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THESIS

A COMPARATIVE ANALYSIS
OF ARMED FORCES AND PRIVATE SECTOR
TUITION ASSISTANCE PROGRAMS

by

Carl R. Turner II

December 1995

Thesis Co-Advisors: James Fremgen
William Gates

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**A COMPARATIVE ANALYSIS
OF ARMED FORCES AND PRIVATE SECTOR
TUITION ASSISTANCE PROGRAMS**

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Lieutenant Commander, United States Navy
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Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL

December 1995

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ABSTRACT

This thesis compares Navy's Tuition Assistance (TA) program with those of the other services and private corporations and identifies some significant differences. It examines each organization's policy guidelines regarding benefit levels, courses and programs funded, restrictions and obligations, and requirements for individuals and institutions to be eligible for reimbursement.

Usage rates and costs of the Navy, Marine Corps, Army and Air Force TA programs were compared. Data from FY1991 to FY1994 on voluntary education (VOLED) and TA funding levels, TA usage rates by numbers of individuals enrolled and enrollments, number of enrollments in each area of the program (high school, undergraduate, graduate, etc.), and cost per enrollment are presented.

Tuition rates and trends for community colleges and four-year public and private institutions in areas of high concentrations of Navy personnel are noted. Changes to bring benefits in line with current tuition rates in the most cost effective manner are recommended.

Internal controls to prevent waste, fraud and abuse were identified. The Navy's centrally managed program provides excellent controls and is probably the most effective and efficient of all the services' programs.

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I. INTRODUCTION

A. BACKGROUND

The Department of Defense (DOD) has undergone significant force level reductions over the past few years. These smaller forces must be both more efficient and better educated to keep pace with the rapid technological advances associated with a modern military. In this environment of downsizing, it is paramount that the Navy provide its remaining officer and enlisted personnel quality educational opportunities to aid in their professional growth. The Navy, unlike private corporations, promotes exclusively from within its organization and must depend on advanced educational opportunities such as the Tuition Assistance program to support individuals who don't have the opportunity to attend the Naval Postgraduate School (NPS) or obtain a degree through the Advanced Education Program (AEP).

This study addresses a significant quality-of-life issue in the United States Navy. In a downsizing environment, men and women of the armed forces are worried about their competitive status within the organization and their potential for employment in the private sector after serving their country. To that end, tuition assistance programs leading to high school diplomas and to undergraduate and graduate degrees not only provide occupational security for the individual, but provide the Navy with a more productive and qualified force. The services as well as the private sector recognize the tremendous gains to their organizations when these programs are used by individuals at all levels within their respective organizations. Educational opportunities should be one of our top quality-of-life priorities and viewed as an important investment in the Navy's future.

The Chief of Naval Operations Instruction 1560.9, "Navy Voluntary Education Programs" states that the goal of the Navy's voluntary education program is to help members pursue further education at every level throughout their military careers, help members improve their mission performance, prepare members for greater responsibility, and enhance their professional as well as personal potential. The largest portion of all services' Voluntary Education (VOLED) budget is allocated to their Tuition Assistance (TA) programs. The Tuition Assistance program is not unique to the military. Most if not all large corporations have a tuition assistance program to provide their employees educational opportunities. The

Navy's Tuition Assistance program is available to all active duty personnel and is the primary in-service support program for Navy voluntary education. As it is the largest and most accessible VOLED program, it is important for the Navy to have a quality program in place.

The data show that from FY 1991 to FY 1994 Undergraduate Tuition Assistance program enrollment increased from 24% to 29% of eligibles and Graduate Tuition Assistance program participation rose from 24% to 36% of eligibles.¹ [Ref. 1] It does appear that military personnel are reevaluating their educational needs in an effort to be more qualified and competitive in their respective services. Dr. Frances Kelly, Head, Educational Services Branch, Personal Excellence and Partnerships Division, the Bureau of Naval Personnel, comments on the increased participation in voluntary education and the need for education as follows:

In a nation facing unprecedented economic uncertainty, in a Navy recognizing that quality factors become even more critical in a smaller force, and for young men and women in the military who are worried about their own competitive status within the organization as well as their potential for a comparable civilian career, education has been recognized as a possible source of occupational security. [Ref. 2]

While DOD and Navy enrollments have been increasing, tuition rates across America have been increasing as well. Studies show that from FY 1990 to FY 1994, tuition rates at public two year and four year colleges have increased an average of 8.8% per year and an average of 7.6% per year at private four year colleges.² Reasons for this can be attributed to reductions in federal and state aid, increased health care costs, and growing costs of complying with government regulations. [Ref. 3]

In analyzing all the different services' Tuition Assistance programs one quickly sees that every program is administered differently and that each has different entitlements. It is

¹DOD total number of actual participants divided by the total number of qualified service members entitled to participate in the program.

²Cumulative FY 1990 to FY 1994 percentage increase divided by total numbers of years.

important for the Navy to have a program in place which provides adequate financial assistance for personnel participating in the program; in other words, one which has kept pace with tuition increases and is on a par with programs being offered by other services and private corporations.

By necessity, all of the armed services and private corporations have become extremely cost conscious. Because of this, the Navy can not afford to pay more than necessary for any program, including the Tuition Assistance program. Since money spent on tuition assistance reduces the money available for the operating forces, it is also important to examine whether proper internal controls exist to prevent abuse of this valuable program.

B. OBJECTIVES AND RESEARCH QUESTIONS

1. The Objective

The objective of this study is to conduct a comparative analysis of the Navy's Tuition Assistance program with those of other services (Marine Corps, Army and Air Force) and private corporations. Entitlements and internal controls in administering the various programs will be examined among the different organizations to see if significant differences exist. Then, recommendations will be suggested to enhance the Navy's Tuition Assistance program with regard to entitlement, controls, and cost alternatives for implementing a new program if, indeed, the Navy's program requires revision.

2. Research Questions

The following research questions will be addressed:

- Are there significant differences in Tuition Assistance programs among the Navy, Marine Corps, Air Force, Army and civilian corporations?
- If the differences are significant, what are the possible causes for the disparity?
- Does the Navy Tuition Assistance program provide adequate funding to cover tuition costs at institutions in the vicinity of large Navy installations?
- If the Tuition Assistance program is not adequately funded, what additional costs would be incurred to bring the program in line with current tuition fees?
- Are adequate controls in place to prevent abuse of the program?

C. SCOPE, LIMITATIONS AND ASSUMPTIONS

1. Scope

The study will be divided into three major parts. First, a comparison will be conducted among the Navy, Marine, Air Force, Army and private corporation tuition assistance programs with regards to availability, funding limits, utilization, and total costs. If significant differences exist, possible causes will be identified.

Second, the tuition costs for institutions offering college courses in the vicinity of large Navy installations will be evaluated to see if tuition increases have outpaced entitlement caps of the current programs.

Third, a comparative study will be conducted of the internal controls instituted within each program to prevent abuse. If abuses exist or are probable, changes will be recommended.

2. Limitations

The data used in this thesis was acquired through a thorough literature search, surveys, phone calls and personal interviews. Written information comparing tuition assistance programs between the public and private sectors is limited because there has not been a DOD or Department of the Navy (DON) mandate to address this issue.

3. Assumptions

This thesis assumes that the various tuition assistance programs are considered an investment in the future of any service or private corporation and a top priority quality-of-life issue for any organization. In addition, it also assumes the reader has limited knowledge of the various tuition assistance programs which will be analyzed.

D. ORGANIZATION OF STUDY

Chapter I introduces the Tuition Assistance program in general. Chapter II will be a comparative analysis of various service and private tuition assistance programs. Chapter III discusses the recent trends in tuition rates of colleges and universities located near large Navy installations. Chapter IV will compare and analyze the internal controls and

administration of the various tuition programs. Chapter V develops conclusions and makes recommendations.

II. TUITION ASSISTANCE PROGRAMS

DOD Directive 1322.8 sets forth guidelines for the military services with regards to Voluntary Education (VOLED) Programs. As stated in the Directive, each Military Service shall:

Establish comprehensive voluntary education programs that encompass a broad range of educational experience including, but not limited to, functional skills development, high school completion programs, occupational/technical programs, and associate, baccalaureate, and advanced degree programs.

[Ref. 4]

One of the primary programs the services have established to comply with the Directive is the Tuition Assistance Program. Tuition Assistance is a form of financial assistance which was authorized by Congress (Title 10 USC 2007) as part of the VOLED program to support the services' educational objectives and the individual service member's personal educational goals. Tuition Assistance is a standard program among the services and the largest of the VOLED programs established within each service. Currently, each service sets its own budget, benefits, and policies in administering its respective Tuition Assistance programs. This chapter will compare the different military service programs and identify the similarities and differences among them.

Tuition assistance programs are also prevalent in large private corporations where employees are encouraged to increase and broaden their professional skills and knowledge, improve present job performance, and increase advancement opportunities through continuing education. Like the military services, tuition assistance programs in the corporate world are the backbone and primary means of providing employees advanced education opportunities. Corporations look at the program as an investment in their future and not as a fringe benefit of the corporation.

A very large corporation and leader in the computer industry states in the forward to its educational assistance handbook:

The increasingly competitive, demanding and challenging nature of the technical business environment requires employees to continuously strive to learn innovative and superior ways to do their work. Lifelong, continuous learning not only enables employees to grow as individuals and compete for more challenging career opportunities, but allows us to stay globally competitive. Our company's Educational Assistance Program is one critical way we support our employees in lifelong learning and development.³

Both the Department of Defense and the private sector recognize the value of providing quality education opportunities for their employees. This chapter will analyze historical data and compare the provisions of the various Tuition Assistance programs for each military service and four large private corporations located in the Silicon Valley.

A. NAVY

1. Introduction

The Navy's Tuition Assistance program is the centerpiece of a wide range of educational options in the VOLED program. Tuition Assistance accounts for approximately 62% of the Navy's total VOLED budget. The Navy is the second largest service in the United States military and probably the most mobile, with a large portion of its personnel deployed or assigned to ships at any given point in time. In addition, each service has its own culture, operational environment, and geographic makeup which impact TA usage rates, tuition costs, and infrastructure costs to administer the program. In this chapter, the Navy's TA instructions and historical data will be analyzed and then compared to the other services and private corporations' TA programs.

2. Directives and Instructions

DOD Directive 1322.8 provides overall guidance for all military services for the VOLED and, more specifically, the TA program. Further policy and guidance for the Navy's Tuition Assistance program is provided by the Chief of Naval Operations (CNO) in

³Private companies are not identified in this thesis, at their request.

OPNAV Instruction 1560.9 [Ref. 5] and by the Chief of Naval Education and Training (CNET) in CNET Instruction 1560.3D [Ref. 6].

a. Philosophy and Purpose

The Naval Education and Training Program Management Support Activity (NETPMSA) TA Guidebook states that:

Tuition Assistance is the Navy's financial assistance program for active duty service members who are pursuing voluntary education goals during off-duty hours while stationed ashore. It pays a large part of the tuition at accredited high schools, colleges/universities, and vocational-technical schools and may be used for both classroom and independent study courses. Tuition Assistance does not pay for books or registration fees. [Ref. 7]

b. Eligibility

Tuition Assistance is available to both officer and enlisted active duty personnel. It is also available to Naval Reservists who are on continuous active duty or who have been ordered to active duty for 120 days or more. Personnel of other U.S. military services who are attached to Navy commands and who meet the service eligibility requirements are paid at the Navy rate. The service member must be on active duty for the whole length of the course for which he or she is receiving TA benefits and counseled by a Navy Campus education specialist prior to authorization of TA.

Navy personnel who are not eligible for Tuition Assistance include:

- Personnel in a pre-overseas movement or deployed.
- Personnel awarded a punitive discharge who are in confinement or on appellate leave.
- Persons who accumulate an average of less than "C" for undergraduate and "B" for graduate courses on the 12 previous semester hours or equivalent for which TA has been authorized.
- Personnel in a duty-under-instruction status, either full-time or part-time, or in an officer accession program which involves essentially full-time instruction at a civilian institution. Exceptions can be made if instruction is in off-duty hours and separate and distinct from current duty-under-instruction. [Ref. 6]

c. Institutions

To be eligible for TA approval an institution must be accredited by either a regional or national accrediting agency recognized by the Council on Postsecondary Accreditation (COPA) and identified in the current issue of Accredited Institutions of Postsecondary Education published by the ACE. Schools on probation are approved and schools in candidacy status are not approved for TA.

Schools offering independent study courses must not only meet the accrediting criteria but must also be listed in either the Defense Activity for Non-Traditional Education Support (DANTES) Independent Study Catalog, DANTES Catalog of External Degree Programs, Guide to National Home Study Council Schools (NHSC), or the American Association of Bible Colleges (AABC). Certain foreign universities may be approved for TA but must be individually approved on a case by case basis by NETPMSA. Institutions which discriminate in any fashion will not be approved for TA. In addition, institutions which bar military recruiters from their campus may not be approved for TA.

d. Courses and Programs

In general, TA is available for eligible personnel earning a high school diploma, vocational certificate, or a college degree. Other course and program requirements follow:

- Tuition rates for postsecondary or certificate academic courses must be expressed in quarter or semester hours.
- Tuition rates for postsecondary vocational and technical courses must be expressed in quarter, semester, or total clock hours.
- Tuition rates for high school level courses must be expressed in carnegie units, semester hours, or quarter units.
- Tuition must be obligated in increments of 18 weeks or less and for no more than 270 clock hours of instruction at a time.
- TA may be used for non-credit English or mathematics college preparation courses for which a grade is awarded only when no preparation courses for credit are available.

- Physical Education courses and/or recreation courses if required for degree completion or for a degree with a Physical Education major.

TA may be used for non-credit refresher courses required by Civil Engineering Corps officers to prepare for recurring professional licensing examinations specific to their military duties.

[Ref. 6]

e. Benefits

Federal law and DOD Directive 1322.8 provide guidelines for multiple levels of TA. The Directive states:

The use of DOD-appropriated funds to support Service member participation in off-duty voluntary education programs shall be limited to the payment of not more than 75 percent of the institution's tuition and related instructional charges. As an exception, payment of up to 90 percent of these charges may be made to enlisted active duty Service members in grades E-5 and above with fewer than 14 years of service on the course starting date. Payment of 100 percent may be made for Service members in off-duty high school completion programs. [Ref. 4]

The undergraduate or graduate education does not have to relate to a specific subspecialty to qualify for tuition assistance. The intent of the Navy TA program is to provide an advance payment for active duty Navy personnel to help defray out-of-pocket tuition expenses, with benefits being approved and distributed prior to the class convening date. TA for independent study courses taken through the DAN TES program is reimbursed after successfully completing the courses. Federal law provides for the different levels of TA, with each service setting caps in accordance with budgetary constraints and service priorities. The Navy tuition assistance benefits follow:

- High School Completion Courses: The TA program pays for 100 percent of the tuition costs with no tuition caps.
- Undergraduate Courses: The TA program pays for 75 percent of the tuition cost up to a maximum of \$125 per credit hour (semester or quarter) up to a maximum of \$285 per course.

- Graduate Courses: The TA program pays for 75 percent of the tuition cost up to a maximum of \$175 per credit hour (semester or quarter) up to a maximum of \$395 per course.
- Vocational or Technical Courses: The TA program pays for 75 percent of the tuition cost up to a maximum of \$1300 per fiscal year.
- Independent Study Courses: The TA program pays for 75 percent of the tuition cost of the course not to exceed \$1,000 per course. [Ref. 6]

TA funds 75 percent of tuition after any scholarships, grants, or fellowships have been deducted (i.e., 75 percent of final student cost). Direct expenses for instruction such as laboratory, shop fees and supplies of a consumable nature and customarily charged by the institution may be included in the total tuition costs. TA will not cover the costs of tools or books which become the property of the student. Other fees not authorized under TA include entrance and enrollment fees, student activity fees, textbooks, flight time, flying lessons, etc.

CNET Instruction 1560.3D [Ref. 6] states that TA is intended as an advance payment to help the student defray the out-of-pocket expenses for Navy personnel enrolled in the program. Normally, requests for TA are submitted and approved prior to class convening dates. TA for independent study is reimbursed after successfully completing the course. The Navy benefit caps are not guarantees and are subject to change if budget constraints necessitate TA policy changes.

f. Restrictions and Obligations

The Navy requires all personnel to be on active duty for the duration of the course for which the member is receiving TA benefits. Additionally, all officers receiving TA benefits must agree to remain on active duty for at least two years following the end of the last course of instruction or have at least two years of service remaining prior to separation or retirement. Voluntary repayment of TA funds does not release the officer from this obligation.

Undergraduate students must maintain an academic average of "C" (2.0 on a 4.0 scale) on the previous 12 semester hours or equivalent to remain eligible for further TA benefits. Graduate students are required to maintain a "B" average on the previous 12 semester hours or equivalent to remain eligible for further benefits.

Personnel who voluntarily withdraw prior to course completion or who fail a course for which the Navy has provided funds will be required to reimburse the share of the tuition cost paid for by the Navy. The individual will not be authorized further TA until full reimbursement has been made. Personnel who withdraw involuntarily because of extenuating circumstances, i.e., hospitalization, emergency leave, change in work schedule may not be required to reimburse the Navy.

Individuals who receive an "incomplete" grade in a course have a maximum of six months from the last class day to finish the course requirements and receive a passing grade. Failure to achieve a passing grade in the allotted time will require reimbursement of TA funds to the Navy.

In order to receive reimbursement for independent study courses (correspondence courses), the institution must be listed in the DANTES Independent Study Catalog, the Guide to National Home Study Council (NHSC), American Association of Bible Colleges (AABC), or the DANTES Catalog of External Degree Programs. Enrollments in independent study courses will normally be limited to one course at a time. Waivers to take two or three courses at a time may be approved by NETPMSA and must be accompanied by an endorsement from the individual's Commanding Officer and the cognizant Navy Campus education specialist. To receive reimbursement for independent study courses, an individual must obtain a grade of "D" or better and complete the course within 12 months.

