March 1992

DOD SERVICE ACADEMIES

Academy Preparatory Schools Need a Clearer Mission and Better Oversight

RESTRICTED--Not to be released outside the General Accounting Office unless specifically approved by the Office of Congressional Relations.

GAO/NSIAD-92-57
Pursuant to the report of the House Armed Services Committee on the fiscal year 1991 National Defense Authorization Act, we examined the schools the Army, Air Force, and Navy operate to prepare selected individuals for admission to their service academies.

As requested, we plan no further distribution of this report until 15 days after its issue date. At that time, we will send copies to the Chairmen, House and Senate Committees on Appropriations; the Secretaries of Defense, the Army, Air Force, and Navy; and the Director of the Office of Management and Budget. Copies will also be made available to other interested parties on request.

Please contact me at (202) 275-3990 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix II.

Paul L. Jones
Director, Defense Force Management Issues
Executive Summary

Purpose

Each year, the Army, Air Force, and Navy spend millions of dollars to operate prep schools to prepare students for admission to the service academies. In its report on the fiscal year 1991 National Defense Authorization Act, the House Armed Services Committee noted that the size of the officer corps, and of the academies, would decline in future years and asked GAO to review the prep schools. GAO objectives were to assess (1) how well the schools accomplished their missions and (2) whether they were cost-effective.

Background

Between 1986 and 1990, the three academies combined received an average of 41,834 applications a year. Each year, on average, 8,562 applicants were judged to be fully qualified candidates. The academies, however, admitted an average of only 4,072 cadets and midshipmen. Academy officials screen the applicants who are not offered appointments to identify persons who have the potential to succeed in the officer corps but would benefit from additional preparation. Some of these unsuccessful applicants are offered admission to the service's prep school, providing a second chance to compete for a service academy appointment.

The schools, which are tuition-free and provide pay and allowances to students, offer academic instruction, physical conditioning, and an orientation to military life. In 1990, the Army prep school enrolled 303 students, the Air Force prep school enrolled 256 students, and the Navy prep school enrolled 346 students, including 36 students who were preparing for admission to the Coast Guard Academy.

Results in Brief

The schools' missions are not clearly defined. Their mission statements refer to preparing “selected” individuals for academy admission. The schools appear to be pursuing differing goals regarding specific subgroup such as enlisted personnel, females, minorities, and recruited athletes—the primary groups the schools now serve. For example, about 50 percent of the students enrolled at the Air Force prep school were recruited athletes; this is about double the percentage of recruited athletes at the Army and Navy schools.

The Department of Defense (DOD) has limited information on the quality of the schools' programs. Program reviews of the prep schools conducted by service academy faculty do not assess the schools against a uniform set of quality and performance standards. DOD lacks the tools and information it needs to assess whether the schools are cost-effective. GAO's review
Executive Summary

indicated that the Navy, Army, and Air Force preparatory programs cost about $39,800, $50,900, and $60,900, respectively, for each student entering an academy.

Principal Findings

Schools Serve Varied Missions and Receive Inadequate Oversight

Initially, the schools were established to help prepare enlisted personnel for admission to the academies. Over the years, however, the schools' missions have evolved and become more diverse. Academy officials told us that the prep schools were currently important because they prepare minorities and women for academy admission and therefore promote diversity in the officer corps. In addition, each school helps prepare some athletes to attend the academies.

The specific subgroups served varied from school to school.\(^1\) The Army's school places the strongest emphasis on preparing enlisted personnel, who represented about 55 percent of enrollment in the school's 1988-89 and 1989-90 classes, compared to 12 percent at the Air Force school and 21 percent at the Navy school. Females represented about 10 percent of the enrollment at each school. The Air Force and Navy schools enrolled a higher proportion of minority students—about 40 percent—than the Army school—about 22 percent. Preparing recruited athletes appears to have been a key objective of the Air Force school, where athletes represented about 50 percent of the enrollment. Athletes represented about 24 percent and 27 percent of the enrollment at the Army and Navy schools.

The service academies schedule periodic program reviews of the schools, which are generally conducted by members of the academy faculty. The schools have not sought accreditation and their curriculums and academic programs have not been assessed against a uniform set of quality standards. The experience of faculty at the schools varied substantially, averaging about 4 years of teaching experience at the Air Force school, about 8 years at the Navy school, and over 15 years at the Army school.

\(^1\)Since the population subgroup categories are not mutually exclusive, the percentages cited for each prep school will sum to more than 100 percent.
Executive Summary

DOD Has Not Assessed the Productivity or Cost of the Schools

In 1990, about 14 percent of the cadets and midshipmen admitted to the three services' academies had attended one of these schools. The schools achieved varying degrees of success in placing students in the service academies. The percentage of prep school students in the 1988-89 and 1989-90 classes receiving an academy appointment was about 54 percent of students enrolled at the Army school, 71 percent at the Navy school, and 73 percent at the Air Force school. The performance of prep school students at the academies was generally below the average of other academy cadets and midshipmen. Graduation rates varied from about 65 percent of the prep school students enrolled in the classes of 1986 through 1990 at the Air Force Academy and 69 percent at the Military Academy (both somewhat lower than other cadets) to about 78 percent at the Naval Academy (somewhat greater than other midshipmen). Each service expressed satisfaction with the appointment and graduation rate experience of its school, but neither DOD nor the services have established performance targets for the schools. Moreover, a 1985 Army study concluded that the effect of prep school academic training on subsequent academic performance at the Military Academy was minimal.

DOD does not require the schools to regularly report their operating costs. DOD has not provided instructions on how to estimate costs and the bases for cost estimates were not consistent across schools. GAO identified about $2.9 million in additional annual applicable costs that should have been included in the $24.9 million cost estimates the services provided to GAO.

Based on data supplied by the schools, GAO estimates the Army, Air Force, and Navy preparatory programs cost about $60,900, $50,900, and $39,800, respectively, for each student who entered an academy. These costs are almost as much or more than the cost of sending someone to the corresponding academy for a year and are 2.5 to 4 times as much as the cost to send a student to a highly selective college for a year.

Recommendations

GAO recommends that the Secretary of Defense determine what role the prep schools should play among the services' officer production programs and direct the services to clarify the missions of their schools accordingly. GAO also recommends that the Secretary establish appropriate standards applicable to the schools' faculty and curriculums and require periodic independent reviews to ensure that the schools meet these standards.

To ensure that the resources devoted to the prep schools are used efficiently, GAO recommends that the Secretary establish guidelines for
Executive Summary

estimating school costs. Once performance standards and cost estimating guidelines are in place, GAO recommends that the Secretary require periodic assessments of the cost-effectiveness of continuing to operate the schools. Given the relatively high cost per cadet/midshipman placed at an academy, consideration should be given to alternative methods of providing academy preparation, such as utilizing existing educational institutions or the private sector.

