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Primary research methodology consists of an extensive review of Congressional testimony concerning the thesis topic during the period 1972 through 1978, and a comparison of this testimony over a period of time. A review of pertinent military and civilian literature is provided. The research reveals that during its first five years of existence, the all-volunteer force experiment has had a seriously negative impact on Army medical officer procurement. Fundamental flaws in military-physician procurement and retention programs, compounded by inconsistent as well as poorly-timed efforts to remedy them have significantly hindered optimum program effectiveness. In the zero-draft environment, the Army Medical Department has not been able to attract or retain sufficient medical officers in the active and reserve components to maintain the readiness posture required by its primary mission to support combat operations or to provide the health care expected by its eligible beneficiaries. The investigation concludes that major adjustments must be made to existing physician procurement programs in order to enable achievement of an adequate and self-sustaining force of medical officers in the 1980's. Specific recommendations are offered.

The Impact of the All-Volunteer Force on Physician Procurement and Retention in the Army Medical Department, 1973-1978

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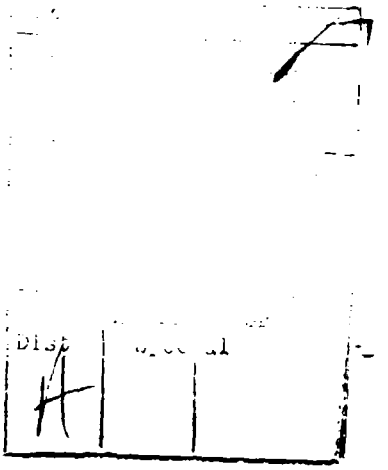

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A Master of Military Art and Science thesis presented to the faculty of the U.S. Army Command and General Staff College, Fort Leavenworth, Kansas 66027

THE IMPACT OF THE ALL-VOLUNTEER FORCE ON PHYSICIAN PROCUREMENT AND RETENTION IN THE ARMY MEDICAL DEPARTMENT, 1973-1978

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

MASTER OF MILITARY ART AND SCIENCE

by

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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 government agency. (References to this study should include the foregoing statement.)

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THE IMPACT OF THE ALL-VOLUNTEER FORCE ON PHYSICIAN PROCUREMENT AND RETENTION IN THE ARMY MEDICAL DEPARTMENT, 1973-1978, by Major Paul P. Brooke, Jr., 133 pages.

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CHAPTER I

INTRODUCTION

The Continental Congress created a Hospital Department on 27 July 1775, to provide medical service for the Army.[1] Two hundred years later, as it celebrated a bicentennial anniversary ringing with the contributions of such scientific and military giants as William Beaumont, Walter Reed, William Gorgas, and Leonard Wood, the Army Medical Department was facing one of the most difficult and serious challenges in its history--the procurement and retention, in an all-volunteer force environment, of a sufficient number (and with requisite specialty distribution) of physicians to adequately staff its world-wide health care delivery system. By 1978, the shortage of military physicians had reached such serious proportions that it was classified by the Army Surgeon General as "our most significant problem, now and for the next five years."[2] The manner in which this challenge is finally resolved may well result in a dramatic alteration in the military health care delivery model, with far-ranging repercussions on the morale and combat effectiveness of our armed forces.

Under Title 10 of the U.S. Code, the Army Medical Department (AMEDD) exists "to provide combat support to forces committed to operations in the field, pursuant to appropriate national decisions."[3] To accomplish this mission, which includes preventive and curative medical, dental and veterinary services, the AMEDD has defined four principle

objectives:

1. To maintain physically and mentally fit soldiers and trained health manpower to deploy in support of Army combat, contingency and mobilization plans;

2. To provide care and treatment capabilities in a theater of operations and the continental United States as a consequence of hostile activities;

3. To provide health services for dependents of soldiers, retired members and their dependents, and dependents and survivors of deceased soldiers;

4. To provide a major incentive for soldiers, to include health professionals, to select military service as a career.[4]

The primary mission of the AMEDD during peacetime is training, to achieve and maintain the readiness posture required for rapid and adequate response in time of war. The maintenance of a sizeable delivery system which provides health care to other than active duty members has been justified by the fact that the required readiness posture is derived through the training opportunities afforded by providing day-to-day health care and supportive health services to a broad spectrum of ages and categories of patients.[5] Through the delivery of these services, which constitute a social good and an important fringe benefit for American soldiers, the AMEDD fine tunes those skills required to support deployed combat forces.

The physician is the cornerstone of any medical care delivery system, and must be present, if that system is to work.[6] He is ultimately responsible for determining the appropriate method, extent and timing of medical interventions, and is held responsible for their outcomes. The application of current management and educational advances

to health care delivery systems, and evolutionary trends within the health professions, have resulted in such innovative medical care models as nurse clinicians, physician assistants, clinical pharmacists, and a host of ancillary support personnel. Each of these components is vital to the effectiveness and efficiency of the total medical care system. Nevertheless, the physician still provides the directing force which orchestrates the efforts of all other elements in the system.[7]

The role of the physician in the Army delivery system accurately reflects that of his civilian counterpart. The importance of the physician to the military medical service was clearly reaffirmed by Secretary of Defense William Clements in 1973 when he stated that, of the various officer specialities required in the health field, medical officers were the most critical.[8] Obviously, without a Medical Corps there would be no Army Medical Department.

For over two decades prior to the establishment of the all-volunteer force in 1973, the vast majority of Army physicians entered active duty as a result of the draft, or draft-related personnel procurement programs.[9] When the draft was terminated, only one-sixth of active duty physicians were considered to be true volunteers.[10] Retention of non-volunteers was less than one percent,[11] and annual turnover of Medical Corps officers exceeded thirty-three percent.[12] As a result of this historical experience, it was commonly accepted by planners in the executive and legislative branches of government that, in the absence of dramatic increases in recruiting and retention incentives, the military medical services would not be able to attract or retain sufficient

physicians in an all-volunteer environment.

To create incentives which would attract physicians to military service on a voluntary basis, the Congress enacted several pieces of legislation which established medical school scholarships in return for obligated military service; created a military medical school; and provided a bonus to physicians who would agree to remain on active duty beyond their obligated period. This bonus made medical officers the most highly paid group on active duty. The implimentation of these extremely expensive programs and their effectiveness as short or long range solutions to physician staffing in support of an all-volunteer force have been the subjects of continuing debate among interested government agencies, the military Surgeons General, and the Congress. Since 1972, Congressional testimony regarding this subject reveals a recurring pattern of initial optimism, followed by cautious predictions of ultimate success, and ending in explanations of program weakness and the need for modifications or additional programs to enable the armed forces to recruit and retain adequate physicians to deliver care to eligible beneficiaries.

As of 1 October 1978, a total of 4,063 physicians were on active duty in the Army Medical Corps, almost 1,500 fewer than were on active duty on 30 June 1973, the day the draft officially ended.[13] Curiously, despite a near consensus among providers, legislators, government officials and beneficiaries of military health care that a serious physician shortage existed, the Army Medical Corps, on 1 October 1978, exceeded authorized end-strength.[14]

Statement of the Problem

This thesis seeks to determine the impact of the all-volunteer force on physician procurement and retention in the Army Medical Department, from 1973 to 1978.

Objectives

The objectives of this study are to:

1. Analyze the planning which occurred and the provisions of the major programs which were established to recruit and retain physicians in an all-volunteer Army.

2. Evaluate the effectiveness of these procurement programs during the period 1973-1978.

3. Determine the reasons for program performance during the period studied.

4. Assess the ability of the all-volunteer Army to attract and retain sufficient physicians to accomplish its mission.

Limitations

The following limitations seem appropriate to this study:

1. Research is primarily confined to an analysis of physician procurement and retention for the active Army during the period studied. However, a brief discussion of the impact of the all-volunteer force concept on the Medical Corps Reserves is included as an essential element of the research results.

2. The study is restricted to an evaluation of the effectiveness of the major personnel procurement programs enacted by Congress to

provide for the maintenance of Medical Corps strength in an all-volunteer environment.

3. Research excludes a discussion of alternative mechanisms of physician and other medical care provider utilization. This limitation specifically excludes a discussion of efforts to increase physician productivity through programs such as accelerated hospital construction and modification, and increased use of ancillary support personnel.

4. The study also excludes an evaluation of the overall merits of the all-volunteer force concept. As a further limitation, the author has not sought to establish normative positions regarding the dynamics which are present in the interaction of various branches and agencies of the federal government.

Assumptions

The following assumptions underlie this study:

1. That the Army will continue to require and operate a separate medical department for the foreseeable future.

2. That the Army Medical Department will continue to provide medical care to active duty and retired personnel, and their dependents.

3. That, for the purposes of investigation and consistent with the scope of this study, it can be validly presumed that mechanisms for increasing the effectiveness and efficiency of military physician utilization were being studied and implimented, consistent with resource availability; and that physician requirements defined by the Army Medical Department reflected these efforts.

4. That Navy and Air Force experiences with physician procurement and retention essentially paralleled those of the Army, during the period studied.

Research Methodology

Research methodology includes a search of the Defense Documentation Center, and a review of pertinent military and civilian literature. The primary methodology consists of an extensive review of Congressional testimony concerning the thesis topic, during the period 1972 through 1978, and a comparison of this testimony over a period of time. Preliminary research into the broad subject of the impact of the All-Volunteer Army on the Army Medical Department had revealed the presence (in transcripts of Congressional hearings and reports) of a sizeable and multifaceted amount of data, information, and opinion regarding the difficulties associated with physician procurement in the all-volunteer environment. The period studied encompassed three different U.S. Presidential Administrations, several Secretaries of Defense, three Army Surgeons General, and a significant turnover in Congressional membership. A comparison of the Congressional testimony of key participants from the Department of Defense and the Department of the Army, over a period of time, provides insight into planning, early projections, program performance, initiatives to modify program performance, and the interaction of the Congress, the Department of Defense, and the Surgeons General.

The evaluation of Congressional testimony must consider the vested interests of the agencies represented. It seems clear, however, that

the frequency of testimony and the sizeable number of different Congressional committees and subcommittees which became interested in "the physician shortage," to say nothing of the difference in witnesses over time, will enable the author to make valid inferences in spite of this limitation.

Other research methods include a review of selected internal working documents from the Office of the Surgeon General, telephonic and personal interviews with selected officials at the Office of the Surgeon General (to obtain background information), and interviews with selected Army Hospital Commanders.

Definitions

The Berry Plan.--A tri-service program which, based on the projected needs of the military services for specialists, granted deferment of active duty for residency training to randomly selected graduating medical students, who voluntarily applied for participation and accepted appointment in the Medical Corps Reserve of whatever branch of military service to which they were allocated. Upon completion of speciality training, Berry Plan participants were called to active duty for two years.

The Doctor Draft.--A provision of the Military Selective Service Act which gave the President authority to induct Special Registrants--physicians, dentists, veterinarians, optometrists, and male nurses. By virtue of their having obtained deferment from the general draft, prior to the age of 26, Special Registrants were eligible for the doctor draft

until age 35. Upon receipt of their induction notice, individuals in this group would be offered appointment in the appropriate commissioned corps of one of the military services. In practice, physicians constituted the vast majority of those called to active duty under the doctor draft.

Foreign Medical Graduate.--To be eligible for entry on active duty as a medical officer, a graduate of a school of medicine or osteopathy which is outside the United States and Canada, and which is recognized by the World Health Organization, must have passed a written examination and be certified by the Education Council on Foreign Medical Graduates (E.C.F.M.G.) of the American Medical Association. Eligible foreign medical graduates may be U.S. citizens or non-citizens who have permanent resident status.

Graduate Medical Education.--Specialty training (a residency) accomplished after graduation from a medical school, which leads to eligibility for certification by one of the specialty boards (i.e. general surgery, internal medicine, pediatrics, etc.) of the American Medical Association or American Osteopathic Association. The length of residency training depends upon the specialty. Including what was formerly considered the internship year, it generally takes from three to five years after graduation to complete a basic residency.

Obligated Service.--A contractual or statutory obligation to serve on active duty for a specified period of time.

Volunteer.--A physician who has no contractual or statutory obligated service, who is qualified for and who chooses to accept

commissioned appointment and active duty in the medical corps of one of the military services.

Review of the Literature

A review of the civilian literature reveals a broad spectrum of inquiry into the all-volunteer force concept, and a variety of perspectives associated with the continuing debate over its merits and implications. Since this area of inquiry is specifically excluded from the scope of this study, literature in this general category is not included in the review.

With the exception of a series of articles offered by the Surgeons General and other high level Department of Defense officials during the 1971-75 period,[15] the author encountered a relative lack of substantive discussion of all-volunteer physician recruitment and retention in published form. These early comments reflected a cautious optimism that the all-volunteer force concept could be successfully applied to the military medical departments. The perspectives contained therein will be discussed in subsequent chapters, as part of an examination of early planning on the part of top level military health care managers.

A search of the Defense Documentation Center and the Command and General Staff College Library yielded a sizeable body of unpublished studies, Army and Air War College theses, student essays, and graduate theses which were considered to be appropriate for academic review. As a group, these studies provided excellent background information and insight into the environment in which the all-volunteer experiment was applied to the military medical departments. The literature review has led

the author to conclude that the methodology and direction of this study are not duplicative, and that this academic inquiry can contribute to the existing body of knowledge on this subject.

Several of the studies revealed an acute concern, during the late 1960's and early 1970's, over the military services' increasing difficulty in retaining what they considered to be their career medical officers. In a 1968 MMAS thesis, William P. Winkler, Jr. reported that the average number of Regular Army Medical Officer resignations had increased from forty per year, during fiscal years 1959-62 to 106 per year during fiscal years 1963-66.[16] In addition to resignations, he found that, during the 1963 to 1967 period, the rate of voluntary retirement among Medical Corps officers had been almost twice the rate of all other Army officers. In order to investigate the various factors involved in the retention problem, Winkler randomly surveyed Regular Army Medical Corps officers, and concluded that income and income-related problems were the principal causes of career physician losses.[17] He further concluded that the most powerful factors which influenced retention were experiences such as assignment to troop units and military schooling, which enabled identification with the Army and its goals.[18]

The importance of organizational identification as a retention motivator for physicians was tested by Michael L. Feris and Vernon M. Peters, in a 1976 graduate thesis for the Naval Postgraduate School.[19] This study applied a model of organizational committment, developed from a synthesis of research findings in related areas of organizational psychology, to the problem of physician retention. The authors concluded

from their research sample that the individual's length of service and perception of the command's concern for the morale and welfare of its human resources were the most powerful predictors of retention, and considerably more successful than concerns over salary, status, and fringe benefits.[20] This study's conclusion that job satisfaction and perceived command credibility regarding its concern for the welfare of its human resources are essential ingredients to solving the retention problem was an excellent contribution to the traditional preoccupation with financial approaches to this complex problem.

In a 1969 Army War College thesis, Maurice S. Berbary offered a well-documented review of the legislative history of the doctor draft, and the programs of salary and promotion incentives which were enacted to stimulate retention of career physicians.[21] Berbary offered considerable evidence that, throughout its post-World War II history, neither the Congress, nor the armed forces, were pleased with the doctor draft, which was viewed essentially as a necessary, if onerous, evil.[22] He further reported that, to establish a mechanism designed to alleviate what was generally considered to be a critical shortage of career or long-term military health professionals, legislation authorizing medical school scholarships, in return for military service, had been repeatedly introduced in Congress, since 1961, with the support of the Department of Defense.[23] He also discussed the consistent opposition of the Army Surgeon General and the Department of Defense to legislative proposals during the 1960's to establish a military medical academy.[24] In 1969, this opposition apparently centered around

cost, the conjectural nature of the advantages associated with military medical professionalism, and concern over professional and academic isolation.[25] As will be discussed in subsequent chapters, the critical legislation, which was enacted in 1972 to support the attainment of an all-volunteer military medical corps, provided for both a health professions scholarship program and the creation of a military medical school.[26] Debate over the latter provision has continued throughout the period studied by this thesis.

Several of the studies reviewed offered insights into the provisions of the programs enacted to counter the problem of career physician retention in the all-volunteer environment. In a 1974 Air War College study, Theodore J. Wachs offered a good survey of the income incentive programs under consideration, at that time, and predicted serious difficulties in recruiting and retaining physicians in the absence of the draft.[27] He further suggested that the growing disparity between demand for military health care and the ability to satisfy that demand was not necessarily being caused by a physician shortage as much as a surplus of patients.[28] He reported that the active forces had been reduced significantly by 1973 from a peak of 3.5 million in 1968, with a concommitant reduction in military medical officer authorizations. However, the number of retired members, their dependents, and dependents of active duty personnel had increased during this period, and was expected to continue at this trend for the remainder of this century.[29] This phenomenon is a hidden cost of the United States involvement in the Vietnam War, and has considerable impact on the military health

care delivery system.

In a 1975 student essay for the Army War College, Jon N. Harris traced the development of the Variable Incentive Pay program (VIP), which is one of the major incentive programs to attract an all-volunteer medical corps, and provided an excellent discussion of its provisions.[30] Harris concluded that the VIP program, combined with advanced promotion and certain retirement advantages, would make the pay of military physicians reasonably competitive with that of the civilian sector.

W. M. Vance examined the Army Medical Department physician procurement policies, procedures and techniques, to determine their adequacy to meet the requirements for volunteer physicians, for the period 1975 through 1980.[31] In this 1975 MMAS thesis, Vance offered a review of Army physician procurement from 1940 through 1973, presented an excellent discussion of the AMEDD Officer Procurement System, and compared physician procurement techniques used by military and civilian recruiting agencies. He concluded that the procurement network was not being shifted forcefully enough to meet the realities of the zero-draft environment, and predicted that significant shortages in physicians would occur, unless a concerted effort was made to attract volunteers through an aggressive and innovative package of advertising techniques.[32]

Vance's predictions of physician shortages were echoed in a 1975 Navy study, in which John Waggoner and others concluded that, because of the heavy turnover of Navy physicians during the transition to an all-volunteer corps, the Navy Bureau of Medicine and Surgery would lose more physicians in the late 1970's than it could replace,

and would therefore be unable to provide care at existing levels for all categories of Navy beneficiaries.[33] This study concluded that the most cost-effective alternatives for providing care which was no longer available in Navy facilities, were increased use of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), or exploration of the use of Health Maintenance Organizations by dependents and retired beneficiaries. The study projected that these alternatives would be required until the 1980's, when, it predicted, physician procurement programs would enable the Navy to regain its medical officer strength.[34]

During the summer of 1977, the necessity to reduce health services to dependents and retired beneficiaries, because of dwindling physician resources, resulted in a noticeable increase in the visibility of the difficulties being encountered with physician procurement.[35] Cutbacks in health services were perceived as part of the general "erosion of benefits" of the military, and the sudden "doctor shortage" assumed increased news value.

In a 1976 MMAS thesis, J. J. Foley, Jr. surveyed a sample of mid-career Regular Army officers, to determine the effect of perceived erosion of benefits on career planning decisions. He found that the disintegration of the Army fringe benefit package, particularly medical care and retirement benefits (and medical care as an important benefit of the retirement package), were strong influences to leave the Army.[36] Foley reported on a 1975 Army-wide random survey of ten percent of married officers, of which 71.6 percent felt medical care was the most valuable benefit, and an additional 17.7 percent considered it the

second most valuable benefit.[37] The results of his research correlated extremely well with this and other surveys.[38]

In the fall of 1978, the Association of the United States Army published a Special Report entitled "Military Health Care: A Deteriorating Benefit," which concluded that the military health care system was in a state of crisis caused by a growing shortage of physicians, "the prime health care practitioners."[39] This articulate, if somewhat argumentative paper attributed the "physician shortage" to the elimination of the doctor draft and draft-related programs, and retention failure arising out of conditions of physician overwork, inadequate facilities, and the erratic behavior of retention-related programs. It forecast little chance of alleviating physician shortages short of a return to the draft,[40] and offered a broad array of recommendations aimed at increasing retention, upgrading medical facilities, and expanding medical benefits for dependents and retired personnel.[41]

The primary contribution of the AUSA paper was its blunt and rather bleak assessment of the impact of reduced military health care capabilities on the entire erosion of benefits issue. The decreasing availability of Army physicians, particularly in specialties such as radiology and internal medicine, has required curtailment of certain services in many facilities, and referral of patients to the civilian sector.[42] The groups most affected have been retired members and their dependents, and to a lesser extent, dependents of active duty personnel. Since, under CHAMPUS, retired members are liable for twenty-five percent of inpatient charges, referral to a civilian hospital for a long-

term or catastrophic illness could represent financial disaster for persons in this category. AUSA wryly noted that, having supposedly accumulated permanent health care entitlements for himself and his spouse over the course of a military career, the retiree is now being forced, because of the shortage of military physicians, either to risk the financial consequences of serious illness, or buy insurance to fill the gap which has suddenly appeared.[43] The financial consequences of referring dependents of active duty personnel to civilian facilities, though less than those for retirees, are still significant, particularly for junior enlisted personnel. The AUSA paper concluded that problems with the military health care system, and the continuous uncertainty in the minds of soldiers regarding the availability of care for themselves, and particularly their dependents, constitute "the current prime threat to the morale and well-being of the Armed Forces of the United States."[44]

The strong position adopted by the AUSA Report and the numerous normative statements contained therein are considered to be beyond the academic scope and limitations of this study. The paper has been included in the literature review because of its recency and the insights it provides into the complexity of the subject, as well as the impact of procurement and retention on the morale, and therefore, the effectiveness of the armed forces. The very existence of reports such as this has led the author to conclude that this academic investigation is appropriate, and potentially valuable.

