Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to discuss our reviews of the Federal service academies. These academies comprise an important national resource which supplies many career officers to the Department of Defense, the Coast Guard, and the maritime industry. Graduates have distinguished themselves in civilian life as Presidents of the United States, Members of Congress, business leaders, historians, and a Nobel prizewinner. The academies have served the Nation well during their nearly 175-year history.

Notwithstanding its past successes, every institution must, from time to time, critically examine its policies and practices and their continuing contribution to its goals. We live in a dynamic world, and what was once sound may no longer be appropriate. To use tradition as the basis for a practice or policy is to ignore the inevitability of
change and opportunities for improvement.

Because of widespread congressional interest in their operations, we conducted a series of studies at the Military, Naval, Air Force, Coast Guard, and Merchant Marine Academies in three areas: financial matters, academic and military programs, and student attrition. In February 1975 we reported on financial matters and considered the cost and efficiency of academy operations. Last October we reported on the academic and military programs of the academies. We recently completed a comprehensive study of student attrition, and a third report was released on March 5.

Our reports have generally been well received by the departments concerned and actions are being taken or considered on each of our recommendations. For example, in responding to the report on the academic and military programs the Department of Defense said that although not all concerned agree entirely on our findings, conclusions, and recommendations, they serve as a basis for continued evaluation and study to help maintain program efficiency and relevancy within each of the academies.

The Department of Commerce responded to the same report by saying that the Maritime Administration agrees with our
basic recommendations relating to the Merchant Marine Academy and actions on them are underway.

Our comments today will be directed mainly towards the three Department of Defense Academies, which are of particular interest to this Committee. Each academy is limited by law to a student body of 4,417 and graduates approximately 800 to 900 officers each year. The cost of operating these academies in fiscal year 1974 ranged from about $90 million for the Military Academy to $71 million at the Naval Academy. Upon graduation, each student receives a baccalaureate degree and a regular commission in the service. An obligation for 5 years of military service is also incurred upon graduation.

Shortly after we began our study of the academies, the Department of Defense established a Committee on Excellence in Education, consisting of the Deputy Secretary of Defense, the Assistant Secretary of Defense for Manpower and Reserve Affairs, and the service Secretaries. This Committee, in its efforts to review and evaluate all educational programs in the Department, has visited each of the academies and recommended certain actions based on their review.

The academies' programs and operations are dynamic and are regularly reviewed internally for potential improvements. External reviews are provided by the Boards of Visitors and the accrediting associations.
Each Board of Visitors, composed of nine Members of Congress and six Presidential appointees, reports to the President annually. Regional associations, such as the North Central Association of Colleges and Secondary Schools, review the academies every 10 years to renew their accreditation.

We have identified several major issues:

--What should be the role of the academies?

--What should be the appropriate military/civilian mix of faculty?

--What can be done to reduce costs?

--What more can the academies do to reduce attrition?

--How can external oversight of the academies be improved?

Before we focus on these matters, let us note briefly the academies' unique nature as educational institutions. Since their mission is to produce career officers, the academies place great emphasis on military training. At the Air Force Academy, for example, a typical cadet spends approximately 2,400 hours in military training programs. The curriculum is essentially a closed, 4-year program without the entries at the upperclass level that one would find at civilian institutions.
Total costs are also unique because the academies are military posts with additional expenses for military housing, commissaries, and support for area military organizations.

NEED TO REASSESS THE ACADEMIES' ROLE

The Defense academies have perceived their role as that of producing combat officers motivated toward a career in the service and have designed their training programs accordingly. This perception had been reflected in the initial assignments of Military and Naval Academy graduates and, to a lesser extent, of Air Force Academy graduates. During the past few years, the services have further restricted the initial assignments, directing more of the graduates into combat assignments. This role of producing combat officers is much narrower than the role defined for the academies by law or in their mission statements—to produce career officers for the services. This difference in role interpretation is important because current graduates are automatically precluded from initial assignment to major components or branches of the service. The difference takes on added significance in light of the decision to admit women into the academies.

At the Military Academy, all medically qualified 1974 graduates chose among four combat arms and four combat support arms of the Army. Two of the combat support arms,
Military Intelligence and Military Police, were excluded from the branches available to 1975 graduates. Beginning with the class of 1978, only Rhodes Scholars will be permitted to immediately enter graduate school.

