.

In an effort to isolate the portion of the forecasted retired military population which are Class I and II mobilization assets, GRC also developed a proportional method. GRC reasoned that a proportional

method could be used to break down the retired population, in proportion to some known characteristic, to derive an estimate of mobilizable retirees. The DoD Actuary's Office produces a detailed breakdown of the total DoD retired population by current age and a breakdown showing the age distribution of those retiring from each Service during the past fiscal year. We theorized that the proportion of all retirees who are Class I retirees in a projection year should equal the proportion of all retirees who are between the current average retirement age and the average age plus 5 years. Similar reasoning was used to develop Class II proportions. We applied these proportions, based on age relationships, to various projections of the retired population but were unable to validate the results against known Service values for the current Class I and II retired inventory. This approach may have failed due to logical invalidity, because DoD-wide retired age statistics were substituted where Service specific data did not exist, or because Service data are erroneous.

GRC's efforts to develop a retiree estimating model ultimately led to the conclusion that there is no feasible approach to estimating future retired military populations with the data presently available. Therefore, we believe that the Office of the Deputy Assistant Secretary of Defense (ODASD) Reserve Affairs should use a comparative evaluation procedure to assess Service retired strength estimates. That is, Service estimates should be compared to DMDC estimates and previous, known data points, and differences questioned. Eventually, the quality and availability of retiree data should improve to the point where developing independent estimates of retiree strengths will be a feasible means of assessing the quality of Service estimates. However, until such time, GRC recommends a comparative analysis, such as that provided in the retiree trends section of this report, as the best means of evaluating Service retired military strength estimates.

SUMMARY

Current retired military strength estimates show that a slow, but steady, increase is expected to occur in the total retired population. Class I and II retired strengths are not, however, projected to increase significantly.

The upward trend in the total retired population may turn out to be less than forecasted by the short-term projections. These projections are prepared using trend analysis and ignore the fact that the primary determinant of retirements--the size of the active force--has declined and leveled off over the past decade. DMDC's long-term projection, which assumes constant force size, probably more accurately predicts retired population growth.

The recent emphasis on the mobilization potential of retirees is causing increased attention to the retiree inventory and retiree data files. Fortunately, there has been much improvement in the quality and quantity of retiree data. However, as evidenced by the following points, there is still much room for improvement:

- All Services need to improve the accuracy of reserve retiree data, especially data on Class I and II retirees.
- Honorary retirees should be handled in a manner which ensures that they will not be counted as retired military mobilization assets.
- The Services should try to reconcile their retiree personnel files with the pay files. Differences between DMDC's pay-file-based retiree figures and Service retiree figures indicate a lack of integrity between these data files.
- The Services need to improve retiree inventory estimating procedures as time and improved management data permit. Gains/losses to current inventory methods are recommended.

The Services have implemented improved data collection and retention processes that, in time, will overcome many of these problems. For the present, the Services should continue to concentrate their efforts on that portion of the retiree population which harbors the skills and characteristics needed during a mobilization.

SECTION 5
PRETRAINED INDIVIDUAL MANPOWER MANAGEMENT STRUCTURE

INTRODUCTION

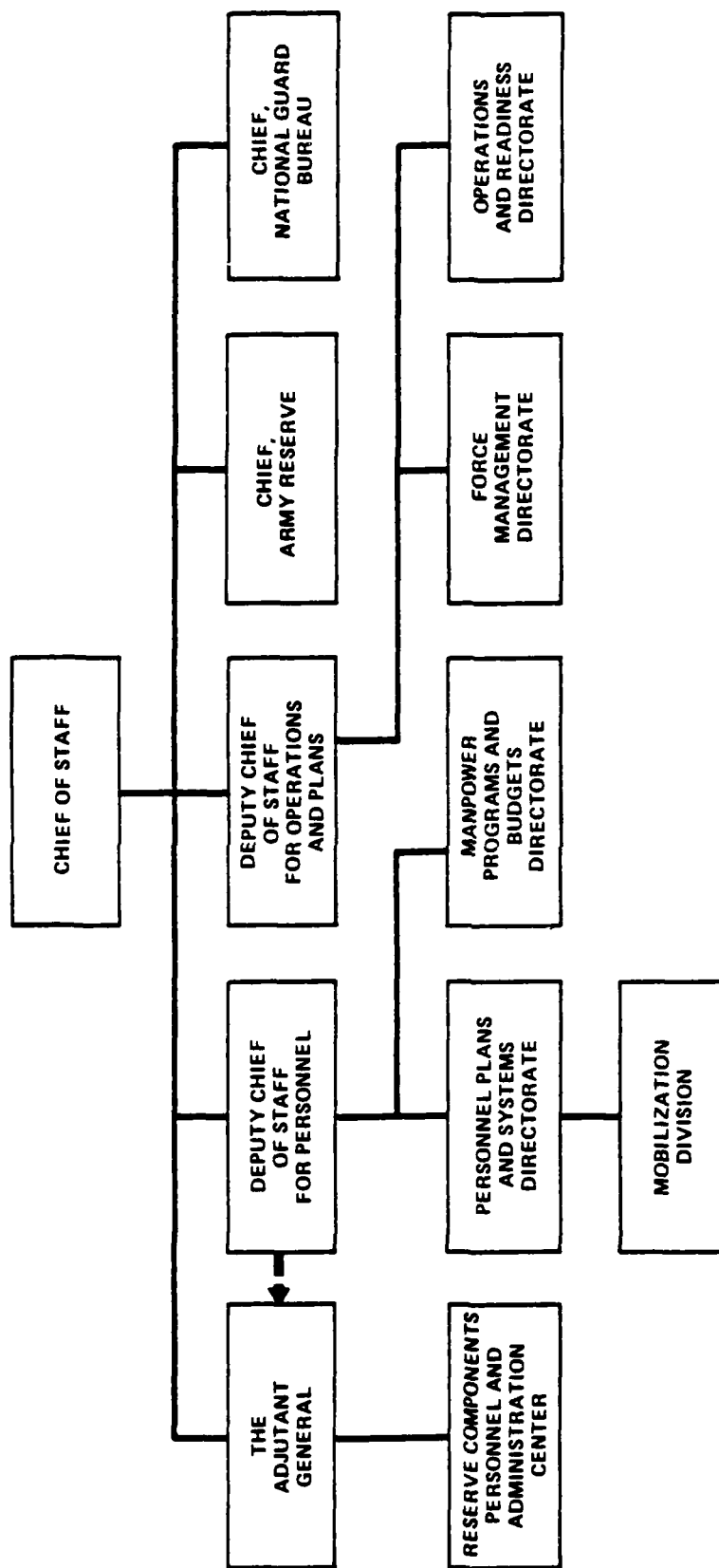
The present management structure for pretrained individuals can best be described as decentralized in that the responsibility for the management of PIM resources is spread throughout many elements of the Services' headquarters staffs and numerous field activities. This appears to be the result of two primary factors. First, PIM resources comprise elements of the Selected Reserve, Individual Ready Reserve, Standby Reserve, Inactive National Guard, and military retirees (including Fleet Reserve). This diversity requires that a large number of active and reserve managers become involved in the PIM management process.

The second reason for the decentralized management structure is that the Services' headquarters staffs are organized functionally and the management of PIM resources is spread among those staff elements. The various staff activities that are responsible for establishing policy, developing programs, and preparing budgets for the active and Selected Reserve forces are also responsible for PIM matters. However, given that the importance of PIM to national security ranks below that of the active and Selected Reserve forces, the resources allocated to PIM are limited and the program is not highly visible at the Services' headquarters.

This section discusses the Service organizations for PIM management, outlines recent changes in the Marine Corps management structure, and recommends changes to improve PIM management in all Services.

ARMY PIM MANAGEMENT STRUCTURE

The Army structure for PIM management is shown in Figure 5.1. War-time force requirements for the Army are developed in the Force Management



--- GENERAL STAFF SUPERVISION

Figure 5.1 Army PIM Management Structure

Directorate and Operations and Readiness Directorate of the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS). These directorates establish time-phased plans for the generation and deployment of Army forces based on inputs from the Major Commands. The force requirements are then given to the Office of the Deputy Chief of Staff for Personnel (ODCSPER) which establishes a time-phased manpower program designed to supply adequate levels of Army manpower (including pretrained individuals) upon mobilization. The details of the program and the associated budget are coordinated with the Office of the Chief, Army Reserve and the National Guard Bureau which develop and defend the Reserve and National Guard budgets. In this manner, the entire Army manpower program is included in the Planning, Programing, and Budgeting System (PPBS).

Within ODCSPER, the Mobilization Division of the Personnel Plans and Systems Directorate is responsible for establishing detailed mobilization manpower requirements and the Army manpower programs necessary to meet those requirements. RCPAC provides appropriate inputs to the Mobilization Division (via the Adjutant General) regarding PIM programs and resource requirements. The Mobilization Division is also responsible for determining the source of PIM (active force, Selected Reserve, IRR, ING, retirees, etc.) to meet mobilization and warfighting requirements. Thus, the Mobilization Division serves as a focal point for all mobilization manpower planning including that for pretrained individuals.

On the personnel management side, the Army has assigned responsibility for the management of the IRR, Standby Reserve, and retirees to RCPAC. IMAs, as members of the Selected Reserve, are managed in the field by the active unit they augment, but their master personnel files are maintained by RCPAC. Members of the Inactive National Guard are managed by their state headquarters or the National Guard unit to which they are attached. At the Department of the Army (DA) level, all ING matters are coordinated by the National Guard Bureau.

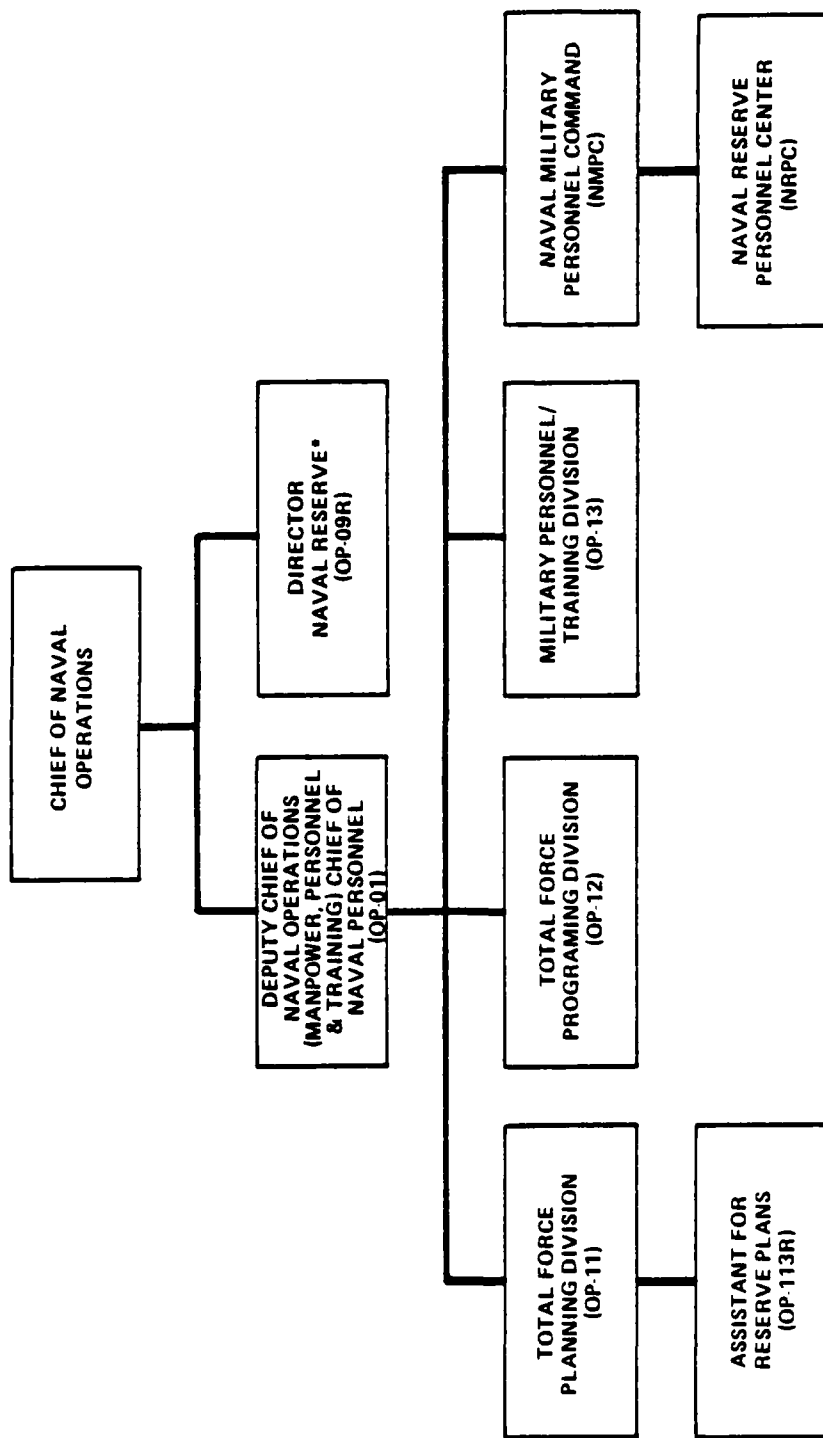
As the field activity responsible for personnel management of the Army Reserve and retirees, RCPAC performs numerous functions related to PIM:

- Administering individual members of the Army Reserve
- Accessing and maintaining personnel records for the entire Army Reserve and for Army retirees
- Establishing personnel policy for the Army Reserve
- Operating the wartime assignment and notification system for the IRR, Standby Reserve, and retirees
- Managing and training members of the IRR
- Managing retirees who are mobilization assets
- Operating the IRR recruiting and retention program

In addition, RCPAC performs other functions such as providing administrative support to the Army Discharge Review Board, implementing the Survivor Benefit Program for retired reservists, and maintaining records of individuals who served in the Philippine Commonwealth Army during World War II.

NAVY PIM MANAGEMENT STRUCTURE

The Navy structure for PIM management is shown in Figure 5.2. War-time manpower requirements are determined through the mobilization planning process that begins with wartime planning guidance from the Chief of Naval Operations (CNO) to the Fleet. Based on this guidance, Fleet Commanders determine time-phased mobilization manpower requirements and forward them through channels to the Deputy CNO (Manpower, Personnel, and Training) (OP-01) for review and validation. The review and validation are conducted by the Total Force Programing Division (OP-12) and forwarded to the Total Force Planning Division (OP-11) for inclusion in wartime manpower plans under the Navy Manpower Mobilization System (NAMMOS). When complete, NAMMOS will contain the total time-phased wartime military and civilian manpower requirements for both active and Naval Reserve units and shore activities.



*ALSO CHIEF, NAVAL RESERVE

Figure 5.2 Navy PIM Management Structure

The development of the PIM program and management of PIM resources in the Navy are similar to the Army procedures described previously. At the headquarters level, overall program and policy guidance are established by the Assistant for Reserve Plans of the Mobilization Manpower Plans Branch, Total Force Planning Division (OP-113R). Elements of the program are coordinated with the Military Personnel/Training Division (OP-13) which is responsible for reserve officer and enlisted personnel planning, accession policy, etc.

The Naval Reserve Personnel Management Department of the Naval Military Personnel Command (NMPC-9) is responsible for developing PIM resource requirements and forwarding them to OP-01 for inclusion in the annual program and budget. The Naval Reserve Personnel Center (NRPC), which is subordinate to NMPC, participates in the development of PIM resource requirements. OP-01 coordinates PIM program and budget matters with the Director of Naval Reserve (OP-09R).

Records administration, training, and personnel management of all Navy pretrained individual reservists and retirees are the responsibility of NRPC. The functions performed are essentially the same as those performed by RCPAC in the management of pretrained individuals.

The Navy's PIM management structure is somewhat less diffused than that of the Army because of the direct link between OP-01, NMPC, and NRPC. In addition, the Navy has assigned headquarters level authority and responsibility for PIM matters to a single individual (OP-113R), a step that helps focus PIM matters at OPNAV. However, one individual cannot adequately handle the numerous issues associated with the management of programs to improve the mobilization potential of the IRR, Standby Reserve, and retirees.

MARINE CORPS PIM MANAGEMENT STRUCTURE

The key agencies involved in PIM management in the Marine Corps are shown in Figure 5.3. Wartime manpower requirements are determined by the Manpower Policy, Planning, Programing, and Budget Branch under

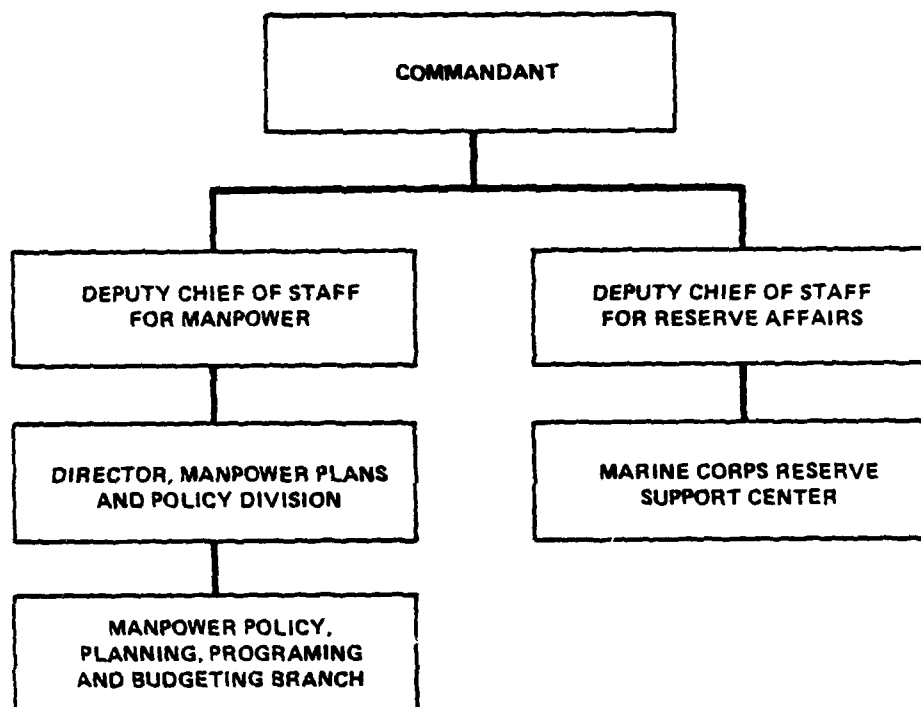


Figure 5.3 Marine Corps PIM Management Structure

the DCS for Manpower. The same branch is also responsible for developing manpower mobilization policy and plans relating to the utilization of USMC reserve individuals (IRR and Standby Reserve) and retirees. This organization, therefore, serves as the focal point for PIM policy for Headquarters, Marine Corps.

The detailed PIM programs are developed by the Deputy Chief of Staff for Reserve Affairs (DCSRA) at Headquarters, Marine Corps who is also responsible for the associated USMCR budgets. The DCSRA is also responsible for the management of individual members of the IRR including records administration and training. He is assisted by a field activity, the Marine Corps Reserve Forces Administrative Center (MCRFAC), located in Kansas City, MO.

Until 1 July 1981, most IRR personnel management functions were performed by the DCSRA staff at Headquarters, Marine Corps. Selection of personnel for training, promotion boards, recruiting/retention, and other personnel functions were conducted there. The personnel management functions of MCRFAC were limited to records administration, writing orders, etc. MCRFAC also was responsible for the assignment and notification of individual reservists upon mobilization.

However, in the fall of 1980, the Marine Corps realized that its IRR/Standby Reserve management structure was inadequate to meet current needs and began a reorganization effort to improve the situation. The result is that on 1 July 1981, the Marine Corps Reserve Support Center (MCRSC) was organized and assigned important new management responsibilities. MCRFAC was amalgamated into the new organization. Resources to support the new center have been included in the revised FY 1981 and 1982 budgets.

The new MCR Support Center will have personnel management responsibilities similar to those described for RCPAC and NRPC. The MCRSC will be commanded by a reserve Brigadier General (Mobilization Designee) and will have five divisions as follows:

- Personnel Management Division
 - Maintain personnel records
 - Handle personnel inquiries
 - Identify individuals to fill selected mobilization positions
 - Screen the Standby Reserve
- Plans and Programs Division
 - Coordinate and manage training
 - Manage Reserve Augmentation Units
 - Manage programs for rapid mobilization
 - Make certain wartime assignments
- Procurement/Retention Division
 - Coordinate procurement of prior service individuals for the Selected Reserve and the IRR
 - Encourage IRR members to participate in training
 - Perform career counseling including the IRR reenlistment program
 - Manage reserve incentive programs
- Systems Support Division
 - Maintain ADP capability in concert with the Marine Corps Central Design and Programing Activity
 - Support administration, pay, and premobilization assignment of selected individual reservists in peacetime
 - Provide necessary system support for mobilization of individuals during contingency or war
- Fiscal Division
 - Prepare programs, budgets
 - Submit financial reports

The new responsibilities will require a sharp increase in manpower over the levels formerly authorized for MCRFAC as shown below:

	Old Organization (MCRFAC)	New Organization (MCRSC)
Officers	9	50
Enlisted	<u>5</u>	<u>157</u>
Subtotal Military	14	207
Civilians	120	161

The new military positions are to be filled by Marine Corps reservists on active duty under Sections 265 and 672d, Title 10, US Code. The buildup in manpower is beginning in FY 1981 and should be complete by FY 1983. When fully implemented, the new organization should make a major improvement in the Marine Corps pretrained manpower program.

It should be noted that MCRSC is not responsible for the management of retirees. MCRSC will, however, maintain personnel records for members of the Fleet Marine Corps Reserve.¹ Other retiree records are maintained by the Office of the DCS for Manpower. Mobilization assignments of retirees will be made by Headquarters, Marine Corps, with a back-up assignment capability at MCRSC.

AIR FORCE PIM MANAGEMENT STRUCTURE

Figure 5.4 displays the key elements of the Air Force PIM management structure. The wartime manpower planning process begins with force level guidance and other assumptions sent by the Air Staff to the Major Commands (MAJCOMs) in CONUS and overseas. The MAJCOMs determine their total manpower requirements to meet the guidance and submit the requirements to Headquarters, Department of the Air Force. These requirements are consolidated and processed by the Air Force Wartime Manpower and Personnel

¹ Regular enlisted personnel who have retired with more than 20 years of service and have not reached their 30th anniversary of service.

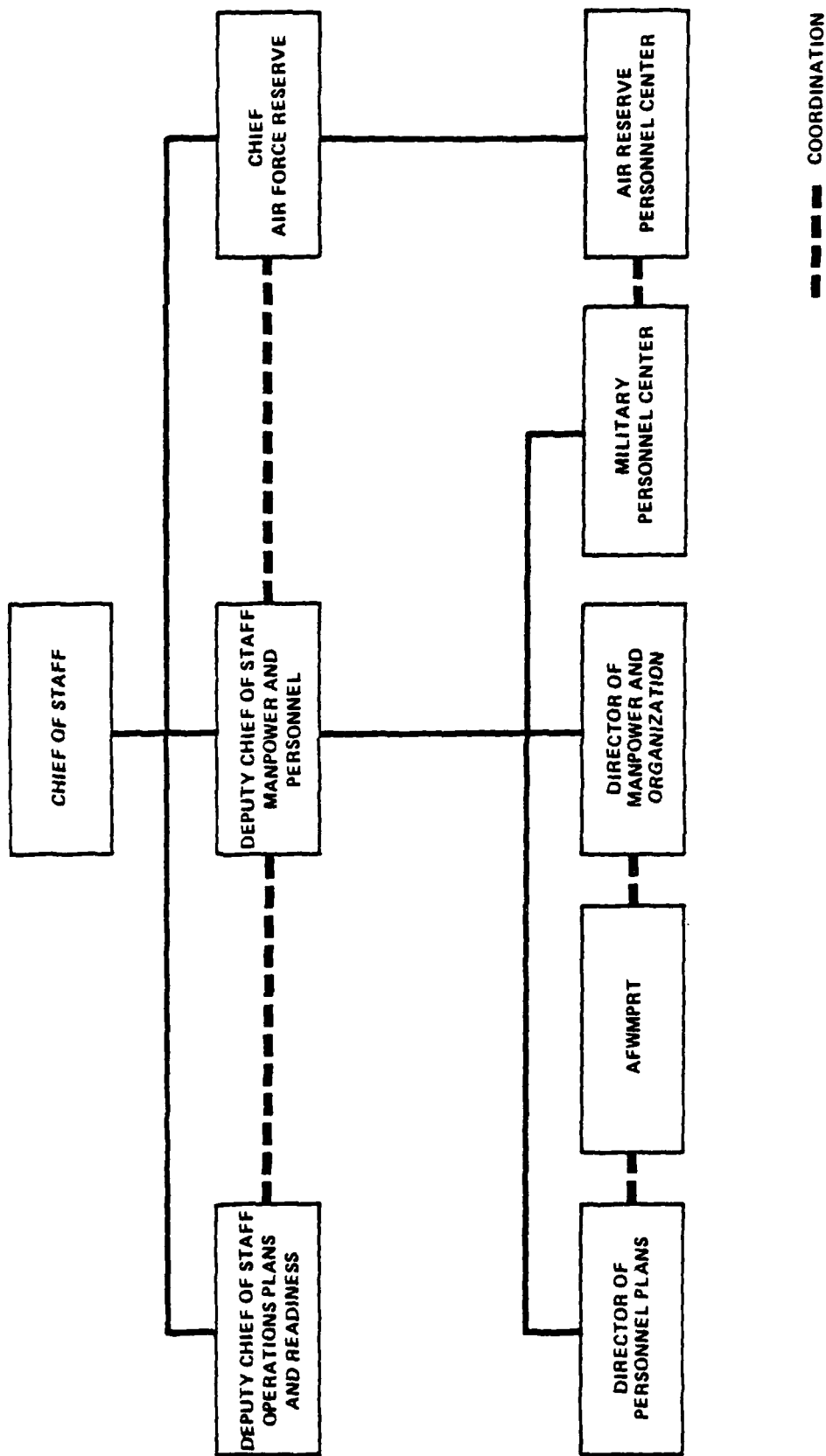


Figure 5.4 Air Force PIM Management Structure

Readiness Team (AFWMPRT) located at Site R near Ft. Ritchie, MD. AFWMPRT adds casualty demand and time-phasing, and produces a total Air Force wartime manpower requirements list against which individuals would be assigned in wartime. This list is forwarded to the Deputy Chief of Staff for Manpower and Personnel where it is reviewed and approved jointly by the Director of Manpower and Organization and the Director of Personnel Plans.

