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DOES THE ARMY NEED A MEDICAL DRAFT?

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A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

JACK L. KILLEN, JR., MAJ, USAR
B.S., Louisiana State University, 1971

Fort Leavenworth, Kansas
1989

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ABSTRACT

DOES THE ARMY NEED A MEDICAL DRAFT?, by MAJ Jack L. Killen, USAR, 151 pages.

The study identifies the magnitude of the shortfall of health care personnel to meet the wartime medical requirements of the United States Army. It identifies the total personnel shortfall, critical types of personnel and specific job skills by component.

The Army's dependency upon elements of the Reserve Component which may not be available upon mobilization is reviewed. The effect of the shortages on trained strength in units is noted.

Some of the history of the draft in the United States and historical solutions to the medical strength problem are then reviewed.

Currently proposed retention methods are applied to the shortfall and the results are compared to the wartime requirements in four different wartime scenarios, all within one year.

New acquisition and management programs are examined, and projections made about how effective they would be given the same four wartime scenarios as before.

Different forms of compulsory service are compared to the remaining shortfall under the wartime scenarios and the results are discussed.

Among the conclusions drawn are: (1) without legislation enacted and a medical draft mechanism in place before M-day, no solution discussed will solve the problem (even within six months); (2) without new draft legislation, expanded use of retirees appears to be the most responsive alternative; (3) the 'best' apparent solution is a 'standby' draft keyed to the strength of the Selected Reserve, the Individual Ready Reserve and the Inactive National Guard. An operating standby draft would provide units that are training together and near full strength along with an identified pool of individual replacements on M-day.

The study concludes that if a 'standby' draft cannot be ongoing, the only other suitable alternative is legislation permitting a draft of medical manpower well in advance of the mobilization of the force.

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

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Jack L. Killen

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CHAPTER ONE

INTRODUCTION

In the rain-soaked predawn darkness of 25 June 1950 the armed forces of Communist North Korea crossed the 38th Parallel, aiming at a quick conquest of the ill-armed and ill-prepared Republic of Korea (ROK). Within three days the capital city of Seoul fell, and refugees thronged the roads leading south. In the United States, which had helped to create and sponsor the South Korean government, news of the attack arrived on the evening of the twenty-fourth (Washington time). For many high officials the first reaction was utter surprise. Maj. Gen. Raymond W. Bliss, the quiet gentlemanly Yankee then serving as Surgeon General of the Army, remarked to his staff that "just a week ago, the G-2 made the statement that we would be alerted perhaps 6 months before any [Communist] invasion and at least 10 days." We had not a moment's notice regarding Korea. (1)

Could this situation be related to the situation in 1989? In a 1976 article in Foreign Policy, Peter Szanton and Graham Allison argue that the United States (with probably the premiere intelligence system in the world today), collects data by sophisticated means, and yet assesses data with primitive means. (2)

In 1948, the Central Intelligence Agency was created as a result of Congress' desire to avoid another Pearl Harbor. Pearl Harbor occurred not because the U.S. did not have enough information, but because it had failed to put it together properly. (3) The Pike Committee in its study of the intelligence community and the Yom Kippur War in 1976 concluded that the problem still persists. (4) In David E.

King's recent study of the intelligence failures of the Falklands War, King concludes:

A more extensive study of the history of surprise attacks suggests that adequate warning of attack can be devoutly hoped for, but never assumed.

Chiefs of Staffs cannot therefore plan on certain warning, but must build the contingency of surprise into their defense planning.

...the key question to be answered in the case of the Falklands is, was it ever sensible to expect intelligence to provide the warnings that would allow the token defense to be reinforced in time, or the invasion halted by diplomatic pressure?

States can never eliminate the risk of being surprised, banish deception or develop a foolproof or infallible system of indicators.

...(Guile) is present in Soviet Russia as "maskirovka", a manipulative technique designed not merely to deceive but to bring about a total restructuring of perceptions and by disinformation or distortion to inhibit effective decision-making. It is a technique aimed against the political leadership.(5)

Most intelligence sources talk of warning in terms of 2-3 weeks, but the Army medical department, as discussed in this thesis, would need months, perhaps more than a year, to go from its present state to one of readiness for a general or total war.

The Deputy Surgeon General in a letter to the American Medical Association wrote,

In my opinion the Medical... situation relative to the Armed Forces is more critical than at any time in the last 25 years. All extensive data reveals that the supply of professional personnel ... is deficient in both quality and quantity, and the present incentives to attract such personnel into the services are sorely inadequate.

Efforts to conserve personnel were 'small in relation to total shortages,' and unless the procurement of officers could be greatly increased, 'the success of supporting the Selective Service Act will be in great jeopardy.' (6)

The Deputy Surgeon General was Brig. Gen. George E. Armstrong, and he was writing in July 1948. Two years later the so-called 'Doctor Draft' (PL 779) was passed. The identical statements can still be made today, 40 years later.

What would be the medical consequences of a general or total war tomorrow? Let us again look to the past (Korea) for an indication:

...In early July (1950) three MASH's were activated: the 8055th, the 8063d and the 8076th. The real MASH was different from the TOE 'theoretical' one. (7) The 8055th had only ten doctors and ninety-five enlisted men--and their surgeons were not fully qualified. (8)

The aid station was the first target of North Korean artillery; enemy riflemen used the Red Crosses on regimental ambulances as bulls-eyes. The wounded had to be evacuated by tank. Hospital trains had to run in daylight hours, and emergency night runs were guarded by MP's on sandbagged flatcars. (9)

The 1st Cavalry and 24th and 25th Infantry Divisions went into combat with 14 medical officers each instead of the regulation 42, and at no time in the early months of the war were there more than 25 doctors per division. Sergeants found themselves setting up aid stations and, on occasion, acting as battalion surgeons. The headquarters company of 24th Medical Battalion received no field training and 'had to learn field operations under actual war-time circumstances...' (10)

On the other hand an ambulance company had only recently participated in a field exercise in Japan, and was only five men short of full strength and had a full complement of vehicles. ... (They) suffered no casualties and continued to move the wounded. This was fortunate, for already a durable pattern of

the Korean fighting had appeared. Because of the lack of doctors and the few hospitals, a disproportionate burden was thrown on medical transport of all kinds. Whenever possible, wounded were bundled aboard any available plane and flown to Japan, for the slight hospital facilities in Korea were either on the run or could accommodate no more.(11)

Soon the clearing company and the 8055th MASH were moving too. The MASH moved to Taegu. Henceforth, it would also do its work within the perimeter.(12) The collecting station (of the clearing company) worked steadily in Kumchon, hauling wounded to the railhead. The remaining platoon of the clearing company joined them. Drivers could only rest while the vehicles were being loaded and serviced.(13)

Triage and transportation continued to take the place of physicians and bed strength.(14) The clearing company of the 25th Medical Battalion and the MASH, sharing a schoolhouse at Kunchon, were flooded with wounded men. "I'll never forget these casualties," wrote a MASH nurse, CPT Oree Gregory, "In all my 17 years of experience I've never seen such patients, blind, or with legs or buttocks blown off. Many died despite skilled surgery."(15)

Members of the 25th Division band volunteered to serve as medics at the clearing station.(16) In combat support, medics benefited from the relatively stable line and short evacuation distances. ...Exhausting effort was required to move the wounded over the steep Korean hills. Each of the regimental medical companies had 25-50 Korean soldiers who served as litterbearers. CPT Arthur P. Wickstrom, a 35th Infantry surgeon reported that 6 men were needed to carry a single litter down "Battle Mountain" (Hill 665), plus medics to administer aid and riflemen to protect the party from snipers.(17)

In the MASH a few miles away...Wounded jammed the building. CPT Gregory recorded in her diary, "We have patients in every place--every type of wound and burn--men of all ages from all walks of life. They're begging for water. But they're mostly due for surgery, so fluids are limited..."(18)

Clinically retraining the surgeons was necessary as well, to "unlearn the very excellent and beautiful principles necessary in civil practice" in favor of "the rapid and adequate sort of care of massive

wounds, massive trauma." There were too few surgeons. Neurosurgeons and orthopedists were, and remained, in short supply. Yet on the battlefield, orthopedic injuries...were the commonest of all.(19)

These few paragraphs provide an insight into the 'medic's war', and are part of the history and setting of the actual Army unit upon which the popular television series "M.A.S.H." was based. War is chaotic under the best of circumstances. Yet, as shown, if we have medical personnel shortfalls at the start of a war, as happened in Korea, and if medical personnel are untrained for wartime medicine, the problems are greatly intensified--and the soldiers pay the price.

Circumstances such as happened in the Korean War can happen again in an undeveloped theater of war, given the current shortfall of personnel, training and equipment. The Army Medical Department is certainly better off in many ways than in 1950, but considering the lethality of modern warfare, the circumstances would be frighteningly similar if a general war began tomorrow.

The purpose of this thesis is to examine our present shortfalls of trained medical personnel and to examine methods to correct the situation.

The significance of this subject will be discussed on page 20 of this chapter. Medical personnel must be present in sufficient quantities and skills to support the force, or as mandated by Congress, it cannot be mobilized.

Research-Question. This thesis will attempt to answer the question, "Does the Army need a medical draft (in order to support the force in the next general war)?"

Subordinate-research-questions-to-be-answered:

1. What are the Army's critical medical manpower requirements?
2. What are the medical manpower resources of the nation?
3. How much medical manpower does the Army have at its disposal?
4. What can be done to correct any shortfalls?

Background.

The-situation. The Total Army (Active Component, Army Reserve and Army National Guard) does not have the medical resources for an adequate level of support in a general or total wartime scenario. (20) Currently the Reserve Components of the Army alone (Army Reserve and Army National Guard) are approximately 4,000 physicians and 13,000 nurses below their required wartime levels. (21)

The situation is even worse when the requirements and on-hand strengths are examined closer. When critical wartime specialties or expanded requirements (based on new methods of determining medical manpower needs) are considered, the shortfall is worse. (22)

The shortfall was noted in October 1983 by John F. Beary, the former Acting Assistant Secretary of Defense for

Health Affairs (ASD(HA)). He stated that DOD had predicted wartime requirements (at that time) for 7,000 surgeons, of which only 2,500 (35 percent) were then available. According to Beary, if a general war should occur, "we could not treat our casualties ... because of our lack of qualified and trained manpower." (23)

In 1986, William Mayer, then the ASD(HA), testified before the House Armed Services Committee that:

there are today significant shortfalls in the number and type of health care professionals in the active and reserve forces that would be needed to adequately provide medical care to our forces in the event of full mobilization for war. We have a shortfall of about 7,800 physicians and 32,800 nurses needed to meet all the wartime requirements for medical care for our forces upon full mobilization. In the case of physicians, there are especially critical shortfalls in certain specialties, particularly those of general and orthopedic surgery and anesthesiology. For these three specialties collectively, there is a current shortfall of nearly 4,900 physicians needed to fully satisfy wartime mobilization requirements. (24)

Mayer was commenting on the entire DOD shortage. Because of the large number of treatment units in the Army, however, a significant portion of the DOD shortage belongs to the Army. The Army Reserve plays a vital role in supplying the overall Army medical force. Eighty-two percent of the nurses, 68 percent of the doctors, 75 percent of the hospitals, and 69 percent of the remaining medical units required by the Army on mobilization are in the Army Reserve. Additionally, the Army requirement for physicians,

all components, represents over 53% of the physicians required by the Total Force (all services) to wage war. (25)

Overall physician strength is a bit misleading, since there are actually overages in some skills (general medical officer). When specialty requirements and quantities on hand are considered, the situation is worse.

Surgical specialty strengths are probably the most critical to Army wartime needs and one of the best measures of medical personnel readiness. These figures are certainly the most quoted. Since 1980, the physician strength within the surgical specialties has ranged from a low of 19.6% to a high of 56.9% of required strength, and the nurse strength has ranged from 32.1% to 48.8% of required strength. MG Ward, the Chief of the Army Reserve, stated to the 100th Congress last year that at the end of FY 87, the physician strength in the critical surgical specialties was 36.1% of required strength and the nurse strength in the critical surgical specialties was 48.8% of required strength. (26)

The Army Medical Corps (as in the Medical Corps of all services and virtually all NATO nations) now finds itself constrained by critical manpower shortages. A 1985 study compared the ratio of the number of the active component physicians to the population of the Army community (including dependents and retirees) with that of the nation. The discrepancies were staggering. The nation has 183 physicians per 100,000 (72 per 100,000 providing primary health

care) in comparison with the active component medical corps' 84 physicians per 100,000 (33 per 100,000 providing primary health care). These differences are even more striking in view of the Army's worldwide deployment and contingency training missions, not to mention the consequences of hostilities in a high intensity or multi-theater conflict. (27)

One method to assess adequacy of medical resources is by ratios of physicians to troops and population. Records of the number of physicians in support of the US military have been kept for many years, and the numbers of soldiers and physicians in the country are also known. The following chart summarizes the relative number of physicians compared to the size of the Army and the quantity of physicians in the country from the Civil War to the present.

Ratios of Physicians to Troops, Population

	Phy:Trp	Phy:Pop	Phy in US
Civil War	6:1,000	1.7:1,000	60,000
Spanish-American War	4.1:1,000	1.5:1,000	110,000
WWI (Legal Ratio)	6.33:1,000		
(End)	9.13:1,000	1.43:1,000	145,000
WWII (Start)	6.58:1,000	1.31:1,000	175,000
(Average)	6:1,000		
(End)	3.63:1,000	1.43:1,000	205,000
Korea (Army ave.)	3.57:1,000	1.49:1,000	220,000
Viet Nam	4.0:1,000	1.59:1,000	314,000
Present (1985)A/C	.84:1,000	1.83:1,000	500,000

Figure 1--Ratios of Physicians:Troops, and
Physicians:Population(28)

Using historical wartime ratios of physician to troop strength, of somewhere between 3.5 to 9 physicians per thousand troops (see above), on the surface our Total Army medical manpower appears adequate. Using the wartime Total Army requirement and the on-hand quantity of physicians in the active component and all elements of the reserve component (USAR, ARNG, including Selected Reserve, IRR/ING, and Retired Reserve) we have a ratio of physicians to troops of 8.03 per thousand (Army doctors in all components divided by full wartime troop strength). (29,30) The reasons why manpower is inadequate will be discussed in chapter two.

Our problem comes in matching the physician specialties with adequate types and quantities of nurses and enlisted personnel to provide care at least comparable to previous wars. In previous wars, this problem has been avoided by the use of a draft.

The Draft.

In a 1978 study, 'America's Volunteers: A Report on the All Volunteer Force', four major reasons were identified that argue for a return to some sort of compulsory service (draft). First was major war and second was manpower shortfalls. The third reason noted was National Youth Programs and lastly, cost savings. (31) The concept of a draft has usually not been popular among the citizens of the United States; however for a significant portion of this century, military manpower needs have been met through the use of a

draft. The forthcoming shortage of eligible males for military service in the 1990's due to the declining birth rates after the 'post World War II 'baby boom'' may force military planners, recruiters and the Congress to look again at a draft for general manpower needs should the recruiting effort falter. We may also consider a draft for economic or budgetary reasons. A March 1988, General Accounting Office report to the Congress stated:

...a draft could result in a budgetary savings of 1.4 billion dollars in the first year, and 7.8 billion dollars annually (in 1987 dollars) in the long run. [This savings was arrived at by paying first-term enlistees half their present pay and by assuming lower re-enlistments.](32)

The valid counter-argument to this is, of course, that the draft is just another kind of tax--a tax 'in kind'--and that by drafting the young and skilled persons (doctors and nurses) you are shifting the burden of medical support for the military to these people. True costs are not just dollars spent by the federal government to pay for manpower; costs are the expenditure of the resources themselves. Thus we have not really lowered the cost to society in general of providing the manpower, rather we have shifted that cost to a small segment of the society and lowered the dollars expended by the remainder.

Our present concept of a draft is all-male, but because of the upcoming shortage of young draft-age men, future selective drafts (if not general drafts) will

probably be for both sexes. The upcoming manpower problem may help to explain the acceptance of women in the American military, in non-traditional roles, continually exposing them to a higher risk of being directly involved in combat.

Further, the budgetary constraints now being imposed on the military and the nation, place anything perceived as an "expensive 'medical' incentive" at risk. Although it is fiscally prudent (cheaper) to keep an expensive physician "on call" in the Reserve Program, rather than have him on active duty, their rank and special pays make these critical officers among the most expensive to maintain regardless of the component.

The AMEDD strength has been low since the end of the draft when the All Volunteer Force came into being, and the total numbers have never recovered. The problems have been in retaining qualified personnel as well as in acquisitions.

Instead of considering the draft, Congress has authorized special new recruiting initiatives for medical personnel. The Health Professional Loan Repayment Program allows a \$3000 loan repayment credit for each year of Reserve Service to a maximum of \$20,000 for any Federal educational loan. The Specialized Training Assistance Program grants monthly stipends to persons now training in medical professional programs. A pilot Army Reserve program, the "National Augmentation Detachment", giving health care professionals much greater flexibility in performing their

Annual Training and inactive duty training (IDT) is being tested. (33)

We cannot yet assess the impact of the 'new' recruiting initiatives and management program. Historically, at least in recent years, special programs such as these have been only marginally successful; e.g. scholarships and loan repayment plans have not supplied the number of doctors to the military that were expected. NATO has also found marginal success with similar incentives.

The tool that has been used historically to acquire manpower when volunteers were inadequate, has been the draft. In this example, if a health care professional knew he was going to a combat zone at the outbreak of the next war, he might be more likely to join a Reserve unit or at least begin to obtain training to minimize his personal risk. Selection could even be done ahead of time with some sort of 'lottery system' as was used in the Vietnam era.

In one sense, if we will ultimately rely upon some sort of compulsion (like a 'selective' or 'medical' draft) to support the force, then it is fairer to the individual to let him know ahead of time--so that he may begin to prepare himself.

The focus of this study will be to challenge the present methods used to acquire military medical manpower and to suggest needed improvements.

Assumptions.

1. That the total Army medical force--the required strength--is adequate for US military needs for general or total war.
2. That the Army Medical Department will continue to provide care to active duty, retired personnel and their dependents. (This is significant due to the fact that the present "training base" is built around this size of patient load for the active component medical mission.)
3. That the concepts and methods used to determine the medical force structure are valid.
4. That military medical recruitment and incentive programs that are essentially similar to previous programs will have a similar effect if tried today as they had in the past. In other words, a program that has not been effective in the past will not suddenly start to work.

Definition of Terms.

Active Component--that portion of the Total Army that is on active duty presently and does not consist of the US Army Reserve or the Army National Guard.

Armed Forces--term used to denote collectively all components of the Army, Navy, Air Force, Marine Corps and Coast Guard of the United States.

Center of Gravity--of an armed force, refers to those sources of strength or balance from which the force derives its freedom of action, physical strength or will to

fight. Defined by Clausewitz as "the hub of all power and movement, on which everything depends".

Civil Reserve Air Fleet (CRAF)--a group of commercial aircraft with crews which is allocated in time of emergency for exclusive military use in both international and domestic service.

Clearing Station (Company)--the medical facility (unit) present within the Army divisions for the purpose of minor treatment, resuscitative care and gathering of more seriously injured patients for evacuation into the "Corps-level" system of hospitals and evacuation.

Combat Support Hospital--a 200-bed field medical treatment facility of which one is doctrinally assigned in support of each Army division.

Conscription--the act of enrolling for compulsory service in the armed forces.

Declarant--a resident of the United States, but citizen of a foreign country, who has declared his intention to become a citizen of the United States.

Draft--the choosing or taking of an individual from a group especially for compulsory military service.

Evacuation Hospital--a 400-bed field medical facility of which two are doctrinally assigned per Army division.

General War--armed conflict between major powers in which the total resources of the belligerents are employed and the national survival of a major belligerent is in

jeopardy. Generally, all of the units in the force structure are called into service. This is distinguished from a limited war (like the Korean war) or a low intensity war (as in El Salvador).

Inactive National Guard--the manpower pool of the National Guard, similar in concept to the 'Individual Ready Reserve.' It is essentially a computer database of individuals who have obligated service remaining and can be used as 'fillers' for units. It is roughly equivalent to the Standby--Inactive category of the Army Reserve.

Individual Ready Reserve--the Army Reserve's pool of trained individuals who can be used as fillers (replacements) for units. (See Inactive National Guard above).

Lottery--regarding the draft, a method of determining priority within the manpower pool, using a system similar to drawing lots.

Mobile Army Surgical Hospital (M.A.S.H.)--a 60-bed, 100 percent mobile field medical treatment facility doctrinally assigned one per Army Division. Due to the nature of its surgical intervention mission, the MASH will normally operate farther forward than the other corps-level medical treatment facilities and may operate well within the division area, sometimes with clearing companies.

M-day--the term used to designate the day on which mobilization is to begin.

Mobilization--the act of assembling and organizing national resources to support national objectives in time of war or other emergencies. Also, the process by which the Armed Forces or part of them are brought to a state of readiness for war or national emergency. This includes activating all or part of the Reserve Components as well as assembling and organizing personnel, supplies, and materiel. Categories of mobilization examined in this thesis include "full mobilization" (activation of all units and individuals in the force structure) and "total mobilization" (activation of additional personnel or units beyond the present force structure).

National Augmentation Detachment (NAD)--an organization headquartered at Forces Command (FORSCOM), designed to give personalized handling to certain medical professionals. The "NAD" currently is authorized to accept personnel with three nurse specialties and eight physician specialties.

NATO-North Atlantic Treaty Organization--treaty signed 4 Apr 1949 in Washington, D.C. creating an alliance for collective defense. It links 14 European countries with the United States and Canada.

Retired Reserve--a manpower pool maintained as a mobilization asset as part of the Army Reserve consisting of all retirees from the Active Component with more than 20 years service but less than 30 years and all retired members receiving pay from the Reserve Component.