END NOTES

[1]U.S., Department of the Army, The Army Medical Department Historical Unit, 200 Years of Military Medicine (Ft. Dietrich, Md., 1975), p. 1.

[2]Testimony of LTG Charles C. Pixley, Army Surgeon General, before the Senate Armed Services Committee Hearings on the Defense Authorization for Appropriations for Fiscal Year 1979, Senate, 95th Cong., 2nd Sess., 1978, p. 2651.

[3]Testimony of LTG Richard B. Taylor, Army Surgeon General, before the House Armed Services Subcommittee Hearings on CHAMPUS and and Military Health Care, House, 93rd Cong., 2nd Sess., 1974, p. 46.

[4]LTG Pixley, Senate testimony, p. 2619.

[5]LTG Taylor, CHAMPUS Hearings, p. 46.

[6]Avedis Donabedian, Aspects of Medical Care Administration (Cambridge, Mass: Harvard University Press, 1973), p. 19; Sylvester Berki, Hospital Economics (Lexington, Mass.: D.C. Heath and Co., 1972), pp. 3-4; Henrike Blum, Planning for Health (New York: Human Sciences Press, 1974), p. 121.

[7]Donabedian, Aspects of Medical Care Administration, p. 19.

[8]Secretary of Defense William Clements to the Chairman of the Senate Armed Services Committee, 27 Nov 1973, in Senate Report 93-658, U.S., Congress, Senate, 93d Cong., 1st Sess., 1973, p. 9.

[9]James R. Cowan, "Maximum Services With Limited Resources," Military Medicine, 140 (March 1975), 169.

[10]L.Niederlehner, Acting General Consel of the Department of Defense, to the Chairman of the Senate Armed Services Committee, 29 Nov 1973, in Senate Report 93-658, U.S., Congress, Senate, 93d Cong., 1st Sess., 1973, p. 11.

[11]U.S., Congress, Senate, "Uniformed Services Health Professions Revitalization Act of 1972," Senate Report 92-827, 92d Cong., 2d Sess., p. 9.

[12]U.S., Congress, Senate, Committee on Armed Services, "Revising the Special Pay Structure Relating to Medical Officers of the Uniformed Services. Report to Accompany S. 2770," Senate Report 93-658, 93d Cong., 1st Sess., 1973, p. 3.

[13]U.S., Department of the Army, Working Papers, DASG-PTB, n.d., n.p.

[14]Ibid.

[15]Richard S. Wilbur, "Federal Medical Chiefs on Progress and Plans," Military Medicine, 137 (September 1972), 337-38; Hal B. Jennings, M.D., LTG, USA, "Army Medical Department," Military Medicine 137 (September 1972), 344-52; Richard S. Wilbur, "All Volunteer: Military Medicine Tomorrow," Military Medicine 138 (June 1973), 327-30; Richard B. Taylor, M.D., LTG, USA, "Department of the Army," Military Medicine 140 (October 1975), 684-86.

[16]William P. Winkler, Jr., M.D., COL, USA, "A Study to Evaluate Factors Involved in Retention of Medical Officers in the Military Service" (MMAS thesis, U.S. Army Command and General Staff College, 1968), p. 21.

[17]Ibid., p. 22.

[18]Ibid., p. 23.

[19]Michael L. Ferls and Vernon M. Peters, "Organization Committment and Personal Retention in the Military Health Care System" (Masters thesis, Naval Postgraduate School, 1976).

[20]Ibid., p. 62.

[21]Maurice S. Berbary, M.D., COL, USA, "The Physician, the Congress, and the Armed Forces" (Army War College thesis, U.S. Army War College, 1969).

[22]Ibid., p. 43.

[23]Ibid., pp. 67-68.

[24]Ibid., p. 72.

[25]Ibid., p. 73.

[26]U.S. Congress, Armed Forces Health Professions Revitalization Act of 1973, Pub. L. 92-426, 92d Cong., 2d Sess., 1972.

[27]Theodore J. Wachs, COL, USAF, "An Approach to Physician Utilization" (Professional Study, Air Force War College, Air University, 1974).

[28]Ibid., p. 18.

[29]Ibid.

[30]Jon N. Harris, LTC, USA, "Some Considerations in Adjusting the Compensation Package for Army Medical Corps Officers" (Army War College essay, U.S. Army War College, 1975).

[31]W. M. Vance, LTC, USA, "Recruitment of Physicians for the Active Army," (MMAS thesis U.S. Army Command and General Staff College, 1975).

[32]Ibid., p. 42.

[33]John Waggoner; Michael Rahm; and John Powell, "Navy Medical Care Study: Alternatives to a Physician Shortfall" (Seattle: Boeing Computer Services, Inc., 1975), typewritten.

[34]Ibid., p. VIII.

[35]A. Plattner, "Doctor Shortage to Get Worse: Kin, Retired Medical Care to be Cut," Army Times, 11 April 1977, p. 1; Ron Sanders, "Summer Doctor Crunch Seen," Air Force Times, 16 May 1977, p. 3; Tom Philpott, "More Kin Turn to Public Health Care," Army Times, 18 July 1977, p. 23.

[36]J. J. Foley, Jr., MAJ, USA, "The Erosion of Fringe Benefits and its Negative Effect on Attitudes and Career Intentions of Regular Army Officers" (MMAS thesis, U.S. Army Command and General Staff College, 1976).

[37]Ibid., p. 27.

[38]Ibid., p. 87.

[39]Association of the United States Army (AUSA), Special Report: Military Health Care--A Deteriorating Benefit (Arlington, Va.: AUSA, 1978), p. 18.

[40]Ibid.

[41]Ibid., p. 19.

[42]Ibid., pp. 6-7.

[43]Ibid.

[44]Ibid., p. 3.

CHAPTER II

PLANNING FOR THE ALL-VOLUNTEER ENVIRONMENT

Historical Perspectives

Richard M. Nixon's proposal to end the increasingly unpopular military draft and establish an all-volunteer armed force, made late in the 1968 Presidential Campaign,[1] was not a novel idea. Until the Selective Service Act of 1948, the nation, during peacetime, had relied on volunteers to maintain what had been relatively small military forces.[2] Enacted to provide the military manpower required to cope with the tensions of the Cold War era, this statutory authority for military induction was amended in 1950 to include doctors as a special category, and extended continuously for four-year periods over the following twenty-year period. In 1971, President Nixon, in fulfillment of his campaign promise, requested a two-year extension of Presidential authority to induct, and set the goal of 1 July 1973 for termination of the military draft.[3] The achievement of this goal removed what had become a major social irritant from the American domestic scene. The ultimate effects this action will have on military medicine have yet to be realized.

The national climate in the late 1960's which witnessed the domestic violence, demonstrations, and draft resistance, evasion and avoidance of the Vietnam era, provided heightened political impetus to

Presidential initiatives to terminate the military draft. A Presidential Commission, appointed in 1969 under the chairmanship of Thomas Gates, studied the feasibility and desirability of an all-volunteer force. One year later, this Commission reported its unanimous opinion that the national interests would be better served by an all-volunteer force, supported by an effective standby draft, rather than by continuation of the existing Selective Service system. Congressional acceptance of its findings was readily obtained.[4] In reflection of the national mood, Congressional approval of the termination of the draft arose more from a preoccupation with ending United States involvement in Southeast Asia, than an extensive analysis of the economics of the all-volunteer force concept. In the words of Senator Sam Nunn (D, N.C.),"analysis of the all-volunteer force was not the sole concerning issue at the time."[5] During Congressional consideration of the 1971 Nixon request for a final draft extension of two years, a total of fifty-four amendments were proposed on the Senate floor, many of which dealt with the Vietnam War and not the military draft.[6]

The major recommendations of the Gates Commission involved elimination of what were perceived as pay inequities which discriminated against junior enlisted personnel.[7] The basic premise of the Nixon administration was that an all-volunteer force could be achieved by merely paying a "market wage" sufficient to attract enough recruits to make the draft unnecessary.[8] While it was possible to conceive of compensating recruits at levels earned by comparably aged and educated

civilian workers, there is no evidence to suggest that serious consideration was given to achieving market parity between military and civilian physician incomes. It was estimated that the average net pre-tax income for physicians in private practice was approximately $40,000 per year, in 1971.[9] To partially close the gap between incomes of military and civilian physicians, the Gates Commission recommended a revised and significantly increased scale of special pay for physicians which would increase monthly professional pay to over $1,000 per month for medical officers with over eight years of active service.[10] Having made this extremely expensive, and thus, relatively unfeasible recommendation, the Gates commission concluded that medical officers too could be all-volunteer. The national climate was such that arguments to the contrary were simply not in vogue.

Physician Procurement Under the Draft

Section 5(A) of the Military Selective Service Act provided authority to induct medical, dental, and allied specialist personnel (veterinarians, optometrists, and male nurses), who, as Special Registrants, were registered and classified separately by local draft boards, and were subject to special draft calls. The majority of individuals in this category were subject to this doctor draft until age thirty-five, as a result of receiving student deferments from the general draft prior to age twenty-six. This general provision of the law regarding deferments was applied, in practice, only to Special Registrants.[11]

For the twenty-two years of its existence, the doctor draft, and draft-related procurement programs, provided the overwhelming

majority of physicians for the military services. Since less than one percent of these physicians remained on active duty beyond their two-year statutory obligation,[12] the military medical departments had a continuing need for a significant portion of each graduating class of medical students. As a result of this continuing military requirement and their vulnerability to military induction until age thirty-six, graduating male medical students generally knew that they would be required to serve their military obligation. Their probability of serving was markedly greater than for those subject to the general draft. During the four years prior to the end of the draft, over sixty percent of each medical school graduating class fulfilled their military obligation, either through the draft or draft-related procurement programs.[13] In contrast to this trend, Richard V. L. Cooper of the Rand Corporation estimated that, if the draft had been continued, by the mid-1970's, only one out of every five young men subject to the general draft would have ever served in the military.[14] As a result of their relative certainty of being drafted, many graduating physicians reluctantly entered "voluntary" procurement programs, in order to obtain their choice of service branch and the timing of their military service. While technically not drafted, their services were obtained as a result of the draft, and their lack of career motivation as a group was indistinguishable from those physicians who were actually inducted.

The Berry Plan

An overwhelming majority of service requirements for physicians,

and particularly, for physician specialists were filled through the Armed Forces Physician's Appointment and Residency Consideration Program, which was established in 1954 by Dr. Frank Berry, Assistant Secretary of Defense (Health and Medical), and soon thereafter, became commonly known after its founder.[15] This program was advantageous to both the individual physician and the military services, for it provided for a predictable and managed influx of specialists for the services, while enabling graduating medical students to obtain deferment of their active duty obligation until completion of specialty training. Each year, the military services would project their future requirements in all of the recognized medical specialities which could be filled by that year's graduating class. Since the number of years required for completion of residency training varied among specialities, these requirements would be projected for the different "out-years" when various specialty groups would become available. Based on these projections, the services would offer deferment of active duty to enable physicians to complete their residency training.

Voluntary participation in the program was solicited from each graduating class, during the spring of each year. Applicants could indicate their desire to enter active duty either immediately after completion of their internship year; after a one-year post-internship delay for partial residency training; or after full deferment for their desired specialty training. Applicants also ranked their preference for branch of service. Since, during most of the years of its existence the Berry Plan was substantially oversubscribed,[16] selection for

full deferment and allocation to branch of service was accomplished by means of a random lot computer match. Those who matched for specialty deferment were offered a Reserve Commission by the service to which they had been allocated, and upon completion of the commissioning process, were placed in a delayed Reserve status until completion of their training. While in this status, they received no compensation from the military, but were no longer subject to the draft. Residency training was accomplished in the civilian sector, with no interaction on the part of the military.

Applicants who were not selected for full deferment could subsequently apply for the other options of a one-year delay for partial training or immediate active duty after internship. The fact that these latter options were considered to be viable alternatives to withdrawal from the program indicates how important it was for physicians who desired specialty training to remain on academic cycle. Most residencies started in July, and many of the more prestigious programs would not accept applicants who were subject to being drafted in mid-year. An individual who did not participate in the Berry Plan and was subject to the doctor draft had an excellent chance of being inducted, and, if off-cycle, of losing one or possibly two years in addition to his active service, before finally becoming a fully trained specialist.

Although a voluntary program, the Berry Plan was inextricably tied to the doctor draft. Although those participants who were in delayed status were required to fulfill their military obligation and, as will be discussed in succeeding chapters, formed the bulk of physician specialists during the 1970's, the program itself was phased out as of

1 July 1973, concurrently with the end of the draft.[17]

Retention as a Continuing Problem

Heavy reliance on the doctor draft and draft-related programs such as the Berry Plan for procurement of military physicians resulted in a significant degree of personnel management inefficiency within the military medical departments. This inefficiency was characterized by constant personnel turbulence, an exhorbitant annual personnel turnover and a resulting requirement to constantly reinvest resources in the training of replacements. This, in turn, reduced the effective utilization of those physicians on active duty for the primary mission of patient care. As of 31 December 1970, of 14,899 medical officers on active duty in the military services, 10,549, or almost seventy-one percent were non-career officers (defined as having less than four years of active service).[18] In 1972, over two-thirds of active duty medical officers were non-volunteers (to include Berry Plan participants), who were serving their initial two-year active duty obligated tour.[19] One-sixth of the active duty physicians were individuals who had elected to remain in military service to complete residency training in military teaching hospitals.[20] Of this group, approximately twenty-five percent could be expected to remain on active duty beyond the obligated service they incurred as a result of their military residency training.[21] Thus, at the time that plans were being formulated to achieve an all-volunteer medical corps, the only group which could truly be categorized as "career" was the remaining one-sixth of the medical officers on active duty. The preponderance of initial tour physicians combined with their

almost non-existent retention rate produced an annual turnover of active duty physicians which exceeded one-third of total assigned strength.

The turmoil created by this extremely inefficient environment was compounded by the personnel turbulence associated with the one-year combat tour requirements of Vietnam. These "conditions of employment" were obviously intolerable for many of those who were at least nominally career oriented for, in the late 1960's and early 1970's, the armed forces were losing career medical officers at an alarming rate. The Department of Defense fiscal year end-strength in Regular medical officers fell from 4,846 in Fiscal Year 1967, to 4,067 by Fiscal Year 1971, a decrease of 779, or over sixteen percent.[22] During this period, slightly less than seventy percent of these losses were the result of resignations as opposed to retirements.

In the absence of alternatives which might reverse these trends, the military medical services were being drawn into a closed cycle of increased reliance on the doctor draft. The annual turnover being experienced among "two-year doctors" and the loss of career medical officers created even greater reliance on the draft and draft-related programs to fill future requirements for medical officers. Since they were consuming over sixty percent of each graduating medical class, the military services were perceived by many as operating with an unlimited bank account,[23] and wasting the services of a national resource for which, in the early 1970's, predictions of critical national shortages were commonly accepted.[24] The existence of the draft as a secure source which could "deliver" sufficient physicians to fill any military shortages

created at least the potential of disincentives for increasing the efficiency and effectiveness with which military physicians were being managed and utilized.[25] Lieutenant General Richard B. Taylor, M.D., Army Surgeon General during the mid 1970's, stated that "we had been with the draft in one form or another since 1941, and, if we were short, physicians were drafted to meet our needs."[26] A General Accounting Office study released in 1971, gave further credence to the conventional wisdom that the military medical departments were inefficient consumers of medical talent. This report was particularly critical of assignment policies which placed military physicians in administrative positions, and termed this rather widespread practice a misuse of medical manpower.[27]

In addition to these commonly accepted perceptions of military inefficiency regarding management of physicians, an increasing preoccupation with health care in American society (which was characterized by growing acceptance of the notion of health care as a right rather than a privilege, and increasing federal involvement in health care delivery through Medicare), and the continuing pressure for some form of national health insurance exerted further pressure on the military medical departments. When PL 92-129 was enacted in 1971 to extend the draft for its final two years, an amendment sponsored by Senator Edward Kennedy (D., Mass.) required the Department of Defense and the Department of Health, Education and Welfare to jointly investigate the feasibility of transferring portions of the military medical workload to the civilian health care delivery system.[28] The Department of Defense was subsequently able to convince the Congress that there was no feasible way

of avoiding a sizeable military medical force, because of cost and the isolation of many military bases.[29] Nevertheless, the fundamental question regarding what form peacetime medical support of the armed forces should take has remained in the background throughout the period this study examines.

An extensive analysis of military physician utilization and management in the years preceeding the end of the draft is beyond the scope and inconsistent with the limitations of this study. The purpose of this brief discussion has been to describe the climate in which planning for an all-volunteer physician force and early projections of program performance evolved.

Plans for Procurement and Retention in the All-Volunteer Force

Despite its unpopularity with the medical community and the turbulence and management difficulties it caused for the military services, the doctor draft had accomplished its purpose of assuring a continuous supply of physicians for the armed forces. Top management within the military health care system was publicly optimistic and supportive of the Presidential initiatives to achieve an all-volunteer force. There is evidence, however, that at least initially, several of these officials held serious reservations regarding their ability to attract and retain sufficient military physicians in an all-volunteer environment. Dr. Louis Rousselot, Assistant Secretary of Defense (Health and Environment) commented in 1971 that, without the draft, the military medical services could not have survived, and predicted that, without similar provisions,

they would not be able to meet their future needs for physicians.[30] Dr. Richard S. Wilbur, who succeeded Dr. Rousselot as Assistant Secretary of Defense (H & E), recognized, in 1972 testimony before the Senate, that the move to an all-volunteer force of health professionals would not be easy. He further testified that if the military services were to be all-volunteer by Fiscal Year 1974 (1 July 1973), they would have to convert many of their "two-year" physicians to a volunteer status, by that time.[31] In view of this group's retention history over the previous twenty years, the probability of this occurring was obviously unlikely.

In 1977, Vernon McKenzie, who was Deputy Assistant Secretary of Defense for Health Affairs throughout the period studied, testified under questioning by a subcommittee of the House Armed Services Committee that there was serious consideration, at least initially, of alternatives to an all-volunteer military medical service. According to his testimony, the original decision to terminate the draft had included one exception --physicians. Approximately three months later, however, the decision to exclude physicians from the all-volunteer force experiment was reversed, and it was decided that the Department of Defense would try to procure and obtain an all-volunteer health force just as it would for the overall force.[32] McKenzie indicated that since the termination of the doctor draft, his office had considered "how strong a case" could be developed in support of a draft for physicians or certain other health professionals only. He offered his personal opinion that a return to a selective draft of physicians was the answer to what, by 1977,

had become a critical shortage of military physicians.[33]

In view of the Administration's decision that there would be no exceptions to its goal of an all-volunteer force (and the political and legal difficulties which would have undoubtedly resulted from any attempt to continue the military draft for only one group within the United States), it became readily apparent that dramatic changes would have to occur in physician procurement programs. The Department of Defense estimated that, without revitalized programs to attract and retain physicians in a zero-draft environment, active duty strength of military physicians would drop from a beginning strength of 15,587 in Fiscal Year 1971 to a beginning strength of 6,736 by Fiscal Year 1980, a reduction of almost fifty-five percent in ten years.[34] The Congress agreed, and a Report of the Senate Armed Services Committee in 1972 concluded that the uniformed services were facing a long range problem in attracting and retaining medical personnel that was approaching crisis proportions.[35] As the termination of the draft approached, there was apparent consensus in the federal government that unless sufficient incentives were developed to attract physicians to military service, the armed forces would be unable to recruit and retain sufficient medical officers to support the military mission or provide future leadership for the military medical departments.[36]

Plans to avert this projected crisis concentrated on the development of two broad categories of incentives: subsidization of medical education in return for obligated military service; and creation of significantly increased financial incentives to induce medical officers to

remain on active duty beyond their initial obligation. The latter was also designed to attract volunteers from the civilian physician force. Plans also included increasing the efficiency of the military utilization of physicians and thereby improving their career patterns by streamlining personnel management practices, enhancing assignment stability and increasing the use of ancillary personnel. The overall efficiency of military medicine would be further enhanced by redoubling efforts to regionalize military health care on a tri-service basis.[37] To fill short range requirements until these programs took effect, those who had entered the Berry Plan and were still in specialty training would be called to active duty as stipulated at the time of their commissioning, and would form a final essential pool of draft motivated military physicians. Army assets in this category numbered approximately 2,900.[38]

Health Professions

Scholarship Program (HPSP)

On 21 September 1972, Congress enacted PL 92-426, The Armed Forces Health Professions Revitalization Act of 1972, which included as one of its two major provisions, the establishment of an Armed Forces Health Professions Scholarship Program (HPSP), "for the purpose of obtaining adequate numbers of commissioned officers on active duty who are qualified in the various health professions."[39] This legislation also provided for the establishment of a Uniformed Services University of the Health Sciences (in effect, a military medical school) which is discussed in subsequent sections of this study.