The DCS Manpower and Personnel is responsible for developing personnel policy for all Air Force personnel including Air Reserve Forces members and retirees. The Director of Personnel Plans serves as the focal point for all personnel policy on war planning, readiness, mobilization, and mobilization actions, including Air Reserve Forces and retiree mobilization management policy. In addition, the Director of Personnel Plans approves total force planning factors for time-phased wartime manpower supply data and chairs the Air Force Manpower and Personnel Wartime Planning working group and the Air Staff IMA working group. PIM initiatives or programs that are developed by the DCS for Manpower and Personnel are coordinated with the Office of Air Force Reserve for personnel management and budget impacts.

The Air Force has assigned personnel management responsibilities for the IRR, Standby Reserve, and retirees to the Air Reserve Personnel Center (ARPC) in Denver, CO. ARPC's management responsibilities parallel those described previously for RCPAC except that ARPC is not encumbered with additional administrative responsibilities and, as described below, is not responsible for selecting individuals to fill mobilization positions. ARPC is subordinate to the Chief, Air Force Reserve.

The Air Force personnel system is unique among the Services in that it includes the records of all active, reserve, Air National Guard, military personnel, military retirees, and all civilian employees in one automated data base. It is maintained by the Air Force Manpower and Personnel Center (AFMPC) in San Antonio, TX. Upon mobilization, AFMPC selects personnel to fill wartime positions from available members of

the IRR, Standby Reserve, and military retirees. The selections are electronically passed to ARPC which, in turn, notifies the individual by Western Union Mailgram and handles any requests for delay or deferral. AFMPC also notifies the Air Force Accounting and Finance Center so that pay records may be transferred as the individual is called to active duty.

SUMMARY

Each of the Services has established a focal point of responsibility for PIM policy and plans within its Manpower/Personnel Headquarters staff. These agencies establish policies and develop programs to improve manpower mobilization capabilities for all manpower including PIM. They work in concert with their respective reserve chiefs who are responsible for budget execution and personnel management/training of pretrained individuals.

In each Service, however, the responsibilities for PIM management at the Headquarters level are intermixed with responsibilities for active and Selected Reserve management. While this makes good sense organizationally, it means that PIM, with its low priority for resources, receives relatively little management attention and is not a highly visible program. In those Services that have a significant shortfall in pretrained individuals, this limits the effectiveness of the program.

GRC believes that the Services should establish PIM management offices within their Manpower/Personnel Headquarters staffs. In most cases, this would simply mean retitling part of the present Manpower/Personnel staff organization and adding one or two staff members to handle the workload. Missions and functions of the PIM management office would include:

- Oversee all PIM matters at the Service Headquarters
- Review wartime manpower requirements and develop programs to meet the needs for pretrained individuals
- Ensure that PIM programs receive resources appropriate to their priorities within Service budgets

- Review and approve manpower mobilization procedures
- Establish assignment and training policies for pretrained individuals
- Review and approve PIM strength projections developed by other agencies/activities
- Interface with external agencies (OSD, OMB, Congress) on PIM matters

GRC believes that such an office would improve the visibility of the PIM program at each Service Headquarters and serve to focus increased attention on a program which is critical to the Services' mobilization capabilities.

SECTION 6
REFRESHER TRAINING

INTRODUCTION

In the event of full mobilization, the Military Services will recall to active duty a large number of individuals who are members of the IRR and Standby Reserve or who have retired from regular or reserve service. Although these individuals were once fully qualified in their military skill by virtue of training and experience on active duty or in the Selected Reserve, at the time of mobilization their skills will have deteriorated. The extent of that deterioration depends on many factors.

The Services face a dilemma on this issue. On the one hand, they want each individual who is recalled upon mobilization to be fully qualified and ready to perform the required military duties. On the other, they cannot expect individuals who are not on active duty or in the Selected Reserve to maintain full qualification. Thus, the Services must decide the extent to which these individuals should be trained in peacetime and the level of resources that should be expended for such training. Of course, postmobilization refresher training is an alternative to peacetime training if time permits under the mobilization scenario.

In order to solve the mobilization training problem, the Services must undertake two tasks. First, they must develop and implement a peacetime/postmobilization training policy for pretrained individuals. The policy must consider proficiency requirements as well as skill deterioration. Second, they must develop a mobilization assignment system that considers the training policy in making the assignment. That is, at the time of mobilization, the recalled individual should be ordered

either to a unit for duty or to a training installation based on both his current proficiency and the requirements of the position.

This study addresses only the first task, thus leaving to future study the inclusion of training considerations in mobilization assignment systems. The sections that follow describe the training problem in more detail, summarize skill deterioration research that is now available, describe current Service efforts to establish training policy, and suggest an approach that may assist future efforts by the Services in this important area.

THE REFRESHER TRAINING PROBLEM

The need for refresher training of individuals who may be recalled to active duty upon mobilization depends on three major factors:

- Urgency of need to fill the position
- Proficiency requirements of the position
- Skill level of the recalled individual

The urgency of need for a wartime position to be filled depends in large measure upon the mobilization scenario. For example, if fighting begins on or shortly after M-Day, units in combat will require the immediate infusion of replacements, many of whom will have to come directly from the IRR. These individuals will not have time to receive refresher training before being sent to the unit in combat. If, on the other hand, M-Day precedes the outbreak of hostilities, there may be time for all individuals to receive some skill refresher training and physical conditioning either in a unit or in the training establishment.

The proficiency requirements of a position are more complex. Although all commanders want their people to be fully qualified, there are circumstances in which they might be willing to accept an individual whose skills have deteriorated. For example, in the early days of a war that begins with little notice, commanders of units that are about to begin fighting will prefer to receive individuals whose skills are dated

rather than to have the position remain empty. Of course, such individuals could not fill critical supervisory or technical positions immediately, but they could serve at lower levels of responsibility until they regain an appropriate level of skill.

The skill level of the recalled individual is the most difficult factor to assess. Skills decay over time to the point that the individual is no longer qualified in his skill without undergoing a significant period of refresher training. The problem faced by the Services in developing a training policy is to determine the extent to which each skill deteriorates as a function of time and/or technology. However, skill deterioration studies are time-consuming and expensive and, given the high number of skills involved in each Service, probably beyond the capability of the Services to perform.

Despite the many factors involved in the establishment of refresher training policies, the problem does not appear to be intractable. As a first step, the Services must find a way to estimate skill decay over time without the need to conduct detailed studies for each skill. The following section provides the results of a review of skill deterioration studies, discusses current efforts being undertaken by the Services, and suggests an approach to be used in solving the problem.

SKILL DETERIORATION

Literature Review

As part of the study effort, GRC undertook a review of the literature relating to skills deterioration. The result is a rather extensive bibliography (Appendix G). A review of these sources shows that none has addressed military skill deterioration for individuals who have left active military service and are no longer participating in military training of any kind. Our review, however, was not without reward. Although the military-related studies focused on decay of motor skills among active duty personnel, many of the concepts and findings can be applied to the IRR training problem.

According to the training literature, there are two principal factors which determine skill retention following training. The most important determinant appears to be the level of original learning. This is followed closely by the type of skill involved.

Schendel, Shields, and Katz conclude that level of skill retained over time is highly dependent upon the level of original skill and the time since last training. They also conclude that the rate at which the skill is lost is not related to a performer's initial ability level. The rate of "forgetting" is about the same for each of three individuals and the absolute level of skill at any time is dependent upon the starting point of original skill level. This is depicted in Figure 6.1 below.

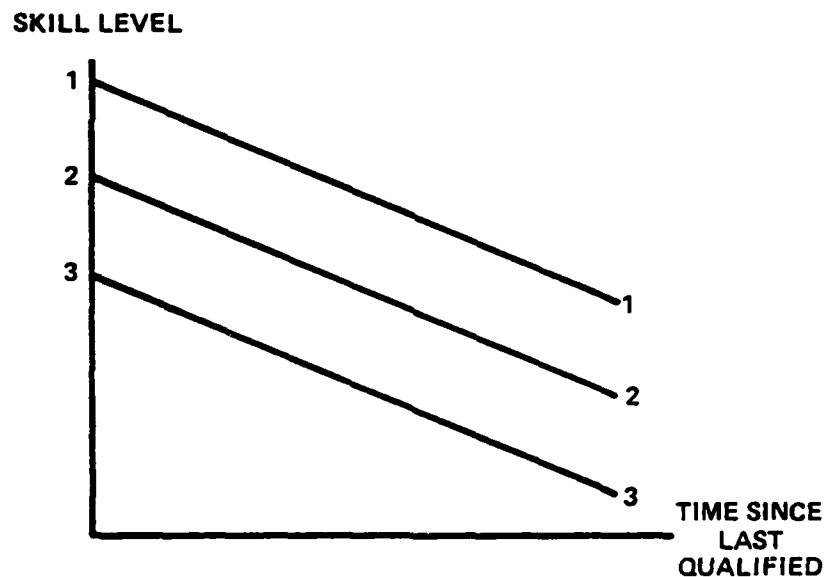


Figure 6.1 Hypothetical Forgetting Functions

Relating this concept to the IRR, it is possible that a well-trained individual who achieved a high level of proficiency might return to his duties after a considerable period and be at least as proficient as a more recent member of the unit who had achieved a lesser level of original proficiency.

The second major finding is that skill decay is related to the type of skill involved. Motor skills may be categorized into two basic groups--procedural and continuous. A procedural skill consists of a series of steps, each with a definite beginning and end and each with a short period of duration. Shooting a weapon is an example of a procedural motor skill. A continuous skill consists of continuous motion with no particular beginning or end and no specific period of duration. Target tracking is an example of a continuous motor skill.

There is ample empirical evidence to suggest that retention of continuous skills is greater (longer) than that for procedural skills. Findings from pursuit tracking studies indicate that knowledge of a continuous skill can be retained over long periods of nonutilization. On the other hand, knowledge of a procedural skill will deteriorate rapidly during a period of nonutilization. Thus, a pilot would remember how to maintain straight and level flight far longer than he would remember instrument landing procedures.

The sharp difference between procedural and continuous skill retention may be attributed to a number of factors. Procedural skills involve a series of steps which must be performed, usually, in a specific order. Thus, retention requires remembering a sequence of steps, the combination of which can be highly complex. Retention is hindered by steps which are not part of a logical sequence. Conversely, continuous skills are more fused, providing the individual with fewer distinct operations to remember and more time to concentrate on what is essentially a single operation.

This finding suggests that peacetime skill training for a member of the IRR should be oriented toward the procedural rather than the continuous skills. For example, refresher training for a surveyor should emphasize computational methods and survey procedures rather than practice in leveling an instrument and turning angles. This suggests that periodic self-paced study followed by a written examination might be sufficient to maintain an adequate level of proficiency for some skills. Although the surveyor might become rusty on his continuous skills, it would not take long for him to regain adequate overall proficiency if he did not also have to relearn the detailed procedures associated with surveying.

As discussed previously, the available training literature does not address the IRR training problem and, thus, does not consider two additional factors that impact on skill deterioration.

A member of the IRR whose civilian occupation is closely related to his military skill will retain far greater proficiency than an individual working in a totally different occupation. If the IRR assignment manager knew the civilian occupation, it would help in determining refresher training requirements for that individual.

Technological or equipment changes that occur after the individual enters the IRR can quickly negate the skill of a technician and require retraining on new equipment before assignment to a unit. Although an electronic repair technician would remember troubleshooting procedures and be able to use meters, etc, he would not be effective in troubleshooting new electronic systems without training on that specific equipment. Similarly, a gunner on an M-60 tank could not be a gunner on a new XM-1 tank without retraining. Thus, the IRR manager must be aware of changes in equipment that will require retraining of individuals in selected skills and establish refresher training policies accordingly.

Service Efforts

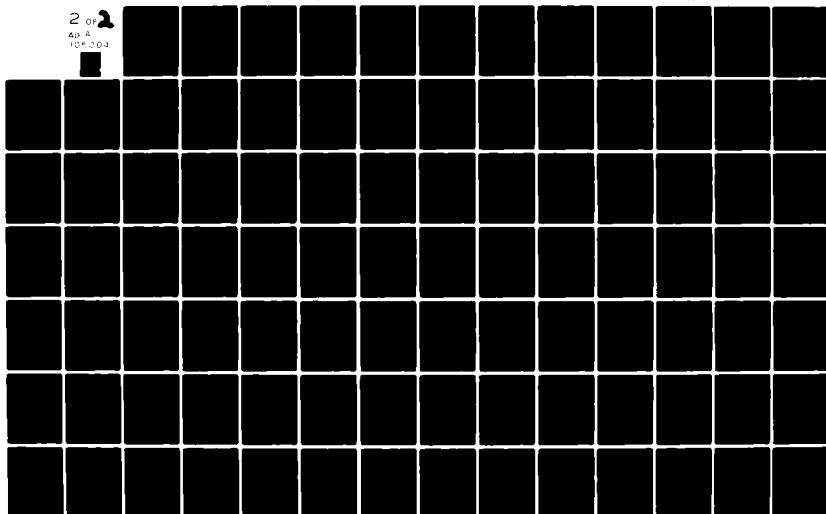
As discussed previously, each Service has identified the need to quantify the rate of skill decay for members of the IRR and other groups

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GENERAL RESEARCH CORP MCLEAN VA MANAGEMENT SYSTEMS DIV F/G 5/9
ANALYSES OF PRETRAINED INDIVIDUAL MANPOWER STRENGTHS AND TRAINING--ETC(U)
AUG 81 J R LOOME, R E COTTLE, R E WALSH MDA903-80-C-0664
GRC-1189-02-81-CR NL

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of individuals not actively participating in military training. However, given the number of skills involved and the research effort required to determine skill deterioration rates, none of the Services has undertaken a systematic evaluation of its many skills. Both the Army and the Air Force have begun to work on the problem.

The Army's effort began in August 1979 when the Reserve Components Coordination Council tasked the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) to develop a premobilization training concept for members of the IRR. ODCSOPS later tasked the Training and Doctrine Command (TRADOC) to:

- Develop a system for predicting skill deterioration
- Recommend the frequency, type, and length of refresher training or retraining by skill level for members of the IRR and ING
- Provide prioritized wartime critical task listings by MOS/skill level for those tasks taught at TRADOC schools and training centers

TRADOC has undertaken the tasks and, in conjunction with the Army Research Institute, has begun to develop a system for predicting skill deterioration. TRADOC estimates that a rough prediction model will be complete in October 1981 and that validation will be initiated during the first quarter of FY 1982. TRADOC reports, however, that the utility of the model may be questionable because of the countless human variables involved. Recommendations on refresher training will be determined after the skill deterioration model has been completed.

TRADOC is currently developing wartime critical task listings for enlisted initial entry training programs. These listings, in the form of mobilization programs of instruction (POI) for each skill, will provide a basis for establishing postmobilization training programs and workload. TRADOC estimates that the mobilization POIs will be complete by 30 September 1981. For NCO and officer skills, mobilization POIs will be developed in FY 1982.

The Air Force effort differs from that of the Army. The effort is being undertaken by the Air Force Wartime Manpower and Personnel Readiness Team (AFWMPRT). This agency is responsible for determining both the wartime manpower requirements and the available supply of personnel to meet those requirements. As such, AFWMPRT is concerned with the mobilization potential of pretrained individuals and is working to determine the rate and extent of skill decay following release of the individual from active duty.

AFWMPRT initiated the effort with a literature search, the results of which were provided to the GRC study team. Finding no previous research that was directly applicable to the IRR/retiree skill decay problem, AFWMPRT initiated an in-house effort to estimate skill decay rates. Functional managers on the Air Staff were asked to estimate skill decay rates for the Air Force Specialty Codes (AFSCs) under their cognizance. The managers provided estimates of the length of time an individual could remain inactive and return to duty without undergoing formal retraining or refresher training. They also provided estimates of the length of refresher training or on-the-job training required to restore the original level of proficiency.

AFWMPRT reviewed the results of the initial replies and found, not surprisingly, a wide variation among the estimates of individual managers. The results were tabulated and returned to the functional managers who were requested to review and revise their estimates as necessary. Tabulation and analysis of this review have not yet been completed.

The revised estimates of skill decay rates should reflect a greater degree of consistency and will be used by AFWMPRT to determine the mobilization potential of individual members of the IRR and retirees. Based on this assessment and the pretrained wartime manpower requirement, the Air Force will then take appropriate actions for the peacetime management and mobilization utilization of the IRR and retirees.

Suggested Approach

There are great difficulties associated with in-depth research into skills deterioration. It appears that the best approach to resolving the refresher training policy problem would be for each Service to undertake two separate, but related efforts. First, the Services should make subjective estimates of skill deterioration rates along the line of the present Air Force approach. This should provide usable results in a relatively short period and enable the Services to include refresher training considerations in their mobilization planning over the near term.

Second, the Services should conduct scientific research into the deterioration rates of selected skills. Although this effort should begin concurrently with the first, it would be a long-term project that would permit the future refinement of the subjective estimates. The efforts of the Services should be coordinated to avoid duplication and the results of the research should be shared by all Services.

Subjective Estimates

The actual process for making subjective estimates of skill decay rates will vary by Service according to skill and grade structure, Service training philosophy, mobilization manpower supply, etc. However, it is anticipated that each Service would form one or more teams that would be thoroughly briefed on the mobilization process and the refresher training problem. The teams would then visit the functional managers and persons in the training establishment to determine the rate of skill decay and the type and length of training necessary to restore the skills. By making visits rather than mailing questionnaires, the teams can ensure that the functional managers and trainers give adequate consideration to such factors as:

- Type of skill (continuous, procedural)
- Effects of related civilian employment on skill decay
- Technical content of the job
- Supervisory responsibilities
- Equipment/technology changes

During the visits, the teams could also explore concepts for conducting peacetime refresher training, looking for innovative ways to maintain proficiency for each skill without the need for attending lengthy periods of refresher training. Weekend seminars, self-study programs, monetary rewards, etc. should be considered for individuals with skills critical to mobilization.

The team should exercise caution in the determination of peacetime refresher training programs for each skill. In the past, some of the Services have considered that a member of the IRR who attended 2 weeks of training with a unit had received skill training and considered the individual to be requalified in his specialty. In many cases, the IRR member simply participated in unit activities for 2 weeks and received little refresher training in his particular skill. While this "regreening/rebluing" is beneficial, skill training conducted incidental to unit activities does not necessarily requalify an individual in his skill. Peacetime skill refresher training programs should be structured to provide training in critical tasks and to measure the proficiency of the individual at the conclusion of the training.

Scientific Research

In addition to making subjective estimates of skill decay as described above, the Services should also undertake scientific research to make more precise estimates of skill decay rates. Given the complexity and cost of such research, the effort should be restricted to selected skills that are critical to mobilization. The efforts of the Services should be coordinated to avoid duplication and results of the research should be provided to all Services.

It is envisioned that the research effort would be undertaken as follows:

- Select skills (and grade levels) critical to mobilization that are likely to be in short supply.

- Identify tasks for each skill/grade combination that are essential to the performance of the job under wartime conditions.
- Devise testing procedures that will measure performance level for critical tasks before release from active duty or the Selected Reserve and at subsequent points in time (incentives may be required to obtain volunteers from members of the IRR).

The skills selected for testing should cover a wide range of combat and support skills and include high density, relatively low skill levels such as Infantryman as well as low density, high skill levels such as electronic systems maintenance personnel.

Careful coordination of the Service research plans should ensure that the efforts are mutually supporting and not duplicative. For example, both the Navy and the Air Force might undertake research into the skills of high performance aircraft pilots. The research of each could emphasize different areas such as tactics and the employment of weapon systems versus aircraft maneuver and landing procedures. Similarly, complementary research efforts could be undertaken by the Army and Marine Corps in the Infantry skills.

Scientific research efforts will be time-consuming and the first results would become available long after the completion of the subjective estimates. Thus, the scientific research would provide the basis for the refinement of subjective estimates over the longer term.

REFRESHER TRAINING POLICY

The quantification of skill deterioration rates described above should enable the Services to estimate for each skill and grade level the time after last qualification that the individual remains fully qualified or marginally qualified for assignment upon mobilization. Figure 6.2 depicts a hypothetical situation for any skill and grade level.

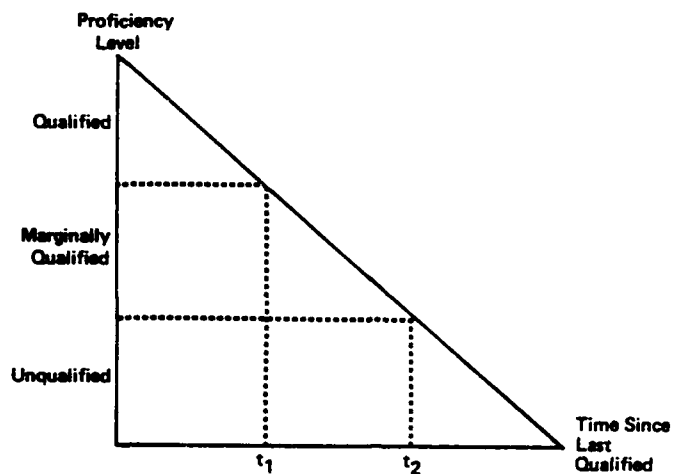


Figure 6.2 Proficiency Versus Time

Figure 6.2 shows that the average individual holding this skill and grade would remain qualified for assignment without refresher training until time t_1 . Between times t_1 and t_2 he would be marginally qualified which means that the individual should have refresher training before joining a unit but could be assigned without training under emergency conditions. After time t_2 , the individual must receive refresher training before assignment.

Following the determination of times t_1 and t_2 for each skill and grade level, it is then possible to establish a profile of pretrained individuals according to their level of qualification. The profile can then be compared to the time-phased wartime requirement for that skill and grade and used as a basis for determining refresher training policy for any skill and grade.

The skill refresher training policy for each skill and grade depends on many factors:

- Available supply
- Urgency of demand
- Amount of training
- Changes in technology

The most important determinant is the available supply of qualified individuals to meet the demand to fill immediate or early deploying units. If the projected number of fully qualified individuals in that skill and grade meets the projected demand for early fillers, then no skill refresher training is required in peacetime. If the available supply does not equal the demand, then peacetime skill refresher training should be provided if the supply can be improved by overcoming the effects of skill decay. That is, refresher training should be used to move marginally qualified and unqualified individuals to the "qualified" category.

Stated differently, it makes sense to provide peacetime skill refresher training for individuals whose skills have decayed and who are needed early in mobilization. If they require refresher training and are not needed early in mobilization, then there will be time for post-mobilization refresher training which would be more cost-effective. Thus, in order to establish a rational peacetime refresher training policy, the Services must not only estimate skill decay to determine the number of readily available personnel, but they must also establish time-phased requirements for each skill and grade to quantify the demand.