3. Historical Data

The tables displayed in this the chapter are based on data that was obtained from the Defense Activity for Non-Traditional Education Support (DANTES) data base, personal interviews, and the thesis TA questionnaire (Appendix A). The tables provide valuable background information for all the services with regards to all aspects of tuition assistance,

such as usage rates, enrollments by program (i.e., high school, undergraduate, graduate, etc.), funding rates, and average cost per enrollment.

Table 1 displays Navy end strength numbers, number of enrollees, and the percentage of enrollees to end strength from FY 1991 to FY 1994.

Year	End Strength	Enrollees	TA Usage Rate
FY 1991	588,905	38,806	6.6%
FY 1992	546,739	43,584	8.0%
FY 1993	505,275	43,015	8.5%
FY 1994	463,465	43,106	9.3%

Table 1. TA Usage Rate

The data shows that, while the number of enrollees has leveled out at approximately 43,000 personnel per year, the usage rate has steadily increased as end strength numbers have steadily decreased due to downsizing over the same period of time.

Table 2 displays a breakdown of the enrollments by individual category within the Tuition Assistance program.

Year	High School	Undergraduate	Graduate	Vocational Technical	Home Study	DANTES	Total
FY91	116	103,510	44,067	1,838	324	1,774	153,629
FY92	164	113,891	55,926	2,986	563	1,495	175,025
FY93	151	108,275	45,224	2,276	375	1,498	157,799
FY94	100	111,575	41,484	2,199	363	1,648	157,369

Table 2. TA Enrollments by Individual Category

Of the Navy's VOLED programs, Tuition Assistance is the largest single program in number of enrollments and as a percentage of total VOLED funding. Number of enrollments is tracked by DANTES for each service and is a common denominator in comparing the different service programs. DANTES offers external degree programs via correspondence courses in all the various categories. The enrollment numbers in the DANTES column represent the number of correspondence courses taken and reimbursed through DANTES. These courses are paid for by the individual servicemember and then the individual is reimbursed after successfully completing the courses.

Table 3 displays the Navy's VOLED funding levels, TA funding levels, and the percentage of TA to total VOLED funding from FY 1991 to FY 1994.

Year	VOLED Funding	TA Funding	% of Total Funding
FY 1991	\$32,810,801	\$20,186,602	61.5%
FY 1992	\$37,808,000	\$24,500,000	64.8%
FY 1993	\$36,713,798	\$23,803,524	64.8%
FY1994	\$39,205,124	\$24,391,021	62.2%

Table 3. TA Funding as a Percentage of Total VOLED Funding

The largest portion of the Navy's VOLED budget is allocated to Tuition Assistance and has remained fairly constant at about 63% of the total budget. Other items in the budget include civilian personnel costs, various testing costs (i.e., American College Testing (ACT) Assessment, Scholastic Aptitude Test (SAT), College Level Examination Program (CLEP), etc.), and contract costs for other instructional programs unique to the Navy, such as the Program for Afloat College Education (PACE).

By dividing the total expenditures by the total number enrollments one can obtain an average cost per course in any particular category of the Tuition Assistance program.

Mr. Bob Van Hoose, Manager of the Education Technology Program at DAN TES, maintains records on cost per enrollment for the high school, undergraduate, and graduate programs. Table 4 is a breakdown of the average cost per enrollment (course) from FY 1991 to FY 1994.

Year	High School	Undergraduate	Graduate
FY 1991	\$201	\$154	\$310
FY 1992	\$145	\$167	\$326
FY 1993	\$147	\$167	\$337
FY 1994	\$163	\$169	\$334

Table 4. Average Cost Per TA Enrollment

Mr. Van Hoose also tracks the number of personnel eligible to participate in each particular TA category. Table 5 displays the number of eligible individuals in each particular category of the TA program from FY 1991 to FY 1994.

Year	High School	Undergraduate	Graduate	Total End Strength
FY 1991	30,981	429,717	44,067	588,905
FY 1992	26,265	442,410	55,926	546,739
FY 1993	12,729	417,148	45,224	505,275
FY 1994	10,319	382,384	41,484	463,465

Table 5. TA Eligibles by Category

The Navy has a significantly higher number of eligibles in the high school category than any other service. In FY 1994, the Navy number of eligibles is 10,319 which in comparison to the Army, the next highest in number of eligibles with 1,742, shows the sizable difference in

this category. The number of eligibles in FY 1994 is one-third that of FY 1991 and probably correlates to the recent downsizing of the fleet and current recruiting policies. Dr. Kelly, Head, Educational Services Branch for the Bureau of Naval Personnel stated that, "while the number of individuals in this category is high, their average entrance test scores are higher than many individuals who hold high school diplomas." Undergraduate eligibles constitute the largest segment of personnel eligible for the TA program with 82% of the total end strength in FY 1994.

Table 6 displays the Navy percentages of enrollments to eligibles for the high school, undergraduate, and graduate TA programs.

Year	High School	Undergraduate	Graduate
FY1991	.4%	24.1%	24.6%
FY1992	.6%	25.7%	22.6%
FY1993	1.2%	26.0%	31.8%
FY1994	1.0%	29.2%	36.3%

Table 6. TA Activity as a Percentage of Enrollments to Eligible Personnel

Data for all services was not available to calculate the enrollees to eligible personnel in each particular category. However, data for the overall number of enrollees was available from Mr. Charles Giorlando, NETPMSA System Manager. By dividing the total number of enrollments by the number of enrollees you obtain an average number of enrollments to enrollee of approximately 3.55.

When one applies the 3.55 enrollments per enrollee average to these categories one gets the TA activity percentages displayed in Table 7.

Year	High School	Undergraduate	Graduate
FY1991	.1%	6.8%	6.9%
FY1992	.18%	7.3%	6.4%
FY1993	.3%	7.3%	9.0%
FY1994	.27%	8.2%	10.2%

Table 7. TA Activity as a Percentage of Enrollees to Eligible Personnel

Total enrollees and enrollments as a percentage of end strength have been steadily increasing over the past four years. This is probably attributed to the effects of downsizing, with individuals wanting to improve their competitive status in the Navy and for possible transition to civilian employment. The cost per enrollment in the undergraduate and graduate programs have increased approximately 8% from FY 1991 to FY 1994 which is probably attributed to tuition rate increases during the period. Tuition rates will be further examined in Chapter III. Data for FY 1993 is slightly different from other years due to a six course limit policy that was implemented during the year to deal with budgetary shortfalls in that particular year.

B. MARINE CORPS

1. Introduction

The Marine Corps is the smallest of the services, with a total end strength of 174,217 personnel in FY 1994, or about 11% of the total DOD end strength. The Marine Corps is unique in the fact that it has a limited number of bases, which are highly concentrated compared to the other services. Its TA policy is one of the most generous and flexible of all the services in terms of benefit caps and flexibility in the application of TA funds. The Marine Corps TA program has also had unique features, at times implementing "career" credit hour caps and different funding level caps based on rank or tenure of enlistment. The Marine TA program accounts for approximately 94% of the total VOLED budget and is by far the highest proportion of the VOLED budget used for TA by any service. In addition, the

Marine Corps offers very few other VOLED programs and is very efficient, with the lowest proportion of VOLED funds used in the administration of its VOLED program.

2. Directives and Instructions

In addition to DOD Directive 1322.8, the Marine Corps TA policies and procedures are promulgated in the Marine Corps Order (MCO) 1560.26 [Ref. 8]. With an effective date of 20 May 1977, most of its policies and guidance have been superseded by annual All Marine (ALMAR) messages which provide TA guidance for each fiscal year. These ALMARs are fairly comprehensive and address most areas of the TA program.

a. Philosophy and Purpose

The Marine Corps directive simply states that the tuition assistance program is designed to encourage personnel to attend off-duty courses offered by regionally accredited colleges and universities.

b. Eligibility

Navy and Marine Corps eligibility requirements are virtually the same with regard to tuition assistance. However, a few differences do exist between the two programs. First, Marines are eligible for TA, testing, and correspondence while in a deployed/detached status. Second, individuals must only maintain a grade point average of 2.0 or better in any program to be eligible for continued tuition assistance benefits. Third, tuition assistance for vocational-technical study must support the servicemember's Military Occupational Specialty (MOS) and ensure that it will contribute appreciably to an individual's MOS proficiency.

c. Institutions

Approved institutions eligible for tuition assistance reimbursement are required to meet the same standards in both the Navy and Marine Corps. The Navy instructions are more detailed and offer an additional option for gaining approval for TA funding at certain foreign universities.

d. Courses and Programs

Both services cover all or a portion of studies toward a high school diploma, vocational-technical certificate, DANTES approved independent study courses, and developmental/prerequisite courses when needed. The Navy does offer TA for credit-by-

examination when certain criteria are met. The MCO specifically states that an applicant will bear all costs for institutional examinations to qualify for advanced courses or advanced standing. However, these examinations are offered by DANTES and do not use TA funds if taken through the DANTES program. Vocational-technical studies in the Marine Corps program are limited to a maximum of two years. The Navy program has no limit on the amount of time an individual may be enrolled in a vocational-technical program.

e. Benefits

The Marine Corps Order 1560.26 and the various ALMARs provide specific guidance for Marine TA benefits in conjunction with federal law and DOD Directive 1322.8. The Marine TA program has undergone numerous changes from FY 1991 to FY 1994. These changes are promulgated by annual ALMAR messages. Like the Navy, tuition assistance is given in advance once the proper paperwork has been processed through the Marine Corps chain of command, education specialists, and Naval Education and Training Program Management Support Activity (NETPMSA). All independent study courses and correspondence courses are also reimbursed after successfully completing the courses. The MCO is somewhat more restrictive on TA approval procedures and makes no provisions for retroactive payments to civilian schools for courses commenced prior to TA authorization. In FY 1995, the Marine Corps incorporated the Navy accounting procedures and now processes all TA forms through NETPMSA.

The Marine Corps recently changed its tuition assistance benefit package at the beginning of FY 1995. It continues to be at or near the top of all military services in the amount of benefits offered and the most flexible in terms of individuals being able to select the universities they wish to attend. The tuition assistance benefits for FY 1991-FY 1995 follow:

- High School Completion Courses:
 - FY 1995: The TA program will pay for 100 percent of tuition costs up to a maximum of \$2150 per fiscal year.
 - FY 1994: The TA program will pay for 100 percent of tuition costs up to a maximum of \$2150 per fiscal year for a maximum of two years.
 - FY 1993: The TA program will pay for 100 percent of tuition up to a maximum

of \$1650 per fiscal year for a maximum of two years.

FY 1992-1991: The TA program will pay for 100 percent of tuition costs up to a maximum of \$1750 per fiscal year for a maximum of two years.

- Undergraduate Courses:

FY 1995: The TA program will pay for 75 percent of tuition costs up to a maximum of \$2150 per fiscal year with a maximum credit hour cap of 21 semester hours or 33 quarter hours per fiscal year.

FY 1994: The TA program will pay for 75 percent of tuition costs up to a maximum of \$2150 per fiscal year with a maximum credit hour cap of 24 semester hours or 40 quarter hours per fiscal year.

FY 1993: The TA program will pay for 75 percent of tuition costs up to a maximum of \$1650 per fiscal year with a maximum credit hour cap of 20 semester hours or 33 quarter hours per fiscal year.

FY 1991-1992: The TA program will pay for 75 percent of tuition costs up to a maximum of \$1650 per fiscal year or up to \$1750 per fiscal year during an individual's second enlistment with a maximum credit hour cap of 20 semester hours or 33 quarter hours per fiscal year.

- Graduate Courses:

FY 1995: The TA program will pay for 75 percent of tuition costs up to a maximum of \$3000 per fiscal year with a maximum credit hour cap of 21 semester hours or 33 quarter hours per fiscal year. Prerequisites are funded under some conditions.

FY 1994: The TA program will pay for 75 percent of tuition costs up to a maximum of \$3500 per fiscal year with a maximum credit hour cap of 24 semester hours or 40 quarter hours per fiscal year.

FY 1993: The TA program will pay for 75 percent of tuition costs up to a maximum of \$3000 per fiscal year with a maximum credit hour cap of 20 semester hours or 33 quarter hours per fiscal year.

FY 1991-1992: The TA program will pay for 75 percent of tuition costs up to a maximum of \$3000 per fiscal year with a maximum credit hour cap of 20 semester hours or 33 quarter hours per fiscal. There is no maximum dollar cap limitation for sergeants (E-5) and below enrolled in a bona fide graduate program.

- Vocational and Technical Courses

FY 1995: The TA program will pay for 75 percent of tuition costs up to a maximum of \$1300 per fiscal year for a maximum of two years.

FY 1993-1994: The TA program will pay for 75 percent of tuition costs up to a maximum of \$1000 (1994)/ \$750 (1993) per fiscal year for a maximum of two years. Courses must be related to an individual's particular MOS or one that has been identified by the Marine Corps to have a shortage of personnel.

FY 1991-1992: The TA program will pay for 75 percent of tuition costs up to a

maximum of \$1650 per fiscal year and \$1750 per fiscal year for individuals on second enlistments for a maximum of two years. Courses must be related to an individual's particular MOS or one that has been identified by the Marine Corps to have a shortage of personnel. All vocational-technical study by correspondence course was prohibited.

- **Combination Vocational-Technical and Undergraduate Courses:**
FY 1994-1995: The TA program will pay for 75 percent of tuition costs up to a maximum of \$2150 per fiscal year with a maximum credit hour cap of 21 semester hours or 33 quarter hours. In FY 1994, TA funding was also limited to a career total of 130 semester hours or 210 quarter hours.
FY 1993: The TA program will pay for 75 percent of tuition costs up to a maximum of \$1650 per fiscal year with a maximum credit hour cap of 20 semester hours or 33 quarter hours. TA funding was also limited to a career total of 130 semester hours or 210 quarter hours.
FY 1991-1992: The TA program will pay for 75 percent of tuition costs up to a maximum of \$1650 per fiscal year and \$1750 per fiscal year for individuals on second enlistments.

- **Combination Undergraduate and Graduate Courses:**
FY 1995: The TA program will pay for tuition costs of a combination of courses up to a maximum of \$3000 per fiscal year and a credit hour cap of 21 semester hours.
FY 1994: The TA program will pay for tuition costs of a combination of courses up to a maximum of \$3500 per fiscal year and a credit hour cap of 24 semester hours or 40 quarter hours. From FY 1991 to FY 1994 individuals were limited to a maximum career credit hour cap of 40 graduate semester or 66 quarter hours.
FY 1993: The TA program will pay for tuition costs of a combination of courses up to a maximum of \$3000 per fiscal year and a credit hour cap of 20 semester hours.
FY 1991-1992: The TA program will pay for tuition costs of a combination of courses up to a maximum of \$3000 per fiscal year and a credit hour cap of 20 semester hours. There was no maximum dollar cap for sergeants and below who were officially accepted into bona fide graduate programs.

- **Independent Study Courses:** Independent study courses are funded at the appropriate study level, i.e., vocational-technical, undergraduate, graduate. An exception to this was in FY 1991-1992 when vocational-technical correspondence courses were prohibited.

Under the FY Marine TA guidelines, if an individual's remaining dollar balance in his annual benefit (\$2150 undergraduate/\$3000 graduate) is less than the 75 percent of the

tuition cost of a course, the remaining balance in the individuals annual benefit may be used to reduce tuition costs of the course. All other guidelines which govern the TA program, such as what costs can be funded, deduction of other funding in the form of scholarships and grants, and statements regarding benefit caps being subject to change due to budget constraints, are virtually the same between the Navy and Marine Corps program.

Over the past four years, the Marine Corps has changed the TA benefits on an annual basis. The exception to this was in FY 1991 and FY 1992, when benefits stayed the same. Unique to the Marine Corps program is a "career" credit hour cap which was attached to TA benefits in the undergraduate and graduate programs from FY 1991 to FY1994. Other significant changes occurring on a yearly basis involve the dollar caps associated with the different programs. The most erratic of these has been in the vocational-technical program. The FY 1995 vocational-technical caps are now equivalent to all the other service programs.

Comparing Marine Corps and Navy TA benefits highlight some significant differences in the two programs. High school courses do not have a \$2150 maximum in the Navy program, but it is unlikely that this amount would be exceeded by an individual enrolled in this program. In addition, the Marine Corps program implemented a two year limit on studies from FY 1991-FY 1994.

In comparing the two undergraduate programs, the difference in the two programs can be significant, depending on the course load an individual takes. The Marine Corps program offers greater flexibility to an individual who elects to take three courses a year. Under the Marine Corps program, an individual taking three courses would be eligible for reimbursement up to \$716 per course, whereas the Navy would only reimburse up to a maximum of \$285 per course. As course loading increases to the maximum of 21 semester hours or seven courses per year, the difference between the two programs decreases. An individual taking seven courses under the Marine Corps system would be eligible for approximately \$307 per course; and under the Navy program the student would be eligible for reimbursement up to the maximum of \$285 per course. Under the Navy program, there is no cap on the number of courses an individual can take per year, but it is highly unlikely

that an individual working full time would be able to take more than two or three courses per semester, a reality that somewhat decreases the value of this feature.

The same comparison can be made for the graduate program. An individual who elects to take three courses per fiscal year is eligible for reimbursement of up to \$1000 per course under the Marine Corps program and only \$395 under the Navy's program. An individual taking the maximum course loading under the Marine Corps program would be eligible for reimbursement of \$428, as compared to \$395 in the Navy.

In FY 1995, vocational-technical course funding is the same in the Navy and Marine Corps programs. Historically the Navy has provided higher funding levels in this particular area. During FY 1991-1992 the Marines also prohibited vocational- technical correspondence courses. Marine Corps policy specifically addresses funding limitations when an individual participates in vocational-technical and undergraduate studies in the same year. The Navy does not address a combination of two programs. Under the Navy's program, one would be eligible for the maximum funds in each of the two program areas. Depending on the number of courses taken, one could receive up to \$1300 for the vocational courses and \$285 per course for undergraduate studies. Once again, under heavy course loading one might exceed the Marine Corps maximum cap of \$2150.

