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Report to Congressional Requesters

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DOD SERVICE ACADEMIES

Improved Cost and Performance Monitoring Needed

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National Security and
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The Honorable Sam Nunn
Chairman, Committee on
Armed Services
United States Senate

The Honorable John Glenn
Chairman, Subcommittee on
Manpower and Personnel
Committee on Armed Services
United States Senate

In response to your request, we reviewed the cost and operations at the three Department of Defense service academies. This report addresses (1) the academies' financial reporting, (2) the issues that have been raised regarding their academic programs, (3) the performance and retention of academy graduates, and (4) the effectiveness of the external oversight the academies receive. This report expands upon the preliminary results we presented at the hearing on the service academies convened by Senator Glenn on April 4, 1990.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 15 days from its date of issue. At that time, we will send copies to interested congressional committees; other interested Members of Congress; the Secretaries of Defense, the Army, the Air Force, and the Navy; and the Superintendents of the Military Academy, the Naval Academy, and the Air Force Academy. We will also make copies available to other parties on request.

This report was prepared under the direction of Paul L. Jones, Director, Defense Force Management Issues. If you or your staff have any questions concerning this report, he can be reached on (202) 275-3990. The major contributors to this report are listed in appendix III.

Frank C. Conahan
Assistant Comptroller General

Executive Summary

Purpose

The Department of Defense (DOD) spends over $1 billion annually to educate and train young men and women to become military officers. The service academies are one of the main officer accession programs. The Chairman, Senate Committee on Armed Services, and the Chairman of its Subcommittee on Manpower and Personnel, asked GAO to determine the cost of educating and training students at the academies, assess their effectiveness in producing high quality career officers, and evaluate the effectiveness of oversight of academy management and operations.

Background

DOD has several commissioning programs—including the service academies, the Reserve Officers Training Corps, and the officer candidate schools/officer training schools. These programs vary in the amount of lead time they entail; the length, intensity, and content of the programs; and their cost to DOD. Each military service operates its own academy and has a statutory limit of approximately 4,525 students. The academies are the traditional source of regular officers and have long been considered to produce officers who set the standard for military professionalism.

Results in Brief

In fiscal year 1989, the services reported spending over $650 million dollars in producing about 3,200 academy graduates. The service academies are the most expensive source of new officers. A newly commissioned graduate of an academy costs DOD up to 15 times as much as one commissioned through other officer accession programs. The academies' reported costs, however, did not include all relevant expenditures. Lack of guidance with regard to cost reporting has resulted in inconsistencies among the academies and makes comparisons problematic.

Accreditation officials, visiting professors, and others have raised concerns about the relative lack of academic credentials and teaching experience among the academies' faculties compared to civilian institutions and excessive time demands placed on students. These concerns have gone largely unaddressed.

Academy graduates have tended to have higher retention and faster career progression than officers from other commissioning sources. However, these measures are not necessarily valid indicators of the quality of the officers produced because the differences may be the result of personnel policies that have provided greater advantage to academy graduates. The services have done relatively little research to

formally assess the quality of officers produced through the various commissioning programs.

External oversight of the academies is limited. DOD's oversight has been infrequent and service audit activity at the academies has been minimal. The academies' Boards of Visitors provide limited review and evaluation. While the academies are subject to limited oversight by their service headquarters and each academy conducts its own internal reviews, these mechanisms cannot substitute for independent oversight.

Principal Findings

The Academies Are the Most Expensive Commissioning Source

The service academies provide a full 4-year program of academic education, military training, and physical training, for which DOD pays the entire cost. In fiscal year 1989, the reported costs per graduate were $228,500 at the Military Academy, $153,200 at the Naval Academy, and $225,500 at the Air Force Academy. The average cost per graduate under the Reserve Officers Training Corps scholarship program ranged from $53,000 to $58,000, while the cost per graduate of short lead time programs, such as officer candidate school, ranged from $15,000 to $20,000.

Reported Costs Are Understated

In fiscal year 1989, the services reported operating costs of about $239 million at the Military Academy, $233 million at the Air Force Academy, and $178 million at the Naval Academy. However, GAO found that the academies' financial reports did not include all relevant costs and contained errors, resulting in the academies' understating costs by a total of about $37 million for fiscal year 1989. The financial reports also did not report capital investment costs, which totaled over $54 million in fiscal year 1989 for the three academies. A key reason for the underreported costs is that no uniform, comprehensive guidance exists regarding academy cost reporting.

Educators Have Raised Concerns About Aspects of Academic Programs

All three academies are accredited, and their entrance criteria put them among the elite of colleges and universities. However, accreditation teams, visiting professors, and others have repeatedly raised concerns regarding (1) the relative lack of doctorates among the faculties in comparison to civilian institutions, (2) the frequency of rotation among the

military faculty leading to an annual influx of inexperienced teachers, and (3) the high time demands of military and physical training programs leaving inadequate time for students to pursue academic excellence.

Academy Graduates Have Higher Retention and Career Progression

Academy graduates tend to remain in the service longer than other officers, although less than half of them stay in the service for a full career. Academy graduates have progressed somewhat faster than other officers and are represented in disproportionate numbers at flag rank (general and admiral). However, retention and career progression statistics are likely to have been affected by academy graduates receiving regular, rather than reserve, commissions and a higher allocation of combat-related occupations, two factors that have historically been related to career success in the military.

Oversight of Academies Is Limited

Each academy operates relatively independently without significant external oversight. DOD's oversight has generally taken the form of occasional major studies, the most recent of which occurred in the mid-1970s. Each academy has a Board of Visitors that is comprised of congressional members and prominent civilians. These Boards, however, provide only limited external review due to the minimal time available and their lack of an independent staff. The various service audit agencies have conducted relatively few reviews of academy operations, and most of their reviews dealt with nonappropriated fund activities.

Recommendations

GAO recommends that the Secretary of Defense provide appropriate guidance for uniform cost reporting and direct that staffing levels and capital investment costs be specifically reported. GAO also recommends that the Secretary evaluate ways of improving the external oversight of academy operations.

Agency Comments

DOD concurred or partially concurred with all of the findings and all but one recommendation. DOD did not agree with the recommendation to appoint a high-level review group to evaluate alternative means of providing external oversight. DOD stated it has reorganized to provide more oversight. GAO does not believe that additional DOD attention will resolve concerns that have been raised over the years about the ability of the Board of Visitors' structure to provide needed oversight and advice.

Contents

Abbreviations

DOD	Department of Defense
DOPMA	Defense Officer Personnel Management Act
GAO	General Accounting Office
OCS	Officer Candidate School
OSD	Office of the Secretary of Defense
OTS	Officer Training School
ROTC	Reserve Officers Training Corps

Introduction

The Department of Defense (DOD) spends over $1 billion annually to educate and train young men and women to become military officers. DOD has several commissioning programs to meet the military's need for officers:

- the service academies (where DOD pays the full cost of both academic education and military training);
- campus-based, long lead time programs such as the Reserve Officers Training Corps (where DOD pays the full cost of military training but subsidizes only part of the cost of academic education); and
- shorter lead time programs, such as officer candidate schools and officer training schools (where no academic education is provided and the military training program is highly concentrated).

In 1989, about 3,200 officers received commissions from the service academies, 9,800 received commissions through the Reserve Officers Training Corps (ROTC) program, and 3,300 received commissions through the various short lead time programs. The academies are the traditional source of regular officers and have long been considered to produce officers who set the standard for military professionalism. Service officials emphasize that the various programs are not in competition and each makes a valuable contribution to the officer corps.

Each military department operates its own academy and is limited to approximately 4,525 students. The academies—the U.S. Military Academy, the U.S. Naval Academy, and the U.S. Air Force Academy—provide a 4-year program that includes college education and military and physical training. While attending the academies, students receive pay, currently amounting to $525 a month. In return, students agree to serve a minimum of 5 years[1] on active duty after graduation. Graduates are commissioned as ensigns in the Navy or as second lieutenants in the Army, the Air Force, or the Marine Corps.

The Service Academies

The U. S. Military Academy, the oldest of the service academies, was established in 1802 with 10 cadets and 5 officers at West Point, New York. It is currently authorized under 10 U.S.C., sections 4331-4356. During fiscal year 1989, about 4,200 cadets attended the Academy and 1,067 graduated. The Military Academy covers about 16,000 acres and maintains about 11 million square feet of building area. Its reported operating cost for fiscal year 1989 was $239 million.

[1]This obligation will increase to 6 years beginning with 1996 graduates.

In 1845, the Secretary of the Navy founded the Naval School at Fort Severn in Annapolis, Maryland. Five years later, the school was reorganized as the U. S. Naval Academy, with a 4-year academic curriculum supplemented by summers at sea. The Naval Academy is authorized under 10 U.S.C., sections 6951-6974. In fiscal year 1989, about 4,500 midshipmen attended the Academy and 1,082 graduated. The Naval Academy covers 338 acres, and it has about 4.3 million square feet of building area. Its reported operating cost for fiscal year 1989 was $178 million.

The U. S. Air Force Academy, authorized under title 10 U.S.C., sections 9331-9355, was established in 1954 at Lowry Air Force Base in Denver, Colorado. The Academy moved to its present location near Colorado Springs, Colorado, 4 years later. It covers 19,000 acres and has 7.8 million square feet of building area. During fiscal year 1989, about 4,400 cadets were enrolled at the Academy and 1,022 graduated. Its reported operating cost for fiscal year 1989 was $233 million.

Organizational Structure

In general, the three academies have similar organizational structures. They report directly to their respective services at the Chief of Staff level (Vice Chief of Naval Operations for the Naval Academy), which gives the academies the same organizational standing as those of a major command or a program area. Internally, they are military hierarchies adapted to an academic environment. Each academy is commanded by a superintendent who is assisted by a staff that helps to coordinate the scholastic and military training. Each academy has a commandant who oversees the students and supervises their military and physical training and discipline. The academic dean is responsible for the academic programs while the director of athletics is responsible for the intercollegiate athletic program. At the Military and the Air Force academies, the director of athletics is also responsible for intramural athletics and physical education programs, while at the Naval Academy these programs are the responsibility of the commandant.

Faculty and Staff

The composition of faculty and staff at the three academies is quite different. The Military Academy's faculty is 97 percent military officers, while the institution's total staff is about 41 percent military and 59 percent civilian. The Air Force Academy's faculty is 99 percent military, but its total staff is 63 percent military and 37 percent civilian. The

Naval Academy's faculty, however, is about evenly split between military and civilian personnel, and its total staff is 40 percent military and 60 percent civilian.

Objectives, Scope, and Methodology

The Chairman of the Senate Committee on Armed Services and the Chairman of its Subcommittee on Manpower and Personnel asked us to review the management and the operations of DOD's service academies. Our objectives were to evaluate the academies' costs and financial operations; staffing, academic, and military programs; assignment, performance, and retention of graduates; and program oversight.

To determine academy costs, we examined the academies' cost reporting systems, analyzed pertinent cost data, and interviewed academy officials. In reviewing the academies' academic programs and military programs, we relied primarily upon assessments made by accreditation associations and visiting professors. We also analyzed student and faculty qualifications. We obtained data on academy graduates' retention and career progression from the Defense Manpower Data Center. We also reviewed studies performed by the Congressional Budget Office and the military services. We did not verify any of the retention and career progression data. Regarding oversight of academy operations, we reviewed reports by internal audit groups, service reviews, and the academies' Boards of Visitors, as well as accreditation reports for the individual academies.

We performed our review at DOD and service headquarters, Washington, D.C.; the Naval Academy; the Military Academy; the Air Force Academy; and the Defense Manpower Data Center, Monterey, California.

We conducted our review from November 1989 to November 1990 in accordance with generally accepted government auditing standards.