Peacetime refresher training policy must also consider the amount of training required to maintain full qualification. For some skills, such as pilots of tactical aircraft, it is not possible to maintain adequate skill proficiency without being on active duty or in the Selected Reserve. Training requirements for other skills such as avionics repairman may be less rigorous, but still require a lengthy period of annual training to maintain adequate proficiency. For common skills, such as truck driver, skill refresher training may not be required at all.

Changes in technology and equipment can have a major impact on the available supply of pretrained individuals in a given skill. The introduction of a new model of tank or aircraft affects the qualification level of both operations and maintenance personnel. In order to be mobilization assets, individuals who were trained on the older model must be retrained on the new equipment if a complete replacement of equipment has occurred

at the time of mobilization. In order to take this into account, IRR personnel managers must be aware of the rate of equipment change and be able to identify, through personnel records, the equipment qualification of each individual. Service IRR automated personnel files should be upgraded as necessary to accommodate this requirement.

The foregoing discussion of refresher training policy ignores one important aspect--that of general military training which was previously referred to as "regreening" or "rebluing." Maintaining an association with the military by periodic tours of active duty would provide two important benefits to an individual:

- Refresh general military skills such as familiarity with weapons, other military equipment, and unit operating procedures.
- Reacquaint the individual with Service traditions, wear of the uniform, etc. which should make the individual a better mobilization asset.

However, general military training should be recognized as such and not considered as skill refresher training unless it is accompanied by specific skill qualification training with recertification by the administering unit.

SUMMARY

In summation, the Services should undertake steps that will allow them to establish meaningful peacetime and postmobilization refresher training programs for pretrained individuals. The training programs should reflect:

- Time-phased mobilization manpower requirements.
- The rate of skill decay which determines the available supply of pretrained individuals.
- The amount of training required to maintain proficiency.
- Changes in technology or equipment.
- The need for general military refresher training.

SECTION 7
TRANSFER PROCEDURES FROM THE ACTIVE FORCES
AND SELECTED RESERVE TO THE IRR

INTRODUCTION

The IRR of each Military Service consists primarily of individuals who have completed their contractual period of service in either the active force or the Selected Reserve and have subsequently been transferred to the IRR to complete their statutory military service obligation (MSO). The vast majority of enlisted personnel are members of the IRR only to serve out the statutory (6 year) MSO that they incurred upon their initial enlistment.

Recent management initiatives have been undertaken by the Military Services to improve the viability of the IRR as a mobilization asset. Personnel management systems are being developed to establish and maintain contact with IRR members to encourage their retention following expiration of their MSO and to solicit volunteers to participate in training activities.

Many IRR members are only vaguely aware of their vulnerability to recall to active duty upon mobilization, their requirement to keep their Military Service informed of their current address, and the need to maintain their military uniforms while members of the IRR. This general lack of knowledge reduces the viability of the IRR as a mobilization asset.

The problem described above is, in part, the result of insufficient information given to the individual at the time of release from active duty or the Selected Reserve. Although the individual may be told that he or she is being separated from active duty and transferred to the IRR, the process is often considered to be a discharge from military service,

a step that the individual may believe severs all further ties with the military except for a "paper" assignment to the "inactive Reserve." This misconception further reduces the individual's responsiveness to future participation in military activities.

This section reports on a survey conducted by the GRC study team of the outprocessing procedures used by each Military Service and discusses the associated retention procedures employed to encourage individuals to reenlist or extend their term of active or Selected Reserve service. Policy and procedure changes are recommended as appropriate. Although the recommendations are directed toward the enlisted force, they may apply to officers as well.

Before describing outprocessing procedures, it will be useful to discuss in general terms the process by which individuals are released from active duty or the Selected Reserve at the expiration of their period of enlistment (or earlier, under special circumstances).

Release From Active Duty

The release of individuals from active duty requires the execution of two sets of procedures--outprocessing and recruiting/retention. Although the two sets of procedures have opposite goals, that is, separating versus retaining an individual, the procedures should be closely coordinated in actual practice. If an individual does not choose to reenlist and remain on active duty, then he or she must be separated from active service at the expiration of the active term of service (ETS).

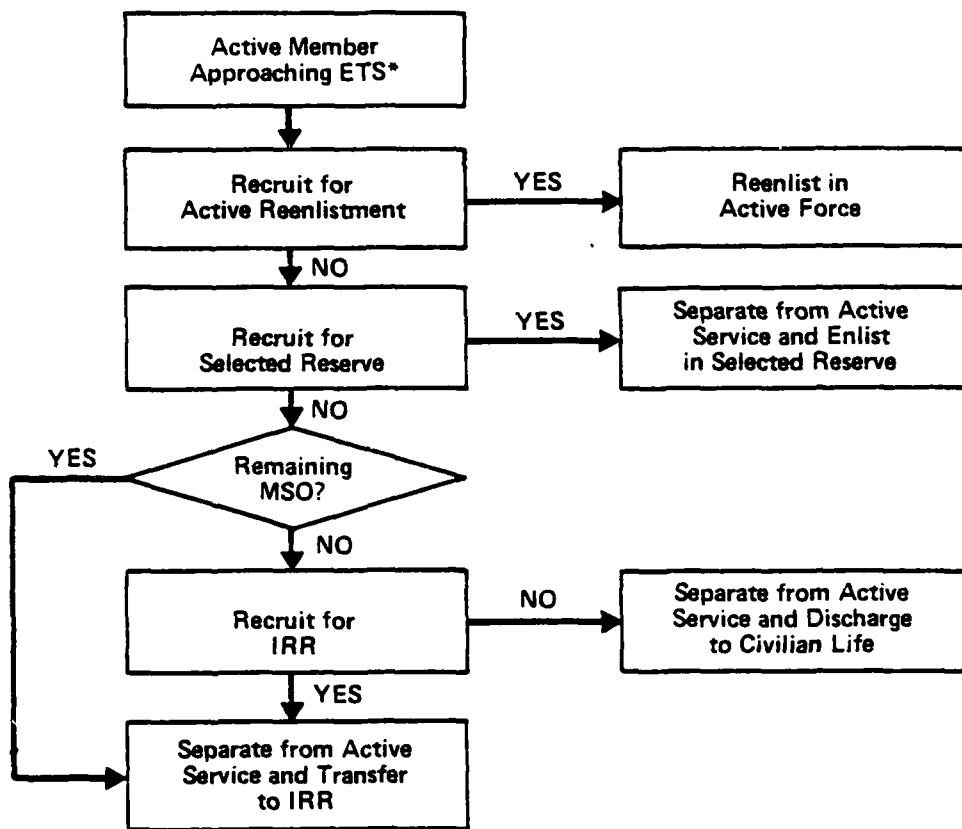
Although each Military Service has unique procedures for releasing enlisted personnel at the expiration of the active portion of their enlistment, most follow the same general pattern.

- If the individual is qualified for reenlistment, he or she is interviewed by the commander and/or a career counselor to encourage reenlistment and continued service in the active force. This generally occurs 2 to 4 months before ETS.

- If an individual in the active force declares an intention not to reenlist, the individual is referred to a reserve recruiter/career counselor who attempts to sell participation in a Selected Reserve unit following release from active duty.
- If the individual elects not to reenlist for either the active force or the Selected Reserve but has a remaining MSO, he or she is automatically transferred to the IRR.
- If the individual does not desire to join the Selected Reserve and has no remaining period to serve on his MSO, the recruiter then attempts to interest the individual in reenlisting in the IRR under the recently enacted bonus program.
- This process is described graphically in Figure 7.1

These recruiting and retention steps are closely integrated with the outprocessing procedure. All individuals who intend not to reenlist in the active Military Service are given a series of briefings preparatory to their release or separation from active duty. The briefings cover Veterans Administration benefits, education programs, employment opportunities, financial matters, reserve participation, etc. The briefings, which together may fill a morning or afternoon, are presented periodically (usually weekly, monthly, or quarterly) and attendance is mandatory for members approaching ETS. Personnel may attend the briefings as much as three months prior to ETS.

As part of the separation process, each person who is being transferred to the IRR should be informed about service in the IRR including the conditions under which the individual may be recalled, the requirement for reporting current address, and the requirement to maintain military uniforms. Visits to the Military Services, however, show that the separation briefings are ineffective in this regard.



*Expiration, Term of Service

Figure 7.1 Retention/Separation Process

The study team determined practices in reenlistment recruiting and outprocessing by reviewing regulations at the Military Service Headquarters level and observing the procedures used in the field. Study resources did not permit the study team to conduct a comprehensive survey of installations of each Military Service. However, the study team visited a small number of active installations and Selected Reserve units in each Military Service (Appendix A) which revealed the way policies are implemented in the field. The visits also permitted the identification of policy and procedure problems related to recruiting and outprocessing activities.

ARMY PROCEDURES

Army outprocessing begins at the unit level. Units identify individuals approaching ETS, prepare personnel and financial records for separation, and issue orders transferring the individuals to the separation transfer point (STP) for final outprocessing and separation from active service. STPs, which are established on all major installations, are small detachments that are responsible for the administrative processing of all individuals separating from active duty at the installation. Overseas personnel are returned to a CONUS STP for final outprocessing. STP personnel schedule and conduct the orientation briefings described previously, prepare separation papers (for example, separation or discharge orders; DD Form 214, Report of Separation From Active Duty), arrange for final pay, and transfer personnel and health records to the appropriate agency following separation.

The Army requires that all individuals leaving active duty who have a remaining service obligation be given a preseparation briefing on the Army Reserve/Guard. AR 635-10, Processing Personnel For Separation, requires that such members be briefed on the structure of the Guard and Reserve, the meaning of the service obligation including vulnerability to recall, the requirement to retain uniforms in serviceable condition, and the necessity to inform RCPAC of their current address. The regulation recommends that an in-service recruiter present the briefing if available. AR 635-10 also prescribes that a reserve (red) ID card be issued to each member transferred to the IRR from active duty.

The guard and reserve briefings, which were presented by the resident in-service recruiter (ISR) at the installations we visited, were primarily oriented toward recruiting for the Selected Reserve. Although some information was given about the remaining service obligation, the study team found it to be incomplete. The importance of the IRR, conditions for recall, and uniform and address requirements were not sufficiently discussed at the installations visited. Attendance at the briefings is mandatory and individuals cannot be separated if they have not attended (a sign-in sheet is maintained by STP personnel). However, in one case we observed, 35-40% of the attendees did not return following the mid-morning break. Therefore, they missed the remainder of the briefings, including that of the ISR who was the final speaker.

AR 635-10 provides a guard/reserve handout that is to be reproduced locally and given to members who have remaining service obligations. The handout discusses assignment to the Annual Training and Reinforcement control groups of the IRR and the possibility of involuntary recall to active duty for training during peacetime, an outmoded policy as discussed below. The handout is written largely in legal terms that will tend to confuse a member leaving active duty. It was distributed at only one of the three outprocessing briefings attended by the study team. The Army is updating its outprocessing procedures and revising the handout, but the proposed new handout still lacks adequate information about the IRR.

At some outprocessing briefings the study team attended, RCPAC Pamphlet 140-5, Information Pamphlet for the Career Development of Enlisted Members of the United States Army Reserve, was either distributed or offered to interested separatees (none seemed interested). The pamphlet explains that RCPAC assigns members to control groups based on whether the member can be required to attend annual training (Annual Training Control Group), or not (Reinforcement Control Group). Separatees who served less than 33 months of active duty are assigned to the Annual Training Control Group even though Congress no longer provides funds for mandatory annual training. Furthermore, since the cessation of the draft, the Annual Training Control Group has been depleted and now consists

only of obligors who do not complete first term enlistments. Discussing assignment to control groups confuses the separatee because there is no difference between the groups as far as the individual is concerned. RCPAC Pamphlet 140-5 provides only limited information about address changes, recall requirements, uniform requirements, training, etc. However, since this is not its principal focus, the pamphlet should not be considered to be a primary source of IRR information for members at the time of separation from active duty.

RCPAC Pamphlet 140-5 could be useful to military service members after their return to civilian life. Distribution of the pamphlet before release from active duty, however, will not guarantee that the pamphlet will get home with the individual.

The Army is beginning to issue reserve ID cards to members transferring from active duty to the IRR, but not all installations are now issuing the cards. Issuance at the STP is feasible for personnel on CONUS installations, but not for STPs such as Ft. Dix that process large numbers of overseas returnees. These STPs have a heavy daily workload and would require additional resources (for example, at least 3 civilian positions at Ft. Dix) to issue reserve ID cards. The Army plans to require that the separatee's military personnel office issue reserve ID cards before the individual is transferred to the STP for final outprocessing.

Army regulations encourage that separatees take a physical examination but allow members to waive the requirement in most cases. During the outprocessing briefing, separatees are encouraged to take a physical examination on the basis that it will be much easier to process future claims for disability benefits. One speaker pointed out that a medical exam costs \$25 to \$50 in the private sector and separatees should take advantage of a "freebie" physical before their ETS date. However, none of the speakers mentioned that IRR members are required by law to have a current (within 4 years) physical examination, a requirement that could be fulfilled by taking a separation physical exam. Thus, many individuals enter the IRR needing physical examinations. It appears that this requirement should be reviewed and either rescinded or enforced.

Visits to the Army Reserve and the Army National Guard revealed that there is little cognizance of IRR requirements among the Army's Selected Reserve components. Members transferring from the Selected Reserve to the IRR are not briefed on any aspect of the IRR or the responsibilities of the individual as a member of the IRR. Army Reserve and Army National Guard units require all separatees to turn in their reserve ID cards, even those transferring to the IRR or the inactive National Guard (ING). The study team found no guard/reserve regulations to the contrary. Army National Guard units require that separating members turn in all uniforms (except personal items such as footwear) regardless of continued service in the IRR or ING.

Discussions between the study team and members of the active Army and Selected Reserve revealed a basic flaw that inhibits effective preparation of separatees for IRR service. Army personnel, both active and reserve, are largely unaware of the purpose and organization of the IRR and many do not know the term Individual Ready Reserve. This lack of knowledge is an impediment because service members who do not know about the IRR cannot intelligently brief separatees about the IRR. Members unfamiliar with the IRR program seek to avoid the subject and when they do discuss it, use imprecise terms such as inactive Reserve. The overall lack of knowledge among active and reserve members about the IRR and its wartime role in the nation's defense works counter to efforts to improve the viability of the IRR as a mobilization asset.

The Army is aware that separating members lack necessary knowledge about the IRR and is currently testing two methods of improving the separation process. The test is being conducted at three groups of installations. At the first group, IRR enlisted personnel managers will be added to installation staffs to handle recruiting under the IRR bonus program and to provide briefings on the IRR. At the second group, RCPAC will provide additional training for ISRs to improve their knowledge of the IRR. The third group of installations will serve as a control group.

The test began 1 June and will continue for 6 months. It will measure the IRR knowledge imparted by the two groups of briefers/recruiters (and a third control group) and also determine if there are differences in members' attitudes on training participation. Information on the IRR will be disseminated to separatees by means of live briefings that will include neither new handouts nor new video presentations. In addition, a work sample/time survey of ISR activities will also be conducted during the test. The purpose of the work sample/time survey is to determine the level of ISR and ISR support resources required to achieve RCPAC's goals during separation procedures. The results of the test should be available early in 1982.

AR 601-280, Army Reenlistment Program, provides for a series of reenlistment interviews that are coordinated with the outprocessing system. As individuals approach their ETS date, they are counseled on reenlistment in the active force, first by unit personnel and then by the installation reenlistment NCO. If these efforts have not been successful by about 60 days before ETS, the individual is referred to the local ISR who attempts to reenlist him or her into the Selected Reserve. The ISR conducts a personal interview and explains the advantages of remaining in the Selected Reserve and offers to obtain a specific unit assignment for the individual. Personnel who accept assignment to an Army Reserve unit are reenlisted effective the day following separation from active duty. Individuals desiring a National Guard assignment are placed in the IRR and referred to the National Guard unit for subsequent enlistment under applicable state regulations.

For those who refuse to remain in either the active Army or the Selected Reserve, the ISR may briefly discuss the IRR and offer to sell reenlistment under the IRR bonus program if the individual has no remaining service obligation and is otherwise eligible. Thus, the reenlistment chain operates in the correct order, that is, active - Selected Reserve - IRR.

Study team site visits indicate that although local procedures vary in some details, the reenlistment procedures prescribed by AR 601-280 are followed in the field. Some installations have worked out positive referral systems which incorporate feedback to the member's unit reenlistment NCO. Together, the positive referral systems and the outprocessing briefings ensure that separatees see an ISR at least once prior to their separation. However, it is apparent that ISRs make little effort to sell the IRR reenlistment bonus plan to separatees. Factors which appear to be responsible for the ISR's indifference to the IRR bonus reenlistment plan are:

- The ISR is primarily a recruiter for the Selected Reserve. ISR results are measured by the number of enlistments into Army Reserve units or referrals to the National Guard. No credit is given for IRR reenlistments.
- The ISR does not understand the importance of the IRR to the Army's mobilization capability.
- Not all ISRs understand the details of the IRR bonus program. One incorrectly explained to separatees that IRR bonus recipients were obligated to attend 2 weeks of training annually.
- In some cases, the ISRs have insufficient clerical support to implement the IRR bonus program. This is particularly true at Ft. Dix where there are 2 ISRs serving without clerical support. The time available for outprocessing individuals returning from overseas is very limited (0700 to 1600) and the ISRs do not have time or clerical support to process IRR reenlistments under the bonus program.

In summation, the study team found the Army outprocessing briefings provide little useful information about the IRR. Although most separatees are aware of their 6-year MSO, separations processing does little to prepare the individual for IRR membership. This problem could be

ameliorated by the distribution of written information explaining IRR obligations to members being transferred to the IRR. However, existing handouts and pamphlets used for this purpose are not adequate. A new handout, reinforced by improved outprocessing briefings, should include information on:

- The importance of the IRR to mobilization
- Vulnerability to recall
- Duties of the individual concerning maintaining uniforms and current address
- Available services and opportunities for further training and participation as a member of the Army Reserve

On the positive side, the Army is beginning to issue reserve ID cards and is testing new methods to improve separatees' knowledge of the IRR.

The Army's active and Selected Reserve retention processes are thoroughly integrated and emphasize a positive recruiting referral chain. The IRR bonus reenlistment plan has been implemented but is not being actively marketed. This is not surprising since IRR reenlistments are the responsibility of the ISR who has no incentive to sell the program.

NAVY PROCEDURES

The Bureau of Naval Personnel (BUPERS) Manual provides that when a Navy member serves in a unit that has facilities for the administration of service records, effecting payments, and conducting separation physical exams, the member will normally be separated by that unit. In units which do not have the requisite facilities to perform separations, individuals are transferred to a separation center for outprocessing. Separation centers are activities which have been established at major Naval installations specifically for the purpose of outprocessing separatees from such units.

The BUPERS Manual prohibits the separation of individuals outside of the CONUS and Hawaii. This complicates matters for units that are deploying with individuals whose enlistment will expire during the deployment. Such individuals must either be left behind, separated ahead of their expiration of active service (EOAS) date, or transported back to a separations center for outprocessing. In any case, the unit which is losing the individual completes most of the separation processing before the individual departs the unit.

At one time, each Navy unit was responsible for maintaining its own personnel records and performing most aspects of personnel administration. However, in a move to increase efficiency, the Navy has consolidated personnel functions for shore based activities in Personnel Support Detachments (PSD) located at most Navy installations. Thus, PSDs provide outprocessing support for members assigned to shore based activities.

To recap, there are three types of activities which separate service members in the Navy:

- Ships of sufficient size to have on-board facilities required to perform outprocessing usually perform separations on-board.
- Separation centers outprocess service members transferred from deployed ships and smaller ships which are in port.
- PSDs separate service members who are attached to shore based units.

Steps to be accomplished during outprocessing are described in the BUPERS Manual as well as the Enlisted Transfer Manual. Thus, even though separation activities occur in several different types of units, and a large absolute number of units, there should be uniformity in the tasks accomplished. These procedures are described in more detail below.

Administratively, the process of separating members from active Navy service is similar to those of the Army described previously. Important exceptions are:

- Navy members must take a physical examination if they have not had one within the 6 months prior to separation.
- Reserve ID cards are issued to all members being transferred to either the Selected or Individual Ready Reserve.
- Navy orders transferring the member to the IRR include: address update requirements, who to contact for answers to reserve-related questions, an explanation of the MSO, conditions of recall, and uniform retention requirements (see Appendix H).

When members are transferred to a separation center for outprocessing, most of the administrative separations tasks should be performed by the member's unit. The physical exam is scheduled by the member's unit and most required forms are prepared in advance and placed loosely in the member's service records for finalization at the outprocessing site. Members are transferred to the separation center during their final week of active duty and hand-carry their service records with them. Since the member's unit prepared most forms in advance, all that is required at the separation center is to sign documents, close the member's service record, and issue final payment. The member's service record is then broken down and shipped to the Naval Reserve Personnel Center (NRPC) the day after separation.

The BUPERS Manual requires counseling and briefings be given separatees to prepare them for the transition to civilian life. Subjects such as veterans benefits, education programs, services available from local agencies, and the reserve program are reviewed with members before they outprocess. As a general rule, these briefings are completed while the member is still attached to his unit. Briefings are presented on a periodic basis at central sites on major installations and on some large

ships. The briefings are also presented frequently at separation centers. It is the duty of commanding officers and career counselors to ensure that separatees attend one of the briefings before their EOAS date. However, there is no systematic procedure to ensure that separatees attend the briefing and it appears that only about half of all separatees receive the briefing. The reserve indoctrination briefing, discussed in more detail below, is given in conjunction with this briefing.

In the event members are separated from the Selected Reserve with a remaining service obligation, reserve career counselors brief the individual regarding his or her IRR obligation. According to the reserve career counselor interviewed by the study team, the individual is given a complete briefing on all aspects of the IRR.

Regular and reserve recruiting functions in the Navy are not well integrated. Although the Indoctrination Team refers interested active duty members to a reserve recruiter, it is up to the individual to make the contact with the recruiter. Otherwise, the individual will not be contacted by a reserve recruiter until after his release from active duty. The recruiting process is explained in more detail below.

Unit career counselors are responsible for reenlistment recruiting efforts within the regular Navy. About 10 months before EOAS, career counselors hold an incentive programs interview with individuals whose enlistment is expiring to explain the benefits of reenlistment in the regular Navy. If the service member does not reenlist, a preseparation interview is held about 45 days prior to the member's EOAS date. The purpose of this interview is to help transition the member to civilian life and to make a final effort to reenlist the member. The career counselor's handbook, the Retention Team Manual, states that career counselors should explain the reserve program to service members at both the incentive programs interview and the preseparation interview. However, the Retention Team Manual gives only limited guidance about the reserve program. IRR-related information is sorely lacking. Furthermore, unit career counselors are evaluated primarily on the success of

the active retention program. Since individuals who join the Naval Reserve cannot also reenlist in the regular Navy, there is no incentive for career counselors to give a favorable presentation of the Reserve program.

To remedy shortcomings in Reserve counseling, the Chief of the Naval Reserve has formulated a reserve indoctrination program. Reserve Indoctrination Teams have been formed to present a briefing designed specifically to give information about the Naval Reserve to members who indicate they will not reenlist in the regular Navy. The Indoctrination Team briefing covers the opportunities available through affiliation in the Selected Reserve as well as service members' obligation to serve out their MSOs in the IRR. Regarding the IRR obligation of separating members, the information presented in the briefing is excellent. Members are told about their obligation; what uniforms they should keep; how, and under what conditions they could be recalled; why they are responsible for update of their home address; and who to contact if they have questions about the Ready Reserve. A well written pamphlet, the Reserve Indoctrination Guide, is also distributed to members attending this briefing. It explains the reserve program and reinforces the information presented at the briefing.

There are two Naval Reserve Indoctrination Teams, one located on each coast. The east coast team has positions located in Jacksonville, FL; Norfolk, VA; Philadelphia, PA; and Washington, D.C. Although team members travel to other areas to present briefings, coverage is considered to be inadequate in the Great Lakes region, the Newport, RI and Groton, CT area, Charleston, SC, and the Gulf Coast area. Operations and manning of the west coast Reserve Indoctrination Team were not reviewed during this study. Reserve Indoctrination Team members schedule and conduct briefings on ships, at central sites on major installations, and at separation centers, throughout their geographic regions.