The concept of a scholarship program to provide an alternative to the doctor draft was quite popular, and had been proposed for several years prior to the end of the draft. Moreover, the quid pro quo nature of this concept was consistent with the general approach of the Nixon Administration to achieving an all-volunteer force. In testimony before the Senate in Support of the HPSP in 1972, Dr. Richard S. Wilbur noted that one of the greatest difficulties anticipated in procuring health professionals was in persuading members of the health professions to even consider a career in the armed forces. He further commented that the HPSP was designed to do precisely this, and to be the major device which, in the short range, would fill the procurement gap created by termination of the doctor draft.[40]

PL 92-426 provided for the establishment of not more than 5,000 scholarships at any one time, to be allocated among the military services, which could be offered to eligible U.S. citizens who were accepted or enrolled in accredited schools of medicine, osteopathy, dentistry, veterinary medicine, optometry, and other allied health disciplines. The program is still in effect, and participants are commissioned in the inactive Reserve of their sponsoring service and receive payment of tuition, books, certain academic fees, and a monthly stipend of $400.00, for ten and one-half months per year. For the remaining forty-five days each year, students enter active duty for training status in the pay grade of O-1 (2d Lieutenant or Ensign), and receive the full pay and allowances of that grade. This annual active duty may be served in a clinical or other training experience at a

military facility, or at the student's school, if his academic program will not permit absence. Participants incur an active duty obligation of one year for each year of participation or fraction thereof, with a minimum obligation of two years. Participants are further obliged to apply for internship training with their sponsoring service, if appropriate (as in the profession of medicine). Time spent in military internship or residency training does not fulfill the HPSP-incurred active duty obligation. In its original form, HPSP participants would incur no additional active duty obligation for accepting military residency training. Effective 1 October 1977, however, this policy was changed through the promulgation of DoD Directive 6000.2 (Active Duty Obligations) which provided for an additional active duty obligation of one-half year for each year of training in a military facility.[41]

The Health Professions Scholarship Program was offered to students during the winter of 1973, to include those seniors who were already identified with the military and who might wish to avail themselves of one-half year of scholarship benefits, without added obligation. The program was well-received and, from January to June 1973, a total of 3,356 applications were processed by the Army, against its allocation of 1,850 scholarship spaces.[42] Of those selected, a total of 838 accepted scholarships during this period, of which 354 were in medicine, 346 in dentistry, and the remainder in other eligible disciplines.[43]

Uniformed Services University
of the Health Sciences

The Health Professions Scholarship Program was designed to be a short range solution to the problems of physician procurement. As such, it enjoyed considerable popularity within the Congress and the academic community as a reasonable and effective mechanism for obtaining medical volunteers. The Uniformed Services University of the Health Sciences (USUHS), also authorized by PL 92-426, was supported by the Department of Defense, "as a long range device for retaining the members of the health professions who are procured," but was a far more controversial component of this legislation.[44]

In its final form, PL 92-426 provided for the establishment, within twenty-five miles of the District of Columbia, a Uniformed Services University of the Health Sciences, to be organized to graduate not less than 100 medical students annually, with the first class graduating not less than ten years after the date of the enactment of the law. Students would be commissioned in pay grade O-1, and serve on active duty with the full pay and allowances of that grade for their entire period of medical school. An active duty obligation of seven years would be incurred as a result of participation, and this obligation could not be fulfilled during residency training in a military facility.[45]

Enactment of this legislation fulfilled a twenty-five year effort of Representative F. Edward Hebert (D., LA) who had succeeded H. Mendel Rivers (D., S.C.) as Chairman of the House Armed Services

Committee, to bring a "West Point of Medicine" into being.[46] It also represented a significant legislative compromise between the House and the Senate. During Senate hearings on H.R. 2 (the House Bill under which these proposals were considered), almost unanimous opposition to the USUHS was expressed by organized medicine, medical education, physician veterans groups, and other interested organizations within the health care industry.[47] Opposition centered on the fundamental question of the appropriateness of a federal university, and considerable concern over the precedent of federally established medical schools.[48] Expressing concern that establishment of the USUHS would isolate its graduates and faculty from the mainstream of American medicine, HEW Secretary Elliot L. Richardson strongly opposed enactment of this proposal, but supported enactment of the scholarship portion of this legislation.[49] Secretary of Defense Melvin Laird, who as a Member of Congress had supported the USUHS, strongly urged enactment of this proposal, as a means of attracting a significant number of physicians into the military departments and, more importantly, as a means of retaining senior military physicians by providing an opportunity to participate in an "academic environment of the highest professional caliber."[50] This latter point appears to have been one of the major reasons for support of the USUHS by the military services, for, there was serious distress at the continued loss of senior military physicians. Many of these physicians were moving to civilian universities with the rank of full professor, not necessarily because they were unhappy with the military, but because they could not find the ultimate

professional fulfillment and prestige offered by academic medicine within the military establishment.[51]

As a result of the strong opposition to the USUHS from the private sector, and because of concern over what it considered to be a lack of any clear consensus within the government as to the need or the desirability of a federal medical school, as well as apprehension over the cost effectiveness of the USUHS,[52] the Senate passed a substitute version of the House Bill which required a feasibility study of the USUHS, and postponed further consideration of the proposal until completion of this study by the Secretary of Defense.[53] The Senate version of the scholarship portion of this legislative proposal was considerably less costly than that contained in H.R. 2, since the latter provided for active duty in grade O-1, throughout the program. In a classic example of Congressional quid pro quo, the Conference Report of the committee of conference on the disagreeing votes of the two Houses agreed that the Senate version of the scholarship program would prevail, and that Congressman Hebert would get his military medical school.[54] Controversy over the cost effectiveness of this institution reappeared in 1977, and is discussed in a succeeding chapter of this study.

Variable Incentive Pay

The military recognized from the outset that the benefits of the scholarship program and the university would not be fully realized for eight to ten years, because of the length of training required to become a physician specialist. Although the draft had ended on 1 July 1973, the bulk of the active medical force was still a product of the

draft, and would not be leaving the military until the summers of 1974 and 1975. In late 1973 and early 1974, recognizing that the physicians on active duty represented the best procurement source available, the Department of Defense urgently sought a program of additional financial incentives for medical officers. It was hoped that these incentives would assist in retaining a large portion of those who were about to complete their initial obligation, recruit some practitioners from the civilian sector, and retain experienced health professionals for a full military career.[55]

On a number of occasions since World War II, Congress had enacted legislation which provided special financial incentives to encourage retention of military physicians. The most notable of these was the Continuation Pay program, established in 1967, under which career officers who committed themselves in writing to serve for one or more additional years would receive four months base pay for each year they agreed to extend.[56] Most of these incentives were directed at retention of the relatively small group of career officers, under the general assumption that, even with financial incentives, the bulk of military physicians would be supplied through involuntary procurement programs.[57]

A continuing disparity in income between the military physician and his civilian counterpart had been generally accepted as being the major source of difficulty in recruiting and retaining medical officers beyond their initial obligation. Conceeding, in late 1973, that physicians were the only group in which income disparity between the military

and civilian sectors remained, the Department of Defense requested priority Congressional action to correct this barrier to achieving an all-volunteer force.[58] In testimony before the House Armed Services Committee in February 1974, Dr. James Cowan, who had succeeded Dr. Wilbur as Assistant Secretary of Defense (H & E) estimated that the median income of physicians in private practice for five years was approximately $43,000 per year, and predicted that, without legislative action to reduce the "magnetic effect" of their potentially high earnings from civilian practice, there would soon be insufficient medical officers on active duty to support deployed field units and simultaneously provide health care in military hospitals.[59] DoD projections were that, unless Congress took action, the armed forces would experience a net loss of 5,067 medical officers during the five year period from Fiscal Years 1974 to 1978, and that, by Fiscal Year 1978, a shortage of 3,476 military physicians would exist.[60] The urgency of this requested action arose from the fact that 7,249 physicians were expected to leave active duty during 1974 and 1975. The Department of Defense projected that if Congress enacted the proposed program of incentive pay, it might be able to retain as many as one-third of these physicians, and by so doing, solve its physician staffing problems until the 1980's (when the student programs would begin to realize their full potential).[61] Enactment of this proposal was also expected to reverse what was considered an unacceptable loss of senior medical officers who were required for the continued viability of the military residency programs which over the previous twenty-five years, had been almost the only

source of career military medical officers.[62]

Again, Congress agreed with the Department of Defense, and on 6 May 1974 enacted PL 93-274 as emergency legislation. This law established the Variable Incentive Pay program (VIP), on an eighteen-month experimental basis. While not designed to provide complete parity with the civilian sector, this program was expected to significantly reduce the income disparity between military and civilian physicians. This legislation authorized a monthly professional pay allowance of $350 per month, for medical officers with over two years active service, and provided a Variable Incentive Pay bonus of up to $13,500 per year for non-obligated physicians who agreed in writing to remain on active duty for a period of four additional years. Contractual commitments of three, two, or one additional years were also authorized at slightly reduced bonuses.[63]

For some reason, after repeatedly testifying to the criticality of this legislation and urging swift Congressional action to provide a retention instrument aimed at those physicians who were leaving in the summer of 1974, the Department of Defense did not impliment the program until 12 September 1974, long after the annual summer exodus of military physicians had occurred. In response to a subsequent Congressional investigation, the reason given for this delay was that the Department of Defense was studying the implimentation procedures, and studying the utilization of doctors in the government.[64]

Despite this delay in implimentation, enactment of the Variable Incentive Pay program was hailed as the capstone of military initiatives

to achieve an all-volunteer medical force, and was fairly well received by those eligible to participate. DoD-wide retention of Berry Plan participants rose from 6.2 percent in Fiscal Year 1974, to 14.9 percent in the first full year of the program's existence. The number of volunteers rose from 132 in Fiscal Year 1974, to 454 in Fiscal Year 1975.[65] Although far below the thirty-three percent retention hoped for by the Department of Defense, these early experiences were significant and led to optimism that the armed forces would be able to achieve the all-volunteer goal.

The costs associated with these procurement and retention programs were enormous. The Health Professions Scholarship Program was estimated to cost $40 million in Fiscal Year 1973, and over $50 million in each succeeding year. It was expected that the Uniformed Services University of the Health Sciences would cost $102 million, during the first ten years of its existence. Cost estimates for the Variable Incentive Pay program were $37.2 million during the first year, and over $50 million for each succeeding year.[66] Congress was obviously willing to support the military services in their efforts to achieve all-volunteer status. The "market wage" approach to attainment of an all-volunteer military force appeared to have overcome its final obstacle.

Volunteers

Recruitment of volunteers from private practice apparently did not have high priority during the first years of the zero-draft environment. Attitudes and perspectives developed over thirty years obviously took time to change. During the period between 1940 and 1973, little effort had been made to attract non-obligated volunteers to the military

medical departments, since as W. Vance noted, under the doctor draft any shortage in active duty requirements could be readily filled by increasing the next draft call for physicians.[67] During these years, when a Special Call was in effect, the only way that draft eligible physicians could volunteer was by requesting induction through their local draft boards. According to Vance, an average of forty-five to fifty physicians volunteered annually for active duty in the Army Medical Department during the six-year period from Fiscal Years 1969 to 1974.[68] A major conclusion of Vance's thesis was that in 1974 and 1975, there was a serious lack of concentrated effort by the Army to attract the volunteer physician.[69] The author has uncovered no evidence which would dispute this previous research.

Projections of Program Performance

Congressional enactment of the Health Professions Scholarship Program and Variable Incentive Pay gave rise to considerable confidence on the part of top military health care management that an all-volunteer physician force would be attained. Despite their lack of experience or effort on behalf of non-obligated volunteers, the military services were optimistic that sufficient volunteers would be available to fill any shortages which occurred in future years. In an interesting departure from his Congressional testimony, Dr. Wilbur, in a 1973 speech to the American Society of Military Surgeons, declared that the willingness of a substantial number of health professionals to join (the military) voluntarily, at least for a few years service seemed, by then, to be well established.[70] In addition, the pool of Berry Plan participants who had

yet to enter active duty provided a respite for planners at all levels. The real shortages would not begin to occur until this group began leaving active duty in the summers of 1976 and 1977. Initial experiences with the HPSP and the VIP had been encouraging; there was time to implement the other initiatives aimed at improving the morale of medical officers.

The logic of this optimism was based on the expectation that, with an all-volunteer medical force, less turbulence would occur, increased efficiency of physician utilization would be possible, and the cycle of management inefficiency characteristic of the draft years would be reversed. It was projected that, as a result of this increased efficiency, the same level of care could be delivered by significantly reduced numbers of military physicians.[71] The projected stability of the future Army Medical Corps was based on the significant obligations associated with the HPSP and USUHS, as well as the assumption that the majority of participants in these programs would receive their graduate medical education in the Army. As noted previously, the retention rate of medical officers who received their specialty training in the Army had historically been approximately twenty-five percent. Since response to the HPSP seemed good, and the participant who performed his residency training on active duty could be expected to have served approximately eight years of active service, creditable toward twenty-year retirement eligibility, before fulfilling his active duty obligation, there was little reason to expect that retention of HPSP participants would be worse than that of Army residents in the past.

Preliminary studies lent credence to the optimism which prevailed. A 1973 study conducted by the Center for Naval Analyses analyzed the lifetime earnings of medical officers under the military system which included the HPSP and assumed passage of the VIP, and compared them with those of civilian physicians. The study concluded that the combination of scholarship program and incentive pay would provide sufficient economic incentives to enable the Navy to retain enough medical officers to successfully make the transition from conscription to an all-volunteer medical corps.[72] Claude Braunstein, in a 1974 report prepared at the Navy Personnel Research and Development Center, found as a result of a 100 percent survey of Naval medical officers that seventeen percent were planning a career in the Navy, and thirty-six percent were totally ambivalent. Based on this, he concluded that, with appropriate action (the VIP), it would be possible to retain over fifty percent of the active duty physicians in the Navy.[73] Both of these studies had their caveats, in terms of limitations and methodologies, but apparently were received with the spirit of optimism which they supported.

The plan seemed reasonable enough: employ the Variable Incentive Pay program to retain the senior medical officers to be teaching chiefs in the residency programs, and sufficient Berry Plan physicians to staff the medical departments until the 1980's. By then, the HPSP would be producing an abundance of new physicians, with long enough obligations to make them accumulate, and the USUHS would be producing a new breed of career physicians. Any shortages before these programs reached fruition would be filled by volunteers from private practice, whom Variable Incentive

Pay would attract away from the increasing morass of malpractice problems and bureaucratic regulations which have continued to plague the private health care sector. The long range plan may still prove valid. In the short term of the 1970's, however, outcomes proved considerably less successful than had been projected, and led to a military health care delivery system which in late 1978, was characterized by one reporter as "a system critically short of doctors and unable to keep most of those it has."[74]

END NOTES

[1]New York Times, 18 October 1968, p. 35.

[2]U.S., Congress, Senate, The All-Volunteer Armed Force. Hearings before the Subcommittee on Manpower and Personnel of the Senate. Committee on Armed Services, 95th Cong., 1st Sess., 1977, p. 1.

[3]U.S., President, "Message to the 92d Congress, Relative to the Military Draft," 28 January 1971, House Document No 92-37, p. 3.

[4]James D. Hessman, "Gates Panel Recommends Many Career Benefits," Armed Forces Journal, 107 (1 March 1970), 16.

[5]U.S. Senator Sam Nunn, in the Senate Armed Services Committee Hearings on the All-Volunteer Armed Force, 2 March 1977, p. 2.

[6]Ibid.

[7]Richard V.L. Cooper, "The All-Volunteer Force--The Emerging National Debate," Santa Monica, Ca., The Rand Corp., 1977 (Rand Paper Series), p. 2.

[8]U.S., President, "Message to the 92nd Congress," p. 2.

[9]U.S., Congress, Senate, Committee on Armed Services, The Volunteer Armed Force and Selective Service. Hearings before a Subcommittee of the Senate Committee on Armed Services, 92d Cong., 2d Sess, 1972, p. 214.

[10]Hessman, "Gates Panel," p. 17.

[11]U.S., Congress, Senate Committee on Armed Services, "Uniformed Services Health Professions Revitalization Act of 1971, Report to accompany H.R. 2," S. Report No. 92-827, 92d Cong., 2d Sess., 1972, p. 10.

[12]U.S. Congress, Senate, Committee on Armed Services, Uniformed Services Health Professions Revitalization Act of 1971, Hearings before the Subcommittee on General Legislation of the Senate Committee on Armed Services on H.R.2, 92d Cong., 2d. Sess., 1972, p. 13.

[13]Senate Armed Services Committee Hearings on the Volunteer Armed Force and Selective Service, 1972, p. 213.

[14]Richard V.L. Cooper, "The All-Volunteer Force and Defense Manpower--Testimony Before the House Budget Committee (Task Force on National Security), July 12, 1977," Santa Monica, Ca., The Rand Corp., 1977 (Rand Paper Series), p. 3.

[15]U.S., Congress, House, Committee on Armed Services, Hearing on H.R. 14772 to Pay Variable Incentive Pay to Medical Officers Who Participated in the Berry Plan, Hearing before the Subcommittee on Military Compensation of the House Committee on Armed Services, 94th Cong., 2d Sess., 1976, p. 2.

[16]W. M. Vance, LTC, USA, "Recruitment of Physicians for the Active Army," (MMAS thesis, U.S. Army Command and General Staff College, 1975), p. 11.

[17]U.S., Department of the Army, Office of the Surgeon General, Annual Report of the Surgeon General Fiscal Year 1973 (Washington, D.C.: Government Printing Office, 1974), p. 29.

[18]S. Report No 92-827, p. 10.

[19]Senate Armed Services Committee Hearings on the Volunteer Armed Force and Selective Service, 1972, p. 213.

[20]Ibid.

[21]Senate Armed Services Committee Hearings on the Uniformed Services Health Professions Revitalization Act of 1971, p. 13.

[22]S. Report No 92-827, p. 10.

[23]Maurice S. Berbary, MD, COL, USA, "The Physician, the Congress, and the Armed Forces" (Army War College thesis, U.S. Army War College, 1969), p. 78.

[24]U.S., Congress, House, Committee on Armed Services, Need for Continuation of the Uniformed Services University of the Health Sciences, Hearings before the Investigations Subcommittee of the House Committee of Armed Services, 95th Cong., 1st Sess., 1977, p. 3.

[25]U.S., Department of the Army, Office of the Surgeon General, Annual Report of the Surgeon General Fiscal Year 1972 (Washington, D.C.: Government Printing Office, 1973), p. 70.

[26]House Armed Services Committee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 125.

[27]Senate Armed Services Committee Hearings on the Uniformed Services Health Professions Revitalization Act of 1971, p. 16.

[28]Ibid.

[29]Ibid.

[30]James D. Hessman, "DoD Plans 10 Point Program to End Doctor Draft," Armed Forces Journal 108 (1 March 1971), p. 17.

[31]Testimony of Dr. Richard S. Wilbur, M.D., Assistant Secretary of Defense (Health and Environment), before the Senate Armed Services Committee Hearings on the Volunteer Armed Force and Selective Service, 1972, p. 214.

[32]Testimony of Hon. Vernon McKenzie, Deputy Assistant Secretary of Defense for Health Affairs, before the Military Compensation Subcommittee of the House Committee for Armed Services, during Hearings on H.R. 7839, Extension of Health Professionals Pay, House, 95th Cong., 1st Sess., 1977, p. 14.

[33]Ibid., p. 15.

[34]S. Report 92-827, p. 10.

[35]Ibid., p. 8.

[36]U.S., Congress, Senate, Committee on Armed Services, "Revising the Special Pay Structure Relating to Medical Officers of the Uniformed Services, Report to accompany S. 2770," S. Report No 93-658, 93d Cong., 1st Sess., 1973, p. 3.

[37]Senate Armed Services Committee Hearings on the Volunteer Armed Force and Selective Service, 1972, p. 215.

[38]House Armed Services Committee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 126.

[39]U.S., Congress, Armed Forces Health Professions Revitalization Act of 1973, Pub. L. 92-426, 92d Cong., 2d. Sess., 1972, p. 4.