Academy Financial Reporting Understates Cost of Producing Graduates

In fiscal year 1989, DOD reported spending almost two-thirds of a billion dollars and employing more than 11,000 people at the three service academies in producing about 3,200 academy graduates. Since DOD pays the full cost of providing a 4-year college education, in addition to the cost of providing military and physical training and pay and allowances to the cadets/midshipmen, the academies are the most expensive officer commissioning source. The academies' financial reports, however, did not include all appropriate costs and relevant information, were inconsistent over time and across academies, and contained errors. As a result, reported costs for fiscal year 1989 understated academy costs by about $37 million.

Neither DOD, the services, nor the academies have established guidance to ensure uniform cost reporting. Consequently, managers and decisionmakers do not have adequate information to allow them to make completely informed decisions regarding resource allocations or raise questions concerning possible improvements in efficiency.

Academies Are the Most Expensive Commissioning Source

The service academies are the most expensive source of new officers. A graduate of a service academy costs DOD about 3 to 4 times as much as one from the ROTC scholarship program and from 8 to 15 times as much as one from Officer Candidate School (OCS) or Officer Training School (OTS) programs.[1] In fiscal year 1989, the reported costs per graduate were $153,200 at the Naval Academy, $225,500 at the Air Force Academy, and $228,500 at the Military Academy. According to DOD officials, the average cost to DOD per graduate from the ROTC scholarship program ranged from $53,000 to $58,000.[2] Reported OCS/OTS cost to DOD per commissionee was much lower, ranging from $15,000 to $20,000 for all three services.

No Uniform Guidance Exists for Cost Reporting

Effective financial management requires complete, consistent, and reliable information regarding costs. In the mid-1970s, a special DOD Committee on Excellence in Education, chaired by the Deputy Secretary of Defense, directed the academies to annually provide the service secretaries with detailed, uniform reports of their costs and staffing levels.

[1]OCS/OTS programs typically take about 90 days compared to the 4-year academy and ROTC programs.

[2]The cost per graduate for nonscholarship ROTC was not available.

These reports were intended to allow DOD to compare the costs of operations among the academies and to provide a complete accounting of academy programs.

Since then, the academies have annually reported their costs using a set of common categories,[3] which is divided into three major areas—institutional support, instructional activities, and student related activities. On the basis of the average number of students in each class year group, the academies allocate a portion of their annual costs to each class. The accumulation of these costs over a class's 4 years is used to compute the cost per graduate.

No uniform guidance exists regarding academy cost reporting. The academies' cost accounting systems vary in the degree of detailed cost information they provide, and each academy has its own procedures for producing reports. Neither DOD nor the services have issued instructions on what costs are to be included or how they are to be allocated, and there is no guidance to ensure that costs that have been accumulated using service-specific accounting systems will be consistently reported across the 38 categories of the cost report.

Reported Costs Are Understated

According to the academies' financial reports, operating costs for fiscal year 1989 were about $239 million for the Military Academy, $233 million for the Air Force Academy, and $178 million for the Naval Academy. We found that these financial reports did not include all relevant costs and contained significant errors. Thus, costs for all three academies were understated by about $37 million in fiscal year 1989. Academy cost reports were also inconsistent over time and across academies. Additionally, the reports did not specifically disclose staffing levels and highlight staffing costs as directed by the DOD Committee on Excellence in Education.

Financial Reports Do Not Include All Costs

The academies' financial reports do not include all costs related to their operations. Some costs, such as major capital investment costs, are excluded because they involve nonrecurring costs for benefits to be generated over many years. Other costs were omitted because academy officials believed they were not directly or exclusively related to academy operations.

[3]The current 38 cost categories are shown in app. I.

Capital Investment Costs Are Not Included

Capital investment costs that are funded out of military construction and equipment acquisition appropriation accounts are not included in the academies' reported operating cost and cost-per-graduate figures. DOD criteria on procurement dollar thresholds are used to determine which costs will be included and which ones will not. Capital investment costs over $200,000 and equipment purchases over $15,000 are not included in academy operating costs. In fiscal year 1989, the capital investments and equipment purchases excluded from the cost reports were $13.7 million at the Military Academy,[4] $16.8 million at the Naval Academy, and $23.9 million at the Air Force Academy.

The amount of capital investments varies greatly from year to year. For fiscal years 1985 through 1989, the three academies spent about $326 million on capital improvements and equipment purchases, with yearly amounts ranging from about $52 million to almost $92 million, for an average of $65 million. Capital investments during this period included maintenance and repair to buildings and family housing at the Military Academy, computer purchases and improvements to midshipman housing at the Naval Academy, and additions and alterations to the dining hall, an aeronautics laboratory, and a gymnasium at the Air Force Academy.

Academy Comptrollers Decided to Exclude Some Previously Included Costs

In 1989, the academy comptrollers decided to exclude all costs associated with the operation of the academy preparatory schools[5] and most of the costs associated with the preparation and training of new faculty. Up until fiscal year 1989, these costs had been included in academy cost reports.

In fiscal year 1989, the three academies excluded $20 million in costs incurred in operating their preparatory schools. The rationale for this change was that preparatory school operations were separate from academy operations. We do not believe that this change in academy cost reporting is justified. The preparatory schools exist as an adjunct to the academies. If the academies did not exist, the preparatory schools would not exist. Therefore, we believe that preparatory school costs should be included as part of the academies' total cost.

[4]Includes military construction expenditures for Stewart Army Subpost.

[5]Each service operates a preparatory school to assist enlisted personnel and other potential candidates who may need additional academic preparation to gain admittance to and perform successfully at the service academies.

The academy comptrollers also decided to report only a portion of the costs incurred in training faculty selectees. They decided, based on the ratio of the normal length of faculty assignments to the estimated remaining career service, to report only 24 percent of the Military Academy's faculty training cost and 33 percent of the Air Force Academy's faculty training cost.[6] The comptrollers' rationale for this change was that the officers' advanced degrees would provide benefits to their service throughout the rest of their careers. In fiscal year 1989, faculty training costs at these two academies totaled about $21 million, but only about $6 million was included in their cost reports. We believe that the full cost of service-funded graduate education for academy faculty selectees should be reflected in the academies' cost reports. There is no assurance that an officer whose graduate education has been funded by the service to qualify for an academy faculty position would necessarily stay in the service for a full career. Also, if the academies did not require faculty with advanced degrees, then the services might not fund as many officers to attend graduate school, nor would the services be likely to fund graduate education in fields having less direct applicability to the military.

Cost Reporting Systems Have Errors

We found errors in the academies' cost reports for fiscal year 1989 that totaled about $34 million. These errors caused a net understatement of $2 million at both the Naval Academy and the Air Force Academy, and a net overstatement of $14 million at the Military Academy.

For each academy, military pay accounting errors had the greatest effect. At the Military Academy, an error in the Army finance system resulted in double and triple counting of military pay for 2 months and exclusion of military pay in another month, contributing to a net overstatement of $13.9 million. At the Naval Academy, military pay accounting errors amounted to about $2 million in underreported costs, while a $1.5 million error in accounting for student pay and allowances contributed to about $2 million in underreporting at the Air Force Academy.

[6]The Military Academy and the Air Force Academy select officers for teaching assignments and then send them to graduate school to acquire an advanced degree. The Naval Academy does not incur costs for faculty training because its instructors must possess an appropriate degree before being selected for an instructor position.

Inconsistencies in Academy Cost Reporting Make Analysis of Comparisons and Trends Problematic

The Naval Academy is considerably less expensive to operate than the other two academies. We were unable to fully determine the reasons for the variation in costs among the academies because of inconsistencies in what costs were included and how they were allocated.

The academies' reported operating costs for fiscal year 1989 are shown by major reporting category in table 2.1.[7]

Table 2.1: Fiscal Year 1989 Reported Academy Costs

Dollars in millions

	Academy		
Reporting category	**Military**	**Air Force**	**Naval**
Institutional support	$100.4	$93.9	$60.0
Instructional activities	$85.9	$90.3	$74.0
Student related activities	$52.5	$48.5	$43.9
Total[a]	**$238.8**	**$232.6**	**$177.9**

[a]Numbers do not add due to rounding.

Differences in physical size and scope of operations are likely to be contributors to some of the cost differences. For example, the Military and the Air Force academies maintain over 16,000 and 19,000 acres, respectively, while the Naval Academy has only 338 acres. However, the cost categories most closely related to the maintenance of buildings and grounds accounted for about 11 percent of the $61 million dollar cost difference between the Naval Academy and the Military Academy and about 5 percent of the $55 million cost difference between the Naval Academy and the Air Force Academy (see table 2.2).

[7]App. I shows the academies' reported costs for fiscal year 1989 across the complete set of 38 categories.

Table 2.2: Summary of Reported Costs Related to Operations and Maintenance, Fiscal Year 1989

Dollars in millions

	Academy		
Cost category	**Military**	**Air Force**	**Naval**
Utility service	$8.8	$9.7	$7.5
Custodial service	3.1	3.5	3.0
Fire protection	1.3	2.2	1.4
Maintenance and engineering	23.2	21.7	22.7
Supply and maintenance operations	3.7	4.7	2.6
Security police	5.1	1.9	3.9
Stewart Army Subpost	2.6	•	•
Total	**$47.8**	**$43.7**	**$41.1**

The medical area is one category where the cost differences are more easily explained. The Military and the Air Force academies have their own hospitals, while the Naval Academy only has a clinic.[8] Serious Naval Academy medical cases must be transferred to a local civilian hospital or to the Bethesda Naval Hospital, and only the costs for room and transportation are reported for these cases.

While we were able to identify a number of cost categories where differences among the academies were apparent, inconsistencies in the academies' cost reports make more detailed comparisons problematic.

Cost Reporting Is Inconsistent Across Academies

Inconsistencies in reporting methodologies make cost comparisons across the academies difficult. Although the academies use a common format of 38 cost categories, we found a number of examples of costs that were reported differently by different academies.

- In the military training category, the Military Academy did not report about $5.2 million in fiscal year 1989. According to Academy officials, the unreported costs were for some summer training provided by about 500 non-academy Army personnel. These costs were not included in the Academy's cost accounting system and consequently were not reported. The Naval and the Air Force academies use their own personnel for military training and, therefore, they report such personnel costs.

[8]In some follow-up work, we found that the Naval Academy's reported medical costs for fiscal year 1990 increased by nearly 200 percent over 1989 costs. In tracking the reason for that increase, we discovered that the Academy had not previously included the cost of midshipman outpatient visits to their medical and dental clinics.

- In the medical category, the Military Academy excluded $6 million that had been incurred in dependent care expenses at its hospital in fiscal year 1989. The Air Force Academy, on the other hand, included the costs of dependent medical care provided at its hospital (about $6 million). Because the Naval Academy does not have a hospital, it does not incur such costs.
- In the audiovisual cost category, the Military and the Air Force academies included all costs for audiovisual support. In contrast, the Naval Academy only included the audiovisual costs for its Educational Resource Center in this category, allocating its other audiovisual costs to the cost categories that corresponded to the function served.
- The Naval Academy showed no costs in the area of administrative data processing, while the Military Academy showed a cost of about $2.7 million and the Air Force Academy showed a cost of $3.3 million. The Naval Academy allocates its administrative data processing costs to another cost category.