Unfortunately, the Reserve Indoctrination Team is not able to present this briefing to all separatees from the active Navy. In addition to the program of geographic coverage, a second problem is the apparent

resistance to having a reserve indoctrination program presented among members of the active Navy. It was reported that some commanding officers do not allow the Indoctrination Team to come aboard to present the briefing to members of their units and that some career counselors do not schedule members to attend the briefing. It is estimated that, in areas where the team has coverage, only about 85% of the separating personnel actually attend a reserve indoctrination briefing. Since some areas have little or no coverage, it appears that almost half the Navy's separatees do not receive information on the reserve program.

Except for the reserve briefings described above, recruiting for the Selected Naval Reserve is completely segregated from recruiting for reenlistments to the regular Navy. A member of the regular Navy will be contacted by a reserve recruiter (called Canvasser/Recruiters in the Naval Reserve) before separation only if that person initiates the contact. Reserve recruiters across the country receive computer listings showing all the personnel who have recently separated from the regular Navy and whose home address is in their area. They use these listings to make contact with the individual and to try to convince him or her to enlist in the Naval Reserve.

Canvasser/Recruiters are a unique group of Naval Reservists in that they are contracted to serve on active duty for one year at a time. Each year the reserve recruiter's performance is evaluated to determine whether his or her contract should be renewed. Performance statistics are gathered on each recruiter in the form of quality points and number of individuals enlisted in the Naval Reserve. From one to eight quality points may be earned for one enlistment depending on how critical a skill the enlistee possesses. In addition, one quality point may be earned for IRR reenlistments. Despite the fact that quality points can be earned for achieving IRR reenlistments, there is not much incentive for a reserve recruiter to sell the IRR reenlistment bonus program. While quality points help, the primary measure of a reserve recruiter's performance is still the number of recruitments to the Selected Reserve. Most reserve recruiters feel an IRR reenlistment is more work than it is

worth. As one reserve recruiter explained to the study team, "All the quality points in the world won't help you get your contract renewed if you don't put anybody in the Selected Reserve."

IRR reenlistment recruiting is performed by mail and telephone from NRPC. NRPC contacts IRR members as they near the end of their MSO and explains the advantages of remaining in the IRR. When the member agrees to reenlist, NRPC refers the individual to a PSD or the reserve activity nearest the recruit's home for the execution of an IRR reenlistment contract and payment of the reenlistment bonus.

NRPC is unable to recruit members whose MSO expired prior to separation from active duty because NRPC does not automate personnel data on these individuals. NRPC only maintains data files on individuals who are transferred to a component of the Naval Reserve. Thus, any member who served six years or more in the active Navy and did not affiliate with the Naval Reserve after release or discharge, will not be offered the opportunity to reenlist in the IRR.

In summation, Navy outprocessing is carried out by three different types of activities in many locations. Reserve Indoctrination Teams present a thorough briefing on the Naval Reserve including all aspects of IRR service. The briefing is supplemented by a good pamphlet. However, the briefing is not available in all areas and there is no systematic procedure to ensure that separatees from the numerous separation activities receive the briefing. Outprocessing procedures are good--all separatees transferring to the IRR receive physicals, reserve ID cards, and a set of orders detailing their reserve obligation.

Retention practices are not well integrated in the Navy. Reenlistment recruiting incentive programs act to suboptimize the total Navy retention effort because there are no base-level active/reserve recruiting referral systems. NRPC recruits for the IRR reenlistment bonus program since neither the regular Navy nor the Naval Reserve recruiting programs accommodate it at the present time. NRPC does not have the means to

recruit individuals who separate after expiration of their MSO and do not join the Naval Reserve.

MARINE CORPS PROCEDURES

Marine Corps separation procedures operate in a manner similar to that of the other Services, but there are some important differences. Separation in the Marine Corps is performed at battalion level and is not centralized base-wide as in the Army. An exception is overseas returnees from the Far East who are outprocessed through a separation center at Camp Pendleton, CA. However, most Marines are outprocessed by the personnel staff of their parent battalion.

Outprocessing procedures are contained in the Marine Corps Separation Manual, P1900.19B, and are essentially the same as for other Services. Personnel and pay records are updated and prepared for separation, physical examinations are scheduled, and a DD Form 214 and separation orders are prepared. All separatees are required to take physical examinations and individuals being transferred to the IRR are given reserve ID cards.

Although outprocessing in the Marine Corps is decentralized to battalion level, outprocessing briefings are conducted at base level. The briefings are conducted either quarterly or monthly depending on the command and include a reserve briefing in addition to those for VA benefits, transportation, job opportunities, etc. Base level briefings are supplemented by special briefings given to various commands on a periodic or invitation basis. For example, the reserve recruiting NCO at Camp LeJeune provides a monthly reserve and reemployment rights briefing (with the assistance of a member of the North Carolina Employment Security Commission) to each unit of the 2d Marine Division.

Although the reserve briefing is primarily oriented toward the Selected Marine Corps Reserve (SMCR), the briefing covers the rights and responsibilities of members being transferred to the IRR. It includes a discussion of the member's remaining MSO, vulnerability to recall, uniform and address requirements, and advantages accruing from IRR service

(retention of grade, time in service, training opportunities, etc). In short, all major points relating to IRR service are explained.

A major problem, however, is that only 50-60% of the Marines separating from active duty receive the reserve briefing. Attendance at the briefings is mandatory, but the requirement is not enforced. Attendance is recorded by the reserve recruiter at the briefing sessions, but the battalion separation clerk is not furnished a roster of attendees and is not required to verify attendance for each individual as a precondition for separation.

Attendance at the outprocessing briefings is left to commanders who may or may not emphasize the program. Results vary accordingly, with some units consistently high and others consistently low. At one installation, the commander of the Reserve Support Unit awards a trophy to the command achieving the highest rate of attendance at the reserve briefing for the previous month. He also sends a monthly report of attendance results to each command to add increased emphasis to the program.

Battalion separation clerks make some attempt to provide information on VA benefits, reserve obligation, and uniform requirements to separatees who have missed the outprocessing briefings. However, results are spotty and the information given may be insufficient to meet the needs of the individual. For example, one clerk explains to those who miss the briefing and who have a remaining service obligation that they are being transferred to the "inactive Reserve" and that they are "really out of the Marine Corps except for a paper drill." The clerks issue a Notice of Obligated Service form that is signed by the member indicating the period of remaining service and the address of the reserve unit or headquarters to which the individual must report in person or by mail. However, no other reserve handouts are available that would explain the forthcoming IRR service.

Recruiting for the SMCR among active Marines takes place primarily in the outprocessing briefings presented by the reserve recruiters. During those briefings, individuals interested in the SMCR are asked to fill out an interest card that includes a postseparation mailing address. The reserve recruiter interviews those individuals and sends a referral card to the reserve unit with an information copy to the headquarters of the 4th Division or 4th Wing in New Orleans.

The reserve recruiters indicated they would like to interview each separatee in person, but workload will not permit it. For example, some 3500 to 4000 Marines separate from active duty at Camp LeJeune each year. Only one reserve recruiter is available at Camp LeJeune and he has no clerical support. The Marine Corps is planning to increase the number of reserve recruiters nationwide which may help to relieve this situation.

The reserve recruiters interviewed by the study team are aware that an IRR bonus program is being established but they have not yet been directed by Headquarters, Marine Corps to implement it. Presumably, the IRR bonus will be explained to separatees during the outprocessing briefing and some provision will be made to process the reenlistment paperwork either at the base before separation or at the Marine Corps Reserve Forces Administrative Center in Kansas City after separation. Marine Corps plans are as yet incomplete in this regard.

In summation, Marine Corps outprocessing and retention procedures could be improved if the following changes were made:

- All separatees should be required to attend outprocessing briefings as a precondition to separation. A positive attendance recording procedure should be established.
- A handout should be given to separatees explaining the privileges and responsibilities associated with duty in the IRR. The handout should be reinforced by outprocessing briefings.

- The assignment of additional reserve recruiters to major Marine Corps bases would increase the capability of recruiters to contact individuals before they separate from active duty. This should increase the number of active duty transfers into the Selected Reserve and the IRR.

AIR FORCE PROCEDURES

Separations processing is somewhat simplified in the Air Force because the Consolidated Base Personnel Office (CBPO) handles all aspects of personnel administration. Since the CBPO performs both the administration of members' service records and separations processing, there is no need to transfer members--they remain with their units until separation.

The CBPO starts separation processing of members who do not intend to reenlist about 75 days before their ETS date. Concurrently, the CBPO supplies the reserve recruiter with a listing of all reenlistment eligible service members who are projected for separation. CBPO personnel contact the separatee to obtain pertinent information, schedule the individual for a physical exam, and begin preparing the orders, documents, and correspondence to effect release or discharge.

The Air Force handles the separation of personnel who are stationed overseas in the same fashion as the Army. Overseas CBPOs perform most of the actions preparatory to separation and then the individual is transferred to a CONUS CBPO for final outprocessing.

Air Force Regulations 35-17 and 211-3 require that the CBPO give outprocessing members a preseparation briefing covering veterans benefits, educational assistance, insurance coverage, and the like. However, there is no requirement to cover a member's IRR obligation, the reserve program, or to provide published materials covering IRR obligations and requirements.

Although there is no requirement to discuss reserve matters at the preseparation briefing, the Air Force does require that reenlistment eligible separatees be counseled as to continued service in the Air National Guard or United States Air Force Reserve. If it can be arranged, separatees are to be counseled by a reserve recruiter. Otherwise, the CBPO base career advisor provides the guard and reserve counseling. However, the nature and content of the counseling is not prescribed but is left to the discrimination of the reserve recruiter or career advisor. Members who are ineligible for reenlistment are not counseled by the reserve recruiter even if they are to be transferred to the IRR.

During the site visit, the study team spoke to a reserve recruiter about the content of reserve counseling sessions conducted with members who are scheduled for separation. The reserve recruiter provides members who are separating, and who have a continuing MSO, excellent counseling on IRR-related matters. The meaning of the MSO, recall requirements, uniform retention, and address update requirements are discussed with the separatee. The reserve recruiter told the study team that his mandate is to counsel separatees on the guard and reserve program and that, since the IRR is part of the reserve program, he interprets his mandate to include counseling members on their IRR obligations.

It is unclear to what extent IRR counseling is occurring at other Air Force sites. The content of the reserve counseling sessions is determined by the discretion of the individual reserve recruiter, or in the many areas where there are no reserve recruiters, by the base career advisor. The study team found CBPO personnel not to be well informed about reserve matters including IRR obligations and requirements. The quantity and quality of IRR information which would be disseminated by CBPO base career advisors is, therefore, questionable. Leaving the content of the reserve counseling session to the discretion of individuals undoubtedly leads to a wide variation in the subject matter that is presented. In the absence of institutionalized counseling content, it is unlikely that all Air Force separatees receive high quality IRR counseling.

Reserve ID cards are not issued to Air Force members who are being transferred to the IRR. In fact, Air Force Regulation 30-20 prohibits the issuance of reserve ID cards to IRR members despite OSD guidance to the contrary.¹

Physical exams are not required prior to separation. However, as previously discussed, one of the initial steps in separation processing is scheduling members for physical examinations. All separatees are scheduled for physicals, and, as in the Army, are encouraged to receive one. However, members who have had a physical examination within the last five years may waive the separation physical, and most do.

Reserve and guard components were also visited and, in general, seem to be doing an adequate job of providing IRR information to members transferring to the IRR. According to reserve and guard representatives, individuals who separate due to ETS are individually counseled on their IRR obligation if they have not completed their MSO. However, these representatives state the vast majority of IRR transfers are individuals who are released from the reserve or guard unit for reasons of nonparticipation. As a general rule, these individuals are not available to be briefed on their IRR obligations since they are outprocessed in absentia. Individuals who are separated for nonparticipation are mailed a letter that details their requirements as members of the IRR. However, there is no way to make sure that the individual ever reads, or even receives, this letter.

Like the Army, Air Force recruiting features a positive system for referring members who decline reenlistment in the active force to a reserve recruiter. Unlike the Army, the Air Force referral system is automated. The regulation on Air National Guard and Air Force Reserve

¹ODASD(MRA&L)(MPP) memorandum dated October 23, 1980, subject: DoD Instruction 1000.13, "Identification Cards for Members of the Uniformed Services, Their Dependents, and Other Eligible Personnel," July 16, 1979.

recruiting (AFR 35-47) duplicates the provision found in the outprocessing regulation which requires all reenlistment eligible separatees to be counseled by a reserve recruiter regarding reenlistment opportunities in the Guard or Reserve. This regulation mandates that the CBPO support the reserve recruiter by providing office space, telephone service, etc. Furthermore, the CBPO must provide the reserve recruiter with an advance copy of the separation roster and help establish a schedule for counseling separating individuals.

The study team's site visit revealed that recruiting practices were as mandated by the regulations. The reserve recruiter's office was colocated with the CBPO separation center. The CBPO provides the recruiter with an automated listing of personnel who are projected to separate within the next 60 days. This listing shows data items such as name, grade, dates of entry and projected separation, Reenlistment Eligibility Code, and the Air Force Specialty Code (AFSC). The reserve recruiter uses this listing to obtain counseling appointments with each separating individual. Thus, the study team found that the recruitment referral system worked, in practice, in a very positive fashion, just as the regulations prescribed.

Asked about the Air Force's IRR bonus reenlistment program, the reserve recruiter at the visit site said there was little emphasis on the program due to several factors. First, few individuals qualify for the IRR bonus. The Air Force's program is limited to separatees who have 6 to 10 years of service and are qualified in specific AFSCs. The study team reviewed a portion of the reserve recruiter's separatee referral listing. Indeed, no individuals qualifying for the IRR bonus reenlistment were found during the review. Another factor reducing the emphasis on the IRR bonus reenlistment program is the large number of competing bonus programs. The Air Force has recently had to publish a cross referencing index to help reserve recruiters understand the many programs. There is a tendency to lose the IRR bonus program among the many competing Selected Reserve unit bonus programs.

The study team also visited CBPOs for the Air National Guard and Air Force Reserve and asked about the IRR reenlistment bonus program. The CBPOs replied that the IRR reenlistment bonus has not been implemented within their units. Consequently, guard and reserve members who separate after fulfilling their MSOs are not offered the IRR reenlistment bonus.

In summation, the Air Force outprocessing procedure is an efficient mechanism for discharging or releasing service members from active duty. However, outprocessing regulations do not require the briefing of separatees about their rights and obligations as members of the IRR or provide for the distribution of handouts covering such information. Air Force outprocessing regulations should be modified to require that appropriate briefings and handouts be given to members being transferred to the IRR. In addition, Air Force regulations should be changed to require issuance of reserve ID cards to members being transferred to the IRR from both active and Selected Reserve units.

The Air Force retention process is integrated. Each reenlistment eligible separatee is listed on a referral roster and is individually counseled by a reserve recruiter. The IRR bonus reenlistment program has been implemented in the active Air Force. However, the rate of IRR reenlistments has been low because not many separatees meet the program eligibility criteria for years of service and skill code. The IRR bonus program also needs command emphasis in the Selected Reserve.

CONCLUSIONS

The study team's conclusions relating to outprocessing and retention procedures are listed below. The first group applies to all or most Military Services. The remaining groups of conclusions apply to each Military Service individually.

All Services

- There is a general lack of knowledge about the IRR among personnel in the active and reserve components. The

Military Services should take steps to educate military members about the importance of the IRR and the responsibilities and privileges associated with membership therein.

- The Military Services need to improve the methods and procedures used to prepare separating members for duty in the IRR. Specifically, outprocessing briefings should be improved as follows:
 - The IRR content of the briefings needs to be improved in all Military Services except the Navy and Marine Corps. IRR obligations, rights, and privileges need to be covered in detail.
 - In all Military Services except the Air Force, attendance at reserve outprocessing briefings is a problem. The Navy and Marine Corps lack procedures to ensure that all separatees attend a briefing. The Army makes attending outprocessing briefings mandatory but separatees may not remain for the entire briefing.
 - The IRR portion of briefings usually is presented by a reserve recruiter (except for the Navy in areas covered by the Reserve Indoctrination Team) in conjunction with a reserve recruiting briefing. In most cases, this occurs because the IRR is not well understood by members of the active military and because the reserve recruiter is the only reserve member available during outprocessing briefings. However, since reserve recruiters generally are not well informed about the IRR and their mission is recruiting for the Selected Reserve, little time is devoted to IRR-related information.
- Military Services other than the Navy have no adequate written handout or pamphlet which explains the IRR member's rights and obligations. A handout should be

provided to reinforce the information received during outprocessing briefings and to serve as a future reference for the individual. To be useful, the handout should be brief and free of legal terms.

- The statute requiring IRR members to have a current physical examination (within four years) is not well known in the field. While the Navy and Marine Corps require that all separatees obtain physicals, the Army and Air Force allow members to waive this requirement. The Ready Reserve four-year physical exam law places a burden on the reserve components because current policy does not require a periodic physical exam for most military members leaving active duty.
- The Military Services generally recruit active members with expiring enlistments to the active component first, then, failing to obtain reenlistment, they recruit the members for the Selected Reserve, and failing to obtain enlistment in the Selected Reserve, they recruit the member for the IRR. The Services differ in the degree of integration between active and reserve recruitment efforts, but the recruiting flow is generally as described.
- During outprocessing briefings, all of the Military Services place heavy emphasis on the importance of retaining the original copy of the DD Form 214.
- Reserve recruiting goals emphasize recruiting for Selected Reserve components, but not the IRR. Reserve recruiter incentive plans should be modified to provide quotas and incentives for IRR enlistments.

Army Specific Conclusions

- The current structure of the IRR control groups is no longer relevant to most individuals in the IRR. Present rules preclude the involuntary recall of IRR members to active duty for training. Yet the Army continues to assign

members to IRR control groups on the basis of their vulnerability to recall to active duty for training in peacetime. Current (and proposed) handouts given to IRR members provide outdated information about their vulnerability to recall during peacetime.

- The Army has thoroughly integrated its reenlistment and separation activities in CONUS. There is a positive referral of individuals between active and reserve recruiters so that each individual is counseled in turn about active, Selected Reserve, and IRR enlistment. The recent addition of reserve recruiters to overseas commands should improve their reserve recruiting.
- The Army's ongoing Preseparation Counseling Test should enable the Army to establish improved IRR counseling procedures. However, it appears that the test program depends entirely on improved briefings and excludes the handout of information papers that would explain IRR responsibilities and privileges to members leaving active duty.
- Although the Army has implemented the IRR bonus reenlistment plan, it is unlikely that the Army will achieve its objective for IRR bonus reenlistments in FY 1982. The program is not well understood in the field and reserve recruiters have no incentive to sell the program.
- The Army's revised procedures for issuing reserve ID cards to members being transferred to the IRR from active duty should correct the current problem of spotty compliance with the policy. However, the timing of full implementation is indefinite.
- Regulations pertaining to the Army Reserve and Army National Guard should require units to brief members being transferred to the IRR, provide information handouts, and require members to retain their uniforms and their reserve ID cards.

- RCPAC Pamphlet 140-5, currently issued to soldiers leaving active duty at some installations, should be replaced by a good handout and briefing during separation. The pamphlet should be sent to the individual by RCPAC at the time of the first mailing after accession to the IRR so that the individual has the pamphlet at home for future reference.

Navy Specific Conclusions

- The Navy's separation process is fractionalized among different types of separation activities with many units performing separations. The geographic dispersion of units that perform the separations and the resistance of commanding officers and active Navy career counselors to reserve recruiting make it difficult for the Reserve Indoctrination Team to reach all separatees.
- The Navy Reserve Indoctrination Teams present a thorough briefing to separating members on the meaning of their IRR obligation. However, there are no procedures to ensure that all separatees attend the briefing. Furthermore, the Reserve Indoctrination Team lacks the manpower required to adequately cover all the geographic areas where separations occur.
- Recruiting activities are segregated among Navy components. Little or no reserve or IRR recruiting is done among the active force, even after members have announced an intention to separate.
- NRPC conducts IRR recruiting, on a skill selective basis, by mail and telephone. The PSDs and reserve activities support NRPC by preparing IRR reenlistment contracts.
- Active Navy members who separate after six or more years of service are not recruited for the IRR. Essentially, no IRR recruiting is conducted before separation and, since name and address data for these individuals are not readily available to NRPC, none is conducted after separation.

Marine Specific Conclusions

- Outprocessing is decentralized to the battalion level. Outprocessing briefings, however, are given at central sites on a regularly scheduled basis. There is no systematic method to ensure that separatees attend outprocessing briefings.
- There are only four reserve recruiters involved in recruiting active service separatees. The Marine Corps has plans to increase the number of reserve recruiters involved in this process.
- The IRR reenlistment bonus program has not been implemented by the Marine Corps in the field. The program is being implemented late in FY 1981.

Air Force Specific Conclusions

- Air Force regulations are out of synchronization with OSD guidance on the IRR. Specifically, the regulations preclude the issuance of reserve ID cards to obligated members transferring from active duty to the IRR. In addition, the regulations do not require briefings on the responsibilities and privileges associated with IRR membership, explanation of change of address and uniform requirements, etc.
- From the standpoint of recruiting, the Air Force has an excellent recruiting referral chain that features a positive method for passing reenlistment referrals from active to reserve components.
- The numerous guard and reserve reenlistment programs are complicated by their applicability to selected skills. In areas where no reserve recruiter is available, it is doubtful that the active base career advisor can effectively sell the guard/reserve programs.

- The Air Force allows reenlistment through the IRR bonus program only for skills critically short for mobilization. This limits the number of IRR enlistees under the program.

RECOMMENDATIONS

GRC makes the following recommendations to help improve the Military Services' outprocessing procedures. GRC recommends that the Military Services should:

- Prepare a handout for service members leaving active duty and the Selected Reserve that explains:
 - The MSO and gives the individual the date his or her MSO will expire
 - The importance of the IRR to the mobilization process
 - Conditions under which the individual could be recalled
 - Responsibilities relating to uniforms and maintenance of address information
 - Services and training opportunities available to the IRR member
- Improve existing IRR-related outprocessing briefings or create new IRR briefings (both written and video tape formats). The briefings should be reinforced by the information contained in the handout described above and should be given to each individual transferred from active duty or Selected Reserve to the IRR.
- Develop procedures to ensure that all separating personnel who have remaining MSOs receive the IRR handout and briefings described above.
- Mandate that active duty service members present the IRR briefing to separatees. This will ensure that the briefing is presented in all areas--regardless of whether or not a reserve recruiter is stationed in the area. Furthermore,

the presentation of the briefing by an active duty service member not in conjunction with a Selected Reserve recruiting talk will reinforce the member's remaining service obligation and the importance of the member's contribution to the defense of the nation.

- Undertake an educational program to heighten the awareness of all service members, both active and reserve, regarding the role of the IRR during mobilization. All service members should have a general awareness of what the IRR is, how individuals become members of the IRR, and the responsibilities and privileges associated with membership in the IRR.
- Continue to provide guard/reserve recruiters at major installations to recruit separatees for the Selected Reserve and IRR.
- Modify guard/reserve recruiting incentive programs to promote IRR bonus reenlistments as required to meet IRR strength goals.

GRC also recommends that OSD reevaluate the requirement for IRR members to have had a physical examination within the last four years and take appropriate action to eliminate or enforce the requirement.

Army Specific Recommendations

- For purposes of transferring individuals to the IRR, the Army should consider eliminating the distinction between the Annual Training and Reinforcement control groups. Under this concept, orders would be written assigning personnel to the IRR and not to a subelement of the IRR. Distinctions between groups of individuals in the IRR could be retained to meet RCPAC's management needs but should not be published on the individual's separation orders.

- Army Reserve and Army National Guard regulations should be changed to require that units provide IRR information to members who are transferred from the Selected Reserve to the IRR and to allow IRR members to retain their uniforms and ID cards.
- RCPAC Pamphlet 140-5 should be replaced by a handout and briefing at the time of separation. The pamphlet should be mailed to the new IRR member shortly after the individual returns home.

Navy Specific Recommendations

- The Reserve Indoctrination Team should be expanded to cover all major locations where active members are separated. Furthermore, the Navy should develop procedures to ensure that all separatees receive the team's briefing.
- NRPC should maintain the names and home addresses of all separating members who are eligible for IRR service for use in IRR recruiting. Specifically, name and address data for members who separate after six or more years of active duty need to be added to data files already in use at NRPC.
- The preprinted forms used by the Navy to execute separation orders could be revised to reflect current information.

Marine Corps Specific Recommendation

- The Marine Corps should continue with its plans to implement the IRR bonus reenlistment plan and increase the number of reserve recruiters.

Air Force Specific Recommendation

- A comprehensive review of Air Force regulations that impact IRR-related subjects should be undertaken. Regulations should be modified to comply with OSD's guidance on the IRR.

SECTION 8

COMPREHENSIVE PROGRAM

INTRODUCTION

Previous sections of this report have discussed in detail several issues relating to the supply and management of pretrained individuals. This section integrates the findings of those sections and recommends policies and procedures to be undertaken by OSD and the Military Services to facilitate a workable and desirable PIM program for each Service.