[40]Senate Armed Services Committee Hearings on the Uniformed Services Health Professions Revitalization Act of 1971, p. 8.

[41]U.S., Department of the Army, Working Papers, SGPE-PDM, 1 March 1978, n.p.

[42]Annual Report of the Surgeon General Fiscal Year 1973, p. 32.

[43]Ibid.

[44]Senate Armed Services Committee Hearings on the Uniformed Services Health Professions Revitalization Act of 1971, p. 8.

[45]Pub. L. 92-426, pp 1-3.

[46]Senate Armed Services Committee Hearings on the Uniformed Services Health Professions Revitalization Act of 1971, p. 58.

[47]Ibid., pp 23-61.

[48]House Armed Services Committee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 15.

[49]Secretary of Health, Education, and Welfare Elliot L. Richardson to the Chairman of the Senate Armed Services Committee, 26 January 1972, in Senate Report 92-827, p. 21.

[50]Secretary of Defense Melvin Laird to the Chairman of the Senate Armed Services Committee, 20 July 1971, in Senate Report 92-827, p. 16.

[51]Senate Armed Services Committee Hearings on the Uniformed Services Health Professions Revitalization Act of 1971, p. 10.

[52]S. Report 92-827, p. 5.

[53]Ibid., p. 4.

[54]U.S., Congress, House, "Uniformed Services Health Professions Revitalization Act, Conference Report to accompany H.R. 2," Report No 90-1350, 92d Cong., 2d Sess., 1972, p. 10.

[55]S. Report 93-658, p. 12.

[56]Senate Armed Services Committee Hearings on the Volunteer Armed Force and Selective Service, 1972, p. 218.

[57]Ibid., p. 213.

[58]S. Report 93-658, p. 11.

[59]Testimony of Dr. James R. Cowan, M.D., Assistant Secretary of Defense (Health and Environment), before the House Armed Services Committee Hearings on S. 2770 to Revise the Special Pay Structure Relating to Medical Officers of the Uniformed Services (25 February 1974), House, 93d Cong., 1st Sess., 1974, p. 98.

[60]S. Report 93-658, p. 4.

[61]House Armed Services Committee Hearings on S. 2770, p. 99.

[62]S. Report 93-658, p. 12.

[63]U.S., Congress, House, "Special Pay for Medical Officers of the Uniformed Services, Conference Report to Accompany S. 2770," Report No 93-984, 93d Cong., 2d Sess., 1974, pp 1-3.

[64]U.S., Congress, House, Committee on Armed Services, Hearings on H.R. 14772 to Pay Variable Incentive Pay to Medical Officers Who Participated in the Berry Plan, Hearings before the Subcommittee on Military Compensation of the House Committee on Armed Services, 94th Cong., 2d Sess., 1976, p. 15.

[65]House Armed Services Committee Hearings on H.R. 7839, Extension of Health Professionals Pay, p. 3.

[66]S. Report 93-658, p. 7.

[67]Vance, "Recruitment of Physicians for the Active Army," p. 14.

[68]Ibid., p. 15.

[69]Ibid., p. 42.

[70]Richard S. Wilbur, M.D., "All Volunteer: Military Medicine Tomorrow," Military Medicine 138 (June 1973), 328.

[71]Senate Armed Services Committee Hearings on the Volunteer Armed Force and Selective Service, 1972, p. 217.

[72]U.S., Department of Navy, Center for Naval Analyses, Institute of Naval Studies, "Procurement and Retention of Navy Physicians," Arlington, Va. Nov. 1973.

[73]Claude Braunstein, "A Study of the Factors Influencing Career Motivation Among Navy Physicians and Dentists," San Diego, Ca.: Navy Personnel Research and Development Center, 1974. (typewritten)

[74]Larry Margasak, "Anger, Bitterness Plaguing Ailing Military Medicine," Kansas City Times, 30 November 1978, p. 7A.

CHAPTER III

ANALYSIS OF PROGRAM PERFORMANCE

Physician Procurement and Retention, 1973 - 1978

For most of the period covered by this study, the Department of Defense remained optimistic in its testimony before Congress that its procurement and retention programs would achieve and sustain an adequate all-volunteer physician force. A General Accounting Office Report of 30 August 1976 concluded that it did not "appear that DoD is experiencing significant short-term problems in recruiting physicians and dentists. Authorized manpower levels are generally met and frequently exceeded."[1] Although this study cautioned that the time lag before the Health Professions Scholarship Program reached fruition might cause some shortages,[2] the Department of Defense considered itself in early 1977, to be the fortunate recipient of some "national resource effects" with respect to physicians and dentists.[3] An increase in the number of physicians entering the national resource pool, combined with the state of the economy and the issue of medical malpractice, had resulted in a rise in medical volunteers during 1975 and 1976. This increase in volunteers, combined with the continued accession of obligated Berry Plan participants, had offset what had originally been a pessimistic outlook for physician staffing in the late 1970's. As Vice Admiral John G. Finnerin, the Deputy Assistant Secretary of Defense for Military Personnel Policy, looked to the future in February 1977, he did not see any immediately

severe problems in the armed forces' ability to maintain the medical and dental force, provided that these characteristics did not change.[4]

On 21 March 1977, Dr. Robert N. Smith, MD, Assistant Secretary of Defense (Health and Environment) testified before the House Appropriations Committee that the difficulties originally anticipated in procuring an all-volunteer medical force had been largely offset by the Variable Incentive Pay (VIP) program, and that the armed forces had already experienced their most severe physician shortage.[5] The Department of Defense projected that the military services would experience an FY77 physician end-strength shortage of 746 or 6.4 percent of the combined military authorized strength of 11,703; but this was expected to be the worst year.[6] From the Defense perspective, anticipated gains from the Health Professions Scholarship Program made it reasonable to project consistent annual improvement in military physician strength into the 1980's.[7] Table 1 provides the Department of Defense projections for military physician strength from fiscal years 1977 to 1982, which were submitted to Congress on 21 March 1977. These projections formed the basis for a decision by the Secretary of Defense in February 1977 that the Uniformed Services University of the Health Sciences was no longer a necessary physician procurement mechanism. The controversy which surrounded this decision is discussed in a subsequent section of this study. These DoD projections were considered to be still valid as late as 21 June 1977.[8] On 21 February 1978, eight months later, Dr. John P. White, Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) testified before the House Committee on Appropriations that the Department of Defense had a serious shortage of active duty and reserve physicians which

TABLE 1

DOD PROJECTIONS OF MEDICAL OFFICER STRENGTH, FISCAL YEARS 1977-1982

Fiscal Year	Number Authorized	Number Assigned	Shortage
1977	11,703	10,957	746
1978	11,687	11,028	659
1979	11,726	11,253	473
1980	11,726	11,382	344
1981	11,726	11,497	229
1982	11,726	11,726	0

Source: House Appropriations Committee Hearings on the Military Construction Appropriation for 1978, p. 362.

was impairing the ability of the military medical departments to provide quality health care.[9] The respite from the full impact of the termination of the doctor draft had ended.

Berry Plan Participants

The radical change which occurred in military physician staffing during the last half of 1977 was largely the result of a dramatic reduction in the ratio of Berry Plan participant gains to losses. Members of the class of 1972 (the last group of physicians who participated in the Berry Plan) entered active duty in large numbers during the summer of 1975 and 1976. When these individuals left active duty after completing their two-year obligation, they were not replaced; and armed forces reliance on the doctor draft was effectively ended.

The degree to which the Army Medical Department continued to depend on deferred Berry Plan participants during the mid-1970's may be

derived from a comparison of Berry Plan accessions and total Medical Corps accessions during this period. Table 2 provides data on which to base this comparison. Until the summer of 1976, over sixty-two percent of physician accessions into the "all-volunteer" Army Medical Corps each year were draft deferred Berry Plan participants. This accession category accounted for more than fifty percent of Medical Corps gains during

TABLE 2

BERRY PLAN ACCESSIONS COMPARED TO

TOTAL ARMY MEDICAL CORPS ACCESSIONS, FY1973-1978

Fiscal Year	Berry Plan Accessions	Total MC Accessions	Percent represented by Berry Plan
1973	871	1,384	62.9
1974	764	1,227	62.3
1975	658	1,025	64.2
1976	584	937	62.3
197T	371	741	50.1
1977	141	669	21.1
1978	45	880	5.1

Source: U.S. Department of the Army. Working Papers (DASG-PTB), n.d., n.p.

Note. Until Fiscal Year (FY) 1977, the federal fiscal year began on 1 July of the preceeding calendar year. Thus, FY1976 extended from 1 July 1975 through 30 June 1976. FY7T was a three-month period from 1 July through 30 September 1976. FY1977 commenced the present federal fiscal cycle and extended from 1 October 1976 through 30 September 1977.

the summer of 1976. Over four times as many Berry Plan participants entered active duty in the summer of 1975 as did in 1977 (584 + 141). A similar comparison of 1976 to 1978 yields a ratio greater than eight to

one (371 ÷ 45). Navy and Air Force experiences during the same period closely paralleled those of the Army. During the period from 1 July 1973 to 30 September 1976, the Berry Plan accounted for 6,058 or 57.7 percent of the 10,501 physicians who entered the armed forces.[10] The loss of large numbers of these during 1977 and 1978 was compounded by the fact that those Berry Plan participants who entered active duty during 1977 and 1978 were generally not representative of the specialists they replaced. The majority of later arrivals had received longer deferments to complete sub-specialty training for which recognized military requirements existed. Difficulties associated with the maldistribution of specialists which also occurred during 1977 and 1978 are discussed in subsequent sections of this study.

Almost all of the Berry Plan participants who entered active duty during the mid-1970's were fully trained specialists. They represented a cross-section of American medical education, and constituted an essential component of the military medical care delivery system. According to Vice Admiral D.L. Custis, Navy Surgeon General, the Berry Planner represented some of the military services' most talented medical officers.[11] From the beginning, plans had called for replacing these highly trained physicians with Health Professions Scholarship Program participants (who would require between three and five years of graduate medical education before reaching equivalent status), and with volunteers to fill whatever shortages occurred. During the summer of 1976, the military services became aware that the numbers of volunteers originally projected were not materializing. It was also apparent that the lack of sufficient

volunteers to provide coverage until those HPSP participants who were beginning to enter active duty became fully trained would seriously degrade military medical care capabilities. As a result, the Surgeons General made a concerted effort to retain a significant portion of the remaining Berry Plan participants by seeking Congressional action to remove what had become a major irritant to this group of medical officers.

Berry Plan participants were not eligible to participate in the Variable Incentive Pay program during the initial two-year active duty obligation which they had incurred at the time they were commissioned.[12] Although they had accepted this committment in order to obtain security from the draft, many Berry Plan participants felt discriminated against when they finally entered active duty in a zero-draft environment to find that, although they had technically volunteered and had received no financial assistance from the armed forces, they were ineligible for the VIP. Because of their graduate training, Berry Plan participants were frequently service or department chiefs in military hospitals. In some cases they were even attending staff physicians at military teaching hospitals, and as such found themselves training military interns, residents and fellows who were receiving at least a partial VIP bonus.[13] Under the provisions of the VIP, it was entirely possible (and apparently not uncommon) for a Berry Planner who was a board eligible or certified graduate of a prestigeous residency program to be assigned as the supervisor of a non specialized or partially trained foreign medical graduate who had been "recruited off the street," and was therefore eligible for the VIP bonus. This paradox was perceived by many as unjust, and acted as a major job dissatisfier

which made attempts at retention generally futile.[14] As a result, according to General Taylor, this vital group of specialists was not extending in anywhere near the great numbers which had been originally anticipated.[15]

In an effort to redress what had become a serious morale problem within the medical force, and to provide additional retention incentives for approximately 3,400 Berry Plan participants who were either on active duty or still in delayed status, New York Representative Samuel Stratton (D., N.Y.) introduced H.R. 14772 in July of 1976.[16] This proposed amendment to the original VIP legislation would have provided a bonus of up to $9,000 per year for those Berry Plan participants serving their initial active duty obligation who agreed in writing to remain on active duty for one or more years beyond their obligated service.[17] The precedent for this type of reduced bonus was drawn from the fact that certain military residents were already eligible for a like amount.

During House Armed Services Committee Hearings on this proposed amendment, the military Surgeons General were unanimous in their strong support, for reasons discussed above. A review of the transcript of these hearings indicates that some members of the committee, most notably Representative Bill Nichols (D., ALA.), were equally supportive. The Department of Defense, however, was opposed to enactment. The reasons offered for this opposition were the fact that the Office of Management and Budget and the Comptroller General of the United States were conducting studies on military compensation which were scheduled for completion and presentation to the Congress later that summer. In addition, the Department of Defense objected to any further "piecemeal approaches" to military compensation.[18] It was not a question of cost; the estimated costs of enactment

of this proposal were $3.3 million for FY 77 and $2.6 million for FY 78, sums which could have been readily absorbed within the Defense Budget.[19] (Obviously, the only costs incurred would have been caused by the retention of fully trained specialists). The Department of Defense agreed that the situation with regard to Berry Plan participants constituted a legitimate morale problem.[20] Vernon McKenzie categorized the Berry Plan as the best investment the military service had ever made. Under this program, it cost approximately $400 to acquire the services of a fully trained specialist, compared to $64,740 for the HPSP, $5,600 for a trained volunteer, and $33,076 for a volunteer who subsequently received training in the military.[21] Nevertheless, the Department of Defense remained opposed to even a compromise position; as a result of this opposition, HR 14772 was adversely reported on by the House Committee on Appropriations.[22] In the words of Vice Admiral William P. Arentzen who succeeded Adm. Custis as Navy Surgeon General, "We lost a golden opportunity."[23]

Volunteers

Planners for an all-volunteer medical force had counted on the ability of the armed forces to attract sufficient physician volunteers to fill any shortages which might occur during the latter part of the 1970's, when student subsidy programs would not be at full productivity. As it became apparent that retention incentives such as the VIP program were not achieving the results which had been originally anticipated, the focus of optimistic DoD projections regarding medical officers shifted to the recruitment of volunteers in unprecedented numbers. The data provided in Table 3 regarding projected military requirements and the actual number of volunteer physicians obtained was submitted by the Department of

Defense to Congress on 21 February 1977. Despite the obvious fact that the military services were not attracting even one-half of their annual requirements for volunteers, Defense representatives optimistically interpreted recent experiences, for they constituted significant increases

TABLE 3

DOD PROJECTIONS OF VOLUNTEER PHYSICIAN REQUIREMENTS, FY 1975 - 1983

Fiscal Year	Number of Volunteer Physicians Required	Number of Volunteer Physicians Obtained
1975	988	454
1976	1,349	658
1977	1,098	351
1977	1,756	188*
1978	1,715	---
1979	1,348	---
1980	1,219	---
1981	1,018	---
1982	643	---
1983	653	---

*As of mid-February 1977

Source: Senate Appropriations Committee Hearings on the Uniformed Services University of the Health Sciences, 1977, p. 59.

over previous years. Although the first five months of FY 1977 had yielded only 188 volunteers, the Department of Defense projected a total of 1,010 volunteer physicians for FY 1977, at the time this data was presented.[24] By June 1977, these expectations had been reduced to 850 for the fiscal year.[25]

At approximately the same time that Department of Defense officials were using the data displayed in Table 3 to support their projections of annual improvements in future medical officer strengths, the Army Medical Department, represented by General Taylor, was presenting a somewhat less optimistic outlook to the House Armed Services Committee. Army estimates which were submitted to Congress by General Taylor in March 1977 projected that the Army Medical Department would require over 800 volunteers during FY 1977 alone, to enable it to cope with the physician shortages anticipated.[26] Army estimates of the number of medical corps volunteers required, as well as those anticipated from fiscal years 1976 to 1983 are provided in Table 4.

TABLE 4

AMEDD ESTIMATES OF PHYSICIAN VOLUNTEERS

REQUIRED, AND ACCESSIONS ANTICIPATED,

FY 1976 - 1983

Fiscal Year	Authorized End-Strength	Volunteers Required	Volunteers Anticipated	Shortfall
1976	4,473	179	104	75
1977	4,738	857	200	657
1978	4,539	780	250	530
1979	4,539	641	275	366
1980	4,539	511	300	211
1981	4,539	283	283	---
1982	4,539	160	160	---
1983	4,539	210	210	---

Source: Hearings before the Investigations Subcommittee of the House Committee on Armed Services, on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 129.

Although not reflected by the data display, General Taylor emphasized that these anticipated annual physician procurement shortages would be cumulative.[27] Thus, any shortages in volunteers experienced during FY 1977 would raise the procurement requirements for the following year. Until satisfied, these shortages would be passed on to each succeeding year.

Table 5 reflects the number of Medical Corps volunteers which were recruited annually by the Army Medical Department during fiscal years 1973 through 1978. This table also offers a comparison of AMEDD fiscal year end-strength authorizations for medical officers and actual end-strengths during the same period.

TABLE 5

ARMY MEDICAL CORPS AUTHORIZED AND ASSIGNED PHYSICIAN END-STRENGTHS AND VOLUNTEER ACCESSIONS, FY 1973 - 1978

Fiscal Year	MC Authorized End-Strengths	Volunteer Accessions	MC Assigned End-Strengths
1973	5,153	129	5,505
1974	4,302	72	4,403
1975	4,512	75	4,496
1976	4,473	104	4,398
1977T	4,738	67	4,368
1977	4,738	147	4,056
1978	4,009	322	4,063

Source: U.S. Department of the Army. Working Papers, DASG-PTB, n.d., n.p.

In order to conduct an analysis of the data contained in Tables 4 and 5, the differences in projections and experiences regarding the FY 1978 physician end-strength authorizations and volunteers procured during FY 1978 require explanation. During FY 1978, the AMEDD reduced its authorized end-strength for physicians from 4,539 to 4,009, in recognition of the fact that the previously authorized strength could not be attained by the end of the fiscal year.[28] The spaces released by this action were reallocated to other AMEDD corps which had direct patient care responsibilities, in an effort to redistribute available funds and partially offset the effects of the physician shortage. Of the 322 volunteers procured by the AMEDD during FY 1978, 72 were recruited for direct entry into the Army Graduate Medical Education Program, which was significantly expanded during that fiscal year.[29]

The total AMEDD requirement for volunteers had been estimated at 1,816, for the period from 1 July 1975 through 30 September 1978. During this period, a total of 642 volunteers were recruited. The obvious inability to attract volunteer physicians in the numbers required to fill the gap created by the departure of draft-motivated physicians prior to the arrival of subsidized medical officers is one of the fundamental causes of the crisis which faced the Army Medical Department in 1978.

In addition to the lack of adequate numbers of volunteers, the level and quality of training possessed by some of these physicians who were willing to volunteer caused considerable concern within the military medical departments. During the years of the doctor draft, the armed forces had relied on a cross-section of American medical education. In the mid-

1970's, they were being forced to turn to foreign medical graduates in increasing numbers to fill the seriously depleted ranks of their respective medical corps. The category of "foreign medical graduates" consists of U.S. citizens who have studied abroad and non-citizen physicians who have emigrated from their native lands. Universal categorization of foreign medical education as inferior to that provided by the American system is unfair. Nevertheless, evidence does seem to support the validity of this thesis in many cases. In October 1977 the New York Times reported the release of a study accomplished by the American Board of Internal Medicine which compared the certification success of graduates of American and foreign medical schools who had completed residency training in hospitals within the United States. The study reported that foreign medical graduates scored far worse on certification examinations than did graduates of American medical schools. Of 1,202 U.S. and alien graduates of foreign medical schools who sought board certification, thirty percent passed the examination, while eighty-one percent of 3,528 graduates of the American system passed.[30]

The military services observed difficulties not only with the level of training possessed by some foreign medical graduates, but also with their ability to communicate with patients. Major General Garth B. Dettinger, Deputy Surgeon General of the Air Force stated that ninety percent of medicine was communications; and, as well intentioned as foreign medical graduates were, they came from a different language and social climate which made it very difficult for them to practice medicine in the Air Force.[31]

Foreign medical graduates accounted for 237 (thirty-six percent) of the 658 physicians who volunteered for active duty in the armed forces during FY 1976. Of the 351 physicians who volunteered during the summer of 1976 (FY 197T), 136 or thirty-eight percent were graduates of foreign medical schools.[32] The bulk of foreign medical graduates recruited during this period were obtained by the Navy and Air Force (an overwhelming majority of these were aliens).[33] By FY 1978, however, the Army was recruiting heavily in this area. Of the 322 volunteers recruited by the AMEDD during FY 1978, a total of 139 or 43.2 percent were graduates of foreign medical schools, and 73 or 22.8 percent were non-U.S. citizens.[34]

The problem of foreign medical graduates in the armed forces may be limited in the future by an expected reduction in the number of foreign physicians who will be available for recruiting in future years. Title VI of PL 94-484, the Health Professions Educational Assistance Act of 1976, which became effective in January 1977, imposes limitations on the immigration of alien physicians into the United States.[35] In view of the recent experiences of the armed forces, a significant reduction in the availability of foreign physicians will have a negative impact on the number of volunteers recruited in future years.