Agency Comments

DOD reviewed a draft of this report and concurred with the principal findings and recommendations. As part of increased oversight of officer accession programs, DOD stated that it has initiated several actions to improve cost reporting, efficiency, management, and supervision of the prep schools, and indicated it would thoroughly examine the full range of measures to improve the operation of the schools.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Executive Summary</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chapter 1</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td></td>
</tr>
<tr>
<td>Objectives, Scope, and Methodology</td>
<td></td>
</tr>
<tr>
<td><strong>Chapter 2</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Schools' Missions Are</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Prep Schools Have Diverse Missions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Prep Schools Not Adequately Assessed</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chapter 3</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>DOD Cannot Presently</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Prep School Students' Achievements Varied</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Good Data on School Operating Costs Are Not Available</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chapter 4</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Conclusions, Recommendations, and Agency Comments and Our Evaluation</strong></td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>Agency Comments and Our Evaluation</td>
<td></td>
</tr>
<tr>
<td><strong>Appendixes</strong></td>
<td>3</td>
</tr>
<tr>
<td>Appendix I: Comments From the Department of Defense</td>
<td></td>
</tr>
<tr>
<td>Appendix II: Major Contributors to This Report</td>
<td>4</td>
</tr>
<tr>
<td><strong>Tables</strong></td>
<td>1</td>
</tr>
<tr>
<td>Table 2.1: Percent of Academy Student Subgroups Coming</td>
<td></td>
</tr>
<tr>
<td>From the Prep Schools</td>
<td></td>
</tr>
<tr>
<td>Table 2.2: Prep School Faculty Credentials</td>
<td>1</td>
</tr>
<tr>
<td>Table 3.1: Costs Not Included in Fiscal Year 1990 Prep School</td>
<td>2</td>
</tr>
<tr>
<td>Operating Cost Estimates</td>
<td></td>
</tr>
</tbody>
</table>
Figures

Figure 2.1: Makeup of Prep School Classes 13
Figure 2.2: SAT Math Scores of Prep School Students 14
Figure 3.1: Academy Appointment Rates of Prep School Students 19
Figure 3.2: Academy Grade Point Averages of Prep School Students 20
Figure 3.3: Academy Military Performance Grade Averages of Prep School Students 21
Figure 3.4: Academy Graduation Rates of Prep School Students 23

Abbreviations

DOD Department of Defense
GAO General Accounting Office
SAT Scholastic Aptitude Test
Academies operated by the Army, Air Force, and Navy are one of the primary sources of newly commissioned officers. To enter the academies, applicants who meet basic criteria of age, medical condition, and physical aptitude are evaluated using a formula that weighs the applicant’s academic record, scores on standardized tests, and potential for leadership. Between 1986 and 1990, the three service academies combined received an average of 41,834 applications a year and found an average of 8,562 applicants to be qualified for admission. The academies admitted an average of 4,072 cadets and midshipmen a year during this period.

The preparatory schools were originally created to prepare enlisted personnel to enter the service academies. During World War I, the Congress authorized the Secretaries of the Army and Navy to nominate 85 regular enlisted and 85 reserve enlisted personnel to their respective service academies. Many of the first enlisted nominees did poorly on service academy entrance examinations, and many of the slots created for them went unfilled. While not created through legislation, Army and Navy officials established prep schools to coach enlisted nominees for service academy entrance examinations.

If an applicant is not selected for admission to an academy, service prep schools can provide them a second chance at a service academy appointment. Although Army and Air Force enlisted personnel may either apply for admission to the academy or the prep school, individual civilians normally do not apply to attend a prep school. Instead, students are selected to attend the prep schools from the pool of service academy applicants who do not receive an appointment. Academy admissions officials screen these applicants to identify persons who they believe can succeed at the academies but would benefit from more preparation. Academy officials stressed that written criteria for prep school selection do not exist; considerable personal judgment of admissions officials is involved.

The prep schools do not charge for tuition. The services reassign personnel already enlisted in the service to the school as their duty station, and they continue to be paid at the grade they earned before enrolling. Civilians enlist in the reserves and are ordered to active duty at the school, generally entering the school at the lowest enlisted pay grade. By enlisting in the reserves, civilians technically incur a service obligation. This obligation, however, is generally waived for civilians who do not complete the prep school course of study or who do not receive an academy appointment.
Students are eligible to be considered for promotion within the same time frame as other enlisted personnel.

### Course of Study

The prep schools offer a 10-month course that combines academic instruction, physical conditioning, and an orientation to military life. The daily schedule includes about 4 to 5 hours of classroom instruction, about 3 to 4 hours of mandatory study time and tutoring, a period of athletics or physical training, and some instruction in military customs and practices. The student body at each school is organized into a military unit with a student chain-of-command advised by commissioned and noncommissioned officers. This structure is intended to provide the students exposure to military discipline and operations.

### Numbers of Students

In 1990, the Army prep school enrolled 303 students and the Air Force school enrolled 256. The Navy school enrolled 310 students preparing for the Naval Academy and 36 preparing for the U.S. Coast Guard Academy. In 1991, the Navy school also began enrolling students preparing for admission to the U.S. Merchant Marine Academy. Of the 3,963 cadets and midshipmen that entered the Army, Air Force, and Navy academies in 1990, about 14 percent had attended 1 of the 3 prep schools.

### Objectives, Scope, and Methodology

In its report on the fiscal year 1991 National Defense Authorization Act, the House Armed Services Committee noted that the services were entering an era in which the size of the force, and of the officer corps in particular, would be shrinking. Since the prep schools are one program that trains future officers, the Committee directed us to review the three service academy prep schools to assess (1) how well the schools accomplished their missions and (2) whether they were cost-effective.

We performed our review at the Department of Defense (DOD) and service headquarters, Washington, D.C.; at the Military Academy in West Point, New York; the Air Force Academy in Colorado Springs, Colorado; the Naval Academy in Annapolis, Maryland; the Military Academy Preparatory School in Fort Monmouth, New Jersey; the Air Force Academy Preparatory School in Colorado Springs, Colorado; and the Naval Academy Preparatory School in Newport, Rhode Island.

---

1The Merchant Marine Academy is operated under the Department of Transportation and does not have its own prep school.
We interviewed DOD, service headquarters, and academy officials to determine what missions the schools were intended to pursue and to obtain their assessment of the schools' accomplishments and the quality of their performance. At the schools, we analyzed data on demographic characteristics and academic qualifications of students in the 1988-89 and 1989-90 classes and reviewed information on school curriculums and faculty credentials.

We interviewed DOD, service headquarters, and academy officials to determine what results they expected the schools to achieve and to obtain their assessment of the schools' effectiveness. We analyzed data on appointments to service academies and academy performance of students in the 1988-89 and 1989-90 classes, and data on graduation rates of prep school students from the academies. Since the schools lacked a regular cost-reporting system, we analyzed data supporting the cost estimates provided us by the services and interviewed officials concerning the estimates. We did not verify the accuracy of the cost data provided.