Selected Reserve--that portion of the Reserve Component consisting primarily of people assigned together as units, i.e. the individuals within the Reserve Component force structure that are already assigned to units.

Selective Draft--a term coined for discussion of compulsory manpower procurement methods in which certain types of individuals or certain categories of workers (professionals) are identified and then inducted or 'motivated' to enter military service.

Selective Service--the US governmental agency charged with registration, classification, and selection of eligible persons for potential compulsory military service.

Total Army--the combination of the active Army, Army Reserve and National Guard. The Total Army is composed of the Active Component, the two Reserve Components--Army Reserve and National Guard, and in some discussions, the civilian component. For the purposes of this thesis, the civilian component will not be discussed. The active Army consists primarily of combat units. The National Guard has combat, combat support and combat service support units; and the Army Reserve primarily has combat support and combat service support units.

Time-Phased Force and Deployment List (TPFDL)--identifies types and/or actual units required to support an operation or contingency plan, indicating origin and ports of debarkation or ocean area. May also be generated as a

computer-listing from the TPFDD (Time-Phased Force and Deployment Data) database.

Total Force--the combination of components making up the US Armed Forces, composed of the Active component and the Reserve Components-Reserve and National Guard. Includes also the civilian workforce of the Department of Defense.

Total War--that level of war, which could be precipitated by an attack on the continental United States or a nuclear war in which the military forces expand beyond the present planned force structure, and for which mobilization would probably be virtually instantaneous.

Universal Military Service--the traditional European method of meeting a nation's military manpower needs. Composed of a set period of mandatory military training of all eligible people, followed normally by a period of active service in the military, followed by service in the military reserves.

Limitations.

Only unclassified material has been used for this thesis, although some of the sources obtained from the Defense Technical Information Center are for limited distribution.

This document will use NATO only as source of common problems and possible solutions; it will not recommend methods for NATO to solve its problems.

Delimitations.

When evaluating an option to improve the quantity of medical personnel available for the total force, no attempt will be made to predict the future effect of a historical manpower recruiting or retention tool.

Significance of the study.

Willingness of this country to address the issue of caring for its fighters in time of war may be a center of gravity in a future conflict. In fact, one of the limitations on the size of the force may be our ability to support it medically.

In a 1988 paper presented to the 7th Annual Mobilization Conference of the Industrial College of the Armed Forces, MG William G. Winkler, MC, USA, who was at that time the Deputy Assistant Secretary of Defense (Medical Readiness), made the following point:

...it is important to highlight a lesser-known, but very critical fact emphasized by Henry Mohr in a 1984 Heritage Foundation report. Mohr pointed out that, the Selective Service Act of 1948, as amended in 1973 and 1980 states, 'No person shall be inducted...until adequate provision shall have been made for such...medical care, and hospital accommodations...as may be determined by the Secretary of Defense or the Secretary of Transportation to be essential....(34) Thus there is much more at stake than even the medical treatment of combat casualties--the mobilization of the entire manpower resource base may be at risk without an adequate supply of health care professionals.(35)

Research Methodology.

The research methodology for this thesis will be an eclectic methodology. It will combine an historical approach for the review of past medical requirements and solutions to medical problems, an analytical approach to the basic health care statistics and their relevance to the present situation, as well as a comparative approach to the differences between the present and anticipated solutions and those of the past.

Information about past levels of medical personnel, the nation's response to drafts of the past, and to the concept of a draft will be gathered and discussed. The requirements of the present military for medical personnel will be examined along with resources available to satisfy the requirements. Included in this examination will be concepts applied by the NATO allies to similar situations.

In Chapter Five, 'The Problem and It's Potential Solutions,' the effectiveness of present programs at solving the overall medical manpower shortfall in the near term will be reviewed. The conclusions and recommendations chapter (Chapter Six) will summarize current strategies and will include recommendations for meeting projected future medical needs in both long- and short-range time periods.

ENDNOTES

1 Albert E. Cowdrey, The Medics War--United States Army in the Korean War, 1987: 29.

2 Graham Allison and Peter Szanton, "Intelligence: Seizing the Opportunity," Foreign Policy, Spring, 1976: 184.

3 Morton H. Halperin, "Intelligence: Seizing the Opportunity," Foreign Policy, Spring, 1976: 213.

4 Maurer, Alfred C., Marion D. Tunstall and James M. Keagle, editors. Intelligence: Policy and Process. Westview Press, Boulder, Colorado, 1985: 43-55, 158, 159.

5 David E. King, "Intelligence Failures and the Falklands War: A Reassessment," Intelligence and National Security, April, 1987: 338-340.

6 Cowdry: 29.

7 Ibid: 69.

8 Ibid: 70.

9 Ibid: 75.

10 Ibid: 77.

11 Ibid: 77-78.

12 Ibid: 79.

13 Ibid: 79.

14 Ibid: 82.

15 Ibid: 83.

16 Ibid: 83.

17 Ibid: 84.

18 Ibid: 85.

19 Ibid: 90.

20 Department of Defense, Washington Headquarters Services, Directorate for Information, Operations and Reports, "Health Manpower Statistics" FY 87: 2-6, 246-250, 97-118, 217-226, 227-232 245-250.

21 US Army, Office of the Chief, Army Reserve, Posture of the US Army Reserve, FY 89: 25.

22 Interview with LTC Jim Wingate, Executive Officer, Current Forces Directorate, Medical Force Analyst, Combined Arms Combat Developments Activity, FT Leavenworth, KS Re: GREWMS (Global Requirements Estimator for Wartime Medical Support) Computer Simulation Model on 17 Dec 88.

23 John F. Beary, III, M.D., to the 90th Annual Meeting of the Association of Military Surgeons of the United States, 31 Oct 83, as quoted in US General Accounting Office Report to the Chairman, House Armed Services Committee, 'Medical Readiness', Apr 87: 8.

24 William Mayer, ASD(HA), before HASC, 19 Sep 86, as quoted in GAO Report 'Medical Readiness' Apr 87: 8.

25 US Army, Office of the Chief, Army Reserve, Posture of the US Army Reserve, FY89,: D-8.

26 Ibid: 23-25.

27 Burger, L. M., 'Physicians in the Army: How Many Are Enough?', (Student Essay, US Army War College, Apr 1985): 4-5.

28 Tribble, William D., Doctor Draft Justified?, A Management Diagnosis (1968): 11, 14, 17-18, 19-20, 30 34, 35, 21.

29 Calculation of Total Army Troop Strength Requirements from a sum of components of the Total Army Structure on page D-3, 'Posture of the US Army Reserve, FY 89'. Calculated as follows:

Combat Divisions	434,900
Non-Divisional Combat	268,500
Tactical Support	415,700
Theater Forces	76,700
General Support	345,700
Total	1,541,500

30 Calculation of physician:troop ratio as follows:
Physician requirement is a sum of requirements of the Army

Active Component	5,451
US Army Reserve	9,875
Army National Guard	1,477
Total Army Physician Reqmnt	16,803

Numbers derived from DOD, Health Manpower Statistics, FY 87, p 2& 236. On hand quantities from the same pages and total

12,385. Calculation of physicians per thousand troops as follows:

$12,385/1,541,500 = .008034/\text{soldier}$ or 8.034 per thousand soldiers.

31 Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), "America's Volunteers: A Report on the All Volunteer Force", 1978: 143-144.

32 General Accounting Office, Report to the Subcommittee on Defense, Committee on Appropriations, US Senate, "Military Draft", March, 1988: 13.

33 Posture of the US Army Reserve, FY 89: 23-25.

34 Henry Mohr, "Will America Be Able to Treat Its Battlefield Wounded?", Defense Assessment Project (Paper #8), The Heritage Foundation, Washington, D.C., December 18, 1984: 4.

35 William G. Winkler, "Recruiting Physicians and Nurses for the Reserve Components," Proceedings--7th Annual Mobilization Conference, Industrial College of the Armed Forces, 14-15 April 1988: 476.

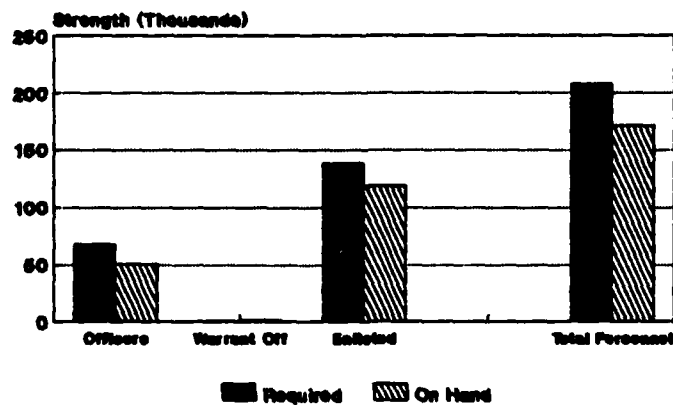
CHAPTER TWO

PROBLEM ANALYSIS

Army Medical Manpower Problems.

US Problems-Total Army. The United States Army finds itself today in the predicament of being critically short of medical personnel for the requirements of total war. This deficiency translates into staggering numbers. In the Department of Defense's 'Health Manpower Statistics' for 1987, the Army Medical Department was reported to be some 36,000 people short. (Figure 2, Chart 1).

Total Force Requirements Army Medical Department



DDG Health Manpower Statistics, FY 1987

Figure 2--Total Personnel Requirements(1)

Total Army Medical Personnel Requirements

	<u>Service</u> <u>Requirement</u>	<u>Budget</u> <u>Authorization</u>	<u>End</u> <u>Strength</u>	<u>Shortfall</u>
Officer (AC)	22,047	17,470	17,340	4,707
Officer (RC)	45,849	---	33,373	12,476
	67,896		50,713	17,183
Warrant Off (AC)	842	745	668	174
Warrant Off (RC)	564	---	1,030	+466
	1,406		1,698	+292
Enlisted (AC)	51,338	47,611	48,096	3,242
Enlisted (RC)	87,313	---	70,817	16,496
	138,651		118,913	19,738
Total Personnel	207,953		171,324	36,629

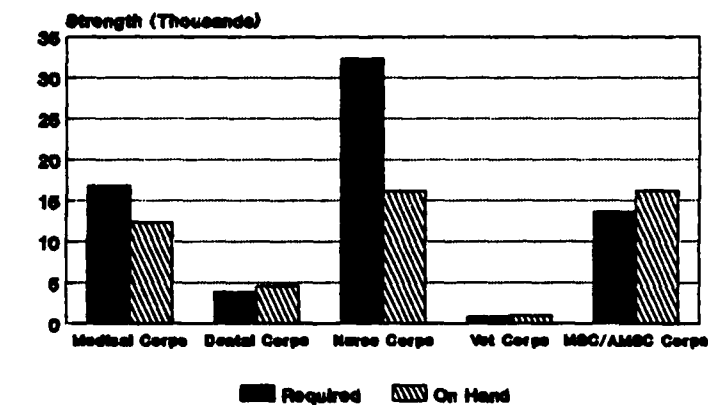
Chart 1--Total Personnel Requirements(1)

The situation is actually worse than depicted above. The above figures show officer and enlisted strengths that have been improved by excesses in certain branches and job skills. The situations within the various officer branches are shown in Figure 3. The total Army is short more than 4,500 Medical Corps and 16,000 Nurse Corps Officers while enjoying overages in Dental, Veterinary, and Medical Service Corps/Medical Specialist Corps.

The Officer Corps requirements by branch and by component are shown in Figure 4. In every case, the Active Component on-hand strength more nearly matches its requirement than does the Reserve Component. The Reserve Component overage in Dental Corps officers more than makes up for the slight shortage of Dental Corps officers on active duty as far as wartime requirements go. Veterinary Corps officer

requirements and strengths are essentially balanced in both the Active and Reserve components.

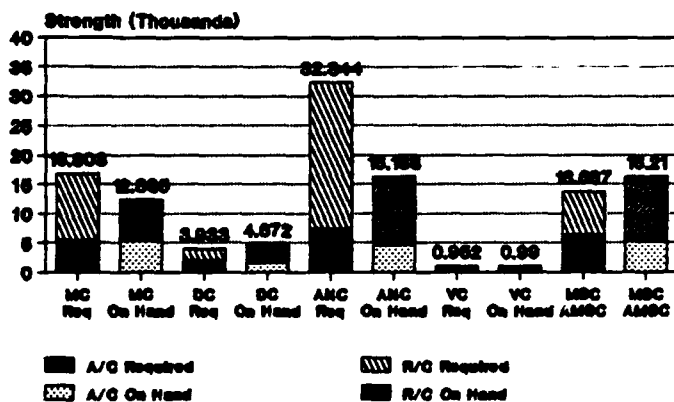
Total Officer Requirements Army Medical Department



DDG Health Manpower Statistics, FY 1987

Figure 3--Officer Requirements by Corps(2)

Total Officer Requirements Army Medical Needs by Corps by Component

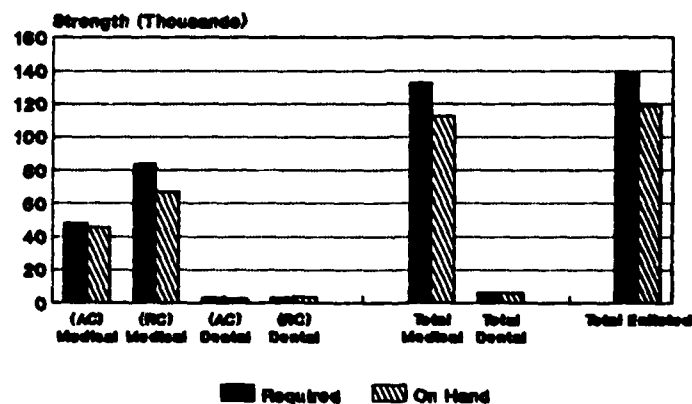


DDG Health Manpower Statistics, FY 1987

Figure 4--Officer Requirements by Corps by Component(2)

There is also a shortfall among enlisted personnel that is greater than appears on the surface (as shown in Figure 5 below). Some areas are overstrength, thereby tending to mask serious shortages in other areas. Highly technical medical jobs can easily be filled by Active Component recruiters due to the desirability of the training. The limit to the number of enlisted medical personnel on active duty seems to be the budget authorization for them and the size of the training base. (3) The Reserve Component, however, has a more difficult time recruiting for the highly technical skills and a much more difficult time retaining these personnel once the Army has trained them, due to the marketability of their skills. (4) Dental personnel are nearly balanced between the requirement and strength.

Total Enlisted Requirements Army Medical Department

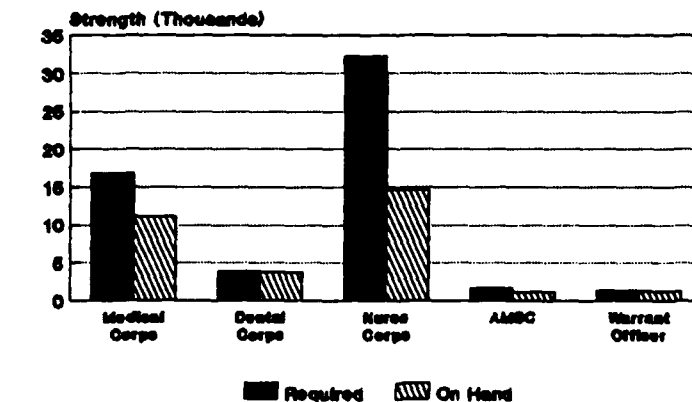


DDG Health Manpower Statistics, FY 1987

Figure 5--Total Enlisted Requirements(5)

The manpower pool of the Total Army is considered to be made up of the Active Component, the Selected Reserve (primary source of units), the Individual Ready Reserve/ Individual National Guard (primary source of trained individuals), the Standby Reserve, and the Retired Reserve. Some sets of statistics do not consider the Retired Reserve, since the Retired Reserve is a portion of the manpower pool that is not given training and whose physical condition upon mobilization may be unknown. Also, the Retired Reserve must volunteer to be deployed overseas. If the contribution of the Retired Reserve is taken out of the manpower picture, the shortfall of personnel goes from more than 36,000 to more than 60,000 (Figures 6, 7, Chart 2).

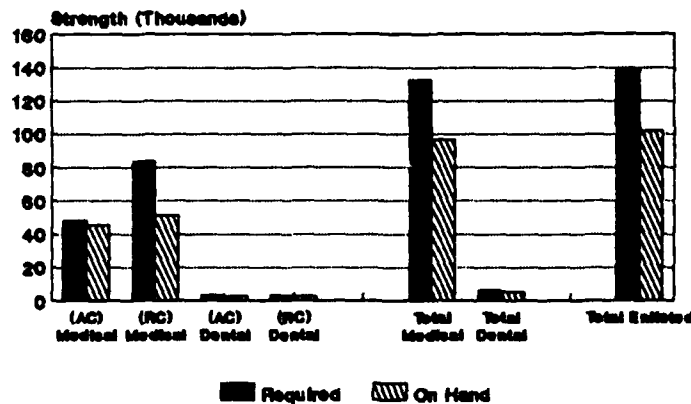
Total AMEDD Officer Shortfall (without Retirees)



DOD Health Manpower Statistics, FY 1987

Figure 6-Total AMEDD Officer Shortfall (without Retirees) (6)

Total AMEDD Enlisted Shortfall (without Retirees)



DDO Health Manpower Statistics, FY 1987

Figure 7-Total AMEDD Enlisted Shortfall (without Retirees)(6)

SHORTFALL WITHOUT RETIREES

(A/C, Selected Reserve, IRR/ING, Standby Reserve Only)

Branch/Comp	Required	Authorized	On Hand	Short	Cumulative
Medical (AC)	5,451	5,387	5,289	162	
Medical (RC)	11,352	---	5,850	5,502	
	16,803		11,139	5,664	-5,664
Dental (AC)	2,101	1,682	1,570	431	
Dental (RC)	1,832	---	2,135	+303	
	3,933		3,805	128	-5,792
Nurse (AC)	7,417	4,575	4,550	2,867	
Nurse (RC)	24,927	---	10,157	14,770	
	32,344		14,707	17,637	-23,429
MSC (AC)	5,772	4,740	4,754	1,018	
MSC (RC)	6,135	---	7,545	+1,380	
	11,937		12,299	+362	-23,429
AMSC (AC)	567	472	469	98	
AMSC (RC)	1,163	---	722	441	
	1,730		1,191	539	-23,968
WO (AC)	842	745	668	174	
WO (RC)	564	---	638	+74	
	1,406		1,306	100	-24,068
Enlisted (AC)	51,338	47,611	48,096	3,242	
Enlisted (RC)	87,313	---	54,069	33,244	
	138,651		102,165	36,486	-60,426

Chart 2--Shortfall Without Retirees(6)

In addition to the problem of absolute numbers there is another problem associated with our current medical personnel status. That is the problem of having trained units prepared to go to war at the appropriate time. Very few medical professionals are associated with the organization (unit) with which they would go to war and render care. Normally, these are designated positions on the manning document: "command surgeon", division surgeon, brigade surgeon or the like. The program which marries the medical professional on active duty with the wartime unit of assignment is called PROFIS (Professional Officer Filler System). (7) An interview with a former PROFIS coordinator at FT Bragg revealed that the numbers of personnel who are in any way training or familiarizing themselves with their wartime unit of association there to be about 10 percent. (8) This may be representative of the remainder of the Army.

In contrast to this, when medical strength figures are normally quoted, medical professionals are generally considered fully trained if they are working in a primary MOS (job skill) for which they have been properly "credentialed." That is, they have graduated from an approved school, and been accepted to practice that skill (received "credentials" or passed boards) in at least one state. Most active component medical professionals are utilized daily in this professional capacity in one of the Army's fixed medical facilities under the purview of Health Services Command.

Reserve Component medical professionals are similarly considered qualified based upon their 'credentials.' RC medical professionals can be assigned to units (the Selected Reserve), the Individual Ready Reserve or the Inactive National Guard, the Standby Reserve, or the Retired Reserve. Of these four categories of the Reserve Component, only the Selected Reserve (including the National Guard) trains as units.

Few people in the training arena of the AMEDD deny the need for training as a medical unit. In the early part of the 1988-89 CGSC school year, BG Miketinac, now Chief of the Army Medical Service Corps and Director of Health Care Operations, briefed the AMEDD officers on forthcoming changes in the form of DEPMEDS (Deployable Medical Systems). New employment doctrine has been developed called the 'multi-functional battalions' and the 'multi-functional' concept. The 'modular' hospitals and medical units of the new doctrine (portions of which can be moved and 'plugged in' to various other units all over the battlefield) demand a higher level of training for each person in the medical care system.(9)

In addition to the new equipment and new employment doctrine, a newly-arrived medical professional will have a lack of familiarity with the capabilities of his own unit. Plus, the extended nature of the AirLand Battlefield with combat simultaneously in the enemy's rear (deep battle), the

security area, the main battle area, the reserve area and rear areas (traditionally the location of medical units) demands a higher level of survival and defensive training.(10) With a few notable exceptions, the unit is the source of the training mentioned above. Precisely for the reasons mentioned, units need training time together. Yet the personnel shortages that exist are people who would be largely in the Army's field treatment units--the M.A.S.H.'s, the Combat Support Hospitals, the Evacuation Hospitals, and the clearing companies.

The present Army force structure includes 146 hospitals and 510 "other" medical units. "Other" units include all of the organizations that conduct medical evacuation (helicopter and ground ambulance) as well as smaller treatment units, logistical units and specialized teams.(11)

Being optimistic, slightly more than 50% of the war-time required medical personnel are training with units. About a third of the dentists, and about one fourth of the physicians, nurses and associated other medical professionals are training with units (Figure 8).(12) This is calculated by using 100 percent of the Selected Reserve, 100 percent of the enlisted medical personnel on active duty (both too high), 10 percent of the medical professionals on active duty (PROFIS fillers), and assuming none of the remaining categories of the RC are training with their units.