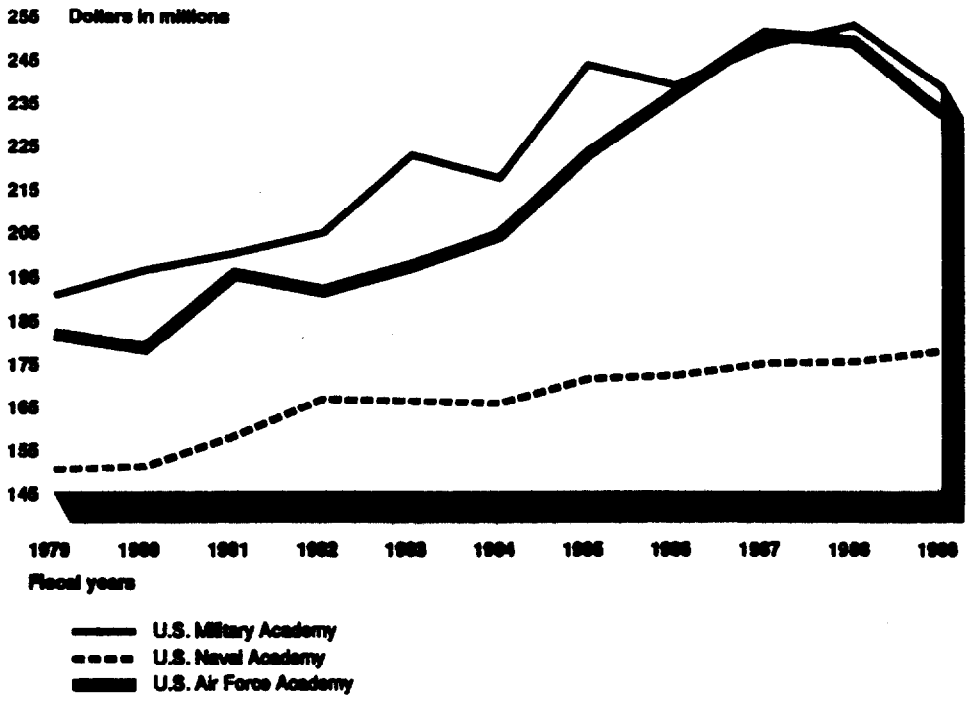
We also found inconsistencies in the academies' treatment of community support costs.[9] All three academies excluded some community support costs. In fiscal year 1989, community support cost exclusions in the medical, commissary, and band areas amounted to $7.5 million at the Military Academy, about $2 million at the Naval Academy, and $16 million at the Air Force Academy. In addition to these exclusions, the Air Force Academy excluded about $3 million in costs from 10 other categories, including transportation, physical education, and library. An Air Force Academy official justified these additional exclusions because they involved services provided to personnel and groups not connected with the Academy. The Military and the Naval academies do not exclude community support costs from these additional categories. The Military Academy and the Air Force Academy also excluded $139,000 and $560,000, respectively, from security. Furthermore, the Military Academy excluded $1.2 million from the museum and the Stewart Army Subpost, while the Naval Academy excluded about $200,000 from communications.

Academy Data Were Inconsistent Over Time

We were unable to evaluate cost trends because of differences in the data over time. Figure 2.1 shows the reported costs for the academies for fiscal years 1979 to 1989 in constant 1989 dollars.

[9]Community support costs refer to those associated with providing support such as commissaries, post exchanges, and hospitals/clinics for local military personnel attached to an independent activity and for retirees living in the area.

Figure 2.1: Reported Academy Costs for Fiscal Years 1979-89 in Constant 1989 Dollars



Note: Constant 1989 dollars

Changes in reporting methodology over this period make it difficult to compare costs across years or identify trends, as the following examples show.

- Unfunded military retirement costs were included for the first time in fiscal year 1985, thereby making cost growth since 1984 appear greater than it actually was.
- In fiscal year 1987, the thresholds for excluding capital investments increased from $50,000 to $200,000 and for equipment increased from $1,000 to $5,000. In fiscal year 1989, the exclusion threshold for equipment increased again to $15,000. These changes make cost growth since 1986 appear higher than it actually was since they have the effect of including more expenditures in current costs.

It should also be noted that what appears to be a significant decrease in the cost trend from fiscal years 1988 to 1989 is actually a function of

the academies' decision to exclude the cost of their preparatory schools and most of their faculty training costs from their fiscal year 1989 cost reports.

The Impact of Underreported Costs and Errors

The effect of the underreported costs and errors we found was that the cost of operating the academies in fiscal year 1989 was understated by a total of about $37 million, approximately 6 percent of the total operating costs (see table 2.3). In addition, about $54 million was expended but not reported because it involved capital investments for major repairs and equipment, which provide benefits over many years. Furthermore, the academies excluded $31 million in community support costs.

Table 2.3: Underreported Academy Costs for Fiscal Year 1989

Dollars in millions

	Military Academy	Naval Academy	Air Force Academy	Total[b]
Faculty training	$12.1	•	$3.7	**$15.8**
Preparatory schools	5.7	$5.9	8.5	**20.1**
Military training	5.3	•	•	**5.3**
Dependent medical care	6.0	•	•	**6.0**
Errors	(13.9)	1.9	2.0	**(10.0)**
Net understatement of costs[a]	$15.1	$7.8	$14.2	**$37.2**

[a]Amounts do not add due to rounding.

[b]We were unable to obtain data for other academy costs such as those for the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

Staffing Levels and Costs Not Separately Reported by All Academies

Staffing is a major cost of academy operations. In the mid 1970s, the DOD Committee on Excellence in Education directed the academies to annually provide their respective service secretaries with a detailed analysis of staffing levels and costs based on the uniform cost reporting format developed by the academy comptrollers. Neither the Military Academy nor the Air Force Academy provides an analysis as directed by the committee. The Naval Academy currently provides an analysis to the Vice Chief of Naval Operation's special assistant.

Academy staffing levels varied considerably by academy, contributing significantly to cost differences (see table 2.4). The Naval Academy had 39 percent fewer staff than the Air Force Academy and about 34 percent fewer staff than the Military Academy. Personnel costs at the

Naval Academy were 40 percent lower than those at the Air Force Academy and 34 percent lower than those at the Military Academy.

Table 2.4: Academy Staffing and Costs for Fiscal Year 1989

Dollars in millions

	Academies					
	Military		Air Force		Naval	
Type of staff	No.	Cost	No.	Cost	No.	Cost
Military	1,665	$100	2,812	$131	1,089	$48
Civilian	2,434	61	1,627	44	1,627	57
Total	**4,099**	**$161**	**4,439**	**$175**	**2,716**	**$105**

Note: Figures include staffing levels and costs for community support and preparatory schools.

The proportion of military to civilian staff also varied widely among the academies. Military personnel made up 63 percent of the total staff and 75 percent of personnel costs at the Air Force Academy, 41 percent of the staff and 62 percent of personnel costs at the Military Academy, and 40 percent of the staff and 46 percent of personnel costs at the Naval Academy. Air Force Academy officials attributed their higher military staffing level to their preference for military role models, the need for flight-rated officers to provide flight training, and the requirements from Air Force Headquarters to maintain military staff for contingencies in the operational Air Force.

Conclusions

Lack of guidance on academy cost reporting contributes to incomplete, inconsistent, and inaccurate financial reports. Consequently, academy cost reports do not provide DOD and the services with the information needed to completely account for funds used by the academies or to make cost-effective decisions regarding resource allocation and program size.

We believe that all academy-related costs should be reported by the academies. Some costs, such as capital investments and community support costs, are legitimately excluded from cost per graduate calculations, but they should still be reported. Criteria for excluding community support costs should be reviewed at the Office of the Secretary of Defense (OSD) level to ensure appropriateness and consistency when calculating cost per graduate.

The cost reporting changes agreed to by the academy comptrollers, which excluded preparatory school costs and most of the faculty

training costs, were not justified. Such changes in cost reporting methodology should also be reviewed at the OSD level to ensure that they are appropriate.

Information on staffing levels and cost should be separately shown in the reports. This would provide DOD and the services with information on a major contributor to cost differences among the academies.

Recommendations

We recommend that the Secretary of Defense direct

- the OSD Comptroller to assist the academies in developing appropriate guidance for uniform reporting of all costs that the academies incur and
- the academies to annually report their staffing levels and capital investment costs in addition to their operating costs and cost-per-graduate.

Agency Comments and Our Evaluation

DOD agreed that academy cost reports did not show all appropriate costs. DOD concurred that the costs of operating the academies' preparatory schools and providing graduate training to officers selected for faculty positions should be included in the cost reports.

DOD stated that it would obtain the assistance of the Defense Finance and Accounting Service to develop uniform cost reporting guidance. It further stated that the service academies would be directed to provide standardized cost information consistent with that guidance by the end of fiscal year 1992. These reports will also address staffing and capital investments.

Chapter 3

Review Groups Raise Concerns About Aspects of the Academies' Academic Programs

A common objective of the DOD academies is to produce high quality career military officers (see table 3.1). To achieve this objective, they select from among the best high school graduates in the country. However, accreditation officials, visiting professors,[1] and others have questioned certain aspects of the academies' academic programs. In particular, they have raised concerns about the large proportion of faculty members without doctorates, the high turnover among instructors, and the military and physical programs taking precedence over the academic program, leaving the students insufficient study time.

Tab le 3.1: Academy Mission Statements

Academy	Mission
Military Academy	To educate and train the Corps of Cadets so that each graduate shall have the attributes essential to professional growth as an officer of the Regular Army, and to inspire each to a lifetime of service to the nation.
Naval Academy	To develop midshipmen morally, mentally, and physically and to imbue them with the highest ideals of duty, honor, and loyalty in order to provide graduates who are dedicated to a career of naval service and have potential for future development in mind and character to assume the highest responsibilities of command, citizenship, and government.
Air Force Academy	To provide instruction and experience to all cadets so they graduate with the knowledge, character and motivation essential to leadership as career officers in the United States Air Force.

Academies' Entrance Criteria Are High

Their entrance criteria put the academies among the elite of colleges and universities. With each academy accepting only 1,300 to 1,400[2] of its more than 12,000 applicants a year, admission is highly competitive.

The academies admit men and women between the ages of 17 and 22 who have demonstrated above-average scholastic achievement and scored high on college entrance exams. In 1988, those accepted for admission had average Scholastic Aptitude Test scores of 564 to 588 in verbal and 642 to 668 in math. These scores were considerably higher than the national average scores of 428 (verbal) and 476 (math). Those who are accepted must also have demonstrated leadership potential in athletic or other extracurricular activities and must pass a physical

[1] All three academies have Visiting Professor programs where a limited number of instructors from civilian institutions come to teach for 1 to 2 years.

[2] An October 31, 1990, DOD memorandum directed the officer commissioning programs to adjust their accessions. The authorized student strength at each academy is to be progressively reduced from the present maximum of about 4,525 to 4,000 by September 1995.

aptitude examination. In addition, the academies base their selections of applicants upon a desired class composition to ensure that each class contains a diversity of qualified scholars, leaders, athletes, women, and minorities.

The Academies Offer a Combination of Academic, Military, and Physical Training

The academies provide their students with (1) an academic program, with a foundation in the humanities, social sciences, basic sciences, and engineering; (2) a military program, with classroom and field training that emphasizes leadership; and (3) a physical program, with physical education courses and athletic activities to instill confidence and competitiveness. Their course requirements for majors are comparable to those of several prominent civilian universities, especially in engineering. However, the academies offer fewer electives than civilian universities and require a significant amount of military and physical training.

Each of the academies is accredited every 10 years. The Middle States Association of Colleges and Schools accredits the Military and the Naval academies and the North Central Association of Colleges and Schools accredits the Air Force Academy. The Military and the Air Force academies were last accredited in 1989, the Naval Academy in 1986.

All academy students must achieve a grade point average of 2.0 (a C average) in their course work as well as meet other requirements for graduation. The Military Academy reviews each student's overall performance at the end of the seventh semester to determine whether a commission should be offered upon graduation. Military Academy cadets must also pass the Army's physical fitness test. Naval Academy midshipmen must pass a comprehensive professional competency examination. Cadets at the Air Force Academy must pass a physical fitness test and their overall performance is examined and approved before commissioning.