We conducted our review from January 1991 to December 1991 in accordance with generally accepted government auditing standards.
Schools' Missions Are Not Clearly Defined and Programs Not Adequately Assessed

DOD has not formalized the missions of the prep schools since the schools were created, nor has it monitored their operations. The prep schools were initially established to prepare enlisted personnel for the service academies. The prep schools now also serve civilians and are a key source for the academies of females, minorities, and recruited athletes identified by academy athletic departments. The composition of the student bodies the prep schools varied from school to school. Although service academy faculty periodically review prep school programs, these reviews do not measure the schools against a uniform set of quality standards.

Prep Schools Have Diverse Missions

Since their beginnings, the schools have acquired diverse missions, and serve civilians as well as enlisted personnel. The schools are now important, according to academy officials, because they prepare minorities and women for academy admission and therefore promote diversity in the officer corps. Service goals for enrolling minorities in the academies would be difficult to meet without the contributions of the prep schools, according to service officials. The prep schools also provide training to recruited athletes identified by academy athletic departments.

Table 2.1 shows the percentage of various subgroups entering the academy classes of 1993 and 1994 that came from the prep schools. The prep schools are a major source of enlisted personnel at the academies. The prep schools do not appear to be a key source of women at the academies supplying between 9.4 percent and 12.5 percent of the females admitted the academies. For minorities, the percentage coming from the prep schools were 17.2 percent for the Military Academy, 27.9 percent for the Air Force Academy, and 31.8 percent for the Naval Academy. Regarding recruited athletes at the academies, 14 percent of those at the Military Academy came from the Army prep school, compared to 21.5 and 23 percent, respectively, of the recruited athletes at the Naval and Air Force academies.
Table 2.1: Percent of Academy Student Subgroups Coming From the Prep Schools

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th>Minorities</th>
<th>Enlisted Personnel</th>
<th>Recruited athletes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Military Academy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number admitted</td>
<td>300</td>
<td>436</td>
<td>170</td>
<td>548</td>
</tr>
<tr>
<td>Number coming from the prep school</td>
<td>31</td>
<td>75</td>
<td>170</td>
<td>77</td>
</tr>
<tr>
<td>Percent coming from the prep school</td>
<td>9.7</td>
<td>17.2</td>
<td>100.0</td>
<td>14.0</td>
</tr>
<tr>
<td><strong>Air Force Academy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number admitted</td>
<td>353</td>
<td>491</td>
<td>76</td>
<td>684</td>
</tr>
<tr>
<td>Number coming from the prep school</td>
<td>44</td>
<td>137</td>
<td>53</td>
<td>157</td>
</tr>
<tr>
<td>Percent coming from the prep school</td>
<td>12.5</td>
<td>27.9</td>
<td>69.7</td>
<td>23.0</td>
</tr>
<tr>
<td><strong>Naval Academy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number admitted</td>
<td>267</td>
<td>532</td>
<td>242</td>
<td>474</td>
</tr>
<tr>
<td>Number coming from the prep school</td>
<td>25</td>
<td>169</td>
<td>97</td>
<td>102</td>
</tr>
<tr>
<td>Percent coming from the prep school</td>
<td>9.4</td>
<td>31.8</td>
<td>40.1</td>
<td>21.5</td>
</tr>
</tbody>
</table>

The mission statements of each of the prep schools refer to preparing "selected" individuals for academy admission. The mission statements do not mention specific groups such as enlisted personnel, females, minorities, or athletes.

As reflected in the demographic makeup of the prep school classes, the relative emphasis placed on preparing enlisted personnel, women, minorities, and athletes varies from school to school. Data on the representation of selected groups in the prep school classes of 1988-89 and 1989-90 are shown in figure 2.1.

---

1Since the subgroup categories are not mutually exclusive, the percentages cited for each prep school will sum to more than 100 percent.
Females represented roughly 10 percent of the class at each school. The Army school had the highest representation of enlisted personnel—about 55 percent—and less representation of minorities than the other schools. The Air Force school had the greatest representation of athletes—about 50 percent—a high representation of minorities, and the least representation of enlisted personnel. Minorities comprised the largest proportion of students at the Navy school, though differences in representation between the groups at the Navy school were less marked than at the other two schools. There is some double-counting in these percentages due to individuals falling into more than one subgroup category. For example, about 20 percent of minority students at the Air Force Academy prep school were also recruited athletes and are counted in both categories. The comparable figures at the other prep schools were 1 percent at the Military Academy prep school and 12 percent at the Naval Academy prep school.
Prep School Students Have Weaker Qualifications Than Most Academy Appointees

Prep school students have weaker qualifications than other cadets and midshipmen appointed to the academies. The academies consider an applicant's academic record and leadership potential as well as scores on standardized tests. Prep school students had combined average scores on the verbal and math portions of the Scholastic Aptitude Test (SAT)—one indicator of academic potential—that were from 149 points lower (at the Navy school) to 191 points lower (at the Air Force school) than the average for all cadets and midshipmen. Relative average SAT math scores for various groups of prep school students in the 1988-89 and 1989-90 classes and for all cadets and midshipmen in the academy classes these students entered are shown in figure 2.2.

At each prep school, enlisted personnel had the highest average SAT math scores, particularly at the Air Force school. Females had the lowest average scores at the Army and Air Force schools, while recruited athletes...
had the lowest average scores at the Navy school. Although average scores for prep school students were lower than the averages for all cadets and midshipmen, the percent of the prep school students in the 1988-89 and 1989-90 classes with scores above the academy admissions department's minimum score guidelines ranged from 22 percent at the Navy school to 30 percent at the Air Force school.

Prep Schools Not Adequately Assessed

The prep schools are not accredited, and the strength of the credentials of their faculty varied. Members of the academy faculties have periodically assessed the operations of their respective prep schools, but their assessments have not been made against any established criteria. The intervals of time between assessments vary from 1 year to 5 years.

Accreditation Not Seen As Worthwhile for the Schools

Although accreditation reviews could compare the military services' prep schools against the standards applied to most recognized prep schools, colleges or universities, school officials identified difficulties that seeking accreditation would present. As post-secondary institutions, school officials noted that their schools are not required to be accredited. They also stated that some of the standards that accrediting agencies require institutions to meet may not be appropriate for their prep schools. Officials at the Army school investigated obtaining accreditation and were told by the potential accreditation agency that, since they offered a 1-year program instead of the 2-year program of a typical junior college, they could not obtain accreditation. Officials at the Air Force prep school stated that, if the school were accredited as a junior college, the eligibility of athletes enrolled in the school to compete in varsity sports at the academy would be affected.