Personnel Training With Units (AC and Selected Reserve only)

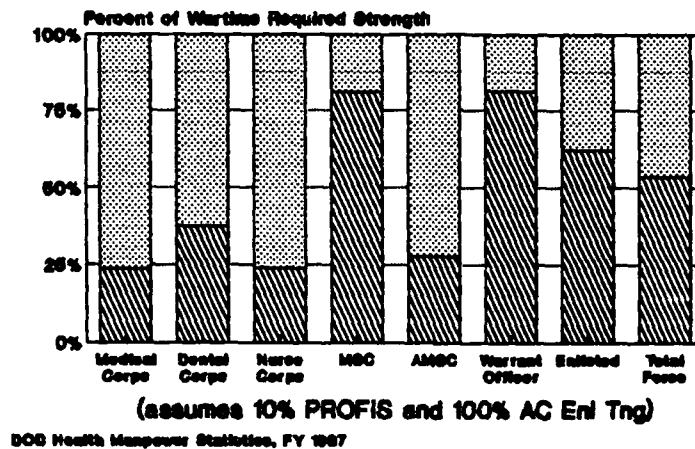
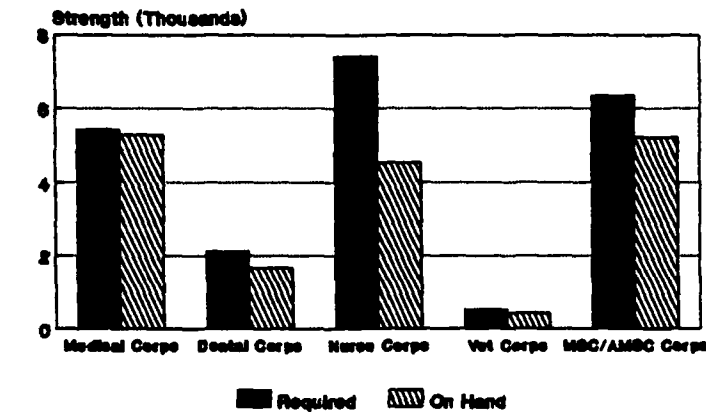


Figure 8--Personnel Training with Units(12)

Active Component.

Active Component Strength Shortfall. Most of the active component strength that is authorized is on hand. The biggest difference in the authorized and the required strength is in the differential for the authorization of nurses (some 3,000 short of the requirements) and the Medical Service Corps (some 1,000 short of requirements). For the other corps, the required, authorized and on-hand quantities of medical professionals are nearly balanced (Figure 9). For the Medical Service Corps, there is an excess in the Reserve Component to make up for the shortage. Even if the authorizations were higher for the Nurse Corps, the nurse market appears to be inadequate to support them.

Active Component Officer Requirements Army Medical Department



DOD Health Manpower Statistics, FY 1967

Figure 9--Active Component Officer Requirements-AMEDD(13)

The conditions facing enlisted personnel differ from the officer situation. The Army can take a qualified individual and teach him the entry level of an enlisted medical skill in the Army's own institutions. Therefore, the Army is not dependent (generally speaking) on civilian institutions of higher learning for its enlisted medical personnel training. In the sense that the Army is offering entry-level training (skills), it does not initially compete in the civilian marketplace to hire medical skills. Entry level training by the military in technical jobs is highly regarded and sought after by young people who have the potential to join the military.

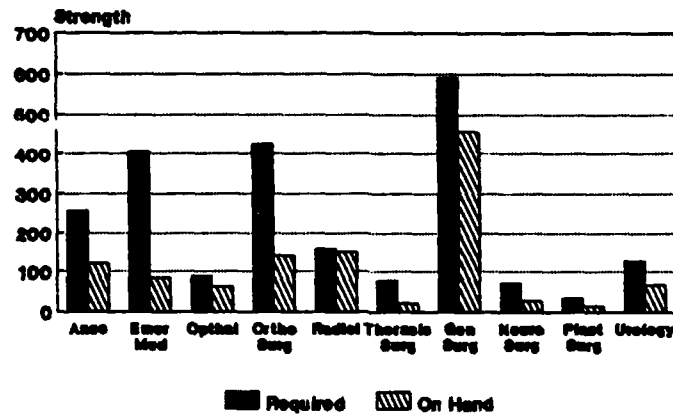
As a result, the assigned active component personnel strength virtually matches the authorized strength. The active component requires 53,119 personnel, is authorized 42,067, and had 50,495 on hand at the end of FY 1987 (the most recent year for which data is available.)(14)

In virtually every job skill, the authorized strength is met or exceeded. Apparently the only reason the required strength is not met is due to the authorization being less than the required.

The training base is currently set up to meet the peacetime requirements of the services; the active component has first priority for "training seats" to obtain medical entry-level training.(15) As shown in the discussion of Reserve Component problems (page 43), this priority for Active Component training is a problem for the Reserves.

In addition to the shortages already mentioned, skill mismatch is the biggest problem for the Active Component. Even though the assigned numbers seem to match the authorized strengths, the personnel assigned do not always have the proper skills to do the job. Figure 10 illustrates the shortfall of qualified physicians with the skills that are needed in some specialties of the Medical Corps. This is one of the places where the grave imbalance (shortage) of critical wartime skills becomes apparent. These are some of the "war-stopping shortages" previously mentioned. A similar situation exists in the Reserve Component.

Active Component Physician Requirement selected specialties

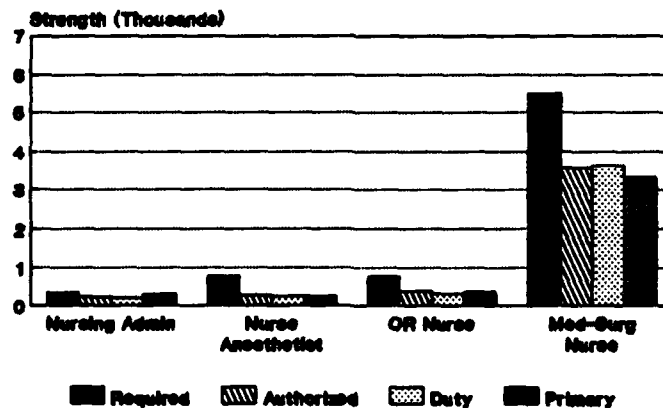


DOD Health Manpower Statistics, FY 87

Fig 10--A/C Physician Requirement (selected specialties)(16)

Figure 11 shows similar shortages of the Active Component nurse corps. Once again, the on-hand strength nearly matches the authorization, but it in no way approaches the wartime required strength.

Active Component Nurse Requirements selected specialties



DOD Health Manpower Statistics, FY 1987

Fig 11--A/C Nurse Requirements (selected specialties)(17)

The Active Component enlisted medical specialties (chart 3) considered critical to wartime missions all appear to run between 81 and 96 percent of the wartime required strength, with most in the 85 to 90 percent range. This will be contrasted in the next section with the Reserve Component enlisted specialties.

Active Component Enlisted Medical Specialty Requirements

	<u>Required</u>	<u>Authorized</u>	<u>Assigned</u>	<u>% Reg'd</u>
Surgical Specialist	2312	1803	1932	83.5
Behavioral Science Specialist	1508	1137	1258	83.4
Therapist	416	348	363	87.2
Biomedical Lab Specialist	3188	2337	2699	84.6
Pharmacy Spec'lst	1222	953	986	80.7
Ophthalmology/ Optometry Spec	551	468	520	94.4
Biomedical Equip Repairman	800	678	771	96.4
Medical Admin & Logistical Spec	4402	4394	3514	79.8

Chart 3-A/C Enlisted Medical Specialty Requirements(18)

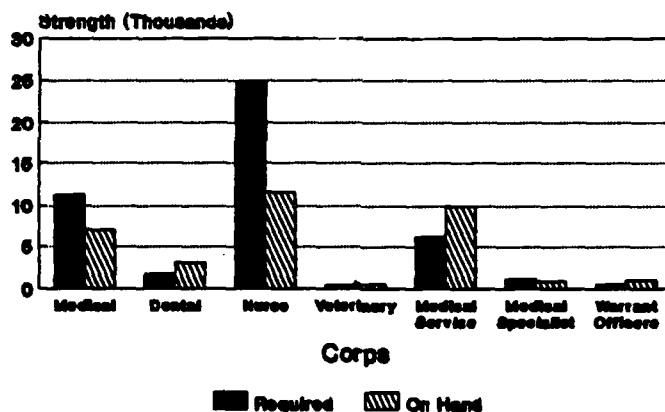
Summary of Active Component Problems

Active Component physicians are present in adequate numbers, but with skill mismatches. Nurses are obviously very short. Enlisted strength is good except for a few skills (the difference between 'required' and 'authorized' strengths accounts for over 90% of the small shortfall).

Reserve Component.

Reserve Component Problems. The Reserve Component shows about the same nurse shortage, but with an even greater shortage of physicians. The AC shortage of Medical Service Corps officers is partially made up by the excess of MSC's in the RC. In nurses alone, the RC is short more than 13,000 in meeting the wartime requirements. In physicians, the Reserve Component is short over 4,000 in gross numbers alone (Medical Corps below--Figure 12).(19)

Reserve Component Officer Requirement Army Medical Department



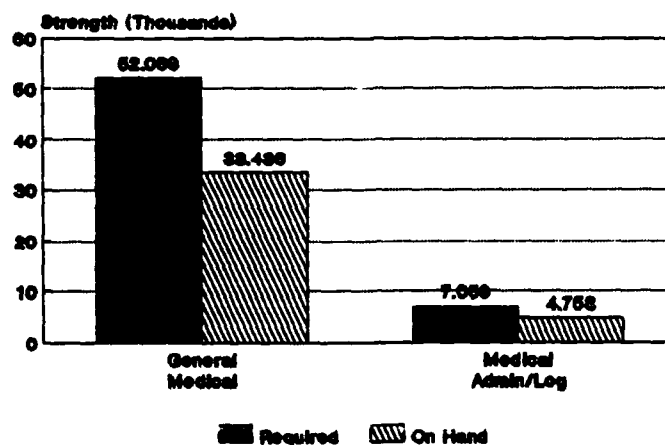
DDG Health Manpower Statistics, FY 1967

Figure 12--Reserve Component Officer Requirement(19)

With regard to Reserve Component enlisted medical skills, a very different picture is seen when compared to the active component. In gross terms, the Reserve Component shows a shortfall in excess of 33,000 enlisted medical personnel (only about 62 percent of wartime required strength). Every category of critical medical skill is significantly under the wartime required strength (Figures 13 and 14).

(The additional shortfall not shown in Figures 13 and 14 comes from the remaining MOS's on page 45 [chart 5] and the DOD Health Manpower Statistics which are not listed specifically in these charts.)

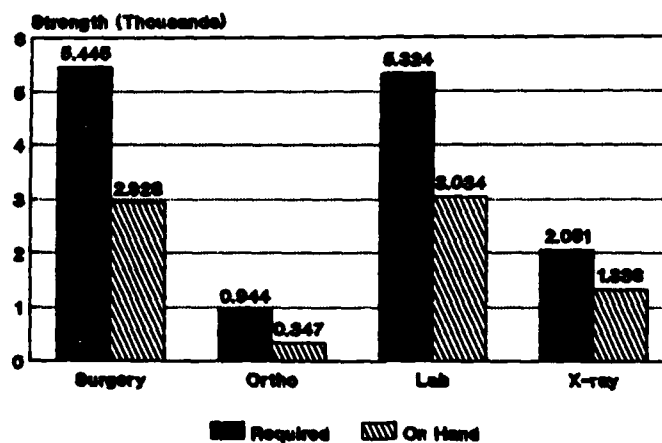
RC Enlisted Strengths



DOD Health Manpower Statistics, FY 87

Figure 13--RC Enlisted Strengths (1 Of 2)(20)

RC Enlisted Strength

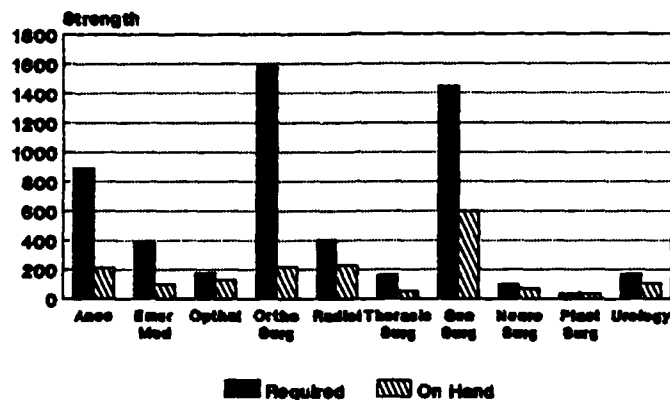


DOD Health Manpower Statistics, FY 87

Figure 14--RC Enlisted Strengths (2 Of 2)(20)

Worse than the gross number shortage is the critical skill shortage. Some of the worst physician shortages are portrayed in Figure 15. These include most surgical skills (general, orthopedic, thoracic, etc.) and the supporting skills of radiology, anesthesiology and emergency medicine.

R/C Physician Requirement by specialty

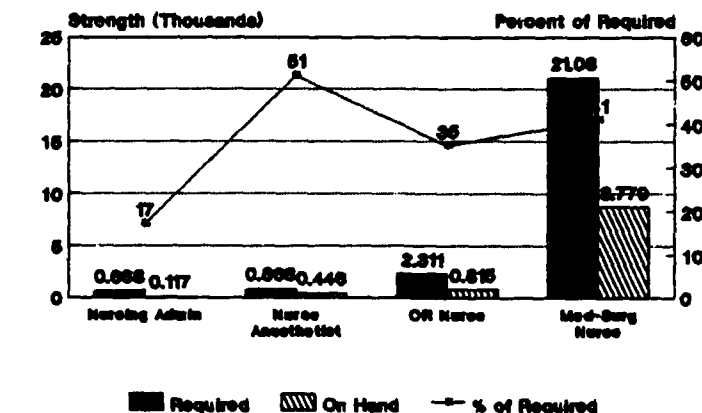


DDO Health Manpower Statistics, FY 87

Figure 15--R/C Physician Requirements (by specialty) (21)

The four most critical skills for nurses average about 41 percent of the wartime required strength and actually represent a shortfall of more than 14,000 nurses. That shortfall occurs because there is a greater need (requirements) than there are positions in units. These critical shortages are portrayed in Figure 16 (page 42) and also Chart 4 (page 43). For example, as shown in Chart 4 (page 43), the wartime need for nurses far outnumbers the present authorized positions (e.g. OR nurse need is 2,142 for the USAR, yet the present peacetime allocation is only 884.)

Reserve Component Nurse Requirements selected specialties



DOD Health Manpower Statistics, FY 1967

Figure 16--RC Nurse Requirements (selected specialties) (22)

Nursing service administrators are in shortest supply in the Reserve Component at 17.5 percent of required. Operating-room nurses and nurse anesthetists are at 35.3 and 51.4 percent strength respectively. The category 'all other nurses' which includes 'medical-surgical nurses' or 'staff nurses' stands at 41.6 percent of required strength. This gives a total of 40.7 percent of the required strength or 10,157 of 24,927 required nurses on hand. This situation is further compounded by lack of positions in the Selected Reserve. There literally are not enough units in which the nurses can be placed. If you do not have an operating room

or a hospital unit, you cannot assign an operating room nurse to it. This is a force structure problem.

Reserve Component Nurse Requirements (selected specialties)

		<u>Sel Reserve</u>					
		<u>Required</u>	<u>Auth</u>	<u>On Hand</u>	<u>IRR/ING</u>	<u>Stdbdy</u>	<u>Assg'd</u>
Nursing Svc Admin	USAR	610	220	56	13	0	69
	ARNG	58	79	48	0	0	48
		668	299	104	13	0	117
Nurse Anesthetist	USAR	735	728	292	106	0	398
	ARNG	133	120	48	0	0	48
		868	848	340	106	0	446
OR Nurse	USAR	2,142	884	534	180	0	714
	ARNG	169	194	101	0	0	270
		2,311	1,078	635	180	0	984
Non-specified	USAR	20,389	5,646	5,439	2,606	4	8,049
	ARNG	691	646	730	0	0	730
		21,080	6,292	6,169	2,606	4	8,779

Chart 4--RC Nurse Requirements(22)

Reserve Component Enlisted Medical Situation. The RC finds itself constrained in meeting the wartime requirement by the number of spaces in units, the size and nature of the Active Component training base, and its priority for training in regard to the Active Component. Furthermore, the RC may find it difficult to meet its requirements because enlisted medical personnel may either decide not to be part of the military when a civilian job is perceived as more desirable, or if there is an unavoidable conflict between weekend training schedules and civilian work.

Training for RC soldiers is based on meeting the needs of units. Seats in the training base classroom are

assigned to untrained soldiers occupying unit positions on a one-for-one basis. They are also assigned based on priority (AC first, then RC), and quotas (X number of seats per class for the RC). Since the force structure does not exist to meet the required number of medical personnel to treat war-time quantities of casualties then the training seats do not exist either. Furthermore, in MOS's where a large backlog of training already exists (e.g. over 4,000 soldiers need training in MOS 91C, the Army equivalent of licensed practical nurse) only 170 training seats per year are available to the RC. Quotas prevent filling the backlog.

Once a soldier is trained in a medical skill and returns to his civilian community, he often is hired in the skill he has just learned at the expense of the Army. This would appear to be complementary to his Army training; however as the junior member of a civilian medical organization, the soldier is often expected to work a schedule that conflicts with his military training.

Recent historical shortfalls of critical surgical skills are shown in Figures 17 and 18 (page 46). Physician authorized strength in surgical specialties has remained fairly constant; on-hand strength has varied slightly, but rarely has been over 50% of authorized strength. Nurse surgical requirements have grown slightly over the past ten years, but the on-hand strength is still approximately half of the authorized strength. (24, 25)

RESERVE COMPONENT ENLISTED REQUIREMENTS

	Sel. Reserve					Total
	Req'd	Auth	Asgnd	IRR/ING	Stndby	Asgnd
General Care and Treatment--Army MOS 91A, 91C						
USAR	35,083	15,482	11,972	9,679	2	21,653
ARNG	16,986	15,777	11,783	0	0	11,783
Surgical Specialist--Army MOS 91D						
USAR	4,688	2,897	1,742	760	1	2,503
ARNG	757	644	425	0	0	425
Behavioral Science Specialist--Army MOS 91G						
USAR	1,526	539	485	362	0	847
ARNG	133	124	77	0	0	77
Therapy						
USAR	858	388	309	151	0	460
ARNG	0	0	5	0	0	5
Orthopedic Specialist--Army MOS 91						
USAR	878	405	210	95	1	306
ARNG	66	50	41	0	0	41
Biomedical Laboratory Specialist--Army MOS 92B						
USAR	4,472	2,487	1,765	923	0	2,688
ARNG	852	538	346	0	0	346
Pharmacy Specialist--Army MOS 91Q						
USAR	1,984	1,122	531	195	0	726
ARNG	309	282	134	0	0	134
X-Ray Specialist--Army MOS 91P						
USAR	1,771	899	727	427	1	1,155
ARNG	280	264	181	0	0	181
Ophthalmology/Optometry Specialist--Army MOS 91						
USAR	592	147	86	90	0	176
ARNG	38	36	20	0	0	20
Diet Therapist--Army MOS						
USAR	2,830	886	902	439	0	1,341
ARNG	309	277	114	0	0	114
Biomedical Equipment Repairman--Army MOS 35G						
USAR	906	390	297	163	1	461
ARNG	150	139	99	0	0	99
Medical Administration and Logistics--Army MOS 71G and 76J						
USAR	5,822	3,778	2,628	1,272	0	3,900
ARNG	1,237	1,124	858	0	0	858

Chart 5--Reserve Component Enlisted Medical Requirements (24)

Selected Surgical Specialties RC Medical Corps

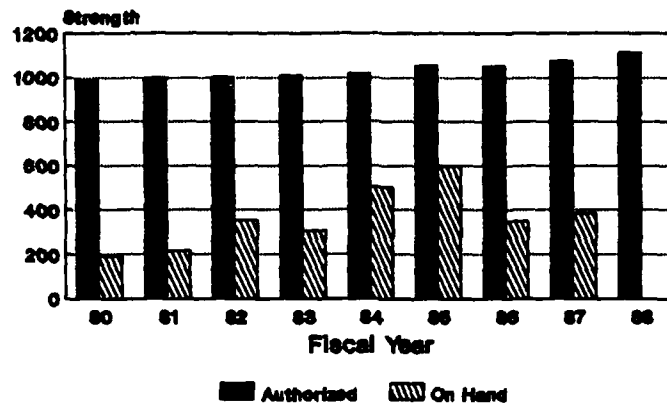


Figure 17--Selected Surgical Specialties (RC Medical Corps) (25)

Selected Surgical Specialties RC Nurse Corps

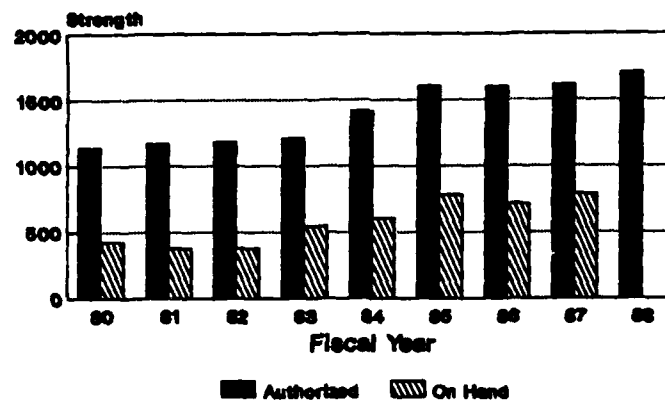


Figure 18--Selected Surgical Specialties (RC Nurse Corps) (26)

ENDNOTES

1 Department of Defense, Washington Headquarters Services, Directorate for Information, Operations and Reports, 'Health Manpower Statistics' FY 87: 1-5, 238-244.