The Marine Corps ALMAR does not specifically address independent study courses which are not measured in clock or semester hours. Under the Navy program, if such courses are approved, an individual may be reimbursed 75 percent of tuition costs up to a maximum of \$1000 per course.

Benefit issues, such as the maximum funding caps and semester/quarter limits, will be further analyzed in Chapter V.

f. Restrictions and Obligations

The Navy and Marine Corps program restrictions and obligations are very similar with the few exceptions which have been highlighted previously in this section, such as vocational-technical courses which must relate to an MOS, academic grade point average requirements, and individuals who are deployed/detached being eligible for TA funds. Lifetime caps on semester hours and quarter hours were unique to the Marine Corps and

implemented in its TA program through FY 1994. The lifetime caps for the undergraduate and graduate programs from FY 1991 to FY 1994 were 65 semester hours or 105 quarter hours and 40 semester hours or 66 quarter hours respectively. ALMAR 105-95 removed these lifetime caps.

In FY 1995, the Marine Corps TA draft provides TA funding to all members of military services who are administratively or operationally attached to Marine commands, or assigned for duty at Marine installations. Later in the general text it specifically states; "Navy personnel will be funded according to current Navy policy." [Ref. 9] Under current Navy policy, the benefits of the Marine Corps program are more generous and in the best interest of the sailor to use when attached to a Marine installation. Specifically prohibiting only Navy personnel is probably not in the spirit of DOD Directive 1322.8. This is the only instance where one service singles out another service with regards to TA benefits in an effort to reduce its TA expenditures.

3. Historical Data

Table 8 displays Marine Corps end strength numbers, number of enrollees, and the percentage of enrollees to end strength from FY 1991 to FY 1994.

Year	End Strength	Enrollees	TA Usage Rate
FY 1991	195,031	NA	NA
FY 1992	184,574	NA	NA
FY 1993	178,535	27,412	15.4%
FY 1994	174,217	23,626	13.6%

Table 8. TA Usage Rate

Total enrollee figures were only provided for FY 1993 and FY 1994. The data shows a slight decrease in usage in FY 1994. In FY 1994, the undergraduate, graduate, and vocational-technical yearly cap limits were all increased. One would expect the usage rate to increase

with the increase in tuition caps. One reason the numbers may have declined during this particular year is an increase in operational tempo. TA usage rates for the Marine Corps TA program are higher than the Navy's in FY 1993 and FY 1994. During FY 1993 the Navy usage rate was 8.5% and in FY 1994 it increased to 9.3%. The Marine Corps instituted a new TA policy for FY 1995.

Table 9 displays a breakdown of enrollments by individual category within the Marine Corps Tuition Assistance program.

Year	High School	Undergraduate	Graduate	Vocational Technical	DANTES	Total
FY91	462	29,180	2,684	18	366	32,710
FY92	521	38,566	3,392	11	321	42,811
FY93	517	36,365	3,725	657	427	41,691
FY94	364	33,488	3,720	65	464	38,099

Table 9. TA Enrollments by Individual Category

The Marine Corps, like the Navy, shows higher activity levels in the undergraduate and graduate programs. The undergraduate program equates to roughly 88% of the total number of TA enrollments in any given year. As one can see, the vocational-technical, high school, and DANTES enrollments combined are roughly 2% of the total enrollments.

The Marine Corps TA program is far and away the largest percentage of the Marine Corps VOLED budget. Table 10 displays the Marine Corps VOLED funding levels, TA funding levels, and the percentage of TA to total VOLED funding from FY 1991 to FY 1994.

Year	VOLED Funding	TA Funding	% of Total Funding
FY 1991	\$7,939,786	\$7,540,767	95%
FY 1992	\$10,036,328	\$9,489,975	94.6%
FY 1993	\$9,712,581	\$9,014,195	92.8%
FY1994	\$10,352,244	\$9,722,244	93.9%

Table 10. TA Funding as a Percentage of Total VOLED Funding

The Marine Corps has very few other VOLED programs and the major portion of the residual 5% of VOLED funding is allocated to personnel costs associated with administering the TA program at the major Marine Corps installations. Of all the services, this represents the largest percentage of VOLED funds dedicated to TA.

The average cost per enrollment for the high school, undergraduate, and graduate programs is displayed in Table 11.

Year	High School	Undergraduate	Graduate
FY 1991	\$132	\$186	\$484
FY 1992	\$105	\$177	\$481
FY 1993	\$72	\$187	\$488
FY 1994	\$102	\$221	\$601

Table 11. Average Cost per TA Enrollment

From FY 1991 to FY 1994 Marine Corps cost per enrollment was significantly higher than the cost per enrollment of any other service in the undergraduate and graduate programs. In FY 1994, undergraduate costs per course were 29% higher and graduate costs were 62% higher per enrollment than the next highest service's cost per enrollment. The cost per enrollment for both undergraduate and graduate students were consistently higher in every

year from FY 1991 to FY 1994. During this time frame, the Marine Corps TA program was unique in that it established a dollar cap per enrollee per fiscal year in each particular program. For example, a Marine enrolled in the undergraduate program in FY 1994 was entitled to 75% reimbursement of tuition costs up to a maximum of \$2150 and was limited to a maximum of 24 semester hours or 40 quarter hours per fiscal year. The graduate program enrollee was entitled to 75% reimbursement up to a maximum of \$3500 per year with the same limits on annual course loads. Under this type of program, an individual who enrolls in only two or three courses per year can attend a more expensive university than servicemembers who are limited by funding caps on a credit hour or course basis. A portion of the higher costs may be attributed to demographics of the Marine Corps and the location of its major installations in high cost areas such as San Diego, California and Washington DC.

Table 12 displays the breakdown of the number of Marine Corps eligible personnel for each category of the TA program.

Year	High School	Undergraduate	Graduate	Total End Strength
FY 1991	667	175,061	15,793	195,031
FY 1992	451	164,601	15,268	184,574
FY 1993	319	160,184	15,046	178,535
FY 1994	231	156,384	14,612	174,217

Table 12. TA Eligibles by Category

Marine Corps high school eligibles is significantly lower than the Navy figures as a percentage of the overall end strength of each service. The undergraduate category makes up the largest pool of personnel in each service, with the Marine Corps undergraduate eligibles accounting for approximately 90% of the total eligibles. Graduate eligibles are comparable in both services and account for approximately 9% of the total end strength.

Table 13 displays the Marine Corps percentages of enrollments to eligible personnel in each major category of the TA program.

Year	High School	Undergraduate	Graduate
FY1991	69.3%	16.7%	17.0%
FY1992	115.5%	23.4%	22.2%
FY1993	162.1%	22.7%	24.8%
FY1994	157.6%	21.4%	25.5%

Table 13. TA Activity as a Percentage of Enrollments to Eligible Personnel

The Marine Corps TA activity for the high school completion program is significantly higher than for eligible Navy personnel. The Navy has over 10,000 eligible personnel; the Marine Corps has only 231 eligible personnel, as shown in the FY 1994 data. Marine Corps TA activity percentages by enrollment for the undergraduate and graduate eligibles are the lowest of all the services. Like all services, the undergraduate program has the largest number of enrollments. The Marine Corps enrollment activity level in FY 1994 is 33% less than the Navy, which is the next lowest of the four services. This gap in utilization has been steadily increasing over the past four years. Results of significant program changes for FY 1995 are not reflected in this section of the thesis and may have a positive impact on these numbers. These changes will be addressed in Chapter IV.

Table 14 presents TA activity as a percentage of enrollees to eligible personnel in each category. These are only estimates and based on the average of total enrollments to total enrollees of 1.55 from the FY 1993 and FY 1994 data. Actual enrollment data for each category was not available. This table provides valuable data for comparison of both military and private corporation TA programs.

Year	High School	Undergraduate	Graduate
FY1991	44.7%	10.8%	11.0%
FY1992	74.5%	15.1%	14.8%
FY1993	100%	14.6%	16.0%
FY1994	100%	13.8%	16.4%

Table 14. TA Activity as a Percentage of Enrollees to Eligible Personnel

This table shows a significant difference in TA activity between the Navy and the Marine Corps for high school eligibles. Caution should be used when drawing conclusions in this area because of the small number of Marine Corps eligibles in relation to Navy eligibles. Based on the estimate of 1.55 enrollments per enrollee the high school enrollees were higher than the DANTES figure for number of eligible personnel in FY 1993 and FY 1994. The Marine Corps activity rates based on enrollee to eligibles fluctuate slightly in the undergraduate program and steadily increased in the graduate program. In FY 1994, Marine Corps activity is approximately 5% to 6% higher in both the undergraduate and graduate programs.

In summary, the Marine Corps is unique in its benefits and the fact that its TA program is virtually the only program in its entire VOLED budget. In FY 1994, overall Marine Corps TA usage rates and TA activity rates (enrollee) in the undergraduate and graduate programs were approximately 6% higher than the Navy's TA rates. The most significant statistical difference between the Navy and Marine Corps is the cost per enrollment in the undergraduate and graduate programs which was addressed earlier in this chapter.

C. ARMY

1. Introduction

The Army is currently the largest of the services with an FY 1994 total end strength of approximately 536,000 personnel, or about 34% of total DOD end strength. The Army's

VOLED budget is also the largest of all the services, with total expenditures in FY 1994 of \$87 million. Of all the services, it is the most geographically diverse, with installations located throughout the country. Unlike the Navy and the Marine Corps, the Army is not highly concentrated or centrally located in a few areas throughout the country. As a result, the Army has high infrastructure costs of \$38.5 million to administer its education programs, or roughly 44% of the total VOLED budget; Contrasting this with the Navy's infrastructure costs of \$7.1 million dollars or 18% of its total budget, one quickly sees how the makeup of the force impacts the VOLED budget and its various programs. The Army TA program is the centerpiece of the Army Continuing Education System (ACES), with total expenditures of \$38 million in FY 1994, or 43% of the total VOLED budget. The Army TA program has undergone some significant changes during the past four years and is currently the most restrictive in terms of annual semester hour caps. It provides the lowest levels of tuition assistance per credit hour of all the services for undergraduate courses.

2. Directives and Instructions

The Army TA program is authorized under section 2007, title 10, United States Code provisions and DOD Directive 1322.8. Specific Army policy and guidelines are promulgated in Army Regulation (AR) 621-5 which has an effective date of 17 November 1993. Minor policy changes in the TA program are updated by All Army messages.

a. Philosophy and Purpose

Army Regulation 621-5 states:

Tuition assistance will be used to provide financial assistance for voluntary off-duty education programs in support of a soldier's professional and personal self-development goals. Tuition assistance is related directly to retaining quality soldiers, enhancing their career progression, increasing the combat readiness of the Army, and returning soldiers to civilian careers.
[Ref. 10]

b. Eligibility

Army personnel eligible for tuition include all active duty Army personnel and enlisted soldiers of the Army National Guard and Army Reserves on active duty pursuant to title 10 or title 32. This is unique to the Army and contrasts with the Navy program, which

provides TA to all reserves if they are on active duty in excess of 120 days and will be on active duty at the completion of their studies. In addition, the Army has a provision to provide TA to Selective Reserves when funds are available. The Army regulation does not specifically address the use of TA funds for personnel in a detached/deployed status or the requirement for individuals to maintain a minimum grade point average (GPA) while enrolled in the TA program, as are required by the Navy instructions. In order to obtain Army TA, an individual must declare an educational goal in terms of credential or certification and have an educational plan which outlines the requirements of his or her educational goal. Individuals are not restricted to pursuing degrees or certificates which are related to their professional expertise. Service commitments for officer and enlisted individuals who participate in the TA program are identical for Army and Navy personnel.

c. Institutions

The regulation does not specifically state the institutions which are eligible for TA, but it is assumed that TA shall be used for postsecondary institutions accredited by a national or regional accrediting body as stated in DOD Directive 1322.8. Specific guidelines for individuals taking independent study courses are provided in AR 621-5 and are identical to the Navy's instruction.

d. Courses and Programs

The Army TA program is more extensive than the Navy's and provides assistance to individuals participating in several unique areas. The Army TA program supports host-nation college credit language courses for personnel stationed outside of the continental United States (OCONUS) and off-duty courses leading to a state education credential as part of the New Careers in Education (NCE) program. Like the new Navy requirements established in 1993, the Army provides TA for only one credential or degree at any level. Enlisted personnel with a post-secondary credential may receive TA for courses required for licensure or certification in their particular MOS. Courses or programs beyond the master's degree level are not authorized under the Army's program. Courses which are

not authorized for tuition assistance, such as audited courses, failures, and voluntary withdrawals, are essentially the same for both services.

e. Benefits

The Army TA program has undergone minor changes over the past four years with regards to benefits. In August of 1994, the most recent changes were implemented when a TA Task Force was chartered by the Assistant Secretary of the Army (Manpower and Reserve Affairs) to look at several issues, one of which was the TA policy. In the Army message that promulgated the change in the TA policy, the stated goal of the TA Task Force was to "develop a policy that is consistent in the application of TA and is resource conscious." [Ref. 9] The new policy changed the yearly credit hour cap, reducing the maximum semester hours for which an individual can be reimbursed from fifteen to nine semester hours per year. TA funding levels for the undergraduate and graduate programs have remained the same from FY 1991 to FY 1994. The current funding levels provide for 75 percent reimbursement up to a maximum of \$60 per semester hour for lower level undergraduate courses (freshman and sophomore), \$85 per semester hour for upper level undergraduate courses (junior and senior), and \$170 per semester hour for graduate level courses. OCONUS soldiers are subject to dollar caps commensurate with established education tri-service contract rates and are reimbursed at 75 percent of the contract rate. This is a special provision for OCONUS soldiers and may exceed the dollar funding levels of the undergraduate and graduate programs for individuals who attend colleges and universities in the United States.

As previously discussed in the introduction, some of these policies are unique to the Army. The Army is the only service which breaks up the undergraduate benefits into two categories, lower level and upper level. This could be advantageous if specific costs of education could be identified at the two different levels. They can, if one looks at costs for two year colleges and four year colleges individually. However, that may limit an individual's choice of schools by imposing a cap that doesn't cover 75 percent of the tuition costs of a four year institution during the freshman and sophomore years. By implementing the two different funding levels, the Army requires personnel in high cost areas to bear additional out of pocket expenses if they wish to attend four year institutions in their first two years of college. If one

looks at the individuals participating in the program, one quickly sees that most individuals are in the grade of E-4 to E-6 and probably not in a position to take on the additional burden of the more expensive tuition costs. The TA funding at the undergraduate level is the lowest of any of the services when calculated on the basis of an average course (three semester hours). See Appendix B.

The funding at the graduate level is also one of the lowest of all the services when calculated on a per credit hour basis. The Navy's program has a lower per credit hour funding rate of \$132, with a maximum course ceiling of \$395. When one compares the total reimbursement levels for an average three semester hour course, the Army program would provide up to \$510 for the same course. Once again, all the programs have different language regarding funding levels. The Navy establishes TA guidelines by credit hour, the Army by semester hour or quarter hour equivalent, the Marine Corps by fiscal year, and the Air Force by either semester hour or quarter hour. The Army's quarter hour equivalent used to calculate the appropriate TA benefit is based on three semester hours equating to five quarter hours.

Limiting the number of semester hours for which an individual is eligible for TA could effectively hurt the motivated soldier. If individuals take only nine semester hours per year, it will take them ten years or more to finish the average undergraduate degree program; and the service increases its potential costs over the lifetime of the program. If one feels that this is an investment in the future of an armed service, the implementation of such caps can only be justified due to budgetary concerns. Then one has to evaluate the TA program against all the other programs in the Army's budget. The Navy's six course per fiscal year cap, implemented in 1993, was perceived as an attack on a quality-of-life benefit. The cap was quickly rescinded the following year after extensive negative feedback from the fleet. It's not so much the policy itself, because a large portion of the people in the program will take three or less courses, but the signal that it sends to the motivated, ambitious individual and to the troops in general.

Vocational-technical courses are also funded at the lowest level of all the services, with a maximum cap established at \$750 per fiscal year. The Navy vocational-technical program offers up to a maximum of \$1300 per fiscal year and limits the course load

to no more than one course at a time. The Army program has no limitation on the course loading an individual can take.

The Army tuition assistance benefits follow:

- **High School Completion Courses:** The TA program will pay 100 percent of tuition costs for high school courses, with no tuition caps on the program.
- **Undergraduate Courses:**
Lower level (freshman/sophomore): The TA program will pay for 75 percent of tuition costs to a maximum of \$60 per semester hour or equivalent quarter hour, up to a maximum of nine semester hours per year.

Upper level (junior/senior): The TA program will pay for 75 percent of tuition costs to a maximum of \$85 per semester hour or equivalent quarter hour, up to nine semester hours per year.

OCONUS Courses: The TA program will pay for 75 percent of contract tuition costs up to a maximum of nine semester hours per year.
- **Graduate Courses:** The TA program will pay for 75 percent of tuition costs to a maximum of \$170 per semester or equivalent quarter hour, up to nine semester hours per year.

OCONUS Courses: The TA program will pay for 75 percent of contract tuition costs up to a maximum of nine semester hours per year.
- **Vocational or Technical Courses:** The TA program will pay for 75 percent of tuition costs to a maximum of \$750 per fiscal year. Enrollees prior to 1 October 1992 will be reimbursed to a maximum of \$1000 per fiscal year.

f. Restrictions and Obligations

Restrictions and obligations are similar in most areas of the Army and Navy TA programs. Most differences with regards to the Army's TA benefits and programs have been addressed in previous sections.

One other administrative difference between the two programs is the fact that officers and senior non-commissioned officers (sergeants first class and above) may sign their

own TA forms, rather than obtaining the Commander's signature as required for all other servicemembers. The Navy TA form requires all individuals to obtain the Commanding Officer's signature. This delegates the authority down a level in the Army program and assumes individuals fairly assess their own capabilities against their job related workload and know the latest operational schedule for their unit. This type of policy usually has a positive effect on individuals when viewed from an organizational behavior perspective, but from an internal control perspective it may have some negative effect and weaken the TA policy.