Concerns About the Credentials and Assignment Stability of Faculty

The faculties of the service academies are heavily staffed by military personnel, leading to two areas of criticism by professional educators and accrediting associations. Most military instructors at the academies do not have the academic credentials and the teaching experience of their civilian counterparts at comparable civilian institutions. In addition, the military status of these instructors makes them subject to duty rotation, which creates continuous faculty turnover and leads to an annual influx of inexperienced teachers.

The academic faculties at the Military and the Air Force academies are more than 97 percent military. Through historical circumstance, the Naval Academy's faculty is split about evenly between military and civilian personnel.

For the most part, the academies require a doctoral degree for tenured faculty and a masters degree for the rest. About 50 percent of the Naval Academy faculty have doctorates, while only 26 percent of the faculty at the Military Academy and 38 percent of the faculty at the Air Force Academy have earned doctoral degrees, and some of these faculty members are in administrative positions with reduced teaching loads. This does not compare favorably with faculties at civilian institutions. Of 96 civilian institutions offering undergraduate engineering degrees,[3] 79 percent of their faculties held doctorates.

Nontenured military faculty members are assigned to the academies for 3 to 4 years. This creates a significant turnover problem that no civilian college or university has: each year the Military and the Air Force academies must replace almost a third of their faculties (about 20 percent at the Naval Academy, according to an academy official), thereby decreasing both faculty stability and level of teaching experience.

This lack of credentials, stability, and teaching experience has been raised by various review groups for years. In their view, these problems may inhibit the academies from providing an education worthy of the capabilities of their students.

The Military Academy

In relation to the qualifications of Military Academy faculty, the Visiting Professors of 1988-89 and 1989-90 have recommended that the number of faculty with doctorates be increased to improve the quality of the academic program. The 1988-89 Visiting Professors reported that at civilian colleges juniors and seniors are most commonly taught by faculty with doctorates, while at the Military Academy most of the curriculum is taught by faculty with masters degrees through all 4 years.

Another problem has been the Academy's practice of assigning instructors to teach courses outside their academic fields. In 1977, the West

[3]Our statistics are based on the 96 schools listed in Peterson's Guide to Four Year Colleges 1991 as offering programs in engineering and applied sciences or in aeronautical engineering for which complete information was provided.

Point Study Group[4] noted that in some cases instructors did not teach courses for which they were educated, particularly in the English department. During our review, we found faculty members whose degrees were in philosophy also teaching English composition.

Faculty stability at the Military Academy has also been criticized by numerous groups, including the 1977 West Point Study Group, the 1980 and 1989 Middle States Association accreditation teams, and the 1987-88 and 1989-90 Visiting Professors. These groups have recommended an increase in the proportion of tenured professors and a decrease in the proportion of rotating faculty.

A senior Academy official told us that the Academy's ability to obtain additional permanent faculty at the doctoral level is constrained by budgetary limits on the number of officers that the Army is able to send to graduate school to earn doctoral degrees. The Academy prefers military to civilian instructors because it believes that military professors serve as role models for cadets, provide motivation toward a military career, better relate course material to military concerns, and can assist in military training. Academy officials also stated that it would be difficult to obtain quality civilian professors to teach on a permanent basis because of the Academy's remote location.

The Air Force Academy

Concerns have also been expressed regarding the credentials of the faculty at the Air Force Academy. In 1988, the Computing Sciences Accreditation Board wrote that in the computer science program, with over two-thirds of the faculty having at most a masters degree, the professional competence of the faculty appeared to be less than average. While the North Central Association accreditation team in 1989 praised the "strong esprit de corps" among faculty members and their dedication to the Academy's goals, it also stated " [T]he intellectual vitality and depth of the faculty as a whole are adversely affected by the relative lack of Ph.D.'s [doctors of philosophy] among the faculty... ." It also voiced a concern about faculty members staying current in their fields, stating that "this is not a matter of faculty members aiming at becoming recognized scholars in their fields, but of being abreast of the current scholarship and developments in those fields."

[4]This study group was commissioned after a major cheating scandal at the Military Academy in 1976. It was directed to examine virtually all aspects of cadet life.

Another concern about the faculty is the number of tenured faculty at the Academy. The Computing Sciences Accreditation Board in 1988 and the North Central Association in 1989 questioned whether there were enough tenured faculty to provide continuity and stability. Several Visiting Professors have raised similar concerns. According to one Visiting Professor, "...one of the most serious impediments to a scholarly atmosphere at the Academy [is] the lack of knowledgeable faculty staying longer than the typical four year tour of duty." Another Visiting Professor observed that the faculty turnover rate was high and that new faculty arriving each year had a complete lack of teaching experience, which was immediately reflected in their classroom performance.

The Naval Academy

The credentials of the military faculty at the Naval Academy have also been criticized. In 1966 and 1976, the Middle States Association reports raised the concern that the Naval Academy's military faculty had less education than their civilian counterparts and therefore were generally undertrained. In 1986, the Middle States Association accreditation team noted that although they had raised the issue twice before, they were again "forced to make the same admonition." In 1990, an internal study of the electrical engineering courses noted that some officers in electrical engineering and other departments had been assigned without appropriate degrees.

The Naval Academy has a stable base of civilian faculty members and thus rotation of the military faculty is not as significant an issue as it is at the other academies. However, faculty stability has also been raised as a possible concern at the Naval Academy, although for different reasons. Recent reports have noted that the Academy's pay for its civilian faculty is generally lower than that offered by civilian institutions in the area, and concerns have been raised that faculty recruitment and retention may be adversely affected if salaries do not keep pace with those at civilian schools. In 1986, the Middle States Association accreditation team wrote that "pay scales may need special adjustment if the Academy is to compete for quality faculty." In 1988, the Accreditation Board for Engineering and Technology noted that the Naval Academy could not expect to be competitive without increases in salary levels for its faculty. A program to correct these pay inequities was implemented in 1988 and 1989. However, the Naval Academy's Board of Visitors noted with concern that Academy faculty salaries were still lower than regional faculty salaries in 13 of 16 academic disciplines.

Concerns About Lack of Adequate Study Time

The academies require their students to undergo comprehensive military and physical training in addition to their scholastic studies. Military training consists of classroom and hands-on instruction that are intended to provide students with the basic knowledge, skills, and attitudes essential to effective performance as officers. In addition, cadets and midshipmen run their own military organizations, providing practical experience in leadership and administration. The physical training consists of physical education courses, competitive sports (intercollegiate and intramural), and physical fitness tests.

Over the years, studies and reviews at the three academies have questioned whether the considerable time that is consumed by military and physical training allows students sufficient time to pursue academic excellence.

The Military Academy

For many years, review groups have expressed concerns about the amount of cadet time that is available at the Military Academy for study. In 1966, a committee commissioned to identify the educational needs of future Army leaders expressed reservations about encroachment of cadet leadership responsibilities and athletic activities upon the cadets' study time. In 1972, the Kappel Board, composed of distinguished civilian and military members, noted in their assessment of the curriculum at West Point that a cadet's time was overscheduled, "which sometimes forces him to an expedient slighting of one or more of these multiple demands." In 1976, the Secretary of the Army appointed a Special Commission on the U.S. Military Academy to evaluate the West Point honor system. The commission reported that the Academy had failed "to agree on the relative importance of the education component of the mission" and that, in its view, "the acquisition of a college education within a military environment must, during the academic year, have first call on the time and energies of each cadet... ." The 1977 West Point Study Group warned that "...some cadets try to cope with overwhelming demands by doing just enough to satisfy each, but no more" and recommended that the academy "reorganize the cadet chain of command and other military duties to eliminate unnecessary administrative details and inefficiencies which interfere with study activities."

More recently, the Visiting Professors of 1987-88 offered the view that "Cadets clearly do not have the time to pursue academic excellence." The 1988-89 Visiting Professors reported that "[A] substantial part of the problem in realizing goals of cadet intellectual development must be

attributed to the cadet schedule." The group observed that there was not enough time for "high-level intellectual activities."

Following a comprehensive self study, the Academy took action to remedy the problem of inadequate cadet time. In the 1989-90 academic year, it reduced the baseline number of courses required for graduation from 44 to 40, shifted military courses from the academic semesters to a 2-week intersession period between semesters, and reduced the amount of required participation in intramural athletics. It also made the evening meal optional, thereby providing a potentially longer period of uninterrupted study time for cadets. While it is too early to completely assess the success of these changes, initial Academy reports indicate that the time cadets spend preparing for class has increased.

The Air Force Academy

While the 25th Anniversary Review Committee reported in 1980 that some military training officers and cadets believed that there was too much emphasis on academics at the Air Force Academy relative to military training and duties, other review groups have raised different concerns. The 1985 Accreditation Board for Education and Technology report stated that athletics and military training combine with academics to produce a severe demand on student time. More recently, Visiting Professors have cited an overloaded schedule that often leads to fatigue and sleeping in class and discourages the pursuit of academic excellence. One Visiting Professor wrote that "most cadets feel that almost anything has priority over the classroom."

The Naval Academy

The lack of an adequate amount of midshipman study time has also been cited as a problem at the Naval Academy. In a 1985 survey of about two-thirds of the faculty members, 78 percent indicated that actual study time available to midshipmen was either insufficient or less than desirable. Because of this limited study time, some instructors felt that course standards had been lowered. In 1986, the Middle States Association stated that midshipmen did not have time to digest learning and "that ... a certain facile superficial grasp of fact supplants true learning." A 1989 internal study reported a steady increase in the number of mandatory events scheduled. Another 1989 internal report noted that a majority of the 76 faculty and most of the 280 midshipmen responding to questionnaires believed that the competing demands on midshipmen's time significantly contributed to students' academic difficulties.

Conclusions

These concerns merit serious consideration. Despite numerous studies across several decades recommending improvements in the areas of faculty credentials, faculty assignment stability, and student time, little improvement has occurred. The recent changes in academic, military, and athletic scheduling at the Military Academy appear to represent a significant and well-thought out response to the long standing problem of excessive demands on cadet/midshipman time.

Recommendation

We recommend that the Secretary of Defense direct the academies to report what they are doing to address the issues of faculty credentials, faculty turnover, and student time demands.

Agency Comments and Our Evaluation

DOD stated that, taken in the context of the total reports, the concerns identified by the accreditation associations were minor. We agree that the overall conclusions of the accreditation association reports have been favorable. However, the consistency with which the faculty credentials issue has been raised by accreditation groups and visiting faculty over the years indicates it is an ongoing concern that warrants oversight attention.

DOD also stated that comparisons to civilian institutions can be misleading since the academies only offer baccalaureate degrees and are not research oriented and that their missions also include providing extensive military and physical training programs. DOD notes that all academy classroom instructors have at least a master's degree, unlike many civilian institutions that make use of graduate students. However, when the academies are compared only to undergraduate institutions, their relatively low proportion of faculty with doctorates is still apparent.

Notwithstanding these points of clarification, DOD agreed that faculty credentials were important in terms of academic program quality. DOD stated that it does not believe that an academy report on the credentials issue would be as useful as further research and review with accrediting associations and scholastic subject matter experts. DOD stated that it will undertake such a review during fiscal years 1991-92 with an aim of improving faculty credentials in appropriate academic billets at the academies. We find this alternative action completely responsive to the intent of our recommendation.

Current Measures of Officer Performance Are Inadequate Indicators of Academy Program Effectiveness

Indicators used to assess officer career performance have involved tracking retention and progression after commissioning. These measures show that, in comparison to officers from other sources, academy graduates have remained in the service somewhat longer, have progressed somewhat faster, and are represented in disproportionate numbers at flag rank. However, these measures are not totally valid for assessing the quality of academy graduates relative to other officers because the differences may be the result of personnel practices that have provided a greater advantage to academy graduates. There have been few studies attempting to assess the quality of officers produced by the academies.