Faculty Credentials Vary

The makeup of the faculty in terms of credentials and experience varied from school to school. Data reflecting the credentials of faculty at the prep schools are shown in table 2.2.
## Chapter 2

**Schools' Missions Are Not Clearly Defined**

**and Programs Not Adequately Assessed**

### Table 2.2: Prep School Faculty Credentials

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Prep school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Army</td>
</tr>
<tr>
<td>Average teaching experience (years)</td>
<td>15.3</td>
</tr>
<tr>
<td>Percent of faculty with a:</td>
<td></td>
</tr>
<tr>
<td>Masters degree</td>
<td>65</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>24</td>
</tr>
<tr>
<td>Percent of faculty certified as teachersa</td>
<td>59</td>
</tr>
</tbody>
</table>

*aIncludes faculty members who have been certified as teachers by state education authorities at any time, whether the certification is now in effect, or not.

Most of the 17 faculty members at the Army school were civilians; only 29 percent were military personnel. All of the Air Force school's 17 faculty members were military personnel, while at the Navy school, 70 percent of its 27 faculty members were military.

Military faculty members are subject to periodic reassignment. As we noted in a 1991 study of the service academies, accrediting agencies have raised concerns about the instability and lack of teaching experience that result from frequent turnover of military faculty at the academies.

The data in table 2.2 show that the faculty at the Army school had more teaching experience, held more advanced degrees, and had a higher percentage of certified teachers than the faculty at the other two schools. The faculty at the Air Force school, made up entirely of military personnel, had the least teaching experience of the three schools, but held more advanced degrees than did the more experienced faculty at the Navy school.

### No Established Criteria for Assessing the Schools

The service academies have conducted periodic program reviews of the prep schools. The Air Force Academy conducts a review annually, the Naval Academy conducts a review every 3 years. The Military Academy completed its first review in 1986 and indicated that it planned to conduct a follow-up review 5 years later. For each school, members of the academy faculty form the review teams, which also generally include representatives of academy athletic and admissions departments. These reviews reflect an informed judgment about the quality of the schools' programs, but do not measure the schools against a uniform set of quality standards.

---

Academy reviewers have surfaced concerns regarding the schools' programs and action has been taken to address some of these concerns. The 1986 review of the Army school, for example, concluded that the excessive work load of instructors reduced their ability to prepare effective lessons. The teaching load was consequently dropped from four to three classes a day. The 1989 review at the Navy school found problems in acquiring textbooks, and stated that a sufficient supply of math textbooks had not been delivered until several weeks after instruction had begun. The reviewers concluded that more, higher-level attention to these problems was needed to ensure an effective course of study. In 1990, budgetary supervision of the Naval Academy prep school was transferred to the Naval Academy.

The reviews by the academy faculties are the only assessments the prep schools have been subject to. The prep schools have not received any independent reviews or evaluations by DOD or educational accreditation agencies.
DOD Cannot Presently Evaluate the Prep Schools

DOD has not established the criteria it needs to evaluate the prep schools. First, DOD has not established goals for the schools' success in preparing students for the academies. The percentage of students who obtain academy appointments varies from school to school and prep school graduates' performance at the academies was generally below average. Second, DOD has not issued guidelines on how the services should estimate the cost of operating the schools and does not require regular cost reports. Based on estimates provided to us by the services and additional costs we determined should be included, it cost an average of about $48,900 for each academy cadet or midshipman the prep schools produced. This amount is about as much or more than it costs to send someone to the corresponding academy for a year and about 2.5 to 4 times the cost of sending a student to a top college for a year.

Prep School Students' Achievements Varied

The schools accumulate data on various measures of their performance in preparing students for the service academies, but no guidelines for these measures have been established. DOD has not established goals for the schools, either in terms of the percentage of students that receive an academy appointment or that graduate from the academies. Headquarters officials in each service told us that they were familiar with the schools' performance and were satisfied with them. The services, however, have not established specific performance targets they expect the schools to meet.

Appointment Rates Varied

The Air Force and Navy schools achieved a higher appointment rate than the Army school. Appointment rates for students enrolled in the 1988-89 and 1989-90 classes at the Army prep school were about 54 percent, compared to just over 70 percent for the Air Force and Navy prep schools. Overall appointment rates and rates for the specific groups we analyzed are shown in figure 3.1.

---

1 Under the law establishing the Military, Air Force, and Naval academies, cadets and midshipmen must be appointed to the academies by the President; accordingly, an offer of admission to one of the academies is referred to as an appointment.
Chapter 3
DOD Cannot Presently Evaluate the Prep
Schools

Figure 3.1: Academy Appointment Rates
of Prep School Students

<table>
<thead>
<tr>
<th>90</th>
<th>Appointment rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

- U.S. Military Academy Prep School
- U.S. Air Force Academy Prep School
- U.S. Naval Academy Prep School

- All students
- Females
- Minorities
- Enlisted personnel
- Recruited athletes

The relative success of the various student subgroups varied from school to school. Appointment rates for females were higher than the overall rate, except at the Navy school, where the female appointment rate was substantially lower. The appointment rate for minorities was comparable to the overall rate at each school. Except at the Army school, appointment rates for enlisted personnel were higher than the overall rate. Appointment rates for recruited athletes were lower than the overall rate at each school.

Prep School Graduates’ Academy Performance Was Below Average

The academic performance of prep school students at the academies was weaker generally than that of other cadets and midshipmen. On a 4.0 scale, the average academic grades of prep school students in the 1993 academy classes (the 1988-89 prep school classes) ranged from 0.26 lower than that for all cadets at the Military Academy to 0.35 points lower at the Naval Academy.

Grading at the academies is done using a 4.0 scale, with an “A” receiving 4 quality points for each credit a course carries, a “B” receiving 3 quality points, and so on down to no quality points for an “F.”
Air Force Academy. We analyzed academic and military grades of prep school students in the 1993 academy classes because their grades represented, at the time of our field work, three semesters of work at the academies and would make their grades a more reliable measure of performance than those of the academy classes of 1994 whose grades would represent only one semester's work. Average relative grades for specific groups are shown in figure 3.2.

At each academy, enlisted prep school graduates had higher average grades than other prep school graduates. Prep school females had lower average grades than other prep school graduates at the Military and Air Force academies. At the Naval Academy, the average grades of female prep school graduates were fairly comparable to other prep school graduates. Prep school minorities also had poorer average grades than other
graduates, but had more nearly comparable average grades at the Air Force Academy. Recruited athletes from the prep schools also had lower average grades than other prep schools graduates, particularly at the Military Academy.

The average military performance grades for prep school students were comparable to the average grades for all cadets and midshipmen. On a 4.0 scale, the average military performance grades for prep school students in the 1993 academy classes ranged from 0.01 points lower (at the Naval Academy) to 0.12 points lower (at the Air Force Academy) than the average grades for all cadets and midshipmen. Relative average military performance grades for the selected groups analyzed and for all cadets and midshipmen are shown in figure 3.3.

