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The move from a conscripted to an all-volunteer force (AVF) has caused annual cost increases of more than \$3 billion since 1973. The cost of implementation of the AVF as reflected in the budget was examined; the budgetary approach represents a reasonable assessment of the costs associated with creating and establishing the AVF. Findings/Conclusions: Annual cost increases attributable to the all-volunteer force were about \$90 million in 1971, \$1.5 billion in 1972, \$3 billion in 1973, \$3.3 billion in 1974, \$3.4 billion in 1975, \$3.3 billion in 1976, \$0.8 billion in the 1976 transition quarter, and about \$3.1 billion in 1977. The majority of the annual cost increases resulted from additional compensation paid to junior service personnel to support the AVF. If the Nation chooses to return to the draft, costs would vary by changes which would occur in the compensation and benefits of junior officers and enlisted service personnel. Questions exist about the accuracy of data used by several independent organizations in studies of the cost of the AVF. Department of Defense officials expressed reservations about the budgetary approach to determining the cost of the AVF, claiming that the method is oversimplified because it does not consider future financial implications.

(RRS)

5265

# REPORT TO THE CONGRESS



BY THE COMPTROLLER GENERAL  
OF THE UNITED STATES

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## Additional Cost Of The All-Volunteer Force

The move from a conscripted to an all-volunteer force caused substantial annual cost increases of more than \$3 billion since 1973. This report discloses cost changes caused by the implementation of the All-Volunteer Force. It does not address the effectiveness of the All-Volunteer Force, or the savings, if any, that would occur if the Department of Defense returns to a draft.



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

B-157371

To the President of the Senate and the  
Speaker of the House of Representatives

Because of continuing congressional interest concerning the All-Volunteer Force, we conducted a review of its additional cost. Senator Sam Nunn, Chairman, Subcommittee on Manpower and Personnel, Senate Armed Services Committee requested the review. The report describes historical budgetary costs associated with implementing the All-Volunteer Force but does not assess its effectiveness.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Legislative Reorganization Act of 1970 (Public Law 91-510).

We are sending copies of this report to the Acting Director, Office of Management and Budget; the Secretaries of Commerce, Defense, Transportation, Health, Education, and Welfare, and Labor; the Administrator, Veterans Administration; and the Director, Selective Service.

A handwritten signature in black ink, reading "Thomas B. Staats".

Comptroller General  
of the United States

D I G E S T

What has the All-Volunteer Force cost as compared to previous methods of building U.S. Armed Forces? This question has been asked with increasing frequency since the Nation returned to the volunteer concept. For the preceding 30 years, the forces were staffed draftees, draft-induced volunteers, and true volunteers. The change caused much debate, a large area of controversy being the cost of staffing a volunteer force.

This report is GAO's response to a request of the Chairman, Subcommittee on Manpower and Personnel, Senate Armed Services Committee, for such information. It describes budgetary costs attributable to the transition from conscription to the volunteer force.

GAO identified 57 cost elements related to military service and divided them into three categories: premilitary service, military service, and postmilitary service. The costs shown in this report were derived from historical data the Department of Defense or other sources provided. A monetary value could not be assigned to some cost elements.

This study involved four phases:

1. Obtaining the available data on each element for fiscal years 1964-77.
2. Obtaining a chronology of the major events affecting each cost element during the 1964-77 period.
3. Researching legislative histories, Department of Defense appropriation and authorization hearings, and Department of Defense policy and program directives for statements which attribute initiatives to the All-Volunteer Force or justify them as necessary to support the All-Volunteer Force.

4. Analyzing many other All-Volunteer Force studies to determine what cost elements were included.

In GAO's opinion, the budgetary approach used represents a reasonable assessment of costs associated with creating and establishing the All-Volunteer Force. Attempting to measure future costs and savings includes a high degree of uncertainty as data is unavailable and estimates of the consequences of future events are imprecise. (See p. 5.)

GAO found that from fiscal years 1971 through 1977 annual cost increases attributable to the All-Volunteer Force were about \$90 million in 1971, \$1.5 billion in 1972, \$3.0 billion in 1973, \$3.3 billion in 1974, \$3.4 billion in 1975, \$3.3 billion in 1976, \$0.8 billion in the 1976 transition quarter, and about \$3.1 billion in 1977 since 1977 data was incomplete. (See p. 3.)

The majority of the annual cost increase resulted from additional compensation paid to junior grade service personnel to support the All-Volunteer Force. (See p. 18.) According to the Department's congressional testimony, the main purpose of this pay raise was to support the All-Volunteer Force.

The report does not reflect the amounts which can be saved if the Nation chooses to return to a draft. That amount would vary primarily by what changes, if any, would occur in the compensation and benefits of junior officers and enlisted service people. (See p. 4.)

Also, this report does not discuss whether the All-Volunteer Force is more effective than the draft. This report deals solely with what the budgetary costs have been as a result of how the Nation implemented the All-Volunteer Force. The issue of whether the Nation should retain the All-Volunteer Force, return to the draft, or implement any other method to staff the Armed Forces is again a matter that the Congress must decide.

Other studies on the cost of the All-Volunteer Force have been prepared by independent organizations, but they have not embraced the full range of cost elements affecting manpower. Also, questions exist about the accuracy of data used by some of these organizations in reaching their conclusions. (See p. 5.)

Department of Defense officials said that GAO's report is well documented and informative, but they have reservations about the budgetary approach GAO used to determine the cost of the All-Volunteer Force. The Department said GAO's method is oversimplified because it attributes costs and savings primarily on the basis of the Department's congressional testimony and does not consider future financial implications.

We recognize that our budgetary approach has limitations, but so would any other approach to costing the All-Volunteer Force. We do not agree that our approach is oversimplified. The Department justified its need for funds on a budgetary basis, and moreover, long-term financial implications are conjectural and depend on future events which may or may not occur. Consequently, they are not as yet reflected in the Presidential budget. We believe the budgetary approach is the most appropriate way to assess the cost of the All-Volunteer Force.

The Department made other points about the need to offset about \$4 billion of the more than \$18 billion in the report. GAO did not adjust the costs as recommended by the Department. Although GAO believes there are offsetting costs, actual amounts cannot be determined and the Department's estimates are not supported by the facts.

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**ABBREVIATIONS**

AFEES	Armed Forces Examining and Entrance Stations
AVF	All-Volunteer Force
BAQ	basic allowance for quarters
BAS	basic allowance for subsistence
CHAMPUS	Civilian Health and Medical Program of the United Armed Services
CPI	Consumer Price Index
DDC	Defense Documentation Center
DOD	Department of Defense
EDP	Expeditious Discharge Program
GAO	General Accounting Office
GRC	General Research Corporation
MCEDP	Marine Corps Expeditious Discharge Program
MEPCOM	Military Enlistment Processing Command
MPD	Marginal Performer Discharges
NOAA	National Oceanic and Atmospheric Administration
OSD	Office of the Secretary of Defense
PHS	Public Health Service



**SAMVA**      **Special Assistant for the Modern Volunteer Army**  
**SGLI**      **Serviceman's Group Life Insurance**  
**TDP**      **1 ainee Discharge Program**  
**USUHS**     **Uniformed Services University of Health Sciences**  
**VGLI**      **Veteran's Group Life Insurance**

## CHAPTER 1

### INTRODUCTION

The movement to an All-Volunteer Force (AVF) culminated after a 4-year effort. The AVF was seriously considered by the Johnson Administration in the mid 1960s. Late in 1968 the Army began to study moving to an all-volunteer force, and at about the same time a Department of Defense (DOD)-wide effort, Project Volunteer, began. Project Volunteer was a plan for studies on how to reduce or eliminate the draft in the post-Vietnam war period. Concurrently, in January 1969, President Nixon appointed a commission chaired by former Secretary of Defense Thomas Gates to study the subject.

The Gates Commission stated in 1970 that the Nation could achieve an all-volunteer force by July 1971. The President and DOD, however, continued to use Project Volunteer as an evolutionary transition. Conscription into the Armed Forces ended in December 1972, and the President's authority to conscript ended in June 1973. On July 1, 1973, the Nation returned to an all-volunteer force to staff the Armed Forces.

What has the AVF cost? This question has been asked with increasing frequency since the Nation returned to the volunteer concept to man its Armed Forces. For the preceding 30 years, the forces were manned with draftees, draft-induced volunteers, and true volunteers. The change to an all-volunteer force has caused much debate with a major area of controversy being the cost of manning a volunteer force.

Numerous other reports and studies have been prepared on the AVF by DOD and others. Some studies addressed the cost issue for selected areas, such as recruiting, but none has addressed the total cost of the AVF.

This report includes the results of our study of cost elements related to military service and whether they increased or decreased as a result of going from a draft to the AVF.

GAO employed 13 commentators (see app. II) to review and comment on our audit approach and report. Their views and perspectives were considered in preparing this report. Generally they endorsed our approach and the report. However, some believed that the report was incomplete without a discussion of the AVF's effectiveness. One commentator expressed strong disagreement with our budgetary approach, stating that it was merely a collection of odds and ends on

military personnel expenditures. No other commentator took this position.

### SCOPE OF REVIEW

We identified 37 cost elements related to military service and divided them into 3 categories: premilitary service, military service, and postmilitary service. The costs shown in our report were derived from historical data and costs that DOD or other sources provided. A monetary value could not always be assigned to some cost elements.

Our study involved four phases:

1. Obtaining the available data on each element for fiscal years 1964-77.
2. Obtaining a chronology of the major events affecting each cost element during the 1964-77 period.
3. Researching legislative histories, DOD appropriation and authorization hearings, and DOD policy and program directives for statements which attribute initiatives to the AVF or justify them as necessary to support the AVF.
4. Analyzing other AVF cost studies to determine what cost elements were included and the soundness of the conclusions reached.

We worked at the Office of the Secretary of Defense (OSD) and the service headquarters. Some work was also done at the Selective Service; Department of Labor, U.S. Employment Service; Veterans Administration; Department of Health, Education, and Welfare; National Oceanic and Atmospheric Administration; and Department of Transportation, U.S. Coast Guard. We used cost data as provided by OSD, the services, and other affected agencies.

We used a budgetary approach to determine the cost of the AVF. Our attribution was based on (1) the testimony of Administration officials, (2) statutes, (3) internal justifications for various programs within the executive branch, and/or (4) the relationship of a cost element to either of the foregoing.

We did not review the effectiveness of the AVF as contrasted with the force under the draft because such was outside the scope of our review as requested by Senator Nunn.

## CHAPTER 2

### AN OVERVIEW

#### WHAT HAS BEEN THE ADDITIONAL COST OF IMPLEMENTING THE AVF?

Originally many controversial debates and issues surrounded the establishment of the AVF but over time they have subsided. However, recently public debate on the AVF has increased and one of the more controversial questions is: what has been the incremental cost of the AVF?

To answer this question, we examined the cost of the way the Nation implemented the AVF as reflected in the budget; we did not examine the theoretical movement from a draft to the AVF. Although we cannot conclusively state what the cost has been, the following table shows our estimates by fiscal year of the additional costs incurred as a result of moving from the draft to the AVF.

#### Cost Attributable to the AVF (note a)

	<u>Fiscal years</u>							
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1976T</u>	<u>1977</u> (note b)
	----- (billions) -----							
Premilitary Service	\$ 0.02 (0.02)	\$ 0.08 (0.08)	\$ 0.22 (0.20)	\$ 0.27 (0.21)	\$ 0.30 (0.21)	\$ 0.23 (0.16)	\$ 0.05 (0.03)	\$ 0.23 (0.15)
Military Service	0.07 (0.07)	1.39 (1.30)	2.82 (2.48)	3.03 (2.43)	3.04 (2.24)	2.94 (2.06)	0.73 (0.49)	2.83 (1.82)
Postmilitary Service	- -	- -	- -	0.02 (0.02)	0.05 (0.04)	0.10 (0.07)	- -	0.02 (0.01)
Total	0.09 <u>\$(0.08)</u>	1.47 <u>\$(1.37)</u>	3.04 <u>\$(2.68)</u>	3.32 <u>\$(2.65)</u>	3.39 <u>\$(2.49)</u>	3.27 <u>\$(2.29)</u>	0.78 <u>(0.52)</u>	3.07 <u>\$(1.98)</u>

a/Constant 1970 dollars are shown in ( ).

b/The 1977 data is incomplete.

c/Numbers may not add due to rounding.

Because we followed the life-cycle approach which encompassed premilitary, military, and postmilitary service, we had to collect and coordinate information from sources other than DOD. Although the AVF debate recognized some of these agencies' programs, there was no accompanying recognition of the need to identify, define, collect, or classify costs on this basis. Moreover, since DOD views its manpower programs from a DOD and not a multi-agency perspective, its cost data does not include other costs affected by the AVF.

Consequently, there are limitations on the precision of our estimate.

Further, the yearly costs cited above are not amounts which can be saved if the Nation chooses to return to a draft. That amount would vary primarily by what changes, if any, the Congress would deem appropriate in the compensation and benefits of junior officers and enlisted service people. The savings would also vary with what decisions are made as to (1) how many people DOD would rely upon to volunteer versus how many people should be drafted and (2) the makeup of the force as concerns first termers and careerists. The Gates Commission estimated that a 2-million man. all-volunteer force would cost about \$1.47 billion a year (in 1970 dollars) more than a mixed force (volunteers and draftees). However, this should not be compared to our estimate of \$2.28 billion (in 1970 dollars) for 1976 because

--the Gates Commission made assumptions about force mix (career versus first term), accessions, training, and retention that did not come true and

--we did not include the social costs considered by the Gates Commission.

All of the above are outside the parameters of this study.

DOD officials stated that our report was well documented and informative. They felt, however, that our approach had limitations and biases in that attribution based on congressional testimony focused attention on costs and not on savings. According to DOD measuring only postbudget cost and savings does not consider future costs or savings. DOD officials also said that our report ignores that the military career force has always been voluntary and as such costing associated with the career force, particularly family housing, should not be attributable to the AVF.

DOD agreed that the 1971 pay raise was a cost of the AVF at time of enactment. However, it believes we should offset these costs by the (1) increased Federal tax revenues and (2) savings associated with eliminating or reducing the number of service people eligible for food stamps.

With regard to the above comments, DOD officials cited specific costs which they believed should be offset. Our analysis of the way DOD calculated the costs is included in detail in the respective sections of the report. In some cases we agree that there are offsetting costs; however, we disagree with the specific amounts identified. Furthermore,

it appears that DOD's calculations (1) dealt with the highest end of the spectrum where the greatest amount of savings could be projected and (2) dealt only with areas where savings could be identified and ignored issues which may have increased the costs of the AVF.

In additon, DOD said that it did not agree with our budgetary approach in costing the AVF and believed a costing effort should consider future costs and savings. We realize that any approach used to cost the AVF will have certain limitations. However, we believe that the budgetary method presents data with greater precision because future considerations are conjectural, data is not available, and estimates of the consequences of future events would necessarily lack precision.

CHAPTER 3

PREMILITARY SERVICE

The costs of manpower accession programs for DOD and other agencies increased due to the transition from a conscripted force to the AVF. The AVF brought about changes in the Selective Service System; enlistment terms, standards, and incentives; recruiting operations and advertising; and examination and entrance centers. All cost elements identified with the premilitary service process changed as a result of the transition to the AVF. The elements identified and the related cost change are shown in the following table.

<u>Cost element</u>	<u>Fiscal years</u>	<u>Cost attributed to the AVF</u>	
		<u>Budgeted</u>	<u>Constant 1970 dollars (note b)</u>
		(millions)	
Selective Service Enlistments:	1974-77	a/\$(289.1)	\$(199.5)
Terms	1971-77		
Standards	1971-77		
Incentives:			
Non-monetary Enlistment bonuses	1969-77		
Guard and re-serve	1972-77	278.2	202.8
Recruiting:			
Operations	1972-77	722.3	548.6
Advertising	1971-77	409.9	309.3
AFEES/MEPCOM (note c)	1974-77	(8.5)	(6.0)
Guard and reserves	1973-77	258.7	182.8
Coast Guard	1973-77	<u>10.2</u>	<u>7.1</u>
Total		<u>\$1,381.7</u>	<u>\$1,045.1</u>

a/Indicates savings

b/Converted to constant 1970 dollars based on the Consumer Price Index (CPI), Department of Labor.

c/Armed Forces examining and entrance station/Military Enlistment Processing Command.

As shown in the table, the AVF caused cost increases for five elements and a cost savings for two elements. We could not determine cost changes associated with enlistment terms, standards, non-monetary incentives, and guard and reserve bonuses.

### SELECTIVE SERVICE

The Selective Service System costs decreased by about \$289.1 million (\$199.5 million in 1970 dollars) as a result of reduced responsibilities. With the transition from a draft, the Selective Service's responsibility shifted from providing inductees to maintaining a standby system capable of meeting DOD's manpower mobilization requirements, if called upon to do so. Therefore, the cost changes associated with the change in responsibility are primarily attributable to the AVF. Selective Service told us that some of the costs are secondarily attributable to the cessation of hostilities in Vietnam. However, since the amounts could not be ascertained we did not reduce the savings we attributed to the AVF.

The Selective Service is an executive branch agency that provides a system for acquiring manpower in response to national defense needs. The Selective Service was responsible for registering, classifying, selecting, and delivering personnel for inductions. It provided the manpower necessary--in addition to volunteers--to maintain the Armed Forces.

Although the Presidential induction authority did not expire until July 1, 1973, the Selective Service's last induction call was in December 1972. Starting with fiscal year 1974 (July 1973), fundamental changes took place. The Selective Service

--made no further inductions,

--discontinued physical examinations, and

--stood ready to induct people should the AVF prove unsuccessful.

This meant that Selective Service was still responsible for registering and classifying individuals.

Due to the AVF's apparent success during its first 2 years, further changes were made to the Selective Service's operations in fiscal year 1976, including



- terminating all classifications,
- terminating continuous registration by Executive order,
- terminating all local draft boards' administrative support, and
- developing and testing an annual registration (the test was subsequently canceled).

The above changes caused the emphasis of the Selective Service's responsibility to shift from providing inductees to maintaining a system capable of moving from a standby posture to meeting DOD's manpower mobilization requirements, if called on to do so. The following table shows the effect that the changes in responsibility had on the Selective Service's budget, as well as the cost savings attributable to the AVF starting in fiscal year 1974:

Fiscal year	Dollars budgeted	Constant 1970 dollars	Savings attributed to the AVF	
			Budgeted	Constant 1970 dollars
----- (millions) -----				
1970	\$76.8	\$76.8		
1971	78.2	75.0		
1972	82.2	76.3		
1973	83.5	73.0		
1974	54.6	43.0	\$ 38.1	\$ 30.0
1975	45.0	32.5	56.1	40.5
1976	37.5	25.6	69.5	47.4
1976T	6.5	4.4	20.2	13.8
1977	7.9	5.1	<u>105.2</u>	<u>67.9</u>
Total			<u>\$289.1</u>	<u>\$199.6</u>

Fiscal year 1973 was the last year in which the Selective Service registered, classified, selected, and inducted personnel, and its budget reflected these activities for an entire year although no inductions were made during the last half of the year. For this reason, we have considered fiscal year 1973 as the starting period for computing savings attributable to the AVF.

Under a true all-volunteer force, there would be no need for any Selective Service activity and consequently no costs. However, due to DOD's claim that the AVF is a peacetime concept and that we need a standby draft system in the

event of mobilization there are Selective Service costs associated with the AVF. Consequently, in computing cost savings, we used Selective Service budgeted costs for fiscal years 1974 through 1977 to subtract from the base year (1973) which was inflated by the Consumer Price Index (CPI) to current year dollars for each of the years.

## ENLISTMENTS

The transition to the AVF affected enlistment terms, standards, and incentives; however, we could not associate dollar costs with elements other than enlistment bonuses under incentives. These bonuses are attributable to the AVF and have increased costs by \$278.2 million (\$202.8 million in 1970 dollars) from 1972 through 1977.