The recommendations contained herein are designed to solve problems that currently inhibit the effectiveness of the PIM program throughout the Department of Defense. The recommendations are broadly based to allow for differences between Service requirements and priorities. In this sense, the recommendations are designed to allow each Service to establish a PIM program tailored to meet its needs as well as those of the DoD as a whole.

STRENGTHS OF PRETRAINED INDIVIDUALS

OSD and the Military Services have undertaken numerous initiatives to improve the supply of pretrained individuals. Loopholes have been closed, new PIM resources have been identified (e.g., military retirees), and new programs have been established (e.g., IRR bonus program). These actions have improved the overall supply of pretrained individuals. All Services except the Marine Corps, however, remain short of meeting stated wartime manpower requirements. The Army has the most serious shortfall.

To a large extent, the Army's PIM shortfall is inherent in the structure of the Army's peacetime force and the size of the expansion required under major war scenarios. Considering the total peacetime

authorized strength of the active Army and the Selected Reserve, only 56% of the Army is in the active forces in peacetime compared to about 80% in the other Services. The remaining authorizations are in the Selected Reserve. This active/reserve balance means that, relative to total force size, there will be a smaller percentage of members leaving the active Army with an IRR obligation. Active forces are the primary source of IRR members, yet both active and Selected Reserve forces produce a wartime demand for IRR resources. This structural balance, in part, explains why the Army faces a more critical IRR shortfall than do the Navy and Air Force.

Reviewing steps taken by OSD and the Military Services to increase the supply of pretrained individuals, the study team could not identify any additional DoD management initiatives that would increase PIM strengths significantly. Present programs, including continuation of the IRR bonus program, should provide a gradual upward trend in IRR strength, but the improvement will not be sufficient to meet mobilization manpower requirements in the foreseeable future. Any major strength improvements will require new programs and resources. There are five ways to increase the available supply of pretrained individuals:

- Increase active duty and/or Selected Reserve strengths
- Increase the length of the military service obligation
- Reduce the length of active duty periods of enlistment
- Allow individuals to enlist directly into the IRR
- Increase length of time an individual spends in the IRR

Increase Active Duty and/or Selected Reserve Strengths

Current active duty and Selected Reserve strengths are established to provide adequate deterrence to potential aggressors considering available resources and the ability of the Services to recruit in a volunteer environment. An increase in active duty and Selected Reserve peacetime manning reduces (one-for-one) the PIM requirement and, concurrently, increases the flow into the IRR. However, this is the most expensive way to obtain additional pretrained individuals because they must be paid at active duty or Selected Reserve rates, far more costly than maintaining an individual in the IRR.

The use of increased active and Selected Reserve strengths to improve the supply of pretrained individuals is predicated on a concept of overmanning. That is, new units would not be formed as a result of increased peacetime manpower authorizations because this would not improve the supply of pretrained individuals needed to fill units and replace casualties early in the conflict.

Increase the Length of the Military Service Obligation

An increase in the length of the MSO from 6 to 7 or 8 years would significantly increase the strength of the IRR in all Services. If extended to 8 years, every individual who enters the IRR (and does not die or return to duty in the active force or Selected Reserve) would spend an additional 2 years in the IRR. In addition, 6-year enlistees who do not now serve in the IRR, would spend 2 years in the IRR if this change were made. The potential impact of the change is shown in the following example:

ARMY ENLISTEES--FY 1980

Term of Active Duty Enlistment	Number of Enlistees	Number Entering IRR (50%)	Expected IRR Person-Years	
			6-Yr MSO	8-Yr MSO
2	1,552	776	3,104	4,656
3	108,024	54,012	162,036	270,060
4	48,503	24,252	48,504	97,008
5	87	44	44	132
6	<u>13</u>	<u>7</u>	<u>0</u>	<u>14</u>
Total	158,179	79,091	213,688	371,870

It can be seen that the change would yield an increase of 158,182 IRR person-years from this cohort, an increase of about 75%.

There are two principal drawbacks to this proposal. The first is the lead-time required to implement the change which is 6 years from the date of enactment. Thus, the first impact on IRR strength would be seen in the seventh year and the change would not be fully effective until the end of the eighth year following enactment.

The most serious problem is the potential negative impact on the propensity to enlist. Extending the MSO to 7 or 8 years could reduce the willingness of individuals to join a Military Service. Although membership in the IRR presently requires minimum participation (notification of change of address), the increased length of time the individual is subject to recall upon mobilization would have a negative effect on this willingness to enlist.

GRC recommends that OSD survey individuals to determine their attitudes toward an increase in MSO. The survey should consider extension of the MSO by 1, 2, 3, or 4 years. Based on the results of the survey, OSD should submit legislation to change the MSO. Due consideration should also be given to skill decay of IRR members when recommending an increase in the length of the MSO.

Reduced Periods of Active/Selected Reserve Service

Based on the considerations discussed in Section 2, GRC believes that the Services should consider reducing the length of active duty/Selected Reserve enlistments for skills that are projected to be critically short upon mobilization. In particular, the Army should consider reducing the minimum term of enlistment for the hard-to-fill combat skills. Although this would increase training and transportation costs and add to turbulence problems, if the program were limited to a few skills (Infantry, Armor, Artillery) which have short training times, the impact on the overall force would be minimized. Skill decay for members of the IRR should also be considered in selecting skills for this program.

IRR Direct Enlistment

The Army tested the concept of an IRR direct enlistment program in 1979-1980 but discontinued the test because few enlistments were obtained and the Army had doubts about the mobilization usability of the IRR members enlisted through the program.

The IRR direct enlistee has, by any measure, minimal military training. Even though the direct enlistee receives refresher training in the

third and fifth years of IRR service, he lacks unit experience and the knowledge of unit operations and team-work so essential to success in combat. However, even though the direct enlistee is marginally qualified, he could perform low-skill tasks (guard, driver, etc) or join a unit that is training for deployment overseas. The real question is whether it is better to recall upon mobilization a marginally qualified individual or to wait until a draftee can be inducted and trained who is also marginally qualified.

GRC recommends that the Army review its time-phased wartime manpower requirements to determine the need for marginally-qualified individuals early in mobilization. If that review shows the need for significant numbers of individuals to perform low-skill tasks or to join units that will train before deploying, then an IRR direct enlistment program should be established. The program should consider the identification of IRR direct enlistees (e.g., a special IRR category) so that their wartime assignments can reflect their limited potential. The other Services should also review their wartime manpower requirements to determine if young, marginally-qualified individuals are needed early in mobilization and establish an IRR direct enlistment program if required.

Increase the Length of Time an Individual Spends in the IRR

Under the present IRR program, most individuals request discharge at the expiration of their MSO. However, if a substantial number of individuals could be persuaded to remain beyond their MSO, IRR strengths could be improved. The Services have undertaken two complementary programs to retain individuals in the IRR.

The first is improved personnel management procedures, a program that was described in detail in GRC Report 1189-01-81-CR, February 1981. The concept, which is patterned on the Army's reserve officer personnel management system, calls for personal contact between reserve personnel managers and members of the IRR. This personal contact should attain increased interest in maintaining military contact and skill proficiency and encourage individuals to extend their service in the IRR. The

personnel management systems are not yet fully operational and results are not yet known.

The second program is the IRR bonus which was authorized by Congress during FY 1981 but not continued in FY 1982. GRC believes that the program should be continued and that the Services should consider increasing the amount of the bonus payment. Section 2 showed that the present reenlistment bonus could be doubled from \$600 to \$1200 and still provide a higher quality resource at less cost than the IRR direct enlistment program. However, the amount of the bonus should be constrained so that it does not compete with Selected Reserve recruiting and retention efforts. Further, the IRR bonus program should consider skill decay and require individuals receiving the bonus to attend skill refresher training or take special courses by correspondence to maintain an adequate level of proficiency in their skill.

MANAGEMENT AND ORGANIZATION

The overall PIM management structure of the Services is integrated with the management of active and Selected Reserve resources. This makes good sense organizationally but it means that PIM, with its low priority for resources, receives relatively little management attention and is not a highly visible program. Although each Service has identified a focal point for responsibility at the Service Headquarters level, none has established a PIM office to serve as an overall coordinator of and proponent for PIM matters.

GRC recommends that each Service establish a PIM management office within its Manpower/Personnel Headquarters staff. Missions and functions of the PIM management office would include:

- Oversee all PIM matters at the Service Headquarters
- Review wartime manpower requirements and develop programs to meet the need for pretrained individuals
- Ensure that PIM programs receive resources appropriate to their priorities within Service budgets

- Review and approve pretrained manpower mobilization procedures
- Review assignment and training policies for pretrained individuals
- Review and approve PIM strength projections developed by other agencies/activities
- Interface with external agencies (OSD, OMB, Congress) on PIM matters

The establishment of a PIM management office would improve the visibility of the PIM program at each Service Headquarters and serve to integrate the disparate parts of the program. GRC believes that the establishment of a PIM management office would also improve the overall quality of PIM data which is so essential to the management of the program. The PIM management office could have a positive influence on PIM data quality by determining PIM data requirements, assigning responsibilities for developing and maintaining PIM data, and reviewing PIM data for consistency and completeness.

The PIM strength data problems for the IRR and retirees described in Sections 2 and 4 of this report should be addressed as a priority matter by OSD and the Service Headquarters staffs. Although the positive influence of the PIM management office will only gradually prompt improvements in supporting data systems, establishing a PIM management office could lead to immediate improvements in PIM data reporting and projection procedures. PIM data are currently projected and reported by numerous offices. Generally, these offices have a primary function other than PIM and are simply compiling or projecting PIM data in compliance with a request or directive. No single office has the capability to, or the responsibility of reviewing and approving PIM strength projections. A PIM management office could significantly improve the accuracy of strength projections and data files by coordinating the decentralized reporting efforts and providing uniform procedures for use by the numerous activities involved in PIM reporting.

The retiree data problem is particularly troublesome in that personnel and pay files appear not to be consistent. Further, current reports of retirees are not adequate to show the various categories of retirees and to permit reconciliation between personnel and pay files. GRC recommends that OSD change the POM instructions to require submission of data in the format shown below. We believe that this reporting format will encourage the Services to develop improved sources of data and, ultimately, to improve retiree projections.

RETIREE PROJECTIONS

<u>Category</u>	<u>Fiscal Year</u>			
	<u>81</u>			<u>8X</u>
	<u>C1 I/II</u>	<u>C1 III</u>	<u>C1 I/II</u>	<u>C1 III</u>
<u>Officer Retirees</u>				
Active Duty Retirees				
Regular				
Non-regular				
Title III Retirees				
Awaiting Pay				
Drawing Pay				
Not Eligible at Age 60				
(Honorary Retirees)				
Subtotal Officers				
<u>Enlisted Retirees</u>				
Active Duty Retirees				
Regular				
Non-regular				
Title III Retirees				
Awaiting Pay				
Drawing Pay				
Not Eligible at Age 60				
(Honorary Retirees)				
Subtotal Enlisted				

REFRESHER TRAINING

Section 6 discussed the problem of refresher training for pretrained individuals in considerable detail and suggested an approach to solve the problem. GRC recommends that the Services adopt a refresher training program as follows:

- Undertake efforts to define decay rates for each skill and grade. Initially, the effort should be based on subjective estimates by knowledgeable individuals. These estimates should be refined for selected skills by scientific research undertaken as time and resources permit. OSD should help coordinate the research and provide for the sharing of results (both subjective and scientific research) between Services.
- Establish training policies that provide for peacetime skill training for individuals needed early in mobilization whose skills have decayed. If the supply of fully qualified individuals for a given skill and grade is adequate to meet projected needs, do not offer peacetime refresher training to members in that skill. The training policy should also provide for postmobilization training as required.
- Provide general military refresher training as necessary to maintain interest in military activities and to improve the individual's mobilization potential. General military training, however, should not be a substitute for skill refresher training.
- PIM training should consider equipment obsolescence. IRR personnel managers should remain abreast of equipment modernization and consider this in structuring IRR training programs.

In addition to developing an IRR training program, the Services should modify their PIM assignment systems so that skill proficiency can be considered when making assignments. Specifically, GRC recommends that, as a minimum, Service mobilization assignment systems be capable of differentiating between fully qualified, marginally qualified, and unqualified individuals. This will also permit the Services to identify postmobilization training workloads and to plan for appropriate expansion of the training base.

TRANSFER PROCEDURES

Section 7 discussed the procedures used by the Services to transfer individuals from active duty and the Selected Reserve to the IRR, a process which affects the mobilization potential of the IRR. The conclusions and recommendations relating to transfer procedures were presented in considerable detail in Section 7 and are summarized below.

- The Services should improve their outprocessing procedures for both active duty and Selected Reserve members by:
 - Providing a clear, concise handout to each separatee that explains the meaning of his IRR obligation, his responsibilities, and privileges.
 - Providing a better briefing at the time of separation and ensuring attendance by all separatees at the briefing (not always feasible for the Selected Reserve).
 - Issuing reserve ID cards to members transferring to the IRR.
- The Services should educate active duty and Selected Reserve members about the importance of the IRR in a mobilization.
- Active duty, Selected Reserve, and IRR recruiting/retention activities should be thoroughly integrated in each Service.

THE FUTURE OF PIM

Efforts undertaken by OSD and the Military Services over the past 5 years have improved the military manpower mobilization capability of the United States. The supply of pretrained individuals has improved and the programs are better managed. Yet, as this report points out, problems remain to be solved in both the supply and management of PIM. Since many of the possible solutions are long-term in nature, requiring 5 years or more to take effect, resources need to be committed to solving these problems now if we are to have an adequate PIM program 5 or 10 years from now.

As discussed previously, the correct priority for the allocation of military resources is first to the active force, then to the Selected Reserve, and last to PIM. This priority is correct because it reflects each component's relative contribution to our warfighting capability. The larger question, a classical resource allocation problem, is the amount of resources each element of the total force should receive within this priority. Even though PIM ranks lowest in priority, it should receive resources commensurate with its potential contribution to national defense.

Classical resource allocation theory answers the above question by stating that resources should be committed up to the point where the marginal cost equals the marginal benefit of the product being purchased. Unfortunately, it is very difficult to quantify the dollar value of PIM products. It may, however, be possible to develop a surrogate value that will enable each Service to determine the economic worth of a pretrained individual.

The pretrained individual is primarily used to sustain the force during the early days of war before inductees can be trained and deployed. Thus, it appears that the Services could spend, for each pretrained individual, any amount up to the cost of drafting and training a replacement plus a premium for early availability. Assuming a premium of 25%, the Services could spend up to 125% of the drafting and training cost for each individual in the IRR. Dividing that cost by the average number of years the individual spends in the IRR would produce an annual IRR per-person budget figure that would represent a reasonable expenditure of funds. Using the variable portion of Army infantry training costs (see Section 2 of this report) and assuming 2.5 IRR person-years per individual, a typical figure would be:

$$\frac{1.25 \times \$5353}{2.5} = \$2676$$

Thus, the Army should be willing to spend up to \$2676 annually for the management and training of each infantry soldier in the IRR.

This rather crude calculation, if applied to the entire Army IRR, would suggest an Army IRR budget of about \$500 million per year. Although this is far in excess of any foreseeable level of resources for the IRR, the analysis suggests that the Services could well expend more money to attract and retain qualified members in the IRR.

One can argue that these calculations value PIM too cheaply or too dearly and credible arguments can be advanced either way. It is not difficult to imagine wartime scenarios where a conflict can be handled entirely by the active and Selected Reserve components of the armed forces. In a conflict such as this, the marginal benefit of PIM is zero. On the other hand, if it is possible to be defeated in war for the lack of adequate PIM, the marginal benefit of PIM is infinite. Clearly, the answer lies somewhere between these bounds and the Services must decide how much they are willing to spend to improve the availability of pretrained individuals.

It appears that the key to determining an adequate level of funding for PIM programs is the refinement of wartime manpower requirements. Just as "necessity is the mother of invention," the wartime requirement is the motivator for improved PIM programs.

It appears to the GRC study team that until each Service can identify time-phased mobilization manpower requirements by skill and grade, the motivation to provide resources for PIM programs will be lacking. The Services must be able to specify the demand in order to identify shortfalls in specific skills and grades. The Service mobilization planning systems must be able to deal with the wartime requirements at the skill and grade level and provide sufficient information to manpower and personnel managers so that decisions can be made and resources allocated to meet the need. But the entire process begins with a clear statement of the requirement.

Despite the need to refine the wartime requirements, those Services that have identified significant shortfalls in meeting manpower mobilization requirements should move quickly to improve the supply of pretrained

individuals. Army combat skills and Air Force Security Police are examples of known shortages that will exist regardless of efforts to refine the wartime manpower requirements. The Services should move aggressively to solve such shortfalls.

GRC recommends that OSD continue to encourage and direct the Services to improve the wartime manpower planning process, to improve their capabilities to manage their PIM programs, and to add additional resources to the program as dictated by wartime requirements. Through these actions, the PIM programs of each of the Services can evolve to the point where resources expended are in balance with the product obtained.

APPENDIX A
LIST OF VISITS

LIST OF VISITS

Much of the research conducted during this study involved literature search, review of regulations, and statistical analyses, thus limiting the need to visit and interview the staffs of the Office of the Secretary of Defense and the Military Services headquarters. While many of these staff members contributed to the study team's effort by supplying appropriate strength data and reference material, they were not formally interviewed and have not been listed below. Only during our review of Service outprocessing procedures was it necessary to visit Service field installations. The following sites were visited:

Army

Ft. Belvoir, VA
Ft. Myer, VA
Ft. Dix, NJ
97th Army Reserve Command
Maryland Army National Guard

Navy

Norfolk Navy Base
Norfolk Naval Air Station
Little Creek Amphibious Base (Reserve Center)

Marine Corps

Camp LeJeune, NC
Marine Corps Air Station, Cherry Point, NC

Air Force

McGuire Air Force Base, NJ
514th Military Airlift Wing (AF Reserve)
New Jersey Air National Guard

APPENDIX B
ABBREVIATIONS AND ACRONYMS

ABBREVIATIONS AND ACRONYMS

ADP	automatic data processing
AFMPC	Air Force Manpower and Personnel Center
AFSC	Air Force Specialty Code
AFWMRPT	Air Force Wartime Manpower and Personnel Readiness Team
AR	Army regulation
ARPC	Air Reserve Personnel Center
AVF	all-volunteer force
BUPERS	Bureau of Personnel (Navy)
CBPO	Consolidated Base Personnel Office (Air Force)
DA	Department of the Army
DCS	Deputy Chief of Staff
DCSRA	Deputy Chief of Staff for Reserve Affairs (Marine Corps)
DEP	Delayed Entry Program
DMDC	Defense Manpower Data Center
DoD	Department of Defense
EOAS	expiration of active service (Navy)
ETS	expiration of term of service (All Services except Navy)
FY	fiscal year
GRC	General Research Corporation
ING	Inactive National Guard
IRR	Individual Ready Reserve
MAJCOM	Major Command (Air Force)
MCRFAC	Marine Corps Reserve Forces Administration Center
MCRSC	Marine Corps Reserve Support Center
MOS	military occupational skill
MSO	military service obligation
NAMMOS	Navy Manpower Mobilization System
NCO	non-commissioned officer
NMPC	Naval Military Personnel Command
NMPC-9	Naval Reserve Personnel Management Department of the Naval Military Personnel Command
NRPC	Naval Reserve Personnel Center
OASD	Office of the Assistant Secretary of Defense
ODCSOPS	Office of the Deputy Chief of Staff for Operations and Plans (Army)
ODCSPER	Office of the Deputy Chief of Staff for Personnel (Army)
OP-01	Deputy Chief of Naval Operations (Manpower, Personnel, and Training)
OP-09R	Director of the Naval Reserve
OP-11	Total Force Planning Division (Navy)
OP-12	Total Force Programing Division (Navy)

ABBREVIATIONS AND ACRONYMS (Cont.)

OP-13	Military Personnel/Training Division (Navy)
OP-113R	Assistant for Reserve Plans and Mobilization Manpower Plans Branch, Total Force Planning Division
OPNAV	Office of the Chief of Naval Operations
OSD	Office of the Secretary of Defense
PCS	permanent change of station
PIM	pretrained individual manpower
POI	program of instruction
POM	program objective memorandum(a)
PPBS	Planning, Programing, and Budgeting System
PSD	Personnel Support Detachment (Navy)
RCCPDS	Reserve Components Common Personnel Data System
RCPAC	Reserve Components Personnel and Administration Center (Army)
SMCR	Selected Marine Corps Reserve
STP	separation transfer point
TPFDL	Time-Phased Force Deployment List
T/P/RC	Training/Pay/Reserve Category
TRADOC	Training and Doctrine Command (Army)

APPENDIX C

IRR PROJECTION MODEL

IRR PROJECTION MODEL

The purpose of the IRR projection model is to provide gross projections of active duty gains to the IRR using an ordinary hand calculator. The projections are then compared to Service figures and differences between the two projections are resolved. The model estimates potential gains to the IRR based on prior year enlistment patterns and deducts from those potential gains groups of individuals who will not serve in the IRR because of reenlistment, early attrition, etc. The model calculates IRR gains for one fiscal year as follows:

Individuals Completing Active Duty		
<u>Term of</u> <u>Enlistment</u>	<u>Fiscal Year</u> <u>of Enlistment</u>	<u>Number</u> <u>of Individuals</u>
2	X - 2	
3	X - 3	+
4	X - 4	+
5	X - 5	+

Total
(Potential IRR Accessions)

- 26 years old/females (as appropriate)
- = Subtotal
- Attrition
- = New IRR Gains
- First-Term Reenlistments
- = Total IRR Gains

INDIVIDUALS COMPLETING ACTIVE DUTY

Active terms of enlistment vary from 2 to 6 years, although the majority of IRR accessions comes from 3- or 4-year enlistees. The 6-year term of enlistment is omitted from the model because, after serving 6 years on active duty, an individual no longer has an MSO. The gross number of enlistees expected to complete the active portion of their enlistments and be available for entry into the IRR is calculated based on historic data or Service POM projections. For example, in FY 82, the total number of potential IRR accessions would be the sum of:

- 1980 enlistees having a 2-year enlistment
- 1979 enlistees having a 3-year enlistment
- 1978 enlistees having a 4-year enlistment
- 1977 enlistees having a 5-year enlistment

Female enlistees who entered before 1 February 1978 are not included, since before that time females did not incur an MSO and were not required to enter the IRR upon completion of their enlistment. Accession data are derived from Service generated "1391" reports submitted to OASD(MRA&L).

Prior to 1 November 1979, individuals 26 years of age or older who entered Military Service did not incur an MSO and were not required to enter the IRR upon completion of their enlistment. The study team estimated the number of individuals in this category by applying a percentage rate derived from Defense Manpower Data Center (DMDC) accession and attrition data. These individuals are then subtracted from the potential IRR accession population.

ATTRITION

Attrition is computed by applying an attrition rate to the potential number of IRR accessions less those individuals over the age of 26 at the time of enlistment. The attrition rate is derived by first averaging DMDC attrition rates by term of enlistment from FY 74 to the latest year for which the data are complete, and then computing a weighted average to result in a single attrition rate. The weighted average is calculated

according to the relative population in each term of enlistment group. Separate rates are calculated for male and female enlistees. In order to keep the model simple and the number of calculations to a minimum, it was necessary to use attrition rates for enlistees who are 25 years of age and younger who comprise the vast majority of enlistees. In the case of the Army, which transfers significant numbers of active duty attrition personnel to the IRR, attrition figures are reduced by the estimated number of attrits who will be transferred to the IRR.

FIRST TERM REENLISTMENTS

Data on first-term reenlistments were extracted from the DoD publication, Selected Manpower Statistics, Fiscal Year 1980. "Unadjusted" reenlistment figures were used because the "adjusted" figures exclude early separations for immediate reenlistment and other early release programs. For purpose of this model, GRC has assumed that the proportion of reenlistments to net IRR gains will remain constant through FY 1986. The model implicitly assumes that the rate of first-term reenlistment does not vary by cohort or term of enlistment.

The results of the calculations for each Service for the period FY 80-86 are shown in Tables C.1 through C.4.