3. Historical Data

Army TA historical data displayed in the following tables were compiled from the thesis questionnaire and from the DANTES data base.

Table 15 displays Army end strength numbers, number of enrollees, and the percentage of enrollees to end strength from FY 1991 to FY 1994.

Year	End Strength	Enrollees	TA Usage Rate
FY 1991	710,000	166,000	23.3%
FY 1992	670,000	180,000	26.8%
FY 1993	610,000	204,000	33.4%
FY 1994	540,000	190,000	35.2%

Table 15. TA Usage Rate

The TA usage rate displayed in Table 15 indicates a significant difference between the Navy and the Army programs. Throughout the four year period, the Army's usage rate was at least triple the Navy's rate. In FY 1994, the Navy's usage rate was 10.9% in comparison to the Army's 35.2%. Part of this may be attributed to the services' different mobility factors and the extensive Army educational infrastructure. The extensive infrastructure probably increases VOLED educational program awareness and results in the higher usage rates in the Army TA program.

Table 16 breaks down enrollments by individual category within the Army TA program.

Year	High School	Undergraduate	Graduate	Vocational Technical	DANTES	Total
FY91	947	201,500	13,300	140	4,500	220,387
FY92	439	187,000	16,500	110	4,000	208,049
FY93	644	269,300	20,600	130	3,700	294,374
FY94	290	217,400	9,500	130	2,600	229,920

Table 16. TA Enrollments by Individual Category

The undergraduate program accounts for the majority of the enrollments in the TA program. In FY 1994, undergraduate enrollments accounted for 94.5% of the total TA enrollments. This proportion is somewhat higher than the undergraduate eligibles as a percent of end strength, which was 81.5% for the same year. Like all the services' TA programs, adjustments in this area of the TA program will have the largest impact on the VOLED budget.

Table 17 displays the Army's VOLED funding, TA funding levels, and the percentage of TA to total VOLED funding from FY 1991 to FY 1994.

Year	VOLED Funding	TA Funding	% of Total Funding
FY 1991	\$82,962,618	\$31,760,266	38.3%
FY 1992	\$89,964,784	\$38,249,212	42.5%
FY 1993	\$92,080,747	\$40,172,642	43.6%
FY1994	\$87,570,339	\$38,176,845	43.6%

Table 17. TA Funding as a Percentage of Total VOLED Funding

The Army's TA funding as a percentage of the total VOLED budget is significantly lower than the Navy's. In FY 1994, the Navy's TA funding accounted for 62.2% of the total VOLED budget compared to the Army's 43.6%. The largest differences in the two programs are the higher personnel costs and non-instructional contract costs associated with the Army program. These costs account for 49% of the Army's total VOLED budget and only 18.4% of the Navy's budget.

Table 18 displays the average cost per enrollment for the high school, undergraduate, and graduate programs from FY 1991 to FY 1994.

Year	High School	Undergraduate	Graduate
FY 1991	\$120	\$111	\$241
FY 1992	\$121	\$140	\$366
FY 1993	\$114	\$129	\$317
FY 1994	\$117	\$129	\$272

Table 18. Average Cost per TA Enrollment

The Army's cost per enrollment in the undergraduate and graduate programs is lower than that of any other service. This seems to correlate directly to the low dollar caps in the undergraduate and graduate categories of the Army's TA program. In addition, Army installations are scattered throughout the country and typically not located in such high cost areas as are the Navy and Marine Corps bases. That fact may help to account for the lower cost per enrollment figures. The Army's average costs per enrollment in the DANTES data base do not show a steady increase in cost per enrollment on a year to year basis. However, if one looks at the FY 1991 and FY 1994 figures, one sees an overall increase of 16% in the undergraduate cost per enrollment and an increase of 12% in the graduate program. The cost per enrollment for the high school program has remained fairly stable over the same period, showing a slight 2% decrease in cost per enrollment.

Table 19 breaks down the Army's number of eligible personnel in each particular category of the TA program.

Year	High School	Undergraduate	Graduate	Total End Strength
FY 1991	7,500	577,827	86,021	707,444
FY 1992	2,771	500,843	63,235	606,124
FY 1993	1,909	470,188	60,294	568,529
FY 1994	1,742	440,227	59,335	536,519

Table 19. TA Eligibles by Category

The Army high school eligibles make up a substantially smaller segment of the Army's total end strength than the Navy. The number of eligibles in each category have decreased considerably over the past four years with the downsizing of the force. Like the Navy, the Army's undergraduate category accounts for the majority of the eligibles with approximately 82% of the total Army end strength. There is only a slight difference proportionally between the Army and the Navy in the undergraduate and graduate categories.

Table 20 displays TA activity as a percentage of enrollments to eligible personnel in each category. This information is available in the DAN TES data base and provides comparative data for the different services.

Year	High School	Undergraduate	Graduate
FY1991	12.6%	41.8%	23.6%
FY1992	15.8%	45.7%	26.1%
FY1993	33.7%	56.6%	30.8%
FY1994	16.6%	59.4%	27.8%

Table 20. TA Activity as a Percentage of Enrollments to Eligible Personnel

This table shows a significant difference in the percentages between the Army and the Navy in the high school and undergraduate programs. In FY 1994, the Army high school percentage is 16.6% compared to the Navy's 1% and 59.4% to 29.2% in the undergraduate program. The figures are more comparable in the graduate program, with the Navy program showing a slightly higher percentage of 36.3% than the Army's 27.8%.

Table 21 looks at participation in the TA program from another perspective, comparing the number of enrollees to eligible personnel in the same categories. This table displays the percentage of eligible personnel in the Army that participated in the TA program. Data for this table was calculated by taking the number of enrollees in each category obtained from the thesis questionnaire and dividing it by the number of eligible personnel in each category obtained from the DANTES data base.

Year	High School	Undergraduate	Graduate
FY1991	12.6%	26.8%	10.3%
FY1992	15.8%	33.5%	17.7%
FY1993	15.7%	40.6%	20.9%
FY1994	20.1%	41.8%	9.3%

Table 21. TA Activity as a Percentage of Enrollees to Eligible Personnel

This table also highlights some significant differences between the Army and Navy TA programs. Army high school percentages are much higher than the Navy's. As in the Navy-Marine Corps comparison, caution should be used when comparing the programs due to relative size differences in the number of eligibles of the two services. When one compares the Army and Navy undergraduate programs, one sees a significantly lower percentage of activity from FY 1991 to FY1994 in the Navy's undergraduate program. This can be explained by looking at the number of enrollments per enrollee in the two different programs. In FY 1994, Army figures show that a very high percentage of the personnel who were

eligible did take a course and the average enrollments of those individuals was 1.17 per year. During the same year, the average number of enrollments for Navy personnel participating in the program was much higher, approximately 3.5 per year. The differences in the graduate program were not as significant, with the Navy showing a slightly higher percentage of activity in FY 1994 of 12.1% to the Army's 9.3%. In FY 1994, enrollees in the Army graduate program took an average of 1.72 courses during the year, which was somewhat higher than the 1.17 courses per enrollee in the undergraduate program.

The lower dollar caps and semester hour caps in the Army's TA program did not seem to have a great impact on the TA activity in the undergraduate and graduate programs. The undergraduate program went from an average of 1.43 enrollments per enrollee in FY 1993 to 1.17 in FY 1994. The graduate program shows the opposite change, with an average 1.63 enrollments per enrollee in FY 1993 and a 1.72 average in FY 1994. FY 1995 will be the first full year since implementing the nine semester hour cap and should provide more conclusive data.

In summary, the historical data does show some correlation between the low dollar caps and the lower average cost per enrollment in the undergraduate and graduate programs. Whether the semester caps have affected TA activity can be argued either way, but it would seem logical that a semester hour cap would limit the most ambitious and talented individuals to three courses a year and reduce the overall enrollment number and the average enrollment per enrollee over time. The other significant difference in the two programs highlighted in this section is the personnel and contract costs associated with the VOLED programs. The Navy infrastructure costs are very low compared to the Army's. As a result, the Navy TA program receives a larger percentage of the total VOLED budget. Once again, caution should be used when evaluating infrastructure costs because the two services have some unique educational programs within their respective VOLED program. In addition, the concentration and location of the forces in each is very different and makes comparing administration costs of the two services' programs very difficult and beyond the scope of this thesis.

D. AIR FORCE

1. Introduction

The Air Force TA program is an excellent and well funded program in terms of benefits and educational infrastructure support for Air Force personnel. Like the Army, the Air Force is not highly concentrated in a few areas but located in numerous areas throughout the country. Although it is third largest of the services, the Air Force's total VOLED and TA budget was more than double the Navy's in FY 1994. Personnel costs for administration of its Voluntary Education programs were \$19 million compared to the Navy's costs of \$7 million in FY 1994. Part of the higher costs can be attributed to the diversity in geographic locations and larger number of installations that the Air Force must support.

The Air Force "culture" seems to promote higher education and foster a favorable climate for individuals to participate in its VOLED programs. Many factors contribute to and are a part of this "culture," including the requirement for personnel to be highly educated to work in a more technically oriented force, education requirements to be competitive for advancement, an operational environment that is conducive to participating in these programs, and generous funding support for benefits and the educational infrastructure. The Air Force has also designated VOLED as one of its quality-of-life programs, and one can see evidence that supports this in its educational instructions. Air Force Instruction 36-2306 states that the Education Services Officers (ESO) and office personnel "must encourage people to enroll in classes when they; don't have a high school diploma, are within 15 semester hours of an associate degree or 30 semester hours of bachelor degree and have not participated in an education program within the last 12 months, or have been selected for promotion to the grade of captain, major, or lieutenant colonel and do not have a postgraduate degree and are not currently participating in an education program." [Ref. 9] When one looks at the historical data, one can see the cumulative effect of all the cultural factors revealed in the extremely high Air Force TA usage rates. The Air Force TA program does come with a higher price tag than the Navy program and differences in the programs will be analyzed in this section.

2. Directives and Instructions

In addition to the DOD directives previously mentioned in this chapter, the Air Force policies and procedures are promulgated in Air Force Regulation (AFR) 213-1 [Ref. 11] and Air Force Instruction 36-2306. Both documents have recent effective dates and have undergone very few changes over the past four years.

a. Philosophy and Purpose

The Air Force philosophy towards its Educational Services Program, which includes TA, is stated very well in the Air Force Instruction (AFI) 36-2306:

The Educational Services Program supports long-range Air Force goals for maintaining a high-quality force and enhancing professional and personal development, recruitment, retention, and readiness. It does this by providing; high quality, cost-effective educational opportunities, from learning basic skills through graduate level degrees; Tuition Assistance (TA), testing services, and counseling. [Ref. 12]

This comprehensive statement starts to give one some insight into the Air Force "culture" and the importance of education within the organization.

b. Eligibility

Navy and Air Force eligibility requirements are essentially the same with a few minor exceptions. The Navy instructions specifically prohibit using TA when in a deployed/detached status, whereas Air Force Regulation 213-1 prohibits TA to personnel during terminal or non-terminal TDY. The Air Force instructions are less definitive with regards to GPA standards, requiring only "good" academic standing before TA funds are authorized. The Navy instruction is more specific and requires individuals to maintain a "C" average in undergraduate programs and a "B" average in graduate programs.

c. Institutions

Approved institutions eligible for tuition assistance reimbursement are required to meet the same standards in both the Navy and the Air Force. Air Force instructions do not address TA funding at foreign universities but do offer TA for courses of study at Air Force Aero Clubs for ground school only.

d. Courses and Programs

The Air Force and Navy programs are virtually identical in most areas of the TA program. The Navy recently changed its TA program and now prohibits the authorization of TA funds for studies toward lower or lateral degrees. The Air Force in general has the same policy, but it will authorize funds if the studies are for enlisted personnel pursuing a Community College of the Air Force degree or for courses that are certified by the ESO as job related. AFI 36-2396 also authorizes TA for courses which may be in a field of study an individual began prior to entering the Air Force or for studies placed on the advanced academic shortage list by Head Quarters U.S. Air Force, Educations and Programs Division (HQ USAF/DPPE). If a degree program is on this list, Air Force TA may be used to fund a lateral degree and ESOs may authorize TA above the normal \$250 per semester hour cap. Like the Marine Corps TA program, vocational-technical courses must be job related in order to receive Air Force TA funding. The Navy instructions authorize TA for only preparatory courses in English or mathematics, while the Air force instruction expands this area to include courses in computer applications and reading.

e. Benefits

The specific guidance for benefits in the Air Force TA program is provided in AFR 213-1 and AFI 36-2396. The Air Force program is the simplest and easiest to interpret and most generous in terms of funding limits of all the TA programs. The program has no credit hour or annual funding level caps in any area. ESOs are given some professional latitude in limiting the number of courses based on the student's academic history, if in his or her professional judgement the student is not academically prepared to complete the course satisfactorily. Like the Navy, tuition assistance is given in advance once the proper paperwork has been processed through the ESO, the individual's supervisor (officer, NCO, or civilian classified as a supervisor), and the individual responsible for Request and Authority to Cite Funds (RACF). Independent study courses and correspondence courses are reimbursed after an individual successfully completes the courses.

The Air Force tuition assistance benefits follow:

- High School Completion Courses: The TA program will pay for 100 percent of all tuition costs.
- Undergraduate Courses: The TA program will pay for 75 percent of tuition costs up to a maximum of \$250 per semester hour or \$166 per quarter hour.
- Graduate Courses: The TA program will pay for 75 percent of tuition costs up to a maximum of \$250 per semester hour or \$166 per quarter hour.
- Vocational-Technical Courses: The TA will pay for 75 percent of tuition costs up to a maximum of \$250 per semester hour or \$166 per quarter hour. The course requires the Commander's signature and must be job related.

In comparing the Air Force and Navy programs, one can easily see the simplicity of the Air Force TA program. Both services' high school programs are identical, while the undergraduate, graduate, and vocational-technical programs vary to differing degrees. The Air Force undergraduate program breaks out funding by semester and quarter hour and has no course funding cap. The Navy program provides funding on a generic credit hour basis and does implement a maximum funding cap of \$285 per course. The type of credit hour system an institution uses, semester hour or quarter hour, will determine the magnitude of the difference in the two programs. For example, if an institution provides instruction on a semester hour basis and charges \$250 per semester hour, the Navy TA program would pay \$285 of the total tuition costs of \$750 (average three hour course) and the Air Force TA program would pay \$562.50 for the same course. If the institution provides instruction on a quarter hour basis and charges \$166 per quarter hour, the Navy TA program would once again pay \$285 of the total tuition costs of \$830 (average five hour course) and the Air Force TA program would pay \$622.50.

These are extreme cases on the top end of the benefit scale but are very real possibilities in high cost areas. In this example, out-of-pocket expenses for members of the

two services sitting in the same classroom would be very different. In the semester hour scenario, the sailor's tuition costs paid by the service would be half that of the airman's.

The same comparison can be used with the graduate program. Under the same scenario, if an institution provides instruction on a semester hour basis and charges the same \$250 per semester hour, the Navy TA program would pay up to its maximum limit of \$395 of the \$750 in tuition costs for the course, while the Air Force TA program would pay \$562.50 for the same course. For instruction provided on a quarter hour basis, the Navy program would again pay \$395 of the total \$1,250 per course and the Air Force program would pay \$622.50. The difference in benefits between the two programs is still significant in the graduate program, but less than the undergraduate program.

The vocational-technical funding is very different between the Air Force and all the other services. Air Force funding is at the same rate as the undergraduate and graduate programs on a quarter or semester hour basis. The other services' funding is all based on an annual cap which ranges from the high Navy rate of \$1300 per fiscal year to the Army's low rate of \$750 per fiscal year. Many of these vocational-technical courses are based on clock hours and not set up on a semester hour or quarter hour basis and are provided on a cost per course basis. If an individual takes just one course, it appears the Navy program would provide better benefits in this area. The more courses one takes, assuming one can convert these courses in some way to semester hours or quarter hours, the Air Force TA program would become more attractive to the servicemember.

f. Restriction and Obligations

The Navy and the Air Force TA programs are the same with regards to obligations incurred by servicemembers who participate in the TA program. The Air Force and Navy TA policies are very similar in most areas of the TA program. Significant differences in the restrictions have been highlighted previously in this section.

3. Historical Data

Air Force TA historical data displayed in the following tables were compiled from the DANTES data base and personal interviews. Table 22 displays Air Force end strength numbers, number of enrollees, and the percentage of enrollees to end strength from FY 1991

to FY 1994. Exact enrollee data for this table was not provided by the Air Force in the thesis questionnaire. Based on an FY 1994 estimate of 100,000 TA enrollees provided by Mr. Cole Hunter, Chief Director, Air Force Education Services, one can use the actual FY1994 TA enrollment data provided in the DANTEs data base and divide it by number of enrollees to get the average number of enrollments per enrollee for each year. For FY 1994, the enrollments per enrollee was 2.71 and will be used to estimate the number of enrollees in FY 1991-FY1993. This figure is only an estimate and is lower than the Navy's figure of 3.55, which was calculated from actual statistics. Information displayed in this table is based on an estimate and should be weighed accordingly.

Year	End Strength	Enrollees	TA Usage Rate
FY 1991	488,852	79,329	16.2%
FY 1992	450,352	97,908	21.7%
FY 1993	440,202	92,048	20.9%
FY 1994	422,321	100,000	23.7%

Table 22. TA Usage Rate

The Air Force's TA usage rates displayed in Table 22 were much higher than the Navy's. In FY 1994, the Navy's usage rate was 9.3% compared to the Air Force's 23.7%. If one were to assume that the average enrollment per enrollee was higher than the estimated rate and equivalent to the Navy figure of 3.55, the Air Force usage rate would be 17.7%. While these figures are only estimates, they clearly show that the Air Force TA usage rate is significantly higher than the Navy's. This is probably attributed to a combination of the factors discussed earlier which contribute to the Air Force "culture."