Medically qualified Naval Academy graduates are appointed to unrestricted line (combat) assignments. The only exceptions are those distinguished graduates participating in the immediate graduate education program. However, beginning with the class of 1976, this program has been eliminated.

At the Air Force Academy, 1972 graduates who did not choose flight training could select from all but two career fields. Beginning with the class of 1975, the Air Force increased the number of excluded fields to 16. Also, except for certain distinguished scholarship recipients, Air Force programs have been or will be canceled for immediate law or graduate schooling.

During its review of academy operations, the Committee on Excellence in Education reviewed and approved the initial assignments for 1975 graduates. The Committee directed the academies to submit the projected assignments for 1976 graduates for review by the end of February 1976, to insure consistency in assignment practices.

Differences among the services in defining "combat assignments," reveal a growing need to clarify the term.
Given the technological advances of the last three decades, the increasing use of guerrilla warfare and terrorist tactics, and the emergence of women into fields once totally male oriented, the traditional concepts of warfare and combat no longer apply. These and the potential use of strategic weapons erase the notion of a "frontline" where "combat" occurs and extend the opportunities to meet the "enemy."

With the admission of women to the academies, the services will need to reexamine the more limited role of producing combat officers, since Defense Department policy excludes women from combat assignments. In this connection, the services may wish to seek congressional oversight committees' guidance on their intended role and whether initial assignments of academy graduates should be restricted.

**MIX OF ACADEMIC FACULTIES**

The question of the appropriate mix of military and civilian faculties has been the subject of much debate in the Defense Department for many years. Historically the faculty of the Military Academy has been essentially all military, while the Naval Academy was composed of roughly equal proportions of civilians and military officers. When the Air Force Academy was established in the mid-1950s, it was patterned after the Military Academy.
The major arguments in favor of a military faculty are that it motivates students more to commit themselves to service careers and allows more flexibility in managing the faculty. The disadvantages are that officers lack teaching experience and are more costly than civilians.

In our study of student attrition, we administered a questionnaire to current academy students, dropouts, and graduates. It included two questions on student motivation toward pursuing a service career. In one, we asked the student to state the number of courses where the "instructor motivated me toward a career in the service." In another, we asked, "How likely are you to make the military or maritime industry your career?"

Our analysis showed significantly higher percentages of courses where instructors motivated students to a military career at the Air Force and Military Academies than at the Naval Academy. We considered "All or almost all," "Many," and "About half" to be favorable responses. Responses of current Air Force and Military Academy students were favorable in 44 percent of the courses, compared with 24 percent at the Naval Academy. This difference is significant and tends to support a hypothesis that military
faculties do indeed motivate students more to pursue military careers.

However, over 50 percent of the respondents from the Air Force and Military Academies gave what would be considered less than favorable responses, and this finding raises the question of whether the academies consider this a satisfactory level of motivation by uniformed instructors. Further, the relative importance of instructor motivation to the student's plans to make the military a career needs to be addressed.

Our analysis has shown that first-year students at each of the three military academies appear to be more motivated toward a military career than students at almost any subsequent period in their academy career. This indicates that the impact of the academy on the student may be demotivational rather than motivational, or at best nonmotivational. This conclusion is also supported by several Military Academy studies.

The responses also appear to support a hypothesis that academy graduates are motivated to a service career to an important degree by events subsequent to their graduation, specifically (1) their experiences on active duty, (2) circumstances, such as advanced education or hostilities, which extend their
obligation to a point where they are "locked in," and (3) societal and economic conditions at the time they are contemplating leaving active duty.

The military faculty permits greater flexibility in changing the curriculum and avoids the tenure problem faced by many civilian schools. Systematically rotating military faculty can also provide continuous input of newly graduated teachers who tend to be in close touch with the latest developments in their fields. Also, the officers return from faculty assignments to other service programs, having gained education and experience that enhance their value to the service.

Over 90 percent of the military faculties of the Defense academies are not tenured and rotate every 3 to 4 years. Prior teaching experience is not required; consequently the faculties of the Military and Air Force Academies are composed largely of inexperienced teachers. At the beginning of each academic year, the Military Academy's nontenured faculty have an average of only 1 year teaching experience, and the Air Force Academy's average is 1-1/2 years experience. The Naval Academy faculty is more experienced, because half its members are civilians who have an average of 20 years experience.