Authorizations and Other
Statistical Problems

A review of Congressional testimony concerning the subject of this study readily verified the truism that numbers and data can be expressed and interpreted to justify diametrically opposite positions on a given subject. For example, in the spring of 1977, the Department of

Defense was optimistically discussing a shortage of "only" 6.4 percent of the 11,703 medical officers which the armed forces were authorized for FY 1977. At the same time, the Army was projecting a physician shortage that exceeded thirteen percent of its authorizations for the same fiscal year (4,636 authorized vs. 4,043 assigned).[36] Both sets of statistics were apparently accurate. When discussing the impact of foreign medical graduates as a percentage of volunteers, the Department of Defense testified that, during FY 1976, foreign medical graduates accounted for approximately eight percent of "total physicians recruited."[37] The latter statistic actually referred to total physician accessions, including Berry Plan participants, West Point graduates completing medical school, and HPSP participants. The response of the Surgeon General to Congressional requests for similar data compared foreign graduates as a percent of physician volunteers.

The annual fluctuation which occurred in military physician authorizations (as evidenced within the AMEDD by data provided in Table 5) was a recurring source of confusion and occasional irritation among members of Congress.[38] In addition, these fluctuations undoubtedly created difficulties for Defense Department officials charged with monitoring the condition of the military health care delivery system. Since the Department of Defense does not prescribe strength authorizations for the various commissioned corps of the individual services, Defense officials must assume that authorization data provided by the Army, Navy, and Air Force represents the priorities which have been established by the Secretaries of these services.[39]

Although they are justified by requirements, military manpower authorizations are derived from budget and manpower constraints imposed by the Service Secretaries in compliance with the overall priorities and constraints established by the Defense Budget. In the course of the budget decision process, the various agencies, departments and branches within each service must compete for their share of constrained resources. During the period studied, the Army continued to adjust its manpower levels from wartime authorizations, and reordered its priorities to increase combat forces within existing manpower constraints. Since the combined strength of the AMEDD commissioned corps' account for between fifteen and sixteen percent of the total Army officer corps, AMEDD officer authorizations were sensitive to changes in the "tooth-to-tail" ratio of combat to combat support forces which were accomplished.[40]

Manpower authorizations are also subject to the dynamics which were briefly discussed in explanation of the sudden decrease in Army medical officer authorizations to 4,009 during FY 1978. During testimony before the House Armed Services Committee in 1977, General Taylor wryly explained the adjustment of medical officer spaces to reflect the anticipated capability of filling them: "When you drop the water in the stream, you lower the bridge to make sure they are always the right distance apart."[41] Although this comment was made in response to a complaint by Representative Stratton that authorizations were apparently being reduced to avoid admitting a shortage,[42] the practice also reflects the harsh realities of the keen competition for spaces within the Department of the Army. Unfilled manpower authorizations for which funds have been

appropriated are likely to be redistributed to meet needs within other branches and agencies; and, once lost, they are difficult to regain.

An attempt to determine optimum authorizations for the Army Medical Corps would be far beyond the scope of this study. A brief discussion of readiness requirements is offered in a subsequent chapter of this study. It seems appropriate to summarize the immediate discussion by referring the reader to Table 5 for a comparison of the authorized and assigned medical officer fiscal year end-strengths as of 30 June 1973 (FY 73) and 30 September 1978 (FY 78). During the period between the termination of the draft on 1 July 1973, and 30 September 1978, Army Medical Corps authorizations were reduced from 5,153 to 4,009, a decrease of 1,144 or over twenty-two percent. During the same period, Medical Corps assigned strength dropped from 5,505 to 4,063, a reduction of 1,442 or over twenty-six percent. The population eligible for Army health care increased slightly during this period of time.[43] This dramatic decline in medical officer strength during the first six years of the zero-draft environment was one obvious impact of the all-volunteer force on physician procurement and retention during the period examined by this study.

Distribution of Specialists

In addition to the decline in total medical officer strength, the Army Medical Department experienced a radical shift in the distribution of medical specialists during the mid-1970's. This phenomenon was caused in large measure by the phased reduction of Berry Plan accessions which correlated well with the length of time normally required to complete

residency training in the various specialities. Simply stated, those graduates of the Class of 1972 who entered specialties which required relatively short residencies, such as internal medicine, anesthesiology and radiology, entered active duty earlier than their classmates who chose specialties which required longer residencies. For the most part, those who entered active duty earlier also left earlier; and, by their leaving, created gaps in the specialty structure which remained empty. A comparison of the assigned strengths of selected specialties in the Army Medical Department as of 1 December 1975 and 1 October 1978 is provided in Table 6. This Table also indicates the percent decrease which

TABLE 6

ASSIGNED STRENGTH OF SELECTED SPECIALTIES

IN THE ARMY MEDICAL CORPS

1 DECEMBER 1975 AND 1 OCTOBER 1978

Specialty	No. Assigned As of 1 Dec. 75	No. Assigned As of 1 Oct. 78	Percent Decrease
Anesthesiology	83	62	25.3
Dermatology	74	48	35.2
Diagnostic Radiology	128	77	39.8
General Surgery	247	209	15.4
Internal Medicine	401	206	48.6
Neurology	51	38	25.5
OB/GYN	187	141	24.6
Ophthalmology	87	55	36.8
Otolaryngology	61	42	31.2
Orthopaedic Surgery	184	104	43.5
Psychiatry	177	124	29.9

Source: Compiled by the author from Department of the Army Working Papers (SGPE-MC) n.d., n.p.

occurred during this period of time. In deference to the statistical problems already discussed, the availability of specialists in the latter part of the period covered by this study has been examined without regard to authorizations or requirements. The availability of specialists on 1 October 1978 has been compared to actual strengths during FY 1976, when Army Medical Corps authorizations had already been reduced by a total of 680 from 30 June 1973 levels (5,153 - 4,473), and actual end-strength had decreased a total of 1,107 medical officers (5,505 - 4,398). The critical shortages of specialists which occurred was compounded by the fact that mission requirements necessitated the uneven distribution of those specialists who were available. The impact of this on the Army medical care delivery system, particularly at installation hospitals within the United States is examined in a subsequent chapter of this study. The significant decrease in medical specialists which occurred during the latter part of the period examined by this study resulted primarily from the inability of the Army to retain those physicians on active duty in the numbers and specialties which were present, even during the early years of the zero-draft environment. The results of the short-term plans for recruiting and retaining an all-volunteer medical force obviously fell short of established objectives.

Procurement Programs Revisited

Even at the height of their optimistic projections of successful transition to an all-volunteer force, military health planners had foreseen the possibility of an hiatus between the end of the draft motivated physician procurement cycle and the maturation of the student subsidy

programs. As the short term effects of the zero-draft environment on physician procurement and retention became clear, emphasis on "getting well" by the 1980's appeared more frequently in Defense response to Congressional inquiries regarding the deteriorating status of military medicine. In February 1978, the Department of Defense projected that although the Army was expected to be at 85.4 percent of its authorized medical officer strength at the end of FY 1978. it would experience a gradual increase in physician strength during subsequent years, and would reach 100 percent of its authorization by 1983.[44] This section will analyze some aspects of the major procurement programs designed to achieve a sustainable volunteer medical force in the 1980's, which came to light as implementation evolved and program performance data became available.

Variable Incentive Pay

The Variable Incentive Pay program did not achieve the resounding success which had been anticipated when this costly retention mechanism was enacted. Nevertheless, the financial incentives of the VIP helped stem the tide of career medical officer losses and assisted in the retention of some physicians who were completing their military obligation. Attrition rates for career medical officers remained relatively constant from 1974 to 1978, in contrast to the distressing increases in the loss of medical officers in this status which were occurring in the years prior to enactment.[45] Retention of Army medical officers who completed their initial military obligation rose from 13.8 percent in FY 1974 to 21.7 percent in FY 1977.[46] Despite the morale problem associated with Berry Plan participants, retention among this category of medical officers rose from a tri-service rate of 5.5 percent

in FY 1973, to 14.9 and 16.9 percent in fiscal years 1975 and 1976 respectively.[47] The majority of Berry Plan physicians who participated in the VIP apparently were interested in extending their tour of active duty for one year only. In 1978, the Army reported a retention rate of 5.1 percent for Berry Plan participants who had completed three years of active duty.[48] The military services have found it difficult to determine what portion of the increased physician retention rates were due to the VIP.[49] Obviously, the levels of military physician staffing would have deteriorated even more significantly if the incentives offered by this program had not been available.

The limited impact which incentive pay had on the retention of medical officers was caused by several flaws in the program which seriously degraded its attractiveness. Uncertainty regarding the future availability of the variable incentive bonus arose from the fact that the VIP was originally enacted on an eighteen-month trial basis, and has remained a "temporary" program ever since. Repeated extensions of the original legislation for one year periods by last minute Congressional action, as was the case in 1977 and 1978 (the current one-year extension was signed by the President on 7 October 1978, seven days after expiration of the previous extension), resulted in understandable apprehension among medical officers concerning their future income potential in the militaty.

In addition to annual uncertainty over its continued existence, the constant erosion of the valve of the VIP bonus by inflation diminished the program's impact as a retention mechanism. When the VIP was enacted, the median income for physicians in the United States was approximately

$45,000 per year. By 1977, the average income of a private practitioner who had been in practice for eight years was $66,284 per year, while under the VIP, military physicians with comparable experience earned an annual salary of $41,995.[50] Although never intended to achieve parity between military and civilian physicians, the VIP was designed to close the income gap between these groups. Since it has no provisions for inflation-related adjustments, the attractiveness of this program will be further eroded each time the Consumer Price Index rises.

The enormous complexity of eligibility provisions and entitlements under the program which arose from the authorizing legislation and DoD implimenting instructions caused confusion and consternation among military physicians. Moreover, current eligibility requirements exclude entire categories of medical officers who would normally be expected to have the highest potential for career motivation. These exclusions may have serious effects on the future performance of the other procurement programs. In addition to Berry Plan participants, medical officers whose initial active duty obligation results from participation in ROTC while in college or the Health Professions Scholarship Program are ineligible for the VIP bonus until their initial obligation has been served.[51] The exclusion of subsidized HPSP participants, although understandable, may create serious morale problems for this group in future years. Those who perform a military residency will serve approximately eight years of active duty before fulfilling their HPSP incurred obligation and becoming eligible for the VIP. During these years of working beside less qualified bonus recipients, a degree of dissatisfaction comparable to that of the

Berry Plan participants will evolve in many HPSP participants, regardless of the legal niceties involved.

The exclusion of ROTC participants is far less understandable, for it effectively deprives those individuals whose early identification with the armed forces indicates excellent potential for career motivation. Instead of capitalizing on this potential and encouraging the training and insights provided by ROTC, this provision of the VIP penalizes such participation and thus, effectively discourages it.

Health Professions Scholarship Program

Throughout the period examined by this study, the military services and the Department of Defense have viewed the Health Professions Scholarship Program as the cornerstone of hope for achieving and sustaining an all-volunteer force in the 1980's. Initial response to the scholarship program was very favorable, and meaningful productivity in terms of program graduates was achieved as early as 1975. AMEDD experiences in terms of student response to the medical portion of the HPSP, from its inception in the middle of FY 1973 through FY 1977, are indicated in Table 7. A total of 650 Army scholarships were allotted to medicine during the first year of the program's existence. This allocation was subsequently increased to a total of 1,300 scholarships which could be filled by medical students at any given time. The degree of initial response is demonstrated by the fact that the Army was able to fill sixty-five percent of the scholarship positions it initially offered with approximately four months of FY 1973 remaining when the program became officially available. Despite the significant reduction in applications which occurred during FY 1977, the medical portion of the HPSP remained

TABLE 7

STUDENT RESPONSE TO THE ARMY HPSP (MEDICAL)

FY 1973 - FY 1977

Fiscal Year	Scholarships Available	No. of Applicants	No. in Program	Percent of Fill
1973	650	522	421	65
1974	906	962	1,051	81
1975	421	643	1,249	96
1976	407	887	1,191	91
197T	467	661	1,055	81
1977	422	463	1,282	98

Source: Compiled by the author from Department of the Army Working Papers (SGPE-PDM), n.d., n.p.

essentially filled at the end of the period studied.

In order to enable immediate productivity, the AMEDD concentrated its initial recruiting efforts on attracting students who were already in medical school. Upon the graduation of participants who entered the program as juniors (and even seniors), the scholarship spaces released became available for longer committments. The productivity of the medical portion of the HPSP from its inception through FY 1978 is indicated in Table 8.

The degree to which the Army Medical Department will continue to rely on the HPSP as a major source of medical officers into the 1980's is demonstraced by Table 9, which provides projections of input and output for the medical portion of the HPSP from FY 1978 through FY 1984.

TABLE 8

ARMY HPSP MEDICAL GRADUATES, FY 1973 - 1978

Fiscal Year	Number of Graduates
1973	27
1974	141
1975	353
1976	365
197T	11
1977	330
1978	362
	Total 1,589

Source: Compiled by the author from Department of the Army Working Papers (SGPE-PDM), n.d., n.p.

TABLE 9

ARMY PROJECTIONS OF HPSP (MEDICAL)

INPUT AND OUTPUT, FY 1978 - 1984

Fiscal Year	Input	Output
1978	456	352*
1979	517	399
1980	533	405
1981	431	372
1982	394	360
1983	517	517
1984	533	533

*Actual output for FY 1978 was 362.

Source: Compiled by the author from Department of the Army Working Papers (SGPE-PDM), n.d., n.p.

Despite the success achieved by the HPSP during the 1970's, it contained unresolved sources of participant dissatisfaction. Negative response to these dissatisfiers and the creation of competing scholarship programs by other federal agencies caused serious concern among the military services regarding the continued viability of this vital procurement program.

On 1 August 1973, after the Health Professions Scholarship Program had been in effect for approximately six months, the Internal Revenue Service ruled that the benefits received under the HPSP did not qualify for tax exempt scholarship status, since the receipt of these benefits was conditioned on the performance of future services.[52] The IRS further ruled that enabling legislation which spelled out Congressional intent was required before the Treasury Department could be authorized to refrain from collecting taxes against HPSP benefits.[53] To ameliorate the obvious recruiting difficulties which this ruling created, and as an expression of its intentions regarding the HPSP, Congress enacted PL 93-483 on 26 October 1974, which provided that benefits obtained under the HPSP during the years 1973, 1974, and 1975 were deemed to be "scholarships" which were excludable from gross income under the IRS Code. This legislation was intended to allow Congress more time to review the entire area of scholarship taxation, while providing temporary respite for HPSP participants.[54] In October 1975, the Department of Defense initiated a legislative proposal which would have provided permanent tax relief for HPSP participants. This proposal did not clear the government channels

necessary for Congressional consideration in time to prevent the expiration of the interim solution on 31 December 1975.[55] When the Secretary of the Treasury denied a DoD request for a moratorium on collecting tax from HPSP participants, the armed forces were required to begin witholding taxes on all benefits received under the scholarship program in the Spring of 1976.[56] Witholding taxes were collected from the $400 monthly stipend to cover not only the stipend itself but also tuition and tuition related fees and expenses which amount to several thousands of dollars per year in many medical schools.

Student response to this action (which, in some cases, reduced their monthly stipend by over fifty percent) was immediate and predictably adverse. In a petition dated 16 April 1976, which was sent to the Secretary of Defense by 144 HPSP participants from the greater Kansas City area, students expressed their "extreme discontent" with the IRS ruling; stated their belief that failure to resolve the tax problem constituted a "profound breach of faith, if not outright breach of contract on the part of all governmental agencies involved;" and concluded that they felt obligated to advise prospective applicants against entering the HPSP until tax relief was afforded them.[57]

Congressional action was taken to extend temporary tax relief for participants who entered the program prior to 31 December 1976, through enactment of PL 94-455 on 4 October 1976. On 12 November 1977, Congress enacted PL 95-171 to cover students who entered the program prior to 31 December 1978. As a result of this series of interim solutions to the basic problem, HPSP participants have been continuously exempted from the

requirement to pay income tax on their scholarship benefits. Taxes witheld during periods when tax exemptions were expired were later refunded under the authority of subsequent legislation. Nevertheless, income instability caused by the temporary collection of taxes, a recurring threat of taxation, and the tension surrounding what has become almost an annual ritual of last minute Congressional extensions of tax relief have had a negative effect on the credibility of the Health Professions Scholarship Program as well as its sponsors.

The attractiveness of the HPSP as a recruiting mechanism was further diminished by the enactment on 12 October 1976 of the Health Professions Educational Assistance Act of 1976 (PL 94-484), which authorized substantial increases in non-DoD federal educational assistance programs for medical students.[58] The National Health Service Corps Scholarship Program (NHSCSP) which was authorized by this legislation held its first application period during the spring and summer of 1978 for the 1978-1979 academic year.[59] Sponsored by the Department of Health, Education and Welfare, this scholarship program is in direct competition with the HPSP.

Benefits under the NHSCSP include tuition, tuition related fees, reasonable educational expenses and a stipend for living expenses of at least $400 per month for twelve months each year. The monthly stipend is adjusted annually to cost-of-living changes in federal salaries, and for the 1978-1979 academic year was $429. Participants incur a commitment of one year of obligated public service in a federally designated health manpower shortage area for each year of scholarship support, with a minimum obligation of two years. All or part of the service obligation

may be performed as a salaried federal employee of the National Health Service Corps assigned to a federally designated shortage area in the United States or its possessions. Alternate service may be performed by private practice in a medically underserved area which is able to sustain the practice financially and provide an income at least equal to the federal salary option. As an added incentive, those who complete their obligated service are eligible for one-time start up grants of $25,000 if they agree to practice in a designated shortage area.[60] Participants are permitted a delay of up to three years to complete specialty training prior to entering their obligated period of federal service. In addition, there is a "buy out" provision in this program which permits participants to avoid federal service by repaying the benefits received.[61]

The benefits offered by this program, although similar to those of the HPSP (it also includes only a temporary solution to the tax problem), are more advantageously packaged than the military alternative. The major attraction of this program derives from the fact that participants will not be required to enter the armed forces or to serve in a potential combat zone. The positive public relations aspects of this distinction (which are enhanced by the potential for avoiding service by repayment of benefits) combined with the attractiveness of the cost-of-living adjustment and the start-up grants for voluntary private practice in underserved areas make this program a formidable competitor with the armed forces for those students who require financial assistance. The Department of Health, Education and Welfare received approximately 3,900

applications for the 2,500 scholarships available for the 1978-1979 academic year.[62] It is likely that many of these applicants also applied for the HPSP.

Data regarding the impact of the competition offered by the NHSCSP were not available at the time this study was accomplished. It seems clear however, that the future ability of the HPSP to attract sufficient applicants in order to remain a viable procurement source for an all-volunteer medical force will be significantly affected by the creation of this significant alternative.

Insight regarding the impact of the various dissatisfiers on student response to the HPSP may be derived from a review of one trend which ran counter to the generally optimistic performance indicators concerning the HPSP in the 1970's. From the program's inception in 1973, the applicant declination rate (the percent of applicants who were selected and subsequently declined to participate) rose steadily, and by 1978 was approaching almost unmanageable proportions. The declination rate experienced among medical applicants selected by the Army from FY 1973 through FY 1978 is displayed in Table 10. Although caused in part by applications to more than one military service (which though understandable, tended to inflate indicators of student response), this trend may also be an indicator of the cumulative effect negative publicity and the existence of attractive alternatives have had on the effectiveness of the HPSP as a recruiting mechanism.

TABLE 10

ARMY HPSP (MEDICAL) DECLINATION RATE

FY 1973 - 1978

Fiscal Year	Declination Rate (%)
1973	5.8
1974	11.5
1975	20.0
1976	28.1
1977	43.4
1978	42.0

Source: Department of the Army Working Papers (SGPE-PDM), n.d., n.p.