Table 23 breaks down enrollments by individual category within the Air Force TA program.

Year	High School	Undergraduate	Graduate	Vocational Technical	DANTES	Total
FY91	15	185,695	28,299	51	824	214,982
FY92	11	226,735	37,646	105	780	265,332
FY93	18	206,211	42,442	120	678	249,449
FY94	0	214,192	56,266	146	1,002	271,606

Table 23. TA Enrollments by Individual Category

The undergraduate program accounts for approximately 79%, and the largest share of the Air Force TA enrollments. Approximately 20% of the enrollments are in the graduate program with 1% of the total enrollments found in the high school and vocational-technical programs. The Air Force is the third largest of all the services, but it has approximately 3.7 times the number of enrollments in the Navy's graduate program and 2 times the number of enrollments in the Navy's undergraduate program. The low number of enrollments in the high school category indicates that virtually all new enlistees have a high school diploma.

Table 24 displays the Air Force's VOLED funding, TA funding levels, and the percentage of TA to total VOLED funding from FY 1991 to FY 1994.

Year	VOLED Funding	TA Funding	% of Total Funding
FY 1991	\$58,974,314	\$34,180,422	58.0%
FY 1992	\$68,003,000	\$46,919,492	69.0%
FY 1993	\$73,010,737	\$49,037,621	67.1%
FY1994	\$78,476,370	\$57,631,739	73.4%

Table 24. TA Funding as a Percentage of Total VOLED Funding

The Air Force's TA funding as a percentage of the total VOLED funding is generally higher than the Navy's. In FY 1994, the Navy's TA funding accounted for 62.2% of the total VOLED budget compared to the Air Force's 73.4%. While the services are comparable in size, the Air Force VOLED funding and TA funding in FY 1994 was double the Navy's. Most of this can be attributed to the Air Force "culture." Education benefits are looked at as a recruiting and retention tool and a significant quality-of-life issue. The Air Force TA program has some of the best benefits and the way the service is set up to conduct operations is more conducive to VOLED programs than in the Navy. In addition, to be competitive for promotion in the Air Force, advanced degrees are almost mandatory at every pay grade.

Table 25 displays the average cost per enrollment for the undergraduate and graduate programs from FY 1991 to FY 1994.

Year	High School	Undergraduate	Graduate
FY 1991	NA	\$133	\$338
FY 1992	NA	\$150	\$343
FY 1993	NA	\$162	\$366
FY 1994	NA	\$171	\$371

Table 25. Average Cost per TA Enrollment

The Air Force undergraduate cost per enrollment is virtually the same as the Navy's. The Air Force graduate program costs are approximately 11% higher than the Navy's. High school costs were not calculated for several years and would be of little value in light of the extremely small number of enrollments in each year. The Army and Air Force are similar in force structure in that they are not highly concentrated in any particular area of the country. Many installations are located in lower cost areas of the country. This lowers the overall costs per enrollment in each category.

Table 26 breaks down the Air Force's number of eligible personnel in each particular category of the TA program.

Year	High School	Undergraduate	Graduate	Total End Strength
FY 1991	113	394,652	54,645	488,852
FY 1992	66	361,622	50,811	450,352
FY 1993	42	337,860	50,953	440,202
FY 1994	26	326,086	49,759	422,321

Table 26. TA Eligibles by Category

The Air Force has the lowest number of high school eligibles of all the services by a clear margin. The Air Force and the Navy are approximately the same size, with the Navy's FY 1994 total end strength at 463,465 compared to the Air Force's 422,321. As a percentage of end strength, the Air Force's officer to enlisted ratio is slightly higher than the Navy's. This may partially account for the Air Force's higher number of eligibles in the graduate category. In FY 1994, the number of Air Force undergraduate eligibles is 40,000 less than the Navy's. While the extremely low number of Air Force high school eligibles should increase this number, the smaller size of the force combined with the higher officer to enlisted ratio and the high number of enlisted personnel who have undergraduate degrees offset this and probably account for the significant difference in this category.

Table 27 displays TA activity as a percentage of enrollments to eligible personnel in each category. This information is available in the DANTES data base and provides comparative data for the different services.

Year	High School	Undergraduate	Graduate
FY1991	12.9%	47.1%	51.8%
FY1992	16.7%	62.7%	74.1%
FY1993	42.9%	61.0%	83.3%
FY1994	(no enrollments)	65.7%	113.1%

Table 27. TA Activity as a Percentage of Enrollments to Eligible Personnel

The Air Force only had 26 high school eligible personnel in the DANTEs data base for FY 1994 and showed no activity in the high school program during this year. The undergraduate program and graduate programs have the highest percentage of enrollments to eligibles of all the services. In the undergraduate category for FY 1994, the Navy's percentage of enrollments to eligible personnel was 29.2% compared to the Air Force's 65.7%. The most significant difference is in the graduate category where the Air Force's percentage is over three times the Navy's 36.3%. One could only conclude that these high percentages are from a cumulative positive effect of the organizational culture, the generous benefit package, and the operational environment factors discussed earlier in this chapter.

Table 28 looks at participation in the TA program from another perspective, comparing the number of enrollees to eligible personnel in the same categories. This table displays the percentage of eligible personnel in the Air Force that participated in the TA program. Data for this table was calculated by dividing the number of enrollments in the DANTEs data base by the FY 1994 overall average enrollment per enrollee figure of 2.71. This figure is only an estimate and assumes uniform participation in each category every year. Accordingly, information in this table display general trends, but caution should be used when drawing conclusions and comparing data from the other services.

Year	High School	Undergraduate	Graduate
FY1991	4.9%	17.8%	19.6%
FY1992	6.3%	23.7%	28.0%
FY1993	16.2%	23.0%	31.4%
FY1994	(no enrollments)	24.8%	42.7%

Table 28. TA Activity as a Percentage of Enrollees to Eligible Personnel

The growth trend in Air Force TA activity in the graduate category is noteworthy. The recent economic climate and downsizing of the military probably had a significant impact in this particular category. Many servicemembers probably wanted to improve their competitive status within the Air Force, as well as prepare themselves for a possible transition to the private sector. Even using the 2.71 enrollment per enrollee figure, which is probably somewhat low, one can see that the Air Force participation levels in the undergraduate and the graduate programs from any perspective are significantly higher than the Navy's.

In summary, the historical data does show some correlation between the organizational culture with respect to promotion and funding of the Air Force TA program, the unwritten requirements to be competitive for promotion, the more favorable operational environment, and the usage of the TA program compared to the other services. The Navy will not be able to significantly change its operational environment, but it can evaluate the other factors, such as its organizational culture and benefits program, to provide the most cost effective program that minimizes an individual's additional out-of-pocket expense and maximizes participation of the fleet in this valuable program.

E. MILITARY TA SUMMARY

Each of the different services TA policies and historical data have been presented in this chapter. Table 29 summarizes specific FY 1994 TA data from the DAN TES Data Base [Ref. 1] and the FY 1994 Voluntary Education Fact Sheet [Ref. 13] for each service.

In FY 1994, the summary data shows that, even after the downsizing in the 1990s, the Army remains the largest of all the services, with the Navy and Air Force smaller but of comparable size to each other. The difference in the mixture of officer to enlisted end strength is noteworthy between the Air Force and the Navy, with the Navy having over 40,000 more personnel in total end strength but almost 20,000 fewer officers than the Air Force. Another comparative difference exists in the percentage of TA enrollees to total end strength where the TA activity ranges from a low of 9.3% in the Navy to a high of 35.2% in the Army.

The Navy clearly has the highest number of high school eligibles at 10,319 personnel but has an extremely low TA activity rate of 1.0% as a percentage of enrollments to number of eligible personnel. This activity rate is well below that of any other service and the Navy's overall TA activity rate shows an area that should be focused on. In addition, the Navy high school cost per enrolment is approximately 60% higher than that of any other service.

The number of personnel eligible for undergraduate TA account for between 77% and 89% of the total end strength of any service. As the largest program, the way each service determines policy in this area will have a tremendous impact on the overall TA activity and the total TA budget. Significant differences in TA activity and cost per enrollment are apparent in this area. The higher activity rates seen in the Army and the Air Force are probably due in large part to a combination of factors which include each service's operational environment and their extensive educational infrastructure. The difference in the undergraduate costs per enrollment between all the services is probably attributed to the significant differences in the benefits for which personnel are eligible in each service.

The number of personnel eligible for the graduate program seems to be proportional to officer end strength size in each service. TA activity as a percentage of enrollments to eligibles in the graduate program is generally higher for all the services than in any other area of the TA program. The two most significant differences in this area are the Air Force's extraordinarily high TA activity level and the Marine Corps' exceptionally high cost per enrollment. The Air Force's high TA activity can only be attributed to the previously described Air Force "culture." The Marine Corps' significantly higher cost per enrollment

is probably attributed to the way its particular benefit package is structured, not having any hourly or course caps, and the fact that most of its forces are located in higher cost areas of the country.

The total VOLED budget shows the significant difference in the funding levels provided by the different services. While the Air Force is slightly smaller than the Navy, its total VOLED and TA budget are twice the Navy's. The data on percentage of the total VOLED expenditures for TA highlights two things, the amount of TA expenditures which go directly to the servicemember and the amount expenditures on other educational programs and educational infrastructure required to administer the various programs. The Marine Corps clearly has the highest percentage of the VOLED budget dedicated to its TA program, at 93.9%. This high percentage is attributed to the limited number of other educational programs which are offered by the Marine Corps and a relatively small educational infrastructure. The Navy's educational infrastructure costs are significantly lower than the Army and the Air Force and probably attributed to the fact that the Navy is more centrally located in a few areas of the country and that it has smaller support staffs per number of servicemembers in any given geographic area.

MILITARY TUITION ASSISTANCE PROGRAM SUMMARY FISCAL YEAR 1994				
Category	Navy	Air Force	Army	Marine Corps
End Strength	463,465	422,321	536,519	174,217
Officer End Strength	61,799	81,004	85,159	17,879
Enlisted End Strength	401,666	341,317	451,360	156,338
TA Enrollees	43,106	100,000*	190,000	23,626
% Enrollees/End Strength	9.3%	23.7%	35.2%	13.6%
High School Eligibles	10,319	26	1,742	231
High School Enrollments	100	0	290	364
High School TA Activity % Enrollments/Eligibles	1.0%	0.0%	16.6%	157.6%
Cost Per Enrollment	\$168.68	No Cost	\$111.69	\$101.55
Undergraduate Eligibles	382,384	326,086	440,227	156,384
Undergraduate Enrollments	111,575	214,192	261,336	33,488
Undergraduate TA Activity % Enrollments/Eligibles	29.2%	65.7%	59.4%	21.4%
Cost Per Enrollment	\$167.83	\$171.29	\$128.81	\$220.66
Graduate Eligibles	41,484	49,759	59,225	14,612
Graduate Enrollments	15,072	56,266	16,462	3,720
Graduate TA Activity % Enrollments/Eligibles	36.3%	113.1%	27.8%	25.5%
Cost Per Enrollment	\$334.35	\$370.65	\$272.19	\$601.29
Total VOLED Budget	\$39.20M	\$78.47M	\$87.57M	\$10.35M
Tuition Assistance Budget	\$24.39M	\$57.63M	\$38.17M	\$9.72M
% TA/VOLED Budget	62.2%	73.4%	43.6%	93.9%

*Air Force Estimate

Table 29. Military TA Program Summary

F. CIVILIAN CORPORATIONS

1. Introduction

In order to properly evaluate the military services' and, more specifically, the Navy's TA program, one can use a benchmark of TA provided in the private sector. Trends in employee tuition benefit programs of the Fortune 1000 companies were compiled by the Conference University Press and published in 1986 under the title of College Financial Aid and Employee Tuition Benefits of the Fortune 1000 Companies. [Ref. 14] The survey asked each company to provide information on the terms and limitations of its tuition benefit policy. The publication was discontinued in 1986 but still provides valuable information on different areas of the corporate policies with regards to eligibility, benefits, courses, and reimbursement.

Of the Fortune 1000 companies contacted in the 1986 survey, 730 companies responded. Of those, only 15 either did not have a tuition assistance program or had recently suspended it. Those companies that did not have TA programs tended to be concentrated in the airline and retail sales industries.

Eligibility was usually determined by several different criteria. Some companies grant TA based on whether an individual is an hourly or salaried employee. A break down of companies which provided benefits to hourly or salaried personnel was not provided, however, most of the companies, 54%, gave new employees immediate eligibility for tuition benefits. For companies that require a waiting period, 14% percent had a one or two month period, 17% had between three and six months, and 15% required more than six months.

Limits on reimbursement took four basic forms: by credit hours; by dollar amounts; by grade received; and by percentage of the costs the employee was required to bear. In many cases, the companies, like some of the military services, mix two or more of the criteria to limit reimbursements. Of the companies surveyed, 45% did not set an explicit maximum on the amount of tuition they would be willing to reimburse. Each had different administrative forms of control to prevent budget overruns. Of the companies surveyed, 132 companies limited reimbursement by credit hours. The modal limit was 12 credit hours. One hundred seventy-two companies limited reimbursement on the basis of a dollar cap with the

mode and the mean in the \$1000 to \$1499 range. The number of companies with limits in the \$2000 or more range had doubled from the last survey conducted in 1983. One can draw conclusions on the trend in the data and assume that the dollar values and the number of companies offering higher reimbursement rates have continue to increase over the years. (This pattern is reflected in the four companies surveyed in this thesis.) One hundred seventy-three companies required the employee to share some portion of the education costs. Approximately 53% of these companies reimbursed the employee for 75% of the tuition costs. Corporate and military reimbursement rates are very similar in this category. A small portion of the companies did vary the percentage of reimbursement based on the grade received in the course.

Most of the companies surveyed for this thesis limited the kinds of courses an employee might take to those related to their work or industry. This is a trend in the opposite direction from the 1986 report, where almost two-thirds of the companies reimbursed employees for non-job-related courses, especially if they were part of a degree program. Most companies excluded TA for audited courses and those not taken for credit, where credit is offered. TA authorized for correspondence courses was mixed and usually allowed only when other alternatives are not available. When companies require a certain grade in order to receive reimbursement, the most common standard was a "C" for undergraduate courses and a "B" for graduate courses.

In the private sector, 85% of the companies surveyed reimburse the employee after completing the course. The timing of reimbursement for the companies surveyed in the previous reports was virtually identical. The military is far more generous in this area, with every service providing TA at the beginning of the course. The only exception to this is when servicemembers take either the DANTES courses or correspondence courses which are reimbursed after successfully completing the course. As pointed out in the report, this is no slight burden for clerical or hourly employees.

The TA program in the private sector is heavily influenced by the current tax code. When the government enacts favorable tax rules for training and education, companies TA benefits go up accordingly. The most recent tax code provides a non-taxable cap of \$5250

for employees. Reimbursement above the \$5250 is added to the employees' salaries and taxed appropriately. The only exception to this is if the courses maintain or improve skills for the employees' current job duties. In such a case the amount reimbursed above the \$5250 will not be taxed. This tax policy is currently under review by Congress.

This section will provide information on the TA programs of four large corporations located in the Silicon Valley area of northern California. The corporations include leaders in the automobile, aerospace, computer, and food/beverage industries. The TA policies of the companies that were surveyed in the Silicon Valley reflect many of the trends of the 1986 survey of the Fortune 1000 companies. The names of the companies have been excluded from the survey at the companies' request. This purpose of this survey was to gather information on the terms and limitations of each company's TA policy. The firms did not provide information on budgets or expenditures for their TA programs.

2. Company A

Company A is an industry leader and one of the largest computer companies in the world. It employs a large number of people and has an outstanding and comprehensive TA program.

a. Philosophy and Purpose

Company A's Educational Handbook states that the increasingly competitive, demanding and challenging nature of the technical business environment requires Company A employees to continuously strive to learn innovative and superior ways to do their work. Lifelong, continuous learning not only enables employees to grow as individuals and compete for more challenging career opportunities, but allows Company A to stay globally competitive. Company A's Educational Assistance Program is one critical way that it supports employees in lifelong learning and development.

b. Eligibility

Regular full-time and regular part-time employees are eligible for educational assistance on the date of hire. An employee involved in the corrective action process is not eligible for educational assistance. Managers are advised to postpone approving Degree

Program Proposals until employees have had a chance to work for the company for at least six months.

c. Institutions

To be approved for reimbursement, the school must offer college credit and be accredited by one of the six regional associations.

d. Courses and Programs

Courses and programs approved for TA include individual courses to improve skills for the employee's current job, and certificate programs that help improve skills for the current job or help develop skills for a future job at Company A. Funding for formal degrees such as Associate, Bachelor, Masters, and Doctorate will be approved if the degree leads to a career at Company A. Fees associated with granting course credit by testing or other evaluation methods, or by life or work experience are not reimbursable.

e. Benefits

Benefits in Company A are broken down into several different categories. There are different reimbursement rates for public and private institutions, full time and part time employees, and courses taken on company time or personal time. Company A's reimbursement policy follows:

- **Public Schools:** TA will pay for 100% of all tuition costs. Tuition costs include textbooks, software applications, and lab fees.
- **Private Schools:** TA will pay for 80% of all tuition costs. Textbooks, software applications, and lab fees are reimbursed at 100%.
- **Part-Time vs Full-Time Employees:**
Employees who work 20 hours per week receive 50% of the reimbursement rate.
Employees who work 30 hours per week receive 75% of the reimbursement rate.
Employees who work 40 hours per week receive 100% of the reimbursement rate.
- **Company Time vs Personal Time:**
Employees will receive 100% reimbursement for courses completed entirely on personal time.
Employees will receive 50% reimbursement for courses completed entirely on company time.