**Figure 3.3: Academy Military Performance Grade Averages of Prep School Students**

<table>
<thead>
<tr>
<th>Military performance grade average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4</td>
</tr>
<tr>
<td>3.2</td>
</tr>
<tr>
<td>3.0</td>
</tr>
<tr>
<td>2.8</td>
</tr>
<tr>
<td>2.6</td>
</tr>
<tr>
<td>2.4</td>
</tr>
<tr>
<td>2.2</td>
</tr>
<tr>
<td>2.0</td>
</tr>
<tr>
<td>1.8</td>
</tr>
<tr>
<td>1.6</td>
</tr>
</tbody>
</table>

- U.S. Military Academy
- U.S. Air Force Academy
- U.S. Naval Academy

- All academy cadets or midshipmen
- Prep school females
- Prep school minorities
- Prep school enlisted personnel
- Prep school recruited athletes

Military performance grade averages are cumulative through the fall 1990 semester.

At each academy, cadets are assigned a grade that reflects their performance in the military aspects of the academy course that is distinct from their academic grade point average.
Enlisted prep school graduates had higher average military performance grades than other prep school graduates. At the Military and Naval academies, they had higher average grades than the general cadet or midshipman population. Prep school females had the lowest average military performance grades at each academy. Prep school minorities had lower average military grades than nonminority prep school graduates. Prep school recruited athletes also had lower average military grades than other graduates, particularly at the Military Academy.

The academies have done little analysis of how the schools affect academy performance. A 1985 study conducted at the U.S. Military Academy, however, compared the performance, during the first 2 years at the Academy, of cadets in the classes of 1984 through 1986 who entered the Academy directly and those who entered the Academy after a year at the prep school. This study found that prep school students performed as would be expected based on their record before attending the school. The study concluded that the effect of prep school academic training was minimal.

Academy graduation rates, both for cadets and midshipmen admitted directly to the academies and for prep school students, varied from academy to academy. At the Naval Academy, about 76 percent of the midshipmen admitted directly to the classes of 1986 through 1990 graduated; about 78 percent of the prep school students in these classes graduated. Graduation rates for prep school students at the Military and Air Force academies were lower (69 percent and 65 percent, respectively) as were graduation rates for cadets admitted directly (71 percent and 70 percent, respectively). Graduation rates at the three academies are shown in figure 3.4.
Although the services have done little analysis of prep school students' performance as officers, the data that is available indicate that their experience is similar to that of other academy graduates. The Army has accumulated data on the graduating classes of 1954-1968 that indicate prep school students were somewhat more likely to remain in the service than other academy graduates. However, since the Army prep school has a higher proportion of enlisted personnel and their enlisted time would count toward retirement, somewhat higher retention could be expected. A 1986 study prepared at the Air Force Academy compared the career retention and progression of prep school and non-prep school academy graduates from the classes 1962-1986. This study concluded that the experience of the two groups was essentially the same, with prep school graduates performing better for some measures and non-prep school graduates performing better for others.
DOD has limited information on the cost of operating the prep schools. While DOD has long required the academies to report their
cost-per-graduate, it has not imposed a similar requirement on the prep
schools. Some cost information on the schools was developed in
connection with recent DOD studies of officer commissioning programs.
This information, however, was gathered on a one-time basis, and DOD has
not issued instructions requiring uniform estimates of prep school
operating costs.

The service estimates of prep school costs indicated that, for fiscal year
1990, the cost for all prep schools totaled $24.9 million. Prep school
students receive normal enlisted pay and benefits whether they graduate or
not, and student pay and benefits comprise about 54 percent of total costs.

Determining the cost of operating the prep schools, however, presents
some difficulties. Costs paid directly from the schools' operating budgets
can be readily determined. However, pay and benefits for military
personnel and the cost of certain support services—such as property
maintenance, utilities, food service, and so forth—are not charged to the
schools' operating budgets. These costs must be estimated.

The approaches the three services took to estimating operating costs
differed. The Air Force Academy Comptroller developed cost estimates for
the Air Force school along with the Academy's estimate of its cost per
graduate. The Comptroller prepared a document outlining a detailed,
formal method for developing this estimate. The process used to develop
cost estimates for the Army and Navy schools was less formalized. To
estimate the significance of differing estimating approaches, we adapted
the Air Force's approach to the data available on selected elements of fiscal
year 1990 costs at the Army and Navy schools.

Military pay was one area where we found major differences in estimating
approaches. DOD provides guidance to the services on computing
composite cost rates for each officer and enlisted pay grade that reflect the
cost of benefits military personnel receive as well as direct pay. The Air
Force used these composite rates to estimate military pay costs. The Army
used rates that reflected only direct pay and therefore its estimate of
military pay costs was substantially understated. The Navy used a single
cost rate for all enlisted personnel—both staff and students—that reflected
the average pay grade of all Navy personnel. Since most students enter the
prep school at the lowest enlisted pay grade, Navy military pay costs were substantially overstated.

Support services were another area in which we found differences in the services' estimates. For example, the Air Force estimated property maintenance costs by determining what percentage of the total building space at the Academy the prep school occupied. The Air Force applied this percentage to the fiscal year 1990 cost of the property maintenance function to arrive at an estimate. The Army followed a similar process, but used fiscal year 1988 costs (not adjusted for inflation) and excluded the cost of supervising and managing the maintenance function. The Navy did not estimate a cost for property maintenance.

The effect of these differences on the services' cost estimates was substantial. Differing administrative and financial records maintained at the schools made it difficult to apply the Air Force's estimating methodology consistently to all prep school costs. Accordingly, we did not develop a complete estimate of the cost of operating the schools. Our review, however, indicates that the services' estimates did not include about $2.9 million in costs. The results of our review are summarized in Table 3.1.

<table>
<thead>
<tr>
<th>Table 3.1: Costs Not Included in Fiscal Year 1990 Prep School Operating Cost Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dollars in thousands</strong></td>
</tr>
<tr>
<td><strong>Prep schools</strong></td>
</tr>
<tr>
<td><strong>Army</strong></td>
</tr>
<tr>
<td><strong>Air Force</strong></td>
</tr>
<tr>
<td><strong>Navy</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Reported cost estimate</strong></td>
</tr>
<tr>
<td>$6,274</td>
</tr>
<tr>
<td>$8,446</td>
</tr>
<tr>
<td>$10,171</td>
</tr>
<tr>
<td><strong>$24,890</strong></td>
</tr>
<tr>
<td><strong>Costs not included in estimates</strong></td>
</tr>
<tr>
<td><strong>Faculty and staff pay</strong></td>
</tr>
<tr>
<td>888</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>204</td>
</tr>
<tr>
<td><strong>1,092</strong></td>
</tr>
<tr>
<td><strong>Student pay</strong></td>
</tr>
<tr>
<td>2,143</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>(2,247)</td>
</tr>
<tr>
<td><strong>(104)</strong></td>
</tr>
<tr>
<td><strong>Support services</strong></td>
</tr>
<tr>
<td>319</td>
</tr>
<tr>
<td>55</td>
</tr>
<tr>
<td>1,530</td>
</tr>
<tr>
<td><strong>1,904</strong></td>
</tr>
<tr>
<td><strong>Total costs not included in estimates</strong></td>
</tr>
<tr>
<td>3,350</td>
</tr>
<tr>
<td>55</td>
</tr>
<tr>
<td>(513)</td>
</tr>
<tr>
<td><strong>2,892</strong></td>
</tr>
<tr>
<td><strong>Adjusted total cost</strong></td>
</tr>
<tr>
<td><strong>$9,624</strong></td>
</tr>
<tr>
<td><strong>$8,501</strong></td>
</tr>
<tr>
<td><strong>$9,656</strong></td>
</tr>
<tr>
<td><strong>$27,783</strong></td>
</tr>
<tr>
<td><strong>Number of students admitted to an academy</strong></td>
</tr>
<tr>
<td>150</td>
</tr>
<tr>
<td>107</td>
</tr>
<tr>
<td>243</td>
</tr>
<tr>
<td><strong>566</strong></td>
</tr>
<tr>
<td><strong>Average Cost per student admitted to an academy</strong></td>
</tr>
<tr>
<td>$60.9</td>
</tr>
<tr>
<td>$50.9</td>
</tr>
<tr>
<td>$30.8</td>
</tr>
<tr>
<td><strong>$48.6</strong></td>
</tr>
</tbody>
</table>