During 1977 Congressional testimony, the military Surgeons General expressed considerable alarm that without favorable resolution of the tax issue on a permanent basis and adjustments to the monthly stipend to keep pace with inflation, the Health Professions Scholarship Program would not remain competitive with other federal recruiting programs such as the NHSCSP.[63] The three military services experienced a significant drop in medical HPSP applicants for the 1978-1979 academic year.[64] A Rand Corporation study predicted in 1977 that, unless corrective measures were taken to keep the HPSP competitive, the Air Force would be able to fill only forty percent of its scholarship spaces in the future.[65] The pessimistic projections of this study have not apparently been validated, and have not gained widespread acceptance among military health planners in the Army. There was consensus by the end of the period studied, however, that in light of difficulties the program continued to encounter, earlier

optimism regarding the HPSP no longer seemed justified.[66]

The Uniformed Services University of the Health Sciences

In spite of the significant controversy which had surrounded its enactment by Congress, development of the Uniformed Services University of the Health Sciences (USUHS) proceeded at a considerably more favorable rate than had been anticipated. Under the direction of David Packard, Chairman of the Board of Regents, the University's scope was narrowed to concentrate on physicians, and the projected annual output was expanded from 100 to 175.[67] Construction costs had been pared from an original estimate which exceeded $200 million and a Congressional appropriation of $79.9 million to an actual cost of $66.9 million.[68] By early 1977, a faculty of fifty had been assembled and the first class of thirty-two students was in its freshman year. Over 2,500 applications had been received for the sixty-eight positions being offered the following year.[69] The university seemed to be well on its way toward producing a nucleus of career-oriented medical officers who were expected to serve an average of sixteen years on active duty.[70] The Army anticipated that approximately twenty-five percent of its Medical Corps would be USUHS graduates by the 1990's.[71]

In the course of the program re-evaluation which occurred during the transition from the Gerald Ford to the Jimmy Carter administration, the USUHS was identified as a possible source of cost savings.[72] On 22 February 1977 Secretary of Defense Harold Brown announced a DoD decision to terminate the USUHS by recommending that Congress not appropriate

FY 1978 operating funds for the university.[73] The Congress reacted strongly to what was perceived as a test of its prerogatives. The House Armed Services Committee empaneled an Investigations Subcommittee which was authorized to administer oaths to hold Hearings on the Defense decision, and several Committees and Subcommittees in both houses of Congress expressed interest in this subject during the next two months. High officials in the new administration were subpoenaed to appear before the Investigations Subcommittee, and political emotions, in general, ran high. The considerable furor which this issue raised was effectively terminated on 21 April 1977, when by a vote of 250 to 162, the House approved a Senate Amendment which appropriated $12.5 million for USUHS operating and maintenance funds for FY 1978.[74] Hearings on this subject were discontinued, and the interaction between the legislative and executive branches of the federal government moved on to other arenas.

To attempt a normative discussion of the decision-making process in which the Secretary of Defense arrived at priorities which did not include the USUHS would far exceed the scope and limitations of this study. It is considered appropriate, however, to briefly discuss the major arguments offered by DoD representatives in support of this decision, for they represent a significant departure from earlier plans and projections regarding the all-volunteer medical force. Moreover, the responses of the military Surgeons General during Congressional Hearings on this issue apparently reflect a significant departure from the somewhat muted optimism of previous sessions. The stark divergence of viewpoints recorded in the Congressional record of this interlude provides considerable in-

sight into the dynamic interaction which exists between the Department of Defense, the military medical departments, and the Congress, and highlights several fundamental aspects of the all-volunteer medical force.

Justification for the Department of Defense decision to terminate the USUHS was based on several factors. Concern over an anticipated national shortage of physicians, which had been commonly accepted in the early 1970's, had been modified by an HEW projection that the national supply of physicians would increase from 375,300 in 1975 to 517,200 by 1985. This study also forecast that, by 1985, the number of foreign medical graduates in the United States would decrease from twenty-one to eighteen percent of the total physician supply.[75] Moreover, the General Accounting Office had concluded that it was less expensive to obtain military physicians through the HPSP than through the USUHS.[76] (Congress subsequently established that if all federal subsidies to civilian medical schools were included in HPSP costs, the total federal cost per staff year of expected military service would be $26,236 for the USUHS graduate and $32,068 for the HPSP participant).[77]

The Defense position was that by the mid-1980's the United States could have an excess of doctors at the precise time when the USUHS was at peak output.[78] The decision to seek termination of the university was based on an analysis which assumed that the military medical departments would recruit 1,000 volunteers per year,[79] and an Office of Management and Budget study which concluded that "DoD (would) be able to expand its physician strengths by over twenty percent without the medical school."[80] This forecast was explained by Dr. Smith, who represented the Department

of Defense during the investigative hearings, as a statement of statistical probability which included optimistic and pessimistic projections. In his words, "taking optimistic projections, we could be twenty percent over; taking the pessimistic projections, we could be twenty percent under."[81] The general optimism with which DoD representatives approached this and other questions regarding the feasibility of an all-volunteer medical force has been discussed in other sections of this study. It seems sufficient to suggest that events since 1977 lend support to the more pessimistic side of the classic equation offered above.

The Surgeons General were unanimous in their disagreement with the Defense Department's position that by the 1980's, the armed forces would be able to satisfy their physician procurement requirements without the USUHS.[82] Moreover, each of these military health managers expressed serious concern over the loss of credibility in the medical department programs which even the <u>proposal</u> to close the USUHS had caused. The enthusiasm with which the HPSP, VIP, and now the USUHS had originally been received had been gradually eroded as each of these physician procurement programs encountered difficulties which, at best, were being met with temporary solutions. According to Admiral Custis who had recently retired as Navy Surgeon General, closure of the USUHS would be "the last straw."[83] The university and the scholarship program had constituted the long range solution to achieving an all-volunteer medical force. The HPSP had already lost much of its initial luster. Closure of the USUHS would diminish credibility with the senior medical officers who comprised the already depleted core of committed military physicians.

Without this group, there would be no chance for a future volunteer force.[84]

Concern over the problem of government credibility was echoed by several Members of Congress who were troubled by the tendency of government to embark on programs with initial commitment only to reverse fields and abandon them in midstream.[85] In the Report of the Subcommittee on Investigations, there was a recommendation that further study be made to seek ways of removing the USUHS from future decisions of the sort which prompted this controversy.[86] Although the USUHS is still expected to graduate its first class in 1980, the uncertainty and turbulence during the spring of 1977 cannot have enhanced its effectiveness as a long term recruiting or retention vehicle. Student and faculty perceptions of government credibility and the degree of commitment which exists for achieving a viable all-volunteer military medical force had to be diminished. The full impact of this disappointment may not be realized for many years to come.

END NOTES

[1]U.S., Congress, House, Department of Defense Appropriations for 1978 (Part 6), Uniformed Services University of the Health Sciences, Hearings before a Subcommittee of the House Committee on Appropriations, 95th Cong., 1st Sess., 1977, p.22.

[2]Ibid.

[3]Ibid.

[4]Ibid., p. 23.

[5]U.S., Congress, House, Military Construction Appropriations for 1978, Hearings before a Subcommittee of the House Committee on Appropriations, 95th Cong., 1st Sess., 1977, p. 339.

[6]Ibid., p. 364.

[7]Ibid., p. 339.

[8]U.S., Congress, House, Hearings on H.R. 7839, Extension of Health Professionals Pay, Hearing before the Military Compensation Subcommittee of the House Committee on Armed Services, 95th Cong., 1st Sess., 1977, p. 7.

[9]U.S., Congress, House, Department of Defense Appropriations for 1979 (Part 3), Hearings before a Subcommittee of the House Committee on Appropriations, 95th Cong., 2nd Sess., 1978, p. 14.

[10]U.S., Congress, Senate, Uniformed Services University of the Health Sciences, Special Joint Hearing before the Subcommittees on Defense and Military Construction of the Senate Appropriations Committee, 95th Cong., 1st Sess., 1977, p. 37.

[11]U.S., Congress, House, Hearing on H.R. 14772, to Pay Variable Incentive Pay to Medical Officers Who Participated in the Berry Plan, Hearing before the Subcommittee on Military Compensation of the House Committee on Armed Services, 94th Cong., 2nd Sess., 1976, p. 41.

[12]Ibid., p. 27.

[13]Ibid., p. 48.

[14]Ibid., pp 41-42.

[15]U.S., Congress, House, Need for Continuation of the Uniformed Services University of the Health Sciences, Hearings before the Investigations Subcommittee of the House Committee on Armed Services, 95th Cong., 1st Sess., 1977, p. 127.

[16]House Armed Services Committee Hearing on H.R. 14772, 1976, p. 3.

[17]Ibid., p. 1.

[18]Ibid., p. 3.

[19]Ibid., p. 15.

[20]Ibid., p. 17.

[21]Ibid., p. 9.

[22]U.S., Congress, House, Committee on Appropriations, "Adverse Report to Accompany H.R. 14772," Report No. 94-1438 Part 2, 94th Cong., 2nd Sess., 1976, p. 2.

[23]U.S., Congress, Senate, Special Pay Provisions for Physicians and Dentists in the Uniformed Services, Hearings before the Senate Committee on Armed Services on S. 1731, 95th Cong., 1st Sess., 19~7, p. 24.

[24]Senate Appropriations Committee Hearings on the Uniformed Services University of the Health Sciences, 1977, p. 24.

[25]House Armed Services Committee Hearings on H.R. 7839, 1977, p. 3.

[26]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 129.

[27]Ibid., p. 27.

[28]U.S., Congress, Senate, Department of Defense Authorization for Appropriations for Fiscal Year 1979, Hearings before the Committee on Armed Services, 95th Cong., 2nd Sess., 1978, p. 2622.

[29]U.S., Congress, House, Department of Defense Appropriations for 1979 (Part 8), Hearings before the House Committee on Appropriations, 95th Cong., 2nd Sess., 1978, p. 849.

[30]New York Times, 13 October 1977, p. 14.

[31]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 132.

[32]U.S., Congress, House, Committee on Armed Services, "Need for Continuation of the Uniformed Services University of the Health Sciences," Report of the Subcommittee on Armed Services, H.A.S.C. No. 95-22, 95th Cong., 1st Sess., 1977, p. 7.

[33]House Armed Services Investigation Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 140.

[34]U.S., Department of the Army, Working Papers, DASG-PTB, n.d., n.p.

[35]House Armed Services Committee Report No. 95-22, 1977, p. 7.

[36]House Armed Services Committee Hearing on H.R. 7839, 1977, p. 4.

[37]House Armed Services Committee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 52.

[38]Senate Armed Services Committee Hearings on Special Pay Provisions for Physicians and Dentists in the Uniformed Services, 1977, p. 9.

[39]House Armed Services Committee Hearing on H.R. 7839, 1977, p. 11.

[40]U.S., Congress, House, CHAMPUS and Military Health Care, Hearings before the House Armed Services Committee, 93rd Cong., 2nd Sess., 1974, p. 113.

[41]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 128.

[42]Ibid.

[43]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 845.

[44]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 3), 1978, p. 314.

[45]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 897.

[46]Ibid.

[47]House Armed Services Committee Hearing on H.R. 7839, 1977, p. 23.

[48]Senate Armed Services Committee Hearings on the Department of Defense Authorizations for Appropriations for Fiscal Year 1979, 1978, p. 2670.

[49]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 897.

[50]Senate Armed Services Committee Hearings on S. 1731, 1977, p. 12.

[51]House Armed Services Committee Hearing on H.R. 14772, 1976, p. 27.

[52]Secretary of the Treasury William E. Simon to Hon. Richard C. Wiley, General Counsel, Department of Defense, 19 February 1976. Copy on file at Headquarters, Department of the Army (SGPE-PDM), Washington, D.C.

[53]Senate Armed Services Committee Hearings on the Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2618.

[54]Simon to Wiley, 19 February 1976.

[55]U.S., Department of the Army, "Information Paper" (DASG-PTB), 3 May 1976.

[56]Simon to Wiley, 19 February 1976.

[57]Philip Morson and others, 'Taxation of Armed Forces Health Professions Scholarships," 16 April 1976 (Petition to Hon. Donald H. Rumsfeld, Secretary of Defense, Copy on file at Headquarters, Department of the Army, SGPE-PDM, Washington, D.C.).

[58]Senate Appropriations Committee Hearings on the Uniformed Services University of the Health Sciences, 1977, p. 41.

[59]U.S., Department of Health, Education, and Welfare, "Fact Sheet-National Health Service Corps Scholarship Program," 21 October 1977.

[60]Ibid.

[61]House Armed Services Committee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 133.

[62]Association of the United States Army (AUSA), Special Report: Military Health Care--A Deteriorating Benefit (Arlington, Va.: AUSA, 1978), p. 9.

[63]House Armed Services Committee Report No. 95-22, p. 6.

[64]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 857.

[65]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 133.

[66]Ibid., p. 134.

[67]House Appropriations Committee Hearings on Department of Defense Appropriations for 1978 (Part 6), 1977, p. 11.

[68]Ibid., p. 2.

[69]Ibid., p. 4.

[70]Ibid., p. 2.

[71]Senate Appropriations Committee Hearings on the Uniformed Services University of the Health Sciences, 1977, p. 51.

[72]House Armed Services Investigations Committee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, pp 8-11.

[73]Ibid., p. 1.

[74]House Armed Services Committee Report No. 95-22, p. 9.

[75]Senate Appropriations Committee Hearings on the Uniformed Services University of the Health Sciences, 1977, p. 33.

[76]House Appropriations Committee Hearings on Military Construction Appropriations for 1978, 1977, p. 357.

[77]Ibid.

[78]House Appropriation Committee Hearings on Department of Defense Appropriations for 1978 (Part 6), p. 34.

[79]House Armed Services Committee Report No. 95-22, p. 3.

[80]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 11.

[81]Ibid., p. 13.

[82]Ibid., p. 134.

[83]Ibid., p. 34.

[84]Ibid.

[85]House Appropriations Committee Hearings on Military Construction Appropriations for 1978, 1977, p. 361.

[86]House Armed Services Committee Report No. 95-22, p. 9.

CHAPTER IV

IMPACT OF "ALL-VOLUNTEER" PHYSICIAN PROCUREMENT ON THE ARMY MEDICAL DEPARTMENT

The Current Situation

By the spring of 1978, military and political leaders in the United States generally recognized the existence of a critical shortage of medical officers in the armed forces. This shortage was causing delay in treatment, interruption of certain specialty services, and increased referral of patients other than active duty soldiers to the civilain sector for health care. Members of Congress whose states or districts included military bases (and thus concentrations of active and retired military personnel) were besieged with letters from constituents for whom military health care was no longer available. The President's Commission on Military Compensation reported in April 1978 that, "there is a crisis in military health care. The system is simply overtaxed."[1] By the fall of 1978, Secretary of the Army Clifford Alexander allowed himself to be quoted in the press as believing that the shortage of military doctors was so grave, that if there were a war in Europe, there might not be enough Army doctors to treat the casualties.[2]

Physician Shortage in the Active Army

The term "shortage" is commonly defined as a "deficiency in the amount needed."[3] The Department of Defense and the military services

have generally defined actual or anticipated physician shortages in terms of medical officer authorizations and assigned strengths. Personnel authorizations are the commonly used measure of funded staffing levels in the military personnel management system. Since they are highly susceptible to the manipulation discussed in a previous section, the use of authorizations by the military establishment has tended to understate the impact of the zero-draft environment on the structure and capabilities of the military medical forces.

Projected fiscal year end-strength authorizations for the Army Medical Corps for fiscal years 1978 through 1981 are displayed in Table 11.

TABLE 11

PROJECTED ARMY MEDICAL CORPS

END-STRENGTH AUTHORIZATIONS

FY 1978 - 1981

Fiscal Year	Authorized End-Strength
1978	4,009
1979	4,173
1980	4,328
1981	4,539
1982 and beyond	4,539

Source: Hearings before the Senate Armed Services Committee on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2625.

These projections do not represent the Army Medical Department's need for medical officers, but rather the number of physicians the AMEDD realisti-

cally expects to have assigned. As Lieutenant General Charles C. Pixley, Army Surgeon General, explained in 1978 Congressional testimony, the 1981 end-strength authorization of 4,539 represents a "temporary, intermediate range objective," which recognizes the nature and expected severity of military physician shortages and is consistent with the time required for the maturation of programs designed to replace the draft.[4] According to General Pixley, the budgeted end-strength authorizations for the intervening years represent the Army's best estimate of achievable assigned strength, and constitute a "glide path" to attainment of the 1981 strength.[5] In the opinion of General Pixley, if physician recruiting and retention programs prove successful in the 1980's, authorizations for Army medical officers should be gradually increased during that decade to provide staffing levels which will obtain the most efficient utilization of AMEDD facilities; assure readiness to meet contingencies short of mobilization; and allow the AMEDD to accomplish an orderly transition to mobilization posture if necessary.[6] The number of medical officers required to achieve this state of efficiency and readiness equates to the number of physicians actually needed by the Army during peacetime. Although budget constraints, manpower ceilings and competing priorities for scarce resources would undoubtedly result in authorizations at levels less than the ideal, this number would nevertheless represent a relatively constant reference against which assigned strength could be compared to determine the "shortage" at any given time.

Army manpower requirements are determined by a sophisticated methodology which surveys the mission, organization, functions, and workload of Army units. Under this system of manpower management, the 1978 peacetime

Army medical officer requirement to staff fixed health facilities and field medical units was 5,856.[7] During peacetime, field medical units such as medical battalions, field hospitals and combat support hospitals do not normally treat patients. As a result, these units are not normally staffed with physicians and other scarce health professionals. The total Army medical officer requirement minus those requirements related to field medical units yielded a "constrained readiness requirement" of 5,273 Army medical officers for FY 1978.[8] It is this number which best expresses the Army's need for medical officers at the end of period examined by this study. The existence of an active medical force of this size (or close to it) would enable efficient utilization of AMEDD facilities, assure readiness, and sustain capacity for mobilization.

The above estimate seems reasonable, particularly when it is compared to the actual number of Army medical officers on active duty as of 30 June 1973 (FY 1973 Medical Corps end-strength of 5,505; Table 5). Although the population eligible for medical care had increased slightly during the intervening years, the FY 1978 Army constrained readiness requirement for active duty medical officers was 232 less than the number of physicians assigned for duty on the day before the draft officially ended. The real shortage of active Army medical officers on 1 October 1978 was 1,210 (5273-4063), or almost twenty-three percent of the Army's estimated need.

Reserve Physician Shortage

Under the total force concept, the active and reserve components of the armed forces are considered to be intrinsic elements of U.S. national defense capabilities. The Army's ability to respond to national

emergencies has relied increasingly on the viability of Army Reserve and National Guard medical units, as emphasis within the active component has been directed toward maximizing combat forces within available resources. As a result of this emphasis, an increasing portion of Army combat service support capability has been placed in the reserve component of the total Army force (in 1978, over fifty percent of the Army's medical capability was in the reserve component). The importance of the reserve component's role in accomplishing the AMEDD mission makes a brief discussion of the Army's experience with procurement of Reserve physicians in a zero-draft environment appropriate.

The termination of the doctor draft had an even greater impact on recruitment and retention of Army Reserve and National Guard medical officers than it did on the active force. During the years of the draft, Army Reserve and National Guard units were generally able to recruit sufficient numbers who were willing to serve their military obligation via a six-year regimen of monthly drills and annual summer camp, rather than a two-year tour of active duty. In addition to this procurement source, the reserve component benefitted from the fact that individuals who entered the armed forces prior to their twenty-sixth birthday were required to complete a statutory military obligation of six years. Those released from active duty after two years were required to affiliate with a Reserve or National Guard unit for at least three of the four remaining years of obligated service, if geographically feasible. Those whose residence was not within reasonable distance of a unit were placed in the Individual Ready Reserve. Physicians who were commissioned under the Berry Plan generally fulfilled most if not all of the reserve portion of their

statutory military obligation while in delayed officer status during their residency training. As a result, the majority of medical officers who were required to affiliate with the reserve component on release from active duty were those who had either been drafted or had requested immediate active duty under the Berry Plan.

Both procurement sources of Reserve medical officers were quickly depleted when the draft was terminated. Motivation to avoid active duty by joining an Army Reserve unit was effectively cancelled on 1 July 1973. The decline in reserve affiliation by those being released from active duty occurred more gradually, but no less inexorably. Tables 12 and 13 compare the authorized and assigned strengths of physicians in the Army Reserve and National Guard respectively, from 1974 through 1977.

TABLE 12

U.S. ARMY RESERVE MEDICAL OFFICER

STRENGTH, 1974 - 1977

Year	No. Authorized	No. Assigned
1974	3,190	2,424
1975	3,190	2,326
1976	3,190	2,102
1977 (FEB)	3,190	1,893
(JUN)	3,190	1,540
(DEC)	3,190	1,257

Source: Senate Armed Services Committe Hearings on Special Pay Provisions for Physicians and Dentists in the Uniformed Services, 1977, p. 19.

TABLE 13

U.S. ARMY NATIONAL GUARD MEDICAL

OFFICER STRENGTH, 1974 - 1977

Year	No. Authorized	No. Assigned
1974	1,269	970
1975	"	956
1976	"	948
1977 (JAN)	"	718
(JUN)	"	583
(NOV)	"	541

Source: Senate Armed Services Committee Hearings on Special Pay Provisions for Physicians and Dentists in the Uniformed Services, 1977, p. 19.