2 Ibid.

3 Interview with MAJ Darell Nepil, Chief Analysis Branch, Recruiting Operations Division, HQ, US Army Recruiting Command, FT Sheridan, IL, on 5 Apr 89.

4 Interview with John T. McBrayer, MAJ, GS, Reserve Analyst, Analysis Branch, Recruiting Operations Division, HQ, US Army Recruiting Command, FT Sheridan, IL on 5 Apr 89.

5 DOD Health Manpower Statistics: 1-5, 238-244.

6 Ibid.

7 Interview with MAJ Paul Hightower, former PROFIS coordinator at FT Bragg, NC.

8 Ibid.

9 BG Miketinac, 'EMF 96', Presented to AMEDD CGSC Students, Aug 88.

10 FM 100-5: 39-40, 60-61.

11 U.S. Army, Office of the Chief, Army Reserve, Posture of the U.S. Army Reserve, FY 89: D-8.

12 DOD Health Manpower Statistics: 1-5, 238-244.

13 Ibid: 1-5.

14 Ibid: 5.

15 MAJ Nepil.

16 DOD Health Manpower Statistics: 85-95.

17 Ibid: 223-225.

18 Ibid: 227-232.

19 Ibid: 239-244.

20 Ibid: 367-376.

- 21 Ibid: 283-296.
- 22 Ibid: 348-351.
- 23 Interview with MAJ McBrayer.
- 24 DOD Health Manpower Statistics: 367-376.
- 25 U.S. Army, Office of the Chief, Army Reserve, Pos-
ture of the U.S. Army Reserve, FY 89,: 23-25.
- 26 Ibid.

CHAPTER THREE

HISTORICAL PERSPECTIVE AND LITERATURE REVIEW

Historical Medical Strength Solutions.

Medical Reserve Corps. The predecessor of the US Army Reserve, the Medical Reserve Corps was created to solve the medical manpower problem. After apparently working well to accomplish its original purpose, the focus of the USAR over time has changed until ironically, it no longer accomplishes its original mission.

The Army Reserve's origin is officially traced back to April 23, 1908, to Senate Bill 1424, which created the "Medical Reserve Corps." Its purpose was "...to Increase the Efficiency of the Medical Department of the United States Army." This was conceived by Elihu Root, then Secretary of War. There is a high probability that the eventual establishment of the Officer Reserve Corps (ORC) was Root's version of the "Federal Reserve" or "National Volunteers" advocated earlier by Emory Upton.(1)

Root believed the Medical Reserve Corps was necessary to overcome a serious wartime shortage of physicians, which had been apparent during the Spanish-American War. The Medical Reserve Corps passed the experimental stage by 1910, when its strength exceeded one thousand. By 1916, the Medical Reserve Corps had grown to 1,903 officers and outnumbered Regular Army doctors four to one.(2)

The Medical Reserve Corps ceased to exist on June 3, 1917, when its members were commissioned in the Officers' Reserve Corps as members of the Medical Officer's Reserve Corps, by virtue of the National Defense Act of 1916.(3) Our present medical structure has evolved from this successful early effort to support the Army, and surprisingly, a separate medical reserve is again being discussed.

Universal Military Service. Universal National Service, Compulsory Federal Service, Voluntary National Service, and other such concepts of national or federal service, all include a military element.(4) The basic idea for all of them is that all young people will do something in service to the nation in exchange for benefits and privileges now extended to them by our society.

Universal Military Service, as such, is not practical because not all young people are physically and mentally qualified for service (see pages 70, 130-132). The idea of universal national service or compulsory federal service allows those who are not qualified for military service to do something more appropriate for their skills and abilities. This would then include women.(5)

The discussion and trend toward some sort of compulsory national service has escalated recently due to two factors: a declining pool of eighteen to twenty-year old males that traditionally have been the manpower source for either the draft or military service, and secondly, in the last few

years, the federal deficit. The medical implications of this will be discussed further in chapter 5.(6, 7)

One General Accounting Office study showed that between seven and eight billion dollars a year could be saved with a draft.(8) Leaders at the national level consider that by having young people in federal service and paying them a relatively low wage that there is money to be saved for the federal government. A case can be made for the opposite, but there is enough evidence to support the viewpoint that it seems convincing for monetary reasons.

The present military system takes money from at least three different "pots" and combines it for the benefit of young people that are in service. Military pay and allowances is one source, advertising budget used to entice them into the military is another, and the scholarship or educational funds set aside for them are the third.(9)

All of the national service ideas and any discussion (including the draft) must consider the total resources committed to young people we are bringing into military service. The universal national service idea is more forthright because it tells young people in the beginning that they will not receive federal benefits without participating in federal programs.

The military enticement in universal national service would be an increased allowance for service based on the difficulty or danger of that type of service. More

subsidy and/or pay, for example, would be given to those volunteering to be an infantry soldier.

The idea is that a student would not get any benefits without earning them. Such benefits would be grants, loans, guaranteed student loans, scholarships, or matching funds from the government for education.

The participation in these programs would be regulated by proportional incentives given for various types of service. In other words, a Marine or Army service member might get 1.2 or 1.3 times the benefits in one year of a conservation worker or tutor in a ghetto. (10)

The viewpoint is that the money is being spent now on advertising, payroll for young people, overhead, and educational benefits anyway. The new programs of universal national service would simply restructure the spending of those funds. Because of the perception during the Viet Nam era, summarized as "Why serve when not all serve?", any discussion of the draft now includes a discussion of universal national service, i.e. all serve.

Scholarships/Stipends/Deferments. In a sense, the discussion of universal national service has already begun a discussion of scholarships, stipends, and deferments. However, this section will specifically focus on medical scholarships, stipends, and deferments.

Generally speaking, due to the scarcity of medical personnel, our government has always been willing to delay

or provide the same amount of aid into the development of a medical professional for the military that it would for any other health care professional.(11) This is partly because medical planners realize that by waiting a few years, the services can have a more talented and skilled individual to use.

Many studies done in the past by such agencies as the Rand Corporation have focused on the resources required to entice financially-hard-pressed students into committing themselves to the military.(12) Much of the historical knowledge of how to do that changed in 1973 with the end of draft legislation. Many studies done in the late 60's and early 70's focused on how to man the force in a zero-draft environment. Immediately after the end of the draft, medical professional manpower nosedived.(13)

It is possible to say that today we are still feeling these effects since the strength of the Reserve Component has never recovered to the pre-All-Volunteer-Force levels. Active Component medical manpower is just now stabilizing fifteen years later, and the Reserve medical manpower has not recovered.(14)

In order to discuss scholarships, stipends, and deferments, they must be looked at in the time in which they occurred. Obviously, you cannot have a deferment without a draft. So today we have scholarships and stipends in use to entice students into the military.

The 'Berry Plan.' The Berry plan was a concept developed in the 60's that allowed medical students to be deferred from the draft for the completion of medical school, internship, or specialization.(15)

There were actually two categories of students in the Berry plan: those who chose to come into the military after medical school and those who came into the military after their residency. Many of the better students tried to come into the military after medical school and complete their residency in the military, thus being paid and also fulfilling their obligation to the military at the same time.

The lesser-qualified medical students wound up working as a general medical officer in the military because there were not enough medical residencies for all Berry plan participants to have a military residency. This first category consisted of those young doctors who had completed medical school and then came on active duty to repay their obligation, regardless of whether they got a military residency or not. The second category was medical students who managed to remain in school as a resident until they had completed their speciality before fulfilling their military obligation.

Obviously, a physician who was already a specialist was due higher pay, more rank, and different treatment than a young doctor who was a general medical officer and was not

in a military residency program. Without the draft to motivate young doctors or medical students and/or a shooting war to make the threat real, the Berry plan would not have worked.(16)

In fact, there are questions as to how effective the Berry plan actually was. There is no doubt that there were different categories of physicians brought to active duty by the Berry plan, and the lower category, i.e., the general medical officer not considered outstanding enough for a military residency, was noted for having a bad attitude toward the military.

Because they were forced into the military to fulfill their obligation, their commitment often was short-lived. Like many regular draftees, as soon as their period of obligated service was over, they left the military. Few stayed on as career medical officers.(17, 18)

Health Professions Loan Repayment Plan. As the all-volunteer force came into being, and draft deferment could no longer be used as an incentive to get health professionals to join the military, medical planners had to come up with another means to acquire medical manpower needs. The Health Professions Loan Repayment Plan was a form of guaranteed loan for medical students that allowed them to repay the loan with periods of service after degree completion. Many studies have been done to determine what the appropriate stipend or scholarship amount should be in

order to be competitive with the other forms of scholarships and financial aid available to medical students. This is still a concern today, as we will see in the discussion of the Armed Forces Health Professions Scholarship Plan below. There are many federal programs today to aid in financing medical education, just as there have been in the past.(19)

Armed Forces Health Professions Scholarship Plan.

This is the present financial aid program presently in effect. Approximately 70 per cent of active army physician accessions now come from this program.(20) As in the Berry plan, many of the best students attempt to be accepted and complete their residency while repaying their obligation under this program. This program is different from some of the earlier programs in that it applies to other health professionals besides physicians. The discussion of nurses will be included below in the subsequent discussion of the Uniformed Services University of the Health Sciences.

Uniformed Services University of the Health Sciences .

Named after the congressman from Louisiana who championed it for many years, The F. Edward Hebert School of Medicine is the long-awaited military school of medicine.(21) The institution graduated its first class in 1980. It presently produces about ten per cent of the physician accessions for the active military (all services).(22) It is supposed to produce twenty-five per cent.(23) Partly because of its budget and directly

attributable expenses, it is periodically considered an expensive medical initiative and comes under congressional scrutiny for termination.

Only when the total federal cost to train a medical professional is considered, does the military medical school become competitive. It will probably be questioned again due to the present economic circumstances of the United States.

For many years, the Walter Reed Army Institute of Nursing (WRAIN) program was a source of nurse corps officers for the Army, in much the same way that the Uniformed Services University of the Health Sciences now is providing Medical Corps officers. In fact, part of the circumstances the Army Nurse Corps finds itself in now can be attributed to the termination of the WRAIN program. (The effects of DOPMA are another large portion of the nurse problem. Those effects will be discussed later.)(24)

Reserve or 'Standby' Draft.

Presently there is no legislative basis to conduct a reserve or 'standby' draft. Both the Marshall and Gates Commission reports on termination of the draft and the establishment of an all-volunteer force, recommended a draft or a 'standby' draft if the reserve forces could not be properly manned.(25, 26) An adequate supply of health care professionals was always a concern when planning the all-volunteer force. Since 1950 when the doctor draft was

enacted, medical personnel have been considered a separate category from normal draftees, but still likely to be drafted.

In fact, the Gates Commission reported that if the draft were eliminated, dramatic action would be necessary to maintain the level of care then being provided.(27) It also concluded that perhaps seventy-five percent of the enlisted personnel in the reserves were there because of the draft.(28)

As has already been mentioned on page 10, previous studies have considered there to be four reasons for a return to some form of compulsory service: first, major war; second, manpower shortfalls; third, national youth programs; and fourth, cost savings.(29) Two of the approaches mentioned were improving the standby draft and second, a return to a peacetime draft. Although the report concluded that only a very few people would probably be called; combat arms and medical doctors were singled out.(30)

Doctors, nurses, and other officer and enlisted medical professionals are in short supply for general war as previously discussed in this chapter. All of these people would likely be subject to some sort of compulsory service if, as a nation, we choose compulsion to solve the problem.

In February 1989, the United States Army Recruiting Command announced that it had not reached its quarterly goal for the last quarter of calendar year 1988 for the first

time since 1980.(31) This was attributed to a decline in population of young people and a smaller recruiting budget. Whether this trend will continue is unknown; however, the decline of eligible young people is certain, and it is likely that the trend will continue.

We already have medical shortfalls and the recruiting community is having difficulty meeting its goals, so it is logical that a return to compulsory service may be forced upon us.

The 1988 and 1989 Defense Authorization Act allocated money for the Selective Service to develop a standby system for registration and classification of persons with essential health care skills after mobilization.(32) Thus, a system to identify, register, classify, and induct people according to their occupation does not even exist, and would probably only be implemented after a declaration of mobilization (M-day) by the Congress.

'Doctor' draft. A draft of physicians is related to the above discussion and although Public Law 779 of 1950 is commonly referred to as the "Doctor Draft," it also provided dentists and allied health specialists for the Korean War and for about twenty years thereafter.(33) The concept of a doctor draft today would probably be considered a selective draft (a more general term) and possibly is feasible. In a paper presented in April 1988 at the Seventh Annual Mobilization Conference of the Industrial College of the Armed

Forces, it was concluded that a selective draft could be designed to fill wartime skill shortfalls. (34)

The people who entered the military under the provisions of the "Doctor Draft" in the past could have more properly been called "Draft-Induced Volunteers," since very few of them were ever inducted as enlisted personnel. The language of the law was such that they could either volunteer in their medical capacity or be subject to service as enlisted inductees (privates).

Because of the manpower shortage that will exist on M-Day and the additional shortfall in the IRR/ING, the services will not have enough medical people on the first day of battle and will have even fewer after medical casualties occur. The Seventh Annual Mobilization Conference at the Industrial College of the Armed Forces concluded that drafting eighteen and nineteen year-olds will not provide the skills or experience needed for casualty replacement of technical personnel, nor will it be timely enough in a wartime environment.

As mentioned earlier, the first replacements produced through the training base arrived overseas some seven months after they were inducted in World War II. The draft had been enacted some fifteen months prior to US entry into the war and the selective service system was operating. (35)

For a modern-day draft example, the Census Bureau estimates that the draft age pool of nurses, contains more

than 100,000 nurses. Even with only twenty per cent availability, it appears that the Army shortfall could be met immediately. The same could be done with other occupations. The result of the conference mentioned above was a conclusion that a selective draft could work if we want it to.(36)

History of the Draft

Biblical to present. In its outline of the historical background for the US Selective Service, published in 1960, LTG Lewis B. Hershey observed that there is actually a Biblical antecedent for the pressing of men into military service. In the first chapter of the book of Numbers (Numbers 1-46) it is recorded that the Lord told Moses to gather the children of Israel, by clans and families, listing every man by name, one by one. Moses and Aaron were to number by their divisions all the men 20 years old or more who were able to serve in the army, assisted by one man from each tribe, each the head of his family. It is further recorded that using this process, as the Lord directed, they raised an army of 603,550.(37)

American conscription itself may be traced to the earliest colonies. The colonists brought the English militia system with them, founded on the principle that every able-bodied citizen was obligated to keep himself armed and ready to fight the common foe with the regulars--or with his neighbors--when the occasion demanded.(38)

Between 1607 and 1775 more than 650 laws and ordinances were passed by the Colonies and their subdivisions, providing for conscription in one form or other. (39)

After the Revolutionary War, George Washington--anxious that the nation benefit from the manpower procurement experience of the Revolution--urged the first session of Congress to enact legislation which in many respects was amazingly similar to Selective Service legislation in effect during World Wars I and II. For a number of reasons Congress refused to adopt Washington's recommendations. He repeated them a number of times during his two terms. Presidents Jefferson and Madison likewise urged legislation patterned closely after Washington's recommendations. Congress would not act. (40)

War of 1812. The volunteer army that Congress had authorized could not be recruited, despite the offer of liberal bounties, so the military reluctantly turned to the state militias. The result was that the experiences of the revolution and colonial days were repeated again. Further complications followed when the militia contended they were constitutionally exempt from serving in any invasion force, as they were organized to repel invasion. Futile efforts had been made in Congress to obtain passage of a national draft act. Washington was captured; the White House was burned. (41)

The Civil War saw abuses of a draft system on both sides. It is a story of bungling, mismanagement, graft, and bloodshed. It was characterized by almost every conceivable kind of mistake, beginning with the control of the draft by the military, and the provision to allow for the hiring of substitutes.

With all its faults and problems, it is doubtful whether the North could have won the war without a draft, for before its enactment the North lost campaign after campaign. It was enacted in the North in 1863, after it had become evident that the volunteer system was far from adequate and that short term enlistments were the cause of slowing down, or losing campaigns. The North had three- and nine-month periods of service.

The methods employed immediately aroused public resentment. The draft became a method to coerce those who had refused to volunteer at the beginning of the war. Voluntary recruiting was continued, and the draft was applied only in areas that had failed to get their quota with volunteers.

The inevitable result was the stigma attached by the public to the 'drafted' individual. The draft mechanism was also used to apprehend spies and deserters. The Federal Government conducted the draft and handled the searches for deserters and draft registrants as similar enterprises, thus further stigmatizing the draft.

The Federal Government did not take the local governments into partnership in the draft, either in action or responsibility. The law fell heavily on the poor and allowed the wealthy to escape because, after he was drafted, a man could either hire a substitute or purchase outright exemption for \$300. Wealthy districts filled their quotas from the poor districts, offering large "bounties" for volunteers. Substitute brokers traded in the sale of substitutes. Many men became professional substitutes, deserting and selling themselves in other districts after they were paid. There were widespread riots. In New York City, draft rioters captured City Hall and held it for 4 days in a riot estimated to have killed more than 1,000.(42)

The South had two advantages so far as manpower procurement was concerned. It enacted draft legislation after only one year's experience with the volunteer system and volunteers signed for 12 months. The South developed some new twists in the abuse of the draft concept. The immediate motive of the Confederate draft law was to hold, beyond their term of enlistment, those seasoned troops who had volunteered in good faith. It also allowed substitution, but a man could hire a substitute at wages agreed to between them. Thus the wages of the substitute were often many times the pay received by the volunteers. Naturally, a deep resentment grew between these two classes of troops. The South also permitted sweeping occupational exemptions, which

led to even greater abuses than in the North. Minor officials, newspapermen, lawyers, schoolteachers, druggists, and many others were given special consideration. Fraud and corruption flourished. Schools were established without pupils, newspapers without readers, and drugstores sprang up everywhere. (43)

As bad as the draft mistakes were on both sides, there were definite conclusions and priceless lessons to be learned from the draft experience of the Civil War. In 1866, Brigadier General James Oakes, the Assistant Provost Marshall General for Illinois, who was charged with administering the draft in that state, wrote an exhaustive report on the 'lessons learned' about the draft. That report was pigeonholed for more than fifty years, when it was brought to light by the Judge Advocate General of the Army, Enoch H. Crowder. (44)

World War I. Many of the ideas and principles in the Oakes report were incorporated into the Selective Service Act of 1917 and later the Selective Training and Service Act of 1940 and the Selective Service Act of 1948.

Some of the most important principles of the Oakes report that were incorporated into legislation were:

1. Selective service from the beginning of the conflict.
2. No bounties for volunteering.
3. No hired substitutes or purchased exemptions; individual deferments for cause only.
4. Required cooperation of local governments.