### Enlistment terms

Changes in enlistment terms which are attributable to the AVF should have resulted in cost savings to the Active Forces and did result in additional costs to the Guard and Reserve Forces. However, we were unable to adequately determine the net change in costs.

Before July 1975, all the services except the Air Force offered enlistment options for 2- or 3-year terms. On July 1, 1975, DOD suspended several of these options which meant that all active duty (regular) enlistments would be at least 3 years for the Army, Navy, and Marines and 4 years for the Air Force. In testimony before the Subcommittee on the Department of Defense, House Appropriations Committee, the Assistant Secretary of Defense indicated that these changes in enlistment terms would aid the AVF by

- requiring fewer accessions,
- requiring fewer permanent changes of station moves, and
- resulting in higher unit readiness through reduced turnover and increased experience.

Longer enlistment terms should lower overall accession requirements and thus reduce recruiting and training costs for the Active Forces. However, additional costs are incurred by the reserves due to reduced numbers of personnel flowing from active duty to reserve status, causing recruiting problems in the selected reserves and shortfalls in the individual ready reserve.

We were unable to determine the cost changes associated with increased enlistment terms cost; however, the changes are attributable to the AVF.

Enlistment standards

The AVF caused changes in enlistment standards, but we were unable to associate a dollar cost with the changes. The trend in recent years has been toward (1) limiting the number of mental category IVs <sup>1/</sup> allowed to enlist and (2) increasing the goals to recruit high school diploma graduates. As standards are increased, the potential recruiting market decreases, requiring more recruiting resources to attain desired quality levels. The services assumed that by increasing enlistment standards the quality of enlistees would increase and accession requirements and attrition would decrease. However, since the AVF began, force levels have been reduced but accession requirements have not decreased significantly due to increased attrition levels.

The following table shows DOD trends in percent of accessions by mental category for selected years during the draft and AVF eras.

Mental category	Fiscal year							1977
	1954	1959	1964	1969	1974	1975	1976	(note a)
I and II	3.5%	36.9%	38.4%	38.9%	34.9%	37.5%	40.8%	37.2%
III	6.9	47.7	47.1	37.7	56.9	56.3	54.4	58.9
IV	9.6	15.4	14.5	24.4	10.2	6.1	4.8	3.9

a/Through the second quarter.

As shown in the above table, the percentage of DOD category IV accessions have been going down each year since the advent of the AVF in July 1973 (fiscal year 1974).

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<sup>1/</sup>On the basis of the scores of the vocational aptitude test administered to all potential enlistees, the services assign mental categories to enlistees. Mental category IV is the lowest mental group acceptable for enlistment in all the services.

The table below shows the percent of DOD high school diploma graduate accessions since 1973.

<u>Fiscal year</u>	<u>High school diploma graduates</u>
1973	66.98
1974	59.1
1975	66.2
1976	68.6
1976T	70.8
1977	69.3

In addition to mental standards, the services also have moral and physical standards, as well as other limitations, such as age, citizenship, and maximum number of dependents. We did not identify any significant changes in these standards as a result of the AVF.

#### Enlistment incentives

Enlistment options, guarantees, bonuses, and incentives for active duty military were changed as a result of the AVF. Enlistment bonuses increased DOD costs by \$278.2 million (\$202.8 million in 1970 dollars) from 1972 to 1977. In addition States provide incentives for the guard as a result of the AVF. We were unable to determine the cost associated with changes in guard incentives, enlistment options, and guarantees.

#### Non-monetary incentives

Non-monetary incentives, which include options and guarantees, have fluctuated over time. However, since the AVF, they have become important tools for attracting individuals into a specific service or for recruiting for critical shortages or difficult-to-recruit skills. Each service establishes its own options and guarantees on the basis of individual requirements. Some of the general categories of options are choice of unit, station, training in a career field or military occupational speciality, and the buddy plan. Although we were unable to associate dollar costs with the changes identified, they appear to be relatively low and could well be savings due to longer enlistment terms in return for some of the guarantees.

### Enlistment bonuses

The practice of offering bonuses as a means of attracting enlistees had not been used since the Civil War, except for a short period from 1920 to 1921. Reuse of the bonus began on June 1, 1972, when the Army and Marine Corps were permitted to test the program by paying a \$1,500 bonus to persons enlisting in an infantry, artillery, or armor career field. Several changes were made to the bonus program, and in 1974 the Congress passed the Armed Forces Enlisted Personnel Bonus Revision Act. The act permits a bonus payment of up to \$3,000 to persons who enlist for 4 or more years in any skill designated as critical or to persons in a critical skill area who extend their initial period of active duty to a total of at least 4 years.

Except for the first half of fiscal year 1975 when the Navy offered a technical skills enlistment bonus, only the Army and Marine Corps have used enlistment bonuses. The following table shows enlistment bonuses from 1972 through 1977.

<u>Fiscal year</u>	<u>Budgeted</u>	<u>Constant 1970 dollars</u>
	(000 omitted)	
1972	\$ 1,533	\$ 1,423
1973	40,917	35,752
1974	43,012	33,868
1975	58,776	42,404
1976	68,481	46,712
1976T	11,977	8,105
1977	<u>53,500</u>	<u>34,513</u>
Total	<u>\$278,196</u>	<u>\$202,777</u>

The payment of enlistment bonuses responded to a need to attract personnel into critical (combat and technical) skill jobs in the AVF. As a result, DOD costs were increased by \$278.2 million (\$202.8 million in 1970 dollars).

### Guard and reserve incentives

Although no enlistment incentives are offered to guardsmen or reservists at the national level, many States offer incentives to guardsmen. Examples are enlistment/re-enlistment bonuses, scholarships and tuition assistance, legal

assistance, and life insurance programs. These benefits are State funded and vary according to State. Many of these benefits were created as a result of the AVF since the guards were no longer getting draft-motivated volunteers and therefore needed incentives for guardsmen to enlist.

### RECRUITING ACTIVITIES

The transition from a draft to the AVF brought about substantive changes in recruiting. Under the draft, recruiting activities were passive and consisted primarily of paper-processing. However, under the AVF, in addition to the necessary paperwork, recruiters seek out candidates and sell the military as an occupation and as a way of life.

To analyze recruiting funds, we looked at three major segments of the recruiting budget--recruiting operations (including military and civilian salaries, special recruiting support programs, and support costs), advertising, and enlistment processing (Armed Forces Examining and Entrance Stations/Military Enlistment Processing Command operations). Under the AVF, costs increased by \$722.3 million (\$548.6 million in 1970 dollars) for services recruiting operations, by \$409.9 million (\$309.3 million in 1970 dollars) for advertising, by \$258.7 million (\$182.8 million in 1970, dollars) for guard and reserve recruiting, and by \$10.3 million (\$7.1 million in 1970 dollars) for Coast Guard recruiting costs. The costs of the enlistment processing operations decreased by at least \$8.5 million (\$6.0 million in 1970 dollars).

#### Recruiting operations

During the draft, recruiting was centered around processing paper on recruits. However, the AVF forced the services to expand their recruiting efforts to sell the military as an employment option. Recruiting costs began an upward trend in fiscal year 1972 when Project Volunteer was implemented and continued to increase until the fiscal year 1976 when the Congress reduced recruiting funds. During the appropriation hearings for each fiscal year, the services' requests for additional recruiting funds were justified on the grounds that recruiting operations needed to be expanded and made more efficient to recruit the quantity and quality of personnel necessary to support the AVF.

The following table shows DOD's recruiting costs for the active services and the cost increases attributable to the AVF:

Recruiting Operations (note a)

Cost attributed to  
the AVF

Fiscal year	<u>Budgeted</u>	Constant 1970 <u>dollars</u>	<u>Cost attributed to the AVF</u>	
			<u>Budgeted</u>	Constant 1970 <u>dollars</u>
(millions)				
1971	\$139.7	\$133.9		
1972	191.4	177.7	\$ 47.1	\$ 43.8
1973	256.0	233.7	102.7	99.8
1974	299.1	235.5	129.0	101.6
1975	346.8	250.2	161.1	116.3
1976	311.2	212.3	114.8	78.4
1976T				
(note b)	77.8	52.6	28.7	19.1
1977				
(note c)	46.5	223.5	<u>138.9</u>	<u>89.6</u>
Total			<u>\$722.3</u>	<u>\$548.6</u>

a/Includes the Marine Reserves and Navy Reserves.

b/Estimates based on one-fourth of FY 1976 figure. OSD officials stated that estimating 197T costs on this basis should approximate actual costs.

c/Programed.

Since the services obtained the quantity needed as well as maintained a quality force during the draft, any additional costs in DOD's recruiting budget are attributable to the AVF. Although the draft authority was in effect until July 1, 1973, Project Volunteer funds were included in fiscal year 1972. Therefore, we used fiscal year 1971 as our base and adjusted it to reflect changes in the CPI for each of the years 1972 through 1977.

Advertising

During the draft, the services (1) employed advertising agencies, (2) used posters, pamphlets, and give-away items, (3) used public service advertising on television and radio, and (4) used free space in newspapers, magazines, and outdoor billboards. However, due to the draft the services did not need a large advertising campaign; consequently expenditures were relatively low.

In response to (1) the Administration's movement to end the draft and (2) a recommendation in the Gates Commission Report that more advertising be used to support an all-volunteer force, the Army, in 1971, initiated a paid media advertising campaign. Over the next few years the other services also began using paid media advertising. The following table shows the total advertising costs incurred by DOD for the active services and the associated cost increases that are attributed to the AVF.

<u>Fiscal year</u>	<u>Advertising dollars</u>		<u>Cost increases attributable to the AVF</u>	
	<u>Budgeted</u>	<u>Constant 1970 dollars</u>	<u>Budgeted</u>	<u>Constant 1970 dollars</u>
(millions)				
1970	\$ 6.5	\$ 6.5		
1971	22.7	21.8	\$ 15.9	\$ 15.3
1972	40.6	37.7	33.6	31.2
1973	68.3	59.7	60.9	53.2
1974	96.1	75.7	87.8	69.2
1975	89.1	64.3	80.1	57.8
1976	67.8	46.2	58.3	39.7
1976T (note a)	17.0	11.5	14.6	5.0
1977 (note b)	68.8	44.4	<u>58.7</u>	<u>37.9</u>
<b>Total</b>			<b><u>\$409.9</u></b>	<b><u>\$309.3</u></b>

a/Estimate based on one-fourth of FY 1976 dollars. OSD officials stated that estimating 1976T costs on this basis should approximate actual costs.

b/Programed.

We used 1970 as the base year and inflated it by the CPI to current year dollars to compute costs attributable to the AVF since the Army initiated its paid media advertising program in 1971. The remaining services 1971 budgets were about the same as their 1970 budgets.

Examining and entrance stations--  
AFEES/MEPCOM

The AFEES operations remained virtually unchanged during the transition to the AVF. However, in 1974 the Congress mandated a reduction in AFEES personnel due to decreased workloads caused by the AVF. This reduction resulted in a savings of at least \$8.5 million (\$6.0 million in 1970 dollars) between 1974-77.



AFEES were established to (1) ascertain the mental and medical eligibility of all enlistees and selective service registrants, (2) determine the moral eligibility of registrants, and (3) process into the services those individuals found qualified. The Army was appointed the executive agency responsible for AFEES operations. Over the years, several organizational and operational changes were made to improve the efficiency of AFEES operations.

On July 1, 1976, the MEPCOM was established, separating the AFEES operation from the Army Recruiting Command. Although MEPCOM is budgeted mostly through the Command, the operations of AFEES are managed jointly by the four services.

The 1974 congressional mandate reduced AFEES/MEPCOM personnel by 410 military and 377 civilian positions effective June 30, 1974. This resulted in a savings in personnel costs of \$8.5 million (\$6.0 million in 1970 dollars) through fiscal year 1977. Additional savings may have resulted which we did not identify.

#### Guard and reserve

Since the AVF began there has been concern about the ability of the guard and reserve to recruit the quantity and quality of persons needed. As a result, resources have been increased to improve and intensify recruiting. Since no funds were budgeted specifically for recruiting before fiscal year 1971 and very limited resources supported guard and reserve recruiting before fiscal year 1973, we attributed all costs beginning in fiscal year 1973 to the AVF. The cost increase was \$258.7 million (\$182.8 million in 1970 dollars). The following table shows guard and reserve recruiting costs for fiscal years 1971-77.

<u>Fiscal</u> <u>year</u>	<u>Recruiting dollars</u>	
	<u>Budgeted</u>	Constant 1970 <u>dollars</u>
	(millions)	
1973	\$14.5	\$ 12.7
1974	43.6	34.3
1975	50.7	36.6
1976	56.2	38.3
1976T (note a)	14.1	9.5
1977 (note b)	<u>79.6</u>	<u>51.4</u>
Total	<u>\$258.7</u>	<u>\$182.8</u>

a/Estimate based one-fourth of 1976 program. OSD stated that estimating 197T costs on this basis should approximate actual costs.

b/Programed.

## CHAPTER 4

### MILITARY SERVICE

About \$16.9 billion (\$12.9 billion in 1970 dollars) in increased costs relating to factors affecting an individual while in the military service is attributable to the AVF. The cost increases resulted from changes in initiatives to support or sustain the AVF. The cost elements we reviewed have been included under the categories of compensation and benefits, development, staffing, and management. The following table indicates those costs which we identified as being attributed to the AVF.

<u>Category</u>	<u>Cost attributed to the AVF</u>	
	<u>Budgeted</u>	<u>Constant 1970 dollars</u>
	(millions)	
Compensation and benefits	\$15,148.1	\$11,353.3
Development	305.5	233.2
Staffing	177.9	152.8
Management	<u>1,210.7</u>	<u>1,142.2</u>
Total	<u>\$16,842.2</u>	<u>\$12,881.5</u>

### COMPENSATION AND BENEFITS

Costs in compensation and benefits increased by about \$15 billion (\$11.4 billion in 1970 dollars) between fiscal years 1972-77 due to changes caused by the beginning of the AVF. Those costs resulted from changes in basic pay and related items, basic allowance for quarters (BAQ), and monetary and educational incentives for health professions.

The following table identifies the increased costs attributed to the AVF by program or cost elements.

Program or cost element	Fiscal years	Cost attributed to the AVF	
		Budgeted	Constant 1970 dollars
		(millions)	
Basic pay	1972-77	\$ 9,279.6	\$ 6,964.2
BAQ	1972-77	2,937.2	2,218.9
Pay-related items (note a)	1972-77	1,999.5	1,508.4
Monetary and educational incentives for health professions	1973-77	931.8	661.8
Total		\$15,148.1	\$11,353.3

a/The amounts have been adjusted to exclude death gratuities included in the postmilitary service section of this report as suggested by DOD.

The AVF also caused changes in morale, welfare, and recreation programs; commissary store activities; monetary re-enlistment incentives; and uniforms. However, we were unable to differentiate the costs identified with these changes from the total program costs. We did not identify any increase costs associated with basic allowance for subsistence (BAS) which can be attributed to the AVF.

#### Regular military compensation and pay-related items

Regular military compensation consists of basic pay, quarters and subsistence allowance, and the tax advantages on these allowances. Pay-related items, referred to as drag-alongs, are linked to an item of regular military compensation, usually as a multiple or fraction. Drag-alongs change automatically with the item to which they are linked. We identified about \$14 billion in increased costs in these compensation and drag-along items during the fiscal years 1972-77 which can be attributed to the AVF.

To determine what costs could be attributed to the AVF, we requested that DOD indicate what the difference in cost would be had there been no military pay raise under the Military Selective Service Act Amendments of 1971, Public Law 92-129, dated September 28, 1971.

As part of the public debate concerning this act equity (an issue emphasized by the Gates Commission) was one issue being discussed. However, the congressional record of the floor debate of this issue shows that it was secondary to the need to support the AVF. Therefore, we believe the main intent behind the passage of Public Law 92-129 was in support of the AVF. The act increased the basic pay rates of military personnel (officers and enlisted) with less than 2 years

of service. The act also authorized slight increases in some pay rates of enlisted personnel with more than 2 years service. This was done to prevent undue compression between pay grades caused by the large increases in pay for personnel with under 2 years service.

DOD indicates that the increases associated with this act amounted to \$14,223.4 million (\$10,696.9 in 1970 dollars). DOD stated that the following method was used to determine these increases.

"The military pay rates which were in effect prior to Public Law 92-129 (January 1971 rates) were adjusted upwards each year by the amount of the matching military pay increase. This produced a set of hypothetical military pay rates for each year which would have existed had there been no increase in military pay under Public Law 92-129.

"Using the hypothetical rates and the force in existence at that time, the total cost of the pay elements of basic pay and basic allowance for quarters (BAQ) were calculated. These were then compared to the actual totals of basic pay and BAQ which existed at that time to determine the differences. It was not necessary to make any calculations for basic allowance for subsistence (BAS) since there was not an increase in BAS rates under Public Law 92-129.

"In order to ascertain the impact on the so-called Pay Related Items, i.e., those pay elements which are directly related to basic pay and BAQ rates, the ratio between the hypothetical and actual pay and BAQ rates was used.

"\* \* \*The method we used in preparing these estimates was directed by GAO and, therefore, does not in any way purport to represent the Department of Defense position as the cost of the All-Volunteer Force."

The following table shows the annual and total estimated differences in cost between pre-Public Law 92-129 pay rates and subsequent pay rates. 1/

	Fiscal Year							Total
	1972	1973	1974	1975	1976	1976 <sup>a</sup>	1977	
	(millions)							
Basic pay	\$ 729.2	\$1,500.8	\$1,617.1	\$1,614.6	\$1,664.0	\$421.1	\$1,732.8	\$9,279.6
	a/(676.8)	(1,311.4)	(1,273.3)	(1,164.9)	(1,135.0)	(285.0)	(1,117.8)	(6,964.2)
BAQ	260.2	512.5	503.3	519.9	490.0	119.5	531.8	2,937.2
	(241.5)	(447.8)	(396.3)	(375.1)	(334.2)	(89.9)	(343.1)	(2,218.9)
BAS	-	-	-	-	-	-	-	-
Pay-related items	154.6	342.6	382.9	356.0	348.1	87.4	335.0	2,006.6
	(143.5)	(299.4)	(301.5)	(256.8)	(237.4)	(59.1)	(216.1)	(1,513.8)
Total	1,144.0	2,355.9	2,490.5	2,490.5	2,502.1	628.0	2,599.6	14,223.4
	( <u>\$1,061.8</u> )	( <u>\$2,058.6</u> )	( <u>\$1,971.1</u> )	( <u>\$1,976.8</u> )	( <u>\$1,076.6</u> )	( <u>\$425.0</u> )	( <u>\$1,677.0</u> )	( <u>\$10,696.9</u> )

a/Figures in parenthesis reflect 1970 dollars as calculated by GAO.

It should be noted that the increases in pay resulting from the act should have reduced social costs in the form of welfare provided low paid military personnel. However, we did not determine cost changes associated with these social costs.

DOD reasoned that because our report includes some non-DOD costs, such as unemployment payments, increased tax revenues resulting from the 1971 pay raise should also be considered. DOD estimated that increased taxes should offset at least \$2.9 billion of the cost of the AVF attributed to the 1971 pay raise.

We believe that \$2.9 billion exceeds the upper limit for any increased tax revenue that might be attributed to the 1971 pay raise. Our analysis identified the following factors which overstate tax revenues in DOD's computation.

- DOD computed the amount of the November 1971 pay raise by taking the difference between January 1971 and January 1972 basic pay. This included a January 1972 pay raise of 7.2 percent which was not attributable to the AVF and which increased DOD's estimate of tax savings.

1/Cost estimates for each fiscal year are based on the President's budget submission for that fiscal year.

DOD used withholding tables to determine the amount of change in Federal income tax before and after the 1971 pay raise. More realistic estimates are obtained from tax tables and are substantially lower than those produced from withholding tables.

--In selecting withholding rates, DOD assumed that all military personnel were single. In recent testimony the Army Chief of Staff said that one-third of the 430,000 personnel in grades E1 through E4 are married. Further, one-half of the E4's are married and about one-third have one or more young children. Because tax withholdings increase as exemptions decrease, DOD's assumption that all personnel were single increased their estimate of tax savings.