In addition to the above experiences of Reserve and National Guard units, the medical officer strength of the Individual Ready Reserve decreased from approximately 3,400 in 1974 to 1,648 by April 1977.[9]

The trend of declining medical officer strength within the reserve component accelerated sharply during 1977. In this year alone, Army Reserve units lost a total of 636 medical officers, over one-third of total assigned strength. During the same period, medical officer strength in Army National Guard units decreased a total of 177 officers, almost one-fourth of assigned strength. As a result of increasing declines in assigned physician strengths, by the end of 1977 the Army Reserve was at 39.4 percent of its authorized medical officer strength and the Army National Guard had 55.8 percent of the physicians it was authorized. In a zero-draft environment, few physicians are willing to voluntarily join a reserve unit

which requires their absence from other pursuits on a recurring basis and which, if activated, would cause the interruption of their practice with considerable financial consequences.

While maintaining the validity of the total force concept regarding medical officers, the Department of Defense has recognized the complexity and sensitivity of problems associated with activating or mobilizing physicians who have substantial community responsibility. As a result, according to 1978 Senate testimony by Vernon McKenzie, the Department of Defense has found it necessary to focus its most intense efforts on insuring that the active components of the military services maintain sufficient medical officer strengths to meet the early workload requirements within a theater of operations in the event of war.[10] Despite these efforts, the Department of Defense estimated in the spring of 1978 that the armed forces were approximately 1,000 medical officers short of the number required for this limited mission.[11]

AMEDD Capacity to Respond
to National Emergencies

In 1977, General Taylor had commented that the net effect of the number of required Army medical officers who were not available was absolutely profound in terms of readiness which is the primary mission of all military units.[12] A year later, his successor General Pixley categorized the AMEDD capability to support a non-mobilization contingency as extremely marginal.[13] In his estimate, the outbreak of hostilities which involved U.S. Army forces for even a limited period would require the diversion of all eligible beneficiaries other than active duty to

non-military health care sources, in order to free medical officers for reassignment to field medical units in the combat zone and enable medical facilities in the Continental United States (CONUS) to care for the sick and wounded soldiers.[14] The mobilization of the Army Reserve and National Guard would offer only partial assistance, in view of the significant physician shortages they continue to experience.

In 1978, according to General Pixley, the all-volunteer Army Medical Corps was not able to provide sufficient medical support to sustain the Army in large scale combat such as a war in Europe.[15] A state of war would obviously generate an enormous requirement for staffed hospital beds to support soldiers who were wounded in combat and returned to the United States for treatment. The requirement to maintain this CONUS capability would not only necessitate the diversion of other than active duty members to the civilian sector for medical care; it would also prohibit the wholesale deployment of the Army Medical Corps to the theater of operations. The present availability of active medical officers would be insufficient to staff treatment facilities within the theater in the numbers and types of units which would be required. Increased requirements to evacuate casualties to CONUS would result, according to General Pixley, in an increased death rate, as well as higher incidence of wound, injury, and disease complications, and an increased length of hospital stay among those who survived.[16]

The theater evacuation policy necessitated by the shortage of medical officers would also result in fewer troops being returned to duty within the theater of operations. The austerity of medical capability

would require the evacuation, from the theater, of injured and wounded soldiers who, if adequate medical support were available, could otherwise be returned to duty in the combat zone. Soldiers who are evacuated out of a theater of operations become personnel losses to the theater. "Premature" evacuation would thus create an increased requirement for replacements from CONUS and a significant loss of combat power available to the field commander responsible for fighting the war.[17] This limitation of the Army's ability to maximize its combat power, particularly during the early stages of a major war, has been a most serious consequence of the military physician shortage which has developed in the zero-draft environment.

Distribution of Available Specialists

The significant reduction in active Army medical officer strength, and the radical change in the availability of specialists which occurred during the period examined by this study, were further compounded by medical officer assigment policies. These policies derived from mission priorities which required the uneven distribution, particularly in CONUS, of those medical officers who were available. As a result, Medical Department Activities (MEDDAC) located on Army posts in the United States were allocated proportionately fewer doctors than their workload or population served would otherwise have justified.

The mission of the Army Medical Department dictates that primary importance be placed on providing continuity of care for active duty personnel. As a result, the first priority for medical officer assignments was to fill overseas positions in places such as Europe and Korea, where

alternatives to military health care are not readily available for either the soldier or his dependents. The second assignment priority was to assure the continuation of an adequate teaching faculty to support graduate medical education programs at Army medical centers (MEDCEN) such as Walter Reed (Wash., D.C.), Fitzsimmons (Denver, CO.), Letterman (S.F., CA).[18] Although they have historically provided health care to the majority of active and retired beneficiaries, the MEDDACs received what was left.

The requirement to staff overseas positions seems obvious. The Army Surgeon General has justified staffing medical centers to support Army graduate medical education as critical to AMEDD survival in a zero-draft environment.[19] Army internship and residency programs have historically provided the single most successful procurement and retention incentive for career service.[20] In the all-volunteer environment, Army graduate medical education is considered essential to train graduating HPSP participants and produce specialists to meet the requirements which were formerly filled via the Berry Plan. In addition to providing specialists, the graduate medical education programs provide a form of indenture which is also considered mandatory for AMEDD survival.[21] As a result of the active duty obligations they incur, Army residencies produce specialized medical officers who can be involuntarily assigned to less desirable locations overseas and within CONUS. In recognition of the importance of the graduate medical education programs as an investment in the future, the Army Medical Department expanded the number of internship and residency positions from 1,137 in FY 1976, to 1,198 in FY 1977 and

1,443 in FY 1978.[22] As noted previously, the 1978 expansion accounted for a significant portion of the increased numbers of volunteers recruited during that year.

Because they account for a significant portion of the active medical force (residency spaces accounted for over thirty-five percent of the 1978 active Army physician strength), and are generally located in metropolitan areas (which enables interaction with medical schools and civilian teaching hospitals), Army medical centers and their residency programs have been somewhat under attack, particularly during the period of military physician shortage.[23] Although they are not ideally located to support large troop concentrations, these hospitals provide sophisticated care to military beneficiaries and act as referral centers in support of the MEDDACs for unusual or complicated cases. Furthermore, the workload performed by interns and residents would exist, even if the training programs were abolished. As General Pixley has observed, the training in these medical centers is not classroom lecture. Under supervision, interns and residents provide medical care to all categories of eligible beneficiaries. To perform an equivalent workload, it would take between two and three staff physicians to replace each military intern or resident.[24]

The necessity of meeting peacetime overseas requirements and the logic of investing in strong programs of graduate medical education appear to be inescapable. Army medical officer assignment priorities had a profound impact during the late 1970's on the CONUS MEDDACs which act as community hospitals for the troop concentrations at Army bases, as well as the large populations of retired military which settle in their vicinity.

A comparison of the Army-wide distribution of selected specialties as of 1 December 1975 and 1 October 1978 with the same data for MEDDACs is provided in Table 14.

TABLE 14

COMPARISON OF SELECTED SPECIALTY DISTRIBUTION,

ARMY-WIDE VS. MEDDAC'S, 1975 - 1978

	Army-Wide			MEDDACs		
Specialty	1975	1978	Percent Reduced	1975	1978	Percent Reduced
Anesthesiology	83	62	23.5	36	13	63.9
Internal Medicine	401	206	48.6	188	80	57.4
OB-GYN	187	141	24.6	102	56	45.1
Orthopaedics	184	104	43.5	115	54	53.1
Pediatrics	235	213	9.4	114	88	22.8
Psychiatry	177	124	29.9	65	21	67.7
Radiology	128	77	39.8	62	28	54.8

Source: Compiled from Department of the Army Working Papers (SGPE-MC) n.d., n.p.

As a result of these significant reductions, many post hospitals were forced to curtail services for selected categories of patients (primarily retired members and their dependents). Medical care provided by what had formerly been one-doctor services (such as dermatology, opthalmology, otolaryngology, etc.), was no longer available at many Army hospitals, or was provided on a "circuit rider" basis by a supporting medical center. In addition to the obvious impact on the availability and accessability of military medical care, the reduction in services and staff at the

MEDDACs had a negative effect on the retention of those medical officers who remained. In 1978, General Pixley observed that many doctors who might otherwise have remained in the Army were leaving because they did not wish to be one of two remaining doctors on a service which just two or three years previously had been staffed with eight to ten medical officers.[25]

Short Range Solutions

During 1977 and 1978, the Army Medical Department launched a series of immediate actions in an effort to partially offset the critical shortages of medical officers, particularly at the CONUS MEDDACs. These actions included increasing the employment of civilian physicians where possible; contracting for specialized health services, such as radiology and pathology; and purchasing supplemental care from civilian medical facilities.[26] Although they provided some relief, these initiatives have been extremely expensive. They have also resulted in considerably less efficient coverage compared to that provided by active duty physicians. The use of civil service physicians on a forty-hour work week and contract surgeons on a part-time basis provided some staffing relief in the emergency rooms and outpatient clinics of Army hospitals. However, use of these physicians did not generally offer much assistance in the inpatient and specialty areas where the critical problems existed.[27] Since it is bound by federal civil service pay scales, the Army could not compete with the salary expectations of civilian specialists, and therefore could not attract them.[28]

The use of service contracts to obtain radiology and pathology support which are essential for the delivery of quality health care has proved to be enormously expensive. The costs of contracting for radio-

logical support can approach $100,000 per year, for the equivalent of one physician man year (2,080 hours per year).[29] During FY 1978, twenty-three MEDDACs obtained radiology support on a contract basis, at a total cost of $4.4 million. In the spring of 1978, projections for FY 1979 included ten additional radiology contracts and an estimated cost of close to six million dollars for fifty man years of effort.[30]

Contractural arrangements for radiology support are negotiated between the federal government and corporations which employ a staff of radiologists and rotate them among Army hospitals to provide coverage. Federal regulations prohibit direct employment of individual radiologists at the salary levels they would demand. The rotation of radiologists among military hospitals has created inefficiency and discontinuity of support, in addition to the exhorbitant costs associated with the contractual alternatives to military radiologists.

The morale of military medical officers has been seriously degraded by the necessity to obtain specialized services via contract. The $100,000 a year civilain radiologist works his forty-hour week beside the military physician who, depending on grade, years of service, and bonus eligibility, earns between $20,000 and $45,000 per year; and has been required, because of the doctor shortage to work extremely long hours.[31] The impact of this situation, particularly on the morale of the younger medical officers has been, in the opinion of General Pixley, "terrible!"[32]

In addition to the cost and inefficiency of the short-term measures to off-set the military physician shortage discussed in this section, they possess one further disadvantage. Civil service physicians and specialists employed by contracting firms are not deployable. Thus, while these

measures may have provided some relief for the peacetime staffing difficulties of the Army medical care system, they have not contributed to the primary mission of that system--readiness.

Predictions for the Future

The impact of the all-volunteer experiment on physician recruitment and retention during the period investigated by this study resulted in an acute shortage of physicians and a severe maldistribution of specialists which have had a negative effect on the capabilities of the Army medical care delivery system. Similar experiences encountered by the Navy prompted Admiral Custis, former Navy Surgeon General, to declare in 1978 Senate testimony that "...the all-volunteer medical force has failed. It is in fact moribund."[33] While the Army Surgeon General and Defense Department representatives were not willing to judge the all-volunteer experiment as harshly as this, their optimism regarding ultimate success was at best "cautious." By mid-1978, health planners in the Department of Defense were still projecting that the critical military doctor shortages of the late 1970's would be eliminated by the mid-1980's.[34] DoD representatives emphasized, however, that these optimistic projections (reminiscent of the "twenty percent over or under estimates" of 1977) were based on assumptions which included an increased rate of volunteers to a tri-service total of at least 700 per year, and retention of active medical officers at 1976-1977 levels. In addition, these projections assumed that the Health Professions Scholarship Program would remain filled in the future.[35] AMEDD projections of improvement in the assigned strength of active medical officers during the 1980's were dependent on assumptions that recruiting and retention programs which included an aggressive

commitment to graduate medical education and a competitive HPSP would be successful.[36] In addition, the Army Medical Department assumed that it would be able to procure between 250 and 275 volunteers per year.[37] According to General Pixley, these will be obtained by a significantly expanded force of physician recruiting officers.[38]

Even though the Army Medical Department projected a gradual reduction of the military physician shortage by the 1980's, certain vital specialties were expected to remain critically understaffed. General Pixley predicted that by 1981, the Army would still have only 54.9 percent of its 1977 authorizations for specialists in internal medicine. Significant shortages are also expected to persist in the specialties of radiology (70.5 percent of 1977 authorizations), orthopaedic surgery (60.7 percent), and general surgery (70.9 percent).[39]

The assumptions on which these 1978 projections of ultimate success were based continued to rely on programs which had not achieved nearly the resounding results that had been anticipated, and which, by 1978 were in serious trouble. The Variable Incentive Pay program had become a serious source of physician dissatisfaction because of its complexity, its instability, and its eroded value. The provisions of the VIP which excluded Berry Planners and will exclude HPSP and ROTC participants until completion of their initial active duty obligation will continue to be a significant source of discontent until they are modified. The uncertainty of continued program viability caused by repeated short-term Congressional extensions has been a serious impediment to optimizing the value of the VIP as a recruiting and retention tool. General Pixley has noted that Army medical officers do not consider their VIP and professional pay as

special or bonus pay; but rather, consider their total entitlements as their justly due normal pay.[40]

The salary potential for physicians is enormous. One Navy Lieutenant Commander anesthesiologist received an unsolicited offer of employment at $140,000 per year to start. Advertisements have appeared in professional journals for contract radiologists to work in military hospitals at a salary of $85,000 per year. The average annual salary of a specialist exceeds $63,000.[41] It is absolutely unreasonable, in the author's opinion, to expect a member of a profession with this income potential, no matter how dedicated he might be, to remain voluntarily in any organization in which there is continued uncertainty and turmoil surrounding which pay programs will continue, who will be eligible, and what his next year's pay will be. The serious defects inherent in the current VIP were demonstrated by the fact that in mid-1978, of the 1,006 Army VIP agreements which were due to expire in 1978, only 525 renewals were expected; of 358 expirations in 1979, only 185 were expected to be renewed.[42]

The discontent among military physicians regarding their income can only be remedied by a stabilized program of compensation and incentive pay which, in so far as possible is awarded on the basis of professional education, training, and experience, and which compensates military physicians at a level which remains at least reasonably competitive with the civilian sector. Continuation of the present conditions of instability and perceived inequities will adversely affect retention of those physicians currently on active duty, and may disenchant civilian physicians who might otherwise volunteer for military service. Present flaws in the existing compensation system will also affect the attractiveness of the

HPSP and further diminish the future viability of this vital procurement program.

Since its enactment, the Health Professions Scholarship Program has been unanimously characterized by military health planners as absolutely essential for achieving an all-volunteer medical force. Department of Defense projections regarding the retention of HPSP participants beyond their obligated service have relied on past experiences with the retention of military residents and the career decision habits of those medical officers who stayed in the military over ten years (forty to fifty percent of the latter remained until retirement).[43] It is true that a significant number of HPSP participants will perform military residencies. It is also probable that those who perform military residencies will serve between eight and ten years of active duty before their obligated service is completed. It is very likely, however, that, as a result of perceived pay inequities and other dissatisfiers, future retention experiences with HPSP participants will be considerably below current expectations. David Packard has noted that the past cannot be readily translated into future projections for this group.[44] The Army Medical Department has had almost no experience with the retention habits of physicians who become eligible to make a career decision for the first time after eight years of active service. Dr. Anthony R. Curreri has predicted that many of the HPSP participants will serve no more than their initial active duty obligation.[45] Admiral Custis has estimated that those who do not perform their residency training in the military (and the military cannot begin to accommodate all HPSP participants), will be comparable to Berry

Plan participants and will leave active duty as soon as they become eligible.[46]

The analysis of projections regarding the retention of HPSP participants may become moot unless immediate action is taken to make this program competitive with other federal subsidy programs. The issue of tax relief must be remedied by a permanent statement of the Congressional intent, which has been repeatedly demonstrated by temporary solutions, that this program be exempt from federal income taxes. In addition, program benefits must be repackaged to include a cost of living adjustment to the monthly stipend in order to enable the Department of Defense to remain competitive with the Department of Health, Education and Welfare in vying for the services of those medical students who are willing to indenture themselves to the federal government in return for subsidy of their medical education. Even if the HPSP is made financially competitive with the NHSCSP, the location of federal service within the civilian community under the latter program will undoubtedly prove to be decisively attractive to many students who would otherwise have chosen military service under the HPSP. General Pixley has consistently maintained that the major attraction of the Health Professions Scholarship Program is not simply medical school subsidy, but also the attractiveness of having high priority for selection for military internship and residency training programs which have traditionally been regarded highly by the American medical community.[47] In view of the strong competition between federal agencies in the area of medical student subsidy, those steps taken to ensure the continued viability of Army graduate medical education may prove in future years to have been a critical factor which tipped the

balance in favor of an all-volunteer medical force.

Although its credibility as a long-term solution and institutional aura for both faculty and students were clearly diminished by the brief controversy in 1977 over its continued existence, the Uniformed Services University of the Health Sciences will begin providing a limited number of military medical officers in 1980. If this institution remains free from repeated attacks and the average retention of its graduates lives up to the projected sixteen years, the USUHS may yet prove its critics to have been in error. However, the same factors which affect the retention of HPSP participants will also impact on USUHS graduates. If perceived inequities continue to exist regarding Variable Incentive Pay, the longer service obligations incurred by graduates of the USUHS will merely provide a longer period in which their discontent will build.

It is unreasonable to expect the career intentions or economic analyses of twenty-one year old HPSP or USUHS participants to remain unchanged eight or ten years later. Compensation packages which do not consider the level of education and training of these medical officers, and which deny them at least a partial bonus during their obligated service, no matter how technically and legally justifiable, will drive the majority of those medical officers in whom the greatest investment has been made from the military service at their first opportunity. In this environment, the military medical departments will not achieve the stabilized force of medical officers which was an essential component of the original plan for achieving an all-volunteer force.

If medical officer stability is not achieved, the military medical departments will be forced into a cyclical dilemma which will be some-

what longer in its curve, but quite comparable to that experienced during the years of the doctor draft. The major difference between the draft and all-volunteer eras will be the enormous expense of the latter and the comparative effectiveness of the former. If this condition prevails, it will rightly be said that the all-volunteer experiment failed to attract sufficient medical officers to assure adequate medical support for the armed forces of the United States.

END NOTES

[1]U.S., Congress, Senate, Department of Defense Authorization for Appropriations for Fiscal Year 1979, Hearings before the Committee on Armed Services, 95th Cong., 2nd Sess., 1978, p. 2600.

[2]Larry Margasak, "Anger, Bitterness Plaguing Ailing Military Medicine," Kansas City (MO) Times, 30 November 1978, p. 7A.

[3]Webster's New World Dictionary, Compact School and Office Ed. (1977) S.V. "shortage."

[4]Senate Armed Services Committee Hearings on the Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2651.

[5]Ibid.

[6]Ibid.

[7]Ibid.

[8]U.S., Congress, House, Department of Defense Appropriations for 1979 (Part 8), Hearings before the House Committee on Appropriations, 95th Cong., 2nd Sess., 1978, p. 861.

[9]U.S., Congress, Senate, Special Pay Provisions for Physicians and Dentists in the Uniformed Services, Hearings before the Senate Committee on Armed Services on S. 1731, 95th Cong., 1st Sess., 1977, p. 9.

[10]Senate Armed Services Committee Hearings on the Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2605.

[11]Ibid., p. 2606.

[12]U.S., Congress, House, Need for Continuation of the Uniformed Services University of the Health Sciences, Hearings before the Investigations Subcommittee of the House Committee on Armed Services, 95th Cong., 1st Sess., 1977, p. 130.

[13]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 898.

[14]Senate Armed Services Committee Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2627.

[15]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 899.

[16]Ibid.

[17]Ibid.

[18]Senate Armed Services Committee Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2697.

[19]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 861.

[20]U.S., Congress, House, CHAMPUS and Military Health Care, Hearings before Subcommittee No. 2 of the House Committee on Armed Services, 93rd Cong., 2 nd Sess., 1974, p. 128.

[21]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 862.

[22]Senate Armed Services Committee Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2628.

[23]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 862.

[24]Ibid.

[25]Senate Armed Services Committee Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2696.

[26]Ibid., p. 2629.

[27]Ibid., p. 2669.

[28]Ibid.

[29]Ibid.

[30]Ibid., p. 2703.

[31]Ibid., p. 2669.

[32]Ibid., p. 2670.

[33]Ibid., p. 2667.

[34]Ibid., p. 2616.

[35]Ibid., p. 2615.

[36]Ibid., p. 2651.

[37]Ibid., p. 2672.

[38]Ibid., p. 2702.

[39]House Appropriations Committee Hearings on Department of Defense Appropriations for 1979 (Part 8), 1978, p. 850.

[40]Ibid., p. 897.