5. Law enforcement left to the Justice Department.
6. Registration by voluntary act at designated places and conducted by civilians.
7. Draft boards of civilian neighbors.
8. Corruption made very difficult.
9. Service for the duration. (45)

The legislation was passed on May 18, 1917, slightly more than 4 weeks after declaration of war with the Central Powers. The first registration was held on 5 Jun 1917. It was conducted with civil election machinery. Ten million men were registered on that day. A year later 900,000 more men who had become of age were registered, and on 12 Sep 1918, an additional 13 million men were registered. That gave a total registration of more than 24 million men for World War I. A total of 2,810,296 men from all walks of life were placed in military service. When hostilities ended, the supply of class I fighting men, (the most medically fit category), had been more than sufficient to meet every military necessity. (46)

World War II. When the Selective Training and Service Act of 16 Sep 1940 was passed, it put into action a plan and organization that had been developing since 1926. Technically, it was the first peace time draft legislation, but in reality, the President had declared a limited national emergency in September of 1939. On 16 Oct 1940, approximately 16.5 million men, between 21 and 35 were registered. Approximately 950,000 men were inducted prior to the declaration of war by the US. On 13 Dec 1941,

Congress amended the act to allow men to be sent outside the western hemisphere and US territories. It also amended the period of service to the duration of the war, plus six months. Of the nearly 15 million men who served in the US Armed Forces during World War II, approximately 66% were registrants inducted through Selective Service. Among the remaining 5 million, a large proportion were influenced to enlist, seek a commission, or join a reserve unit because of their liability to be drafted.(47)

Post World War II. In a special message to Congress on 17 Mar 1948, President Truman requested reenactment of Selective Service legislation and universal military training legislation. After prolonged hearings, the Selective Service Act of 1948 was passed (without universal military training which was debated). The House Armed Services Committee stated that to provide the nation with adequate security, the active duty strength must be increased to slightly over 2 million men. The Armed Forces stood then at 1.3 million, the largest volunteer force ever raised. The House Armed Services Committee felt that the upper limits of recruits by voluntary means had already been reached by the Army, and without compulsory selective service the Navy and Air Force were near their limits too. The purpose of the 1948 Act, then, was to help meet the immediate requirements of the Armed Forces and to build up the reserve components as can be seen in the following excerpt from the law.(48)

The Congress further declares that in a free society the obligations and privileges of serving in the armed forces and the reserve components thereof should be shared generally, in accordance with a system of selection which is fair and just, and which is consistent with the maintenance of an effective national economy.(49)

The Congress further declares, in accordance with our traditional military policy as expressed in the National Defense Act of 1916, as amended, that it is essential that the strength and organization of the National Guard, both ground and air, as an integral part of the first line of defenses of this nation, be at all times maintained and assured.(50)

The provisions of the 1948 law were basically the same as the World War II Act. The period of active service was fixed at 21 months with a maximum 5 year reserve obligation. Exemptions were provided for most veterans. There were also exemptions for ministers, ministerial students, conscientious objectors, and sole surviving sons or daughters. Deferments were available for members of Reserve units, ROTC members, high school and college students making satisfactory progress, persons employed in an industry or activity deemed vital to the national interest, and for married men or those who had other dependents.(51)

The first registration under the 1948 law yielded 8,584,476 men. Subsequently, men were required to register at age 18 or within 5 days thereafter.(52)

The immediate effect of the 1948 Act was increased enlistments in the active service and in the Reserve Components.(53) Then in early 1949, Congress ordered reductions

in the personnel strength of the Armed Forces. There was considerable speculation that the 1948 Act would be allowed to expire 23 Jun 1950. Many DOD and other administration officials made their convictions evident to Congress. The Secretary of the Army, Gordon Gray, stated that the act had:

...acted as a spur to thousands of otherwise undecided youngsters and that the enlistments following its passage raised our recruiting quotas dramatically. We earnestly recommend that...a selective service law be retained in effect indefinitely.(54)

The President and Secretary of Defense were strongly in favor of retaining Selective Service during peacetime as a deterrent and to show the nation's resolve to protect the peace. The act was extended for 15 days until 9 Jul 1950 while the debate raged in Congress. President Truman signed the extension on 23 Jun.(55)

Korea. During the night of 24 Jun 1950, North Korean invaded South Korea. The Act was extended for 1 year and a 'draft call' for 50,000 men was exceeded for the month of September. The ceiling on the numerical strength of the Armed Forces was suspended for four years. Men were drafted for the Coast Guard. Congress also passed Public Law 779, the 'doctor draft' which eventually provided more than 17,000 medical professionals for the services.(56)

During the 3-year period of the Korean conflict, more than 1.5 million men were inducted into the Armed Services through Selective Service. The Armed Forces peak

strength, in Aug 53, was approximately 3.7 million. At that time, there were as many as 2.4 million selective service registrants in service who had either been inducted or entered service through the recruiting programs--68.4% of the total strength.(57)

Vietnam. By February 1967, when the Marshall Commission rendered its report on the Selective Service System, the larger consideration of the society was, 'Who serves when not all serve?'(58) It was evident that the nation had more than enough young men to meet its military needs due to the post-World-War-II baby boom. (It did mention however, what it called a serious defect in our national life--that 1/4 to 1/3 of all men coming to draft age each year are ineligible for service due to educational or health deficiencies, or both.)(59) And the report cited another sweeping change that had come to the society and the military. Changes in technology and strategic concepts had reduced the manpower requirements for national defense. The Marshall Commission concluded that of the 2 million young men coming of draft age each year, the Armed Forces needed only 1/2 to 1/3 of them. Also, only a portion would be selected for nonvoluntary induction (10-40%).(60) Among its other conclusions the Commission found:

1. Women should have more opportunities to serve in the military to reduce the number of men involuntarily inducted.

2. The Department of Defense should devise a plan to use volunteers who do not meet the minimum standards for induction, but who "can be brought up to a standard of usefulness as a soldier."

3. If the Reserves and National Guard units are not able to maintain their force levels with volunteers alone, they should be filled by inductions using the same impartial random selection system which determines the order of call for active duty service.

4. A national computer file of draft-eligible health professionals should be established to assist selective service area offices to place their calls for doctors and dentists and allied professions so as to cause minimum disruption in the medical needs of the community. (61)

The Commission rejected elimination of the draft and reliance of an all-volunteer force, primarily due to its inflexibility in time of crisis. It also rejected a system of universal training, which it considered laudable, but couldn't justify on the basis of military need and compulsion to accomplish the training. It also rejected compulsory national service, and voluntary national service (as an alternative to military service) because of lack of a constitutional basis for compulsory service and a way to equate voluntary service programs with military service. (62)

Post-Vietnam. By 6 Feb 1970 when the Gates Commission rendered its report on the feasibility of an all-volunteer force, the situation was essentially unchanged. The Commission concluded:

If the draft is eliminated, dramatic action will be required to insure the continuation of health care now provided by the military medical system. (63)

...Perhaps 75% of the enlisted personnel in the reserves are there only because of the draft.(64)

Attitudes have changed about the draft. In 1956, over 75 percent of the public supported the draft. Of those reaching age 26 in 1958, about 70 percent had military service. Due to the post-World-War-II baby boom, by 1974 only 34 percent of men reaching age 26 would have been required to serve.(65) In 1984, an opinion poll showed that only 24 percent of the public supported a peacetime draft.(66)

Medical drafts. The 81st Congress approved on 9 Sep 1950, Public Law 779, creating a special program called by many the "doctor draft", to supply the Armed Forces with the physicians, dentists and allied health specialists needed for the Korean War. The objective of the legislation was to coerce men (classified as available) to apply for commissions. During the 7 years of this draft more than 17,000 doctors, dentists, and veterinarians entered the Armed Forces--only 83 were inducted as privates. The original "doctor draft" expired 1 July 1957 and was replaced with Public Law 85-62 which provided continued authority for the induction of health professionals. The "new" amendments were designed to induce qualified men to seek commissions in the Reserve and perform their service as commissioned officers.(67) This authority was lost in 1973 with the demise of the draft. Registration ended in 1975.

Physician Retention Solutions of the Past.

As noted in Chapter One, physician strength problems have existed for many years. Consequently, physicians and the factors that affect their retention in the military have been extensively studied. A review of the results of these studies is therefore appropriate.

In 1975, NATO published a study which, in part, compiled 3 surveys conducted between 1969 and 1971. It identified twenty-five retention factors. Fourteen factors and an explanation of each will be discussed here and the remainder in Chapter Five.

These issues are representative of the concerns that military physicians have had for at least twenty years. Many of them have never been implemented in the United States Army. But, as the section on historical NATO problems (page 77) will show, the NATO nations have used combinations of these solutions with varying degrees of success.

These issues will be discussed by categories. The first category will be management or process-related. The second category will be those issues which require significant additional (financial) resources.

Solutions Not Requiring Additional Funds.

Establishment of family practice setting. Establish a form of enrollment and family practice at most medical facilities providing general outpatient care. Each new

family, active duty or retired, would be required to enroll and would then be assigned to a specific doctor who would be their family doctor for the duration of their stay in that area. (68)

Physician advocate at the Office of the Surgeon General. The individual holding this position would listen to the suggestions and complaints from all physicians who wish to contact him and would keep their identify absolutely confidential. He would report directly to the Surgeon General and have authority to jump the chain of command anywhere to solve a problem. (69)

Permanent assignment of selected physicians in certain specialties to certain locations. This would give physicians the option of a permanent location in their specialty so that they would not be required to move again (unless they wanted to, except in a case of national emergency). (70)

Option of a minimum five-year tour for most physicians. A list would be available showing five-year assignments currently open by specialty. Physicians electing to go to one of those assignments would not be required to move during that time period (unless they wish to), except in a case of national emergency. (71)

Improved office/examination facilities and clerical resources. Provide improved facilities consisting of at least a private office and two private examination rooms if

providing outpatient care. Physicians also desire a clerk who can type.(72)

Allow physicians to admit patients to, and follow-up at the nearest hospital. This could be a military hospital, or if possible, a nearby civilian hospital. Included in this, physicians would be given admitting and follow-up privileges in the nearby hospital if they are providing outpatient care.(73)

Provide 'fenced' or 'untouchable' funds for continuing health education. Each physician who is at least board-eligible (or at least equivalently qualified in non-board specialties) would have a set amount of funds that he would use each year for his continuing health education.(74)

Increase the initial appointment age of Reserve Component medical personnel to age 48 and the retirement age to 67.(75)

Solutions Requiring Additional Funds.

Career dissatisfiers. Career dissatisfiers for physicians have been examined for many years in many different studies. They have been examined by the NATO nations collectively and individually. In the past, the most frequent dissatisfier and inequity between civilian medical practice and military medical practice was related to income. In the very recent past, due to the gravity of the medical professional shortfall and its consequences on the

Armed Forces, attitudes towards increasing the monetary compensation of health care professionals has changed. The discussion now seriously includes raising military physicians to a level of full parity with their civilian counterparts. (76) Most studies also indicate that monetary solutions by themselves will not reverse present trends.

After seven years of active service, a physician would be allowed to take a one-year sabbatical. A physician on sabbatical would receive full pay and allowances, but no other support from the Department of Defense. A physician who takes such a sabbatical would be required to spend at least one year on active duty after returning from the sabbatical. (77)

Pay physicians for assignment to 'unpopular' geographic locations. Identify unpopular geographical locations both inside and outside the United States and offer additional pay to those assigned at these locations. Determination of whether an assignment was unpopular would be made by comparing the number of physicians requesting the assignment with the number of physicians required at that facility. (78)

Provide monetary compensation for evening, emergency room, or 'Medical Officer of the Day' duty. The amount of compensation would be based on time spent and the experience factor which would offset the loss of personal time for the inconvenience. (79)

Change promotion policy to allow faster promotions, more flag officer billets for outstanding physicians involved in clinical practice, preventive medicine, research and education--at least equal in quantity to command and administrative positions. (80)

Fully "vested" retirement system. Design a retirement system comparable to local government or industry in which an individual becomes fully vested at some point in time (five to ten year point) and if separated from the service prior to the normal retirement point, the individual would be entitled to all accumulated retirement benefits to that point. (81)

Historical NATO Problems and Solutions.

It is worth looking at NATO manpower problems, because the NATO forces have had similar difficulties obtaining medical personnel as the United States Armed Forces. Because their difficulties are similar, it is useful to examine how they have tried to solve the problem.

The NATO nations discussed below represent the opposing viewpoints within NATO on how to handle the physician. The Belgian, French, and German approach is similar to what has been the status quo in the United States military for many years. Characteristic of the approach is lower-than-civilian pay levels, much more centralized control over the physician's destiny, fewer personal options, and

'second-class' stature within the military organization. With the exception of career personnel, job satisfaction is not generally high. The British are different.

The British approach is similar to what is presently being discussed in the US to retain physicians in this country's active military. The British have led the way for NATO in providing military medical personnel with compensation and freedom of choice comparable with their civilian counterparts. They have also elevated the stature of the physician within the military organization. It should be no surprise that this approach leads to much higher job satisfaction, retention rates, and less difficulty obtaining medical personnel for the military. (82)

Belgium: Belgium has annual recruitment for physician candidates in their civilian institutions. Applicants test for one month continuously and those most qualified are selected for training. The government provides all resources to train these physician candidates to obtain the degree of Doctor of Medicine. After completing this level of training, there is competition among military doctors who have recently completed medical school (within the last five years) for state-sponsored specialized training.

Belgium has compulsory military service. Medical students are deferred until the completion of their training, sometimes until age thirty. They then serve fifteen months as a medical 2LT in the Reserves.

Even with a program such as this, medical authorities state that there is a lack of interest on the part of students in military medicine. They cite the following reasons: first is an increasingly-available amount of financial support for regular university medical students; second is fear of the irritants of a military career (discipline, transfers, etc.); and third is the high level of earnings as a civilian physician. (83)

France: In France, each young person must undergo a mandatory twelve-month training program. The active or regular army medical officer can come from any one of three sources: first is defense-sponsored medical students (similar to fellowships given by the French government); second is competitive examinations administered to physicians below the age of thirty who wish to enter the military; and third is by application of reserve medical officers below the age of thirty-five. Medical students can compete for regular hospital internships (internships in civilian institutions). For the first three years, room, board and tuition are paid, plus a stipend of over \$100 per month. The fourth year, the stipend increases to over \$300 a month. Each medical student contracts to serve ten years from the time he begins medical school (about a four to six year commitment after school).

The Defense Ministry of France decides how many physicians can leave the service each year. By regulation, no

more than fifteen per cent of the number of new physicians commissioned into the Army can leave the Army each year. They may take an option for a short career, end at the ten-year point, and get a partial pension to begin at age fifty. If they elect a full career, they may retire at twenty-five years of service for 80 per cent of their base pay. (84)

Germany: In Germany, there are three categories of physicians. The first category is fifteen-month draftees. The second category is part-time volunteers who serve from two through fifteen years. The third category is a military professional who can serve up to age sixty, regardless of rank.

A 1975 study described the difficulties in obtaining German medical professionals. It stated that re-education of the German population by the Allied military governments after World War II, and social prosperity that has as its 'idol' making money, have created great difficulties recruiting for the military. A military career is not considered very desirable or advantageous. In addition, the same study stated that if national service laws should be annulled, that it would be very difficult to provide health care for the German military with military doctors any more.

The Medical Corps pay scheme in the German Army is to pay doctors what a line-officer would make, but one grade higher (e.g., a captain would be paid as a major). (85)

England: Because of high job satisfaction and good retention of doctors, it is probably more helpful to the US to examine England's success in doctor recruitment. In the Royal Air Force, there are three ways to become a military physician. The first is a medical cadetship. Male medical students who have passed preclinical examinations may be appointed to a medical cadetship. If they are successful, they may receive a short service commission to complete five years active service after full registration. The second is pre-registration commissions. Any medical student who is provisionally registered (has graduated, but who has not completed two mandatory "house" appointments) may apply for a pre-registration commission. If he is successful he can be appointed with a short service commission of three or five years. The third method is direct entrance. Any fully-registered doctor under age thirty-three may apply for a short service commission of three or five years. Age limits may be waived for doctors with higher qualifications or experience if needed by the RAF.

The three or five years of service begins at commissioning, but seniority is awarded according to previous civilian experience. All sources of physicians in the British military are afforded the opportunity of six-months "external study" during this period. This time does not count toward service obligations or promotion. After two years active list service, any medical officer may apply for

a permanent commission to the 38/16 year point or to age 58, although the latter is more common.

British medical officers are divided equally, half as primary care physicians, and half as hospital specialists. Primary care physicians are recognized by the appropriate civilian authority for training in general practice with the aim that when a medical officer leaves the service after a short-service commission, he is at no disadvantage to his civilian contemporaries.

A close liaison is maintained between the Royal College of General Practitioners and the Department of Health and Social Security to ensure that the military standards are as high as civilian standards. Hospital specialists follow a training program laid down by the appropriate civilian professional body. The trainee maintains personal training records and his progress is guided and closely supervised by his consultant advisor. All RAF service hospitals have recognized posts in the different specialist disciplines. If a particular discipline cannot be trained in the service, the trainee embarks on external study.

All RAF medical officers are paid based on an analog with the average net earnings of the general practitioner in national health service, plus a five per cent factor. Specialists receive additional pay as they progress in their skills. The non-specialist medical officer receives additional pay for each post-graduate diploma qualification.

Seventy-five per cent of RAF doctors are in the job they requested. Sixty-eight per cent have expressed high job satisfaction, and twenty-three per cent have expressed intermediate satisfaction. Each year medical officers may express their preference for the type of job they wish to do and where they wish to do it. The general medical officer's duties involve primary care of service members and their families. In addition, he is also the advisor to his commanding officer on aviation, community, and environmental medicine, and he will invariably contribute at least to routine conferences of key personnel. The specialist in hospitals are considered to work at the right pace for the patient, teacher, and trainee. If the pace becomes slack, they may care for civilian 'non-entitled' patients on a fill-up basis in the same hospital. Tour lengths are set only for overseas postings, normally three years. In the United Kingdom there is complete flexibility in tour length, which probably averages two through three years. (86)

Soviets.

Soviets. In recent publications of the Soviet press (March 88), the Soviets appear to be having their own medical problems. Raising the quality of preventive medicine and field medical facilities is a top priority for the Soviet Ministry of Defense. Meeting medical manpower needs is apparently not considered the problem by the Soviets as

in the NATO countries. In the Soviet system, the military gets what it needs first before the rest of society, so that if you wish to obtain the highest quality of care in Russia, you must know someone in the military and have them arrange for you to get care in their facility. (87, 88)

ENDNOTES

1 Crossland, Richard A., Twice the Citizen: History of the Army Reserve: 11.

2 Ibid: 12-14, 17-19.

3 Ibid: 19.

4 US News and World Report, "The Push for National Service", 13 Feb 89: 21-23.

5 Ibid.

6 Kansas City Times, "Military Failing to Get Recruits", Kansas City, MO, 14 Feb 89: A-1, A-4.

7 Army Times, "Revival of Draft Talk Makes Defense Officials Nervous", Washington, D.C., 16 May 88: 12.

8 General Accounting Office Report, "Military Draft", March 1988: 13.

9 Interview with MAJ Nepil.

10 US News and World Report, "Push for National Service...", 13 Feb 89: 21-23.

11 Tribble, Doctor Draft Justified?--a management diagnosis: 131.

12 Rand Corporation. "Medical Student Financing and the Armed Forces Scholarship Program": 24.

13 Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), "America's Volunteers: A Report on the All-Volunteer Forces", 1978: 87, 89, 97, 5-6.

14 DOD Health Manpower Statistics: 1-5, 238-244.

15 Tribble: 129.

16 Ibid: 130-131.

17 Ibid: 134-135.

18 America's Volunteers: 89.

19 Department of Defense, Industrial College of the Armed Forces, 'Proceedings--Seventh Annual Mobilization Conference, 'Recruiting Physicians and Nurses for the Reserve Components': 478.

20 DOD Health Manpower Statistics: 46.

21 Tribble: 168.

22 DOD Health Statistics: 46.

23 Recruiting Health Professionals for the RC: 477.

24 Army Times, 13 Feb 89: 8.

25 National Advisory Committee on Selective Service: 8, 54.

26 US Presidential Commission: 117-120.

27 Ibid: 88.

28 Ibid.

29 America's Volunteers: 143-144.

30 Ibid: 144.

31 Kansas City Times, 'Military Failing to Get Recruits', 14 Feb 89: A-1, A-4.

32 Congress of the United States, 100th Congress in Session, House of Representatives, 'National Defense Authorization Act for Fiscal Year 1988 and 1989': 213.

33 Outline of Historical Background of Selective Service and Chronology:

34 'Can the Selective Service Conduct a Selective Draft': 533-540.

35 GAO Report, 'Military Draft': 13.

36 'Can the Selective Service...': 538-539.

37 Thompson Chain Reference Bible: 132.

38 'Outline of Historical Background of Selective Service and Chronology': 1.

39 Ibid.

- 40 Ibid: 2-3.
- 41 Ibid: 4.
- 42 Ibid: 5.
- 43 Ibid: 5-6.
- 44 Ibid: 6.
- 45 Ibid: 6-7.
- 46 Ibid: 8.
- 47 Ibid: 9-12.
- 48 Ibid: 15.
- 49 Ibid.
- 50 Ibid.
- 51 Ibid: 16
- 52 Ibid: 17.
- 53 Ibid.
- 54 Ibid: 18.
- 55 Ibid: 19.
- 56 Ibid: 20.
- 57 Ibid: 22-23.
- 58 National Advisory Commission on Selective Service:
- 3.
- 59 Ibid.
- 60 Ibid.
- 61 Ibid: 4-8.
- 62 Ibid: 8-9.
- 63 US Presidential Commission. The Report of the President's Commission on an All-Volunteer Force: 88.

64 Ibid: 95.

65 'Military Draft': 8.

66 Ibid: 18.

67 'Outline of Historical Background of Selective Service...': 32-34.

68 Medical Officer Career Management and Retention in NATO Armed Forces: Annex I, 86-87.

69 Ibid.

70 Ibid.

71 Ibid.

72 Ibid.

73 Ibid.

74 Ibid.

75 Ibid.

76 Ibid.

77 Ibid.

78 Ibid.

79 Ibid.

80 Ibid.

81 Ibid.

82 'Medical Officer Career Management and Retention in NATO Armed Forces: A Working Group Report': Annex C.

83 Ibid: Annex D.

84 Ibid: Annex E.

85 Ibid: Annex F.

86 Ibid: Annexes C-F, I.

87 Interview with Dr. Jacob Kipp, Soviet Area Studies Office, FT Leavenworth, Kansas, on 17 Dec 88 by MAJ Jack L. Killen.

88 Army Times, 'Soviets Tackle Acute Medical Problems', 2 May 1988: 19.

CHAPTER FOUR

ANALYTICAL TECHNIQUE

The methodology to develop this thesis has been an eclectic one. The past was examined through the use of the review of literature and an historical approach. An analytical approach will be applied to the basic health care statistics and their relevance to our present situation. A comparative approach will be used to illustrate the differences between the present and anticipated solutions, and those attempted in the past.

The DOD health manpower statistics have been analyzed to determine an overall shortfall of officers (including doctors and nurses) and enlisted personnel by job skill. This will be shown and discussed in the next chapter. The health manpower statistics include projected losses of critical manpower. The most optimistic results of retention programs currently planned will be applied to those losses. From the combination of the shortfall and projected savings in personnel due to retention solutions, a second shortfall will result. This shortfall will be analyzed against four projected 'go-to-war' scenarios.

Wartime Scenarios

The wartime scenarios that will be analyzed against the shortfall will be as follows: first, immediate war (mobilization and a declaration of war occurring

simultaneously); second, M-day immediately and war within ninety days; third, M-day immediately and war in six months; and fourth, M-day immediately and war one year later.

As a matter of historical note, the last mobilization that the United States conducted was for World War I^r and mobilization of the industrial base occurred gradually during the two to three years prior to the United States' declaration of war and draft legislation had been enacted fifteen months earlier.(1) (The first draftees arrived in theater some six to seven months after they were inducted, even though the Selective Service System had been activated and was operating prior to a declaration of war.)(2)

The impacts of the shortfall with (optimistic) retention solutions and acquisition solutions (non-compulsory) applied will be discussed. From the remaining shortfall, a series of 'innovative' solutions that are considered somewhat extreme but have been mentioned in the literature will be considered. Included in these will be development of medical professionals from within our present manpower ('growing our own'), immigration of critically-short medical professionals from other countries, increased commissioning of foreign medical graduates, and acquiring 'host nation support' in countries that have a developed medical infrastructure and agree to provide those resources to the U.S.