*Our review included estimates of costs for property maintenance, utilities, food service, and health care.

As shown in Table 3.1, the cost per cadet/midshipmen actually placed at a federal service academy varied significantly across the three schools. The
Navy prep school’s cost per placement was the lowest, at about $39,800, followed by the Air Force prep school at about $50,900, and the Army prep school at about $60,900.

As a point of comparison, for fiscal year 1989, the 1-year cost per student attending the service academies ranged from about $39,500 at the Naval Academy, to about $52,900 at the Air Force Academy, to about $56,900 at the Military Academy. Also by way of comparison, the average cost of tuition, fees, room, and board for attending 1 of 27 highly selective 4-year colleges that offer a general engineering degree was about $15,800 in 1990. Although the fees colleges charge may not represent their true costs of providing education, the education costs the prep schools reported far exceeded the average charges of these schools.

Potential for Reducing Costs Is Difficult to Assess

DOD has recently expressed concern about the cost of operating the prep schools. As part of an overall review of programs that produce military officers, a DOD study commissioned by the Deputy Secretary of Defense recommended that the three services’ prep schools be consolidated. The study concluded that significant savings would result by doing so. DOD did not adopt this recommendation, but directed the services to develop plans to reduce the cost of operating their schools. The Navy, for example, plans to reduce costs by reducing enrollment in its school.

The potential for near-term cost reduction is, however, difficult to assess because some costs will not change in the short run, regardless of actions taken concerning the schools. For example, officials at the Army school noted that their facilities require some heating, whether occupied or not, to prevent damage to the structures. Consequently, even permanently closing the school would not eliminate all the utilities expenses attributed to its operation. Similarly, the dining halls at the Air Force and Navy schools feed both prep school students and enlisted personnel. A part of the cost of maintaining the dining halls and managing the food service operation, which do not vary directly with the number of persons fed, were attributed to the prep schools. Consequently, reduced prep school enrollment would not necessarily produce commensurate cost reductions.

---

4This figure, comes from Peterson’s Guide to Four Year Colleges: 1990 and represents the average cost of tuition, fees, room, and board for the 27 highly selective colleges offering an undergraduate general engineering degree that provided complete information. “Highly selective” colleges were defined as those whose admissions standards were rated either “very difficult” or “most difficult”—the ratings assigned to the service academies. In the case of state-operated colleges that charge differing tuition rates to state residents and non-residents, the higher rates were used for this comparison.
In a broader context, the incomplete and inconsistent cost data available on the prep schools limits DOD's ability to oversee their costs effectively. For example, comparing the costs of operating the schools across service lines to identify efficient management practices may produce misleading results. Lower personnel or support service costs at one school than at the others may indicate that the low-cost school is operated more efficiently, that costs have been omitted from its estimates, or that the services have chosen to fund their prep schools at different levels.
Conclusions, Recommendations, and Agency Comments and Our Evaluation

Conclusions

DOD has not specified the role the prep schools should play in filling the services' need for officers. Each of the schools appears to be pursuing somewhat different goals. The Army school has emphasized preparing enlisted personnel, the Air Force school has emphasized preparing recruited athletes and minorities, while the Navy school has not emphasized preparation of any particular subgroup more than another.

DOD also lacks information on the quality of the schools' programs. The strength of faculty credentials varied among the schools. Although academy faculty have conducted periodic reviews at the schools, the intervals between reviews have varied widely. The prep schools have not been assessed against any established criteria and they have not been subject to the accreditation reviews that most recognized post-secondary schools undergo. Outside of the review by academy faculty, the prep schools are not subject to any oversight evaluations.

DOD also lacks the tools it needs to determine whether the schools are effective. The schools' success in placing students at the service academies varied. Academy officials cite the prep schools as an important source of women and minorities helping them meet their goals for a diverse student body. Our review showed the schools supplied 12.5 percent or less of the females and between 17.2 and 31.8 percent of the minorities who entered the academies in the classes of 1993 and 1994.

The academic and military performance of prep school students at the academies was somewhat below the average of cadets and midshipmen who did not attend a prep school. However, in terms of graduation rates, prep school students had a higher graduation rate than other midshipmen at the Naval Academy but were slightly below the graduation rates of other cadets at the Military and Air Force academies. Since DOD has not established performance goals for the schools it does not have a basis for evaluating whether the results the schools achieved were satisfactory.

DOD has expressed concern about the cost of operating the prep schools. However, it has not issued guidelines on how the services should estimate the cost of operating the schools and does not require regular cost reports. Our review indicated that the Army, Air Force, and Navy preparatory programs cost about $60,900, $50,900, and $39,800, respectively, for each student placed at an academy. These costs are about as much or more than the cost of sending a student to the corresponding academy for a year and much higher than the cost of sending someone to a high quality college or university.
Chapter 4
Conclusions, Recommendations, and Agency
Comments and Our Evaluation

Recommendations

We recommend that the Secretary of Defense

- determine what role the prep schools should play among the services’ officer production programs and direct the services to clarify their school missions accordingly,
- consult with recognized authorities on educational quality to determine what standards would be appropriate to apply to the prep schools in terms of faculty and curriculum and require periodic reviews by qualified independent parties to assure that the schools meet the standards, and
- establish standardized guidelines for the services to use in estimating school costs.

Once performance standards and cost estimating guidelines are in place, we recommend that the Secretary require periodic analysis of the cost-effectiveness of continuing to operate the prep schools. Consideration should be given to the role the schools play in helping the academies to obtain adequate numbers of qualified women and minorities. Given the relatively high cost per cadet/midshipmen placed at an academy, consideration should also be given to alternative methods of providing academy preparation, such as using existing educational institutions or the private sector.