--DOD calculated a 22-percent tax rate including 5.2 percent for social security taxes, which amounts to \$695.6 million. However, DOD's previous calculations of cost increases in 1971 raise due to social security was \$536 million. Therefore, DOD's tax offset is overstated or the cost of the AVF is understated.

While we agree that some tax revenues would be generated by the 1971 pay raise, we believe that (1) \$2.9 billion exceeds the understatement and (2) estimates of tax savings from the 1971 pay raise would be conjectural because of the many variables and assumptions involved and the different ways in which taxpayers can alter taxable income.

In regard to social costs, DOD officials stated that

"\* \* \* without the 1971 pay raise [P.L. 92-129], an additional 25,000 military families would have been eligible for food stamps in 1977 alone. The total 1972-77 savings in the food stamp program represents a \$75 million offset to costs of the 1971 pay raise. Other social cost avoidances are more difficult to determine and are not included in this analysis."

We recognize that before enactment of Public Law 92-129 many service personnel were eligible for food stamps and that without this and subsequent pay raises the number of eligibles would probably have increased. We believe, however, that any attempt to calculate food stamp and other social costs affected by Public Law 92-129 is conjectural due to the lack of reliable data.

For example, the DOD estimate was not based on actual use but rough eligibility calculations that did not include total income, including that of spouses, or the location of the individuals. Ignoring these variables results in inaccurately stating the amount by which the costs of the AVF should be offset. Moreover, since this data is not readily available, we cannot calculate what the offset should be, although we recognize there is an offset.

We also reviewed other pay acts, such as Public Law 90-207, known as the Rivers' Amendment, to determine the affect the AVF had on the enactment of these laws. Our research did not indicate any specific evidence linking these pay acts to the AVF. The main thrusts behind the passage of these acts appears to be comparability (making military pay adjustments comparable to civil service pay adjustments) and not the need to support or sustain the AVF.

#### Monetary and educational incentives for health professions

About \$931.8 million (\$661.8 million in 1970 dollars) in special pays and educational incentives for attracting and retaining health professionals from fiscal years 1973 to 1977 is attributable to the AVF.

Before 1973 the draft provided the main incentive for obtaining physicians and other scientific disciplines, such as dentists, veterinarians, and optometrists, for DOD. In addition, the Department of Health, Education, and Welfare's Public Health Service (PHS) Commissioned Corps was able to acquire physicians and dentists because employment with PHS fulfilled an individual's draft obligation. Recruiting these professionals became a problem when the draft ended. As a result monetary and educational incentives were required to recruit and retain physicians and other scientific disciplines. Temporary pay bonuses for physicians were enacted to help assure that needed physicians would be obtained.

In addition, DOD instituted numerous educationally oriented programs to recruit and retain physicians and dentists. The most significant programs are authorized by the Uniformed Service Health Professions Revitalization Act of 1972 (Public Law 92-426). This act authorized two programs--the Armed Forces Health Professions Scholarship Program and the Uniformed Services University of Health Sciences (USUHS)--to obtain physicians and dentists, as well as other health



professionals. The act was intended to enable DOD to compete more effectively for the services of physicians and dentists after the draft ended in 1973.

The cost elements identified between fiscal years 1973-77 as being necessary to recruit and retain medical and science professionals are as follows:

	Fiscal year						Total
	1973	1974	1975	1976	1976*	1977 (note a)	
	(000 omitted)						
Special pays: DOD (note b)	\$73,347 c/(64,083)	\$69,388 (54,637)	\$107,490 (77,478)	\$121,445 (82,839)	\$63,387 (42,893)	\$131,452 (84,801)	\$566,409 (406,737)
PHS	5,830 (5,094)	1,769 (1,393)	16,809 (12,127)	21,107 (14,397)	22,133 (14,977)	20,265 (13,305)	88,273 (61,293)
USJHS construction	-	-	28,600 (20,600)	28,600 (19,500)	-	28,600 18,500	85,800 (58,600)
Educational incentives	9,580 (8,371)	31,290 (24,638)	39,874 (28,768)	42,758 (29,166)	16,315 (11,040)	51,532 (33,244)	191,349 (135,227)
Total	88,757 (\$77,554)	102,447 (\$80,668)	192,673 (\$138,973)	213,910 (\$145,902)	101,835 (\$68,910)	232,209 (\$149,850)	931,831 (\$661,857)

a/Estimated.

b/Costs do not include certain special pay which is linked to Public Law 92-129 as the cost is included in the preceding section.

c/Figures in parentheses are 1970 constant dollars.

We also reviewed the effects the AVF had on the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) which was established by Public Law 89-514, dated September 30, 1966. From the information reviewed we found no evidence linking any program changes with active service in the AVF.

#### Other compensation and benefit items

We also reviewed commissaries; morale, welfare, and recreation programs; monetary re-enlistment and proficiency pay programs for enlisted personnel; and changes to military uniforms. We believe that the AVF did affect changes in these areas. Our views were supported by DOD testimony before appropriation and authorization committees which indicated the continued success or need for these programs were justified on the basis of the AVF.

These programs were in existence during the draft; however, we could not specifically identify that portion of cost attributable to the AVF because of the different methods

of accounting for program changes and the difficulty in determining the amount of change the AVF caused.

DOD officials stated that re-enlistment bonus programs would have been continued with or without the AVF, but because of the AVF, re-enlistment bonuses no longer were needed for all careerists and shortage specialty pay was substantially reduced. Therefore, the selective re-enlistment bonus replaced regular and variable re-enlistment bonuses. DOD estimates that there has been a reduction of about \$460 million in bonuses and shortage specialty pay since the implementation of the selective re-enlistment bonus program in fiscal year 1975, and according to them this is attributable to the AVF.

We analyzed the basis for DOD's \$460 million estimate and found that it was 100 percent of the difference between bonuses paid annually from fiscal years 1975 through 1977, using 1974 as a base. According to our analysis this change in bonuses was caused by (1) differences in the management of the early bonus programs as testified to by DOD in requesting authority for the new bonus, (2) the reduction in force size of about 200,000 service personnel, and (3) the changes to the AVF. However, we were unable to determine what percentage of the \$460 million was attributable to each of these. We acknowledge that the cost of the AVF should be offset; however, we cannot determine the amount of the offset attributable to the AVF.

#### DEVELOPMENT

Additional costs totaling at least \$305.5 million (\$233.2 million in 1970 dollars) were incurred by DOD in areas relating to force development. These costs are attributable to the AVF and resulted from changes in training and education programs, seasonal fluctuations in the training base, and training costs associated with attrition as follows:

	<u>Cost attributed to the AVF</u>	
	<u>Budgeted</u>	<u>Constant 1970 dollars</u>
	(millions)	
Training and education	\$209.7	\$163.7
Seasonal fluctuations	10.1	7.1
Attrition	<u>85.7</u>	<u>62.4</u>
<b>Total</b>	<b><u>\$305.5</u></b>	<b><u>\$233.2</u></b>

Other areas relating to development which were not affected by the AVF are promotions and an overall category made up of trainees, transients, prisoners, and patients.

Training and education

According to figures the services provided, training and education costs have increased by at least \$209.7 million (\$163.7 million in 1970 dollars) between 1970-77 as a result of the AVF. We were unable to identify the total costs associated with changes in training and education. However, the table below provides the increased costs by year associated with the changes that we identified. These changes were either new programs or changes to existing programs as caused by the AVF.

<u>Fiscal</u> <u>year</u>	<u>Costs attributed to the AVF</u>	
	<u>Current</u>	<u>Constant</u> <u>1970</u> <u>dollars</u>
	(000 omitted)	
1971	\$ 8.3	\$ 7.8
1972	30.1	27.8
1973	20.5	18.0
1974	52.2	41.1
1975	50.1	36.2
1976	39.9	27.2
1977	<u>8.6</u>	<u>5.6</u>
Total	<u>\$209.7</u>	<u>\$163.7</u>

An example of the services' response to the changes in the recruiting environment resulting from the AVF was creating schools to train military recruiters to be "sales representatives" of the services. Beginning in 1972, the Navy, Army, and Marine Corps began developing formal recruiter training programs. The Air Force, which has had a recruiter training school since 1954, found it necessary to modify and expand its training programs to include the reserves and guards. Therefore, the development of new recruiter training programs and the changes in existing programs are attributable to the tighter recruiting environment of the AVF.

Seasonal fluctuations in training base

The transition from the draft to the AVF resulted in additional training costs due to seasonal fluctuations in

recruits flowing through the training base. While some seasonal fluctuation existed during the draft, the problem became more pronounced under the AVF. We did not determine the total costs associated with the seasonal fluctuations. However, for fiscal years 1974-77 we identified about \$10 million associated with automated school reservation systems which were implemented by the Army, Navy, and Air Force in response to the seasonal fluctuations caused by the tightening recruiting environment. The Marines do not have an automated system.

Under the AVF the services must accept most prospective enlistees when they are ready to enter the service or risk losing them. However, accepting enlistees as they become available requires a training structure capable of accommodating enlistment peaks.

To monitor school training seats and skill area openings and to manage the delayed entry program, the services use school reservation systems. The Army implemented a computerized system in June 1973, and the Navy and Air Force implemented automated systems during fiscal year 1976. The following table shows the additional costs caused by implementing the computerized systems.

<u>Service</u>	<u>System</u>	<u>Additional costs incurred</u>		<u>Costs incurred in fiscal year</u>
		<u>current</u>	<u>1970 dollars</u>	
		(millions)		
Army	REQUEST	\$ 8.5	\$6.0	1974-77
Navy	PROVIDE	1.0	.7	1976-77
Air Force	PROMIS	<u>.6</u>	<u>.4</u>	1976-77
<b>Total</b>		<b><u>\$10.1</u></b>	<b><u>\$7.1</u></b>	

In 1974 the Army computerized its existing manual system to provide optimum job/skill matching based on an applicant's qualifications and desire, as well as a means of monitoring the accession system.

In 1975 hearings, the Navy testified that it cost an estimated \$20 million more in military personnel funds to accommodate seasonal fluctuations in Navy accessions as a result of the AVF. Consequently, in 1976, the Navy computerized its existing system.

In hearings on military posture before the House Armed Services Committee, the Air Force testified that it took actions to meet the tougher recruiting climate imposed by the AVF. One such action was to implement the PROMIS system for matching prospective applicants with job opportunities.

We attributed the full \$10.1 million (\$7.1 million in 1970 dollars) for implementing the automated school reservation systems to the AVF. Additional training costs, which we did not calculate, result from having to maintain a training base that will accommodate peak training loads due to seasonal fluctuations.

### Attrition

For fiscal years 1974-76, DOD incurred at least \$85.7 million (\$62.4 million in 1970 dollars) in additional training costs due to increased attrition related to the AVF. These costs include attrition during the first 6 months of service and all costs associated with attrition (based on DOD averages) except recruiting costs discussed in chapter 3, pay increases discussed in chapter 4, and separation pay discussed in chapter 5. Additional costs are associated with individuals who separate after 6 months of service. However, we did not attempt to determine those costs because a number of assumptions would have to be made--for example, when individuals are promoted and the amount of unamortized recruiting and training investment.

The Congressional Budget Office issued a report in January 1977 which showed that attrition during the first term of service increased from about 25 to 37 percent during the first 4 years of the AVF. A DOD presentation in April 1977 also showed an increase in first-term attrition since the AVF. Data supplied by the Defense Manpower Data Center confirmed these reports. Air Force attrition levels did not change significantly between the draft and AVF, while the Army, Navy, and Marine Corps all experienced increases in attrition levels.

We calculated the total cost of attrition for enlistees by high school and non-high school graduates. We included the costs which were attributable to the AVF and which occurred during the first 6 months of an individual's service. Using data supplied by OSD, the total training investment

associated with attrition is a cost of the AVF and was about \$85.7 million (\$62.4 million in 1970 dollars) during fiscal years 1974-76. These costs do not include recruiting costs, pay increases for the first termers, and separation costs associated with attrition during the first 6 months, which are discussed elsewhere in this report.

## STAFFING

From 1971 to 1977 DOD incurred additional costs of at least \$361.9 million (\$274.9 million in 1970 dollars) and effected cost savings of at least \$184 million (\$122.1 million in 1970 dollars) as a result of changes in its methods of staffing the Armed Forces. These changes that are attributable to the AVF include assignment methods, re-creation of units--especially reserve units--and civilianization of military positions. Although force levels were being reduced as the AVF was being implemented, we could not attribute the force reductions to the AVF. According to the Joint Chiefs of Staff, force reductions were affected by the Vietnam phasedown, operational requirements, and fiscal constraints. In addition, we could not identify any changes in work hours as a result of moving from a draft system to the AVF.

## Assignments

The services made several changes in assignment policies as a result of the AVF. However, we were unable to associate dollar costs with these changes. The Army and Navy identified assignment policy changes implemented in response to the AVF, while the Marines and Air Force stated that the AVF did not affect their assignment policies.

The Army stated that assignment policy changes as a result of the AVF included

- establishing a 95 percent goal for filling all lower grade overseas assignments from the training base and
- lengthening the average time spent on an assignment.

According to the Army, the average cost of a trainee move is \$90 versus \$180 for a permanent party move. Therefore, assigning trainees directly to overseas posts, as well as lengthening the average time between permanent change-of-station moves, should save money. The Army has implemented this program.

The Navy partially attributed an assignment program to the AVF which offers first termers assignments of their choice--if available--upon re-enlistment. The Navy did not attach any cost to this program.

Basic assignment policies have not changed significantly since 1968 according to the Marine Corps. The Air Force started two programs since the AVF which allow recruits to select installations of their choice for varying time periods. DOD agrees that these incentives were developed in light of the AVF.

### Relocation of units

According to the Army, relocation of units add dollar costs to the AVF, especially in the reserve components. However, we were unable to determine the cost associated with the unit relocations. Army officials stated that location of reserve component units is based on the projected ability of that locale to recruit for the unit. Many relocations result from inability to recruit in one area and demographic projections supporting more lucrative recruiting in another area.

### Civilianization

Cost savings of about \$184 million (\$122 million in 1970 dollars) for fiscal year 1976-77 are attributable to the AVF as a result of force reductions through substituting civilians for military personnel. These civilianization programs were carried out during fiscal years 1973-75 and also resulted in additional savings during those years. However, we were unable to get the necessary data to determine cost savings for those years.

In addition to substituting civilians for military personnel, DOD, in support of the AVF, also added civilian employees which were not accompanied by force reductions to relieve military personnel of time-consuming housekeeping functions. DOD stated that

"\* \* \* civilian strength additions permitted military people to concentrate on military tasks with an increase in readiness, instead of performing such housekeeping chores. To achieve the same ends, more military people would have been needed, if the civilians had not been added."

As stated previously, effectiveness (readiness) is outside the scope of this review. However, these actions did result

in additional costs of \$361.9 million (\$274.9 million in 1970 dollars) from 1971 to 1977 which are attributable to the AVF.

### Civilian substitution for military personnel

In 1972 the Assistant Secretary for Manpower and Reserve Affairs recommended a program to convert 31,000 military positions to civilian jobs as a means of meeting manpower shortfalls resulting from the AVF. This program was established on December 11, 1972, for fiscal years 1973-74. During fiscal years 1973-75, numerous programs to reduce headquarters manpower spaces, close or consolidated bases, and reduce manpower support make it difficult to assess how many of the reduced personnel were the new civilian positions.

The Navy and Marine Corps indicated that positions civilianized in fiscal years 1973-74 are attributable to the AVF. The Air Force claimed that none of the fiscal years 1973-75 civilianization was attributable to the AVF; however, an OSD official stated that all of the fiscal years 1973-75 civilianization in the Air Force and Army are attributable to the AVF. The Army provided data for fiscal years 1973-75, but would not state what part was attributable to the AVF. We attributed the entire amount of the Army's and Air Force's fiscal years 1973-75 civilianization programs, as well as those identified by the Navy and Marine Corps, to the AVF based on the Assistant Secretary's fiscal year 1973 program and comments by Navy, Marine, and OSD personnel. These savings totaled about \$184 million (\$122.1 million in 1970 dollars).

### Civilian hires to relieve military personnel of housekeeping functions

In fiscal year 1971, the Army began a program of hiring civilians to perform housekeeping-type functions that detracted from soldiering duties. The Army's "Chronology of Significant Actions and Decisions Relating to the Development of an All-Volunteer Army" points out that the Army received approval in April 1971 to employ dependents in Europe in housekeeping-type positions, thereby relieving uniformed personnel of these duties.

In testimony before the Subcommittee on Department of Defense, House Committee on Appropriations, regarding the replacement of enlisted men on details, the Army testified:

"The purpose of this increase is to replace the soldiers who are on detail now and get them back to training and back to their unit. This is the



first time we have put in a major effort to relieve our soldiers from details."

The Army also testified that these soldier-oriented programs were implemented to support the AVF.

Since the Army has identified the hiring of civilians to relieve military personnel of housekeeping functions as an action in the development of an all-volunteer Army and has also testified before the Congress that these actions were part of soldier-oriented programs to support the AVF, we attributed the entire cost of the program since 1971 to the AVF.

### MANAGEMENT

Costs increased about \$1,210.7 million (\$1,142.2 million in 1970 dollars) in fiscal years 1971-76 as a result of changes which took place in military living conditions (bachelor and family housing) and increased use of career counselors are attributable to the AVF.

The following table indicates the element and cost attributable to the AVF.

<u>Cost element</u>	<u>Fiscal years</u>	<u>Cost attributable to the AVF</u>	
		<u>Budgeted</u>	<u>1970 dollars</u>
		(millions)	
Living conditions:			
Bachelor housing	1972-76	\$648.9	\$615.7
Family housing	1971-76	560.6	525.6
Career counselors	1973-76	<u>1.2</u>	<u>.9</u>
Total		<u>\$1,210.7</u>	<u>\$1,142.2</u>

We also reviewed how the AVF affected the U.S. Code of Military Justice, individual rights, discipline, manuals, periodicals, other documents, man-machine substitution, and equipment modernization. We found no specific evidence to indicate the AVF influenced changes in these areas.

### Living conditions

Enlisted personnel and officers are normally furnished quarters at Government expense. Generally, military personnel are required to live onbase if adequate (DOD standard) housing is available; however, personnel in grades 0-4 and

above can choose to live off base and receive a quarters allowance.

Personnel can occupy inadequate (DOD standard) base quarters, if so desired, and receive a partial quarters allowance. When no Government quarters are available the individual receives a full allowance based on grade and dependency status and is permitted to find his/her own housing.

Costs of about \$1,210.7 million (\$1,142.2 million in 1970 dollars) between fiscal years 1971-76 are attributable to the AVF because of changes it brought about in bachelor and family living conditions. These costs relate to expenditures for construction, operation, maintenance, furnishings, and living space requirements.

As stated previously we used the 1970 CPI to deflate amounts to 1970. DOD officials believed that we should have used the specific CPI for new construction for adjusting costs.

For consistency and comparability, however, we used the CPI. However, the use of either index is economically sound. Use of the specific construction index would reduce the deflated dollars.

#### Bachelor housing

About \$649 million (\$615.7 million in 1970 dollars) of the \$1,210.7 million noted above relates to bachelor housing construction, modernization, and furnishings.

We found that of a total \$1,375 million requested by the services for bachelor housing construction during fiscal years 1968-71, \$812 million, or about 59 percent of the original request, was submitted in the President's budget for those years.

Over the next 5 years, the services requested a total of \$2,356 million for bachelor housing construction, of which \$2,063 million, or about 88 percent was approved for the President's budget. This is an increase of about 29 percent which if adjusted for inflation by the CPI and applied against the services' average request for bachelor housing in fiscal years 1972-76 amounts to about \$551 million (\$528 million in 1970 dollars). In our opinion, this increase in construction funds of \$551 million (\$528 million in 1970 dollars) during 1972-76 is attributable to the AVF.