Even when optimistic retention solutions, improved acquisition solutions, and some other controversial solutions are considered, the Army will still have a near-term shortfall of medical manpower. This manpower shortfall will be analyzed against the wartime scenario discussed above, and its consequences shown.

From this point in the analysis, the effect of compulsory solutions on military medical manpower needs will be developed using the same wartime scenarios as discussed above. This final shortfall shown by the various 'go-to-war' scenarios and the effectiveness of compulsion (selected or general draft) is the final result of the methodology. From this final result, conclusions, alternatives, and recommendations for action will be developed, again in terms of immediate (simultaneous and 90 day lag), near-term (180 day lag), and one-year effectiveness. From these results, some observations about long-range solutions will conclude the discussion.

ENDNOTES

1 Selective Service System. 'Outline of Historical Background of Selective Service and Chronology': 9-10.

2 US General Accounting Office, Military Draft, Potential Impacts and Other Issues, Report to the Ranking Minority Member, Subcommittee on Defense, Committee on Appropriations, US Senate: 13.

CHAPTER FIVE

THE PROBLEM AND ITS POTENTIAL SOLUTIONS

The Shortfall.

Discussion of Personnel Shortfall. As discussed in Chapter Two, the medical shortfall consists of approximately 1,000 physicians in the Active Component and 3,600 physicians in the Reserve Component for a total of 4,700 physicians in all components of the Army. The shortfall is primarily in the following specialties: anesthesiology, emergency medicine, ophthalmology, orthopedic surgery, radiology, thoracic surgery, general surgery, neuro-surgery, plastic surgery, and urology. This is summarized in the following chart (Chart 6).

Medical Personnel Shortfall

Medical Corps	A/C Short	R/C Short	Total
Anesthesiology	136	677	813
Emergency Medicine	319	288	607
Ophthalmology	19	51	70
Orthopedic Surgery	287	1368	1655
Radiology	7	175	182
Thoracic Surgery	54	110	164
General Surgery	134	847	981
Neuro Surgery	44	32	76
Plastic Surgery	20	1	21
Urology	59	65	124
Vascular Surgery	7	7	14
.....			
Totals	1,086	3,621	4,706

Chart 6--Medical Personnel Shortfall (MC) (1)

The nurse shortfall consists of approximately three thousand nurses in the Active Component and fifteen thousand in the Reserve Component, for a total of about eighteen thousand short. The shortage is primarily composed of nursing administrators, nurse anesthetists, operating room nurses, and medical/surgical nurses. This is summarized in the chart that follows (Chart 7).

Medical Personnel Shortfall

Nurse Corps	A/C Short	R/C Short	Total
Nurse Administrator	34	551	585
Nurse Anesthetist	503	422	925
Operating Rm Nurse	406	1,496	1,902
Medical-Surgical Nurse	2,161	12,301	14,462

Totals	3,104	14,770	17,874

Chart 7--Medical Personnel Shortfall (ANC) (1)

The enlisted shortfall consists primarily of eighteen thousand general medical specialists (including over four thousand licensed practical nurses in the Reserve Components), over twenty-eight hundred operating-room specialists, over twenty-seven hundred laboratory specialists, over five hundred bio-medical equipment repairmen, and over thirty-one hundred medical administrative and logistical personnel. This is summarized in Chart 8 below.

Medical Personnel Shortfall

by Enlisted Military Occupational Specialty

Enlisted personnel	A/C Short	R/C Short	Total
91A,B,C-Med Care, Trtnant	110	18,633	18,523
91D-Operating Room Sp	380	2,517	2,897
91H-Orthopedic Specialist	41	597	638
91P-X-ray Technician	6	715	721
91Q-Pharmacy Technician	236	1,433	1,669
91Y-Optometry Specialist	31	434	465
92B-Laboratory Tech	489	2,290	2,779
95G-Biomedical Equip Rpr	29	550	579
71G/76J-Med Admin & Log	888	2,301	3,189
94F-Diet Therapist	189	1,684	1,873

Total	2,179	31,154	33,333

Chart 8--Medical Personnel Shortfall (Enlisted) (1)

Mobilization (M-day) Scenarios

It would take some fourteen steps in order to mobilize medical manpower for a general or total war.

In the first step, the United States would either be attacked outright or significant intelligence indicators would accumulate to persuade the national command authority that an attack or war was imminent. The president has the authority to mobilize up to 200,000 soldiers of the Selected Reserve in circumstances other than war or a national emergency. (2) (This is the reason that the Selected Reserve is considered the Army's primary source of units for mobilization.) (3) It is reasonable to expect that in a general war

scenario or worse, the President would commit this 200,000-man force (the second step).

If the United States were not attacked outright, it is questionable whether the Congress could agree on the actions necessary in a full mobilization. Actions associated with mobilization include: activation of the Selective Service System, to include classification of untrained manpower and a selective draft of the general population to meet skilled manpower needs, and activation of the Civil Reserve Air Fleet (CRAF). (This would take aircraft currently flying for civilian airlines and divert them into support of a war effort. The effect upon domestic aviation would be very significant.) Federalization (activation) of all US-flagged merchant marine ships in port for strategic sealift requirements; and mobilization of the nation's industrial base. All "mothballed" defense plants and depots could conceivably be activated and civilian assembly lines converted to production of wartime materiel.(4)

It is important to note that in this period of nationally-constrained resources that a declaration of M-day would have huge costs associated with it. (The Congress would be committing itself to approximately doubling the national debt--an additional 2.5-4 trillion dollars.)(5) These actions associated with the mobilization imply the gravity with which the decision to declare "M-day" must be approached (the third step).

It remains to be seen whether or not, without an outright attack, the 'warning indicators' will be convincing enough to cause such drastic action to be taken. Presently, the intelligence community talks of 2-3 weeks of warning (maximum). (6, 7, 8)

From the manpower standpoint, after M-day is declared, the Selective Service will have the authority to activate their plan to acquire the skilled manpower needed (the fourth step), and to classify and induct draftees to support a war effort. (9)

For medical professionals, this would involve transferring a data base of names, locations, and professional skills and credentials from either a national organization, such as the American Medical Association, the American Nurse Association, or each of the state professional registry boards (the fifth step). (10)

The state registries are actually more accurate than the rosters maintained by the national organizations due to the fact that a state license is a requirement for accreditation by the Joint Committee for the Accreditation of Hospitals (JCAH). Membership in a national organization is not. Also control of the profession (license, current or continuing education and discipline) are administered through the state boards, not the national organizations. The state data bases may not be compatible with the system

used by the national organizations, including the Selective Service System. Presently, there is no requirement.

Once the authority to obtain the data bases is granted to Selective Service, individuals would have to be notified (the sixth step), given a physical (the seventh step), classified as to suitability for wartime service (the eighth step), selected for active duty (the ninth step), ordered to active duty (the tenth step), given a suitable time to put their personal affairs in order (the eleventh step), inducted (the twelfth step), given a minimal amount of training (the thirteenth step), and deployed to their area of service (the fourteenth step). (11, 12, 13, 14) There would also have to be time for evaluation of licenses, claims and appeal processing, compliance and alternative service. (15) It is questionable whether a civilian medical professional could report in much less than one month from the date he was ordered to active duty. Present members of the IRR/ING are told that they will normally be given "a reasonable time" between the date alerted and the date required to report for active duty. (16)

It is obvious from the steps involved that a significant amount of time would elapse from a declaration of M-day until even an already-trained medical professional could be fielded.

The 'New' Medical Market.

Since 1965 the active physician-to-population ratio has risen from about 1.4 to almost 2 (per thousand population) in 1981. From 1981 to 1990 the physician supply was projected to increase 26 per cent, and the physician-population ratio has been projected to be 2.35 per thousand in 1990, growing to 2.6 per thousand in the year 2000. The physician distribution varies widely from state to state. This affects Reserve recruiting, since reservists are generally recruited in a geographical area, especially Selected Reserves. (17)

The Graduate Medical Education National Advisory Committee has projected a surplus of 70,000 physicians by 1990 and the AMA has predicted a surplus of 145,000 by the year 2000. A more conservative estimate of 35,000 by 1990 was made by the Department of Health and Human Services. (18) Already most doctors think there are too many doctors, but only 12 per cent of the general public agrees. (19) The 'doctor surplus' has been anticipated for many years, and seems to be primarily an academic discussion. In an opinion presented to the Seventh Annual Mobilization Conference of the Industrial College of the Armed Forces in April 1988, MG Winkler, then Deputy Assistant Secretary of Defense (Medical Readiness), made the following statement:

As long as national security demands are not met, and adequate medical care remains outside the reach of many Americans, it is difficult to comprehend a

'surplus' in physicians. However, the perception of a surplus does have an effect on the attitudes of health care professionals with respect to military service. (20)

MG Winkler, quoting Dr. Charles N. Aswad, Assistant Clinical Professor of Family Practice at the State University of New York and Chairman of the 1986 AMA Task Force on Physician Manpower, stated: 'In most parts of the US there already is a surplus [of doctors] in some specialties and an impending surplus in most. This impending surplus will probably have unwanted effects on the quality or cost of care.' (21)

A factor that seems to be significantly related to the 'surplus' is the higher percentage of women physicians. This may be related to the shortage of nurses as well, due to an increased number of women opting for medical instead of nursing school. (22)

Another trend that may impact on military physician recruiting is indebtedness to finance medical education. Eighty-two per cent of 1986 medical school graduates went into debt to finance their educations. They borrowed an average of \$33,500, more than double the average debt of 1980 graduates. The increased expense of obtaining a medical education may very well result in a different response to financial incentives of potential military recruits. (23)

The recent changes in authority by Congress to remove the bonus cap on physician pay seem to indicate that

DOD is willing to allow military physicians to earn comparably to their civilian counterparts. Historically, this has been close to the top of the list of complaints by military physicians. It is too early to tell the effect on either acquisition or retention that increasing monetary compensation will make, but it is reasonable to conclude that its effect will be positive.

Doctor Pay and Bonuses.

Doctor Pro Pay. As has been stated, the National Defense Act of 1988 and 1989 took the cap off of the special pays for active component medical professionals. Now medical officers can be authorized four elements of special pay: variable special pay, additional special pay, additional special pay for Board certification, and incentives special pay. The fourth element - Incentives Special Pay - is designed to provide a further incentive for hard-to-obtain specialties. The incentives special pay was set at a maximum of \$8,000 in exchange for an agreement to remain on active duty for at least one year. In addition, it cannot exceed six per cent of the total amount paid in special pay for medical officers. This amount was established in 1980 and has not changed since then. (24)

In Congressional action in December 1988, a proposal was made to pay doctors eligible to get \$20,000 in incentives special pay, as much as \$50,000 a year in the new

'medical special pay' instead.(25) These special pays would be tied to agreements for longer service commitments.

This pay change proposal from the Defense Department was part of a report on military medical requirements and compensation. The pay change has two purposes as proposed: it is designed to make military pay more competitive with civilian salaries and thereby encourage doctors to stay in the military, and second, it is intended to attract more doctors to critical understaffed military medical specialties.(26) It remains to be seen whether the concept will work because perceived pay disparities have only been one of several dissatisfiers for doctors to remain in the military.

On May 8, 1989, Army Times reported that 18% of eligible physicians have taken the bonus. Excluding the primary care specialists, the participation rate is ranging from 25 to 31% of those eligible.(27)

Currently doctors may receive incentives special pay in addition to their basic military pay and the other special pays mentioned above. Incentives special pay is a bonus that varies with the amount of money in the medical budget and the need for certain specialties. The most highly paid group are those in critical wartime specialties and are paid \$16,000 per year. Critical wartime specialties are orthopedics, surgery, anesthesiology, opthamalogy, otolaryngology, urology, and OB-GYN.(28)

Existing federal law calls for incentives special pays to increase by 1990 to \$20,000 a year for doctors with six or more years of service.(29) An earlier report in November 1988 described a Pentagon plan to pay a \$30 million retention bonus to military doctors over the next four years. The maximum annual bonus would be \$20,000 per physician according to that plan.(30, 31) A third report recommending ways to improve pay and working conditions for nurses and other health care providers is soon to be released.(32) All of the bonuses discussed above apply only to active-component physicians.

Physician Retention Studies.

In a 1969 study that reviewed thirteen other studies over an eleven year period, eleven critical factors pertaining to physician retention were identified. Proceeding from the most critical to the least critical, at that time, number one was instability. Second was salary, followed by career management, housing, and assignments. Number six was professional leadership, followed by family life, prestige, and undesirable location. Number ten was quality of medical care, and last, was physician-patient relationship.(33)

In another 1969 study, commonly called the American Medical Association Studies, eight reasons were given by physicians and their wives for not choosing a permanent military career. In order of importance, they are: low pay,

inadequate housing, frequent moves, separation from family, inadequate or interrupted schooling for children, lack of recognition and prestige, dislike for military social life, and undesirable duty station locations.(34)

In a 1975 NATO study which took over two years to complete, twenty-five subject categories related to satisfiers and dissatisfiers concerning physician retention were examined. Ranked in order of frequency of response they were: (1) Compensation, (2) Self-determination, (3) Medical autonomy, (4) Military, (5) Stability, (6) Rank and Evaluation, (7) Medical Support, (8) Alternate system, (9) Credibility, (10) Grooming, (11) Education and training, (12) Patient abuse, (13) Proposed changes, (14) Decreasing monetary benefits, (15) Administrative support, (16) Other duties, (17) Medical Equipment, (18) Support services, (19) Workload, (20) Personnel and communication, (21) Facilities, (22) Productivity and incentive, (23) Respect and relationship, (24) Survey benefits, and (25) Housing.(35)

Twelve specific proposed policy changes were recommended. These changes were discussed in Chapter Three under 'Retention Solutions' (page 75). To reiterate, they are as follows, (but not in order):

1. Enrollment in family practice format.
2. Sabbatical after 7 years.
3. Physician advocate at Surgeon General's office.
4. Permanent assignment (for some jobs).
5. 5-year assignments.
6. Equivalent income.
7. Extra pay for unpopular assignments.

8. Extra pay for extra duties.
9. Education and conference funds.
10. Improved examination facilities.
11. Admit and follow-up patients to civilian hospitals.
12. More general/admiral level promotions.

In this 1975 NATO report, the trends were similar enough for the working group to report,

It is believed that this problem is of sufficient operational significance to be worthy of exploration in depth by a multi-national Working Group. (36)

A March 1989 article in U.S. Medicine, reviewing the "Physician Study" delivered to Congress in November and December of 1988 by the medical steering committee of the Assistant Secretary of Defense (Health Affairs) [ASD(HA)], stated "the factors identified...are the same ones identified in the late 1970's." This study was a compilation of seven major studies done in DOD from 1977-1988. (37)

It placed such factors as professional job dissatisfaction, poor prospects for military medicine, excessive administrative duties/bureaucracy/crisis management, inadequate clerical/administrative support, excessive clinical demands, shortage of staff, and insufficient pay consistently near the top factors affecting retention. These were followed by other considerations such as: family/personal considerations, lack of control over career, lack of appreciation/rewards/esprit, and inadequate educational opportunities. (38)

The main thing that all of the surveys and studies seem to indicate is that although financial compensation is

a consideration, there are other considerations equally as important to retaining physicians in the active military.

If the new incentive programs for physicians improve retention rates to 100 per cent, the effect on physician strength will be as portrayed in the following chart (Chart 9). In the right hand column, the increase in strength over current projections is shown if retention were "perfect", i.e. 100 percent in both the Reserve Component and the Active Component. Obviously, retention will be something less than perfect, still leaving a shortfall in excess of four thousand.

Medical Personnel Shortfall

(Active Component/Reserve Component)

Medical Corps	Short	87Loss	88Loss	100%Ret.
Anesthesiology	813	35/ --	4/ --	+39/ --
Emergency Medicine	607	20/ --	26/ --	+36/ --
Ophthalmology	70			
Orthopedic Surgery	1655	66/ 33	19/ 62	+81/+110
Radiology	183			
Thoracic Surgery	164	15/ 5	4/ 8	+8/ +4
General Surgery	981	33/100	13/213	+73/+330
Neuro Surgery	76	15/ 2	4/ 10	+12/ +21
Plastic Surgery	21	7/ 2	4/ 0	+9/ +4
Urology	124			
Vascular Surgery	14	1/ 1	4/ 2	+8/ +3
.....				
Totals	4,708			+739

-- or blank indicates information not available

Chart 9--Medical Shortfall vs Losses (MC) (39)

The New Nurse Market Realities.

There are more active registered nurses in the United States than ever before. The nurse-to-physician ratio has risen from 1.8 per physician in 1950 to 3.2 per physician in 1975. There were 1,272,851 registered nurses employed in 1980, and projections show 1,739,000 in 1990, and more than 2 million by the year 2000. However, enrollment in nursing programs has fallen some 24 per cent since 1983, and many medical facilities currently have serious shortages of nursing personnel. As in most medical occupations, even with more people than ever before employed, the demand exceeds the supply.(40)

In 1985 the average salary of staff nurses in the United States was about \$22,000. After ten or twenty years, the average nurse still earns less than \$30,000 per year. However, in response to the recent critical shortfall for nurses, civilian medical facilities have been quicker to respond with increased monetary compensation for their nurse employees than the military.(41, 42)

Currently, military nurses earn less than their civilian counterparts until they obtain the rank of captain. If military nurses perceive working conditions in the military becoming worse than in civilian institutions (such as fewer nurses, longer hours, less days off), even initial changes in financial incentives may not significantly improve accessions or retention.

Bonuses.

Officers. Nurse Corps Officers. In an interview August 25, 1988 with the Chief of the Army Nurse Corps, BG Adams-Ender said that the Office of the Surgeon General is drafting a plan to deal with nursing shortage. The Army Nurse Corps only has 62 per cent of the required number of nurses to staff Army medical facilities. In the interview, she stated that FY88 would be the first year the Army Nurse Corps fell short of its recruiting goal for nurses. Two factors (pay, rank) seem to be responsible. Because of the national shortage of nurses, the Army is now behind the civilian sector in pay for at least the first few years after a nurse joins the Army. (43)

David Newhall III, principal deputy assistant secretary of defense for health affairs, and head of the medical pay panel of the Health Profession Special Pay Steering Committee in a recent Army Times interview stated that military nurses at grades below O-4 tend to earn less than their civilian counterparts, but that his panel will not begin to examine that problem until it finishes its examination of doctor salaries. (44)

Also since 1982, the Defense Officer Personnel Act has ruled out counting civilian job experience as constructive credit toward military rank. For instance, an Intensive Care nurse with a baccalaureate degree and ten years experience in a civilian teaching hospital would enter

the Army as a Second Lieutenant. Bonuses to make military pay comparable with civilian pay and new recommendations for the award of military rank for nurses are expected to be included in the third report mentioned in the paragraph above. (45)

Nurse Retention Studies.

Nurses have not been studied nearly as extensively as physicians, and the reasons that cause them to remain in the military are not as well documented. Additionally, there are significant differences between the Army Nurse Corps and their civilian counterparts. For example, the active duty Army Nurse Corps is entirely a baccalaureate-prepared corps, for example. Civilians and our Reserve Component nurses can become RN's through three methods. Only the baccalaureate route is acceptable to the active Army. There are several recent civilian studies that identify factors that influence nurses in general to remain in the profession. However, it is questionable whether all of the findings apply to the active military setting.

Currently, bonuses and higher rank are recommended to attract more nurses to the Army. (46) An extensive study of 'ways that the services can improve pay and working conditions for nurses and other health care providers' was to be completed and submitted to Congress in February 1989. (47) It is now scheduled for completion in November 1989. (48)

The factors that seem to be most related to retention within the ANC are: group cohesion, professional job satisfaction, and organizational job satisfaction.

Additionally, it has been shown that there is a relationship between retention and recruitment among nurses. Retain those who are already in the military and the recruiting for new nurses will follow (because of word of mouth). (49, 50, 51)

In Chart 10 below, the losses of FY 87 and 88 by component are shown, with the corresponding increase in strength that would have resulted from perfect (100%) retention. The result would have been an increase of 2,745 more nurses, therefore reducing the shortage to nearly 15,000 nurses in two years.

Medical Personnel Shortfall (Active Component/Reserve Component)

Nurse Corps	Short	87Loss	88Loss	100%Ret
Nurse Administrator	586			
Nurse Anesthetist	925	489/	481/	1,047/
Operating Rm Nurse	1,902	117	207	1,698
Medical-Surgical Nurse	14,462			
.....				
Totals	17,874			+2,745

Chart 10--Medical Shortfall vs Losses (ANC) (52)

Enlisted Personnel Status.

Critical enlisted skills (chart 3, page 38, chart 5, page 45). Enlisted bonuses are determined at US Army Recruiting Command (USAREC). There are two kinds of bonuses: enlistment bonuses and enlisted pro-pay. The way enlistment bonuses are determined is by quarterly meetings at USAREC, where bonuses for different job skills are adjusted based on results from the previous quarter.

Generally, medical training is among the most highly-sought categories of training by young people, and enlistment bonuses are used to motivate young people to enlist into skills that they would probably not pick for themselves. For the upper mental categories of recruit, few enlistment bonuses are available for the most technical military medical skills. The combat medic, a skill which fewer people want, presently has reached its recruiting goal with a higher percentage of upper-mental category recruits than anticipated. The orthopedics specialist job skill, which presently has no incentive and a five-year term of enlistment, will only pay a bonus to an individual willing to commit himself to a six year obligation. X-ray specialist training, also highly sought after, will pay a \$1500 bonus to an individual willing to commit for five years instead of the normal term of enlistment. In summary, medical skills are so desirable that few bonuses are necessary or offered as inducements for enlistment. (53)

The Reserve Component.