Academy Graduates Tend to Stay in the Service Longer, but Most Do Not Stay Until Retirement Eligibility

A key goal of the academies is to produce career military officers. Although academy graduates remain in the service longer than officers from other sources, over one-half of them are not making the service their career and over one-third resign during their first 8 years of service.

Currently, academy graduates are required to serve at least 5 years of active duty,[1] and they can incur an additional obligation in return for high cost training such as pilot training. Approximately 34 percent of the graduates from all three academies resign within their first 8 years of service—39 percent each for the Military and the Naval academies and 25 percent for the Air Force Academy.

Overall, academy graduates tend to remain in the service somewhat longer than other officers—46 percent remain on active duty longer than 15 years compared to 32 percent of ROTC graduates and 26 percent of others. Among the academies, the Air Force Academy's 15-year retention rate is the highest at 50 percent, followed by 44 percent for Military Academy graduates and 42 percent for Naval Academy graduates.

Data supplied by the Army and cited in a Congressional Budget Office report also indicated that academy graduates served for longer periods than officers from other commissioning sources. For example, rates of continuation in 1989 indicated that West Point graduates served an average of 13.9 years on active duty compared with 13.0 years for OCS graduates and 12.3 years for ROTC graduates. Thus, the average length of service for Military Academy graduates was 7 to 13 percent more than that for Army officers from other sources.

[1]This obligation has been increased to 6 years starting with the class of 1996.

Academy Graduates Progress at a Somewhat Faster Rate

Academy graduates progress somewhat more rapidly than officers from other sources. Studies performed by the Congressional Budget Office and the Army showed a moderate academy graduate advantage.

A 1990 Congressional Budget Office study,[2] which was based on data from the Defense Manpower Data Center, reported that, for officers commissioned from all sources who entered active duty from 1979 to 1988, there was virtually no difference in promotion times from O-2 (first lieutenant/Navy lieutenant junior grade) to O-3 (captain/Navy lieutenant). The study, however, stated that there were differences in the time to promotion to grade O-4 (major/Navy lieutenant commander) for officers from different sources. According to the study, graduates of the Military and the Air Force academies were promoted up to 7 months sooner than those from other sources, and Naval Academy graduates were promoted 3 months sooner.

An Army study indicates that, within any given year, promotion rates may vary (see table 4.1). For example, in 1988 and 1990 Military Academy graduates had a modestly higher rate of promotion to the rank of major. In 1989, however, 45 percent of eligible Academy graduates were promoted to major compared to 57 percent of ROTC nonscholarship officers.

Table 4.1: Percentage of Eligible Army Officers Promoted to Major

Commissioning source	1988	1989	1990
Academy	50	45	47
ROTC(scholarship)	33	35	46
ROTC(nonscholarship)	36	57	30
OCS	48	45	38

Academy Graduates Represented at Flag Rank in Disproportionate Numbers

Academy graduates are clearly represented disproportionately at flag rank. Although the academies provided only 14 percent of the services' new officers, as of September 1989, nearly 30 percent of the general officers in the Army and the Air Force and almost 45 percent of all Navy admirals were academy graduates.

The dominance of academy graduates at flag rank, however, has decreased since the 1960s. For example, as of September 1989, Military Academy graduates comprised 62 percent of the Army's full generals,

[2]Officer Commissioning Programs: Costs and Officer Performance, Congressional Budget Office Papers, June 1990.

33 percent of lieutenant generals, 31 percent of major generals, and 25 percent of brigadier generals. While vastly disproportionate to their representation in the Army officer corps at large, these figures represent a significant decrease from 1964, when the corresponding percentages were 100 percent for full generals, 95 percent for lieutenant generals, 78 percent for major generals, and 68 percent for brigadier generals. This decrease in dominance at the flag ranks is likely a result of the broadening of the officer accession base that has occurred since the 1950s.

Validity of Direct Comparisons Is Limited by Personnel Practices That Have Favored Academy Graduates

Although statistics indicate that, in comparison to graduates from other sources, academy graduates tend to remain in the service somewhat longer, get promoted somewhat faster, and are represented disproportionately at flag rank, care should be taken to avoid reading too much into these statistics. It is likely that these retention and progression statistics have been affected by factors such as possession of a regular commission and allocation of combat-related assignments, which tended to favor academy graduates during most of the time period these statistics cover.

All academy graduates receive regular commissions if tendered, whereas in most years the majority of ROTC and OCS/OTS graduates have been commissioned as reserve officers. The career advantages of a regular commission can be significant as the following shows.[3]

- Regular officers have tenure and, given reasonable performance, are generally guaranteed a longer career than reserve officers who must leave after 20 years of service.
- Reserve officers can be forced out of the service if a reduction in force occurs before their 18th year of service. For example, in the demobilization following the Vietnam War, thousands of reserve officers were involuntarily released.
- Reserve officers must compete for limited regular officer openings, generally by their 11th year of service, and they are subject to release if they fail to be selected for a regular commission.

Academy graduates have also had a career advantage with regard to a career field. The combat-related line officer track has traditionally been

[3]In 1980, the Defense Officer Personnel Management Act (DOPMA) was passed, establishing limits on the number of regular officers in each service and making the number of officers in grades above warrant officer/(WO-4) dependent upon the size of the total officer corps. Under DOPMA, some of the advantages of the regular commission over the reserve commission have disappeared as virtually all officers on active duty after 11 years must be part of the regular officer corps.

the dominant route to senior leadership positions, and academy graduates have generally received a larger allocation of assignments to these fields. At times, academy graduates were restricted from entering noncombat career fields. The advantage of academy graduates with regard to career choice is highly evident in the Air Force, where there has been no limit to the number of pilot/navigation slots available to Air Force Academy graduates. Officers commissioned through ROTC and OTS must compete for the remaining openings.

Academy graduates select their career field about 5 to 7 months before graduation, and those with the highest class ranking have first choice. The majority of Naval Academy graduates select a technical field as their first assignment. For example, in 1989, the Naval Academy produced almost 30 percent of the officers required for the Navy's nuclear programs. All Air Force Academy students who are medically qualified are eligible for pilot training, and approximately 65 percent enter such training upon graduation. Being flight-rated is considered to improve career opportunities and be advantageous for promotion to important staff and command positions. According to a Military Academy official, 80 percent of Military Academy graduates go into the combat arms (such as infantry, armor, and field artillery).

According to academy officials, only the first assignments of graduates are tracked; therefore, they do not have information on the number of combat assignments academy graduates receive during their careers. However, in an earlier study[4] of assignments of academy graduates, we sampled the personnel files of academy graduates on active duty and found that 78 percent of the 30,576 graduates on active duty as of September and October 1974 had one or more combat assignments.[5] The percentages for each of the services were 91 percent in the Army, 82 percent in the Navy, 60 percent in the Air Force, and 80 percent in the Marine Corps.

While there is no hard evidence that academy graduates receive preferential treatment, some officers believe that decisions about promotions and careers may be influenced by academy graduates who promote the careers of academy alumni and provide preferential treatment to their

[4]Report to Rep. Samuel S. Stratton (GAO/FPCD-75-133, Mar. 14, 1975).

[5]We defined "combat assignment" as one in which an individual could be expected to be involved in a direct or deliberate engagement with a hostile force or be exposed to possible enemy action in the normal course of duty on a regular basis.

fellow alumni. Service officials, however, strongly deny the existence of such favoritism.

Studies on the Quality of the Performance of Graduates Are Few

Since comparisons of retention and progression data relating to the three main sources of commission do not provide a complete or comprehensive picture, it is important that other means of assessing academy effectiveness be developed. Service officials believe the academies are producing outstanding officers. However, none of the services was able to provide much objective data to support their beliefs. The academies have occasionally conducted surveys of supervisory ratings and graduate opinions. However, the surveys have not been systematically conducted and are not comparable over time.

While each academy has performed sporadic studies to obtain feedback on achievement of its goals, none has routinely and systematically obtained feedback on their graduates' performance or the effectiveness of its programs. In 1987, the Military Academy surveyed almost 800 battalion commanders, company commanders, and platoon sergeants who rated their platoon leaders on 24 performance attributes.[6] The results showed that Military Academy graduates were rated highly on sense of integrity, physical fitness, bearing and appearance, strength of character, potential for advancement, and role understanding. Their weakest traits were levels of maturity, specific job knowledge and skills, and ability to talk with and manifest concern for troops. Academy officials were most concerned with the relative inability of their graduates to relate to the troops. They hypothesized that this weakness was a result of problems within the Fourth Class system.

In 1989, the Military Academy Superintendent commissioned three separate in-depth studies of the Fourth Class system.[7] All three studies concluded that several aspects of the way the Fourth Class system fostered senior-subordinate relationships that were inconsistent with leadership standards in Army units. In response to these reviews, the Military Academy fundamentally revamped the design of all 4 years of its leadership development program to delineate roles for each of the classes

[6]U.S. Military Academy, Office of Institutional Research Platoon Leader Performance of USMA Graduates, June 1988.

[7]These studies examined all aspects of the system, including its purpose, components, and implementation. One study was performed by a committee of cadets, one by a committee of staff and faculty, and one by the Association of Graduates.

that more closely correspond to the Army's structure and that emphasize positive leadership techniques.

Before 1987, the Naval Academy annually surveyed graduates at various points after commissioning through a project called the Graduate Performance Evaluation System. In a 1985 internal study, the Naval Academy determined that this survey did not provide adequate information to base decisions about the curriculum or the professional training of midshipmen and should be redesigned to obtain more useful data. According to Navy officials, efforts to redesign the study were discontinued in 1987, due to budget cuts. In September 1990, the Academy submitted a proposal to obtain funding to redesign the survey. This request was denied.

Between 1969 and 1984, the Air Force Academy performed a few studies aimed at assessing graduate performance. According to an Academy document, the accuracy and the reliability of these studies were open to question. Since 1984, the Office of Graduate Evaluation has issued annual reports on active duty losses, pilot and navigator school attrition, promotions, and performance in Squadron Officer School and Air Command and Staff College programs. In addition, the Academy surveyed Air Force supervisors to obtain competency ratings on graduates relating to the Academy's professional development programs. According to an Academy official, they are developing a comprehensive evaluation program that will identify the skills and the competencies desired of Academy graduates, establish active duty performance measures, and outline a plan for systematically analyzing and reporting graduate data.

Conclusions

The measures that have generally been used to assess officer career performance are not necessarily valid indicators of the quality of officers commissioned through the various accession programs. Several career advantages are likely to have had positive effects on the progression and the retention of academy graduates. Therefore, it is difficult to determine whether the apparent greater success of academy graduates is due to their quality or to the advantages that accrue to them by virtue of their source of commissioning.

Adequate assessments of graduate performance could be helpful in improving the effectiveness of the service academies' programs. Although all three academies have occasionally attempted to assess

their graduates' performance, they have not developed conclusive findings or clearly linked the results to their programs. The academies are, however, beginning to conduct more research in this area.

Recommendation

We recommend that the Secretary of Defense direct the services to develop the means to assess the effectiveness of the academies' programs. Program effectiveness measures would also be applicable to the other officer commissioning programs.

Agency Comments and Our Evaluation

DOD agreed that broader measures of quality and performance are needed to evaluate the efficacy of respective commissioning sources. DOD stated that, rather than tasking the services to develop the evaluation mechanism, it would take that responsibility on itself. DOD stated that it has asked the Defense Manpower Data Center to design a survey to measure performance, and it expects validation of the survey instrument to begin by the summer of 1991. This effort, according to DOD, will also be applicable to the other officer commissioning programs.