DOD testimony substantiated this view. For example, the Assistant Secretary of Defense (Installations and Logistics) testified before the Congress on military construction authorization for fiscal year 1973 saying:

"\* \* \* we consider adequate housing, as you have emphasized, sir, to be a key in attaining the zero draft rates we are shooting for."

Also, the Deputy Assistant Secretary of Defense (Installations and Logistics) provided the Congress with the following written comment on the military construction authorization for 1974.

"As we move from a draft-dominated force to an all-volunteer force, increased emphasis is being placed on programs which will better military life and stabilize manpower. We plan to continue to improve the quality of life in the military services in the environment of the all-volunteer force and with that end in mind we have substantially increased the military housing programs during the last few years. A balanced multifaceted approach to improving the housing situation in the shortest feasible time has been developed. This includes both provision of new housing and upgrading the standards of livability of existing on base housing."

A 1971 report prepared by the OSD Special Task Group on Adequacy, Occupancy and Assignment of Bachelor Housing stated that:

"It is believed that use of resources available for Project Volunteer and other resources as required, toward implementation of the proposals contained in this report, will significantly increase the chances of successfully establishing an all volunteer military force."

Due to these and other statements by DOD officials we believe the increased funding on construction of bachelor housing is attributable to the AVF.

In addition to construction costs, we noted from cost data supplied by the services or obtained from appropriation hearings that about \$35 million (\$31 million in 1970 dollars) was made available for barracks modernization from operations and maintenance funds in support of the AVF program.

We also found that the services directly attributed about \$63 million (\$56.5 million in 1970 dollars) to the AVF for bachelor quarters furnishings, such as washers, dryers, desks, chairs, and lamps. These costs are generally related to improvements to military living conditions.

Our review of maintenance and repair of bachelor housing showed that between fiscal years 1971-73 the Army's expenditures increased by about \$86 million. A May 30, 1972, document entitled "Chronology of Significant Actions and Decisions Relating to the Development of an All-Volunteer Army" prepared by the Office of the Chief of Military History described a 1971 Army directive on providing adequate housing for the soldier and his dependents. This directive set an objective of an additional \$100 million in fiscal year 1973 for maintenance and repair of bachelor housing. It also addressed establishing an Army housing committee with a representative from the Special Assistant for the Modern Volunteer Army (SAMVA) as a voting member. SAMVA's responsibilities included providing advice and guidance on the housing program that considered the objectives of the modern volunteer Army.

We could not specifically identify maintenance and repair funds attributable to the AVF. However, the above seems to indicate that funds were made available for this purpose. Also, since maintenance and repair include a building's interior and furnishings and since each of these have changed as a result of the AVF, changes in maintenance and repair must also be related to the AVF. DOD said:

"Attributing the increase in bachelor housing to the AVF ignores two important factors. The first is the large stock of W W II real property which existed and which was outdated and beyond economic repair. Second, is that barracks and family housing construction during FY 68-70 were kept artificially low in order to apply available monies to the Vietnam War. In addition, barracks construction reflected the phasedown from Vietnam, the reorientation of emphasis to NATO [North Atlantic Treaty Organization], changing force structure, base realignment, etc., which necessitated new construction. The Army estimated that only about 6% of Army barracks construction is attributable to the AVF. This is the cost increment for additional privacy being built into the barracks. While the improvements were warranted, desirable and would likely have been implemented even if the draft had been continued, the AVF gave great impetus to the timely repairs and construction."

## Family housing

About \$561 of the \$1,210.7 million (\$526 million in 1970 dollars) increase in living conditions relates to changes in family housing construction (\$506 million) and increases in the ceiling on substandard housing (\$55 million).

For the fiscal years 1968-70, the services requested an average of \$227 million annually for family housing. An average of \$149 million or about 66 percent was sent forward each year in the President's budget. For fiscal years 1971-76 the average services' request increased to \$336 million each year, and more than \$320 million, or about 95 percent, was being sent forward each year for congressional approval. The Congress approved more money after 1970.

Although OSD and all four services stated that none of the family housing construction was attributed to the AVF, we found congressional testimony by OSD and three of the services stressing the importance of adequate family housing in achieving an all-volunteer force.

For example, during congressional testimony an official in the Office of the Assistant Secretary of Defense (Installation and Logistics) stated:

"As we have said, the Department of Defense is deeply committed to the housing needs of the serviceman and we will continue to develop and recommend programs which will achieve our goal of adequate housing for all military families. To this end, the objective of the Military Family Housing Program are closely aligned and dovetailed with the objectives of the zero draft and all-volunteer force concept."

We believe that the proportionate increases in the amounts approved for family housing construction for the President's budget for years after 1970, totaling about \$506 million (\$485 million in 1970 dollars) are attributable to the AVF.

The Congress has authorized DOD to keep substandard quarters in its family housing inventory. Substandard quarters are those which are not considered adequate under DOD criteria. In determining adequacy of quarters, factors such as location, site, structural integrity, functional arrangements of the living units, and size are considered. Some quarters may not meet DOD adequacy criteria but may be classified adequate by DOD because the number of quarters actually declared substandard may not exceed a ceiling imposed by the Congress. DOD must request authority from

the Congress to declare additional quarters substandard. Under present DOD guidelines, lower grade personnel are not eligible to occupy adequate family quarters. However, they, as well as eligible personnel, may voluntarily occupy those quarters declared substandard.

Personnel who elect to live in housing declared substandard do not forfeit their entire basic allowance for quarters. Only the amount equal to the operations and maintenance cost of the quarters is forfeited.

OSD estimated that approximately 75 percent of the existing substandard quarters were occupied by lower grade personnel not eligible for adequate onbase housing.

During fiscal year 1973 the Congress was considering an OSD proposal which would increase the ceiling on substandard houses by 25,000. OSD had considered submitting this proposal as part of the Project Volunteer program request. Although it discarded that idea, the Congress was aware of the potential benefits for lower grade, otherwise ineligible personnel. When asked by the Congress how it could insure the benefit to the ineligibles, OSD explained that an increase in the ceiling on substandard quarters would likely accommodate a proportionately larger number of ineligible personnel. The Congress passed legislation authorizing 20,000 additional substandard units in fiscal year 1973, and OSD estimated an increased annual cost of approximately \$11 million.

We believe that the OSD cost estimate includes only the 25 percent BAQ retained by those occupying the inadequate quarters. If, as OSD explained, the same percentage of lower grade personnel were likely to benefit from the increased ceiling in substandard family housing, this would displace over 18,000 currently eligible families. The services would either have to pay BAQ to these personnel or provide new or improved adequate living quarters. The cost of this displacement is not reflected in the OSD estimate.

We have therefore concluded that the cost of these additional inadequate houses which can be attributed to the AVF is, at a minimum, \$11 million each year since fiscal year 1973, or \$55 million (\$40.8 million in 1970 dollars) through 1977. Since the number of higher and lower grade personnel that occupy inadequate quarters is not maintained by OSD or the services, we were unable to determine the cost of the services' reduced ability to adequately house eligible military personnel with dependents.

In commenting on our proposed report, DOD said that (1) family housing is primarily used by the career force which has always been all-volunteer and not a function of the AVF versus a draft and (2) much of the increase in new construction costs during the AVF was a result of deferred construction during Vietnam. For the above reasons DOD believed that we should not include the \$560 million in family housing as attributable to the AVF.

We do not agree with DOD's reasoning for not attributing these costs to the AVF. In addition to the attribution we cite on page 36, other evidence also indicates that cost increases for family housing were necessary to the success of the AVF. At joint hearings in June and July 1971 before the Subcommittee on Military Construction, Senate Committee on Armed Services and Appropriations, DOD officials made the following statements regarding their family housing programs.

The former Assistant Secretary of Defense (Installations and Logistics) stated:

"We consider this increased program vitally needed in order that our service personnel and their families may be adequately housed and our inventory of family housing may be continuously upgraded to eliminate obsolescence. Efforts to achieve these goals are essential as we move forward to the time when we will have an all-volunteer force."

The Commander, Naval Facilities Engineering Command, testified on June 4, 1971, on the Navy and Marine Corps military construction program. Regarding family housing he stated:

"It is a fact that today about 95 thousand Navy and Marine Corps families are inadequately housed, when we take into consideration those married men in the lowest enlisted pay grades for whom we do not construct Government quarters under current policy."

He further stated:

"As we move to an all volunteer force, we must recognize the reality that large numbers of our lower pay enlisted men who now are presumed to

be without dependents, do in fact have families. These families are not included in our construction programming base at present. They do not receive travel and transportation entitlement to assist them in having their families with them. Yet, attitudes toward a naval career are being developed during early periods of service. Reducing deprivation and family separations during this period would enhance the image of career service, and thus contribute to recruitment and retention of the best of these young men. We must recognize that all personnel will perform with greater dedication and more efficiently if they can be with their families in decent housing when ashore. We are going to put more effort on surfacing and getting increased consideration of the family housing and related needs of these men."

The Director of Installations, Office, Deputy Chief of Staff for Logistics, U.S. Army, testified regarding the Army and portions of the military construction authorization request. He stated:

"Emphasis has been placed, in this year's program, on facilities which benefit the welfare of personnel: quarters, medical facilities, and community support facilities. The continuing effort of the Army to improve the living conditions of our personnel has taken on particular importance this year with our special efforts to decrease our reliance on the draft. Over 43 percent of our request for construction is in these categories."

In its comments DOD stated that family housing is primarily for the career force. This issue was recently addressed in a GAO report dated December 29, 1977, entitled "The Military Services Are Constructing Unneeded Family Housing" (CED-78-8). In our report we stated that military families are assigned to onbase family housing on the basis of rank, grade of the officer, or enlisted military sponsor rather than, as required by DOD policy, on the number of bedrooms needed. As a result there was poor use of officer and enlisted family housing units. We recommended that the Secretary of Defense require that the military services assign separately onbase family housing to officer and enlisted families based on family need.



In addition the family housing need for junior married service personnel was recently expressed by the Chief of Staff of the U.S. Army. While appearing before the President's Commission on Military Compensation on December 21, 1977, he said that:

"Junior soldiers appear to be attracted and retained by adequate compensation, opportunities for education and self-growth, challenge, and to a degree by the support provided through in-kind benefits. Those who are married require added compensation and are much concerned with issues such as housing."

He said that:

"On-post housing for most of our soldiers of all grades would not only provide a solution to the regional differences in compensation but would reinforce the Army community which assists us in achieving the desired committment."

### Career counselors

Career counselors in the Armed Services are responsible for encouraging enlisted personnel to re-enlist and for keeping personnel adequately informed concerning incentive programs and educational rights, benefits, and services.

Based on data appearing in appropriation hearings and supplied by the services, we computed an average increase for three services (Navy, Air Force, Marine Corps) of 175 career counselors between 1971-76. Increases in Army career counselors is included in the recruiting budget addressed on page 14. Based on the average salaries of career counselors for 1973 through 1976, the increased cost of the 175 counselors was about \$1.2 million (\$0.9 million in 1970 dollars).

We believe that because (1) career counselors are dedicated to retaining personnel and (2) retention has been emphasized under the AVF, the \$1.2 million (\$0.9 million in 1970 dollars) increase can be directly attributed to the AVF.

### Other issues

Our review also consisted of determining what influence the AVF has had in affecting changes in (1) standard operating procedures, (2) the style of DOD's management, (3) equipment

modernization, and (4) man machine substitution. We could not identify changes in these areas caused by the AVF and therefore we did not cost them against the AVF.

In the area of discipline, we found that from 1968 to 1976 the incidence of courts-martial declined by 12 per 1,000, nonjudicial punishments increased by 40 per 1,000, and discharges in lieu of courts-martial increased by almost 10 per 1,000. The average prisoner population fluctuated with a net decline of 8,466 during this same period. Also, what constituted a punishable offense was administratively redefined by the services.

## CHAPTER 5

### POSTMILITARY SERVICE

Postmilitary service benefits comprise all the pay, benefits, and privileges due the uniformed service member after serving a given term, as little as 1 day in some instances.

The postmilitary service benefits reviewed include those actions which take place on the final day of the obligation, that is, separation pay (lump-sum terminal leave, severance, readjustment, and donations) and death gratuities. Other benefits include retirement pay; survivor and health benefits; social security credit; Veterans Administration benefits, such as medical care, readjustment training, education, compensation, and pension; unemployment compensation and training from the Department of Labor; and a variety of privileges referred to as morale, welfare, and recreational services.

We felt it was important to look not only at what the AVF cost DOD but also what the ripple effect of changing to the AVF might be. The agencies which could have been affected by the AVF include the Public Health Service; National Oceanic and Atmospheric Administration; Department of Labor, Employment and Training Services; and the Veterans Administration.

Each of the elements identified and the related cost changes is shown in the following table.

<u>Cost element</u>	<u>Fiscal years</u>	<u>Cost attributed to AVF</u>	
		<u>Budgeted</u>	<u>Constant 1970 dollars</u>
		(millions)	
Retirement pay	1971-76	\$	\$
Separation pay	1971-77	68.6	47.8
Survivor benefits	1971-76	6.0	4.7
Social security	1971-76		
Health benefits	1971-76		
Unemployment compensation	1974-76	114.9	80.6
Veterans services	1971-76		
Privileges	1971-76	---	---
Total		<u>\$189.5</u>	<u>\$133.1</u>

## RETIREMENT PAY

Retirement pay is given to military personnel who retire under the conditions of nondisability or disability retirement.

The amount of the annuity paid is based on grade, number of years in service, and basic pay rate at retirement. In 1958 the Congress eliminated the recomputation method of retirement annuity adjustments and substituted a percentage increase not tied to the increase in active duty pay. In 1963 adjustments in retirement annuity was tied to the CPI. Additional features were added and deleted over the years.

Military retired pay is financed on a cash basis; the funds for current payments are appropriated annually. This procedure does not consider the future pay costs of the present force.

Because of the implied nature of retirement pay as a drag-along, some have stated that a portion of retirement pay from 1971 to 1976 is attributable to the AVF; however, since Public Law 92-129 is the only statute concerning pay that we were able to identify as enacted due to the AVF (see p. 18), little if any of the current retirement costs can be attributed to the AVF.

## SEPARATION PAY

As a result of the end of American involvement in the Vietnam conflict and a decrease in the size of military forces, separation pay has steadily declined since the peak reached in fiscal year 1973; however, cost increases of about \$68.6 million (\$47.8 million in 1970 dollars) are attributable to the AVF.

Upon retirement or separation, military personnel may be entitled to one or more types of payment.

- Those who have not used all their leave may receive a lump-sum payment for the unused leave up to a maximum of 60 days.
- Regular officers separated for nonpromotion, unfitness, or unsatisfactory performance are entitled to severance pay. The amount, not to exceed \$15,000, depends on the cause for separation and the length of service.

- Reserve officers involuntarily released from active duty after serving a minimum of 5 consecutive years are entitled to readjustment pay. The amount, not to exceed \$15,000, depends on the cause for separation and the length of service. Both severance and readjustment pay are intended to compensate for the financial disadvantage of involuntary removal from military employment.
- Personnel separated with less than honorable discharges are provided \$25 in cash, clothing, and a one-way ticket to place-of-choice or home-of-record, whichever is closest.

#### Analysis of separation payments

The Army provided examples for some of the reasons why the cost of separation payments by the uniform services from fiscal year 1971 to 1976 was \$3,051.8 million. The following program results are attributable to the Army's efforts to maintain a productive and efficient enlisted force.

- Trainee Discharge Program (TDP). On September 1, 1973, the Army instituted TDP which is designed to screen out early in training those enlistees who demonstrate a lack of motivation, discipline, or aptitude for Army life.
- The Expeditious Discharge Program (EDP). A program for expeditiously discharging enlisted personnel was initiated by the Army in October 1973. This program allowed for the separation of unproductive soldiers with 12 to 21 months of service, later revised to 6 to 36 months, with honorable discharge.

The Air Force also established the Marginal Performer Discharges (MPD) programs, which allows for the separation of enlistees who demonstrate a lack of motivation, discipline, or aptitude to Air Force life, and in November 1975 the Marine Corps established the Marine Corps Expeditious Discharge Program (MCEPD).

The following table shows total enlistee discharges under these programs.

<u>Fiscal year</u>	<u>Army (TDP/EDP)</u>	<u>Air Force (MPD)</u>	<u>Marine Corps (MCEPD)</u>	<u>Total</u>
1974	16,177	8,561	-	24,738
1975	33,533	15,963	-	49,496
1976	42,764	13,142	3,666	59,572
1977	<u>38,134</u>	<u>9,016</u>	<u>2,021</u>	<u>49,171</u>
Total	<u>130,608</u>	<u>46,682</u>	<u>5,687</u>	<u>182,977</u>

These programs have increased separation costs for the services. OSD estimates that the average cost to the services for each enlistee separated is \$375. On the basis of the 182,977 enlisted personnel separated under these programs increased costs attributed to the AVF are about \$68.6 million (\$47.8 million in 1970 dollars).

### SURVIVOR BENEFITS

The benefits given to survivors of deceased active and retired uniformed services personnel include:

- Survivor benefits.
- Death gratuities.
- Servicemen's Group Life Insurance (SGLI).
- Dependency and Indemnity Compensation.

Our review of these benefits show that only a portion of the death gratuities payments, about \$6.0 million (\$4.7 million in 1970 dollars) are attributable to the AVF.

### Death gratuities

The Servicemens' and Veterans' Survivor Benefits Act of 1956 established the concept of the gratuity as an emergency fund to tide survivors over the period following death while payment of dependency and indemnity compensation, Social Security survivor benefits, and life insurance proceeds are pending. The gratuity is to be paid immediately in a lump-sum equal to 6 months' basic pay plus incentive and special pay (including proficiency and hostile-fire pay). The lump-sum cannot be less than \$800 or more than \$3,000. The costs of death gratuities attributable to the the AVF are summarized on the next page.

<u>Year</u>	<u>Costs</u>	<u>Cost attributable to</u> <u>the AVF (note a)</u>	
		<u>Budgeted</u>	<u>Constant 1970 dollars</u>
		------(millions,-----)	
1968	\$41.3		
1969	34.4		
1970	31.0		
1971	23.1		
1972	16.5	\$ .9	\$ .8
1973	13.3	1.6	1.4
1974	9.0	1.2	.9
1975	9.4	1.0	.7
1976	10.5	<u>1.3</u>	<u>.9</u>
Total		<u>\$6.0</u>	<u>\$4.7</u>

a/Attribution is based on what would have been paid had there been no military pay raise under Public Law 92-129 in support of the AVF. For further discussion of this methodology see discussion on page 18.

#### SOCIAL SECURITY

The Social Security Act (Public Law 271, 49 Stat. 620) was enacted August 14, 1935. Since then it has been amended several times. Some of the laws amending the original act have made rather extensive and significant changes. One such amendment provided military personnel with full coverage under the social security system on a contributory basis. Though they were not required to contribute, military personnel serving between 1941 and 1956 nevertheless were granted social security credits based on earnings of \$160 a month.

The costs of social security have increased from \$636.5 million in fiscal year 1971 to \$1,140.5 million in fiscal year 1976. Although this represents an overall 79 percent increase, it is not attributable to the AVF.

#### HEALTH BENEFITS

The costs of medical care for retirees in military facilities have increased on an average of \$34.3 million per year from \$86.8 million in fiscal year 1968 to \$360.8 million in fiscal year 1976. During the same period costs of medical care for retirees and dependents in the Civilian

Health and Medical Programs of the Uniformed Services increased an average of \$26.8 million per year from \$33.5 million to \$248.0 million.

Although the costs have risen by more than \$344.7 million between 1971-76, we were unable to attribute the increase to the AVF.