Physicians. In an attempt to reverse the downward trend of critical physician and nurse strength in the Reserve Component, the National Augmentation Detachment (discussed on page 113) has been created. This program is considered to be working well; however, it has only been in effect for approximately one year and the long-term effectiveness to alleviate the physician shortfall remains to be seen. (54)

Many recruiting approaches have been developed, but the basic fact remains that for most physicians, demands of their work and the competition for their free time is so keen that Reserve duty is not very appealing. Even a resident 'moonlighting' on a weekend can earn more than he would be paid for his military weekend 'drill.' (55) In summary, a successful recruiting approach has not been developed.

Nurses. The Reserve Component complement of nurses has the highest relative shortfall of any Corps in any component. The critical shortage of nurses on active duty which has received much attention in the last few years has been mirrored by an even greater shortage (both in gross numbers and percentages) in the Reserve Components.

The ironic part about the nurse shortage in the RC is that even though the requirements show the magnitude of the shortfall, the Troop Program Units (Reserve Component General and 'field' hospitals) in some job skills approach

being full. Using the example of the 'Medical-surgical' nurse, the Selected Reserve is authorized (by positions in units) to have 6,292 nurses and recently had on_hand 6,169, yet the requirement calls for a total of 21,080.

This points out that the RC has problems building a force structure to accommodate enough people to do the job. This problem is similar in the enlisted skills and can be noted in Charts 4 and 5 in Chapter Two (pages 45, 47). Unit positions are the basis for training and taking care of the soldier, as well as providing the setting for unit cohesion and the building of teamwork which the demands of wartime medicine will require.

The National Augmentation Detachment (NAD). The National Augmentation Detachment program is a new Reserve Component program that has special staffing to use all of the flexibility that regulations presently allow to medical professionals to meet their training obligations. Many professionals have difficulty scheduling their activities with normal Selected Reserve units. In the past, although Army regulations allowed a medical professional to maintain satisfactory participation by attending only fifty per cent of the scheduled unit assemblies, many could not even do that. Scheduling and keeping up with the individualized records of each training session were difficult.(56) In addition, the apparent 'sporadic' participation by medical professionals appeared to set a bad example and created a degree of morale

problems in units. By grouping individuals who cannot participate in normal unit activities together, at least the morale problems of the past can be avoided while preserving a valuable mobilization asset for the Army.

Enlisted. The present shortfall of enlisted medical personnel to meet wartime requirements is a manifold problem. Our Active Component training base is geared (for budgetary reasons) to producing the required medical personnel for primarily Active Component needs. The basis for training a Reserve Component service member is a position in a Selected Reserve unit. Yet in many enlisted job skills as noted above for the Reserve nurses, there are not enough places in units to put the required people to do the wartime job. (57)

If a recruiter is not recruiting for a vacant position in a unit, there is no training requirement so far as the training base is concerned. Therefore, to meet wartime requirements, training positions (units) need to be created and then individuals recruited to fill those positions. Creating a unit space also implies a need for equipment, takes spaces from other units in the total force structure, and impacts all the way through the personnel system. (58)

Present physical facilities and active duty instructor staffs as well as all the ancillary support are geared to 'maximum class sizes.' This limitation on class sizes due to instructors and physical facilities is partly

responsible for our inability to fill RC enlisted medical skills.(59)

The STAR Program. An innovative approach to correct this enlisted training problem in five military occupational specialties is the "STAR" program. In this program a recruit attends Basic Training and then returns to his hometown to attend a local junior college or some other source of medical training that will result in licensing in a skill that is recognized by the military.(60)

An interesting aspect of the STAR program that is different from programs in the past is that the military will pay up to \$6,000 per year toward acquiring the training needed by the services. In the past, the military contracted with a civilian institution to provide the required training. In the STAR program, if a student is accepted at an institution providing training which is comparable or higher than the necessary training for the military job skill, the program will still pay up to \$6,000 per year toward that student's training.

The effect of these provisions is that a student may use the STAR funds as a "partial scholarship" and use funds of their own to acquire a degree or license that is at least comparable to military training requirements. Thus, the STAR program puts unusual flexibility into a program of spending federal monies. It can be perceived almost as a \$6,000 "scholarship" by the Army.(61)

This is a new program and its effectiveness will not be known for some time. However, the Civilian Acquired Skills Program in the past and civilian contract-training also common in the past, are remarkably similar to the STAR program. Neither corrected the training and personnel problem existing at that time.

The Effect of Perfect Retention.

Discussion. The charts in Chapter Four present required levels of medical strength by specific skill and our current shortfall. In assessing effectiveness of the "new initiatives," one must consider the retention solutions separately from new acquisition solutions.

In the following chart, Medical Corps and Army Nurse Corps projected losses by speciality are shown. Assuming the retention initiatives for both active duty and reserve component medical professionals to be one-hundred per cent effective, it would take the following number of years to achieve the required levels of manpower:

anesthesiologists- 41 years
general surgeons- 4.8 years
thoracic surgeons- 25 years
plastic surgeons- 3.2 years
orthopedic surgeons- 17 years
vascular surgeons- 2.5 years
neuro-surgeons - 4.6 years

emergency physicians - 33 years

operating room nurses, med-surg nurses, and nurse-anesthetists collectively - in excess of thirteen years.

Effect of Perfect Retention (Years to attain required strength)

Medical Corps	Short	Years to 100%
Anesthesiology	813	41
Emergency Medicine	807	33
Ophthalmology	70	
Orthopedic Surgery	1655	17
Radiology	183	
Thoracic Surgery	164	25
General Surgery	981	4.8
Neuro Surgery	76	4.6
Plastic Surgery	21	3.2
Urology	124	
Vascular Surgery	14	2.6
Nurse Corps		
4 Critical Skills-		
Admin	585	
OR Nurse	925	Average (all 4)
Nurse Anesthetist	1,902	
Med-Surg Nurse	14,462	-13 years

Chart 11--Effect of Perfect Retention (MC and ANC) (62)

It can be seen from the above chart and discussion on page 118 that retention initiatives alone cannot solve the medical personnel problem in any reasonable time period.

The assumption that reserve personnel will be retained at the 100 per cent rate arbitrarily assigned to the active component is fallacious. The Active Component will not achieve 100% retention. The purpose of this analysis is to show that only with high relative turnover to required strength can retention significantly affect the manpower equation in the short term.

There are no initiatives presently undertaken to increase the retention of Reserve Component medical professionals that require increased levels of funding. The National Augmentation Detachment which is considered to be performing well at this early date in its implementation only contains about 400 medical professionals. Eight physician specialties that are critically short to Army needs are included. The NAD presently has some 200 physicians assigned in those specialties. This is just a drop in the bucket. Three nurse specialties that are critically short to the Army have a total of 190 nurses assigned.(63)

'Perfect' Retention vs Wartime Scenarios

It can be seen from Chart 12 that even with excellent retention, an extreme shortfall in the critical wartime skills still exists (over 20,000 doctors and nurses). In the first wartime scenario, that of M-day and D-day occurring simultaneously, obviously we would go to war with the personnel on hand. This would consist primarily of the

Active Component, followed by Selected Reserve units as they would be deployed by the TPFDL. Individual replacements for medical personnel and unit fillers would have to come from the IRR/ING. The bottom line for this scenario is that the same significant shortfalls that exist today would exist on D-day.

Shortfall After 50% Retention

Medical Corps	Short	50% Retention	Short
Anesthesiology	813	+19	794
Emergency Medicine	607	+18	589
Ophthalmology	70		70
Orthopedic Surgery	1655	+96	1559
Radiology	183		183
Thoracic Surgery	164	+6	158
General Surgery	981	+201	780
Neuro Surgery	76	+16	60
Plastic Surgery	21	+6	15
Urology	124		124
Vascular Surgery	14	+6	9
	-----		-----
Nurse Corps	4,706		4,341
4 Critical Skills-			
Admin	686		
OR Nurse	926		
Nurse Anesthetist	1,902	+1372	16,502
Med-Surg Nurse	14,482		

Chart 12--Effect of 50% Retention on Shortfall(64)

In the second wartime scenario, that of M-day today and D-day three months from now, a fairly predictable set of circumstances would occur. With the current legislation enacted by Congress, no medical professionals could be added to the force in time. The medical shortfalls in personnel that exist today would still exist on D-day. Ninety days from the declaration of a national emergency, volunteers who were already qualified and retirees not already committed to recall (about 50% of current retirees are) as well as the

already-planned forces, could be deployed.(65) This would still be an essentially 'come as you are' war.

In the third scenario, that of M-day today and D-day six months from now, the system could begin to work. The critical shortages that exist on M-day would probably still be the critical shortages of D-day; however, six months would be enough time for a draft mechanism to get willing medical professionals into the field under the most optimistic of circumstances (if the mechanism were operating on M-day). (This has already been noted elsewhere in the thesis. During World War II the first inductees began to arrive in theater about seven months after induction.) It is conceivable that medical professionals who are already trained and are willing, or who would volunteer, could be given training and be deployed in this time period. Even six months after M-day does not allow sufficient time to induct and medically train a health care provider. Six months would be enough time to give basic military skills (survival, familiarization to the equipment, etc.) to a trained health care provider.

In the fourth scenario, that of M-day today and D-day a year from now, the system would begin to respond properly. One year, given the proper circumstances, would probably be long enough for the Selective Service to identify individuals necessary to the war effort and go through the process of notifying, inducting, and training those

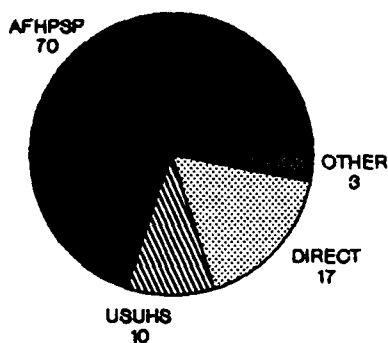
persons to properly function in a military environment. Some of the shorter courses of medical training (using the modified, wartime program of instruction) could be given to either inductees or volunteers. In summary, with the retention 'fixes' that have been discussed, applied to the personnel shortfall under the wartime scenarios, every alternative is essentially a 'come-as-you-are' war.

Acquisition Solutions To The Problem.

Extend Retirement Age. In the National Defense Authorization Act for FY 88 and 89, the Senate recommended a provision to extend the initial appointment age for medical personnel in the Reserve Components to 48 years, and extend their retirement age to 67.(66) The Senate Armed Services Committee believes that there are many medical professionals above the current appointment age who would volunteer their service to the Reserve Component. This would significantly increase the medical professional strength of the RC.

Direct Commissions. The distribution of the Active Component's sources of physicians is shown on page 122. The bulk of physician accessions comes through the scholarship program. Of the significant sources of physicians, it is important to note that the only means that can be rapidly expanded is the direct commission.

Source of A/C Physician Accessions FY 1987



DOH Health Manpower Statistics, FY 1987

Figure 19--Sources of Physicians(67)

Foreign-trained medical graduates. With the conditions described above, it is not surprising to find the Armed Services looking more closely and more willing to direct commission foreign-trained medical graduates. Presently, foreign medical graduates account for nearly one-eighth of all newly licensed U.S. physicians.(68) This is projected to show little change by the year 2000. During a period in which the military is critically short skilled medical personnel, more foreign medical graduates have been accepted as a way to offset a portion of the shortfall. Presently, seventeen percent of physician accessions are direct appointments, primarily foreign medical graduates.(69)

There is no apparent limit to the number of direct commissioned medical professionals that can be accepted in either the Active or Reserve Components. For "continuity" and "the good of the force", we would probably choose to have U.S. career officers continue to fill leadership roles, but if a graduate of a foreign medical school were either a US citizen or had adequate medical skills and basic communication skills, in wartime he would be acceptable. Commissioning foreign nationals in the US military (possibly with the intention to gain US citizenship) would also make trained manpower immediately available as well as bring highly-talented and qualified individuals into the country.

Immigration. This alternative is presently being utilized to alleviate or lessen the "nurse shortage" by allowing, as an example, Irish nurses to immigrate to the U.S. (70, 71)

Change DOPMA. An immediate change to the Defense Officer Personnel Management Act (DOPMA) to allow an experienced nurse to enter or reenter the military, and be given rank commensurate with their experience, would also yield immediate results to the Nurse Corps. If the debate necessary for this change were delayed until "M-day", this alternative probably would not yield results quickly enough to be considered within the framework of this thesis. (72)

Contract medical personnel. Another alternative to release more military manpower to the theater of war would

be to contract for civilian medical professionals to do all stateside medical care. This solution would release trained military medical manpower for deployment overseas. The problem with a mechanism such as this, is that in the interim before M-day, these "contract" health care providers will be committed to other organizations, and thus would not be "liquid assets." This trend toward "civilianizing" is observable in many military medical facilities today. This is also the American way: i.e., if we cannot get the resources through our normal means, we contract with an individual to provide the services that we need.(73) In some cases today, by this mechanism, contract physicians work beside military physicians and are paid nearly twice the rate for the same service as the military professional. (This does not contribute to having a military work force that is satisfied with the monetary compensation they receive for their duties.)

Host Nation Support. This concept would have the "host nation" in a mature theater provide for some of the medical support for U.S. forces deployed to that area. Primarily this is contingent upon the level of development of the health care industry in that nation. This is much more viable in Europe than in Southwest Asia. The other consideration for general war planning, is that host nation support (as hospital beds) will probably be only available early in the conflict. The reason is that in a general war

scenario the host nation's facilities will be needed for the care of their own people (military or civilian) after the fighting has gone on long enough to produce significant numbers of casualties. (74)

Recall more retirees. Increase the number of retirees with 'hip-pocket' orders. Presently, there are approximately 24,000 AMEDD retirees with orders to be recalled to active duty upon mobilization. This represents approximately 50% of that retiree population. In a general war scenario, it may be possible to increase that number. If an additional 25% of the retiree population were given mobilization orders another 12,000 of the shortfall could potentially be eliminated.

Shortfall Before The Draft.

If all the retention solutions were implemented in such a way as to be effective in boosting retention by 50%, the physician shortfall in the critical specialties would be reduced by approximately 370. If retention were as effective with the nurses, their shortfall would be reduced by approximately 1,400 nurses. This would leave the shortfall after retention solutions were applied at approximately 54,000. About 4,000 of this total would be physicians, 16,500 nurses and 33,000 enlisted personnel.

There are many acquisition techniques that could be applied to this 54,000 man shortfall. As has already been

mentioned, one alternative is to recall retirees. Presently, about 24,000 retirees are slated to be activated. The shortfall after these retirees are available would be about 30,000 in gross numbers. This is completely without regard to job skill.

Long-term acquisition solutions are probably the healthiest for the force, yet for the time frame considered in this thesis, they will not be considered. However, they are worth mentioning here for the sake of completeness. An increase in pay (compensation), while viewed as a retention move, is also a change in acquisition strategy (note the British experience in Chapter Three). Increasing the size of 'scholarships' and 'stipends' should also increase the participation in military programs, as long as competing programs do not simply adjust their rates to 'match the competition.' But techniques involving training students in any intensive technical discipline is definitely a long-term solution and will not be discussed. Increasing the output of the USUHS to the 25% goal intended for it will ultimately effect acquisitions, however, it, too, is long-term.

The remaining acquisition strategies are strictly short-term strategies and are therefore appropriate for consideration. The commissioning of Foreign Medical Graduates appears on the surface to give quick numbers to initial military training, however the numbers are probably small

(tens to hundreds) relative to the shortfall of greater than 4,000.

Immigration, too, offers quick yields of trained manpower. If commissioning and service in the military resulted in ultimately obtaining U.S. citizenship, even during a national emergency, perhaps hundreds of medical professionals from other countries would be interested.

Quickly changing DOPMA as recommended would yield a few officers (tens to hundreds) to the Nurse Corps in the short term. All of these officers would probably be medically proficient and a portion of them might be prior service.

The concept of contracting out CONUS-based medical facilities to civilian health care organizations to operate after M-day is being discussed and may be a viable alternative. There could conceivably be a lag between declaring M-day and the assumption of duties from soldiers by the civilian contractor. Unless the contractor was running the facility during peacetime, the manpower pool would have to come from elsewhere and would be 'occupied' and perhaps difficult to 'free up' on M-day. In addition, plans and contracts need to be completed prior to M-day for this to be viable.

Host Nation Support would offer short-term relief from some of the requirements in theaters where this is feasible and acceptable, but for the reasons discussed above

in "Acquisition Solutions..." it has limited use. Its best use seems to be in the interim before the arrival of TPFDD units from CONUS or elsewhere.

The expanded "retiree recall" makes the largest contribution and probably still has the most potential for growth, since only 50% of present retirees have "hip-pocket" orders (about 24,000). Expansion of this program by 12,000 more soldiers may be possible. One of the difficulties is knowing the physical condition of the retirees upon mobilization. If all immediate sources of personnel were exploited, including an even greater retiree recall, apparently there would still be an AMEDD shortfall of 15-18,000.

The Shortfall vs The Wartime Scenarios.

When the retention solutions are applied and short-term acquisition strategies are examined, we find that with the exception of the retiree recall, acquisition solutions are not initially effective. In the first scenario (M-day and D-day simultaneous), retirees with "hip-pocket" orders would be available in about the same time periods as units. The remaining acquisition solutions would not have time to become effective.

Under the second scenario (M-day now and D-day in 90 days) the retiree recall would have time to work. Some of the results of changed laws and regulations to allow increased commissioning of Foreign Medical Graduates,

increased immigration and military service, and increasing the rank that could be awarded for experience would be seen. If civilian contracts had not been let and planning completed, by this time, no results could be seen for the "civilianizing" of hospitals in CONUS. Host nation support, if it existed at all, would be most effective and necessary during this time frame while many units were still deploying.

In the third scenario (M-day now, D-day in six months), the results would probably be similar to the second scenario except the "civilianizing" could be well under way. If the planning had been completed prior to M-day, the entire CONUS shift could have been implemented by this time. Increased numbers of individuals could be available through the various sources of direct commissions--Foreign Medical Graduates, immigration, and DOPMA. Unless they were ready on M-day their training would not be completed, nor would they have had time to be deployed.

Under the fourth scenario, with D-day one year after M-day, virtually all of the mechanisms will be working. It is questionable whether all medical shortages of the force could be met even at one year, due to long lead times for training of new personnel. Many of the enlisted medical shortages for which there is no trained medical manpower pool would probably still exist.

The Draft.

Given the present medical situation, some form of compulsion appears to be necessary to provide the Total Force with the medical resources that it requires. Every study in the past, the Marshall Commission, the Gates Commission, America's Volunteers (Report on the All-Volunteer Force) including present studies recognize that our medical system cannot be supported with the present resources available. Compulsion could take the form of Mandatory National Service (with military and therefore medical options), a 'selective' draft (implying draft by occupation), a 'standby' draft keyed to the strength of the active force or perhaps more appropriately the strength of the Selected Reserve or IRR/ING, or a general peace time draft. Whatever system is chosen must be in place on M-day. If the legislative branch must make extensive deliberations after M-day in light of the other issues that must be dealt with, the authority to act may come so slowly as to not be useful.

When Mandatory National Service is considered (including military options for service), what really counts is whether the military gets the manpower it needs in a timely manner. Presently, a discussion is ongoing about how this system can work to support national objectives. When examined against the four go-to-war scenarios used in this thesis, Mandatory National Service or Universal National Service appears to be inappropriate due to the lack of

clearly defined methods and objectives (See also page 72-73). Given the present political environment, even the longest scenario does not appear to give enough time for a consensus to develop and a mechanism to be put in place.

When examining the appropriateness of a selective draft today, we find a different situation. The Selective Service System has already been looking at this alternative as a potential solution to many sticky military problems. Congress has authorized the resources for the Selective Service to design a system to register health care professionals after mobilization. (Even though adequate medical care must be present in order to permit a mobilization to occur.) A selective draft should provide the personnel needed to the military and appears to meet medical manpower requirements. Its biggest problem is that it is highly discriminatory. A problem with enacting any of the forms of compulsion is the perception of 'the failure of the All Volunteer Force' or of the military in general. In addition, over 95 percent of all nursing personnel are female. In many cases, having the ability to obtain high-level technically-skilled personnel at will might lead to abuse of them instead of their good stewardship.

Standby drafts as mentioned in the literature have some of the same attributes as a selective draft but appear focused mostly on the strength of the Reserve Components. Within the present system a standby draft keyed to the

strength of the Selected Reserve and the IRR/ING looks feasible and appropriate. We publicly state our manpower needs as "requirements" and with the Total Force Concept the Reserve Components are our primary sources of trained units and individuals. With no other mechanism presently in place, there is an even more pressing need to have our "required" units and individuals present and already trained. The Standby Draft probably has one of the same drawbacks as the Selective Draft. It would also be highly discriminatory. It could also evolve into a Selective Draft of its own.

The concept of a general draft is mentioned mostly for completeness. Generally the services can meet their manpower requirements; although it is prudent to have the mechanism in place to provide for general manpower needs such as would occur in time of war. The fairness implied by "general" draft is more appropriate in terms of Mandatory National Service.

Of these four somewhat different forms of compulsory service, the "selective" and "standby" drafts seem most appropriate considering the time periods considered by this thesis. Only the "standby draft" keyed to the strength of the Selected Reserve, the IRR/ING (and perhaps in the future, active army) offers the prospect of having units nearly full of trained soldiers on M-day and has been studied enough to be feasible. The nature of manpower

shortages could possibly cause a 'standby' draft to become a form of 'selective' draft. Within the time frames of the scenarios (one year), Mandatory National Service would probably never become effective, but it is possible that a general draft could be producing its first output at about six months.