Better Oversight Needed to Strengthen Academy Management

Effective oversight of any activity is needed to ensure efficient and economic operations. However, neither DOD nor the services have an effective system of oversight of academy management and operations. Existing oversight is limited and hampered by lack of systematic information on the academies' cost and operations or detailed information on the performance of academy graduates. As a result, the Congress and DOD cannot readily determine how much academy graduates cost or what the nation is getting for its investment.

External Oversight Is Limited

External oversight of the academies is the responsibility of various groups, including the Office of the Secretary of Defense, the Board of Visitors of each academy, the headquarters of the respective services, and the service audit/inspection organizations. However, none of these oversight groups has conducted regular, systematic, comprehensive management reviews of academy costs and operations or the performance of academy graduates.

OSD Oversight Has Been Infrequent

OSD has general oversight responsibility for all military education and training. However, its exercise of this responsibility has generally been limited to occasional large-scale reviews, such as the appointment of the Service Academy Board in the late 1940s and the establishment of a special Committee on Excellence in Education in the mid-1970s. But OSD has not established any specific mechanism for ongoing oversight.

In March 1949, shortly before he left office, Secretary of Defense James Forrestal established the Service Academy Board "to recommend that general system of basic education which ... is best adapted to provide all three services with a sufficient number of young men qualified to meet the needs of the regular armed services." The Service Academy Board included civilian educators familiar with the problems of military education, former superintendents from the existing academies, and other military leaders. It recommended the continuation of the two academies as they were and the establishment of a third academy for the newly formed Air Force.

OSD convened the Committee on Excellence in Education in 1973. The Committee, chaired by the Deputy Secretary of Defense, included the Secretaries of the Army, the Navy, and the Air Force and the Assistant Secretary of Defense for Manpower and Reserve Affairs. The Committee did not issue a comprehensive final report, but it did prepare a summary of its conclusions and initiatives in April 1975. Two of its conclusions

were that all faculty members should possess at least a masters degree in a discipline related to the subject they teach and that the Military and the Air Force academies should increase the number of their civilian faculty. The Committee also directed that manpower levels and costs be reported using a uniform methodology and that a detailed analysis be provided to the service Secretaries annually.

Academy Boards of Visitors Provide Limited External Review and Evaluation

A Board of Visitors was first established at the Military Academy in 1816 to meet annually and report to the War Department on conditions there.

Under the Superintendent at that time, the Board met only once. When Sylvanus Thayer became Superintendent, he decided to use the Board both as a source of competent outside criticism and a means of improving the popularity of the Academy.[1] Under Thayer, Board inspections were extensive, and the Board participated in the lengthy examinations of cadets about to graduate.[2] Boards of Visitors composed of members of Congress and private citizens were later established by statute in 1948 to inquire into morale, discipline, curriculum, instruction, physical equipment, fiscal affairs, education methods, and any other matters which the Boards decide to consider. They meet at the academies once or twice a year for a few days. They do not have their own staff, relying mainly on academy personnel for information and assistance in preparing their reports to the President of the United States.

Over the years, the effectiveness of the Boards as a means of oversight has been questioned by a number of observers. For example, two Dartmouth political scientists[3] who studied the academies in the late 1950s noted that the Boards sometimes functioned as inspectors reporting to higher authority, sometimes as lobbyists supporting requests the academies have made, and at other times as advisors on academic programs and methods. They found evidence that the Boards were not equally suited for all these roles.

[1]Ambrose, S.E. Duty, Honor, Country: A History of West Point, Baltimore, MD: The Johns Hopkins Press, 1966.

[2]Heise, J. Arthur, The Brass Factories, Washington, D.C.: Public Affairs Press, 1969.

[3]John W. Masland and Laurence I. Radway, Soldiers and Scholars, Princeton, NJ: Princeton University Press, 1957.

Members and the Boards themselves have sometimes questioned their own effectiveness. For example, numerous people who had served on Boards reported to Masland and Radway that:

"The boards meet for a period of only a few days and cannot possibly probe deeply into the many topics raised for consideration...Although they have complete freedom to investigate what they wish, the time of board meetings is short, the selection of issues for consideration perforce rests with the school authorities, and considerable time is devoted to briefings and social and ceremonial events."

In 1976, the Special Commission on the United States Military Academy concluded that the Board lacked both the time and the staff to provide effective continuing external review. The Special Commission recommended that the Secretary of the Army establish a permanent, independent advisory board and that it should (1) be nonpolitical, (2) include members who recognize the proper mission of the Academy, (3) convene often enough to ensure current knowledge of the institution, and (4) report its observations and recommendations to the Secretary of the Army.

In our 1975 review,[4] we also questioned the effectiveness of the Boards of Visitors. We concluded that, given the limited exposure to the academies and the complex character of these institutions, it was unrealistic to expect the Boards to provide penetrating evaluations of academy programs.

One academy critic[5] has suggested that the Boards need to be revamped to function more like trustees of civilian colleges—setting overall goals and seeing that they are met. According to this suggestion, congressional representation should be maintained to assure that these boards will have some real power. This suggestion calls for the revamped Boards to be dominated by eminent academicians, as well as having some members with strong military backgrounds.

In May 1989, a special commission appointed by the Army Chief of Staff noted that nearly every U.S. institution of higher education had a board of trustees or regents. The commission stated that some appointments to the Boards were based on political criteria that may not include substantive professional and academic experience or a strong commitment of time and effort. The commission recommended the establishment of a

[4]Academic and Military Programs of the Five Service Academies (FPCD-76-8, Oct. 31, 1975).

[5]Arthur J. Heise, The Brass Factories, Washington, D.C.: Public Affairs Press, 1969.

special nonpartisan independent advisory board that would (1) report to and provide advice to the Superintendent and (2) be comprised of notable academic administrators, scholars, and leaders from government, industry, and the military.

Service Headquarters Provide Limited Oversight

All three academies receive limited oversight from their service headquarters. In the Army and the Air Force, staff under the Deputy Chief of Staff for Personnel act as liaison between the services and their academies and coordinate policy changes, review personnel actions, and represent the academies in the budget process. In 1988, the Navy established a special advocate position reporting directly to the Assistant Vice Chief of Naval Operations to represent the Academy in the budgeting process, monitor the effectiveness of its programs, and assess graduate performance. As of December 1990, this relatively new office had not conducted a major review of academy costs and operations.

Occasionally, the service headquarters have established special study groups to assess a specific problem. Examples were the special commissions appointed by the Secretary of the Army in 1976 and in 1989 to examine the honor code and honor system.

Service Audit Oversight Has Been Limited

All three academies are also subject to audit by their respective service audit agencies. However, most of these agencies have conducted relatively few reviews of academy operations. Since January 1988, the Air Force Audit Agency has issued eight reports on Air Force Academy operations, four of which concerned the Academy's athletic association. According to Military Academy officials, the Army Audit Agency has not issued an audit report specifically on the Academy since 1985. The Naval Audit Service has issued only one report on the Naval Academy since 1985.

Academies' Internal Reviews Cannot Substitute for Independent Oversight

The academies themselves provide some self-examination through internal review offices or their Inspectors General as well as special studies. However, internal reviews cannot substitute for independent, external oversight because the choice of study areas and the reporting of results are potentially subject to command influence.

The Military Academy's operations are reviewed by its Internal Review Office, as well as by its Office of the Inspector General. The Internal Review Office conducts about 30 audits of Academy units each year; the

Inspector General reviews complaints and conducts inquiries of specific matters, often at the request of the Superintendent. The Military Academy also has an Office of Institutional Research that conducts studies on various aspects of the Academy's programs. The Naval Academy relies on two departments to conduct audits and reviews for internal oversight: one reviews appropriated and nonappropriated funds, the other conducts economy and efficiency reviews of commercial activities (e.g., family services, transportation, and food services). The Air Force Academy's Inspector General conducts reviews of unit effectiveness, operational readiness, and functional management for the Academy and handles complaints.

At times, academy superintendents also appoint special committees or study groups to report on specific issues, such as those established by the Military Academy Superintendent in 1989 to review the Fourth Class system.

Conclusions

Each academy operates independently without adequate external oversight that could provide useful guidance and suggestions for improvement. Several of the issues we have identified, such as the lack of uniform guidance for reporting cost information, the continuing questions about faculty credentials and the relative priority of academics at the academies, and the absence of systematic assessments of the performance of academy graduates, could have been identified earlier by more effective oversight.

It is unrealistic to expect the Boards of Visitors, given their lack of independent staff and the limited time they spend at the academies, to provide effective evaluations of academy costs and programs.

Recommendations

To strengthen the oversight of the service academies, we recommend that the Secretary of Defense

- evaluate alternative means of providing external oversight and advice to the academies,
- establish a focal point within OSD to routinely monitor the academies from a DOD perspective, and
- direct the service secretaries to ensure that audit agencies and inspectors general give more frequent attention to the service academies.

Agency Comments and Our Evaluation

DOD agreed that additional oversight of the academies is appropriate. DOD stated that the Directorate for Accession Policy, Office of the Assistant Secretary of Defense (Force Management and Personnel), has assumed responsibility as focal point of contact for the academies. DOD also agreed that audit agency attention is important to fiscal oversight of the academies, and it stated that the service secretaries would be directed to ensure that audit agencies and inspectors general give more frequent attention to the academies.

DOD did not agree with the recommendation in our draft report that a high-level review group be established to evaluate the effectiveness of alternative means of providing external oversight and advice to the academies. DOD stated that high-level commissions tended to produce reports without follow-up and that the most pressing issues in the area of officer procurement were known and were being addressed. DOD, therefore, sees no need for additional formal review organizations.

While we believe that DOD is devoting a great deal of attention to the academies at the present time, our recommendation was aimed at providing independent, external review of academy operations over the long term. The questions that have been raised about the ability of the present Board of Visitors structure to provide oversight and advice will not be resolved by DOD's current actions. We continue to believe that this issue warrants examination. However, since such an examination could be made without necessarily convening a high-level commission, we have removed that element from our recommendation.

Fiscal Year 1989 Academy Costs by Category

Cost category	Military Academy	Naval Academy	Air Force Academy
1. Academics	$47,505,191	$40,939,070	$47,658,842
2. Audiovisual support	3,459,703	858,871	3,309,432
3. Academic computers	5,218,768	3,119,536	3,144,973
4. Faculty training	3,847,401	0	1,844,684
5. Military training	16,537,422	22,524,879	25,780,160
6. Physical training	7,108,567	3,709,945	6,809,163
7. Library	2,207,736	2,833,757	1,710,479
Total instructional costs	**$85,884,788**	**$73,986,058**	**$90,257,733**
8. Cadet mess	$8,948,994	$6,514,775	$8,934,809
9. Student services	3,179,072	1,602,471	2,169,546
10. Registrar	4,160,656	2,787,200	3,480,618
11. Student pay	36,205,594	33,006,379	33,929,545
Total student-related costs	**$52,494,316**	**$43,910,825**	**$48,514,518**
12. Medical	$11,346,413	$4,503,765	$17,677,223
13. Band	3,402,728	1,131,628	2,174,749
14. Printing and microfilm	958,813	0	1,496,685
15. Administrative data processing	2,691,067	0	3,303,784
16. Civilian personnel	1,998,344	1,160,583	1,579,021
17. Personnel administration	2,018,128	2,012,922	3,335,776
18. Special services	1,178,263	277,959	1,609,966
19. Other personnel administration	4,024,318	1,077,716	2,607,627
20. Utility service	8,826,436	7,522,468	9,660,736
21. Custodial services	3,102,806	2,989,576	3,519,463
22. Fire protection	1,255,631	1,412,430	2,173,226
23. Maintenance and engineering	23,205,477	22,667,854	21,696,341
24. Communications	3,287,546	1,667,653	4,363,339
25. Transportation	8,019,863	1,765,978	3,525,447
26. Commissary	1,757,089	757,910	976,696
27. Supply and maintenance operations	3,736,286	2,601,987	4,703,958
28. Logistics	576,797	0	547,711
29. Comptroller	4,047,445	1,875,097	4,098,219
30. Security police	5,057,334	3,876,812	1,886,680
31. Preparatory school	0	0	0
32. PCS travel - Military	0	0	0
33. Military support unit	1,758,657	242,659	181,133
34. Museum	624,247	197,820	0
35. Public affairs	1,380,023	1,044,031	869,529
36. Command and staff	3,626,775	1,206,711	1,163,675

(continued

Cost category	Military Academy	Naval Academy	Air Force Academy
37. All other functions	0	0	720,454
38. Stewart Army Subpost	2,559,912	0	•
Total institutional support costs	**$108,440,398**	**$59,993,559**	**$93,871,438**
Grand total	**$236,819,562**	**$177,890,442**	**$232,643,689**

Comments From the Department of Defense

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-4000

FORCE MANAGEMENT AND PERSONNEL

MAR 15 1991

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the draft GAO report entitled, "DOD SERVICE ACADEMIES: Improved Cost and Performance Monitoring Needed" (GAO Code 391128/OSD Case 8585). The Department concurs or partially concurs with the findings and recommendations of the draft report, with one exception.