### PRIVILEGES

Uniformed services personnel enjoy a variety of privileges that DOD provides on an availability basis. Key among these privileges are medical services, post exchanges, and commissaries. Other privileges include morale, welfare, and recreational services, such as day care centers, clubs and messes, athletic facilities, arts and crafts, hobby shops, library, legal services, and community services. These services are also provided to retirees and disabled veterans on an if available basis. In a November 12, 1976, GAO report, "Alternatives in Controlling Department of Defense Manpower Costs," (PAD-77-8) and the Rand Study dated September 1977, the cost of commissary and exchange privileges was placed at \$73 for a single member and \$139 for a married member, and medical benefits were estimated at \$427 for a service member and \$230 for a dependent. However, we were unable to determine what portion of the increase for these is attributable to the AVF and, more specifically, what portion is attributable to retirees and disabled veterans.

### OTHER AGENCIES

Because the AVF may have had a ripple effect on other Government agencies, we took a cursory look at certain programs of PHS, Coast Guard, National Oceanic and Atmospheric Administration, Department of Labor, and the Veterans Administration. We reviewed what postservice programs would affect the agency and if any or all were attributable to the AVF. We could attribute incremental costs to the AVF only at the Department of Labor.

#### Department of Labor

Approximately \$114.9 million (\$80.6 million in 1970 dollars) of the unemployment compensation paid by the Department of Labor between fiscal years 1974-76 is attributable to the AVF as a result of DOD discharging over 133,800 enlisted personnel through TDP and EDP.



On the basis of Department of Labor figures on the number of discharges filing for unemployment and the costs of their average claim and by applying that to the total TDP/EDP discharges, we estimate that the costs attributable to the AVF are as follows:

Fiscal year	Costs attributable to the AVF	
	<u>Budgeted</u>	<u>Constant 1970 dollars</u>
1974	\$ 8,521,000	\$ 6,709,500
1975	32,970,000	23,786,700
1976	<u>73,407,000</u>	<u>50,071,700</u>
Total	<u>\$114,898,000</u>	<u>\$80,567,900</u>

### Veterans Administration

A number of veterans benefits have been established to compensate veterans for sacrifices made through military service and to help veterans make the transition from military to civilian life. These benefits may be provided in cash, in-kind benefits, and in the form of Government services, such as pensions, medical care, insurance, educational assistance, and home mortgage loan and guarantee programs.

For the most part, these benefits arose when the draft was in effect and military pay scales were far below those in the civilian sector.

Costs in veteran-related programs, such as compensation, pensions, education, medical care, and readjustment training, have risen from about \$6.5 billion in fiscal year 1968 to about \$29.4 billion (including the transition quarter) in fiscal year 1976.

We were, however, unable to directly attribute any of the increase in cost to the AVF.

## CHAPTER 6

### PREVIOUS STUDIES ON THE COST OF THE AVF

Hundreds of studies have been published in the past decade on the AVF. Most of these have addressed the question of whether DOD could attract a sufficient number of quality volunteers to sustain an adequate defense posture. Very few studies have considered the cost of attracting those volunteers.

We conducted an extensive literature search and identified almost 300 studies on the AVF. <sup>1/</sup> Our search consisted of consulting the DIALOG information repositories and the Defense Documentation Center (DDC). The repository is privately operated and contains over 50 separate data files, including over 15 million records. The DDC is DOD's central facility for collecting and distributing DOD-funded reports in research and development. It holds over 1 million technical reports and approximately 20,000 records describing ongoing DOD research and technology efforts.

The studies discussed in this chapter represent the more inclusive studies on the cost of the AVF. Other studies dealing with cost have been made but they usually deal with only one service or with only one or two of the cost elements commonly associated with the AVF, such as recruiting. We analyzed several of these other studies but did not include them because of their limited scope. We analyzed studies prepared by the Gates Commission and the Rand Corporation. We also analyzed a study prepared jointly by the General Research Corporation (GRC) and DOD. Detailed analyses of these studies appear in appendix I.

The studies we examined report widely diverse estimates of the cost of an all-volunteer force. DOD, in a June 1966 statement before the House Armed Services Committee, stated that an all-volunteer force of 2.65 million men would increase the military payroll by \$4 to \$17 billion a year. This estimate was frequently quoted by opponents to an all-volunteer force and represents the high estimate of cost. In 1973 we estimated an increase of \$3 to \$5 billion as the cost for fiscal year 1974 of an all-volunteer force. Others have centered on an increase of \$300 to \$500 million

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<sup>1/</sup>A bibliography of AVF studies is available upon request.

annually as the true cost. Some studies have even indicated that an all-volunteer force actually costs less than a conscripted force.

Our research shows that studies dealing with cost consider it in terms of budgetary cost (the cost to the taxpayer) and economic cost (the cost to society). The cost estimates have ranged from \$300 million to \$17 billion. The estimates differ because of assumptions about the elements to be considered in determining cost, varying force sizes, and most importantly, the definition of cost. Studies issued have used various techniques to estimate the cost of the AVF and are subject to debate.

SUPPLEMENT TO CHAPTER 6WHAT IS MEANT BY COST

To understand the differences among the cost estimates in the following studies, it is important to consider what is meant by cost, what items or elements are included in cost, and what force sizes are being considered.

Two major cost definitions appear in the seven studies discussed in this chapter. The definition used by most studies involves the budgetary cost of an all-volunteer force. The budgetary cost reflects what the general taxpaying public pays to maintain a military force.

Some commentators believe that budgetary cost is not a valid measure of the true cost of employing military manpower. They state that recently the Government has not been forced to compete in the marketplace for manpower and, therefore, paid less than the prevailing market wage. These commentators use an alternative for measuring costs of manpower referred to as economic or opportunity costs. This is defined as the value of manpower employed by the defense establishment that is not available for use in other parts of society.

Difference in definition of budgetary cost

Controversy exists over what elements should be considered in arriving at a budgetary cost estimate for the AVF. We suggested that DOD develop a standard definition of manpower costs. In some studies the cost of the AVF only included increases in first-term basic pay, recruiting and advertising, enlistment bonuses, and reductions in expenditures for the Selective Service System. In other studies, however, costs included changes in training, retirement and seniority costs, and the effects on the tax revenues.

Several studies have indicated that the Project Volunteer account represents the costs associated with the AVF. The Project Volunteer account was a category in the DOD annual budget. Project Volunteer included the increase in basic pay and allowances awarded to all military personnel as a result of the passage of Public Law 92-129. It also included all recruiting expenditures, some funds for selective re-enlistment bonuses, funds spent for improving living quarters, in-service education opportunities, recreation programs, and civilianization of kitchen duties.

In addition to the Project Volunteer costs, improvements to barracks, family housing construction, medical care, and the

Civilian Health and Medical Program of the Uniformed Services were included in our cost estimate.

### Differing Views of economic costs

The concept of economic costs of the AVF includes two elements: (1) the social cost to the civilian economy and (2) the individual (or tax) cost to the person conscripted into the military. The social cost comprises the value of certain goods and services that could have been produced by the servicemen if they had been employed in the civilian economy. The conscription tax is the financial burden that is borne by the individual who is drafted to serve in the military. It represents the difference between (1) the wage required to induce this individual to volunteer for service and (2) the military compensation he receives under conscription. One study states that:

"\* \* \*the conscription tax is in itself an important element of public policy in general and tax policy in particular. It redistributes income within society; and it requires its own bureaucracy for administering and enforcing collection."

The "cost of collection" is another concept which is usually considered in conjunction with the conscription tax. The cost of collection is represented by the expenditures of individuals attempting to avoid conscription. Such expenditures include enrollment in colleges, early marriages, fatherhood, employment in a draft exempt occupation, medical expenses, and enlistment in the reserves. Another study states that:

"It is difficult to quantify the costs associated with the various draft avoidance activities, but economic theory provides us with a general way of modeling the problem and getting at least a rough estimate of these costs."

### EARLY DOD ESTIMATES

In 1966 DOD undertook the first major and systematic public review of draft policy since the reintroduction of peacetime conscription in 1948. The DOD study stimulated a significant amount of debate and further study by the academic community. It concluded that an all-volunteer force of 2.65 million men would add \$4 to \$17 billion to the budgetary costs of manpower. This estimate repeatedly appears in transcripts of hearings and debates on the AVF and in other studies.

The DOD cost projection was based on several key assumptions. The first assumption was that converting to an all-volunteer force would require significant pay increases for first-term and career military personnel. Necessary pay increases were estimated to be 80 to 282 percent above the pay structure in 1966. The amount of the required pay increase was directly related to assumptions about the effects of unemployment, turnover, and the number of eligible 17- to 20-year-old males the service could attract.

Unemployment rates were assumed to be significantly related to the response of volunteers to a change in military compensation. The DOD study considered the unemployment rates of the total work force as opposed to the unemployment rate of only 17 to 20 year olds. The population of 17 to 20 year olds is usually considered to be the prime target population for recruitment. Some studies have purported that the unemployment rate is not significantly related to supply; however, recent studies concur with DOD's assumption that unemployment is an important factor in both the number and quality of accession.

The turnover (defined by DOD as the number of personnel entering the military divided by force size) was assumed to remain the same under a conscripted force and an all-volunteer force. The average servicewide turnover rate at the time of the DOD study was approximately 25 percent.

Therefore, DOD's assumption that the turnover rate would remain at 25 percent resulted in underestimating required accessions. Most of the early studies erroneously stated that an all-volunteer force would lead to lower turnover rates, thereby resulting in fewer required accessions and cost savings.

The supply of eligible 17- to 20-year-old males was based on estimates for fiscal years 1970-71. This assumption is important when comparing this DOD study with later studies. The pool of eligible males considered by the DOD study is more than a million men less than the projections of recent studies which have used projections for fiscal years 1977-79. The lower projection by the DOD study results in higher cost estimates than those computed by other studies.

DOD's assumption of the need for a major pay increase to attract a sufficient number of volunteers is consistent with the statements of later studies. Other studies agree with DOD but caution against pay increases which could upset

the normal pay structure for enlistees, careerists, and officers. The DOD study failed to consider the effect of pay increases to first-term enlistees in comparison to career enlistees and officers. The study's high estimate of \$17 billion implies a pay rate for a first-term enlistee that is considerably higher than that of a newly commissioned officer.

The DOD study has assumed compensation elasticity of supply (elasticity) estimates varying between .7 and 1.25. Elasticity of supply is a measure of the responsiveness of eligible males to an increase of military compensation. For example, if military compensation is increased by 10 percent and the elasticity of supply is 1.25, you would expect the number of volunteers to increase by 12.5 percent. DOD assumed that the elasticity of supply decreases as larger numbers of the available population are recruited into the Armed Forces. Subsequent studies had a constant elasticity of 1.25. DOD's lower range of elasticities has the effect of raising the cost estimate of attracting volunteers to the AVF.

We believe that the DOD estimate of the AVF cost is no longer relevant. Its assumptions of turnover rate, unemployment, and supply are based on conditions which no longer prevail.

#### GATES COMMISSION STUDIES

In March 1969 the President's Commission on an All-Volunteer Armed Force (referred to as the Gates Commission) was established to develop a comprehensive plan for eliminating conscription and moving toward an all-volunteer force. The Commission was instructed to study the estimated costs and savings resulting from an all-volunteer force, as well as the broader social and economic implications of this program.

The Gates Commission report contained two major cost studies. The first of these studies addressed the cost of the AVF in terms of budgetary expenditures. The second study considers the cost of the AVF in terms of economic costs.

#### The budgetary study

The Gates Commission budgetary study is frequently referred to in other AVF studies. Even though it was made before the AVF experiment, its projections are still considered relevant today by some. The study suggests that an increase

of \$2.1 billion in the defense budget is required to maintain a fully volunteer force of 2.5 million men on a stable, continuing basis.

This study applies a budgetary approach to estimating the cost of an all-volunteer force. The cost estimates include the effects of increased (1) pay to first-term enlisted men and officers, (2) proficiency pay to attract individuals with special skills and talents, (3) reserve pay to sustain a volunteer reserve force, (4) recruiting and advertising expenditures, and (5) expenditures to secure an adequate medical staff for the services. Cost savings were expected to result from a reduced turnover rate under an all-volunteer force. Increased costs would also be offset by increased Federal income tax collections resulting from the proposed increase in pay.

#### Major assumptions and problems in the budgetary study

Many of the assumptions made in the budgetary study were based on conditions related to the Navy, Air Force, and Marine Corps. The authors contended that these conditions were representative of an all-volunteer environment since these services rarely had to rely on the draft. Assumptions concerning turnover, training, and compensation were related to experiences within these services.

In assessing the responsiveness of eligible males to an all-volunteer force--previously defined as the elasticity of supply--the authors admitted there was no way to measure that responsiveness accurately. An attitude survey of active duty personnel was used to estimate the effects of an all-volunteer environment. A true volunteer was considered to be an individual who responded "yes" or "probably yes" to the following question which appeared in a 1964 survey of 5 percent of the active duty servicemen:

"If there had been no draft, and if you had no military service obligation, do you think you would have volunteered for active military service?"

The Gates Commission study states that,

"The 1964 survey results confirm our prior beliefs; they show that men with less education, lower measured mental ability, and younger ages at the time of regular enlistment are more likely to be true volunteers."



Six years elapsed between the 1964 attitude survey and the Gates Commission budgetary study. During this time the United States was involved in a major military conflict which created a significant amount of social upheaval among American youth. In our opinion, attitudes of active duty servicemen measured in 1964 were no longer valid indicators in 1970 of the attitudes of the general youth population. Thus we believe that the attitudinal survey was not a valid basis for assumptions about an all-volunteer environment. According to OSD a 1969 survey and an analysis of random sequence numbers confirmed the true volunteer levels for Army enlistees as projected from the 1964 survey.

The Gates study and most of the studies to follow, used an elasticity of supply of 1.25.

If an elasticity of supply 1.25 is optimistic, the Gates Commission study may have overestimated the response of eligible males to varying levels of military compensation. By overestimating the elasticity of supply, it may have underestimated the costs associated with an all-volunteer force. On the other hand, an elasticity of supply of 1.25 may represent a conservative estimate of the response of eligible males to changes in military compensation, since other studies in the Gates Commission report had estimated elasticities which exceed 1.25. In this instance, projected costs by this budgetary study may be overestimated.

The Gates Commission budgetary study also assumed that implementing an all-volunteer force would lead to reduced turnover. Reduced turnover should lead to lower accession requirements, a smaller training establishment, and fewer personnel in transit. The savings attributed to reduced turnover was estimated at about \$743 million. However, as stated previously, the turnover rate under the AVF increased --contrary to the assumption of this study. Hence, the savings projected by the study have not been realized.

The Gates Commission report stated that pay for first-term servicemen should be increased regardless of conversion to an all-volunteer force. The report argued that the increased pay was needed for reasons of equity and fairness. The budgetary study echoed that feeling and suggested pay increases for first-term enlisted men and officers, as well as increases for reservists and for those with special skills and talents.

Projected increases in basic pay for first-term enlisted personnel were based on the previously questioned elasticity estimate of 1.25. The study suggested that an increase in pay of approximately 60 percent, totaling \$2.68 billion, would be needed to attract a sufficient number of volunteers to sustain an active force of 2.55 million men. Public Law 92-129, passed in 1971, awarded a 68.6 percent increase in pay to first-termers. The study also suggested an increase in proficiency pay amounting to \$210 million. This proficiency pay was to take the form of "enlistment bonuses" which were to be used to attract first-term individuals with special skills and talents.

Is the study valid today?

In our opinion, this study relied on several assumptions which are no longer valid. The study also failed to take into account the costs for other elements which will accrue to an enlistee. The authors also may have underestimated training force reductions which they estimate to be approximately 3 percent while other studies have indicated reductions in required annual accessions as high as 9.6 percent.

As discussed later in this appendix, the budgetary study used the actuarial table for all DOD personnel, rather than only for Army enlisted personnel. Since the actuarial table is used to project the average length of service for enlisted men, the error resulted in overestimating the number and the cost of Army accessions.

In our opinion the Gates Commission study underestimated the costs associated with the AVF.

The Gates Commission economic costs study

The Gates Commission overall report claimed that the cost of an all-volunteer force is "unquestionably less" than the cost of a draft force when the hidden costs of conscription are fully recognized. The hidden costs of the draft are related to the system of deferments and exemptions for military service, as well as lower wages paid under conscription. The system of deferments and exemptions allowed some individuals to avoid serving in the military and, therefore, avoid certain costs which those who served were forced to bear. The lower wages under conscription represent a cost to the individuals forced to serve because they were unable to earn a wage comparable to that earned by their civilian counterpart.

Individuals who altered their career and personal plans to avoid being drafted also bore a cost. The unusual actions of these young men--such as early marriages, employment in draft-exempt occupations, and enrollment in institutions of higher learning--represent some of these costs. Other hidden costs include an erosion of the ideals of patriotism and service, denial of due process of law, and morale and disciplinary costs for the military service which had to take in misfits and malcontents not suited for military life. All of these costs were considered very difficult to measure; however, it was important to attempt to quantify them to adequately assess the costs of the AVF.

### The conscription tax

In attempting to quantify the hidden costs imposed on young men who would not otherwise serve in the military, the Gates Commission economic cost study employed the concept of a conscription tax. The conscription tax is defined as:

"\* \* \*the difference between the earnings the draftee or draft-motivated (reluctant) volunteer received from the military (including income in kind)<sup>1/</sup> and the earnings that would just cause the individual to be willing to enter the military."

This difference is affected by the type of conscription employed, the attitude of the individual towards the military, the perceived risk involved, the amount of training received, and the post-separation benefits provided by the Veterans Administration.

Two separate methods were used in computing the conscription tax. The first compared military compensation with civilian and was termed the "financial burden" for the pre-Vietnam war period. This was a less inclusive measure. The second, more inclusive method, computed the number of annual accessions required to maintain a 2.5 million man force and then estimated the tax that would be paid by those accessions. This is termed the "supply price" and is based on the response of the volunteer to changes in levels of military compensation. The difference between the two methods is that the first is based on the concept of civilian earn-

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<sup>1/</sup>Income in kind includes allowances for food, housing, medical care, clothing, PX, and Commissary privileges and certain income tax advantages

ings while the second is based on the concept of supply price.<sup>1/</sup>

The financial burden estimate  
of the conscription tax

The financial burden estimate of the conscription tax considers the age and educational structure of the military population existing in the pre-Vietnam war period. Annual military earnings were computed for 10 age and education classifications. These earnings estimates were then compared against potential civilian incomes for each of the 10 categories. In total the military force received an estimated \$835 million less in earnings than its civilian counterparts.

Potential civilian income was estimated using results from the "Current Population Survey" administered in March 1965. However, significant changes had occurred with respect to military wages, civilian wages, and population distributions by 1970 when it was used. For example, in 1966 annual pay increases were legislated for military recruits; and in 1967 the River's Amendment provided that military pay increases be comparable (in terms of percentage) to pay increases for the white-collar Federal civilian work force.

These changes to civilian wages due to inflation were considered in that wages were adjusted forward by 30 percent. In using the financial burden to estimate the conscription tax, the study used outdated information which tended to overestimate the differences between military and civilian earnings. In addition, the study valued income in kind at the cost to the Government, not at its fair market value. Thus, food, including labor and preparation, was valued at \$2.57 a day; military housing was valued at \$30 per month; and clothing, medical service, and PX and commissary privileges were valued at \$227 a year for a single serviceman. Under-estimating the cost of these items further distorted the differences between military and civilian earnings. Furthermore, income in kind and basic pay were assumed to be identical for each branch of service. Differences among the services in such items as health facilities, housing, food, and clothing were not taken into account.

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<sup>1/</sup>The supply price is the wage (compensation) required to attract a given number of volunteers.

A revised estimate of the  
financial burden

The study stated that a more meaningful measure of financial burden would exclude those persons whose military compensation is above their alternative civilian income. The overcompensation of those individuals served to reduce the total difference between military and civilian incomes. The revised estimate of the financial burden borne by those forced to serve in the military was \$1.1 billion.

While the revised estimate may be a more meaningful measure of financial burden, the problems just outlined concerning the first estimate still apply. It was also assumed that the individuals who involuntarily entered the service represent a proxy for those persons whose potential civilian earnings are above their military earnings. This assumption is questionable because financial reasons are not the only basis for avoidance of military service. We further question the adequacy of the assumption, since a 17- or 18-year-old draftee with less than a high school degree is classified as earning \$742 more in military life than civilian life under the first estimate. This same individual in the second estimate earns \$1,254 less in military life than civilian life.