[41]Ibid., p. 865.

[42]Senate Armed Services Committee Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2701.

[43]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 20.

[44]U.S., Congress, House, Department of Defense Appropriations for 1978, Part 6 Uniformed Services University of the Health Sciences, Hearings before the House Appropriations Committee, 95th Cong., 1st Sess., 1977, p. 23.

[45]Ibid., p. 24.

[46]House Armed Services Investigations Subcommittee Hearings on the Need for Continuation of the Uniformed Services University of the Health Sciences, 1977, p. 36.

[47]Senate Armed Services Committee Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1979, 1978, p. 2654.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. In the All-Volunteer Army environment, the active duty strength of the Army Medical Corps decreased from 5,505 on 30 June 1973 to 4,063 on 30 September 1978, a decrease of over twenty-six percent. During the same period of time, the population eligible for Army health care increased slightly.

2. During the period examined by this study, a dramatic decrease in the availability of medical specialists created critical shortages in certain medical specialties. In the period from 1 December 1975 to 1 October 1978, the Army Medical Department experienced reductions of 48.6 percent of assigned strength in the specialty of internal medicine; 39.8 percent in radiology; 43.5 percent in orthopaedic surgery; and 24.6 percent in OB-GYN.

3. During the same period, the availability of specialists at Army Medical Activities (MEDDAC) within CONUS was reduced even more dramatically. Between 1 December 1975 and 1 October 1978, MEDDACs experienced a decrease of 57.4 percent of assigned strength in internal medicine; 54.8 percent in radiology; 53.1 percent in orthopaedic surgery; and 45.1 percent in OB-GYN.

4. In the zero-draft environment, the assigned strength of medical officers in Army Reserve and National Guard units, as well as the Army Individual Ready Reserve decreased precipitously:

a. During the period from 1974 through 1977, assigned medical officer strength in Army Reserve units decreased by a total of 1,167, a reduction of 48.1 percent.

b. During the same period, total medical officer strength in units of the Army National Guard declined a total of 429 officers, a decrease of 44.2 percent.

c. From 1974 through 1977, the Army Individual Ready Reserve lost a total of 1,752 medical officers, an attrition of over 51.5 percent.

5. The reductions in medical officer strength which occurred in both the active and reserve components of the U.S. Army resulted in a critical shortage of Army physicians. By 1978 this doctor shortage had rendered the Army Medical Department only marginally capable of supporting a non-mobilization contingency, and incapable of providing adequate medical forces to support a major war in a theater such as Europe.

6. Severe physician shortages and non-availability of essential specialists forced the selective curtailment or termination of medical care to certain categories of eligible beneficiaries of military health care. This was particularly evident at post hospitals (MEDDACs) within CONUS which, in the aggregate are the source of health care for the majority of Army patients. The category of patients most affected were retired military members and their dependents.

7. The effects of the zero-draft environment on physician procurement were not reflected immediately in military medical officer strength. This phenomenon occurred primarily as a result of the continued

accession of physicians who had incurred a deferred military obligation by participating in the Berry Plan, and were in delayed officer status at the time the draft was terminated. During the period from 1 July 1973 to 30 October 1978, a total of 2,563 medical officers in this category entered the active Army. A total of 2,006 or 78.3 percent of these accessions occurred from 1974 through 1976.

8. The military physician procurement and retention programs which were enacted and consistently supported by the Congress did not achieve the high degree of success which had been enthusiastically anticipated by military planners. Fundamental flaws in these programs, compounded by inconsistent as well as poorly-timed efforts to remedy them, created an environment of instability and uncertainty over the future viability of these programs, which significantly hindered their optimum effectiveness.

a. The tax exempt status of Health Professions Scholarship Program benefits, obviously intended by Congress but not specified in the original legislation, was temporarily extended several times during the period examined by this study. These temporary solutions which were sometimes permitted to expire before being renewed by Congress, created considerable anxiety, discontent and hardships for scholarship recipients. The full impact of these experiences on participant attitude toward the federal government and the military services will not become known until these individuals become eligible for release from active military service, many years hence.

b. The Variable Incentive Pay program, designed to provide a level of compensation for military physicians which would make military

service a reasonable alternative to civilian practice, became instead a source of dissatisfaction among military physicians. Temporarily extended three times during the period examined by this study, the VIP is perceived as uncertain, complex, discriminatory, and unacceptable by military physicians who desire a stable and therefore predictable compensation package which at least partially reflects the enormous income potential of the medical profession. Current provisions of the VIP which exclude HPSP and ROTC participants until completion of their initial active duty obligation may have a severe impact on retention of these personnel assets and on future participation in these programs.

c. The lack of provisions for adjusting the financial entitlements of the VIP and the HPSP for inflation has seriously eroded their value during the 1970's. The inclusion of cost-of-living adjustments in the benefits offered by other federal programs of medical school subsidy makes these programs very strong competitors with the HPSP.

d. The Uniformed Services University of the Health Sciences was an apparent source of controversy throughout the period examined by this study. Attempts by the Department of Defense to terminate this institution in 1977 led to a brief but acrimonious Congressional debate. Although the university is still scheduled to graduate its first class in 1980, the controversy which has surrounded its developmental years may have diminished its attractiveness to both faculty and students.

9. The instability, turmoil and perceived inconsistency of support which diminished the effectiveness of recruiting and retention programs have created a negative impact on the credibility of the federal government with many military physicians. This damaged credibility must

be overcome if the armed forces are to have any realistic chance of attracting and retaining one of the most highly paid and readily employable professions within Americal society.

10. During its first five years of existence, the all-volunteer force experiment has had a seriously negative impact on physician procurement. In the zero-draft environment, the Army Medical Department has not been able to attract or retain sufficient medical officers to maintain the readiness posture required by its primary mission of combat support or to provide the health care expected by its eligible beneficiaries.

Recommendations

If the all-volunteer force concept is to have any hope of successfully achieving an adequate and self-sustaining force of medical officers in the 1980's and beyond, major adjustments must be made to existing physician procurement programs. The following recommendations therefore seem appropriate.

1. That further research be directed toward attaining a consensus within the Department of Defense and among other agencies of the federal government regarding the desired and affordable structure of the military health care delivery system. The reassessment and possible redefinition of the traditional roles, structure and missions of the military medical departments is considered to be fundamental to achieving the consistancy of support and program stability which are absolutely necessary for attaining an adequate all-volunteer medical force.

2. That immediate action be taken to develop a stable and equitable

compensation package for military physicians. Retention incentives should be easy to comprehend and philosophically based on a physician's level of training and productivity rather than his remaining military obligation. Failure to at least partially include HPSP and USUHS participants who have completed specialty training, during their initial period of obligated service may prove, in the hindsight of future years, to have been a most grievous error.

3. That action be taken to obtain a permanent legislative statement of Congressional intent regarding the tax exempt status of Armed Forces Health Professions Scholarship Program benefits.

4. That a cost of living adjustment be added to the monthly HPSP stipend, to counter the effects of inflation and to regain competitiveness with other federal programs of medical school subsidy. The very existence of these competing federal programs reinforces the necessity of seeking the consensus recommended above.

5. That the Army graduate medical education programs be recognized and supported for their value as a highly productive means of delivering medical care and simultaneously assuring the continued availability of medical specialists who are absolutely essential for the effective and efficient delivery of medical care.

The achievement of an effective and self-sustaining all-volunteer medical force will continue to require a very large investment of resources. It is possible that the significant costs associated with the voluntary procurement and retention of medical officers will become unacceptable in light of competing national and defense priorities. If this should occur,

the alternatives available to the national leadership will be clearly defined: either permit the return to some form of compulsory national service for physicians which recognizes the enormous federal investment in and subsidy of medical education in the United States (and which includes military service as one means of repaying American society for this investment); or allow the health care benefits of military service to erode further, and, therefore, require the armed forces to fight the first battle of the next war with a demoralized Army which has insufficient doctors to provide adequate treatment for the sick and wounded.

BIBLIOGRAPHY

BIBLIOGRAPHY

PRIMARY MATERIALS

Unpublished Government Documents

U.S. Department of the Army. Office of the Surgeon General. "Information Paper" (DASG-PTB), 3 May 1976.

_____. "Working Papers" (DASG-PTB), n.d., n.p.

_____. "Working Papers" (SGPE-MC), n.d., n.p.

_____. "Talking Paper" (SGPE-PDM), 1 March 1978.

_____. "Working Papers" (SGPE-PDM), n.d., n.p.

U.S. Department of the Treasury. Letter from William E. Simon, Secretary of the Treasury to Richard A. Wiley, General Counsel, Department of Defense, 19 February 1976 (Copy on file at Headquarters, Department of the Army, SGPE-PDM, Washington, D.C.).

Miscellaneous

Morson, Phillip, and others. "Taxation of Armed Forces Health Professions Scholarships," 16 April 1976 (Petition to Donald H. Rumsfeld, Secretary of Defense, copy on file at Headquarters, Department of the Army, SGPE-PDM, Washington, D.C.).

U.S. Department of Health, Education and Welfare. "Fact Sheet--National Health Service Corps Scholarship Program," 21 October 1977.

Published Government Documents

U.S. President. "Message to the 92d Congress, Relative to the Military Draft." 28 January 1971. House Document No. 92-37.

U.S. Congress. Armed Forces Health Professions Revitalization Act of 1973. Pub. L. 92-426. 92d Cong., 2d sess., 1972.

_____. Revising the Special Pay Structure Relating to Medical Officers and Other Health Professionals of the Uniformed Services. Pub. L. 93-274. 93d Cong., 2d sess., 1974.

U.S. Congress. House. "Uniformed Services Health Professions Revitalization Act." Conference Report to accompany H.R. 2. Report No. 92-1350. 92d Cong., 2d sess., 1972.

U.S. Congress. House. Committee on Armed Services. CHAMPUS and Military Health Care. Hearings before Subcommittee No. 2. 93d Cong., 2d sess., 1974.

_____. To Revise the Special Pay Structure Relating to Medical Officers of the Uniformed Services. Hearings before a subcommittee of the Committee on Armed Services, House of Representatives on S. 2770. 93d Cong., 1st sess. 1974.

_____. Full Committee Consideration of S. 2770., to Revise the Special Pay Structure Relating to Medical Officers of the Uniformed Services. H.A.S.C. No. 93-39. 93d Cong., 1st sess., 1974.

_____. "Special Pay for Medical Officers of the Uniformed Services." Conference Report to accompany S. 2770. Report No. 93-984. 93d Cong., 2d sess., 1974.

_____. Hearing on H.R. 14772, to Pay Variable Incentive Pay to Medical Officers Who Participated in the Berry Plan. Hearing before the Subcommittee on Military Compensation of the Committee on Armed Services, House of Representatives. 94th Cong., 2d sess., 1976.

_____. Extension of Health Professionals Pay. Hearing before the Military Compensation Subcommittee of the Armed Services Committee on HR 7839. House of Representatives. 95th Cong., 1st sess., 1977.

_____. Need for Continuation of the Uniformed Services University of the Health Science. Hearings before the Investigations Subcommittee of the Committee on Armed Services, House of Representatives. 95th Cong., 1st sess., 1977.

_____. "Need for Continuation of the Uniformed Services University of the Health Sciences." Report of the Subcommittee on Investigations of the Committee on Armed Services, House of Representatives. H.A.S.C. No. 95-22. 95th Cong., 1st sess., 1977.

U.S. Congress. House. Committee on Appropriations. "Adverse Report to Accompany HR 14772." H. Rept. No. 94-1438, Part 2. Committee on Appropriations, House of Representatives. 94th Cong., 2d sess., 1976.

_____. Department of Defense Appropriations for 1978. Part 6, Uniformed Services University of the Health Sciences. Hearings before a subcommittee of the Committee on Appropriations, House of Representatives. 95th Cong., 1st sess., 1977.

_____. Military Constuction Appropriations for 1978. Hearings before a subcommittee of the Committee on Appropriations, House of Representatives. 95th Cong., 1st sess., 1977.

_____. Department of Defense Appropriations for 1979, Part 3. Hearings before a subcommittee of the Committee on Appropriations, House of Representatives. 95th Cong., 2d sess., 1978.

_____. Department of Defense Appropriations for 1979, Part 8. Hearings before a subcommittee of the Committee on Appropriations, House of Representatives. 95th Cong., 2d sess., 1978.

U.S. Senate. Committee on Appropriations. Uniformed Services University of the Health Sciences. Special Joint Hearing before the Subcommittee on Defense / Military Construction of the Senate Appropriations Committee. 95th Cong., 1st sess., 1977.

U.S. Congress. Senate. Committee on Armed Services. The Volunteer Armed Force and Selective Service. Hearings before a subcommittee of the Senate Committee on Armed Services, 92d Cong., 2d sess., 1972.

_____. Uniformed Services Health Professions Revitalization Act of 1971. Hearings before the Subcommittee on General Legislation of the Senate Committee on Armed Services, on H.R. 2, 92d Cong., 2d sess., 1972.

_____. "Uniformed Services Health Professions Revitalization Act of 1971. Report to Accompany H.R. 2." S. Rept. No. 92-827. 92d Cong., 2d sess., 1972.

_____. "Revising the Special Pay Structure Relating to Medical Officers of the Uniformed Services. Report to Accompany S. 2770." S. Rept. No. 93-658. 93d Cong., 1st sess., 1973.

_____. The All-Volunteer Armed Force. Hearings before the Subcommittee on Manpower and Personnel of the Senate Committee on Armed Services, 95th Cong., 1st sess., 1977.

_____. Fiscal Year 1978 Authorization, Part IV Manpower and Personnel. Hearings before the Senate Committee on Armed Services on S. 1210, 95th Cong., 1st sess., 1977.

_____. Special Pay Provisions for Physicians and Dentists in the Uniformed Services. Hearings before the Senate Committee on Armed Services, on S. 1731, 95th Cong., 1st sess., 1977.

_____. Department of Defense Authorization for Appropriations for Fiscal Year 1979. Hearings before the Senate Committee on Armed Services. 95th Cong., 2d sess., 1978.

U.S. Department of the Army. The Army Medical Department Historical Unit. 200 Years of Military Medicine. (Ft. Dietrick, Md.: 1975).

U.S. Department of the Army. Office of the Chief of Staff. The Army's Master Program for the Modern Volunteer Army. (Washington, D.C.: Government Printing Office, 1971).

U.S. Department of the Army. Office of the Surgeon General. Annual Report of the Surgeon General Fiscal Year 1970. (Washington, D.C.: Government Printing Office, 1971).

_____. Annual Report of the Surgeon General Fiscal Year 1971. (Washington, D.C.: Government Printing Office, 1972).

_____. Annual Report of the Surgeon General Fiscal Year 1972. (Washington, D.C.: Government Printing Office, 1973).

_____. Annual Report of the Surgeon General Fiscal Year 1973. (Washington, D.C.: Government Printing Office, 1974).

U.S. Department of the Navy. Center for Naval Analyses, Institute of Naval Studies. Procurement and Retention of Navy Physicians. (Arlington, Va.: 1973).

SECONDARY MATERIALS

Books

Berki, Sylvester E. Hospital Economics. Lexington, Mass.: D.C. Heath and Co., 1972.

Blum, Henrik L. Planning for Health Development and Application of Social Change Theory. New York: Human Science Press, 1974.

Donabedian, Avedis. Aspects of Medical Care Administration: Specifying Requirements for Health Care. Cambridge, Mass.: Harvard University Press, 1973.

Journal Articles

"Plans for All Volunteer Medical Force Aired." Commanders Digest, 12 (25 May 1972), 3.

Cowan, James R. "Maximum Services With Limited Resources." Military Medicine, 140 (March 1975), 169-171.

_____. "Federal Medical Chiefs on Progress and Plans." Military Medicine, 140 (October 1975), 681-684.

Curreri, Anthony R. "The Role of the Uniformed Services University of the Health Sciences." Military Medicine, 140 (April 1975), 245-251.

Jenninge, LTG Hal B. "Report from the United States Army Medical Department." Military Medicine, 136 (October 1971), 772-781.

_____. "Army Medical Department." Military Medicine, 137 (September 1972), 344-352.

Heesman, James D. "Gates Panel Recommends Many Career Benefits." Armed Forces Journal, 107 (1 March 1970), 16-19.

_____. "DoD Plans 10-Point Program to End Doctor Draft." Armed Forces Journal, 108 (1 March 1971), 17-19, ff.

Taylor, LTG Richard R. "Department of the Army." Military Medicine, 140 (October 1975), 684-686.

Smith, Robert N. "Federal Medical Chiefs on Progress and Plans." Military Medicine, 142 (August 1977), 385-390.

Wilbur, Richard S. "Department of Defense: Progress and Plans." Military Medicine, 136 (October 1971), 771-772.

_____. "Federal Medical Chiefs on Progress and Plans." Military Medicine, 137 (September 1972), 337-338.

_____. "All Volunteer: Military Medicine Tomorrow." Military Medicine, 138 (June 1973), 327 330.

_____. "Military Departments Must Provide Top Health Services." Commanders Digest, 15 (10 January 1974), 2-8.

Newspapers

"Army Chief Calls for Draft Now." Kansas City (MO) Times, 14 March 1979.

Barnard, Richard C. "Pixley Sounds Off on Health Care." Army Times, 4 December 1978.

Carroll, John D. "Volunteer Force Won't Last, Recruiters Predict." Kansas City (MO) Times, 14 March 1979.

Hoffman, Fred S. "Army Has 'Too Few Doctors' to Deal With a War." Kansas City (MO) Times, 28 October 1978.

"Is There A Doctor In the House? Pentagon Sources Ask." Manhattan (KS) Mercury, 11 February 1979.

Margasak, Larry. "Anger, Bitterness Plaguing Ailing Military Medicine." Kansas City (MO) Times, 30 November 1978.

New York Times, 18 October 1968; 13 October 1977.

Philpott, Tom. "More Kin Turn to Public Health Care." Army Times, 18 July 1977.

Plattner, A. "Doctor Shortage to Get Worse: Kin, Retired Medical Care to be Cut." Army Times, 11 April 1977.

Sanders, Ron. "Summer Doctor Crunch Seen." Air Force Times, 16 May 1977.

Reports and Miscellaneous Papers

Association of the United States Army. "Special Report--Military Health Care, A Deteriorating Benefit." Arlington, Va., AUSA, 1978.

Braunstein, Claude. "A Study of the Factors Influencing Career Motivation Among Navy Physicians and Dentists." San Diego, Ca., Navy Personnel Research and Development Center, 1974 (Typewritten report).

Cooper, Richard W.L. "The All-Volunteer Force--The Emerging National Debate." Santa Monica, Ca., The Rand Corp., 1977 (Rand Papers Series).

_____. "The All-Volunteer Force and Defense Manpower--Testimony Before the House Budget Committee (Task Force on National Security), July 12, 1977." Santa Monica, Ca., The Rand Corp., 1977 (Rand Paper Series).

Waggoner, John; Rahm, Michael; and Powell, John. "Navy Medical Care Study: Alternatives to a Physician Shortfall." (Navy Contract Study). Seattle Wa., The Consulting Division, Boeing Computer Services, Inc., 1975. (typewritten).

Unpublished Sources

Berbary, COL Maurice S., USA. "The Physician, the Congress, and the Armed Forces: A Study in Career Management and Federal Legislation Applying to the Procurement and Retention of Physicians in the Military Establishments." Thesis, U.S. Army War College, 1969.

Burka, COL Edward R., USAR. "Physician Strength of USAR Medical Units: An Analysis of the Problem." Student Essay, U.S. Army War College, 1972.

Feris, Michael L., and Peters, Vernon M. "Organization Committment and Personnel Retention in the Military Health Care System." Masters Thesis, Naval Postgraduate School, Monterrey, Ca., 1976.

Foley, MAJ J.J. Jr., USA. "The Erosion of Fringe Benefits and its Negative Effect on Attitudes and Career Intentions of Regular Army Officers." MMAS Thesis, U.S. Army Command and General Staff College, 1976.

Goldner, COL Herman, USA. "Medical Reserves--Fact or Fiction." Student Essay, U.S. Army War College, 1976.

Harris, LTC Jon N. "Some Considerations in Adjusting the Compensation Package for Army Medical Corps Officers." Student Essay, U.S. Army War College, 1975.

Vance, LTC W.M., USA. "Recruitment of Physicians for the Active Army, 1975-1980." MMAS Thesis, U.S. Army Command and General Staff College, 1975.

Van Mater, LTC H.C., USA. "The Future of the Volunteer Army: A Projection." Air War College Report, Air University, 1976.

Wachs, COL Theodore J., USAF. "An Approach to Physician Utilization." Professional Study, Air War College, Air University, 1974.

Winkler, COL William P., Jr., MC. "A Study to Evaluate Factors Involved in Retention of Medical Officers in the Military Service." MMAS Thesis, U.S. Army Command and General Staff College, 1968.