Agency Comments and Our Evaluation

In commenting on a draft of this report, DOD concurred with the principal findings and recommendations. DOD indicated that it was taking several actions to improve cost reporting efficiency, management, and supervision of the prep schools. DOD also stated that it plans to work with the services to develop a consistent mission statement for these schools and an approved mission statement will be approved by May 1992.

DOD stated that it had contacted the American Council on Education for assistance in identifying approaches to evaluating the academic quality of the prep school programs. DOD indicated that an independent evaluation of the quality of instruction and faculty at these schools will begin in the 1992-93 academic year.

DOD stated that it had developed an instruction for reporting standardized prep school costs and expects to publish this guidance by spring of 1992. It also indicated that the instruction addresses all budgeted and programmed costs of operation for the academies and preparatory schools. DOD also said that a provision of the new instruction calls for
cost-effectiveness to be evaluated annually, beginning with the 1992-93 academic year.

DOD raised a question regarding the comparability of academy prep school costs and the cost of sending personnel to a public or private institution. DOD noted that the tuition and fees charged by civilian colleges and universities cover only a portion of their total institutional costs. While we agree that this is true, the fact remains that if DOD used such institutions to provide academy preparation, it would only incur the direct charges.

DOD stated that the prep schools' programs are tailored to enabling students to succeed at the academies, in both academic and military aspects of the programs. Nevertheless, DOD stated that it would examine the merits of alternative programs and was considering a number of potential actions, including possible consolidation of the preparatory schools. DOD said its review of alternative programs will be completed by June 1993.

DOD comments are included in their entirety in appendix I.
ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-4000

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 General Accounting Office (GAO) draft report entitled, "DOD SERVICE ACADEMIES: Academy Preparatory Schools Need a Clearer Mission and Better Oversight" (GAO Code 391141/OSD Case 8928). The Department concurs with the principal findings and recommendations of the draft report.

As part of increased oversight of officer accession programs, the Department has initiated several actions to improve cost reporting and efficiency, management, and supervision of these programs. The Department supports many of the functions served by academy preparatory schools, including minority and enlisted personnel input to the academies. We will examine the full range of measures to improve the operation of these schools.

Detailed DoD comments on the draft report are provided in the enclosure. The Department appreciates the opportunity to respond to the draft report.

Sincerely,

Christopher John

Enclosure:
As Stated
Appendix I
Comments From the Department of Defense

GAO DRAFT REPORT - DATED JANUARY 2, 1992
"DOD SERVICE ACADEMIES: ACADEMY PREPARATORY SCHOOLS NEED A CLEARER MISSION AND BETTER OVERSIGHT"
(GAO CODE 391141) OSD CASE 8928

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

FINDING A: Preparatory Schools Have Diverse Missions and Demographics. The GAO reported that, since their beginnings, the preparatory schools have had diverse missions—including preparing minorities and women for academy admission, thereby promoting diversity in the officer corps. The GAO also noted that the preparatory schools provided training to recruited athletes identified by academy athletic departments. The GAO reported that the preparatory schools are the only source of enlisted personnel at the Military Academy and a major source of enlisted personnel at the Naval and Air Force Academies.

The GAO found, however, that the preparatory schools do not appear to be a key source of women at the academies, supplying only 9.4 to 12.5 percent of the females. The GAO observed that, for minorities, the percentages coming from preparatory schools were 17.2 percent for the Military Academy, 27.9 percent for the Air Force Academy and 31.8 percent for the Naval Academy. The GAO reported that 14 percent of the recruited athletes at the Military Academy also are from the preparatory school, compared with 21.5 and 23 percent for the Naval and Air Force Academies. The GAO found that (1) the Army preparatory school had the highest representation of enlisted personnel, about 55 percent, (2) the Air Force school had the highest representation of athletes, about 50 percent, and (3) minorities comprised the largest proportion of the students at the Navy preparatory school. The GAO reported that the preparatory school students had combined average scores on the verbal and math portion of the Scholastic Aptitude Test 149 to 191 points lower than the average for all cadets and midshipmen. The GAO concluded that the demographic makeup of the preparatory school classes reflects the relative emphasis each Military Service places on preparing enlisted personnel, women, minorities, and athletes. The GAO further concluded that the DOD has not specified the role the preparatory schools should play in filling the need of the Military Services for officers, leading each school to pursue somewhat different goals. (pp.14-18/GAO Draft Report)
Appendix I
Comments From the Department of Defense

**DoD Response:** Partially concur. The preparatory school is not the sole source of enlisted input into the Military Academy; a number of active duty, reserve and National Guard enlisted members are admitted directly into the academies each year.

- **FINDING B: Preparatory Schools Not Assessed Adequately.** The GAO reported that the preparatory schools are not accredited and the strength of the credentials of the faculty varied. The GAO found that, while members of the academy faculties periodically have assessed the operations of their respective schools, the assessments have not been made against established criteria--and the intervals between assessments vary from 1 to 5 years.

The GAO reported that, as post-secondary institutions, the preparatory schools are not required to be accredited and the standards that accrediting agencies require of schools may not be appropriate for such schools. The GAO found that only 29 percent of the faculty at the Army preparatory school were military personnel, compared with 100 percent of the Air Force preparatory school faculty and 0 percent of the Navy preparatory school faculty. The GAO noted that accrediting agencies have concerns about the instability and lack of teaching experience that results from frequent turnover of military faculty at the academies. The GAO found that the faculty at the Army preparatory school (1) had more teaching experience, (2) held more advanced degrees, and (3) had a higher percentage of certified teachers than the faculty at the other two schools.

The GAO learned that the Air Force conducts an annual review of its preparatory school; the Naval Academy only conducts a review once every 3 years; while the Military Academy conducted its first review in 1986 and does not plan to conduct a follow-up review until 5 years later. The GAO found that the reviews reflect an informed judgment about the quality of the preparatory school programs, but do not measure the schools against a uniform set of quality standards. The GAO also observed that the academy faculty assessments are the only assessments to which the schools are subject. The GAO found that the preparatory schools have not received any independent reviews or evaluation by the DoD or educational accreditation agencies. The GAO concluded that the DoD lacks information on the quality of the preparatory school programs.

**DoD Response:** Concur. Although we agree that standardized qualitative evaluation of the preparatory schools is appropriate, we do not support formal accreditation, as these are not degree-granting institutions. We also support the Services needs to
tailor specific areas of preparatory school mission statements to meet Service-unique requirements.

- **FINDING C: The DoD Presently Cannot Evaluate the Preparatory Schools.** The GAO observed that the DoD had not established the criteria it needs to evaluate the preparatory schools. The GAO found that the DoD had no established goals whether in terms of the percentage of students who receive an academy appointment or the numbers graduating from the academy. The GAO also found that the Services have not established specific performance targets the schools are expected to meet.