The supply price estimate  
of the conscription tax

The supply price estimate is based on the cost difference between obtaining a sufficient number of volunteers at market wages and a conscripted force at the prevailing wage in 1964. The conscription tax in 1969 dollars was \$937 million, if pre-Vietnam conditions had prevailed.

The supply price estimate was made on the basis of two educational groups (persons who had not completed high school and those who had) and two mental groups (persons in categories I, II, and III of the Armed Forces Qualifying Test and persons in category IV of the same test). The estimate of the required number of accessions assumed that the educational and mental composition of the force would be the same as in the pre-Vietnam war period.

The size of the force was estimated to be 2.5 million personnel and annual accession requirements were calculated under the draft and the volunteer methods. In estimating the number of accessions required under an all-volunteer force method, the Gates study assumed an elasticity of supply of

1.25 indicating that a 66.8 percent increase in military compensation was required to attract a sufficient number of volunteers. This implies an increase in income of \$802 million annually in an all-volunteer force mode and an increase of about \$310 million annually in a draft mode. The difference is greater than indicated, however, and totals about \$937 million when the price paid to individuals for service regardless of their particular supply price is considered. 1/

#### Problems with the second method

In addition to our earlier comments on problems with the Gates study using old data there is a problem with the considerable reliance that the study places on the 1.25 elasticity of supply. However, even if the elasticity of 1.25 is valid, it does not seem reasonable to apply the same elasticity to each of the educational and mental groups, since not all of these groups would be expected to respond identically to pay increases.

On the conscription tax estimates the Gates study concluded that:

"Due to the differences in the procedures of estimation of the two magnitudes and the rather strong assumption embodied in the supply function approach, one can tentatively conclude ONLY the 'equalizing differential'2/ is positive for the individuals involved; estimates of the magnitude of the differential will require more refined data and techniques."

Consequently, the study further states that the wage required to secure a sufficient number of true volunteers was above the conscription wage but that detection of this difference threshold would require further study.

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1/In other words, some individuals are receiving a wage that is much higher than what would be required to attract them to the military. The military does not normally discriminate between the actual "value" of volunteers, but rather pays each enlistee an identical wage.

2/By "equalizing differential," the authors mean the additional wages required to make the differences between the supply price (market wage) for the volunteer and the wage paid under conscription close to zero.

### The cost of collecting the conscription tax

The cost of collecting the conscription tax can be considered in terms of the resources devoted to avoiding conscription. Activities such as early marriages and employment in draft-exempt occupations are examples of the devotion of resources to avoid conscription.

Measuring the cost of collecting the conscription tax is a very difficult task and subject to considerable debate. The study concludes that the cost of collecting the conscription tax is about 129 percent of the tax proceeds when a constant elasticity of 1.25 is assumed. Under other assumptions, estimates of the cost of collection ranges from 159 percent of the tax proceeds to 254 percent of the tax proceeds. Supply function techniques similar to those employed in estimating the conscription tax were used to estimate the cost of collecting it. The report states that the figures arrived at are only rough estimates. According to the report:

"The principle conclusion to be drawn from this part of the study is that the Selective Service is a very inefficient taxation device, as the cost of collection (the deadweight loss) appears to exceed the proceeds of the tax."

This section of the study is subject to many of the criticisms mentioned previously. The method used in estimating the cost of collecting the conscription tax was similar to the supply price method of estimating the conscription tax. Because of the method similarities we have not included a description of the technique.

In our opinion, the concepts are worth further study especially in light of recent developments with respect to military pay, training, and living conditions.

### RAND'S BUDGETARY STUDY

Researchers at the RAND Corporation produced a study very similar to the Gates Commission budgetary study; both were critiqued by statisticians at Princeton University. The critique concluded that, "the estimation technique of the two papers do not differ in principle at any step." The authors of the RAND report stated "the methodology in both studies is similar, particularly in the area of econometrics; the major difference is the emphasis we place on the institutional details of the military manpower system."

The RAND study estimated both a transition (short-run) cost and a steady state (long-run) cost of an all-volunteer force. It forecasted an incremental budgetary cost of \$750 million per year for the transition phase and a steady state cost of between \$2.1 and \$2.5 billion annually to sustain a 2.5 million man force. Comparable estimates by the Gates Commission were \$3.11 billion for transition phase and a steady-state cost of \$2.3 billion to sustain a volunteer force of 2.5 million men. Similarities between the Rand Corporation report and the Gates Commission study exist mainly with respect to estimates of short-run costs. Both studies use the results of attitudinal surveys in conjunction with population trend data to project the number of eligible males who would volunteer for military service under varying wage conditions. Both studies also assumed there would be higher volunteer re-enlistments and lower training costs under an all-volunteer force than under the draft. Another major similarity involves the use of the econometric supply curve to project the costs required to attract a sufficient number of volunteers.

Cost sensitivity analysis was performed by both research groups for the short-term estimates. The Gates Commission, however, only varied force size, while the RAND Corporation also considered retirement costs and seniority costs. Cost sensitivity analysis was only performed by the RAND Corporation with respect to long-run cost estimates.

Several items were considered in the RAND study which were not considered in the Gates Commission study. These differences mainly affect the cost estimate for the short-term transition to an all-volunteer force. The major difference between the studies involves the use of the draft to reduce high short-run costs during the transition period to an all-volunteer force. The Gates Commission advocated paying a premium wage to attract a sufficient number of accessions. The RAND Corporation, however, suggested paying the lower estimated wages for a steady-state volunteer military force and drafting the residual for several years until higher re-enlistment rates and longer tours could take effect and reduce accession requirements.

In considering the value of military compensation, the Gates Commission used the DOD total income concept which considered basic pay income in kind. The RAND Corporation, on the other hand, considered military wages in terms of a "perceived present value" concept in which wages and income in kind are measured in terms of the value assigned to them by potential enlistee. Under the perceived value concept,



the total military compensation received by the enlistee is valued at somewhat less than its total cost value. Enlistment bonuses were considered by the RAND Corporation as an essential element in the transition to an all-volunteer force. The Gates Commission, however, did not recommend bonuses for any of the military services.

An element-by-element comparison of the two studies that appeared in the RAND report is shown below.

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 COMPARISON OF COST STUDIES a/


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	Presidential Commission	Canby- Klotz
<u>Short-Run Costs</u>		
1. Volunteer Projections from Surveys and Population Growth	Yes	Yes
2. Higher Volunteer Reenlistment Rates	Yes	Yes
3. Training Savings	Yes	Yes
4. Large Army Recruiting Deficit	Yes	No
5. Theory of Supply	Yes	Yes
6. Econometric Supply Curve	Yes	Yes
7. Enlistment Bonuses	No	Yes
8. Army Receives Differential Treatment	No	Yes
9. Pay Base is Perceived Present Value Concept	No	Yes
10. Miscellaneous Costs and Savings	Yes <u>b/</u>	No
11. Cost Sensitivity Analysis		
a. Force Size	Yes	Yes
b. Supply Elasticity	No	Yes
c. Unemployment Rate	No	Yes
d. Pay Base (PPV or Total Income)	No	Yes
e. Reenlistment Rate	No	Yes
f. Attitude Shift	No	Yes
<u>Long-Run Steady-State Costs</u>		
12. Retirement Costs	No	Yes
13. Seniority Costs	No	Yes
14. Training Savings	Yes	Yes
15. Cost Sensitivity Analysis	No	Yes

a/We have been referring to the Presidential Commission study as the Gates Commission budgetary study and to the Canby and Klotz study as the RAND study.

b/About \$0.5 billion, including increases for proficiency and reserve pay and the fraction of wage increases repaid to the Treasury in taxes.

Source: RAND Corporation.

Problems and relevance of the RAND report

Since the RAND Corporation study is similar to the Gates Commission budgetary study in terms of estimation techniques, many of the criticisms raised concerning the Gates Commission study also apply to the RAND study. Like the Gates Commission study, the RAND report based its projections of the number of accessions under an all-volunteer force upon attitudinal surveys which we believe were outdated and probably unrepresentative of the eligible male population. In addition, both studies relied on questionable elasticities of supply. The RAND study even used an elasticity of supply for officers which was calculated by another group of researchers, after RAND criticized, the econometric model which gave rise to that elasticity estimate.

The RAND study suggested that a smaller force was needed in an all-volunteer environment, hence fewer accessions were needed and lower costs would result.

The Princeton critique mentioned earlier identified four possible problems with the RAND study.

1. Past experience with attempts to increase volunteerism have involved across-the-board wage increases. The effects of using bonuses or other pay incentives to increase the number of volunteers has not been proven.
2. Even if it is true that bonuses are an effective means of increasing volunteers, it is questionable, because of political and social reasons, whether one can in fact provide bonuses to only volunteers needed to meet accession requirements.
3. The perceived present value concept of military compensation is debatable. It is not clear what view, in terms of equivalent dollars, the volunteer has of many of the Armed Services benefits, such as housing, medical care, and clothing.
4. It is also unclear how the volunteer views future income and pensions.

In addition to the problems mentioned above, we found other problems. The RAND study assumed that under an all-volunteer force the percentage of acceptable mental category IV accessions would be close to 20 percent for the Army and 10 percent for the other services. This assumption has not

held true since the services have accepted an average of only 6 percent of category IV accessions during the AVF years 1973-76. By overestimating the number of category IV personnel that the services would accept, RAND underestimated the cost of recruiting.

The RAND study assumed that an all-volunteer force would result in a higher retention rate and, therefore, an increased number in the higher pay brackets. In calculating seniority costs, first-term wages were included. First-term wages should not be included because of the method of calculation used. In addition, the first-term pay rates used were not representative of seniority costs.

The RAND Corporation report is a valuable research document in several respects. First, the method of handling pay in terms of perceived present value is a unique concept and one which warrants further study. Rand's consideration of cost items is the most inclusive of all the earlier studies we reviewed. Using cost sensitivity analysis is also considered to be a valuable part of the study. However, we believe that the study no longer represents a valid projection of AVF costs.

#### GAO STUDY ON AN ALL-VOLUNTEER FORCE

On May 2, 1973, GAO issued a budgetary costs study (B-177952) centering on the Project Volunteer account as well as some "soldier-oriented" improvement expenditures. These latter expenditures included costs for such improvements as civilianization of kitchen duties, additional family housing construction, and extended medical care and CHAMPUS coverage. They added about \$1.09 billion to the Project Volunteer estimate of the AVF cost.

Our report quoted costs supplied by OSD and the Department of the Army. In the report, we cautioned that, except for the Army's soldier-oriented programs, we had no way to determine the extent to which other costs indirectly associated with AVF had been included in the services budgets.

#### RECENT STUDIES

Since the advent of the AVF, very few studies have been concerned with its cost. The early days of the AVF experiment saw countless projections of its success in terms of the number of accessions to be recruited as well as social representation, force quality, and military readiness. Those

studies which did concentrate on cost used the two concepts mentioned earlier; budgetary cost and economic cost.

The General Research Corporation  
and DOD force-size study

The study looked at both economic and budgetary cost to determine if the AVF is sustainable in the event of a war or increased force size. It concluded that as force size increases, the economic costs outweigh the social and political benefits of the AVF and require the reinstatement of conscription. To sustain an all-volunteer force equivalent to that existing during the Vietnam conflict (3 million men) would require an increase of \$73.5 billion to the fiscal year 1975 budget (\$84.5 billion) compared to a required increase of \$42.5 billion using conscription.

However, the Department of Defense rejects this estimate as being too high. It said the study

"\* \* \* assumed no mobilization of reserves, no stop loss action, or none of the other actions which would be taken in the event of mobilization. It simply projected trend lines beyond the extrapolation (sic) limits of the data. In the event of rapid mobilization for a major war, the Department of Defense plans to reactivate the draft."

Several major assumptions were made in this study which affected the cost estimate. Only incremental costs instead of total defense costs were considered; costs such as training, housing, and food were assumed to be the same as under an all-volunteer force or draft system. Therefore, the costs used in this analysis were estimates of those programs which would change under a return to the draft.

The incremental costs of increasing force levels using conscription were assumed to follow a linear function. Under an all-volunteer force, the incremental costs were extrapolated from the recent peacetime experience. In addition, pay comparability levels would be maintained even under a return to a draft system. Increases in recruiting and advertising were considered to be of limited use when force sizes were expanded significantly under the AVF.

The Project Volunteer account was considered in determining the budgetary costs associated with the AVF. GRC developed a force model to extrapolate the Project

Volunteer costs required to sustain an increase in military force levels. To determine the cost of conscription for increasing force levels GRC assumed a constant cost per person based on 1977 manpower costs. The study excluded enlistment bonuses, special duty recruiter pay, and recruiting advertising expenditures from conscripted force costs.

An opportunity cost was also estimated to compare AVF budgetary costs and conscription budgetary costs. The opportunity cost was defined as the annual budget savings which would occur if the DOD returned to a draft system. The following graph depicts GRC's cost projections for the AVF and the draft under varying force levels. As can be seen, the opportunity cost for a force level of 1.86 million men is approximately \$310 million. The Project Volunteer costs for the same force is approximately \$3 billion. (See p. 70.)

#### Assessment of the study

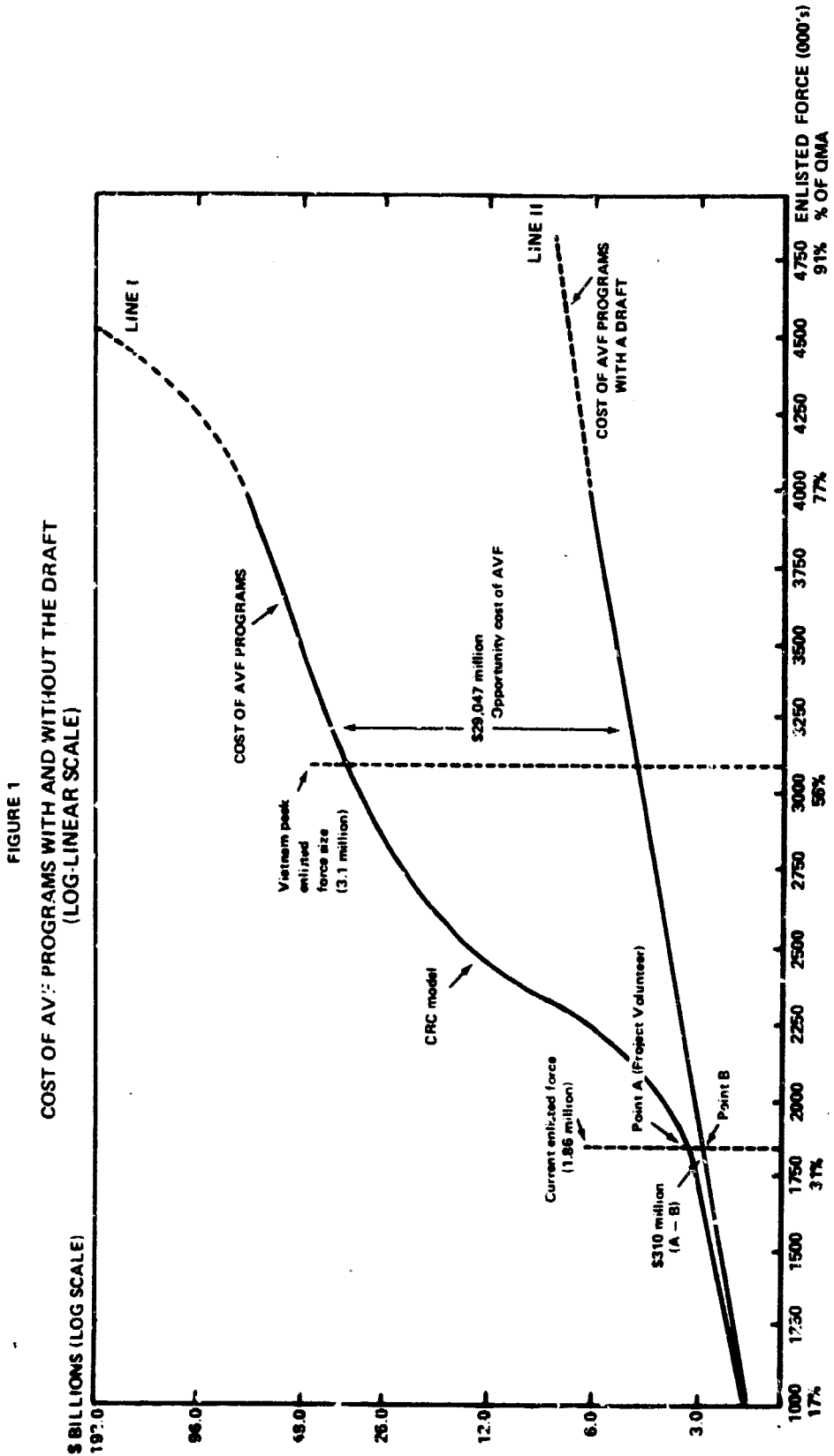
The GRC study did not consider the effects of inflation and unemployment on the supply of new volunteers and the number of subsequent re-enlistments in an all-volunteer force. Also, in our opinion, the Project Volunteer account did not include all of the costs associated with an all-volunteer force.

However, the study did consider the cost effect of various manpower policy decisions--such as less restrictive mental and medical recruitment standards, increased use of women, and improved efficiency in recruiting--on the AVF. This study is important in that it addressed a range of force size levels.

#### RAND study of economic and budgetary costs

The most recent study of the AVF was issued by Rand in September 1977. This study traces the history of the AVF and makes projections about its future costs and probability of success. In general, the study concludes that the AVF has been successful, however, it cautions that the concept of a volunteer force can fail unless more cost effective manpower policies are employed in the future.

The study disagrees with critics of the AVF who claim that it has added billions to the cost of defense manpower. It states that most of the costs attributed to the AVF began before the AVF experiment. It further claims that even the large pay increase for first-term personnel legislated in



the Gates Commission proposed the pay increase regardless of the decisions to end the draft.

The RAND report contains estimates of the cost of the AVF in terms of the opportunity costs concept and also the social or economic cost concept. The opportunity cost estimate is similar to that reported in the force size study reviewed in a previous section. In terms of opportunity cost, the AVF was estimated to have added less than \$300 million to the cost of defense manpower. The Rand study notes that this amounts to about two-tenths of one percent of the defense budget.

The reason that such a small increase in the defense budget is attributable to the AVF, according to the study, is because "the draft provides very little leverage over total manpower costs."

RAND arrived at this conclusion because many of the costs associated with the AVF would not change with a return to a draft. Previous budgetary cost estimates based on Project Volunteer failed to take into account various cost savings which should be attributed to the AVF, such as increases in tax revenue and reductions in the expenditures for the Selective Service System and manpower training.

We agree that the Project Volunteer account (discussed on p. 51) did not include cost savings attributable to the AVF, but we also maintain that additional costs which are at least indirectly related to the AVF should be included.

According to RAND the most appropriate measure of cost for policy decision purposes is economic costs. The budgetary cost estimate fails to reflect the real costs and savings resulting from the removal of the draft because (1) of the structure of the budget accounts and (2) under conscription, less than the market wage is paid and budgetary expenditures do not display the true costs to society.

In estimating the economic costs of military personnel, Rand used estimates of the conscription tax and the cost of collecting the conscription tax. The estimates were based on the previously discussed Gates Commission economic cost study. RAND also included the advantages afforded to military personnel from the tax-exemption of quarters, subsistence allowance, and the accrued liability for military retirement. After including all of these elements in the cost of the AVF, RAND concluded that:



"\* \* \*the total costs associated with active duty military personnel in fiscal 1976 are only 50 percent more than they were in fiscal year 1964. In fact, expressed in 1976 constant dollars, the nation actually spent less on manpower in fiscal 1964 under the draft, despite the fact that real wages in the economy as a whole increased about 6 percent over this period."