Employees will receive reimbursement on a sliding scale for combinations of courses taken on company and personal time.

f. Restrictions and Obligations

Company A does require employees seeking a degree to consult with a company Educational Assistance Representative prior to starting a degree program. In addition, any employee pursuing a formal degree must get approval by his or her immediate manager, the section manager, and the functional manager. There are no limitations on the number of courses which an individual may take in any term or fiscal year. All TA is reimbursed after successfully completing the course. The minimum acceptable grade is a "C" (2.0) or better, "PASS" in the case of a course taken on a pass/fail option, or "CREDIT" in the case of a course taken on a credit/no credit option. If total reimbursements for the calendar year have exceeded the \$5250 non-taxable cap and if the reimbursement is considered taxable, the tax will be taken from the employee's paycheck.

3. Company B

Company B is one of the largest aerospace companies in the country. The company is a leader in the industry and has extensive government contracts. In addition, it is a leading supplier of aircraft to the private sector. The company provides one of the most comprehensive benefits packages in private industry. Benefits account for over 40% of the employees' income. Part of that package is the TA program.

a. Philosophy and Purpose

Company B's benefits brochure states that employees are encouraged to continue their educational pursuits while employed at Company B. Whether one's educational pathway is toward an advanced degree or state-of-the-art courses, employees are reimbursed for 100% of tuition costs for satisfactorily completing up to two technical or job-related company approved courses per academic term.

b. Eligibility

Employees must be classified as full-time during the entire academic term in order to be eligible for tuition assistance for any courses taken during that particular term.

Full-time employees include salaried and non-represented hourly employees. Consequently, employees that are classified as part-time or call-in are not eligible for TA.

c. Institutions

In order to be authorized TA, a course must be taken through an accredited institution approved by Company B's Human Resources Department (HRD). Accreditation must be by one of the nationally recognized academic accrediting agencies, such as the Western Association of Schools and Colleges.

d. Courses and Programs

In order for an employee to be authorized TA, the course must be either technical, directly related to present job assignment, or part of an approved degree plan. Supervised graduate level research and thesis work may be reimbursed when academic credit is given and when it is integral to completing of the graduate degree. Correspondence courses, distance learning and video courses do not qualify for TA. On an exception basis, employees at remote sites may be eligible for TA for these types of courses, with prior approval from HRD. Intensive training through conference/workshops which earn continuing education units (CEU), prior learning experience (PLE), audited courses, or courses not leading to academic credit are not eligible for TA reimbursement.

e. Benefits

Company B offers one of the most simple but creative of all the benefit packages. Employees who are authorized TA receive 75% of tuition costs for successfully completing approved courses up to a maximum of \$3750 per calendar year. Upon successfully completing an approved degree program, the employee will be reimbursed the 25% balance of the cost for each course. Total reimbursement, including amounts previously reimbursed, will not exceed \$5,000 for any calendar year during which courses were completed. Only participants who are employed by the company at the time they complete their approved degree programs are eligible for the 25% reimbursement. Employees are limited to a maximum of two approved courses per quarter or semester (8 quarter or 6 semester courses per calendar year, respectively).

f. Restrictions and Obligations

Before employees are approved for a degree plan, they must agree and sign the company Repayment Agreement. Employees must agree to reimburse Company B in full for its tuition assistance expenditures made on their behalf should they voluntarily terminate employment prior to or within five years of degree conferral. Employees are required to obtain a grade of "C" or better for employees without a four-year degree and a grade of "B" or better for employees with a four-year degree. If an institution does not use the traditional letter grading system, a grade of "P" (Pass), "+" (Plus) or "CR" (Credit) is acceptable for tuition reimbursement. When an institution uses the traditional letter grading system and the employee elects a "P", "+" or "CR", tuition will not be reimbursed. Employees are required to prepare Education and Course Plans listing all courses required for the degree or certificate objective. This plan must be approved by department management and HRD prior to course enrollment.

4. Company C

Company C is a large automobile manufacturer. The company is made up of people who perform a wide range of duties from personnel on the assembly line to personnel on the management team. Company C's benefits are comparable to the first two companies' packages even though it is from an industry which is very different than the technically oriented aerospace and computer industries.

a. Philosophy and Purpose

In the introduction to Company C's Educational Reimbursement Policy it states that the company encourages employees to increase and broaden their professional skills and knowledge, to improve present job performance, and to prepare for and increase advancement opportunities through continuing education.

b. Eligibility

All regular, full-time employees, who have completed at least one year of employment prior to completing a course, are eligible to apply for TA.

c. Institutions

Tuition assistance is authorized if courses are offered by an accredited public or private school, college, university, business school, technical school, vocational school, or other generally recognized institution. Company C's TA policy was vague on specific accreditation requirements and could lead to liberal interpretation by employees if no further guidance is provided by HRD personnel.

d. Courses and Programs

Courses and degree programs must be directly related to the employee's present job or to those jobs to which the employee may reasonably be expected to be transferred or promoted. Correspondence courses are reimbursed if the course is directly related to the employee's work assignment and is not available at a comparable level of quality and content at a local school.

e. Benefits

Company C's TA benefits will pay for 80% of tuition costs, registration and laboratory fees, and required textbooks up to a maximum of \$3000 per calendar year. For salaried employees enrolled in approved graduate level programs, the maximum reimbursement is \$5,000 per calendar year. Employees are reimbursed upon successfully completing the course(s).

f. Restrictions and Obligations

Company C's TA policy has very few restrictions and obligations. It does require employees to attain a "C" grade or better for undergraduate work and a "B" grade or better for graduate work. Courses that are non-graded or non-credit must be satisfactorily completed. Employees who plan to request reimbursement for educational expenses must obtain approval prior to enrolling in the course. Employees who resign or are terminated prior to completing their course work will not be eligible for reimbursement. An Educational Reimbursement Application Form must be signed and approved by the Group Leader/Supervisor and the HRD prior to enrolling.

5. Company D

Company D is the Beverage Division of one of the largest international food/beverage companies. Company D, like Company C, employs a wide range of skilled and unskilled personnel from top management to people working in the plants. Company D's TA policy is the most streamlined and provides some of the best benefits of all the companies in the survey.

a. Philosophy and Purpose

Company D's Continuing Education Policy states that the Continuing Education Benefits Program has been established to provide financial support for individual academic development that contributes to the competitive advantage of Company D.

b. Eligibility

All full-time and part-time salaried employees who have been employed for 90 days are eligible for TA benefits. Benefits for hourly employees at the Plants are administered and budgeted through the individual Plants.

c. Institutions

In order to qualify for TA, the institution must be accredited by one of six accreditation agencies recognized by the U.S. Department of Education and the Council on Postsecondary Accreditation.

d. Courses and Programs

TA expenses must be related to classes contributing toward a degree-granting or professional credential program. Seminars are not covered under this program. All programs must be directly related to present or potential future assignments with Company D.

e. Benefits

Company D's TA program provides 100% financial assistance at the maximum rate of \$5,000 per calendar year toward covered expenses. Covered expenses include tuition, books and required program fees. Program entrance exam fees will be paid only once per person (i.e., Graduate Management Admission Test (GMAT), Graduate Record Exams (GRE), etc.). Company D will provide reimbursement in excess of \$5,000 per year upon the

employee's promise of service to the company. A promise of one year of service is required for each calendar year in which expenses exceed \$5,000, up to a maximum of three years of service.

f. Restrictions and Obligations

Company D has a few restrictions that deal with the same issues mentioned for the previous companies. If an employee ceases employment before course completion, he or she is responsible for all tuition costs during that period. If employment ceases before promised service is completed, the employee is obligated to repay the company a prorated amount of the total expenses in excess of the annual maximum. All amounts over \$5,250 per year will be considered taxable income to employees, who will therefore be responsible for taxes on those amounts. TA is reimbursed upon successfully completing a course. Successful completion is measured by a grade of "C" or better for undergraduate courses and a "B" or better for graduate courses. In order to receive TA benefits, an application form must be signed by the employee's supervisor and the Training and Organizational Development Manager.

III. ANALYSIS OF TUITION RATES

A. INTRODUCTION

In order to establish an effective TA policy and fund it appropriately, an organization must determine what they are willing to fund, including: the type of education programs (high school, bachelors, masters, etc.), the percentage or rate of reimbursement, and the benefit level for the type of institution (community colleges, four-year public universities, four-year private universities, etc.). For example, there are many types of institutions which provide undergraduate courses, from two-year community colleges to four-year private universities. The tuition rates associated with these institutions differ dramatically. One can debate the quality of education provided by the different types of institutions, but quality of education is not easy to measure and is beyond the scope of this thesis.

DOD Directive 1322.8 provides guidance for services on the percentage of tuition costs that they are allowed to reimburse (100% of high school tuition costs, up to 75% of undergraduate and graduate tuition costs, etc.) and the type of education programs for which one can receive government TA. The instruction does not specifically identify what type of institution the different reimbursement rates were targeted to cover. Consequently, the services have established very different guidelines for benefits based on the priority the TA program is given within each service. Also, depending on what type of school an individual decides to attend, the TA reimbursement an individual receives may vary dramatically. In order for the Navy to budget effectively and provide servicemembers with a quality TA program, it should establish TA benefit guidelines based on the types of institutions it is targeting to provide the maximum assistance allowed by law. Even the maximum allowable rate of up to 75% for undergraduate and graduate courses is still below most of the private corporation reimbursement rates. Individuals choosing to attend a higher cost institution than the targeted institutions, such as a private university, may incur higher out-of-pocket expenses.

Many of the services' TA benefits have not changed significantly over the past four years, while tuition rates have steadily increased. Table 30 displays the average annual

increase in tuition and fees for public and private colleges from 1987-1988 to 1994-1995, published in the Chronicle of Higher Education [Ref. 11].

School Year	Type of Institution			
	Public Colleges		Private Colleges	
	2-Year	4-Year	2-Year	4-Year
1987-1988	5%	6%	6%	8%
1988-1989	4	5	7	9
1989-1990	5	7	7	9
1990-1991	5	7	8	8
1991-1992	13	12	6	7
1992-1993	10	10	6	7
1993-1994	10	8	7	6
1994-1995	4	6	5	6

Table 30. Average Annual Increases in College Tuition and Fees

One can see from the data that public college tuition and fees increased significantly from FY 1991 to FY 1994. During that time, the average tuition of 2-year public colleges increased 38%, 4-year public colleges 37%, 2-year private colleges 27%, and 4-year private colleges 28%. The Chronicle attributed the substantial increases in tuition to sharp increases in health-care costs, the growing cost of complying with government regulations, and increases in college funded student financial aid to offset declines in federal and state student aid. During that same period, the TA benefit levels in most services decreased or remained constant. The Navy's undergraduate and graduate TA benefits remained unchanged during this period. The rate of tuition increases slowed in FY 1995 at most types of institutions, but the rise in the cost of attending college outstripped inflation. A majority of the schools surveyed were raising tuition rates an average of 5% for the 1995 summer/fall terms.

The Navy needs to continually evaluate its TA program to ensure the benefits adequately cover its targeted share of tuition and fees. For the purposes of this thesis, "adequate" coverage means 75% of the costs for undergraduate, graduate, vocational-technical courses, and 100% for high school courses. None of the services currently base its benefit funding on college costs but, rather, seem to adjust funding on the basis of budget constraints.

In order to evaluate the adequacy of the Navy's TA benefits, a survey was conducted of public and private colleges to obtain tuition costs in areas where there is a high concentration of Navy personnel. Appendix C displays a sample of tuition costs at various public and private institutions in each geographic area of the country.

B. COMMUNITY COLLEGES

Table 31 summarizes tuition costs for undergraduate courses taken at community colleges in different geographic areas of the country.

Geographic Area	Cost Per Credit Hour		Cost Per Course	
	Low-High	Average	Low-High	Average
Hawaii	\$20-\$70	\$32.50	\$60-\$210	\$97.50
California	\$9-\$13	\$11	\$39-\$45	\$42
Washington	\$43	\$43	\$215	\$215
Florida	\$36-\$38	\$37	\$108-\$114	\$111
Virginia	\$47	\$47	\$141	\$141
Washington D.C.	\$47-\$72	\$60	\$141-\$216	\$180

Table 31. Community College Tuition Summary

Community college tuition rates were relatively low compared to undergraduate courses offered at four-year institutions located in the same geographic locations. Tuition rates range from a low in California of \$9 per credit hour to a high of \$72 per credit hour in Maryland.

The average tuition rate in Hawaii is slightly skewed due to the addition of one high cost institution. The majority of the Hawaii schools offer courses at the rate of \$20 per credit hour. Most of the schools in the survey offer courses for between \$35 and \$50. The course costs were based on an average course consisting of either three semester hours or five quarter hours. The average course cost ranged from a low in California of \$42 to a high in Maryland of \$215. The tuition rates in Maryland almost triple if one attends a community college that is not located in the individual's county of residence. This thesis assumes that individuals taking courses in this part of the country use community colleges where they have established residence. The overall community college average cost for the schools surveyed was \$127 per course.

C. FOUR-YEAR PUBLIC INSTITUTIONS

Table 32 displays a summary of tuition costs for undergraduate courses at four-year public institutions.

Geographic Area	Cost Per Credit Hour		Cost Per Course	
	Low-High	Average	Low-High	Average
Hawaii Graduate Rates	\$62-\$112 \$75	\$91 \$75	\$186-\$336 \$225	\$273 \$225
California Graduate Rates	\$79-\$217 \$79-\$217	\$112 \$120	\$309-\$695 \$395-\$730	\$336 \$360
Washington Graduate Rates	\$75-\$89 \$120-\$217	\$82 \$169	\$375-\$445 \$600-\$1087	\$410 \$842
Florida Graduates Rates	\$57-\$60 \$110	\$58 \$110	\$171-\$180 \$330	\$174 \$330
Virginia Graduate Rates	\$83-\$278 \$122-\$183	\$108 \$160	\$240-\$834 \$366-\$510	\$324 \$480
Washington D.C. Graduate Rates	\$160-\$235 \$230-\$260	\$190 \$245	\$480-\$705 \$690-\$780	\$570 \$735
DANTES Graduate Rates	\$55-\$140 \$198-\$395	\$91 \$220	\$165-\$420 \$594-\$1195	\$270 \$660
Contract/Extension Graduate Rates	\$45-\$163 \$70-\$240	\$113 \$200	\$204-\$489 \$350-\$720	\$339 \$600

Table 32. Four-Year Public Institution Tuition Summary

From the data one can see that the average cost per credit hour and average cost per course from four-year public institutions was higher than the community colleges in every location. The cost per credit hour ranged from a low in Florida of \$58 to a high of \$190 in the Washington D.C. area. The overall average cost per credit hour for the undergraduate costs at four-year public institutions was \$107 per credit hour. The difference between the community college and four-year public university cost per credit hour varied in each region, from a low of \$21 in Florida to a high of \$130 in the Washington D.C. area. The difference between the average costs for two and four-year public colleges for all areas combined was approximately \$71 per credit hour. With most schools teaching on a semester hour basis, this equates to an average difference of \$210 per course.

Many services, and the Navy Campus, have Memoranda of Understanding (MOU) with various universities throughout the country to teach courses on military installations. The data for these universities is displayed in the contract/extension category of Table 32. Most installations have one or two universities offering courses under these MOUs. The larger installations and areas of high concentrations of Navy personnel, such as Hawaii, San Diego and Norfolk, offer many different curricula on the various bases in the local area. Of the top 20 universities and colleges in total TA reimbursements, displayed in Appendix D, all have established MOUs and provide limited degree programs on several military installations throughout the country. In addition, some of the local Navy Campus area coordinators have signed a Special Arrangement Contract (SAC) with local universities to reduce the tuition cost to military using TA at that institution. An example of this is the SAC agreement between the Norfolk coordinator and Old Dominion University. The SAC allows military personnel to attend school for \$133 per credit hour if the individual is using TA. If the individual were to attend school using GI Bill benefits, or pay for tuition out of pocket, the cost would be as high as \$330 per credit hour. The data in Appendix D shows the savings that can be realized by negotiating better contracts, MOUs, and SACs, given the heavy use of the contract/extension institutions.

The graduate cost per credit hour at the public institutions ranged from a low of \$70 per quarter hour for Troy State University offered at various installations to a high of \$278 per credit hour in Virginia. The overall average cost per credit hour for four-year public institutions was \$175. The average cost for the graduate courses offered on-base was slightly higher at \$200 per credit hour. Comparing the average tuition costs for undergraduate and graduate courses, graduate courses are more expensive by approximately \$100 per credit hour and \$300 per course. In some areas and at some institutions the tuition costs for undergraduate and graduate courses are the same; in most areas there is a significant cost difference. The contract/extension average cost was \$200 per credit hour; the overall average cost per credit hour was \$175, with approximately half the courses falling above the \$200 mark. While the overall average was \$175 per credit hour, many institutions throughout the country are in the \$200-\$240 per credit hour range.

D. FOUR-YEAR PRIVATE INSTITUTIONS

Table 33 displays undergraduate and graduate costs for four-year private institutions.

Geographic Area	Cost Per Credit Hour		Cost Per Course	
	Low-High	Average	Low-High	Average
Hawaii Graduate Rates	\$70-\$120 \$240-\$263	\$100 \$252	\$210-\$360 \$720-789	\$300 \$756
California Graduate Rates	\$330-\$490 \$357-\$505	\$410 \$431	\$990-\$1470 \$1071-\$1515	\$1230 \$1293
Washington Graduate Rates	\$202-\$353 \$355-\$370	\$279 \$362	\$1010-\$1765 \$1775-\$1850	\$1395 \$1810
Florida Graduates Rates	\$320-\$672 \$335-\$672	\$496 \$503	\$660-\$2016 \$1005-\$2016	\$1488 \$1509
Virginia Graduate Rates	\$321-\$450 \$345-\$498	\$386 \$431	\$963-\$1350 \$1035-\$1494	\$1158 \$1293
Washington D.C. Graduate Rates	\$160-\$575 \$220-\$575	\$382 \$445	\$800-\$1725 \$1035-\$1725	\$1146 \$1335

Table 33. Four-Year Private Institution Tuition Summary

Private institutions have the highest variance in the cost of any of the institutions, ranging from \$70-\$672 per credit hour for undergraduate courses. The wide range is probably attributed to factors such as the size of the institution, prestige, and geographic location. Data from this table is from a very small sample of institutions and probably does not capture the full range of costs. It is intended to highlight the general difference in education costs between public and private institutions in the same geographic locations. The overall average cost at private four-year institutions was \$342 per credit hour for undergraduate courses and \$404 for graduate courses. This is double the average cost per credit hour for both undergraduate and graduate courses at public institutions. Hawaii was the only area which did not show a marked difference in costs between the two types of institutions. This can be

attributed in part to the MOUs the Navy Campus has signed with the private institutions to provide on-base instruction at significantly reduced rates.