An apparent anomaly exists in the faculty selection process. Civilian faculty are selected on the basis of
demonstrated teaching ability, whereas military faculty members are not required to have had either teaching experience or formal teacher training. The Military and Air Force Academies conduct short teacher training programs for incoming military faculty. The Naval Academy gives only orientation to new faculty members.

Academy officials say that junior officers are exposed to many situations in which they instruct others in various military matters. They feel that these experiences, as well as the instructor training programs, adequately prepare new military faculty members. We are not convinced. Instructing for military skill or field training in the traditional military environment is basically different from fostering intellectual stimulation among college students. Military experience may thus be a less than viable substitute for classroom experience.

The Middle States Association of Colleges and Secondary Schools accredits both the Military and Naval Academies. In its latest report on the Military Academy, the association evaluation team said that the practice of assigning new young officers to the faculty for a 3-year tour of duty after graduate school is commendable and that classroom instruction at the Academy reaches an exceedingly high level of performance. However, in its comments on the Naval Academy, the evaluation team said that the military
faculty tours of duty (2 years at that time) were far too short to be really effective.

Military faculty costs more than civilian faculty primarily because officers are sent to graduate school for advanced degrees before assignment to the academies. Such costs for the Military and Air Force Academies are running about $2 million each year.

The Committee on Excellence in Education has reviewed this question during their visits to the academies. The Committee concluded that the Naval Academy should examine the feasibility of increasing its proportion of military faculty from the current 50 percent to 65 percent by 1980 and, in the longer term, to a level closer to that of the other academies. The Military and Air Force Academies were asked to analyze the advantages of adding civilian members to their faculties, to a prospective level of between 5 and 10 percent by 1980.

The preponderance of military training and the military atmosphere and attitudes which prevail at the academies, extending even into the classroom, differentiate the academies from any civilian institutions of higher learning. Under these circumstances, extensive rotation and limited teaching experience may be entirely satisfactory and productive. We believe, however, that these are areas which need continuous
scrutiny by the academies, the services, and the accrediting bodies. We have suggested that the services and the academies consider lengthening the tours of duty for nontenured faculty.

**NEED FOR FURTHER ACTIONS TO REDUCE COSTS**

In our report on financial operations, we made recommendations for reducing costs which included reviewing staffing levels to insure appropriate authorized strengths, using civilians to fill support positions, and contracting for certain support activities.

We identified several instances where staffing levels warranted further review. For example, the Air Force Academy used appropriated funds to employ 40 to 50 more personnel in the physical education department than did the other academies. The other academies employed more personnel with receipts from athletic events, while the Air Force chose to invest some of these funds. Other areas with possible overstaffing were custodial and security activities.

The academies are authorized over 2,600 enlisted military personnel in support positions. We identified more than 400 of these positions currently occupied by military personnel which, if filled by civilians, could save about $1.2 million each year. At the Air Force Academy, for example, we identified 225 positions which if converted, would save almost $900,000 annually.
These positions were in the hospital, athletics department, logistics, and comptroller organizations.

The Government relies on private enterprise for commercial or industrial products and services, unless the national interest requires an agency to provide them in-house. This policy is set forth in Office of Management and Budget Circular A-76, which requires periodic reviews of in-house activities. We examined the academies' reviews of custodial and food service activities and found either that no reviews had been made or that the justifications for continued in-house performance were not supported. We estimated that significant savings could be achieved by contracting for these services.

In a recent letter to the Chairman of the House Appropriations Committee, the Assistant Secretary of Defense outlined the services' actions in response to our recommendations. The Military Academy is converting 29 military positions to civilian, while at the other academies the positions we identified are still under review. Each academy has contracted for some support services and is considering others. Major savings have resulted from contracting for food services. The Naval Academy awarded a food service contract for the midshipmen's dining hall at an estimated savings of half a million dollars a year.

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The Air Force Academy contracted out the airmen's dining hall for a 3-year recurring cost saving of $492,000.