This conclusion is not unlike the conclusion reached by the Gates Commission. It means that in considering budgetary costs, the draft may appear to be a less expensive alternative than the AVF; however, when economic costs are taken into consideration, the draft may in fact cost society more in terms of resources.

The techniques used in the RAND study are similar to those used in earlier studies discussed in this appendix. Thus, much of the criticism voiced about those earlier studies would also apply to the RAND study.

### CONCLUSIONS

Our research shows that many studies have been published concerning the AVF, however, few have concentrated on the costs of such a force. Studies which have dealt with cost, consider it in terms of budgetary cost (the cost to the taxpayer) and economic cost (the cost to society). The cost estimates have ranged from \$300 million to \$17 billion. The estimates differ because of assumptions about the elements to be considered in determining cost, varying force sizes, and most importantly, the definition of cost. Studies discussed in this appendix have used various techniques to estimate the cost of the AVF and are subject to debate.

### EXPLANATORY VIEWS

#### A discussion of elasticity estimates

The concept of compensation elasticity is crucial with respect to the AVF cost estimates. Compensation elasticity or more formally the compensation elasticity of supply of labor is a measure of the percentage response in enlistment rates to a given percentage change in military compensation.

The studies addressed in chapter 6 have reported widely diverse estimates of wage elasticity  $1/$ , ranging from a low of .38 to a high of 2.2. If the elasticity estimate used by a study was too high, then the responsiveness of eligible males to varying levels of military compensation would be overestimated and therefore the costs associated with an all-volunteer force would tend to be understated. On the other hand, understating the compensation elasticity would tend to overstate the costs of the AVF.

Estimates of compensation elasticity vary due to the methods used, differing definitions of compensation, differing sets of enlistment-related variables which must be "controlled for," assumptions about the supply population, assumption about the supply function, and differing time periods.

#### Elasticity estimates for the DOD study

The 1966 DOD study has compensation elasticity estimates which ranged from .7 to 1.25. DOD had assumed a supply function in which the elasticity declines as increasing fractions of the available population are recruited. Its elasticity estimate therefore depends critically on the estimated recruit shortfall which would result from the elimination of the draft, assuming no change in military compensation levels.

The Gates Commission stated that, "the DOD estimates of required accessions are unreasonably high." The Commission based its assessment on three major differences between its study and the study performed by DOD in 1966: (1) DOD assumed an annual turnover rate for the Army (the service most dependent on the draft) of about 26 percent under an all-volunteer environment, while the Commission estimated a turnover rate of about 18 percent, (2) DOD had used supply population estimates for 17- to 20-year-old males for the period fiscal year 1970 through 1971 while the Commission based its projections on estimates of 17- to 20-year-old males for fiscal year 1977 to 1979, (3) DOD estimates were based on the assumption that a transition to an all-volunteer force would occur in fiscal year 1970-71, while the Commission assumed that such a transition would occur in fiscal year

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1/These wage elasticities refer to all services taken collectively. Wage elasticities for the Air Force ranged from 1.25 to 2.23, while elasticities for the Marine Corps were reported as -0.12.

1973-74 and that by fiscal year 1977-79, a steady state would be achieved.

In considering factors which might influence an individual's decision to enlist in the military, it appears that DOD controlled only for effects of unemployment and military compensation. It ignored the impact of recruiting, potential civilian earnings, and the individuals "taste" for military service. By not controlling for these factors, by underestimating the appropriate supply population and turnover rate, and by using questionable estimates of required accessions, DOD estimated compensation elasticities that are unreliable.

#### Gates Commission elasticity estimates

The Gates Commission report contained several estimates of compensation elasticity. Three studies used a time series analysis which compared the rates of military to civilian pay with enlistment rates. The analyses considered quarterly survey data for 1957 to 1968. Another Gates Commission study used a cross-sectional analysis approach which considers observed differences in the rates of military-to-civilian pay and the enlistment rates among different subgroups of the relevant population at a single instant in time.

The Gates Commission stated that,

"In general, we suspect that in the enlisted accession studies, the dependent variable, the enlistment rate, is cleaner in the time series than in the cross-section studies but that the reverse is true for the independent variable, relative military pay."

It also stated that,

"\* \* \*quarterly observations on the pay variable used in the time series studies are also imprecise, but even if they had been more precise, it would still be difficult to interpret their meaning and their impact on enlistment. We simply do not know enough about how individuals respond to expected pay raises."

The cross-sectional analysis also contains a problem with respect to the definition of military pay. The definitions include certain components of pay received in kind and exclude others. In addition, items received in kind are valued at their estimated cost, rather than their value to military personnel.

The Gates Commission concluded that,

"Because of some of the data and measurement problems \* \* \*this study used an elasticity of supply for initial entrants of 1.25 rather than those reported in the respective studies. We feel that this elasticity is on the low side both because it is lower than the vast majority of the statistically significant estimates reported in the respective studies and because most of the remaining identifiable biases are on the negative side."

The supply elasticity used by the Gates Commission is higher than that used in earlier studies because of, among other reasons, the functional form used, the factors considered, and the quality of the data. With regard to functional form, the Gates Commission considered linear, log-linear, log-complement, and logit functional forms for the elasticity or supply functions. Based on results of goodness-of-fit tests it concluded that a constant elasticity of supply function would adequately describe the curve over a limited range. Earlier studies used a declining elasticity of supply function. With regard to factors considered, the Gates Commission excluded the unemployment rate as an explanatory variable in its enlistment equations, a factor which earlier and later studies have considered as important. Finally, with regard to data, the Gates Commission, however, employed data of an improved quality over that used in previous studies.

#### Recent elasticity estimates

The recent RAND Corporation study states that there have been few attempts to measure enlistment supply during the actual AVF experience. In the RAND study, the author addresses the question of supply elasticity and concludes that "it is difficult to pin down the pay elasticity precisely."

The author of the RAND report examined three functional forms for the relationship between enlistment supply and the factors affecting the number of volunteers: (1) a simple linear model, (2) a logistic model, and (3) a constant elasticity mode. He concluded that "estimated relationships are not terribly sensitive to the particular functional form adopted" and, therefore he used the logistical model for "theoretical reasons."

The author stated,

"\* \* \*the model was estimated by pooling the data from all Services and constraining the coefficients to be the same for each Service; and the results are based on semiannual data for the period running from the first half of fiscal 1971 through fiscal 1976."

His regression results indicate that the elasticity enlistment supply with respect to pay ranges between 0.75 and 1.5.

The author determined that a highly significant relationship existed between the number of recruiters and military pay. Early elasticity estimates excluded the impact of recruiters on enlistment rates which has the effect of underestimating the elasticity estimate. In addition, the author indicated that "\* \* \*unemployment does have a positive effect on the number of enlistments." As noted earlier, the effects of unemployment were excluded from the Gates Commission estimates.

The author discounts the effect of tastes for military as an influence on enlistment rates. By comparing the results of Gilbert Youth Surveys, which measure attitudes of American youth towards military service for the period of May 1971 through November 1974, he concluded that "attitudes towards military service have been very stable, at least for the period leading up to and immediately following the removal of the draft."

In our opinion, the elasticity estimates published by earlier studies have relied on inappropriate data and have ignored major factors which influence enlistment rates, thereby, making their estimates less valid than they could be.

More recent studies have based their estimates of elasticity on an insufficient quantity and quality of data. The critical value of elasticity supply has yet to be adequately addressed in a properly validated research manner.

BIOGRAPHICAL SKETCHES OF COMMENTATORS

- General Conrad Allman U.S. Air Force (Retired), Commander, Air Force Recruiting Service; Chief Policy Division, Directorate of Personnel Plans; and planned the Air Force transition to the AVF.
- Karl R. Bendetsen Former Under Secretary of the Army; Vice Chairman, Defense Manpower Commission; and held various positions with rank equivalent to that of ambassador; current Chairman of the Board, Champion International Corporation
- General William DePuy U.S. Army (Retired), former Commanding General Training and Doctrine Command; currently a Commissioner on the President's Commission on Military Compensation.
- Robert Froehlke Former Assistant Secretary of Defense for Administration and Secretary of the Army, current President, Health Insurance Association of America.
- Admiral Clarence A. Hill, Jr. Operational, combat, and staff experience in the Fleet, Department of Navy, and Secretary of Defense levels; authored a major article on Law of the Sea.
- Morris Janowitz Scholar on the military; currently Chairman, Department of Sociology, University of Chicago.
- Roger Kelly/ Former Assistant Secretary of Defense, Manpower and Reserve Affairs; concurrent Vice President, Caterpillar Tractor Company.
- Marion J. Levy, Jr. Expert on organization and management, has held various management and academic positions; current Chairman, Department of East Asian Studies, Princeton University.

1/As of January 20, 1978, this commentator had not submitted written comments.

William H. Meckling

Former Executive Director, Gates Commission on the All Volunteer Force; current Dean, Graduate School of Management, University of Rochester.

Admiral Gerald E. Miller

U.S. Navy (Retired), formerly commanded the Second Fleet, Sixth Fleet, and comparable NATO forces in the Atlantic and Mediterranean.

General William W. Momyer

U.S. Air Force (Retired), formerly commanded Tactical Air Command, Seventh Air Force, Air Training Command, and served as Deputy Commander for Air Operations, Military Assistance Command, Vietnam.

David P. Taylor 1/

Former Assistant Secretary of Defense, Manpower and Reserve Affairs, and Assistant Secretary of the Air Force, Manpower and Reserve Affairs.

Admiral Elmo R. Zumwalt

Former Chief of Naval Operations; Commander, U.S. Naval Forces, Vietnam; and current President, American Medical Buildings.

1/As of January 20, 1978, this commentator had not submitted written comments.

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FRANCIS J. SULLIVAN, STAFF DIRECTOR

## United States Senate

COMMITTEE ON ARMED SERVICES  
WASHINGTON, D.C. 20510

May 4, 1977

Honorable Elmer B. Staats  
Comptroller General of  
the United States  
Washington, D. C. 20548

Dear Elmer:

I very much appreciate your note of March 31 regarding my article on the All-Volunteer Force. As you mentioned, GAO has issued reports raising some of the same concerns.

One of the major problems in evaluating the All-Volunteer Force is trying to estimate its cost in the defense budget and it is in this area that I would like to request the assistance you have kindly offered.

The Department of Defense's position on the cost of the All-Volunteer Force is summarized in a statement to the Manpower and Personnel Subcommittee in March of this year:

The All-Volunteer Force costs more than a force would which is based on the draft. If we were to return to the draft today, we could save about \$500 million by making substantial cuts in recruiting, advertising, and enlistment bonuses. Such a savings would amount to less than one-half of one percent of the defense budget.

The only way to achieve larger savings by returning to the draft would be to abandon maintenance of competitive pay levels for junior enlisted people. The pay of future recruits could be reduced to the equivalent of the Federal minimum wage, or their pay raises could be eliminated until the Federal minimum wage has risen to their pay level. Such actions could eventually save the taxpayers about \$2 billion per year. However, this would involve shifting the economic burden of defense from the taxpayer back to those who would be drafted. During conscription a portion of the cost of defense was borne by draftees who were paid 50-60 percent of private sector pay.

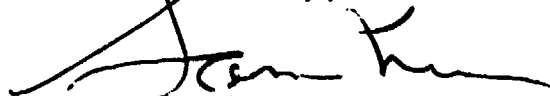


Honorable Elmer B. Staats  
May 4, 1977  
Page 2

Similar estimates have been made repeatedly. These estimates assume that the volunteer force would basically have worked even if there hadn't been a pay comparability change and that defense capabilities would not have changed -- although manpower costs represent close to 60% of recent defense budgets. The estimates disregard personnel comforts designed into military barracks and ships. Further, practically every manpower cost restraint suggestion is met with a suggestion that if changes are made, the volunteer force will not work and these costs should be considered.

There is a real question about how much the All-Volunteer Force does cost and I believe GAO could contribute to an evaluation of the policies by carefully estimating what the total costs are. George Travers, of the Armed Services Committee staff, is available to work with your staff on the specifics of a study plan if you feel that this is an issue that GAO would be interested in analyzing.

Sincerely,



Sam Nunn  
Chairman  
Subcommittee on Manpower  
and Personnel



MANPOWER,  
RESERVE AFFAIRS  
AND LOGISTICS

ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D. C. 20301

16 JAN 1978

Mr. H. L. Krieger  
Director, Federal Personnel  
and Compensation Division  
U.S. General Accounting Office

Dear Mr. Krieger:

This is in reply to your letter to the Secretary of Defense regarding your report dated November 28, 1977, on "What has been the cost of implementing the all-volunteer force?" (OSD Case #4765) (GAO Code 965006)

We have completed our review of the report and, in general, find it well documented and informative. GAO has identified the costs and savings of the all-volunteer force (AVF) from initiatives justified on the basis of the AVF. These initiatives, costed for the period 1971 through 1977 lead to the GAO estimate that the cost of implementing the AVF was \$18.5 billion in current dollars or \$14.1 billion in FY 1970 dollars. In our view this methodology has both limitations and biases.

First, we agree with GAO that these costs do not answer the more useful question: How much money would be saved by a return to the draft? The higher pay and benefits earned by junior personnel under the AVF were fully justifiable under the federal policy of "pay comparability." Savings from a return to the draft would probably be no more than \$500 million per year (1978 dollars).

Second, both costs and savings are attributed to the AVF primarily on the basis of Congressional testimony. However, Congressional inquiry and DoD testimony are more likely to focus on costs than on savings and the results of the study may have been distorted towards added costs.

Third, the report measures only past budget costs and savings and does not consider future cost implications and liabilities. Many of the major AVF initiatives, such as changes in the G.I. Bill, have short-term costs but significant long-term savings.

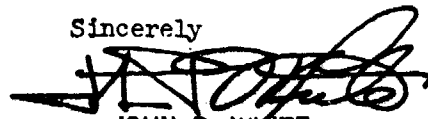
Fourth, the study ignores the fact that our military career force has always been voluntary. In general, the cost of initiatives taken in support

of the career force should not be attributed to the AVF decision since they would also have been necessary under the draft.

The net effect of these factors is to greatly overstate the costs and understate the savings attributed to the AVF. We have identified some changes in the major comments at Enclosure 1 which reduce the cost attributed to the AVF decision by at least \$3.7 billion (in current dollars). The key items are increased tax revenues associated with the 1971 pay raise (\$2.5 billion); deletion of family housing costs (\$0.6 billion); savings in reenlistment bonus program (\$0.5 billion); cost-avoidance under the food stamp program due to the 1971 pay raise (\$0.1 billion); and elimination of double counting (\$0.1 billion).

Detailed comments, keyed to individual pages in the report, are at Enclosure 2.

Sincerely



JOHN P. WHITE

Assistant Secretary of Defense  
(Manpower Reserve Affairs & Logistics)

Enclosures  
As Stated

GAO note 1: GAO discusses DOD's comments from enclosure I throughout the body of this report. See page 100 for key to GAO's disposition of detailed comments of enclosure II. The number in parenthesis by each comments indicates the appropriate key.

Major Comments1. Junior Pay Raise of 1971

The major cost of the All-Volunteer Force identified in the GAO study was the pay raise instituted in November 1971 (P.L. 92-129). The services argue that the 1971 pay raise should not be attributed to the AVF. While we agree with the services that the raise was warranted, desirable, and would likely have been passed even if the draft had continued, the AVF gave great impetus to its passage. We, therefore, concur with GAO's including the pay raise as a cost of the AVF at time of enactment. Since the 1971 pay raise essentially restored junior pay to the 1950 relative level, we assume that a return to a draft in either peace or a war would not result in any significant lowering in pay for junior people.

2. Offsets to 1971 Pay Raise

Since the GAO report includes some non-DoD costs, such as unemployment payments, we believe the report should include all identifiable changes in cost to the federal government. For example, increased tax revenues as a result of the 1971 pay raise should be considered. The increased taxes should offset at least \$2.9 billion of the cost of implementing the AVF attributed to the 1971 pay raise. Another offset is the reduction in use of food stamps. In 1977 alone, an additional 25,000 families would have been eligible for food stamps if the 1971 pay raise had not occurred. Over this period, food stamp savings represent a cost offset to the 1971 pay raise of another \$0.1 billion. The net cost of the FY 1971 pay raise should be reduced by \$3.0 billion.

### 3. All-Volunteer Career Force

The career force has always been all-volunteer and increases in the cost of the career force should not be attributed to the AVF. A case in point is family housing which has a reported cost of \$560 million. Family housing is primarily used by the career force. Attributing the increase to the AVF is wrong on two counts. One, it should not be included since it is primarily for the career force and, therefore, not a function of AVF versus a draft. Second, much of the increase in new construction costs during the AVF was a result of deferred construction during Vietnam. The reported cost of the AVF should be reduced by the \$560 million attributed to family housing.

### 4. Selective Reenlistment Bonus Program

The report attributed, without specific costs, the Selective Reenlistment Bonus (SRB) Program to the AVF. While reenlistment bonuses were in effect, prior to 1971, the level of payment required was affected by the AVF. In fact, the bonus program under the AVF has resulted in substantial savings, rather than an increase in costs. The SRB replaced both the Regular Reenlistment and the Variable Reenlistment Program. In addition, a substantial reduction of the Shortage Speciality (Proficiency Pay) Program was taken as part of the shift to SRB. A net savings of \$460 million in bonuses has accrued from implementation of the Selective Reenlistment Bonus Program in FY 1975 through FY 1977 and this should be shown in the report.

#### 5. Double Counting

Our review has identified instances where costs were double counted. The increased death gratuity attributed to the 1971 pay raise is included under Compensation and Benefits in Chapter IV and again under Survivors Benefits in Chapter V. The trainee pay and allowances costs associated with attrition double counts the effect of the 1971 pay raise which was included in the increased compensation and benefits. Finally, Army and Marine Corps TDP losses have been counted under the costs of the TDP separations and under attrition during the first six months. The cost of the AVF should be reduced by \$66 million to remove double counting.

#### 6. Budget Costs vs Future Liabilities

Report only considers budget costs; excluding future cost streams. Many of the program budget costs tend to occur earlier, while many savings tend to accrue over a longer period of time. Clearly the changes to the G.I. Bill education benefits, leave pay-back rules, and longer terms of service have been linked to the increased pay levels and the AVF. However, the savings from those changes will accrue in the future. The long-term savings are substantial, but they are just starting to be reflected in budget costs. A meaningful cost analysis should contain projected impact, as well as costs to date.

7. Use of CPI Deflator

Use of the Consumer Price Index (CPI) to deflate year by year cost differences tends to overstate the costs of the AVF. While the CPI increased by 46% from 1970-76, the price index for new construction increased by 63% and the service sector wage by 51% over the same period. For example, by using CPI instead of construction index, the FY 1976 housing costs are overstated in FY 1970 constant dollars by about 10%.

Specific Comments(1) 1. \*Pg. 1, Lines 18 & 19.

"In the preceding 30 years, the forces were manned with draftees and draft-induced volunteers." This incorrectly infers that there were no true volunteers during the draft, when in fact, all careerists, and some first termers were volunteers. Recommend the sentence be changed to read, "...draftees, draft induced volunteers and true volunteers."

(2) 2. Pg. 1

Recommend a paragraph be added to the Overview on the differences between budget and future liability costs. The pros and cons of each type of cost should be discussed and the reason for using budget costs in the report explained.

(3) 3. \*Pg. 4, last paragraph

Using the CPI to deflate the year by year cost differences tends to overstate some costs, such as military housing construction. While the CPI increased by 46% from 1970-76 the price index for new construction increased by 63% and the service sector wage by 51% over the same period. Recommend that construction costs be deflated by the construction index rates and blue collar work by service sector wage rates in the study. Recommend that this paragraph be rewritten to reflect that change.

(1) 4. \*Pg. 6

As written, the costs shown in the table are high by a factor of 1000. Recommend keeping table in millions and using decimal points.

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\* These comments have been accepted by GAO staff, subject to GAO verification.