TABLE C.1
ENLISTED IRR GAINS FROM ACTIVE ARMY
(First Term Enlistees) FY 80 to FY 86

TERM OF ENLISTMENT	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2		822	164	138	1,414	1,156 ¹	200 ¹							
3	116,216	76,304	7,372	10,689	74,830	94,620	13,404							
4	43,255	37,044		4,287	30,058	16,396	6,338							
5	36	42		53		132	19							
POTENTIAL IRR														
ACCESSIONS	159,507		114,212	7,536	106,355	15,114	132,304	19,961	114,955	23,019	116,801	24,554	118,284	26,005
26 YEARS AND OLDER	4,183		1,871	535	1,285	436	109	41	N/A	N/A	N/A	N/A	N/A	N/A
SUBTOTAL	155,324		110,343	7,003	105,070	14,678	132,195	19,920	114,955	23,019	116,801	24,554	118,284	26,005
ATTRITION ²	50,737		31,712	-1,111 ⁴	29,330	2,092	39,751	4,647	32,955	6,029	33,336	6,620	33,864	7,229
NET IRR GAINS														
(MALE + FEMALE)	104,587		86,741		88,326		107,717		98,990		101,399		103,196	
FIRST TERM														
ENLISTS ³	25,434		21,078		21,463		26,175		24,055		24,640		25,077	
TOTAL IRR GAINS	79,153		65,663		66,863		81,542		74,935		76,759		78,119	

¹ Projections from Army 82-86 POM.

² Male attrition = .378; female attrition = .424 (Estimates of Active Army attrition to be transferred to IRR have been factored out)

³ Actual for FY 80: 0.243 of Net IRR Gains for FY 81 to FY 86.

⁴ Anomaly. For FY 81, the Army's projected number of female attritees to be transferred to the IRR exceeds the CRC projection of total female attrition.

TABLE C.2
ENLISTED IRR GAINS FROM ACTIVE NAVY
(First Term Enlistees) FY 80 to FY 86

TERM OF ENLISTMENT	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2			651	106	602	213			15,900 ¹	300 ¹	15,800 ¹	400 ¹	15,700 ¹	500 ¹
3	14,954		14,589	91	16,523	73	14,090	208	45,905	9,037	44,000 ¹	11,100 ¹	41,300 ¹	8,800 ¹
4	68,392		67,068		43,111	3,358	38,104	7,696	2,490	537	2,606	906	3,300 ¹	2,000 ¹
5	N/A		1,065		1,889		2,505	197						
POTENTIAL IRR ACCESSIONS	83,346		83,373	197	62,125	3,644	54,699	8,101	64,295	9,874	62,406	12,406	60,300	11,300
26 YEARS AND OLDER	1,021		1,341	5	820	178	61	33	N/A	N/A	N/A	N/A	N/A	N/A
SUBTOTAL	82,325		82,032	192	61,305	3,466	54,638	8,068	64,295	9,874	62,406	12,406	60,300	11,300
ATTRITION ²	31,530		31,418	76	23,480	1,376	20,926	3,203	24,625	3,920	23,901	4,925	23,095	4,486
NET IRR GAINS (MALE + FEMALE)	50,795		50,730		39,915		38,577		45,624		45,986		44,019	
FIRST TERM REENLISTS ³	19,721		19,683		15,487		14,968		17,702		17,843		17,079	
TOTAL IRR GAINS	31,074		31,047		24,428		23,609		27,922		28,143		26,940	

¹Projections from Navy 82-86 POM.

²Male attrition = .383; female attrition = .397

³Actual for FY 80; 0.388 of Net IRR Gains for FY 81 to FY 86.

TABLE C.3
ENLISTED IRR GAINS FROM ACTIVE MARINE CORPS
(FIRST TERM ENLISTEES) FY 80 TO FY 86

TERM OF ENLISTMENT	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2			38		31	3								
3	13,881		11,830		13,287	905	13,794	941	11,400 ¹	700 ¹	11,100 ¹	900 ¹	10,500 ¹	900 ¹
4	35,188		29,512		25,414	933	24,557	1,317	25,559	1,360	26,600 ¹	1,600 ¹	25,800 ¹	2,100 ¹
5														
POTENTIAL IRR ACCESSIONS	49,069		41,380		38,732	1,841	38,351	2,258	36,959	2,060	37,700	2,500	36,300	3,000
26 YEARS AND OLDER	321		365		235	27	17	3	N/A	N/A	N/A	N/A	N/A	N/A
SUBTOTAL	48,748		41,015		38,497	1,814	38,334	2,255	36,959	2,060	37,700	2,500	36,300	3,000
ATTRITION ²	19,889		16,734		15,707	983	15,640	1,222	15,079	1,117	15,382	1,355	14,810	1,626
NET IRR GAINS (MALE + FEMALE)	28,859		24,281		23,621		23,727		22,823		23,463		22,864	
FIRST TERM REENLISTS ³	4,493		3,788		3,685		3,701		3,560		3,688		3,567	
TOTAL IRR GAINS	24,366		20,493		19,936		20,026		19,263		19,775		19,297	

¹Projections from Marine Corps 82-86 POM.

²Male attrition = .408; female attrition = .542.

³Actual for FY 80; 0.156 of Net IRR Gains for FY 81 to FY 86.

TABLE C.4
ENLISTED IRR GAINS FROM ACTIVE AIR FORCE
(FIRST TERM ENLISTEES) FY 80 TO FY 86

TERM OF ENLISTMENT	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2														
3	61,011		61,506		54,151	8,389	49,089	13,138	51,113	13,360	57,600 ¹	14,300 ¹	61,000 ¹	14,500 ¹
4														
5														
POTENTIAL IRR ACCESSIONS	61,011		61,506		54,151	8,389	49,089	13,138	51,113	13,360	57,600	14,300	61,000	14,500
26 YEARS AND OLDER	574		921		1,045	416	91	72	N/A	N/A	N/A	N/A	N/A	N/A
SUBTOTAL	60,437		60,585		53,106	7,973	48,998	13,066	51,113	13,360	57,600	14,300	61,000	14,500
ATTRITION ²	19,461		19,508		17,100	2,918	15,777	4,782	16,458	4,890	18,547	5,234	19,642	5,307
NET IRR GAINS (MALE + FEMALE)	40,976		41,077		41,061		41,505		43,125		48,119		50,551	
FIRST TERM ³ REENLISTS	15,114		15,157		15,152		15,315		15,913		17,756		18,653	
TOTAL IRR GAINS	25,862		25,920		25,909		26,190		27,212		30,363		31,898	

¹Projections from Air Force 82-86 POM.

²Male attrition = .322; female attrition = .366.

³Actual for FY 80; 0.369 of Net IRR Gains for FY 81 to FY 86.

APPENDIX D

DMDc SHORT-TERM PROJECTIONS
OF RETIRED MILITARY POPULATION

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY (DOLLARS IN THOUSANDS)

SERVICE: ALL DOM		DOLLARS IN THOUSANDS										
		FY1981			FY1982			FY1983			RETIRED PAY, DEFENSE	
CATEGORY	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DISABILITY												
REGULAR OFFICERS	153,646	149,688	3,215,801	160,441	156,695	3,714,552	169,416	164,035	4,190,324			
REGULAR ENLISTED	660,136	651,442	5,183,202	677,338	668,791	6,200,812	695,700	686,578	6,848,889			
NON-REGULAR OFFICERS	208,878	204,543	2,182,108	218,831	213,031	2,817,170	239,300	228,048	3,128,263			
NON-REGULAR ENLISTED	25,444	23,994	109,740	29,740	27,344	131,050	33,187	31,214	167,469			
SUBTOTAL	1,048,104	1,029,667	11,291,151	1,086,167	1,066,661	12,865,591	1,126,603	1,103,875	14,334,704			
FLEET RESERVE												
NON-REGULAR OFFICERS*	101,165	97,281	753,094	110,423	106,100	904,509	120,620	115,939	1,062,076			
NON-REGULAR ENLISTED*	22,717	21,304	89,949	26,684	24,590	114,391	30,322	28,394	142,352			
SUBTOTAL	123,882	118,585	843,043	136,684	130,690	1,018,891	150,942	144,233	1,204,328			
TEMPORARY DISABILITY												
REGULAR OFFICERS	610	626	11,475	84	601	12,163	561	576	12,327			
REGULAR ENLISTED	7,901	8,263	40,285	7,399	7,402	39,858	6,403	6,663	38,642			
NON-REGULAR OFFICERS	288	311	4,202	355	278	4,244	231	249	4,101			
NON-REGULAR ENLISTED	334	327	1,760	169	352	2,044	401	394	5,160			
SUBTOTAL	9,137	9,527	57,402	8,366	8,636	50,349	7,396	7,872	57,180			
PERMANENT DISABILITY												
REGULAR OFFICERS	19,074	19,196	386,704	18,715	18,837	418,350	18,366	18,486	441,958			
REGULAR ENLISTED	78,968	77,063	464,085	78,329	76,340	510,362	78,666	76,734	546,889			
NON-REGULAR OFFICERS	35,119	35,341	391,127	34,263	34,498	421,143	33,420	33,636	444,973			
NON-REGULAR ENLISTED	3,848	3,530	15,343	3,568	3,310	16,700	3,610	3,253	17,468			
SUBTOTAL	138,848	136,930	1,237,353	137,445	133,610	1,366,608	136,062	134,109	1,448,473			
FLEET RESERVE												
REGULAR ENLISTED	101,340	100,932	878,312	103,721	102,347	989,226	106,038	104,637	1,087,623			
NON-REGULAR ENLISTED	1,563	1,757	892,456	1,102	1,404	87,342	2,408	2,355	121,035			
SUBTOTAL	103,203	101,757	892,456	105,102	104,381	1,007,542	108,508	106,992	1,110,658			
SURVIVOR BENEFITS												
OLD PLAN (SEPP)	13,251	13,147	16,793	13,477	13,479	41,219	13,712	13,611	45,121			
NEW PLAN (SEPP)	5,223	5,210	272,011	6,334	6,140	355,940	78,332	75,514	449,124			
NEW PLAN (SEPP)	1,510	1,529	6,517	2,404	1,951	11,506	5,806	5,110	19,792			
NON-QUALIFIED INCORP.	3,204	3,258	7,693	3,079	3,135	8,153	2,961	3,013	8,425			
OLD PLAN PAYMENTS	974	912	5,328	1,198	1,405	6,718	1,248	1,174	8,425			
SUBTOTAL	75,160	70,242	328,402	86,132	80,940	421,636	100,061	93,422	530,795			
TOTAL	1,374,460	1,348,437	13,027,770	1,424,302	1,396,208	15,723,726	1,478,908	1,448,270	17,482,280			

*MEMO ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLED CATEGORY.

CPI PERCENTS INVOLVED IN CALCULATIONS:

SEP/1979	6.20	DATA THROUGH JAN/FY81
MAR/1980	6.00	DATA THROUGH JAN/FY81
SEP/1980	7.70	DATA THROUGH JAN/FY81
MAR/1981	4.40	DATA THROUGH JAN/FY81
SEP/1981	5.80	DATA THROUGH JAN/FY81
MAR/1982	4.10	DATA THROUGH JAN/FY81
SEP/1982	4.30	DATA THROUGH JAN/FY81
MAR/1983	2.60	DATA THROUGH JAN/FY81
SEP/1983	3.50	DATA THROUGH JAN/FY81

DOD ACTUARY'S OFFICE

MARCH 23, 1961

SUMMARY OF RETIRED MILITARY PERSONNEL THROUGH AND OBLIGATIONS BY CATEGORY

CATEGORY	NO. ON ROLLS END OF FY	4th YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	APPROPRIATION: FY 1961	RETIRED PAY, DEFENSE FY 1961	TOTAL OBLIGATIONS
NON-DISABILITY												
REGULAR OFFICERS	176,410	171,706	4,663,307	104,442	172,775	5,140,680	193,738	183,636	5,632,795			
NON-REGULAR OFFICERS	17,745	17,450	744,000	20,524	17,061	5,091,700	20,714	17,061	4,053,105			
NON-REGULAR ENLISTED	4,010	2,450	3,102,400	4,182	2,701	5,241,112	25,073	1,445,245	4,291,032			
SUBTOTAL	1,164,777	1,147,515	13,575,597	1,215,150	1,192,835	17,731,495	1,268,825	1,445,245	18,655,803			
TEMPORARY DISABILITY												
REGULAR OFFICERS	131,447	126,646	1,463,407	144,544	131,447	1,463,407	158,598	152,039	1,636,258			
NON-REGULAR OFFICERS	3,537	3,918	174,000	4,176	3,762	215,042	46,596	43,333	236,206			
SUBTOTAL	134,984	130,564	1,637,407	148,720	135,209	1,678,449	205,194	195,372	1,872,464			
PERMANENT DISABILITY												
REGULAR OFFICERS	19,071	13,140	460,434	17,479	17,497	475,547	17,338	17,497	480,235			
NON-REGULAR OFFICERS	78,513	76,621	574,473	70,356	76,583	606,699	70,192	76,583	632,493			
NON-REGULAR ENLISTED	32,221	32,610	457,326	31,731	32,090	469,038	31,004	31,004	478,403			
SUBTOTAL	129,805	122,371	1,492,233	119,566	125,169	1,554,284	138,436	138,607	1,613,854			
FLEET RESERVE												
REGULAR ENLISTED	104,439	107,018	1,179,721	110,131	109,453	1,268,849	113,475	111,957	1,357,288			
NON-REGULAR ENLISTED	2,910	2,753	20,561	3,404	3,229	35,129	4,074	3,764	42,966			
SUBTOTAL	107,349	109,771	1,200,282	113,535	112,682	1,303,978	117,549	115,721	1,400,254			
SURVIVOR BENEFITS												
OLD PLAN (USPO)	13,251	13,048	48,713	14,171	14,089	52,131	14,439	14,334	53,515			
OLD PLAN (USPO)	9,471	4,612	29,116	6,126	5,506	69,448	7,760	6,979	83,484			
NEW PLAN (USPO)	4,041	4,343	29,116	6,126	5,506	69,448	7,760	6,979	83,484			
NON-REGULAR OFFICERS	2,371	2,095	8,598	2,752	2,701	7,670	2,620	2,669	8,700			
NON-REGULAR ENLISTED	1,991	3,345	9,572	1,522	1,522	11,802	1,853	1,737	14,047			
SUBTOTAL	115,514	109,049	654,050	133,444	124,567	810,191	158,559	145,041	932,578			
TOTAL	1,380,391	1,356,567	19,190,052	1,348,594	1,317,402	20,933,968	1,426,453	1,637,530	22,737,146			

* INCLUDE ONLY. AMOUNTS FOR OFFICERS ARE INCLUDED IN NON-DISABLED CATEGORY.

LPI PERCENTS DERIVED BY CALCULATIONS:

SEP/1979	6.00
SEP/1980	6.00
SEP/1981	7.73
SEP/1982	9.43
SEP/1983	5.30
SEP/1984	4.10
SEP/1985	4.00
SEP/1986	2.50
SEP/1987	3.00
SEP/1988	1.00
SEP/1989	1.00
SEP/1990	1.00
SEP/1991	1.00
SEP/1992	1.00
SEP/1993	1.00
SEP/1994	1.00
SEP/1995	1.00
SEP/1996	1.00
SEP/1997	1.00
SEP/1998	1.00
SEP/1999	1.00
SEP/2000	1.00
SEP/2001	1.00
SEP/2002	1.00
SEP/2003	1.00
SEP/2004	1.00
SEP/2005	1.00
SEP/2006	1.00
SEP/2007	1.00
SEP/2008	1.00
SEP/2009	1.00
SEP/2010	1.00
SEP/2011	1.00
SEP/2012	1.00
SEP/2013	1.00
SEP/2014	1.00
SEP/2015	1.00
SEP/2016	1.00
SEP/2017	1.00
SEP/2018	1.00
SEP/2019	1.00
SEP/2020	1.00
SEP/2021	1.00
SEP/2022	1.00
SEP/2023	1.00
SEP/2024	1.00
SEP/2025	1.00
SEP/2026	1.00
SEP/2027	1.00
SEP/2028	1.00
SEP/2029	1.00
SEP/2030	1.00
SEP/2031	1.00
SEP/2032	1.00
SEP/2033	1.00
SEP/2034	1.00
SEP/2035	1.00
SEP/2036	1.00
SEP/2037	1.00
SEP/2038	1.00
SEP/2039	1.00
SEP/2040	1.00
SEP/2041	1.00
SEP/2042	1.00
SEP/2043	1.00
SEP/2044	1.00
SEP/2045	1.00
SEP/2046	1.00
SEP/2047	1.00
SEP/2048	1.00
SEP/2049	1.00
SEP/2050	1.00
SEP/2051	1.00
SEP/2052	1.00
SEP/2053	1.00
SEP/2054	1.00
SEP/2055	1.00
SEP/2056	1.00
SEP/2057	1.00
SEP/2058	1.00
SEP/2059	1.00
SEP/2060	1.00
SEP/2061	1.00
SEP/2062	1.00
SEP/2063	1.00
SEP/2064	1.00
SEP/2065	1.00
SEP/2066	1.00
SEP/2067	1.00
SEP/2068	1.00
SEP/2069	1.00
SEP/2070	1.00
SEP/2071	1.00
SEP/2072	1.00
SEP/2073	1.00
SEP/2074	1.00
SEP/2075	1.00
SEP/2076	1.00
SEP/2077	1.00
SEP/2078	1.00
SEP/2079	1.00
SEP/2080	1.00
SEP/2081	1.00
SEP/2082	1.00
SEP/2083	1.00
SEP/2084	1.00
SEP/2085	1.00
SEP/2086	1.00
SEP/2087	1.00
SEP/2088	1.00
SEP/2089	1.00
SEP/2090	1.00
SEP/2091	1.00
SEP/2092	1.00
SEP/2093	1.00
SEP/2094	1.00
SEP/2095	1.00
SEP/2096	1.00
SEP/2097	1.00
SEP/2098	1.00
SEP/2099	1.00
SEP/2100	1.00

DEFENSE ATTACHMENT OFFICE

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY
(DOLLARS IN THOUSANDS)

CATEGORY	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	APPROPRIATION:	RETIRED PAY, DEFENSE FY1983	MARCH 23, 1981
NON-DISABILITY OFFICERS	33,004	31,996	764,021	34,993	33,931	892,256	37,107	35,175	1,017,514			
REGULAR ENLISTED	21,977	21,314	1,348,045	21,993	21,630	2,010,220	22,430	22,111	2,112,997			
NON-REGULAR ENLISTED	10,229	9,682	3,933,835	11,637	10,997	1,981,036	14,677	14,064	1,904,517			
NON-SUBTOTAL	33,004	31,996	764,021	34,993	33,931	892,256	37,107	35,175	1,017,514			
TEMPORARY DISABILITY OFFICERS	2,944	2,909	1,080	2,827	2,853	1,020	2,653	2,693	1,020			
REGULAR ENLISTED	1,166	1,147	2,641	1,111	1,111	2,667	1,103	1,103	2,667			
NON-REGULAR ENLISTED	3,280	3,329	17,646	3,126	3,168	18,402	2,550	2,550	18,402			
NON-SUBTOTAL	2,944	2,909	1,080	2,827	2,853	1,020	2,653	2,693	1,020			
PERMANENT DISABILITY OFFICERS	3,055	3,078	13,333	3,697	3,746	18,503	5,714	5,714	18,503			
REGULAR ENLISTED	2,700	2,650	13,333	2,650	2,650	13,333	2,650	2,650	13,333			
NON-REGULAR ENLISTED	3,055	3,078	13,333	3,697	3,746	18,503	5,714	5,714	18,503			
NON-SUBTOTAL	3,055	3,078	13,333	3,697	3,746	18,503	5,714	5,714	18,503			
SURVIVOR BENEFITS CONTRIBUTORY (RSP)	3,086	3,097	13,611	3,101	3,098	13,611	3,101	3,098	13,611			
NEW PLAN (RSP)	2,700	2,650	13,333	2,650	2,650	13,333	2,650	2,650	13,333			
NEW PLAN (RSP)	3,086	3,097	13,611	3,101	3,098	13,611	3,101	3,098	13,611			
NON-REGULAR ENLISTED	1,274	1,277	2,927	1,248	1,254	3,173	1,248	1,254	3,173			
NON-SUBTOTAL	3,086	3,097	13,611	3,101	3,098	13,611	3,101	3,098	13,611			
TOTAL	469,227	459,608	4,613,436	486,308	476,000	5,240,126	504,934	493,722	5,816,656			

*MEMO ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLED CATEGORY.

(CPI PERCENTS INVOLVED IN CALCULATIONS:

SEP/1979 6.00
SEP/1980 6.70
SEP/1981 7.40
SEP/1982 8.10
SEP/1983 8.80
SEP/1984 9.50

BASED ON ACTUAL ARMY

DATA THROUGH JAN/FY81.

DOD ACTUARY'S OFFICE

MARCH 23, 1981

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY

APPROPRIATION: RETIRED PAY, DEFENSE

(DOLLARS IN THOUSANDS)

SERVICE: ARMY

CATEGORY	NO. ON ROLLS END OF FY	FY1984 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1985 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1986 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1986 MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DISABILITY	39,345	38,145	1,444,541	41,178	40,445	1,276,326	44,324	42,894	1,435,028	44,324	42,894	1,435,028
REGULAR OFFICERS	229,319	226,509	1,402,746	234,761	231,704	1,266,753	240,268	237,343	1,269,268	240,268	237,343	1,269,268
REGULAR ENLISTED	127,952	125,750	1,025,158	132,134	130,003	1,069,539	137,003	134,633	1,115,626	137,003	134,633	1,115,626
NON-REGULAR OFFICERS	14,906	14,107	70,080	16,407	15,902	84,430	19,131	18,102	91,102	19,131	18,102	91,102
NON-REGULAR ENLISTED	411,535	400,591	5,444,325	425,160	414,412	5,917,668	440,716	432,904	6,400,069	440,716	432,904	6,400,069
SUBTOTAL												
TITLE III	64,317	62,400	618,049	69,173	66,229	689,891	72,341	70,322	765,717	72,341	70,322	765,717
NON-REGULAR OFFICERS*	14,834	14,030	69,515	16,796	15,896	82,796	19,020	18,001	95,071	19,020	18,001	95,071
NON-REGULAR ENLISTED	79,041	76,518	687,564	84,969	82,195	772,637	91,361	88,353	863,788	91,361	88,353	863,788
SUBTOTAL												
TEMPORARY DISABILITY	48	53	1,446	41	45	1,103	34	38	1,152	34	38	1,152
REGULAR OFFICERS	2,572	2,600	14,379	2,451	2,482	14,441	2,377	2,352	12,156	2,377	2,352	12,156
REGULAR ENLISTED	111	117	2,243	104	109	2,203	97	102	2,156	97	102	2,156
NON-REGULAR OFFICERS	36	36	564	39	39	587	83	83	1,068	83	83	1,068
NON-REGULAR ENLISTED	2,007	2,066	18,129	2,691	2,723	18,591	2,561	2,595	18,368	2,561	2,595	18,368
SUBTOTAL												
PERMANENT DISABILITY	5,486	5,494	140,311	5,323	5,471	144,377	5,300	5,289	147,467	5,300	5,289	147,467
REGULAR OFFICERS	2,886	2,854	14,434	2,848	2,823	14,378	2,800	2,787	14,350	2,800	2,787	14,350
REGULAR ENLISTED	19,084	19,771	124,734	19,148	19,372	125,326	18,501	18,702	127,107	18,501	18,702	127,107
NON-REGULAR OFFICERS	4,114	4,173	22,223	4,109	4,156	22,389	4,091	4,081	22,534	4,091	4,081	22,534
NON-REGULAR ENLISTED	18,114	18,639	62,305	17,127	17,555	64,768	16,702	17,162	64,005	16,702	17,162	64,005
SUBTOTAL												
SUBTOTAL												
REGULAR OFFICERS	5,130	5,116	17,271	5,145	5,131	18,231	5,160	5,149	19,116	5,160	5,149	19,116
REGULAR ENLISTED	43,458	42,258	265,255	43,232	42,069	326,862	42,443	41,043	473,171	42,443	41,043	473,171
NON-REGULAR OFFICERS	2,518	2,524	9,641	2,512	2,512	12,052	2,503	2,493	11,043	2,503	2,493	11,043
NON-REGULAR ENLISTED	1,270	1,205	3,509	1,176	1,101	3,618	1,152	1,137	3,700	1,152	1,137	3,700
GUARANTEED PAY INC.	275	266	2,255	275	266	2,255	275	266	2,255	275	266	2,255
DIC SUBT. PAYMENTS	52,011	49,109	296,235	61,112	56,988	366,301	71,193	66,271	446,338	71,193	66,271	446,338
SUBTOTAL												
TOTAL	525,137	513,205	6,381,345	547,390	534,430	6,948,918	572,032	557,902	7,535,656	572,032	557,902	7,535,656

*MEMO ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLED CATEGORY.