The results of actions to date reinforce our belief that additional cost reductions in the academies' operations are possible. We recommend further actions be taken to

-- review staffing levels,
-- convert military support positions, and
-- contract more support activities.

WHAT THE ACADEMIES CAN DO TO REDUCE ATTRITION

One phase of our study of the academies involved examining the factors contributing to student attrition and identifying alternatives to reduce it. Some attrition is to be expected, but at the time we began our review, attrition had been reaching near-record levels. For example,

-- The Air Force Academy graduating class of 1975 had a 46-percent attrition rate, the highest in its history.

-- The Military Academy graduating class of 1974 reached an 11-year high of 40 percent.

-- The Naval Academy graduating class of 1975 reached a 12-year high of 39 percent.

Recently attrition rates have tended to level off and in some cases have decreased; however, they are still high at a number of the academies. While the academies are
making efforts to deal with the attrition issue, we believe the results of our study can provide a focus for their efforts.

The Government incurs a rather sizable expense in bringing a student to an academy, feeding and housing him, educating him, and paying him about $4,000 per year. To the extent the academies can reduce attrition without affecting the quality of the graduate, they can increase the Government's return on its investment in each student. Further, attrition contributes to the inefficient use of facilities and also reduces the number of graduates and, therefore, potential career military officers.

Dropping out also has personal costs to the student. These are, of course, harder to measure. However, for dropouts who feel they have failed for the first time to measure up to a standard of excellence, the costs must be high.

If there is one observation that emerged from our attrition study, it is that what motivates people to continue in or drop out of an organization is complex and understanding it requires long and methodical study. Changes to reduce attrition should not be hastily made without careful consideration of their effects on the quality of the graduates. While we believe that we have narrowed the possible causes of student attrition at the academies, more
needs to be done, and we have encouraged the academies to use our findings and conclusions as a focal point for action and further examination.

Some of the factors contributing to attrition are included in what is called the fourth-class system—the process during the student's first year by which the academies attempt to develop in him "discipline, devotion to duty, and loyalty to his country." This system involves learning "self-discipline, instantaneous obedience to orders, attention to detail, punctuality, and the fundamentals of military life and knowledge." Because of its effect on attrition, we believe the fourth-class system needs reexamination. Particular emphasis should be given to determining whether the fourth-class system motivates a student to complete his training at the academy and pursue a service career. Many students entering the academies are not committed to a military career; low commitment is typical of individuals at their age. Yet some of the academies' practices seem to discourage these students from continuing. The academies should identify the aspects of the fourth-class system which are demotivational and reassess the need for them. The student's early academy experiences should be designed to develop motivation, not just test it.
Specifically, the academies should reexamine their heavy emphasis on competition and stress. The emphasis on learning professional knowledge (ranges of weapons, insignia, etc.) and nonprofessional knowledge (sports scores, movie titles, etc.) should be reviewed. Feelings of role conflict by many students also warrant immediate attention—the academies need to identify what causes this conflict and take corrective steps. The academies should find ways to reduce the pressures created by the competitive environment. Finally, the academies should study the feasibility of instituting, for those lacking motivation, techniques to increase feelings of control over their environment.

In addition to identifying the aspects of the academy environment which decrease commitment, the academies should attempt to recognize, in the first days of summer training, students with low commitment and provide them with counseling which might encourage them to stay. Also, the services, through their personnel research organizations, should develop validated instruments for measuring commitment before entry.

Finally, the academies should consider gradually building up obligation during the first 2 years, rather than forcing a decision at the beginning of the second-class year. One way of doing this could be through a system where attendance at the academy becomes a financial obligation to the Government for a student who voluntarily drops out.
Students' perceptions of the academic program also deserve attention. One of the most important reasons that students enter the service academies is the high reputation of their academic programs. Yet, student's views of aspects of the academic program are related to their levels of satisfaction and to attrition. For example, many students are dissatisfied with the variety of courses and the technical emphasis in the curriculum and with opportunities to major in, concentrate in, or take subjects of interest.