(4) 5. \*Pg. 9, line 11

Insert (regular) in parenthesis after active duty to avoid confusion with the Navy's 3-year active 3-year reserve enlistment.

(4) 6. \*Pg. 11.

The table shows high school "diploma" graduates and should be so labeled.

(1) 7. Pg. 11.

Under enlistment incentives, the guard incentives were state funded and much smaller than the active force incentives. Recommend deleting "and the guards," in line 1 under Enlistment incentives. Insert new sentence after "1972 to 1977," in line 3: "Some states provided some new incentives for national guard personnel."

(1) 8. Pg. 13, last line

Recommend deleting "an occupation" and substitute "a way of life."

(3) 9. Pg. 20.

Recommend increased tax revenues due to 1971 pay raise be netted from the cost attributed to AVF. Our analysis indicates the marginal tax rate applicable to junior personnel effected by the 1971 pay raise was between 21.7% for E-1s and 28.8% for O-1s in 1972. Any outside income would increase the rates and additional dependents would decrease them. The estimated increased tax revenues which resulted from the 1971 pay raise is \$2.9 billion. This should be counted as an offset to the 1971 pay raise attributable to the AVF.

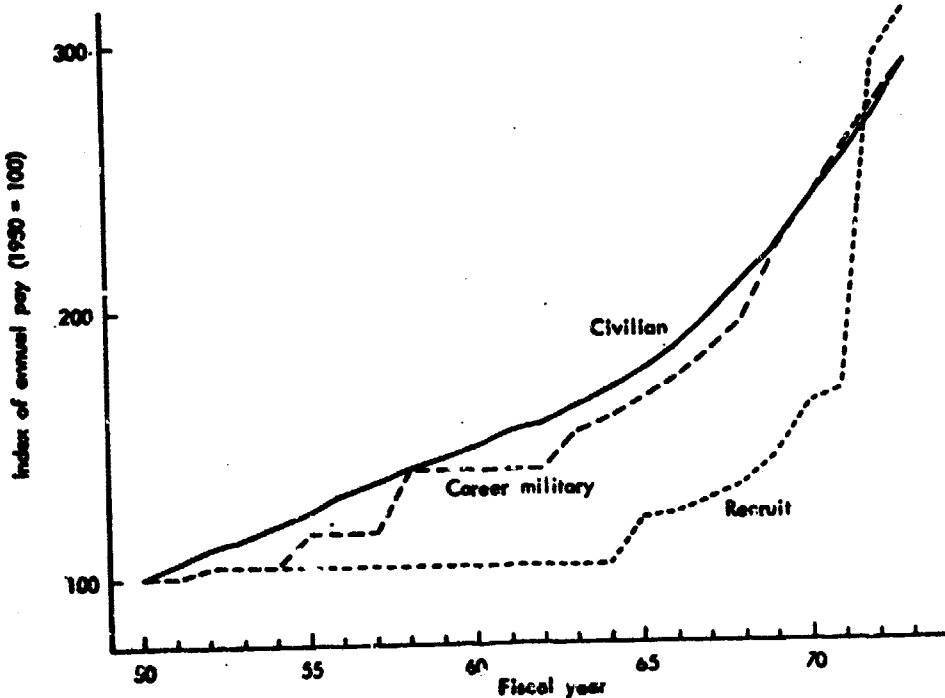
(4) 10. \*Pg. 20.

Change lines 4 and 5 from "medical costs for active duty military personnel and dependents" to "monetary incentives paid to health professionals" to agree with terminology in table and discussion on Pg. 24.

(5) 11. Pg. 21, line 15.

After "issue being discussed," insert, "The following figure illustrates the pay trends for civilians, career military and recruits based on an index of 1950 pay. As the figure shows, recruit pay was suppressed well below the other indices. The 1971 pay essentially reestablished the balance.

Index of Pay for Civilians, Career Military and Recruits



The Gates Commission recommended passage of the junior pay raise even if the draft were not terminated. Equity was an important issue.

- (2) 12. Pg. 22, line 7.

Recommend a footnote be added after "time" to read as follows:  
"The method used to determine the impact of the 1971 pay raise ignores substitution effects. Increased civilianization, contracting out, and capital investment resulted in reduced military end strength over what would have existed without the pay raise. To the extent that such substitutions were made, the subsequent force structures understate the actual force size which would have existed without the AVF initiatives."

- (1) 13. \*Pg. 23

The second column in the table should be FY 73 vice FY 72.

- (5) 14. Pg. 24, line 3.

Delete: "However, we did not determine cost changes associated with these social costs," and substitute "For example, without the 1971 pay raise, an additional 25,000 military families would have been eligible for food stamps in 1977 alone. The total 1972-1977 savings in the food stamp program represents a \$75 million offset to cost of the 1971 pay raise. Other social cost avoidances are more difficult to determine and are not included in this analysis."

- (5) 15. Pg. 28, first paragraph

Contrary to the statement in the report, the draft did not bring into the service enough people to fill critical skill areas in the career force. Recommend substituting the following paragraph: "The reenlistment bonus programs existed under the draft to retain sufficient numbers of qualified personnel in critical and highly technical skills. These programs would have been continued with or without the AVF. Because of the AVF, reenlistment bonuses no longer were needed for all careerists and shortage speciality

(Proficiency) Pay was substantially reduced. The Selective Reenlistment Bonus replaced Regular and Variable Reenlistment bonuses. There has been a total savings of \$460 million in bonuses and shortage speciality pay since implementation of the Selective Reenlistment Bonus Pay in FY 75 and these savings will increase in the future."

(1) 16. Pg. 31. first paragraph.

Between the first and second sentences, add: "While some seasonal fluctuation existed during the draft, the problem became more pronounced under the AVF."

- (2) At the end of the first paragraph, add: "It is recognized that the automated reservation systems would have been useful under the draft and probably would have been incorporated in the automated personnel management systems of the larger services in any case. However, the increase in seasonal fluctuations under the AVF generated the stimulus to implement them as soon as possible."

(4) 17. \*Pg. 31.

Report says, "The following chart showing total DoD enlistment for 1976 illustrate..." There is no chart included.

(5) 18. \*Pg. 31.

Footnote should read, "About \$3,000..." vice "\$300,000."

(1) 19. \*Pg. 33. line 1. Change \$127 million to read "\$117 million."

The trainee pay and allowance costs associated with attrition in the report double count the effect of the 1971 pay raise which was included in

the increased compensation and benefits. The estimated error is approximately \$10 million.

(2) 20. Pg. 33.

After the first sentence add: "DoD has stated that under the draft, and particularly during Vietnam, many individuals who might otherwise have been released were forced to remain in the service, often in confinement, in order not to encourage a perception of an easy out and undermine the credibility and validity of the draft. Many of these individuals who should have been released earlier were retained often until serious problems developed leading to courts martial and punitive discharges. Under the AVF, it became more practical to simplify release of marginal or non-productive individuals, but it did lead to increased attrition costs."

(2) 21. Pg 34, lines 6 & 7.

Delete: "attribute the force reduction" and substitute "determine the size of the force reduction attributed."

(5) Pg. 34, line 8, after "constraints"

Add, "Of these, DoD believes that the draw-down from the Vietnam strength peak of 3.5 million people to the pre-Vietnam levels of 2.7 million were attributable to the Vietnam phasedown. Subsequent strength draw-downs 600,000 below pre-Vietnam levels are the result of operational changes and fiscal constraints attributable, in part, to the AVF initiatives. We did not determine how much of the savings should be attributed to the AVF."

(1) 22. Pg. 35.

The last sentence should be deleted as it is incorrect in the context in which it is used. While the two programs were not implemented at the start of the AVF to facilitate recruiting under the AVF, they were instituted to overcome a recruiting problem in the AVF. Thus, the incentives were developed in light of the AVF.

(5) 23. Pg. 37, Second paragraph

After first sentence ending with "functions," add: "Their civilian strength additions permitted military people to concentrate on military tasks with an increase in readiness, instead of performing such housekeeping chores. To achieve the same ends, more military people would have been needed, if the civilians had not been added. However,"

(5) 24. Pg 40.

After paragraph 2 ending with "furnishing" insert the following:  
"Attributing the increase in bachelor housing to the AVF ignores two important factors. The first is the large stock of WW II real property which existed and which was outdated and beyond economic repair. Second is that barracks and family housing construction during FY 68-70 were kept artificially low in order to apply available monies to the Vietnam War. In addition, barracks construction reflected the phasedown from Vietnam, the reorientation of emphasis to NATO, changing force structure, base realignment, etc., which necessitated new construction. The Army estimated that only about 6% of Army barracks construction is attributable to the AVF. This is the cost increment for additional privacy being built into the barracks. While the improvements were warranted, desirable and would likely have been

implemented even if the draft had been continued, the AVF gave great impetus to the timely repairs and construction.

(1) 25. Pg 40-41.

Use of the CPI to adjust for inflation tends to overstate the construction costs attributed to the AVF. From 1970-76, the CPI increased by 46% while the price index for new construction increased by 63%. Recommend using the price index for new construction to calculate the constant dollar amount, attributed to housing construction and repair.

(5) 26. Pg. 43.

Attributing the increase in family housing cost to the AVF ignores the depressed levels of funding during the Vietnam War. In addition, most family housing is for career personnel. The career force has always been volunteer. We do not believe the cost of family housing should be attributed to the AVF. Recommend deletion of section on family housing.

(2) 27. Pg. 46.

Career counselors are needed to increase retention of career personnel which is even more important in a draft than in an AVF. Costs could have been even higher under a draft environment. Recommend deletion of this section.

(4) 28. Pg. 46, a., paragraph 1.

This paragraph does not accurately represent the data provided by the Army. The submitted information reported the reduction in discipline (of which AWOL is only one part) from one period to another and specifically stated that it was impossible to distinguish what portion of reduction was

attributable to each of the three influencing changes:

- a. Change from combat to noncombat conditions for the Army
- b. Change from draft to AVF conditions of entry
- c. Implementation of TDP/EDP which provides for early detection and elimination of marginal or substandard performers. Recommend the entire paragraph be deleted.

(5) 29. Pg. 50.

Delete the first paragraph and substitute the following: "Separation pay is paid to people who leave active duty. As the following discussion shows, many separatees, especially those receiving large payments, are careerists whose costs are not attributable to the AVF decision. Only about \$20 million (\$15 million in 1970 dollars) for enlisted losses under the training and expeditious discharge programs are attributed to the AVF decision."

(4) 30. \*Pg. 50, lines 12-13.

There is no provision for payment of severance pay to enlisted personnel. Recommend deletion of the sentence, "There is a similar provision for enlisted personnel."

(1) 31 Pg. 50.

Six lines up from bottom "\$3,051.8 billion" is an impossibly high number. Recommend deletion or correction.



(2) 32. Pg. 51.

In costing the separations under the TDP/EDP/MPD programs, a separation cost of \$260 should be used vice \$375. TDP losses have been counted both here and in the cost shown on Pg. 33 for Army and Marine Corps attrition during the first six months. Air Force MPD discharges should not be counted since savings resulting from lower Air Force attrition under AVF were not considered. The net result of the above would be to reduce costs by about \$50 million. Recommend the last four lines on page 51 be deleted and the following be substituted: "The increase in cost attributed to the AVF and not counted elsewhere in this report is about \$20 million (\$15 million in 1970 dollars)."

(4) 33. \*Pg. 52-53.

The increased cost of death gratuities due to the 1971 pay raise are included once under compensation and benefits in Chapter 4 and again under survivor benefits in Chapter 5. Recommend this double counting be corrected by either deleting the \$7.1 million attributed to death gratuities in Chapter 4 (pages 19-23) or the \$6.0 million attributed on page 53.

(2) 34. Pg. 56. (Department of Labor section)

The amount of unemployment compensation paid is primarily a function of the unemployment benefit programs and the state of the nation's economy, not the AVF. In addition, the costs would appear to account for the effects of the October 1975 passage of the Federal Supplemental Unemployment Compensation Act. This act extended the maximum period for benefits by an additional 13 weeks and was in reaction to recession and

and unemployment pressures, not to the AVF. In fact, these higher unemployment benefits may be responsible for a portion of the increased recruiting and attrition costs since they make unemployment relatively more attractive. Recommend all discussion and costs related to unemployment compensation be deleted.

(2) 35. \*Pg. 57.

Recommend the following be added to the last paragraph: "Changes to veterans education (G.I. Bill) programs and leave pay-back policies will result in significant future savings which are directly attributable to the AVF."

(5) 36. Pg. 62.

Recommend inserting in line 6, after "high estimate of cost," the following: "However, the 1966 estimate assumed a larger force and smaller population base than used in 1973."

(1) 37. Pg. 65.

Last line delete "." and add: "in both the number and quality of accessions."

(1) 38. Pg. 66.

Third line from bottom refers to "...enlisted officers." Recommend add "career" before "enlisted" and "and" before "officers."

(5) 39. Pg. 67, lines 3-5.

The example does not make sense. Recommend deletion of lines 4 and 5 from "...if military compensation...increased by 125," and substitute the following: "if the supply elasticity is 1.25, a 1% increase in pay would

result in a 1.25% increase in number of volunteers."

(5) 40. \*Pg. 69.

Since both a 1969 survey and an analysis of random sequence numbers confirmed the true volunteer levels for Army enlistees as projected from the 1964 survey result, recommend the second to last paragraph on pg. 69 beginning, "Six years elapsed..." be deleted.

(1) 41. Pg. 74. Lines 12-13.

The major revisions to CHAMPUS affected retirees and is not attributable to the AVF. Recommend deletion of following: "and major revisions were made to the CHAMPUS...coverage."

(5) 42. Pg. 74.

Contrary to what is stated in the last paragraph of this page, estimates of civilian wages were adjusted forward using an inflation factor. Recommend deletion of the first sentence of the last paragraph on pg. 74.

(5) 43. Pg. 81. lines 9-12.

Comment #40 regarding attitudinal surveys applies. Recommend the second sentence under "Problems and Relevance of the Rand Report" be deleted.

(1) 44. Pg. 83 line 2.

The word "deductible" appears to be misquoted; recommend verification and possible correction.

- (1) 45. Pg. 84, last paragraph.

Add the following: "However, the Department of Defense rejects this estimate as being too high. It assumed no mobilization of reserves, no stop loss action, or none of the other actions which would be taken in the event of mobilization. It simply projected trend lines beyond the extrapolation limits of the data. In the event of rapid mobilization for a major war, the Department of Defense plans to reactivate the draft."

\* These comments have been accepted by GAO staff, subject to GAO verification.

DISPOSITION OF DEPARTMENT  
OF DEFENSE COMMENTS

GAO's disposition of DOD's comments on the report draft--  
"Additional Cost of the All-Volunteer Force"---are Keyed to  
the following actions:

<u>Key</u>	<u>Disposition</u>
(1)	Change recommended by DOD was made to the report.
(2)	GAO did not agree with DOD's recommendation; therefore, no change was made.
(3)	Recommended change is addressed; however, no change was made.
(4)	Change was agreed to during meetings with DOD and made prior to receipt of comments.
(5)	Report was modified as a result of DOD recommendation, but change was not exactly as recommended by DOD.

Note: Page references in this appendix refer to the draft report and may not correspond to this final report.

PRINCIPAL DEPARTMENT OF DEFENSE OFFICIALS  
RESPONSIBLE FOR ADMINISTERING ACTIVITIES

DISCUSSED IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
<u>DEPARTMENT OF DEFENSE</u>		
SECRETARY OF DEFENSE:		
Harold Brown	Jan. 1977	Present
Donald H. Rumsfeld	Nov. 1975	Jan. 1977
James R. Schlesinger	July 1973	Nov. 1975
William P. Clements, Jr. (acting)	Apr. 1973	July 1973
Elliot L. Richardson	Jan. 1973	Apr. 1973
DEPUTY SECRETARY OF DEFENSE:		
Charles W. Duncan, Jr.	Jan. 1977	Present
William P. Clements, Jr.	Jan. 1973	Jan. 1977
ASSISTANT SECRETARY OF DEFENSE (MANPOWER, RESERVE AFFAIRS AND LOGISTICS):		
John White	May 1977	Present
ASSISTANT SECRETARY OF DEFENSE (MANPOWER AND RESERVE AFFAIRS):		
Carl W. Clewlow (acting)	Feb. 1977	May 1977
David P. Taylor	July 1976	Feb. 1977
John F. Aherne (acting)	Mar. 1976	July 1976
William K. Brehm	Sept 1973	Mar. 1976
Carl W. Clewlow (acting)	June 1973	Aug. 1973
<u>DEPARTMENT OF THE ARMY</u>		
SECRETARY OF THE ARMY:		
Clifford L. Alexander, Jr.	Jan. 1977	Present
Martin R. Hoffman	Aug. 1975	Jan. 1977
Norman R. Augustine (acting)	July 1975	Aug. 1975
Howard H. Callaway	May 1973	July 1975
ASSISTANT SECRETARY OF THE ARMY (MANPOWER, RESERVE AFFAIRS AND LOGISTICS):		
Robert L. Nelson	June 1977	Present

<u>Tenure of office</u>	
<u>From</u>	<u>To</u>

DEPARTMENT OF THE ARMY
**ASSISTANT SECRETARY OF THE ARMY  
(MANPOWER AND RESERVE AFFAIRS):**

Donald G. Brotzman	Aug. 1975	June 1977
M. David Lowe	Feb. 1974	Jan. 1975
Carl S. Wallace	Mar. 1973	Jan. 1974

**CHIEF OF STAFF:**

Gen. Bernard W. Rogers	Oct. 1976	Present
Gen. Fred C. Weyland	Sept 1974	Oct. 1976
Gen. Creighton W. Abrams	Oct. 1972	Sept 1974

DEPARTMENT OF THE NAVY**SECRETARY OF THE NAVY:**

W. Graham Claytor, Jr.	Feb. 1977	Present
J. William Middendorf II	Apr. 1974	Jan. 1977
John W. Warner	May 1972	Apr. 1974

**ASSISTANT SECRETARY OF THE NAVY  
(MANPOWER, RESERVE AFFAIRS AND  
LOGISTICS):**

Edward Hidalgo	Apr. 1977	Present
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**ASSISTANT SECRETARY OF THE NAVY  
(MANPOWER AND RESERVE AFFAIRS):**

Joseph T. McCullen, Jr.	Sept 1973	Apr. 1977
James E. Johnson	June 1971	Sept 1973

**CHIEF OF NAVAL OPERATIONS:**

Adm. James L. Holloway III	July 1974	Present
Adm. Elmo R. Zumwalt, Jr.	July 1970	July 1974

**COMMANDANT OF THE MARINE CORPS:**

Gen. Louis H. Wilson	July 1975	Present
Gen. Robert G. Cushman, Jr.	Jan. 1972	June 1975

DEPARTMENT OF THE AIR FORCE**SECRETARY OF THE AIR FORCE:**

John C. Stetson	Feb. 1977	Present
Thomas C. Reed	Jan. 1976	Jan. 1977
James W. Plummer (acting)	Nov. 1975	Jan. 1976
John L. McLucas	May 1973	Nov. 1975
Robert C. Seaman, Jr.	Jan. 1969	May 1973

<u>Tenure of office</u>	
<u>From</u>	<u>To</u>

DEPARTMENT OF THE AIR FORCE

**ASSISTANT SECRETARY OF THE AIR FORCE  
(MANPOWER, RESERVE AFFAIRS AND  
LOGISTICS):**

Antonia Handler Chayes	July 1977	Present
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**ASSISTANT SECRETARY OF THE AIR FORCE  
(MANPOWER AND RESERVE AFFAIRS):**

James P. Goode (acting)	Jan. 1977	July 1977
Nita Ashcraft	Aug. 1976	Jan. 1977
James P. Goode (acting)	July 1976	Aug. 1976
David P. Taylor	June 1974	July 1976
James P. Goode (acting)	June 1973	June 1974

**CHIEF OF STAFF:**

Gen. David Jones	Aug. 1974	Present
Gen. George J. Brown	Aug. 1973	July 1974
Gen. John D. Ryan	Aug. 1969	July 1973

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