CPI PARCELS INVOLVED IN CALCULATIONS:

SEP/1979	6.90
MAR/1980	6.90
SEP/1980	7.71
MAR/1981	4.40
SEP/1981	5.80
MAR/1982	6.30
SEP/1982	4.50
MAR/1983	2.80
SEP/1983	3.50
MAR/1984	2.70
SEP/1984	3.00
MAR/1985	1.77
SEP/1985	2.00
MAR/1986	1.70
SEP/1986	2.50

BASED ON ACTUAL PAY DATA THROUGH JAN/FY81.

DOD ACTUARY'S OFFICE

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY
(DOLLARS IN THOUSANDS)

SERVICE: NAVY	(DOLLARS IN THOUSANDS)	APPROPRIATION: RETIRED PAY, DEFENSE
1000000	1000000	1000000

CATEGORY	FY1981			FY1982			FY1983		
	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DISABILITY									
REGULAR OFFICERS	32,792	35,057	1,046,493	36,300	36,300	1,177,977	39,550	37,475	1,397,310
REGULAR ENLISTED OFFICERS	12,956	122,007	964,493	15,304	126,007	964,493	15,304	126,007	964,493
NON-REGULAR OFFICERS	12,025	9,819	220,193	12,025	9,819	220,193	12,025	9,819	220,193
NON-REGULAR ENLISTED	10,294	9,811	49,034	10,294	9,811	49,034	10,294	9,811	49,034
NON-REGULAR ENLISTED	21,074	211,070	2,280,637	21,074	210,674	2,571,023	21,074	210,674	2,571,023
SUBTOTAL									
TITLE III*									
NON-REGULAR OFFICERS*	21,011	20,991	134,092	23,733	23,733	153,392	23,733	23,733	153,392
NON-REGULAR ENLISTED*	2,634	2,170	135,173	3,168	3,168	22,352	3,168	3,168	22,352
SUBTOTAL									
TEMPORARY DISABILITY									
REGULAR OFFICERS	274	2,737	15,053	274	2,737	15,053	274	2,737	15,053
REGULAR ENLISTED OFFICERS	2,633	1,366	2,344	2,633	1,366	2,344	2,633	1,366	2,344
NON-REGULAR OFFICERS	133	1,366	2,344	133	1,366	2,344	133	1,366	2,344
NON-REGULAR ENLISTED	3,179	3,382	22,312	3,179	3,382	22,312	3,179	3,382	22,312
SUBTOTAL									
PERMANENT DISABILITY									
REGULAR OFFICERS	5,336	15,386	98,677	5,336	15,386	98,677	5,336	15,386	98,677
REGULAR ENLISTED OFFICERS	15,746	12,175	28,053	15,746	12,175	28,053	15,746	12,175	28,053
NON-REGULAR OFFICERS	1,080	1,080	28,053	1,080	1,080	28,053	1,080	1,080	28,053
NON-REGULAR ENLISTED	2,950	2,051	214,100	2,950	2,051	214,100	2,950	2,051	214,100
SUBTOTAL									
FULL RESERVE									
REGULAR OFFICERS	85,938	84,641	733,637	88,283	86,965	830,992	90,651	89,493	915,543
NON-REGULAR OFFICERS	8,063	1,726	14,244	8,063	1,726	14,244	8,063	1,726	14,244
NON-REGULAR ENLISTED	87,001	86,366	747,881	90,006	88,379	845,415	93,199	91,510	929,787
SUBTOTAL									
SUBTOTAL BENEFITS									
OLD PLAN (ISBP)	3,363	3,337	8,086	3,334	3,431	10,057	3,334	3,431	10,057
NEW PLAN (ISBP)	15,746	14,219	76,073	16,518	17,334	11,248	21,650	20,836	13,399
NEW PLAN (ISBP)	265								
NON-UNITED BENEFIT									
NON-UNITED BENEFIT	1,547	1,508	3,342	1,468	1,503	4,127	1,393	1,351	4,209
NON-UNITED BENEFIT	21,099	19,518	90,339	22,314	22,714	113,260	27,806	26,091	147,311
DIC SUPPL. PAYMENTS									
SUBTOTAL									
TOTAL	352,109	346,667	3,355,437	364,032	358,086	3,797,397	377,156	370,660	4,222,654

MEMO ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLE CATEGORY.

CPI PERCENTS INVOLVED IN CALCULATIONS:

DATE	INVOLED
SEP/1979	6.90
MAR/1980	6.00
SEP/1980	7.70
MAR/1981	4.40
SEP/1981	5.80
MAR/1982	4.10
SEP/1982	4.30
MAR/1983	3.60
SEP/1983	3.50

BASED ON ACTUAL NAVY

DATA THROUGH JAN/FY81.

000 ACTUARY'S OFFICE

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY
(DOLLARS IN THOUSANDS)

MARCH 23, 1991

SERVICE: NAVY

CATEGORY	NO. ON ROLLS END OF FY	FY1984 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1985 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1986 MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DISABILITY									
REGULAR OFFICERS	33,546	58,725	1,408,797	60,808	60,004	1,507,654	66,127	64,306	1,611,332
REGULAR ENLISTED	130,171	128,184	1,288,739	132,556	131,620	1,316,400	135,233	134,233	1,467,191
NON-REGULAR OFFICERS	31,422	30,551	330,977	33,146	32,778	316,400	36,083	35,414	421,070
NON-REGULAR ENLISTED	13,512	13,772	84,196	13,924	13,512	96,833	17,023	16,809	112,194
SUBTOTAL	235,349	231,772	3,104,729	243,374	239,512	3,337,610	251,923	247,064	3,612,774
TEMPORARY DISABILITY									
REGULAR OFFICERS	28,124	27,058	250,300	30,614	29,354	266,554	33,323	32,061	326,310
REGULAR ENLISTED	13,512	13,772	84,196	13,924	13,512	96,833	17,023	16,809	112,194
SUBTOTAL	41,636	40,830	334,496	44,538	42,866	363,387	50,346	48,870	438,504
PERMANENT DISABILITY									
REGULAR OFFICERS	277	278	6,493	278	279	6,896	279	280	7,187
REGULAR ENLISTED	2,124	2,213	18,652	1,913	2,062	15,092	1,812	1,911	14,919
NON-REGULAR OFFICERS	329	306	1,983	323	301	2,448	448	422	3,013
SUBTOTAL	2,729	2,897	24,928	2,514	2,642	23,436	2,600	2,626	25,083
PERMANENT DISABILITY									
REGULAR OFFICERS	4,920	4,975	107,115	4,737	4,841	109,659	4,535	4,709	111,302
REGULAR ENLISTED	16,099	16,675	133,077	16,452	16,830	137,711	16,516	16,803	132,293
NON-REGULAR OFFICERS	2,565	2,590	5,083	2,502	2,550	5,111	2,493	2,470	5,080
NON-REGULAR ENLISTED	1,021	1,029	4,982	1,002	1,000	5,123	991	991	5,280
SUBTOTAL	23,104	23,269	257,057	24,691	25,221	267,603	24,529	24,773	274,114
FLEET RESERVE									
REGULAR ENLISTED	93,031	91,523	920,327	92,182	91,037	1,070,177	98,113	96,610	1,157,219
NON-REGULAR ENLISTED	46,061	44,406	280,361	44,016	42,316	253,158	44,074	42,614	273,333
SUBTOTAL	139,092	135,929	1,200,688	136,198	133,353	1,323,335	142,187	139,224	1,430,552
SURVIVOR BENEFITS									
OLD PLAN (GPO)	3,879	3,624	13,133	3,738	3,735	13,106	3,853	3,738	14,007
NEW PLAN (GPO)	2,823	2,921	3,082	1,008	2,912	4,005	1,328	1,194	249,433
NON-REGULAR OFFICERS	1,320	1,357	4,237	1,230	1,235	4,259	1,181	1,216	4,177
NON-REGULAR ENLISTED	32,036	30,061	178,439	37,036	34,710	219,030	42,908	40,115	267,911
SUBTOTAL	391,417	394,363	4,592,093	407,103	399,568	4,981,636	424,917	415,692	5,361,699

*MEMO ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLED CATEGORY.

LPI PERCENTS INVOLVED IN CALCULATIONS:

SEP/1979	6.50
MAR/1980	6.50
SEP/1980	7.70
MAR/1981	4.40
SEP/1981	5.00
MAR/1982	4.17
SEP/1982	4.33
MAR/1983	2.50
SEP/1983	2.50
MAR/1984	3.00
SEP/1984	3.00
MAR/1985	1.50
SEP/1985	1.50
MAR/1986	2.50

BASED ON ACTUAL DATA DATA THROUGH 12/1/1981.

OLD ACTUARY'S OFFICE

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY									
(DOLLARS IN THOUSANDS)									
SERVICE: MARINE CORPS									
CATEGORY	NO. ON ROLLS END OF FY	FY1981		NO. ON ROLLS END OF FY	FY1982		NO. ON ROLLS END OF FY	FY1983	
		MAN YEAR AVERAGE	TOTAL OBLIGATIONS		MAN YEAR AVERAGE	TOTAL OBLIGATIONS		MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DISABILITY									
REGULAR ENLISTED	14,058	13,676	250,710	14,761	14,560	289,913	15,392	15,070	327,373
REGULAR OFFICERS	20,504	20,081	187,321	21,193	20,949	213,090	22,318	21,853	241,773
NON-REGULAR ENLISTED	2,652	2,510	50,363	3,113	2,846	36,607	3,438	3,243	43,770
NON-REGULAR OFFICERS	3,399	3,710	1,042	472	43	2,410	4,179	4,332	13,179
SUBTOTAL	37,613	36,649	478,144	39,448	38,558	544,040	41,822	40,700	615,333
TITLE III*									
NON-REGULAR OFFICERS*	1,769	1,640	13,072	2,120	1,981	18,242	2,532	2,344	23,490
SUBTOTAL	2,168	2,030	15,714	2,479	2,401	20,672	3,109	2,876	26,623
PERMANENT DISABILITY									
REGULAR ENLISTED	102	107	1,739	103	108	1,964	105	108	3,123
REGULAR OFFICERS	912	964	4,129	771	84	4,106	85	89	3,713
NON-REGULAR ENLISTED	4	5	33	2	3	38	1	2	21
NON-REGULAR OFFICERS	5	6	33	6	91	6,147	766	806	5,921
SUBTOTAL	1,027	1,082	6,276	884	91	6,147	766	806	5,921
PERMANENT DISABILITY									
REGULAR ENLISTED	1,896	1,899	31,553	1,070	1,973	34,259	1,843	1,846	36,323
REGULAR OFFICERS	8,376	8,231	90,367	8,321	8,253	100,000	8,543	8,516	100,000
NON-REGULAR ENLISTED	772	760	9,367	761	761	10,000	766	766	10,000
NON-REGULAR OFFICERS	11,344	11,404	81,747	11,399	11,356	89,337	11,888	11,312	95,531
SUBTOTAL	15,402	15,391	144,575	15,336	15,382	159,127	15,387	15,374	171,092
RELI. RESERVE									
REGULAR ENLISTED	15,402	15,391	144,575	15,336	15,382	159,127	15,387	15,374	171,092
SUBTOTAL	15,402	15,391	144,575	15,336	15,382	159,127	15,387	15,374	171,092
SURVIVOR BENEFITS									
CONTRIBUTORY:									
OLD PLAN (RSFP)	394	360	1,122	179	174	1,201	396	391	1,171
NEW PLAN (SDP)	1,690	1,582	5,106	1,760	1,832	11,385	2,272	2,127	14,701
NEW PLAN (RCSB)	56	46	231	85	70	385	130	107	633
NON-CONTRIBUTORY									
GUARANTEED MIN. INC.	127	128	196	123	124	311	119	120	219
DIL. SUPPL. PAYMENTS	2,286	2,160	11,097	2,105	2,432	14,053	2,984	2,804	17,484
SUBTOTAL	68,085	66,682	713,839	70,372	69,719	812,712	72,645	70,996	905,183
TOTAL									

*MEMJ ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLED CATEGORY.

CPI PERCENTS INVOLVED IN CALCULATIONS:

SEP/1979	6.30
SEP/1980	5.90
SEP/1981	4.70
SEP/1982	5.00
SEP/1983	4.30
SEP/1984	2.60
SEP/1985	3.50

BASED ON ACTUAL MARINE CORPS DATA THROUGH JAN/FY81.

DOD ACTUARY'S OFFICE

MARCH 23, 1991

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY

COLLARS IN TWO-JSANDS

SUBJECT: INFLUENCE

APPROPRIATION: RETIRED PAY, DEFENSE

CATE-GORY	NO. ON ROLLS END OF FY	FY1984		FY1985		FY1986	
		MAN YEAR AVERAGE	TOTAL OBLIGATIONS	MAN YEAR AVERAGE	TOTAL OBLIGATIONS	MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DEPARTMENTAL							
REGULAR OFFICERS	16,001	15,819	364,027	17,067	408,353	17,912	441,723
NON-REGULAR OFFICERS	2,003	2,797	267,110	24,291	233,133	25,343	341,508
NON-REGULAR OFFICERS	3,747	3,713	51,244	4,534	60,325	5,277	71,075
NON-REGULAR OFFICERS	248	637	66,774	46,735	760,828	49,518	838,890
SUBTOTAL	44,113	42,468					
TITLE III							
NON-REGULAR OFFICERS*	3,034	2,007	29,022	3,631	37,532	4,344	46,973
NON-REGULAR OFFICERS*	5,722	3,442	53,797	4,083	42,945	5,350	59,547
SUBTOTAL							
TEMPORARY DISABILITY	105	100	2,242	105	2,350	108	2,422
REGULAR OFFICERS	105	364	3,562	470	3,004	420	2,662
NON-REGULAR OFFICERS	1	1	44	1	4	1	19
NON-REGULAR OFFICERS	6	659	5,661	582	5,419	555	5,192
SUBTOTAL	605						
TEMPORARY DISABILITY							
REGULAR OFFICERS	1,870	1,870	37,943	1,791	39,325	1,725	40,617
NON-REGULAR OFFICERS	8,210	8,210	5,273	8,204	5,065	8,198	52,527
NON-REGULAR OFFICERS	941	941	11,190	932	11,669	931	12,086
NON-REGULAR OFFICERS	303	237	100,539	300	105,026	291	120,941
SUBTOTAL	11,604	11,268		11,499		11,555	109,096
FLEET RESERVE							
REGULAR OFFICERS	15,374	15,365	181,394	15,169	190,702	15,360	199,369
NON-REGULAR OFFICERS	1	0	0	0	0	0	0
SUBTOTAL	15,375	15,365	181,394	15,169	190,702	15,360	199,369
SURVIVOR BENEFITS							
CONTRIBUTORY							
REGULAR OFFICERS	412	407	1,591	420	1,719	444	1,880
NON-REGULAR OFFICERS	2,033	2,462	14,175	3,050	22,149	3,523	26,846
REGULAR OFFICERS	165	149	935	109	1,236	222	1,631
NON-REGULAR OFFICERS	115	174	235	111	228	107	230
NON-REGULAR OFFICERS	77	71	187	87	594	98	703
SUBTOTAL	5,402	5,205	21,423	5,084	25,946	4,446	31,298
TOTAL	73,200	73,505	995,790	79,169	1,007,921	81,389	1,183,945

RELATED AUTOY ONLY. NUMBERS ARE FIGURED IN NON-DISABLED CATEGORY.

API PROFILE THROUGH CALCULATIONS:

[illegible]
$$f_{\text{eff}} = \frac{\langle f^2 \rangle}{\langle f \rangle} = \frac{\int_0^\infty f^2 P(f) df}{\int_0^\infty f P(f) df} = \frac{\int_0^\infty f^2 e^{-f} df}{\int_0^\infty f e^{-f} df} = 2$$

THE UNIVERSITY OF CHICAGO

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY (DOLLARS IN THOUSANDS)

MARCH 23, 1981

SERVICE: AIR FORCE

APPROPRIATION: RETIRED PAY, DEFENSE

CATEGORY	NO. ON ROLLS END OF FY	FY1981 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1982 MAN YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	FY1983 MAN YEAR AVERAGE	TOTAL OBLIGATIONS
NON-DISABILITIES									
REGULAR ENLISTED	50,785	48,959	1,154,845	54,073	52,154	1,354,933	57,567	55,515	1,531,291
NON-REGULAR ENLISTED	30,126	28,000	2,153,173	37,013	30,131	2,893,060	321,568	316,400	3,207,126
NON-REGULAR ENLISTED	67,184	67,184	888,127	66,395	67,115	1,000,988	77,022	71,446	1,114,326
NON-REGULAR ENLISTED	423,338	414,322	4,603,533	440,488	431,163	5,274,980	458,682	449,273	5,993,951
SUBTOTAL									
REGULAR OFFICERS	23,842	22,380	173,239	27,507	25,018	220,074	31,706	29,759	272,803
NON-REGULAR OFFICERS	4,488	4,099	18,702	5,471	5,004	25,133	6,577	6,055	30,734
SUBTOTAL	28,330	26,479	191,941	32,978	30,022	245,207	38,283	35,814	303,537
TEMPORARY DISABILITY									
REGULAR OFFICERS	157	164	2,918	140	148	2,903	124	130	2,754
NON-REGULAR OFFICERS	1,362	1,545	7,224	1,033	1,165	6,032	766	68	4,800
NON-REGULAR OFFICERS	95	107	1,309	117	136	1,653	60	16	987
NON-REGULAR OFFICERS	1,631	1,834	11,560	1,263	1,416	10,223	965	1,073	8,665
SUBTOTAL									
REGULAR OFFICERS	6,019	6,033	143,572	5,359	5,972	156,521	5,898	5,911	166,667
NON-REGULAR OFFICERS	25,834	25,249	173,602	25,158	25,007	186,560	24,841	24,573	196,596
NON-REGULAR OFFICERS	10,483	10,249	132,234	9,932	10,000	142,062	9,683	9,749	149,012
NON-REGULAR OFFICERS	108	103	476	109	103	520	107	102	534
SUBTOTAL	42,144	41,934	448,884	41,157	41,162	485,703	40,529	40,335	512,829
PERMANENT DISABILITY									
REGULAR OFFICERS	4,438	4,383	83,174	4,543	4,486	84,028	4,650	4,592	86,327
NON-REGULAR OFFICERS	12,258	11,279	58,732	14,533	13,411	77,132	17,243	15,850	98,328
NON-REGULAR OFFICERS	409	329	3,460	554	532	6,159	1,043	850	10,568
NON-REGULAR OFFICERS	256	265	598	240	248	616	223	233	622
NON-REGULAR OFFICERS	17,926	16,790	73,071	20,582	19,262	102,583	23,827	22,207	130,332
SUBTOTAL	485,039	475,480	5,145,058	503,690	495,403	5,873,491	524,173	512,892	6,555,787
TOTAL									

*MEMO ENTRY ONLY. NUMBERS AND AMOUNTS ARE INCLUDED IN NON-DISABLED CATEGORY.

CPI PERCENTS INVOLVED IN CALCULATIONS:

SEP/1979	6.90
SEP/1980	6.90
SEP/1981	7.70
SEP/1982	7.70
SEP/1983	7.70
SEP/1984	7.70
SEP/1985	7.70
SEP/1986	7.70
SEP/1987	7.70
SEP/1988	7.70
SEP/1989	7.70
SEP/1990	7.70
SEP/1991	7.70
SEP/1992	7.70
SEP/1993	7.70
SEP/1994	7.70
SEP/1995	7.70
SEP/1996	7.70
SEP/1997	7.70
SEP/1998	7.70
SEP/1999	7.70
SEP/2000	7.70
SEP/2001	7.70
SEP/2002	7.70
SEP/2003	7.70
SEP/2004	7.70
SEP/2005	7.70
SEP/2006	7.70
SEP/2007	7.70
SEP/2008	7.70
SEP/2009	7.70
SEP/2010	7.70
SEP/2011	7.70
SEP/2012	7.70
SEP/2013	7.70
SEP/2014	7.70
SEP/2015	7.70
SEP/2016	7.70
SEP/2017	7.70
SEP/2018	7.70
SEP/2019	7.70
SEP/2020	7.70
SEP/2021	7.70
SEP/2022	7.70
SEP/2023	7.70
SEP/2024	7.70
SEP/2025	7.70
SEP/2026	7.70
SEP/2027	7.70
SEP/2028	7.70
SEP/2029	7.70
SEP/2030	7.70

BASED ON ACTUAL AIR FORCE DATA THROUGH JAN/FY81.

DDO ACTUARY'S OFFICE

SUMMARY OF RETIRED MILITARY PERSONNEL STRENGTH AND OBLIGATIONS BY CATEGORY
 SERVICE: AIR FORCE

MARCH 25, 1981

CATEGORY	DOLLARS IN THOUSANDS				APPROPRIATIONS:				RETAINED PAY, DEFENSE	
	NO. ON ROLLS END OF FY	MAX YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAX YEAR AVERAGE	TOTAL OBLIGATIONS	NO. ON ROLLS END OF FY	MAX YEAR AVERAGE	FY1976	FY1976
NON-DISABILITY										
REGULAR ENLISTED	61,209	39,107	1,752,192	57,249	62,226	1,962,112	59,466	66,974	2,183,126	
NON-REGULAR ENLISTED	431,403	326,550	1,702,111	347,123	180,101	1,401,104	358,222	346,541	1,098,046	
NON-REGULAR ENLISTED	77,803	75,550	1,221,141	43,744	9,073	1,152,194	9,179	86,662	1,461,647	
SUBTOTAL	470,415	460,207	6,524,366	500,101	400,101	7,157,299	523,268	511,239	7,816,170	
ILLI										
NON-REGULAR OFFICERS*	36,271	34,313	333,676	42,146	37,559	404,620	48,590	45,608	487,350	
NON-REGULAR OFFICERS*	9,133	7,831	42,580	52,159	9,058	54,596	18,062	18,043	55,683	
SUBTOTAL	45,404	42,144	376,256	94,305	46,617	459,216	66,652	63,651	103,033	
TEMPORARY DISABILITY										
REGULAR ENLISTED	107	114	2,367	34	99	2,340	82	86	2,113	
NON-REGULAR ENLISTED	46	52	3,796	39	477	2,971	317	356	2,319	
NON-REGULAR ENLISTED	14	8,6	7,134	570	633	6,149	441	430	5,154	
SUBTOTAL	167	166	10,297	563	676	9,460	541	522	7,586	
PERMANENT DISABILITY										
REGULAR ENLISTED	2,134	5,051	175,015	5,178	23,784	182,818	5,710	23,711	188,639	
NON-REGULAR ENLISTED	3,450	24,084	1,044,644	2,902	23,784	1,001,002	2,912	23,711	1,016,103	
NON-REGULAR ENLISTED	176	9,505	154,562	1,05	30,769	551,659	38,184	38,002	566,539	
SUBTOTAL	39,760	39,536	534,170	30,349	55,337	7,915,993	590,815	584,165	8,635,886	
SURVIVOR BENEFITS										
CONTINGENT										
OLD PLAN (RSEPP)	4,760	4,700	17,720	4,470	4,010	19,005	4,982	4,921	20,424	
NEW PLAN (RSEPP)	20,450	13,605	123,794	24,296	22,377	154,444	28,786	26,541	191,649	
NON-CONTINGENT	1,313	1,139	15,678	1,578	1,500	20,904	2,125	1,911	27,707	
NON-CONTINGENT										
DIC SUBTOTAL	27,523	219	5,170	195	203	604	180	108	503	
SUBTOTAL	49,783	25,859	162,194	51,792	29,844	200,968	36,922	34,992	247,023	
TOTAL	496,007	534,414	7,229,024	571,372	551,026	7,915,993	590,815	584,165	8,635,886	

MEMO ENTRY ONLY. NUMBERS AND APPROPRIATIONS ARE INCLUDED IN NON-DISABLED CATEGORY.