Some students apparently did not recognize when entering the limited majors available and the technical emphasis in the curriculum. While a number of academies have made efforts to "tell it like it is," these efforts need to be intensified with respect to the academic program. All academies should intensify their communication with qualified applicants to apprise them of the nature of the academic offerings and to ascertain their academic-major preferences and career aspirations. Each qualified applicant should be told if his preference of majors is at variance with the academic offerings or his career aspirations are unlikely to be satisfied in the service. The academies should consider using more end-of-course critiques to obtain students' views of the academic programs and identify aspects
of those programs which create unusual dissatisfaction. Such an expression of the academies' interest should improve students' perceptions of control over their environment and quality of instruction.

Many entering students are not highly committed to a service career. This finding is consistent with much of the research on vocational choice. Further, many are dissatisfied with the restrictive environment at the academies--both academically and militarily--and the limited opportunity for changing direction or trying alternatives. Because changing vocational choice will necessitate changing schools if the new choice is not available at the academy, some attrition probably will always be caused by such shifts in preference. Nevertheless, the academies' narrow curriculums do not accommodate students' tendency to change their fields. Second-class academy students are faced with a narrow choice of vocations, and they are required to commit up to 7 years of their lives (their remaining 2 in the academy and another 5 on active duty) to a specific military organization--at an age when people are characteristically indecisive about their long-term career goals. The academies should examine the practicality of allowing students to switch majors more easily.
The influence of the Superintendent and his top staff, notably the Commandant, on student attitudes and attrition cannot be overemphasized. A principal reason for the increase in Air Force Academy attrition during academic years 1970-71 and 1971-72 appears to have been a change in policy and philosophy toward student retention resulting from a change in Superintendents. In selecting officials for top academy positions, the Secretaries of Defense and the services should carefully consider the attitudes and philosophies of potential candidates.

Most attrition studies performed by or for the academies in recent years have concentrated on student characteristics. The attributes of those who succeed (i.e., the graduates) are used as the criteria for selecting new students. We are concerned about this emphasis on selection control over environmental adaptation for two reasons:

--It tends to result in a homogeneous student body.
--It ignores the influence of the academy environment on attrition.

The academies' research efforts should be more balanced in scope. For example, there should be more emphasis on evaluating the impact on attrition of the academy environment, especially as it interacts with student characteristics to cause attrition. To avoid duplication of research effort,
obtain the benefits of multiacademy studies, and overcome any reluctance of the academies to change tradition, the Office of the Secretary of Defense should, in cooperation with the academies and with the services' personnel research organizations, develop, adopt, and monitor an overall program for research. This research program should periodically examine in depth, not only the academy environment effects on attrition, but also the relevance of the academies' policies and practices to the changing requirements for career military officers.

Attrition also causes inefficient use of existing facilities and increases the costs of an academy graduate. While to some extent this condition is unavoidable, one method to increase capacity use of facilities and reduce the cost per graduate is to increase entering classes to offset much of the attrition expected during the first summer, subject, of course, to authorized strength limits and the availability of qualified applicants.

IMPROVING EXTERNAL ACADEMY OVERSIGHT

The Board of Visitors for each academy provides a limited external review and evaluation of academy programs. The Boards of Visitors for the Military, Naval, and Air Force Academies are composed of Members of Congress and private citizens appointed by the President. Only
Members of Congress are on the Boards of Visitors for the Coast Guard and Merchant Marine Academies.

Boards of Visitors meet once or twice a year, usually at the academy, for a few days. Board members are prominent individuals active in their own pursuits. The Boards have no staffs and rely mainly on academy presentations for program information. By law the Boards are charged with inquiring into the morale and discipline, curriculum, instruction, physical equipment, fiscal affairs, and academic methods, and other academy matters at their option. Given the Boards' limited exposure to the academies and the complex character of these institutions, we believe supplemental means must be found to provide penetrating evaluations of academy programs.

Regional accrediting associations provide additional external oversight of the academies' programs. However, their in depth reviews are conducted only once every 10 years.

We noted that over the years the services have employed other types of external review organizations to examine the operations of their military schools. In some cases these panels were composed of knowledgeable individuals nominated by national organizations like the American Council on Education and the National Academy of Public Administration.
We suggest that the Boards of Visitors avail themselves of that type of expertise by establishing advisory panels composed of individuals with appropriate educational and financial backgrounds to conduct more in depth studies and report to the Boards before annual meetings.

This concludes my statement, Mr. Chairman, and I will be pleased to answer questions.