In addition, the GAO found that the academic performance of preparatory school students at the academies generally was weaker than that of other cadets and midshipmen. The GAO concluded, however, that the academies have done little analysis of how the preparatory schools affect academy performance. The GAO noted that a 1985 study by the Military Academy found preparatory school students entering the Academy performed as expected, based on their records before attending the school. The GAO reported that the study determined the effect of preparatory school academic training was minimal. The GAO also reported that academy graduation rates, both for cadets and midshipmen admitted directly to the academies and for preparatory school students, varied from academy to academy. The GAO found that, although the Services had done little analysis of preparatory school student performance as officers, the data available indicated that their experience is similar to that of other academy graduates. In summary, the GAO concluded that the DoD lacks the tools it needs to determine whether the schools are effective. (pp. 23-28/GAO Draft Report)

**DoD Response:** Concur. The Department has initiated contact with the American Council on Education to determine avenues through which preparatory school academic quality may be evaluated.

- **FINDING D: Good Data on Preparatory School Operating Costs Are Not Available.** The GAO reported that the DoD had only limited information on the cost of operating the preparatory schools. The GAO found that, while the DoD had long required the academies to report their cost-per-graduate, it had not imposed a similar requirement on the preparatory schools. The GAO observed the Military Service estimates of preparatory school costs indicate that, for FY 1990, the cost for all preparatory schools totaled $24.9 million. The GAO explained, however, that determining the cost of operating the preparatory schools presents some difficulties, because the pay and benefits for military personnel and the
cost of certain support services, such as property maintenance, utilities, and food service, are not charged to the school operating budgets, and must be estimated. The GAO also found that the three Services take different approaches to estimating operating costs.

The GAO reported that it did not develop a complete estimate of the cost of operating schools, but found that the Service estimates did not include about $2.9 million in costs. The GAO found that the Navy preparatory school cost per placement was the lowest at about $39,000, followed by the Air Force preparatory school at about $50,900, and the Army preparatory school at about $60,900. The GAO reported that, in comparison, the annual cost per student for the Service Academies was about $39,000 at the Naval Academy, $52,900 at the Air Force Academy, and $56,900 at the Military Academy. The GAO also noted, by way of comparison, that the cost of tuition, fees, room, and board for attending one of 27 highly selective colleges that offer a general engineering degree was about $15,800 in 1990. The GAO observed that, while the fees colleges charge may not represent the true costs of providing education, the education cost of preparatory schools reported far exceeded the average charges of those schools.

**FINDING E:** Potential for Reducing Costs Related to Preparatory Schools Is Difficult to Assess. The GAO reported that the DoD recently expressed concern about the cost of operating the preparatory schools. The GAO found that a DoD task force recommended the three Service preparatory schools be consolidated, noting that significant savings would result. The GAO reported that, while the recommendation was not adopted, the Military Services were directed to develop plans to reduce the costs of operating their preparatory schools. The GAO found, however, that the potential for near-term cost reduction is difficult to assess because some costs will not change in the short run, regardless of what actions are taken concerning the school. The GAO also reported that the incomplete and inconsistent cost data
available on the preparatory schools limit the DoD ability to oversee their cost effectively. (pp. 33-36/GAO Draft Report)

**DoD Response:** Concur. The Department is evaluating a number of actions, including possible consolidation of the preparatory schools, for long-term savings.

* * * * *

**RECOMMENDATIONS**

- **RECOMMENDATION 1:** The GAO recommended that the Secretary of Defense (1) determine what role the preparatory schools should play among the Service officer production programs and (2) direct the Services to clarify their school missions accordingly. (p. 37/GAO Draft Report)

**DoD Response:** Concur. The Department will work with the Services to develop a consistent mission statement for these schools. The mission statement will be approved by May 1992.

- **RECOMMENDATION 2:** The GAO recommended that the Secretary of Defense (1) consult with recognized authorities on educational quality to determine what standards would be appropriate to apply to the preparatory schools in terms of faculty and curriculum and (2) require periodic reviews by qualified independent parties to assure that the preparatory schools meet those standards. (p. 37/GAO Draft Report)

**DoD Response:** Concur. The Department has contacted the American Council on Education for assistance in identifying appropriate authorities for evaluation of academic quality. An independent evaluation of curricula and faculty qualifications at the preparatory schools will begin in the 1992-1993 academic year.

- **RECOMMENDATION 3:** The GAO recommended that the Secretary of Defense establish standardized guidelines for the Services to use in estimating preparatory school costs. (p. 37/GAO Draft Report)

**DoD Response:** Concur. The Department has developed an instruction for reporting standardized Service academy costs, and expect publication by spring of 1992. This instruction addresses all budgeted and programmed costs of operation of Service academy and preparatory schools. The instruction will be implemented beginning with the 1992-1993 academic year.
• **RECOMMENDATION 4:** The GAO recommended that, once performance standards and cost estimating guidelines are in place, the Secretary of Defense require periodic analysis of the cost-effectiveness of continuing to operate the preparatory schools. (p. 37/GAO Draft Report)

**DoD Response:** Concur. Cost effectiveness will be evaluated annually, as a provision of the new DoD instruction, which will be implemented during the 1992-1993 academic year. An assessment of the quality of instruction and faculty will be performed during the 1992-1993 academic year.

• **RECOMMENDATION 5:** The GAO recommended that the Secretary of Defense give consideration to alternative methods of providing academy preparation, such as utilizing existing educational institutions or the private sector, given the relatively high cost per cadet/midshipmen placed at the academies. (P. 37/GAO Draft Report)

**DoD Response:** Partially concur. The Department recognizes the potential relative savings of DoD funds through use of alternative programs. However, preparatory school programs are tailored and focused for enabling students to succeed at the academies, in both academic and military aspects of the programs. Nevertheless, the merits of alternative programs will be examined. That review will be completed by the end of the 1992-1993 academic year (June 1993).
The following is GAO's comment on the Department of Defense's letter dated February 24, 1992.

**GAO Comment**

1. According to the data that the Military Academy provided to us, a total of 170 enlisted personnel entered the Academy in the classes of 1993 and 1994, and all 170 came from the prep school. We did not verify that data. We changed the narrative to avoid implying that the prep school is the sole source of enlisted input into the Academy.
Appendix II

Major Contributors to This Report

National Security and International Affairs Division, Washington, D.C.

William E. Beusse, Assistant Director

Boston Regional Office

Anders T. Anderson, Regional Management Representative
Monty Peters, Evaluator-in-Charge
Marquita Harris, Evaluator
Linda Choy, Computer Programmer-Analyst

Denver Regional Office

Rudolfo G. Payan, Evaluator
Richard Y. Horiuchi, Evaluator

New York Regional Office

M.J. Schweiger, Evaluator
Ordering Information

The first copy of each GAO report is free. Additional copies are $2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20877

Orders may also be placed by calling (202) 275-6241.