E. SUMMARY

The costs of education, regardless of the type of institution, have continued to rise. Interviews with various institutions and Navy Campus personnel provided data which showed that college and university average prices will increase 5% in the 1995 summer/fall terms. From the data provided in the tables, one can conclude that there are significant differences in costs of education by geographic location and by the type of institution one chooses to attend. The tables also highlight the cost differences between undergraduate and graduate courses. From the data provided in Appendix D, one can see the high usage rate of the various contract/extension institutions and the importance of the military in negotiating the best possible price. Local Navy Campus Area Managers should continue to actively pursue Special Arrangement Contracts.

IV. INTERNAL CONTROLS

As resources become more and more scarce it becomes increasingly important to look at each individual program to ensure that the resources allocated to that program are used efficiently. This chapter will focus on the internal controls which currently exist in the Navy's Tuition Assistance program.

A. TA APPLICATION PROCEDURES

The TA application process is essentially the same for all the services. Each service has its own standard TA forms and slight differences in approval authority for TA requests. In the Navy's TA application process, the servicemember first contacts a Navy Campus Education Services Specialist and sets up a counseling session. These sessions may be one-on-one, in a group, or by phone if the individual is located where there is no Navy Campus Education Center (NCEC). This counseling session is to verify eligibility, to establish a personal education file, and to decide on what type of institution to attend, what type of curriculum, and which course(s) to take.

After receiving counseling, the individual submits a Special Request/ Authorization (NAVPERS 1336/3) or special request chit through their command to enroll in off-duty education courses. Officers may show command approval by memo on command letterhead which has been signed by an authorized individual. The purpose of the Special Request/Authorization Form or memo in the case of an officer is to verify that the applicant's projected duty schedule will allow for participation in, and completion of, the course(s) for which TA is requested. CNETINST 1560.3D [Ref. 6] does not specifically state that the Commanding Officer sign the special request chit. It only states that an individual have command approval. Many commands delegate authority down the chain of command, giving officers "by direction" signature authority for administrative matters. This weakens the internal controls if the designated officer does not have the entire scope of potential conflicts that could arise. For example, the designated officer may not know that the command is a potential candidate for early deployment or detachment operations. In such a case, an individual might be required to detach/deploy in the middle of the course. The Navy would

individual might be required to detach/deploy in the middle of the course. The Navy would not be able to recoup the tuition, and it would lose valuable and already scarce resources.

In addition, the instruction does not require the servicemember to specify the number of courses or times at which the courses will be taught. Without specifics, the approving officer may not properly weigh all the factors, such as the command's future operational requirements and the individual's work requirements, against the off-duty education requirements. The onus for approving/disapproving TA is now squarely on the shoulders of the Education Specialist, who must evaluate the ability of the individual to successfully complete the courses. Education Specialists are not in a position to know each command's possible operational changes or an individual's duty requirements and therefore usually endorse the TA Registration Form (NAVEDTRA 1560/6) after the approval of the Special Request/Authorization Form by a representative of the command.

Once the Special Request/Authorization Form has been approved by the command, the individual fills out the TA Registration Form shown in Figure 1 and presents the signed TA Registration Form and Special Request/Authorization Form in person to the local Navy Campus office. In cases where no local office is available, the individual may submit the two forms to the designated office by mail. The Education Specialists verify the eligibility criteria of the institution, individual, and the course(s); they also counsel the applicants on their obligations, detailed on the back of the registration form and shown in Figure 2. The Education Specialist enters the data from the registration form into the Navy Campus Management Information System (NCMIS). Every Conus NCEC has a Personal Computer (PC) terminal which provides Education Specialists on-line access to the NCMIS main frame computer, which is located in Pensacola, Florida and managed by NETPMSA.

Once the data has been entered on-line, NCMIS processes the data and prints out a TA Authorization Form (NAVEDTRA 1560/5), shown in Figure 3. The form is assigned an authorization/document number. At this point, Navy funds have been officially obligated and accounted for in NCMIS. The applicant and the Education Specialist sign the

TUITION ASSISTANCE REGISTRATION

SUBMIT FORM TO NAVY CAMPUS OFFICE PRIOR TO BEGINNING OF COURSE

DOCUMENT NUMBER: (Leave Blank) _____	HAVE YOU USED TUITION ASSISTANCE BEFORE? Y _____ N <u>XX</u>
SSN: <u>123-12-1234</u>	NAME: LAST, FIRST, MI <u>DOE, JOHN E.</u>
RATE/DESIGNATOR: <u>PN3</u>	BRANCH OF SERVICE: <u>USN</u>
PAYGRADE: <u>E-4</u>	ENLISTMENT NUMBER: (1st, 2nd, etc.) <u>1ST</u>
SEX: <u>MALE</u>	DATE OF BIRTH: <u>70/12/12 (YYMMDD)</u>
ACTIVE DUTY SERVICE DATE: <u>90/09/15 (YYMMDD)</u>	END ACTIVE OBLIGATED SERVICE: <u>94/01/02 (YYMMDD)</u>
GI BILL ENROLLED IN: 1. Vietnam Era 2. VEAP 3. MGIB 4. EATP 5. None <u>3</u>	WORK PHONE NUMBER: <u>(804) 433-3567</u>
UIC: <u>60191</u>	COURSE LOCATION: 1. On-Base 2. Off-Base 4. Mail-in <u>2</u>
YEARS OF EDUCATION: <u>13</u>	EDUCATION GOAL: (AA, BS, etc.) <u>AA</u>
SCHOOL CODE: (Leave Blank) _____	SCHOOL NAME: <u>COLUMBIA COLLEGE</u>
TERM START DATE: <u>93/10/21 (YYMMDD)</u>	TERM COMPLETION DATE: <u>93/12/14 (YYMMDD)</u>

COURSE DEPT / NBR	COURSE TITLE	COURSE LEVEL*	# OF HRS	CREDIT UNITS**	HOURLY COST	COURSE COST	NAVY SHARE
MGT 155	BUSINESS COMMUNICATION	L	3	S	\$90.00	\$270.	\$202.50
MKT 135	SALES AND ADVERTISING	L	3	S	\$90.00	\$270.	\$202.50
SAMPLE							

I request tuition assistance (TA) in the amount indicated, with the understanding that I will pay all additional costs incurred over and above the amount authorized. By my signature I certify that I have read, understand, and will comply with all the provisions on the back of this registration form.

Applicant's Signature: _____

John E. Doe

Date: 10 Oct 93

* Course Level: H = HS (high school) V = Vocational L = Lower (freshman/sophomore) U = Upper (junior/senior)
G = Graduate

** Credit Units: S = Semester Q = Quarter C = Clock K = Carnegie

NAVEDTRA 1560/6 (Rev. 1-93) S/N 0115-1F-015-0900

Figure 1. Tuition Assistance Registration Form (Front)

PRIVACY ACT STATEMENT

Under the authority of 5 USC 301, the present personal data is requested in order to review and process your request for Tuition Assistance (TA). Your social security number will be used for purposes of individual identification. This information will be included in your Education and Training record and will be retained by the Navy Campus Voluntary Education network. It will not be divulged without your written authorization to anyone other than Navy and school personnel involved with the administration of the TA program. You are not required to provide this information; however, failure to do so will result in your not being considered for TA.

AGREEMENT

A. I understand that Tuition Assistance (TA) shall not be used to fund flight training. Furthermore, I understand that unless required for degree completion, physical education and recreation courses are not approved for TA funding.

B. I understand that my acceptance of TA obligates me to the following:

1. To submit the TA Registration Form to my servicing Navy Campus Office (not NETPMSA) prior to the beginning of the course. TA will not be authorized after the institution's late registration deadline.
2. To personally deliver my TA Authorization Form to the educational institution in which I am enrolling during registration.
3. To notify the Naval Education and Training Program Management Support Activity (NETPMSA)* in writing within ten (10) workdays after the course start date if I do not enroll in any or all of the course(s) on this TA Registration Form or if I withdraw before the school's "drop/add" date.
4. To notify NETPMSA* in writing if I enroll in a different course than the one on the TA Form. I can change a course title on the TA Authorization Form during registration only if there is no increase in the amount of tuition. The new course must be part of my degree plan.
5. To reimburse, via money order or cashier's check payable to the U.S. Treasury and mailed to NETPMSA* within ten (10) workdays, for the amount of tuition paid on my behalf if I:
 - a. voluntarily withdraw from a course after the "drop/add" date.
 - b. receive a failing grade.
 - c. fail to clear an incomplete (I) grade within six months of the course completion date.
6. To provide NETPMSA*, in the case of an involuntary course withdrawal, a letter from my commanding officer within ten (10) workdays, confirming my withdrawal after the school's "drop/add" date was due to hospitalization, PCS, TAD, documented emergency leave or change in my military duties or assignment. Reimbursement is waived if withdrawal is based on one of these circumstances.
7. To authorize the institution I attend to forward a copy of my grade report to NETPMSA* within ten (10) working days after grades are issued. In the event my institution fails to do so, I will be notified. I understand that it then becomes my responsibility to forward my grade report to NETPMSA*.

C. I understand that the institution's failure to provide a grade report after grades are issued or my failure to respond as prescribed in paragraphs 1 through 7 will lead to formal resolution/collection efforts such as a letter of indebtedness to my commanding officer and possible pay checkage.

D. I understand that I am not entitled to use TA if my grade point average falls below a "C" for undergraduate or a "B" for graduate courses. I further understand that I am not entitled to use TA if I am receiving any other assistance that would constitute a duplication of benefits from the Treasury of the United States (such as the G.I. Bill).

COMMISSIONED OFFICERS

I agree, in accordance with the requirements of the current Department of Defense Appropriation act, to remain on active duty for two (2) years upon completion of the course(s). This obligation runs concurrently with the remaining obligated service time. This obligation may not be waived by reimbursement to the Navy. However, this agreement does not obligate the Navy in any way.

* COMMANDING OFFICER
NETPMSA 008115
6490 SAUFLEY FIELD ROAD
PENSACOLA, FL 32509-5241

NOTE: All correspondence to NETPMSA should include:

- a. Your full name
- b. Your social security number
- c. Name of school and course(s)
- d. Term dates involved
- e. TA document number

Figure 2. Tuition Assistance Registration Form (Back)

authorization form. Students present the original forms to the institution before they register and pay their share of the tuition fees. If the TA authorization is used to support a course other than those approved, the new course(s) must be part of the applicant's planned educational goal, as previously approved by a Navy Campus Education Specialist. At no time are changes allowed which increase the amount of tuition. Once the authorization form has been submitted to the school, the application process is complete.

TA is not normally approved after the institution's late registration deadline. However, waivers for late approval due to circumstances beyond the applicant's control may be obtained by submitting documents through the applicant's commanding officer and various Navy Campus offices.

B. NETPMSA

One can easily see how each Command representative and the Navy Campus Education Specialist play key roles in the TA application process. Once the authorization form has been submitted to the institution, the personnel at NETPMSA carry out the most critical functions and provide the strongest internal controls of the TA program. Only the Navy has established a separate organization and management information system to administer its TA program. The Marine Corps recently transitioned management and tracking of its TA program to NETPMSA in recognition of the added benefits of this exceptional organization. The Army and the Air Force do not manage TA funds and TA data centrally. Their decentralized program has many potential problems, which will be addressed later in this section. NETPMSA provides the necessary internal controls and ensures compliance with all the policy guidelines in OPNAVINST 1560.9 and CNETINST 1560.3D.

The Navy's TA funds are allocated to NETPMSA by the Chief of Naval Personnel (CHNAVPERS) in a Technical Operating Budget (TOB). The funds are centrally managed at NETPMSA. With NCMIS, every NCEC and servicemember in the Navy and Marine Corps has equal access to allocated TA funds. Decentralized systems, like the Air Force and Army currently use, may not offer equal access to each servicemember, since funds are specifically allocated to major commands or installations. If the funds at one particular site are expended, TA might be denied until funds can be reallocated from other commands with

excess funds. Such reallocations might not be feasible near the end of the fiscal year. To further amplify the problem, until recently TA funds in one service were not fenced and could be used for other purposes at the discretion of the local Commander. Centrally managing the TA funds not only allows each individual servicemember equal access to the allocated funds but also helps ensure efficient and effective use of allocated resources.

Once an individual completes the application process, NETPMSA is responsible for all accounting functions, posting of grades, recoupment of unauthorized expenditures, and maintenance of personnel eligibility records and incurred service obligations. After TA registration data is input into NCMIS, NETPMSA becomes a key player in the internal control structure of the Navy's TA program. As previously stated, CONUS NCECs input the data on the TA Registration Form into NCMIS and the TA Authorization Form is immediately printed on-line at the NCEC. OCONUS TA approvals are input into local NCMIS microcomputer databases. TA transactions are accumulated in the NCMIS microcomputer database and uploaded by telecommunications link or periodically mailed from the NCECs for batch processing at NETPMSA. All the NCMIS transactions are aggregated to provide weekly summaries of TA obligations, which are reported to the accounting department for posting against the NETPMSA TA budget.

This represents another valuable link in the internal control chain. It provides accurate accounting data to the NETPMSA Management Information Division to evaluate program obligations against the annual financial plan. They can recommend funding increases, decreases, or reprogramming to CHNAVPERS in a timely manner. In a decentralized system, it is hard to collate this type of data on a real-time basis; accounting data must be gathered at each individual site and centralized via mail or message traffic.

Once the educational institutions accept the authorization forms as partial payment for tuition, they are requested to validate enrollments and send invoices to NETPMSA for the approved Navy share. NETPMSA certifies the invoices for payment against the TA obligations in the NCMIS computer. When there are discrepancies between the number of actual enrollments and the authorized and obligated enrollments, action is taken to deobligate or recoup the funds. In FY 1994, NETPMSA deobligated \$3,360,788 by cancelling 21,707

courses and recouped \$104,863 resulting from school billing errors. The timely deobligation of these funds allows more individuals to participate in the program by keeping these valuable dollars, which are expendable only in the current fiscal year, in the TA program. This reduces the likelihood of requests for an increase or reprogramming of already scarce resources.

Upon course completion, NETPMSA receives grades from the institutions or students and they are entered into the NCMIS database. MOUs between institutions and military installations require the institutions to submit grades to NETPMSA at the completion of the term. If the grades are not submitted by the institution, the individual is responsible for ensuring that the grades are submitted within ten working days after the grades are issued.

NETPMSAINST 1560.1A [Ref. 15] provides guidance for collection procedures when individuals fail to comply with TA requirements in CNETINST 1560.3D. TA policy requires recouping TA advances when students voluntarily withdraw, receive a failing grade, or fail to satisfactorily complete a course within 180 days from the last class date. The NCMIS central computer system tracks course completion dates and flags missing grades and grades of F, I, or W.

After the term end date, personnel for whom grades have not been received or who have received a grade of F, I, or W are listed on a TA Ineligible Report. NCMIS allows NCEC personnel to override the system once for TA approval if an individual is listed on the ineligible report. This normally occurs when an individual is applying for the next quarter and the institution is late in submitting grades to NETPMSA. NCMIS will lock out TA approval for personnel who have not provided grades within 60 days of course completion or who have not reimbursed the Navy for prior unearned TA (courses with grades of F, W, etc.).

If grades have not been received within 42 days of the course ending date, NETPMSA sends a grade request letter to the servicemember. Collection letters are sent to the servicemember's Commanding Officer in cases where either grades have not been received within 75 days of the course ending date, a grade of F or W is posted and not accompanied by reimbursement, or an incomplete is not removed within 180 days of the course end date. CNETINST 1560.3D provides for waivers and states that personnel who withdraw

involuntarily because of extended hospitalization, temporary additional duty, reassignment to another duty station, emergency leave, or change in military work schedule may not be required to reimburse the Navy. NETPMSA is the final approval authority for such waivers. They must be submitted by the individual's Commanding Officer, with a full explanation of the circumstances necessitating involuntary withdrawal. If no response is made to the collection letter after 30 days, NETPMSA will prepare and submit a DD-139 Pay Adjustment Authorization. This authorizes automatic pay checkage from the servicemember's pay. In FY 1994, NETPMSA mailed over 10,000 grade request letters, 9,000 collection/resolution letters, and submitted 3,090 DD-139s, which collected \$422,489.

CNETINST 1560.3D also requires Navy personnel who use TA to maintain a 2.0 GPA for undergraduate courses and a 3.0 GPA for graduate courses over the previous 12 semester hours or equivalent quarter hours of instruction. NCMIS automatically updates the individual's record as grades are posted in the database and computes the individual's GPA for the past 12 semester hours. If an individual does not meet the minimum requirements the system flags the individual's record for the Education Specialist when the record is called up on the PC. This is another feature of NCMIS. It provides valuable internal control to the TA program.

NETPMSA and NCMIS also indirectly support the Bureau of Naval Personnel (BUPERS) in enforcing CNETINST 1560.3D and DOD Directive 1322.8, which require commissioned officers to remain on active duty two years after completing the last course for which TA was used. Under the guidelines established in the Tuition Assistance Guidebook For Navy Campus Education Centers [Ref. 16], NCECs are required to send a copy of the TA authorization form to the servicemember's appropriate personnel headquarters. Here it is entered into the member's service record. When Navy or Marine officers request to voluntarily resign or retire, BUPERS submits their name to NETPMSA to verify their use of TA. If an officer has used TA in the last two years, NCMIS automatically calculates how much is owed, using a pro-rata system. A letter is sent by NETPMSA requesting repayment. If payment is not made 30 days prior to the officer's resignation date, NETPMSA notifies

BUPERS and the officer's orders are held in abeyance until payment is made. This further illustrates the importance and value added by the NETPMSA organization and NCMIS.