The Department remains assured that the Service academies produce exceptionally well qualified graduates into the officer corps of the Armed Forces. The Department has begun development of standardized cost reporting and graduate evaluation, and will continue to monitor the academies and other commissioning programs with a view toward achieving optimum efficiency.

Detailed comments on each finding and recommendation are provided in the enclosed response. The Department appreciates both the opportunity to comment on the draft and inclusion of the DoD response in the final report.

Sincerely,

Christopher Jehn

Enclosure:
As Stated

GAO DRAFT REPORT - DATED JANUARY 14, 1991
(GAO CODE 391128) OSD CASE 8585

"DOD SERVICE ACADEMIES: IMPROVED COST AND PERFORMANCE MONITORING NEEDED"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

Now on pp. 8-10.

FINDING A: Service Academies. The GAO reported that the DoD has several commissioning programs--including the Service academies, the Reserve Officers Training Corps, and the officer candidate schools/officer training schools. The GAO pointed out that these programs vary in (1) the amount of lead time they entail, (2) the length, intensity, and content of the programs, and (3) their cost to the DoD. The GAO noted that each Military Department operates its own academy and has a statutory limit of 4,525 students. The GAO stated that the academies are the traditional source of regular officers, and have long been considered to produce officers who set the standard for military professionalism. The GAO found that, in 1990, about 3,200 officers received commissions from the Service academies, 9,800 through the Reserve Officers Training Corps program, and 3,300 through other programs. (p. 1, pp. 8-11/GAO Draft Report)

DOD RESPONSE: Concur.

FINDING B. The Academies Are the Most Expensive Commissioning Source. The GAO reported that, in FY 1989, the Services reported spending almost two-thirds of a billion dollars in producing about 3,200 academy graduates. The GAO observed that the Service academies provide a full 4-year program of academic education, military training, and physical training--for which the DoD pays the entire cost. The GAO reported the following FY 1989 costs per graduate:

- $228,500 at the Military Academy (Army);
- $177,000 at the Naval Academy; and
- $225,800 at the Air Force Academy.

The GAO found that, on the other hand, (as reported by the DoD), the average cost per Reserve Officers Training Corps scholarship program graduate ranged from $53,000 to $58,000, while the cost per graduate

of short lead time programs--such as officer candidate schools--ranged from $15,000 to $20,000. The GAO concluded that the academies are the most expensive officer commissioning source. (pp. 1-2, pp. 14-15/GAO Draft Report)

Now on p. 11.

DOD RESPONSE: Concur. The Service academies are the only fully-funded undergraduate commissioning programs for the Armed Forces and as such, they represent the highest cost to the DoD budget. The Naval Academy cost per graduate is actually $153,200 vice $177,000, as stated in the draft report.

See comment 1.

FINDING C: Academy Financial Reporting Understates Cost of Producing Graduates. The GAO noted that, in FY 1989, the Services reported operating costs of about $239 million at the Military Academy (Army), $233 million at the Air Force Academy, and $178 million at the Naval Academy. The GAO found, however, that the academies' financial reports did not include all relevant costs and also contained errors--resulting in the academies understating costs by over $39 million for FY 1989. The GAO also found that financial reports did not include capital investment costs, which totaled over $54 million in FY 1989 for the three academies. In addition, the GAO reported that the academy comptrollers decided to exclude all costs associated with the operation of the academy preparatory schools and to report only a portion of the cost of training new faculty--decisions the GAO asserted were unjustified. The GAO concluded that a key reason for the underreported costs is that no uniform, comprehensive guidance exists regarding academy cost reporting. (p. 3, pp. 16-21, pp. 28-29/GAO Draft Report)

Now on pp. 11-14.

DOD RESPONSE: Partially concur. Although the GAO found errors and additional costs that are appropriate for annual total cost accounting, the DoD does not agree that all costs identified by the GAO are appropriate for determining cost per graduate. The GAO based the bulk of its criticism of inadequate "financial reporting" on the single annual cost-per-graduate instrument. Cost per graduate is not, and is not intended to be, a comprehensive financial report for the academies. The GAO correctly identified lack of standardized and comprehensive cost reporting as the basis for cost variance. In fact, there is no comprehensive cost reporting requirement for Service academies. The Services and academies all maintain separate and distinct financial management systems that are appropriate for their requirements. A standardized cost system would have to be in addition to these, developed independently. In terms of excluded costs, the Department agrees that preparatory school costs should be included. However, major capital investments are not operating

See comment 2.

See comment 3.

costs, and the Services' current accounting procedures for major capital investments are appropriate.

FINDING D: Inconsistencies in Academy Cost Reporting Make Analysis of Comparisons and Trends Difficult. The GAO listed the reported FY 1989 costs for the academies. The GAO was unable, however, to determine fully the reasons for variation in cost among the academies because of inconsistencies in what costs were included and how they were allocated. Areas cited by the GAO as being different included medical costs--in which the Military and Air Force academies have their own hospitals, whereas the Naval Academy has a clinic. The GAO also found some inconsistencies in the treatment of military community support costs. The GAO was unable to evaluate cost trends because of differences in the data over time. The GAO pointed, for example, to unfunded military retirement costs being added in FY 1985, and the exclusion for major construction being increased from $50,000 to $200,000 in FY 1987. The GAO reported that, in addition, detailed staffing analyses, which the DoD Committee on Excellence in Education had directed be provided annually, were not being provided by the academies. The GAO found that neither the DoD, nor the Services, nor the academies have established guidance to ensure uniform cost reporting. The GAO also found that there is no guidance to ensure that costs accumulated using Service-specific accounting systems will be consistently reported across the 38 categories utilized in the academies' annual uniform reports of costs and staffing levels. The GAO asserted that all costs incurred by the academies or by others performing functions for the academies should be reported by the academies. The GAO observed that some costs, such as capital investment costs could be excluded when calculating cost per graduate, and that exclusions for support of non-academy military community should be reviewed to ensure consistency when reporting cost per graduate. The GAO concluded that lack of guidance on academy cost reporting contributes to incomplete, inconsistent, and inaccurate financial reports. The GAO further concluded that, as a consequence, academy reports do not provide the DoD with the information needed (1) for a complete accounting of funds used by the academies or (2) for making cost-effective decisions regarding resource allocation and program size. In addition, the GAO concluded that changes in cost reporting methodology should be reviewed by the Office of the Secretary of Defense to ensure that they are appropriate. Finally, the GAO concluded that information on staffing levels and costs should be separately shown in the reports. (pp. 4-6, pp. 21-31/GAO Draft Report)

Now on pp. 15-21.

DOD RESPONSE: Concur. (See the DoD response to Finding C.)

FINDING E: Review Groups Raise Concerns About Aspects of the Academies Academic Programs. The GAO reported that all three Service academies are accredited, and their entrance criteria put them among the elite of colleges and universities. The GAO found, however, that over the past several decades, accreditation teams and visiting professors have repeatedly raised concerns, which persist today. The GAO listed those concerns as (1) the relative lack of doctorates among the faculties in comparison to civilian institutions, (2) the frequency of rotation among the military faculty leading to an annual influx of inexperienced teachers, and (3) the high time demands of the military and physical training programs, which leave inadequate time for students to pursue academic excellence. The GAO pointed out, for example, that about 50 percent of the Naval Academy faculty have doctorates, while only 26 percent of the Military Academy (Army) and 38 percent of the Air Force Academy faculties do. The GAO also observed that non-tenured military faculty members are generally assigned to the academy for three to four years, which creates a significant turnover problem. The GAO found that another recurring problem at the Military Academy has been the practice of assigning instructors to teach courses outside their academic fields. The GAO reported that, following a comprehensive study, in the 1989-1990 academic year, the Military Academy (Army) (1) reduced the baseline number of courses for graduation from 44 to 40, (2) shifted military courses to a two-week inter-session period, and (3) reduced the required participation in intramural athletics. The GAO concluded that, despite the fact numerous concerns (in the area of faculty credentials, faculty assignment stability, and student time) have been raised repeatedly which merit attention, little improvement has occurred. The GAO also concluded, however, that the recent changes in the Military Academy (Army) academic, military, and athletic scheduling appear to represent a well thought out response to the problem of excessive demands on cadet time. (p. 3, pp. 33-47/GAO Draft Report)

Now on pp. 22-29.

DOD RESPONSE: Partially concur. Although the GAO quoted accreditation association report comments stating concerns with composition of military faculties and faculty stability, the comments cited were not representative. Taken in context of the total reports, the concerns with military faculty were minor. The GAO identified lack of doctoral degrees in the faculties as comparing unfavorably with civilian universities. That comparison does not take into account the fact that Service academies are undergraduate institutions and do not award advanced degrees, which would require additional doctorates. Also, Service academies are not research institutions, as are civil-

See comment 4.

ian universities. Finally, the teaching structure of the academy faculties is significantly different than civilian schools. Academies do not employ "teaching assistants" to administer classroom instruction as is the case in civilian schools. Academy instructors, all of whom possess at least a Master's degree, conduct all classroom instruction.

The issue of time demands for military and physical education on cadets and midshipmen is appropriately considered in terms of the academies' mission to commission officers. The academies are required to do more than award baccalaureate degrees to graduates. The military and physical training programs are closely related to the military and physical capabilities required of graduates.

See comment 5.

The Department agrees that faculty credentials are important in terms of academic program quality, and is reviewing faculty structure at each of the academies.

FINDING F: Academy Graduates Have Higher Retention and Career Progression. The GAO observed that academy graduates tend to remain in the Service longer than other officers, although less than half of them stay in the Service until retirement. The GAO reported that most academy graduates complete their initial obligation within eight years, with 34 percent resigning within that time. The GAO found that academy graduates have progressed somewhat faster than other officers and are much more likely to achieve general officer/flag rank (general and admiral). The GAO also observed, however, that all academy graduates receive regular commissions, whereas most other officers have been commissioned as Reserve officers. The GAO pointed out that the career advantages of a regular commission can be significant, and that many Reserve Officers' Training Corps graduates and graduates of other programs may have been forced to leave the military or left voluntarily because they felt that they were at a competitive disadvantage. Another factor the GAO cited is the possibility that decisions about promotions and careers may be influenced by academy graduates, who promote the careers of fellow alumni. (The GAO noted that Service officials strongly deny the existence of such favoritism.) The GAO observed that retention and career progression statistics are likely to have been affected not only by academy graduates receiving regular commissions but a higher allocation of combat-related occupations, both factors that have historically been related to career success. (pp. 3-4, pp. 48-55/GAO Draft Report)

Now on pp. 30-34.