LPI PERCENTS INVOLVED IN CALCULATIONS:

SEP/1974	5.30
SEP/1975	5.30
SEP/1976	5.30
SEP/1977	5.30
SEP/1978	5.30
SEP/1979	5.30
SEP/1980	5.30
SEP/1981	5.30
SEP/1982	5.30
SEP/1983	5.30
SEP/1984	5.30
SEP/1985	5.30
SEP/1986	5.30
SEP/1987	5.30
SEP/1988	5.30
SEP/1989	5.30
SEP/1990	5.30
SEP/1991	5.30
SEP/1992	5.30
SEP/1993	5.30
SEP/1994	5.30
SEP/1995	5.30
SEP/1996	5.30
SEP/1997	5.30
SEP/1998	5.30
SEP/1999	5.30
SEP/2000	5.30
SEP/2001	5.30
SEP/2002	5.30
SEP/2003	5.30
SEP/2004	5.30
SEP/2005	5.30
SEP/2006	5.30
SEP/2007	5.30
SEP/2008	5.30
SEP/2009	5.30
SEP/2010	5.30
SEP/2011	5.30
SEP/2012	5.30
SEP/2013	5.30
SEP/2014	5.30
SEP/2015	5.30
SEP/2016	5.30
SEP/2017	5.30
SEP/2018	5.30
SEP/2019	5.30
SEP/2020	5.30
SEP/2021	5.30
SEP/2022	5.30
SEP/2023	5.30
SEP/2024	5.30
SEP/2025	5.30
SEP/2026	5.30
SEP/2027	5.30
SEP/2028	5.30
SEP/2029	5.30
SEP/2030	5.30
SEP/2031	5.30
SEP/2032	5.30
SEP/2033	5.30
SEP/2034	5.30
SEP/2035	5.30
SEP/2036	5.30
SEP/2037	5.30
SEP/2038	5.30
SEP/2039	5.30
SEP/2040	5.30
SEP/2041	5.30
SEP/2042	5.30
SEP/2043	5.30
SEP/2044	5.30
SEP/2045	5.30
SEP/2046	5.30
SEP/2047	5.30
SEP/2048	5.30
SEP/2049	5.30
SEP/2050	5.30
SEP/2051	5.30
SEP/2052	5.30
SEP/2053	5.30
SEP/2054	5.30
SEP/2055	5.30
SEP/2056	5.30
SEP/2057	5.30
SEP/2058	5.30
SEP/2059	5.30
SEP/2060	5.30
SEP/2061	5.30
SEP/2062	5.30
SEP/2063	5.30
SEP/2064	5.30
SEP/2065	5.30
SEP/2066	5.30
SEP/2067	5.30
SEP/2068	5.30
SEP/2069	5.30
SEP/2070	5.30
SEP/2071	5.30
SEP/2072	5.30
SEP/2073	5.30
SEP/2074	5.30
SEP/2075	5.30
SEP/2076	5.30
SEP/2077	5.30
SEP/2078	5.30
SEP/2079	5.30
SEP/2080	5.30
SEP/2081	5.30
SEP/2082	5.30
SEP/2083	5.30
SEP/2084	5.30
SEP/2085	5.30
SEP/2086	5.30
SEP/2087	5.30
SEP/2088	5.30
SEP/2089	5.30
SEP/2090	5.30
SEP/2091	5.30
SEP/2092	5.30
SEP/2093	5.30
SEP/2094	5.30
SEP/2095	5.30
SEP/2096	5.30
SEP/2097	5.30
SEP/2098	5.30
SEP/2099	5.30
SEP/2100	5.30

DATA PROVIDED BY THE AIR FORCE

DO NOT ACTUARY'S OFFICE

APPENDIX E

DMDC LONG-TERM PROJECTION
OF RETIRED MILITARY POPULATION

TOTAL NUMBER OF RETIREES ON SEPTEMBER 30 OF EACH FISCAL YEAR

FISCAL YEAR	NONDISCARDED OFFICERS	DISCARDED OFFICERS	TOTAL OFFICERS	NONDISCARDED ENLISTED	DISCARDED ENLISTED	TOTAL ENLISTED	TOTAL
1961	52,884	55,991	310,485	74,562	95,627	86,143	117,618
1962	64,309	51,130	318,431	78,943	97,631	87,879	119,707
1963	63,373	52,522	321,726	77,806	97,512	82,318	121,313
1964	62,240	51,679	324,512	80,427	96,331	90,178	122,626
1965	62,265	50,403	326,668	81,261	99,927	91,038	123,026
1966	63,126	47,107	329,303	81,846	99,337	91,844	124,566
1967	63,166	47,234	331,954	82,458	100,532	92,510	125,143
1968	63,187	47,606	334,633	82,704	101,230	93,834	126,867
1969	62,020	47,631	336,240	83,311	101,300	94,121	127,650
1970	62,151	48,377	338,343	84,513	102,496	94,683	128,530
1971	62,186	48,300	340,465	85,216	103,104	95,320	129,805
1972	60,666	40,895	341,761	85,948	103,675	96,323	130,524
1973	60,952	39,384	342,445	86,378	104,249	96,647	131,292
1974	60,436	38,731	342,717	87,003	104,777	97,585	131,801
1975	60,540	38,683	342,518	87,079	105,283	98,132	132,379
1976	60,833	38,117	342,250	88,223	105,775	98,008	133,259
1977	60,867	38,277	342,044	88,229	106,272	99,516	133,559
1978	60,867	38,266	341,361	89,371	106,702	100,673	134,208
1979	60,867	38,266	340,822	89,371	107,072	100,673	134,208
1980	60,867	38,266	339,994	90,160	107,437	100,673	134,208

*** TOTAL IN RETIREES EXCLUDED

TOTAL NUMBER OF OFFICERS ON ACTIVE DUTY GO OF EACH FISCAL YEAR

FISCAL YEAR	NONCOMMISSIONED OFFICERS	DISCHARGED OFFICERS	TOTAL OFFICERS	NONCOMMISSIONED OFFICERS	DISCHARGED OFFICERS	TOTAL
1931	28823	0	28823	22111	0	22111
1932	105176	0	105176	24178	0	24178
1933	110161	0	110161	26265	0	26265
1934	114220	0	114220	28359	0	28359
1935	117223	0	117223	30244	0	30244
1936	120357	0	120357	31714	0	31714
1937	123308	0	123308	33502	0	33502
1938	126045	0	126045	35239	0	35239
1939	128074	0	128074	37426	0	37426
1940	129207	0	129207	40129	0	40129
1941	131637	0	131637	42235	0	42235
1942	130191	0	130191	45597	0	45597
1943	142025	0	142025	48138	0	48138
1944	143114	0	143114	50677	0	50677
1945	144187	0	144187	53426	0	53426
1946	144983	0	144983	56280	0	56280
1947	145440	0	145440	59053	0	59053
1948	145675	0	145675	61729	0	61729
1949	145675	0	145675	64275	0	64275
1950	145461	0	145461	66643	0	66643

*** TOTAL III RETIREES ONLY

REVENUE AND EXPENDITURE

GAINS DURING FISCAL YEAR		AVERAGE INITIAL NET ANNUAL ANNUITY BEFORE DELINQUENT					
YEAR	UNRECOVERED OFFICERS	UNRECOVERED ENLISTEDS	DECEASED OFFICERS	DECEASED ENLISTEDS	NONRECOVERED OFFICERS	NONRECOVERED ENLISTEDS	UNRECOVERED OFFICERS
1981	8627.	9107.	0.	0.	7310.	4197.	0.
1982	9220.	9733.	0.	0.	8321.	4901.	0.
1983	6130.	7039.	0.	0.	6699.	5217.	0.
1984	7466.	8183.	0.	0.	6357.	5500.	0.
1985	7013.	8190.	0.	0.	7300.	5799.	0.
1986	6558.	7423.	0.	0.	10132.	6094.	0.
1987	7585.	8009.	0.	0.	10417.	6284.	0.
1988	7411.	8121.	0.	0.	10882.	6585.	0.
1989	8500.	9216.	0.	0.	11454.	6959.	0.
1990	8871.	9562.	0.	0.	12087.	7328.	0.
1991	8417.	9150.	0.	0.	12667.	7734.	0.
1992	7730.	8429.	0.	0.	13689.	8183.	0.
1993	7239.	8073.	0.	0.	14354.	8675.	0.
1994	6866.	7705.	0.	0.	14889.	9075.	0.
1995	6860.	7698.	0.	0.	15450.	9407.	0.
1996	6334.	7306.	0.	0.	16063.	9846.	0.
1997	6737.	7372.	0.	0.	16942.	10319.	0.
1998	6629.	7411.	0.	0.	18057.	10721.	0.
1999	6630.	7416.	0.	0.	19111.	11355.	0.
2000	6566.	7301.	0.	0.	20251.	11987.	0.
2001	6749.	7520.	0.	0.	21336.	12628.	0.

* GAIN DURING YEAR INCLUDE THOSE PEOPLE WHO DIE BEFORE YEAR-END. ALL FIGURES ARE AFTER TOTAL AND PARTIAL VA ADJUSTMENTS.

*** TITLE III RETIREES ONLY

RETIREE ROLL STATEMENT

GAINS DURING FISCAL YEAR				AVERAGE INITIAL NET ANNUAL ANNUITY BEFORE U.S. INFLATION			
YEAR	NONDISABLED OFFICERS	NONDISABLED ENLISTEDS	DISABLED OFFICERS	DISABLED ENLISTEDS	NONDISABLED OFFICERS	NONDISABLED ENLISTEDS	DISABLED OFFICERS
1961	9169	58179	583	344	18430	8590	15284
1962	9031	58471	583	3324	19759	8425	16567
1963	8949	59088	582	3341	21669	10402	17974
1964	8828	59727	582	3319	23600	11272	19294
1965	8319	60337	582	3310	25430	12015	20535
1966	8105	61111	584	3301	26442	12625	21755
1967	8437	62001	600	3336	27695	13250	22909
1968	8721	62524	602	3382	28279	13676	24133
1969	8750	63667	601	3408	30763	14405	25420
1970	8673	64582	600	3480	32603	15312	26758
1971	8731	67036	600	3431	34328	15999	28173
1972	8687	68130	599	3455	36352	16684	29636
1973	8410	67344	596	3456	38621	17692	31145
1974	8222	67216	594	3467	40887	18794	32744
1975	8118	68042	595	3483	43319	19866	34431
1976	8317	68435	597	3506	45531	20803	36247
1977	8630	69200	601	3553	47555	21939	38090
1978	8562	69571	600	3514	50303	23550	40003
1979	8562	69100	599	3501	53019	24950	41861
1980	8624	69664	599	3522	55657	26163	43802
1981	8692	70177	599	3528	58600	27468	45465

* GAINS DURING YEAR INCLUDE THOSE PEOPLE WHO DIE BEFORE YEAREND. ALL FIGURES ARE NETER TOTAL AND PARTIAL VA OFFSELS.

*** LITTLE ALL RETIREES EXCLUDED

APPENDIX F
RETIRED MILITARY PERSONNEL STRENGTH PROJECTIONS
FROM THE
MILITARY SERVICE'S
FY 83-87 POM

TABLE F.1
ARMY RETIREE INVENTORIES
(in 000s)

	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Officers								
Total								
Regular	19.5	21.2	23.1	25.4	27.7	30.2	33.4	36.1
Reserve	180.9	182.9	184.7	186.2	187.1	187.3	189.2	190.8
Subtotal	200.4	204.1	207.8	211.6	214.8	217.5	222.6	226.9
Class I & II								
Regular	17.4	17.0	17.3	18.2	19.5	20.4	22.2	23.4
Reserve	63.4	60.6	59.0	58.5	57.8	57.3	58.4	59.6
Subtotal	80.8	77.6	76.3	76.7	77.3	77.7	80.6	83.0
Enlisted								
Total								
Regular	229.5	239.0	248.7	258.9	269.2	279.4	289.4	299.6
Reserve	12.5	13.9	15.4	16.8	18.3	19.0	20.1	21.3
Subtotal	242.0	252.9	264.1	275.7	287.5	298.4	309.5	320.9
Class I & II								
Regular	166.6	167.3	168.0	169.7	170.9	172.1	172.8	172.4
Reserve	10.1	10.5	11.0	11.5	11.9	11.7	11.7	11.7
Subtotal	176.7	177.8	179.0	181.2	182.8	183.8	184.5	184.1
Total Retirees	442.4	457.0	471.9	487.3	502.3	515.9	532.1	547.8
Total Class I & II	257.5	255.4	255.3	257.9	260.1	261.5	265.1	267.1

Source: Army 83-87 POM Figures VII-E-7

TABLE F.2
NAVY RETIREE INVENTORIES
(000s)

	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Officers								
Total								
Regular	62.8	64.0	65.2	68.4	69.7	70.9	72.1	73.4
Reserve	113.9	114.3	114.9	115.4	115.9	116.5	117.0	117.5
Subtotal	176.7	178.3	180.1	183.8	185.6	187.4	189.1	190.9
Class I & II								
Regular	20.6	20.9	21.4	22.4	22.8	23.2	23.6	24.0
Reserve	17.9	17.9	17.9	18.1	18.2	18.3	18.3	18.3
Subtotal	38.5	38.8	39.3	40.5	41.0	41.5	41.9	42.3
Enlisted								
Total								
Regular	168.7	170.5	171.7	171.6	171.5	171.4	171.3	171.4
Reserve	26.3	27.6	28.8	30.2	31.5	32.7	34.0	35.2
Fleet Reserve	83.9	86.1	90.1	89.6	89.1	88.6	88.1	87.6
Subtotal	278.9	284.2	290.6	291.4	292.1	292.7	293.4	294.2
Class I & II								
Regular	10.2	10.2	10.3	10.3	10.3	10.3	10.3	10.3
Reserve	6.9	7.2	7.6	8.0	8.4	8.8	9.2	9.6
Fleet Reserve	74.0	76.0	79.0	78.6	78.2	77.6	77.2	76.8
Subtotal	91.1	93.4	96.9	96.9	96.9	96.7	96.7	96.7
Total Retirees	455.6	462.5	470.7	475.2	477.7	480.1	482.5	485.1
Total Class I & II	129.6	132.2	136.2	137.4	137.9	138.2	138.6	139.0

Source: Navy 83-87 POM Figure

TABLE F.3

MARINE CORPS RETIREE INVENTORIES
(000s)

	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Officers								
Total	21.2	22.1	23.1	24.0	25.0	25.9	27.0	27.9
Regular	2.5	2.6	2.8	3.0	3.2	3.5	3.7	4.0
Reserve	23.7	24.7	25.9	27.0	28.2	29.4	30.7	31.9
Enlisted								
Total	35.4	36.3	37.1	37.9	38.7	39.5	40.3	41.2
Regular	.3	.4	.5	.5	.6	.6	.7	.7
Reserve	15.4	15.4	15.2	15.0	14.9	14.8	14.7	14.5
Fl. M.C. Reserve	51.1	52.1	52.8	53.4	54.2	54.9	55.7	56.2
Subtotal	74.8	76.8	78.7	80.4	82.4	84.3	86.4	88.1
Total Retirees								

Source: Marine Corps POM - Format VII-A-5

TABLE F.4
AIR FORCE RETIREE INVENTORIES
(000s)

	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>	<u>86</u>	<u>87</u>
Officers								
Total	47.7	50.7	54.0	57.4	61.1	65.0	66.7	70.0
Regular	79.4	83.5	87.4	91.0	94.5	97.0	98.5	100.0
Reserve								
Subtotal	127.1	134.2	141.4	148.4	155.6	162.0	165.2	170.0
Class I & II								
Regular		15.9	18.1	21.0	23.9	26.8	29.5	32.0
Reserve		6.4	6.7	6.8	6.9	7.0	7.2	7.3
Subtotal		22.3	24.8	27.8	30.8	33.8	36.7	39.3
Enlisted								
Total	293.8	302.6	311.7	321.1	330.1	340.8	345.7	354.0
Regular	8.9	10.4	11.8	13.1	14.3	15.3	15.9	16.4
Reserve								
Subtotal	302.7	313.0	323.5	334.2	344.4	356.1	361.6	370.4
Class I & II								
Regular		68.2	66.2	64.2	62.2	60.3	58.5	56.9
Reserve		2.8	2.9	3.0	3.1	3.2	3.2	3.3
Subtotal		71.0	69.1	67.2	65.3	63.5	61.7	60.2
Total Retired	429.8	447.2	464.9	482.6	500.0	518.1	526.8	540.4
Total Class I & II		93.3	93.9	94.0	96.1	97.3	98.4	99.5

Source: Air Force 83-87 POM

APPENDIX G

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APPENDIX H
NAVY SEPARATION ORDERS

TRANSFER TO THE USNR AND RELEASE TO INACTIVE DUTY OF USN PERSONNEL

LANTFLT 1900/5 (Rev. 4/72) S/N 0103-619-0081

1. ACTIVITY (Include geographical location if not classified)			2. DATE PREPARED	
3. NAME (Last, First, Middle)		4. SOC. SEC. NO.	5. RATE AND NEC	6. BR & CLASS
REF: (a) (b) 10 U.S.C. 651			7. DATE ACTIVE DUTY TERMINATED	
			8. REASON FOR TERMINATION	
9. REQD TO SERVE IN USNR UNTIL		10. NAVRES DESIGNATION USNR -		12. ACCOUNTING DATA
11. COMPLETE MAILING ADDRESS AFTER RELEASE				

1. On date specified in Block 7, your active duty in the Regular Navy is terminated for reason shown in Block 8. In accordance with reference (a), you will consider yourself transferred to the Naval Reserve concurrently with release to inactive duty. You will be required to serve in the Naval Reserve until date shown in Block 9, unless sooner discharged by competent authority. Your official Naval Reserve designation will be as shown in Block 10.

2. During the period of your obligated service in the Naval Reserve as set forth above, you are subject to such additional training and service, including active military service, as may now or hereafter be prescribed by law for the Naval Reserve. When determined by competent authority that enrollment or appointment in or assignment to an accredited training program of the Naval Reserve is available to you and can, without hardship, be filled by you, it is your duty to enroll or accept such appointment or assignment and to serve satisfactorily therein until discharged or otherwise relieved of such duty by competent authority.

3. You will be required to wear the uniform while attending drill periods when you become affiliated with a unit of the Naval Reserve or are ordered to active military service, in accordance with paragraph 2 above. Accordingly, you should retain for use on such occasions all your serviceable articles of uniform equipment.

4. The Military Selective Service Act, requires male citizens and other male persons in the United States, between the ages of 18 and 26, to register with a selective service board, but exempts members of the Armed Forces from this requirement while they are on active duty. If you have not registered with a selective service board and if you were between the ages of 18 and 26 on 30 August 1948, or

attained the age of 18 since that date, you are required to register with a local selective service board within 30 days from the date of these orders. In the event you have already registered, you must report to your local selective service board, within 10 days, the fact that as of the date of these orders and pursuant to reference (b) you were transferred from the Regular Navy to the Naval Reserve and concurrently released to inactive duty.

5. You have stated that your mailing address will be as shown in Block 11. You may change your mailing address at any time but such change shall be reported promptly by letter to the command holding your service record giving the same information as prescribed in the following paragraph and, in addition, your old address as well as your new address.

6. Upon your release to inactive duty, your records will be forwarded to the Naval Reserve Manpower Center, Bainbridge, Maryland 21905. Any questions regarding your status should be addressed to that command and should include your rate, full name, branch and class of service, social security number, and mailing address. Should you subsequently affiliate with a Naval Reserve Program, your records will be maintained at the unit to which you are attached. Any questions concerning pay matters should be addressed to Commander, Navy Finance Center, New Federal Office Building, Cleveland, Ohio 44199.

7. In the event that you plan travel or residence in a foreign country for a period in excess of 30 days, notice of intent will be submitted to the command holding your service record. Such notice should include destination, expected duration of travel or residency, and forwarding address.

SIGNATURE (Officer Authorized to Sign By Direction)

EXAMINED AND FOUND PHYSICALLY QUALIFIED FOR RELEASE FROM ACTIVE DUTY	DATE	(GRADE, NAME OF MEDICAL OFFICER)
I DO HEREBY CERTIFY THAT I HAVE READ THE ABOVE ORDERS AND FULLY UNDERSTAND MY OBLIGATIONS AS CONTAINED THEREIN.		(SIGNATURE OF MEMBER)
CITY & STATE MILEAGE ALLOWANCE ELECTED	☐ HOME OF RECORD ☐ PLACE OF ACCEPTANCE	PAY ENTRY BASE DATE (P#3 only)

LAST PERMANENT DUTY STATION FOR ESTABLISHING ENTITLEMENT TO TRANSPORTATION OF DEPENDENTS

SIGNATURE (Grade, Name, and Title of Officer authorized to sign)

Copy to:
Disbursing Officer (2)
Medical Officer (1)
Service Record (1)

**RELEASE TO INACTIVE DUTY OF USNR PERSONNEL
(OTHER THAN FLEET RESERVE)**

NAVPERS 1910/30 (5-77) S/N 0106-LF-019-1150

☐ NO TRAVEL TIME

☐ TRAVEL TIME

1. ACTIVITY (Include geographical location if not classified)			2. DATE	
3. NAME (Last, First, Middle)	4. SOC. SEC. NUMBER	5. RATE AND NEC	6. BR. AND CLASS	
REF: (a)		EXAMINED AND FOUND PHYSICALLY QUALIFIED FOR RELEASE FROM ACTIVE DUTY	DATE	
(Grade, Name of Medical Officer)		7. HOUR AND DATE DETACHED	8. DESIGNATION AFTER RELEASE USNR	
9. BR. AND CLASS	10. NO. DAYS TR. TIME ALLOWED	11. HR./DATE RELEASE EFFECTIVE	12. PLACE FROM WHICH ORDERED TO ACTIVE DUTY	
13. HOME OF RECORD AT TIME OF ENTRY		14. LAST PERMANENT DUTY STATION FOR ESTABLISHING ENTITLEMENT TO TRANSPORTATION OF DEPENDENTS		
15. PAY ENTRY BASE DATE (PO3 only)		16. CITY AND STATE MILEAGE ALLOWANCE ELECTED	18. ACCOUNTING DATA	
17. COMPLETE MAILING ADDRESS AFTER RELEASE FROM ACTIVE DUTY				

1. You will regard yourself released from all active duty effective at 2400 on date shown in Block 2, at which time in accordance with reference (a) you are transferred to inactive duty in the United States Naval Reserve with official designation as shown in Blocks 8 and 9.

*2. You are granted the number of days travel time shown in Block 10, computed on the basis of the time required to travel by public surface/private conveyance in returning to your home of record, upon the expiration of which as shown in Block 11, and in accordance with reference (a), you will regard yourself released from all active duty and transferred to inactive duty in the Naval Reserve.

3. According to your service record you were ordered to active duty from the place shown in Block 12 and your home of record at the time of entry into relevant tour of active duty was as shown in Block 13. For the purpose of establishing entitlement to transportation of dependents, when applicable, your last permanent duty station was as shown in Block 14. Pay entry base date, if applicable is shown in Block 15 and place where you elected mileage allowance incident to these orders is shown in Block 16.

4. You have stated that upon release from active duty your mailing address, the place at which you may be reached at any time by orders or other official communications is as shown in Block 17. You may change your mailing address at any time but such change shall be reported promptly by letter to the command holding your service record giving the same information prescribed in the following paragraph and, in addition, your old as well as your new address.

5. Upon your release to inactive duty your records will be forwarded to the Naval Reserve Personnel Center, New Orleans, La. 70149. Any questions regarding your status should be addressed to that command and should include your rate, full name, branch and class of service, social security number, and mailing address. Should you subsequently affiliate with a Reserve Training Program, your records will be maintained at the unit to which you are attached. Any questions concerning pay matters should be addressed to

Commander, Navy Finance Center, New Federal Office Building, Cleveland, Ohio 44199.

6. You are advised that your release from active duty does not terminate your status as a member of the Naval Reserve. On the day following the effective date of your release from active duty as specified in Block 7 or 11 of these orders, you will assume the status of a member of the Naval Reserve on inactive duty. During the period of your obligated service in the Naval Reserve you are subject to such additional training and service, including active military service, as may now or hereafter be prescribed by law for the Naval Reserve. When determined by competent authority that enrollment or appointment in or assignment to an accredited training program of the Naval Reserve is available to you and can, without undue hardship, be filled by you, it is your duty to enroll or accept such appointment or assignment and to serve satisfactorily therein until discharged or otherwise relieved of such duty by competent authority. You shall promptly answer all official correspondence addressed to you as such and shall comply with instructions contained therein.

7. You will be required to wear the uniform while attending drill periods when you become affiliated with a unit of the Naval Reserve or are ordered to active military service. In accordance with paragraph 6 above, you should retain for use on such occasions all serviceable articles of your uniform equipment.

8. In the event that you plan travel or residence in a foreign country for a period in excess of 30 days, notice of intent will be submitted to the command holding your service record. Such notice should include destination, expected duration of travel or residency and forwarding address.

9. Travel by you and your dependents and shipment of your household effects, at Government expense, must be effected within one year of separation except when undergoing hospitalization, education, or training on the date of termination of active service as noted in paragraph M7010, Joint Travel Regulations.

SIGNATURE (Grade, Name, and Title of Officer Authorized to Sign by Direction)

Copy to:
Disbursing Officer (2)
Medical Officer (1)
Service Record (1)

*Items marked with an asterisk pertain to persons allowed travel time only. If no travel time is allowed, items 10 and 11 will be noted N/A and paragraph 2 will be disregarded.

END