ENDNOTES

- 1 Department of Defense, "Health Manpower Statistics" (FY 1987): Shortfall calculated by author from the charts in Chapter Two.
- 2 Title 10, United States Code, Section 673c.
- 3 Ibid: Sections 262, 672a, 673.
- 4 Ibid: Sections 262, 263, 672a, 673, 673i.
- 5 Albert M. Bottoms, Chairman, War Resources Working Group, "Finding the Resources for Protracted Conflict--Global War Game", Special Presentation, 7th Annual Mobilization Conference, Industrial College of the Armed Forces, 14-15 Apr 88: 125, 133.
- 6 Richard K. Betts, "Analysis, War and Decision", World Politics, Spring, 1978: 67-71.
- 7 Lawrence Freedman, "Intelligence Operations in the Falklands", Intelligence and National Security, Sep 86: 311-313.
- 8 David E. King, "Intelligence Failures and the Falklands War: A Reassessment", Intelligence and National Security, April, 1987: 337-339.
- 9 Title 10, United States Code, Section 460h.
- 10 James R. Loomer and Donald J. Eberly, "Can the Selective Service Conduct a Selective Draft?", Proceedings--7th Annual Mobilization Conference, Industrial College of the Armed Forces, 14-15 Apr 1988: 537-539.
- 11 Congress of the United States, 100th Congress in Session, House of Representatives, "National Defense Authorization Act for Fiscal Year 1988/1989...": 213.
- 12 DA Pam 360-525: para 8-4.
- 13 Title 10, United States Code, Section 671b.
- 14 Army Regulation 220-1, Unit Status Reporting, 30 Aug 88: Appendix E.
- 15 Reserve Component Programs Fiscal Year 1988, The Annual Report of the Reserve Forces Policy Board, Office of the Secretary of Defense, Washington, D.C.: 138.

- 16 DA Pam 360-525: para 8-4.
- 17 James S. Seevers and MG William Winkler, "Recruiting Physicians and Nurses for the Reserve Component", Proceedings: 7th Annual Mobilization Conference, Industrial College of the Armed Forces, 14-15 Apr 88: 478.
- 18 Ibid: 480.
- 19 Ibid.
- 20 Ibid.
- 21 Ibid.
- 22 Ibid.
- 23 Ibid: 481.
- 24 United States House of Representatives, National Defense Authorization Act for Fiscal Year 1988/1989, Report of the Committee on Armed Services, 15 Apr 87: 213.
- 25 Army Times, "Special Pay for Doctors", 26 Dec 88: 20.
- 26 Ibid.
- 27 Army Times, "Bonus boosts doctor retention", 8 May 89: 8.
- 28 Army Times, "Special Pay for Doctors", 26 Dec 88: 20.
- 29 Ibid.
- 30 Ibid.
- 31 Army Times, "Reenlistment Bonuses for Military Doctors as High as \$20,000", 5 Dec 88: 26.
- 32 Army Times, "Special Pay...".
- 33 Advisory Group for Aerospace Research and Development Paris. "Medical Officer Career Management and Retention in NATO Armed Forces: A Working Group Report", 1975: Annex I, 82-84.
- 34 Ibid: Annex I, 77.
- 35 Ibid.

- 36 Ibid: 1.
- 37 U.S. Medicine, 'Report Finds Pay Not 'Major' Factor', March, 1989: 1, 32, 39.
- 38 Ibid.
- 39 DOD Health Manpower Statistics: Calculated by author from charts in Chapter Two.
- 40 'Recruiting Physicians and Nurses for the Reserve Components': 482-483.
- 41 Ibid.
- 42 Hippocrates, 'Passport Nurses', May/Jun 1989: 60.
- 43 Army Times, 'Bonuses, rank recommended to attract more Nurses to Army', 5 Sep 88: 6.
- 44 Army Times, 'Higher pay pushed to keep medical professionals', 28 Nov 1988: 16.
- 45 Army Times, 'Bonuses, rank recommended to attract more nurses to Army', 5 Sep 88: 6.
- 46 Ibid.
- 47 Army Times, 'Special pay for doctors', 26 Dec 88: 20.
- 48 Interview with MAJ Voetch.
- 49 Neathawk, RD, Dubuque, SE, and Kronk, CA. 'Nurses' evaluation of Recruitment and Retention', Nursing Management, 1988, 19(12): 38-45.
- 50 Mackey, CL. Creative Retention and Recruitment. Nursing Management, 1988, 19(2): 25-27.
- 51 Wall, L. Plan Development for a Nurse Recruitment-Retention Program, Journal of Nursing Administration, 1988, 18(2): 20-26.
- 52 DOD Health Manpower Statistics: Calculated by author from retention statistics.
- 53 MAJ Nepil Interview.
- 54 COL Lacheen Interview.

- 55 Recruiting Physicians and Nurses for the RC: 456.
- 56 COL Lacheen interview.
- 57 Health Manpower Statistics: 348-351, 367-376.
- 58 US Army War College, Army Command and Management:
11-9 to 11-11.
- 59 MAJ McBrayer interview.
- 60 LTC Mahon interview.
- 61 MAJ Nepil interview.
- 62 DOD Health Manpower Statistics: Calculated by
author using personnel shortfall and retention projections.
- 63 COL Lacheen interview.
- 64 DOD Health Manpower Statistics: Calculated by
author but using only 50% of scheduled losses.
- 65 Recruiting Physicians and Nurses....: 462.
- 66 National Defense Authorization Act: 213.
- 67 Health Manpower Statistics: 46
- 68 "Recruiting Health Professionals for the Reserve
Components": 477.
- 69 DOD Health Manpower Statistics: 46.
- 70 "Passport Nurses": 60.
- 71 Recruiting Physicians and Nurses for the RC: 483.
- 72 Army Times, "Bonuses, rank recommended": 6.
- 73 Recruiting Physicians and Nurses for the RC: 492.
- 74 Ibid: 491, 493.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

Conclusions.

This thesis has developed the medical manpower shortfall by component, by category of personnel, and by job skill. There is a worst-case shortage of approximately 60,000 medical health care providers. This includes categories of personnel that may, under other requirement systems, not be considered medical; i.e., medical administrative specialists, medical logistic specialists, and dietary specialists. All of these are essential components of the health care system. The requirements in this thesis consider patient treaters all the way from the battalion medical platoon through the CONUS-based hospitals.

Short-Term Solutions.

Using the go-to-war scenarios described in Chapter Four, very few solutions work in the short term. There are steps that can be taken today that will improve the force on a future M-day. Recalling the Heritage Foundation report mentioned in Chapter One, the health care delivery system must be 'in place and sufficient' in order for the entire manpower structure to be mobilized.(1) In addition, a

massive 'draft' of medical personnel would be a sure 'tip-off' to foreign intelligence services of an impending U.S. mobilization. The health care system needs to be in place and working on M-day. A stand-by draft keyed to the strength of the Selected Reserve, Individual Ready Reserve, and Inactive National Guard appears to be the best solution. A stand-by or selective draft is one of the few methods to cause skills to match the requirements. However, even a stand-by draft will be ineffective if the legislation is enacted on M-day. What needs to happen is to change fundamentally the way we have done business since the beginning of the All Volunteer Force.

If the stand-by draft legislation mentioned above cannot be enacted, then as a minimum, legislation should be passed immediately to allow a (selective) medical draft to occur before M-day. Only by this process can medical manpower be assembled in a manner timely enough to support the mobilizing force.

Retention solutions appear to have their greatest application in the Active Force and job skills of the Reserve Components that have relatively high turnover and high strength. Due to the extremely low percentage of on-hand strength in some of the most critical officer skills and many RC enlisted skills, acquisition changes are the only feasible alternatives for those situations. Many studies indicate a sequential relationship between retention

and recruitment. In other words, if manpower cannot be retained in an organization, 'word of mouth' will make it difficult to recruit. On the other hand, as part of a strength solution if retention issues are addressed well, those changes will enhance recruitment.

Physician retention factors have been extensively studied over a period of years and are fairly well known and constant. The present trend of increased monetary compensation appears to be a step in the right direction, but unless other issues are also addressed, will probably not achieve the desired results.

Nursing retention factors are not as well known. A comprehensive nurse study that was due to the field in February 1989 is now scheduled for release in November. The present trends toward increasing compensation for the nurses and DOPMA changes may affect recruitment. Civilian nurse retention studies indicate that other changes more fundamental to the functioning of the organization are necessary.

Present retention studies focus primarily on the Active Component, even though seventy-five to eighty percent of the medical force is in the Reserve Component. It is important to understand retention factors pertaining to the Active Component, but unless we understand how to attract and retain personnel for the Reserve Component, we will not achieve an adequate capability to support a general war.

The National Augmentation Detachment (NAD) is portrayed as a recruiting tool and as it was originally intended, it may offer significant advantages to a busy health care professional. With current regulations, the NAD is primarily a retention tool to save people who would otherwise be lost to the system by giving them "special handling."

The training base and force structure need to be changed to reflect the new realities of training medical personnel for the Total Force. Presently, the training base is configured primarily to provide adequate training support for the Active Component. Reserve Component quotas seem to be the difference in class capacity and the Active Component requirements.

Universal National Service or Mandatory National Service are presently being discussed throughout the government and the military. If military service is properly incorporated into these programs, they can be a long-term solution to present medical problems.

Long-Term Solutions.

Although beyond the scope of this thesis, it is worthwhile to mention that the effects of retention, long-term acquisition, long-term negotiations, and general trends in the medical market may make alternatives unnecessary which seem for the short term to be absolutely essential.

It is conceivable that five to ten years from now the medical personnel situation could be fundamentally so different, for example, relatively lower doctor incomes, as to make the actions presently contemplated unnecessary. However, as was pointed out in Chapter One in the letter from MG Armstrong, then the Deputy Surgeon General to the AMA, forty years from now the situation could still be the same as today.

Today, only a fundamental change in competitiveness by the AMEDD Active Component similar to the program of the British medical establishment appears to approach a solution to the problem for the physicians. Legislation does not exist for either a selective draft or a standby draft, although a draft of any sort appears to be a potential solution to the need for raw numbers. Only the British approach appears to address the most fundamental problems of medical personnel including morale, retention, etc.

Presently, it is not politically acceptable to consider compulsive military service. However, compulsory service may be forced upon our Congress due to financial constraints, and manpower shortages.

In summary, if tomorrow were M-day, nothing would work. Hoping that tomorrow is not M-day, legislation should immediately be enacted to provide medical resources for the total mobilizing force. The best solution would be a standby draft keyed to RC unit strength and skills.

Recommendations For Further Study.

(1) Reserve Component retention and recruitment studies for all categories of personnel and all medical job skills appear to be necessary.

(2) Nurses should be studied as a separate category with the intention of trying to determine if the nation-wide nursing shortage can be alleviated. Innovative methods of acquiring military nurses should be a product of this type of study.

(3) An examination of our ability to train enlisted specialties that are critical to wartime needs should be made.

(4) Studies to determine factors affecting acquisition of critical enlisted specialties upon mobilization should be made.

(5) Studies to determine a relationship between military medicine and the medical portion of Universal National Service could prove beneficial.

(6) A final recommendation for further study would be to develop a concept of this thesis in more detail and to make projections farther into the future after M-day.

ENDNOTE

1 Mohr, Henry A., "Will America Be Able to Treat its Battlefield Wounded?": 4.

BIBLIOGRAPHY

1. Manuscripts

2. Interviews and Oral Histories

Bowman, Sheila, LTC, ANC, Mobilization Plans and Policy, Office of the Secretary of Defense, Reserve Affairs, on 22 Dec 88, by MAJ Killen.

Crowe, William, ADM, Chairman, Joint Chiefs of Staff, 'Retaining Doctors in the Military', National Public Radio, 'All Things Considered...', January 1989.

Flahavan, Richard, Associate Director-Operations, Selective Service System, on 23 Dec 88, by MAJ Killen.

Hightower, Paul, MAJ, MSC, former PROFIS coordinator for FT Bragg, NC on 14 Apr 89 by MAJ Killen.

Joy, Robert J. T. MD, Professor and Chairman, Section of Medical History, Uniformed Services University of Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland.

Lacheen, John, COL, MC, Chief, National AMEDD Augmentation Detachment, HQ, Forces Command, FT McPherson, GA, by MAJ Killen.

Mahon, Mary, LTC, ANC, Acting Medical Advisor to Chief, Army Reserve, on 14 Apr 89 by MAJ Killen.

McBrayer, John T., MAJ, GS, Reserve Analyst, Analysis Branch, Recruiting Operations Directorate, HQ, US Army Recruiting Command, FT Sheridan, IL on 7 Apr 89 by MAJ Killen.

Nepil, Darell, MAJ, GS, Chief, Analysis Branch, Recruiting Operations Directorate, HQ, US Army Recruiting Command, FT Sheridan, IL on 7 Apr 89 by MAJ Killen.

Voetch, Jay, MAJ, MSC, Administrative Assistant to Chief, Army Nurse Corps, Pentagon, Washington, D.C.

Wingate, Jim, LTC, MSC, Executive Officer, Current Forces Directorate, Medical Force Analyst, Combined Arms Combat Developments Activity, FT Leavenworth, KS, Re: GREWMS (Global Requirements Estimator for War-time Medical Support) Computer Simulation Model on 17 Dec 88.

3. Newspapers and Magazines

Army Times, (Washington, D.C.), Jan-Dec 88.

Kansas City Times, (Kansas City, MO), Jan 89.

New York Times, (New York, N.Y.), 1988.

Washington Post, (Washington, D.C.), Mar 88-Mar89.

4. Government Publications

Advisory Group for Aerospace Research and Development Paris. "Medical Officer Career Management and Retention in NATO Armed Forces: A Working Group Report". Paris, France: NTIS, 1975.

Assistant Secretary of Defense (Manpower Reserve Affairs and Logistics). "America's Volunteers, A Report of the All-Volunteer Armed Forces". Washington, D.C.: NTIS, 1978.

Command and Control Technical Center. "Joint Operation Planning System (JOPS) III Medical Planning Module (MPM). Users Manual. Draft". Washington, D.C.: NTIS, 1981.

Congress of the United States. 100th Congress in Session. House of Representatives. "National Defense Authorization Act for Fiscal Year 1988/1989-Report on the Committee on Armed Services on H.R. 1748." Washington, D.C.: Government Printing Office, 15 Apr 87.

Congress of the United States. 100th Congress in Session. Senate. Committee on Armed Services. "National Defense Authorization Act for Fiscal Years 1988 and 1989 Report." Washington, D.C.: Government Printing Office, 8 May 1987.

Department of the Army. DA Pamphlet 360-525, "Family Assistance Handbook for Mobilization". Washington, D.C.: Department of the Army, 15 Jan 84.

Department of Defense. "Annual Report to the Congress-- Fiscal Year 1989". Washington, D.C.: U.S. Government Printing Office, 1989.

Department of Defense. JCS Pub 1, "Dictionary of Military and Associated Terms". Washington, D.C.: The Joint Chiefs of Staff, 1987.

Department of Defense. Washington Headquarters Services. Directorate for Information, Operations and Reports. "Health Manpower Statistics" (FY 1987). Washington, D.C.: U.S. Government Printing Office, 1987.

Department of Defense. "Proceedings--Seventh Annual Mobilization Conference. "Recruiting Physicians and Nurses for the Reserve Components". Carlisle Barracks, PA: Industrial College of the Armed Forces, 14-15 April 1988.

Department of Defense. "Proceedings--Seventh Annual Mobilization Conference". "Can Selective Service Conduct a Selective Draft". Carlisle Barracks, PA: Industrial College of the Armed Forces, 14-15 April 1988.

Department of Defense. Office of the Secretary of Defense, "Reserve Component Programs Fiscal Year 1988. The Annual Report of the Reserve Forces Policy Board, Washington, D.C.: U.S. Government Printing Office, 1988.

Mohr, Henry. Defense Assessment Project (Paper #8), "Will America Be Able to Treat Its Battlefield Wounded?". Washington, D.C.: The Heritage Foundation, 18 Dec 84.

National Advisory Commission on Selective Service. In Pursuit of Equity: Who Serves When Not All Serve?. Washington, D.C.: U.S. Government Printing Office, 1967.

NATO Information Service. "NATO Handbook". Brussels, Belgium, 1986.

Naval Postgraduate School. "On the Comparative Costing of Military vs Civilian Modes of Health Care Delivery". Monterey, California: NTIS, 1975.

North Atlantic Treaty Organization Brussels. "Joint Civil/Military Medical Group". Brussels, Belgium: DTIC, 14 Jul 82.

Rand Corporation. "Medical Student Financing and the Armed Forces Health Professions Scholarship Program". Santa Monica, California: NTIS, 1982.

Selective Service System. "Outline of Historical Background of Selective Service and Chronology". Washington, D.C.: U.S. Government Printing Office, 1961.

U.S. Army. Army Regulation 220-1, Unit Status Reporting. Washington, D.C.: Department of the Army, 1 Sep 86.

U.S. Army. FM 100-5, Operations. Washington, D.C.: Department of the Army, 1986.

U.S. Army. Office of the Chief, Army Reserve. Posture of the U.S. Army Reserve, FY 89. Washington, D.C.: Government Printing Office, 1988.

U.S. Army War College. Army Command and Management: Theory and Practice-1988-1989. Carlisle Barracks, Pennsylvania: US Army War College, 1988.

United States Code. Title 10, Section 1-835. ST Paul, MN: West Publishing Co., 1989.

U.S. General Accounting Office. Medical Readiness, Progress in Stating Manpower Needs. Report to the Chairman, Armed Services Committee, House of Representatives. Washington, D.C.: US Government Printing Office, April, 1987.

U.S. General Accounting Office. Military Draft, Potential Impacts and Other Issues. Report to the Ranking Minority Member, Subcommittee on Defense, Committee on Appropriations, U.S. Senate. Washington, D.C.: US Government Printing Office, March, 1988.

U.S. General Accounting Office. DOD Health Care, Requirements for Emergency Services Adequate and Generally Attainable. Report to Congressional Requesters. Washington, D.C.: US Government Printing Office, September, 1988.

5. Books

Alderman, Karen C., and Levitan, Sar A. Warriors at Work--The Volunteer Armed Force. Beverly Hills, California: Sage Publications, 1977.

- Carlton, John T. The ROA Story: A Chronicle of the First 60 Years of the Reserve Officers Association of the United States. Washington, D.C.: Reserve Officers Association, 1982.
- Cohen, Eliot A. Citizens and Soldiers-The Dilemmas of Military Service. Ithaca, New York: Cornell University Press, 1985.
- Cowdrey, Albert E. The Medics' War, United States Army in the Korean War. Washington, D.C.: Center of Military History, United States Army, 1987.
- Crossland, Richard B., and James T. Currie, editors. Twice the Citizen, A History of the United States Army Reserve, 1908-1983. Washington, D.C.: Office of the Chief, Army Reserve, 1984.
- Latham, Willard. The Modern Volunteer Army Program: The Benning Experiment, 1970-1972. Washington, D.C.: Department of the Army, 1974.
- Maurer, Alfred C., Marion D. Tunstall and James M. Keagle, editors. Intelligence: Policy and Process. Boulder, Colorado: Westview Press, 1985.
- Preston, Richard A., Herman O. Werner and Sydney F. Wise. Men in Arms: A History of Warfare and Its Interrelationships with Western Society. New York, NY: Frederick A. Praeger Company, 1956.
- Scowcroft, Brent, editor. Military Service in the United States. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1982.
- Thompson, Frank C., editor. The Thompson Chain-Reference Bible, New International Version. Grand Rapids, Michigan: Zondervan Bible Publishers, 1983.
- Tribble, William D. Doctor Draft Justified?-a management diagnosis. San Antonio, Texas: National Biomedical Laboratories, 1968.
- U.S. Presidential Commission. The Report of the President's Commission on an All-Volunteer Armed Force. New York, New York: Collier Books/The Macmillan Company, 1970.

6. Articles

Foreign Policy, "Intelligence: Seizing the Opportunity," Spring, 1976.

Hippocrates, "Passport Nurses", May/June 1989: 60.

Intelligence and National Security, "Intelligence Failures and the Falklands War: A Reassessment," April, 1987.

Intelligence and National Security, "Intelligence Operations in the Falklands", Sep 1986: 311-313.

Journal of Nursing Administration, "Plan Development for a Nurse Recruitment-Retention Program", 18 (2), 1988: 20-26.

Nursing Management, "Creative Retention and Recruitment", 19 (2), 1988: 25-27.

Nursing Management, "Nurses Evaluation of Recruitment and Retention", 19 (12), 1988: 38-45.

U.S. News and World Report, "The Push for National Service," 13 Feb 89: 20-23.

U.S. News and World Report, "For Whom the Corps Toils," 13 Feb 89: 24-25.

U.S. News and World Report, "Can Patriotism be Legislated?," 13 Feb 89: 26.

World Politics, "Analysis, War and Decision", Spring, 1978: 67-71.

7. Unpublished Dissertations, Theses, and Papers

Brooke, Paul P., Jr., "The Impact of the All-Volunteer Force on Physician Procurement and Retention in the Army Medical Department, 1973-1978", Master of Military Art and Science Thesis, US Army Command and General Staff College, 1979.

Burger, L. M. "Physicians in the Army: How Many Are Enough?". Army War College, Carlisle Barracks, Pennsylvania, 1985.

Crowell, James A. "The Procurement of Physicians for the United States Armed Forces". Student Essay, Army War College, Carlisle Barracks, Pennsylvania, 1971.

Vance, William M. "Recruitment of Physicians for the Active Army, 1975-1980." Masters of Military Arts and Sciences Thesis, US Army Command and General Staff College, 1975.

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