See comment 6.

Now on pp. 33-34.

See comment 7.

See comment 8.

DOD RESPONSE: **Partially concur.** Although the GAO correctly identified higher retention and attainment of flag/general officer grades for academy graduates, it implies that this is the result of preferential treatment of graduates. That is false. The statement in the draft report on page 55 citing perceptions of favoritism is particularly offensive and should be deleted. The stated mission differences of academy versus other commissioning sources yields different initial commissioning practice. To begin with, the assignment into combat military occupational specialties is the intended purpose of the 4-year academy program. The assignment into support specialties and non-line (other than combat) occupations is a secondary mission of officer management. Since the principal mission of the Armed Forces currently remains combat, it seems appropriate that mission should be the focus of the full-time, fully funded program to commission officers (academies), and that other specialties be commissioned from the shorter-term programs. Also, while it is true that Reserve officers may be involuntarily separated prior to the 18th year of service, the same is true for all officers. There are no practical differences in officer personnel management practices based upon regular versus reserve commissions.

FINDING G: Few Studies on the Quality of the Performance of Graduates. The GAO reported that, since comparisons of retention and progression data relating to the three main sources of commission do not provide a complete or comprehensive picture, it is important that other means of assessing academy effectiveness be developed. The GAO found that, while each academy has performed sporadic studies to obtain feedback on achievement of its goals, none have obtained feedback routinely and systematically on their graduates' performance or the effectiveness of its programs. The GAO noted that, in 1988, the Military Academy surveyed almost 800 battalion commanders, company commanders, and platoon sergeants, who rated their platoon leaders on 24 performance attributes. The GAO cited the results as indicating that academy graduates were rated high on sense of integrity, physical fitness, strength of character, potential for advancement and role understanding, but lower on maturity, specific job knowledge and skills, and the ability to manifest concern for troops. The GAO also found that, before 1987, the Naval Academy annually surveyed graduates at various points after commission, through a project called the Graduate Performance Evaluation system--but, in 1985, determined that this survey did not provide adequate information on which to base decision on curriculum or professional training. The GAO also found that, between 1969 and 1984, the Air Force Academy performed a few studies aimed at assessing graduate performance, but that those were open to question, according to an academy

Now on pp. 34-36.

document. The GAO noted that the Academy is in the process of developing a comprehensive evaluation program that identifies the skills and competencies desired of academy graduates, establishes active duty performance measures, and outlines a plan for systematically analyzing and reporting graduate data. The GAO concluded that adequate assessment of graduate performance could be helpful in improving the effectiveness of the Service academy programs. The GAO further concluded that the three academies have not developed conclusive findings or clearly linked the results to their programs. (p. 48, pp. 56-59/GAO Draft Report)

DOD RESPONSE: Concur. The Department agrees that broader measures of quality and performance are needed to evaluate the efficacy of respective commissioning sources, and will follow up on their development.

FINDING E. Better Oversight Is Needed to Strengthen Academy Management. The GAO reported that each academy operates relatively independently, without significant external oversight. The GAO found that DoD oversight has been limited to occasional major studies, the most recent of which occurred in the mid-1970s. The GAO observed that, while each academy has a Board of Visitors comprised of congressional members and prominent civilians, those Boards provide only limited external review due to the minimal time available and the lack of an independent staff. The GAO also found that the various Service audit agencies have conducted relatively few reviews of academy operations--and most of their reviews dealt with non-appropriated fund activities. The GAO pointed out that none of the external oversight groups has conducted regular, systematic, comprehensive management reviews of (1) academy costs and operations or (2) the performance of academy graduates. The GAO observed that, while the academies are subject to supervision by their Service headquarters and each academy conducts it own internal reviews, such mechanisms cannot substitute for independent oversight. The GAO emphasized that the Office of the Secretary of Defense has not established any specific mechanisms for ongoing oversight. The GAO also found that, while at times academy superintendents appoint special committees or study groups to report on specific issues (which can provide useful information to the academy), they cannot take the place of independent reviews. The GAO concluded that existing oversight is limited and hampered by lack of systematic information of the cost and operation of the academies, or detailed information on the performance of graduates. The GAO further concluded that, as a result, the Congress and the DoD cannot determine readily how much

Now on pp. 37-42.

academy graduates cost or what the Nation is getting for its investment. (p. 4, pp. 60-68/GAO Draft Report)

DOD RESPONSE: Concur. The Department particularly agrees that standardized cost reporting systems and additional involvement of boards of visitors in academy issues is appropriate.

* * * * *

RECOMMENDATIONS

Now on p. 21.

RECOMMENDATION 1. The GAO recommended that the Secretary of Defense direct the Comptroller, DoD, to assist the academies in developing appropriate cost guidance for uniform reporting of all costs that all academies incur. (p. 31/GAO Draft Report)

DOD RESPONSE: Concur. The Assistant Secretary of Defense (Force Management and Personnel) will obtain the assistance of the Defense Finance and Accounting Service to develop uniform cost reporting guidance. We will then ask the Service academies to provide the cost information on a routine basis with a first report expected by the end of FY 1992.

Now on p. 21.

RECOMMENDATION 2. The GAO recommended that the Secretary of Defense direct the academies to report annually their staffing levels and costs and capital investments costs--in addition to their operating costs and cost per graduate. (P. 32/GAO Draft Report)

DOD RESPONSE: Concur. See DoD response to Recommendation 1. The report will address staffing and capital investments, (separate from operating costs).

Now on p. 29.

RECOMMENDATION 3. The GAO recommended that the Secretary of Defense direct the academies to report what they are doing to address the issues of faculty credentials, faculty turnover, and student time demands. (p. 47/GAO Draft Report)

See comment 9.

DOD RESPONSE: Partially concur. The issue of faculty credentials will be examined, as it relates to stability within the academic program. An academy report on this issue, per se, may not be as useful as further research and review with accrediting associations and scholastic subject matter experts. The Assistant Secretary of Defense (Force Management and Personnel) will undertake this review

during FY 1991-1992 with the aim of improving permanent faculty credentials in appropriate academic billets at the academies.

RECOMMENDATION 4. The GAO recommended that the Secretary of Defense direct the Military Services to develop the means to assess the effectiveness of the academies' programs. (The GAO observed that program effectiveness measures would also be applicable to the other officer commissioning programs.) (p. 59/GAO Draft Report)

Now on p. 36.

DOD RESPONSE: Partially concur. The DoD, vice the Services, should develop the means of evaluating graduates' performance. In that regard, we have asked the Defense Manpower Data Center to design a survey to measure performance, and expect to begin validation of the survey instrument by the summer of 1991. This effort is related to a finding and recommendation contained in a separate GAO draft report concerning the Reserve Officers' Training Corps (GAO Code 393365), which also recommended development of additional measures to evaluate graduates of the various commissioning programs.

See comment 10.

RECOMMENDATION 5. The GAO recommended that the Secretary of Defense appoint a high-level commission to evaluate the effectiveness of alternative means of providing external oversight and advice to the academies. (p. 69/GAO Draft Report)

Now on pp. 41-42.

DOD RESPONSE: Nonconcur. High-level commissions tend to produce reports without follow-up. The issues most pressing in the officer procurement area are known and are now being addressed. With cost management, faculty issues, and graduate performance under active consideration by the DoD, additional formal review organizations are unnecessary.

RECOMMENDATION 6. The GAO recommended that the Secretary of Defense establish a focal point within the Office of the Secretary of Defense to monitor the academies routinely from a DoD perspective. (p. 69/GAO Draft Report

Now on p. 41.

DOD RESPONSE: Concur. The Directorate for Accession Policy, Office of the Assistant Secretary of Defense (Force Management and Personnel), has assumed responsibility as focal point of contact for the Service academies.

Now on p. 41.

RECOMMENDATION 7. The GAO recommended that the Secretary of Defense direct the Service Secretaries to ensure that audit agencies and inspectors general give more frequent attention to the Service academies. (p. 69/GAO Draft Report)

DOD RESPONSE: Concur. Audit agency access is important to fiscal oversight of academies, and the Department will so direct the Services within the next 30 days.

The following are GAO's comments on the Department of Defense's letter dated March 15, 1991.

GAO Comments

1. We identified this error shortly after the report was sent to DOD for comment, and we called it to the attention of DOD and the services. The report now contains the correct figure.

2. Our assessment was made from an oversight perspective. We did not assess if the academies had financial management information appropriate for their requirements. We believe that the academies' cost reports are inadequate to give DOD and service officials the information they need to provide adequate oversight of the academies.

The cost reporting requirement was established in 1975 by the DOD Committee on Excellence in Education. To our knowledge, this requirement has never been rescinded and the academies have been providing cost reports annually since the original requirement was established.

3. At a meeting between DOD and GAO officials to discuss DOD's preliminary comments on a draft of this report, we requested that DOD state its position on faculty training costs. Although the final version of DOD's comments does not address this issue, DOD officials have advised us that DOD concurs with the inclusion of graduate training costs when academy positions are used as the justification for that training.

We did not mean to imply that major capital investments should be included in determining cost per graduate. However, since capital investments at the academies do represent a significant expenditure, we continue to believe that they should be highlighted in the academies' financial reporting.

4. Although the overall conclusions of the accreditation reports are positive, the fact that the concern about faculty credentials has been repeatedly raised in these reports led us to report on the concern. In reporting on this issue, we deferred to the judgment of the experts on the various accrediting bodies.

If, as DOD's response implies, the academies should only be compared with undergraduate, nonresearch institutions, the credentials issue still exists. Since undergraduate-only institutions do not have graduate students to use as teaching assistants, their regular faculty provides the classroom instruction as occurs at the academies. However, compared to

the academies, a higher proportion of the faculties at these undergraduate colleges has more than a master's degree.

5. The mission of the academies does extend beyond just awarding baccalaureate degrees. We raised the issue of time demands as a factor that may preclude service academy students from performing to the potential that their high aptitude scores would predict.

6. We did not imply that the greater proportional representation of academy graduates at the flag/general officer grades was the result of preferential treatment. Instead, we only cited the perception of favoritism that some officers and others reported to us. We are not aware of any evidence either supporting or refuting that perception.

7. None of the academy mission statements (see p. 22) includes "the assignment into combat military occupational specialties" as the intended purpose of the 4-year academy program. The assertion that the purpose of the academies is to develop combat officers has been used as a rationale by those who contend that women should not attend the academies.

8. DOD's statement that there are no practical differences in officer personnel management practices based on regular versus reserve commissions is inconsistent with its opposition to recent legislation proposing that all new officers, including academy graduates, receive reserve commissions.

9. We did not mean to imply that a written report should be submitted to DOD. We were using the term report in a more generic sense, meaning that DOD should require the academies to respond to the issues of faculty credentials and stability. We believe the review DOD stated it will conduct is fully responsive to our recommendation.

10. DOD's decision to be responsible for developing the means for evaluating the graduates of the various officer commissioning programs is fully responsive to the intent of our recommendation.

Major Contributors to This Report

National Security and International Affairs Division, Washington, D.C.	William E. Beusse, Assistant Director
Norfolk Regional Office	Dudley C. Roache Jr., Regional Management Representative Lawrence E. Dixon, Evaluator-in-Charge Charles T. Bolton, Site Senior Willie J. Cheely Jr., Site Senior Sharon L. Reid, Evaluator
New York Regional Office	James R. Bradley, Site Senior Kathryn M. Kelly, Evaluator
Denver Regional Office	Alan J. Wernz, Evaluator

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