C. SUMMARY

The TA program currently has sound internal controls to ensure compliance with the various directives and instructions and the management and accountability of Navy resources dedicated to the program. Command representatives, NCEC personnel, and NETPMSA play key roles in the internal controls of the TA program. Centrally managing the program and its funds helps provide good internal controls and enhances the efficiency and effectiveness of the Navy and Marine Corps TA programs. According to the DANTES Data Base, the Navy had an undergraduate course completion rate of 97% and a graduate course completion rate of 99% in FY 1994. Both were 14 percentage points higher than those of any other service. The internal controls established by the Navy and enhanced by central management of the program probably contributed to the high course completion rates.

Modifying the Navy instructions to require individuals to provide course loads and times of instruction, and specifically designating Commanding Officers as the final approval authority on the Special Request/Authorization, would strengthen the internal controls of this exceptional system. It would ultimately reduce the number of withdrawals and waivers submitted because of temporary additional duty, reassignment to another duty station, or changes in military work schedule.

V. CONCLUSIONS AND RECOMMENDATIONS

With the military force drawdown, shrinking DOD budget, and the increasingly demanding and challenging technical environment in which all the services operate, servicemembers must continuously strive to learn innovative and superior ways to do their work. This study shows that there has been a steady increase in the use of each of the services' Tuition Assistance programs. In FY 1994, 9.3% of the Navy's force used the Tuition Assistance program to obtain high school diplomas, advanced degrees or professional certificates. The number of enrollees has increased 11% over the past four years from 38,806 to 43,106, which equates to a 40% increase in TA usage relative to the reduced force size. Increased participation can be largely attributed to servicemembers reevaluating their educational needs; either to become more promotable in an increasingly competitive and more technical environment or to prepare for possible transition to the civilian sector. The Navy must recognize the value added by the Tuition Assistance program not only as a significant quality-of-life issue, but as one of the most efficient and effective ways to obtain a more productive and qualified force. Recognizing DOD's budget may continue to shrink, it is imperative that the Navy's Tuition Assistance program be streamlined to provide the most cost effective education benefits at every level. This thesis provides recommendations to minimize the costs using tailored benefits at each education level, with continued emphasis on strong internal program controls.

A. SUMMARY OF FINDINGS

1. Program Comparison

Research Question: Are there significant differences in Tuition Assistance programs among the Navy, Marine Corps, Air Force, Army and civilian sector? If the differences are significant, what are the possible causes for the disparity? Findings: This study compared the Navy's Tuition Assistance program with those of the other services and the private sector and noted some significant differences among the TA programs.

a. Benefits

Despite limited efforts by high ranking OSD officials to encourage equality of opportunity with respect to tuition assistance benefits, the most significant difference in each service's TA program is in the benefit policies. Directive 1322.8 summarizes the mandated TA guidelines:

The use of DoD-appropriated funds to support Service member participation in off-duty voluntary education programs shall be limited to the payment of not more than 75 percent of the institution's tuition and related instructional charges. As an exception, payment of up to 90 percent of these charges may be made to enlisted active duty Service members in grades E-5 and above with fewer than 14 years of service on the course starting date. Payment of 100 percent may be made for Service members in off-duty high school completion programs. [Ref. 4]

Each service offers different benefits, all of which fit these general guidelines but reflect individual service priorities in the face of budget constraints. Budgetary constraints also play an integral part in determining TA policies in the private sector. When balancing budgeting constraints with allowable benefits, the services and private corporations define their benefit policies differently. They may limit reimbursement by amount per credit hour and/or course, by total annual dollar amount, by credit hours per year, or by the share or percentage of the education costs borne by the government or the company when establishing overall benefit guidelines. DOD Directive 1322.8 provides the services with percentage reimbursement guidelines for the different education programs (i.e. high school, undergraduate, graduate, etc.).

High School - The educational benefits for individuals taking courses leading to a high school diploma are essentially the same for all the services, though the Marine Corps limits participation in the program to two years and limits total yearly reimbursements to \$2150 per fiscal year. The number of high school enrollments in each service is a very small percentage, less than .1% of the total enrollments, and has little effect on any service's VOLED budget or the TA program as a whole. Private corporations don't specifically address high school education programs in their TA policy guidelines.

Undergraduate - The major differences across services and private corporations are in the undergraduate and graduate benefits. Each service's guidelines are different. The Navy limits benefits by credit hour and course dollar caps, the Marine Corps by annual dollar caps and credit hour limits, the Army by both credit hour caps for upper and lower level courses and an annual credit hour limit, and the Air Force by credit hour dollar caps. The most widely used TA benefit guidelines incorporate annual benefit caps. Most private organizations and one military organization, the Marine Corps, used this type of benefit cap for all types of education. Most placed an upper limit on the benefits in any given year but in one case there was no upper limit. This type of system is easy to manage and administer, and provides maximum flexibility; but it can significantly drive up cost per enrollment as the percentage of people using private institutions increases. Unless there is a corresponding quality difference between public and private institutions, this may not be the most cost effective way to use the limited educational dollars.

Many organizations also implement yearly limits on the number of semester hours funded. The Marine Corps and one of the private organizations use semester hour caps in conjunction with their annual funding caps. More typically they are used by organizations such as the Army which reimburse on a per credit hour basis. These limits are designed to more equitably distribute limited resources across more individuals. In some cases, individuals can exceed these levels by incurring additional service commitments.

For an individual taking one undergraduate course (three semester hours) per year, government reimbursement could range from a low in the Army of \$45 per credit hour to a high of \$716 per credit hour in the Marine Corps. The Navy and the Air Force offer reimbursement rates of \$93.75 and \$187.50 respectively (See Appendix B). The Marine Corps reimbursement rate in most cases would be far less than \$716. But, without a maximum credit hour or course funding cap, there will be cases where the Marine Corps reimbursement rates for courses taken at private institutions will be substantially higher than the reimbursement provided to individuals in other services.

When one analyzes the annual benefits of a normal part-time student taking a full course load (2 courses per semester/6 courses per year), the benefit levels are more closely aligned. The Army would still have the lowest benefit level, \$405 per year based on the \$45 per credit hour cap and the limit of nine semester hours per year. The Marines' benefit level would be limited by the annual maximum dollar cap of \$2150; the Navy would pay as much as \$1710. The Air Force benefit level could be as high as \$3375 if the courses were at or above the maximum cost per credit hour. As the number of courses an individual takes increases above seven, the Navy and Air Force benefits continue to increase because there are no annual semester hour or annual maximum dollar limits. Private corporations generally provide more generous benefits, which range from 75% to 100% reimbursement and annual dollar caps from \$3000 up for undergraduate and equivalent courses.

Graduate - As in the undergraduate programs, each service defines its graduate level reimbursement rates differently. All follow the same format as their undergraduate programs, with slightly higher dollar limits for graduate programs (see Appendix B). The Army has the lowest reimbursement rate, at \$127 per credit hour, with the Navy a very close second at \$131.25. The Air Force is unique in that its reimbursement rates for undergraduate and graduate courses are the same, \$187.50 per semester hour. The Marine Corps program is based on a maximum annual cap of \$3000. Once again, one can see that an individual taking only one course would be eligible for reimbursement of up to a \$1000 per semester hour. The average cost per enrollment in the graduate programs also seems to correlate directly to the benefit levels of each program. The Marine Corps cost per enrollment of \$601.29 is almost 80% higher than the Navy's average cost per enrollment for graduate courses. The larger variance in the costs associated with graduate programs, and possibly the greater weight placed on obtaining a graduate degree from a more prestigious graduate school, may contribute to the significant differences in average cost per enrollment. Private corporations also followed the same guidelines, continuing to reimburse between 75% and 100% of cost with increases in the maximum annual dollar caps to \$3750 and up.

Vocation-Technical - The vocational-technical courses constitute a very small percentage of TA enrollments, at less than 1 percent of any service's total enrollments. The Navy and the Marine Corps have identical benefits, annual caps of \$1300 per year. The

Army's cap is lower at \$750 per fiscal year. The Air Force has no annual cap and uses the same credit hour caps associated with its graduate and undergraduate programs. The Marine Corps is the only service which requires that vocational-technical courses be job related. All of the private corporations provided benefits for vocational-technical courses at the levels comparable to the undergraduate programs; most require the courses to be related to a job in which the individual is presently serving or may serve in the future.

b. Academic Requirements

Private corporations and military organizations require individuals using TA to maintain some type of academic standard. Most private corporations require a "C" average in undergraduate and certificate programs and a "B" average for graduate courses. The Navy implements these same standards, which are slightly more restrictive than those of the other services. Private corporations typically provide reimbursement after course completion and require the individual to meet the academic standards in order to receive reimbursement. Military organizations provide TA in advance and require individuals who don't meet the required standards to reimburse the government after course completion.

c. Service Obligations

Significant differences do exist between the services and the private sector in general policy guidelines for future service requirements when using TA benefits. In most cases, private organizations don't require individuals using TA to obligate to further service, though some companies offer additional benefits with the promise of additional service. Officers in military organizations are required by law to obligate for two additional years of service if TA is used. This type of policy protects the organization's investment in the program and guarantees some return on the investment in human capital after completing the courses.

d. Tuition Assistance Costs

Program Costs - Significant differences do exist between the services in the total Tuition Assistance program costs. The costs in each service are a function of the different benefit policies of each service and the usage rate. In FY 1994, the Air Force clearly had the highest total expenditures of any service, at \$57.53M. This was almost \$20M more than the Army, which has a significantly larger force. In comparison to the Navy, the Air

Force spent approximately 2.3 times more; the Navy spent \$24.4M. The Air Force not only has one of the most generous benefit policies among the services but also one of the highest usage rates.

Cost per Enrollment - The data presented in Table 29 in Chapter II reflects the difference in the services' undergraduate benefits and correlates directly to the average services' cost per enrollment. The higher the benefit levels, the higher the cost per enrollment. In the undergraduate programs, the Marine Corps' average cost per enrollment, \$220.66, is 29% higher than the Air Force, 31% higher than the Navy, and 71% higher than the Army (which has the lowest cost per enrollment at \$128.81). Graduate costs per enrollment follow the same pattern with the Marine Corps average cost per enrollment, \$601.29, being 62% higher than the Air Force, 80% higher than the Navy, and 121% higher than the Army (which once again has the lowest average cost per course at \$272.19).

e. TA Usage Rates

Significant differences in usage rates did exist among the different services. The TA usage rates do not seem to correlate directly to the level of benefits each service provides, which is contrary to the cost per enrollment data. These seem to be more directly correlated to the "culture" and unique operating environments of the different services. The Army has arguably the lowest reimbursement levels considering its credit hour dollar caps and its annual cap of nine semester hours per fiscal year, but it has one of the highest participation rates of any of the services (percentage of enrollees to end strength). The Air Force usage rate is also substantially higher than that of the Marine Corps and the Navy. This is due in large part to the cultural factors discussed in Chapter II. The data seems to indicate that marginal increases in the benefit levels will probably result in only slight increases in the usage rates; the predominant factors impacting usage seems to be the different service cultures.

2. Funding Adequacy

Research Question: Does the Navy Tuition Assistance program provide adequate funding to cover tuition costs at institutions in the vicinity of large Navy installations?

Findings: The program does not adequately cover undergraduate and graduate tuition costs in many of the areas surveyed.

Tuition data shows a steady 7% to 9% annual increase in tuition rates over the past four years for all types of institutions. The Navy does have high concentrations in some high cost areas such as Washington D.C., Virginia, and overseas. The current TA benefits do not adequately cover the undergraduate and graduate costs of many four-year public and almost all four-year private institutions (adequate here implies providing 75% reimbursement). The average cost per course was significantly different across types of institutions. The schools surveyed were all located in the vicinity of large Navy installations or offered courses as part of an extension program. Schools that were surveyed encompassed areas where over 75% of the Navy's forces are currently located. The average cost per course (3 semester hours/5 quarter hours) was \$127 at community colleges, \$321 at four-year public institutions, and \$1026 at four-year private institutions. Graduate education costs also varied significantly between public four-year institutions (\$525 per course) and private four-year institutions (\$1212 per course). Under current Navy TA guidelines, the maximum reimbursement rates are \$285 per undergraduate course and \$395 per graduate course. This just covers the average cost but fails to cover the costs of many public institutions in higher cost areas.

3. Internal Controls

Research Question: Are adequate controls in place to prevent abuse of the TA program? Findings: Yes, adequate controls are in place to ensure compliance with all the Navy's TA policy guidelines and efficient use of Navy resources.

The Navy has implemented excellent cost effective internal controls to centrally manage the TA program through the NETPMSA organization, Navy Campus network, and NCMIS. NCMIS provides the Navy with real-time accounting and individual TA record data. NCMIS, provides the Navy sufficient flexibility to administer any type of TA policy efficiently. NCMIS is currently used to manage both the Navy TA program, which limits funding on a per credit hour basis, and the Marine Corps program, which uses an annual cap. It is also flexible enough to support TA policy changes recommended later.

4. Summary

In summary, the largest difference in the many TA policies concerns the benefits. Private corporations typically provide higher benefits, with the average undergraduate student eligible for \$3000 per year and the average graduate student eligible for \$5000 per year;

reimbursement rates vary between 80% and 100%. The military services, while all governed by the same DOD directive also differ with regard to benefit policies. Significant differences in VOLED infrastructure costs were also apparent among the different services. However, an indepth evaluation of these differences was beyond the scope of this thesis.

It is reasonable for the Navy to view this program as an excellent recruiting and retention tool, as well as an investment in its future.

B. RECOMMENDATIONS

The goal of the Navy's Tuition Assistance program should be to provide adequate and comparable benefits to help as many individuals as possible pursue a high school diploma, undergraduate or graduate degree, or professional certificate at a certified public institution regardless of geographic location. To best accomplish this goal, several program guidelines seem appropriate. The program should encourage students to attend public two-year institutions for lower level undergraduate courses and public four-year institutions for upper level undergraduate and graduate courses. The Navy should continue to limit reimbursements per credit hour and per course. These caps should be based on current tuition costs at public institutions providing instruction on or near large Navy installations. The Navy should also implement a six course limit per fiscal year, with a waiver policy when excess funds are available. This would ensure program funding is equitably spread to every servicemember who wishes to participate in the TA program. The TA program should be centrally managed both to provide every individual with the same access to program dollars and to take advantage of the excellent controls currently in place to ensure that the government's scarce resources are used effectively and efficiently.

Implementing these guidelines requires several changes to the Navy's benefits. Revised benefits are summarized below and then each is discussed in detail.

- **High School Completion Courses:** The TA program should pay for 100 percent of the tuition costs with tuition caps. (No change)
- **Undergraduate Courses:**
 - Two-year Institutions/Community College Courses: The TA program should reimburse 100 percent of tuition costs, not to exceed \$70 per credit hour and \$210 per course.

Four-year Institutions: The TA program should reimburse 75 percent of tuition costs, not to exceed \$120 per credit hour (semester or quarter) and \$360 per course.

- Graduate Courses: The TA program should reimburse 75 percent of tuition costs, not to exceed \$180 per credit hour (semester or quarter hour) and \$360 per course.
- Vocation and Technical Courses: The TA program should pay 75 percent of the tuition costs up to a maximum of \$1300 per fiscal year. (No change)
- High school, undergraduate, and graduate programs should be limited to 6 courses per fiscal year with an option to obtain a waiver for additional courses if NETPMSA has excess funding.

To provide adequate and comparable funding levels, the Navy should continue to fund its TA program to provide for 75% reimbursement of tuition costs. Private corporations all provided reimbursements rates at or above the 75% level.

The recommendation that DOD allow for 100% reimbursement for community college courses provides a valuable incentive and added benefit for junior enlisted sailors to take these courses in lieu of the more expensive courses offered at four-year institutions. The difference in the average cost per course shows that this would save approximately \$145 per course for every individual who opted to take courses at a community college. FY 1993 NETPMSA data shows that over 70% of the enrollments were in undergraduate programs. The majority of personnel enrolled in these courses were servicemembers with the rank of E-5 and below. A 100% community college reimbursement would save money for both the individual servicemember and the Navy. It would offset some of the potential program cost increases due to the higher recommended four-year undergraduate and graduate credit hour and course funding limits. In addition, this would put the Navy in a proactive role in setting new educational goals to increase the minimum educational standards from the high school to the

associate degree level. This goal is congruent with the increased technological requirements and management skills which the Navy will require in the coming years.

The new funding limits were based on data collected in the thesis survey. The old limits covered average tuition costs for undergraduate and graduate courses, but failed to provide adequate coverage for public institutions in higher cost areas. These new funding

levels cover the high end of the costs for public institutions but do not provide incentives or adequate funding to cover the tuition costs of most private institutions. This will increase TA expenditures, due to increased reimbursements for high cost areas such as Washington D.C. and some overseas extension courses. However, it should have little impact on total reimbursements received for lower cost areas such as Florida. It would be reasonable to expect some slight increases in TA usage rates due to the higher funding limits but probably not a significant increase.

Limiting reimbursement rates on a per credit hour basis, in conjunction with course funding caps, ensures TA program funding is used cost effectively. Annual funding caps, as used by the Marine Corps and some private corporations, maximize the individual's flexibility in using TA program dollars. However, the data shows that individuals frequently choose to take fewer courses at more expensive institutions. This significantly drives up the cost per enrollment. The current credit hour and course caps provide adequate funding and flexibility to attend virtually any public institution; they also provide a significant portion of tuition costs should an individual opt to attend a more expensive private institution.

The cap of 6 courses per fiscal year is recommended to ensure that every servicemember has the opportunity to participate in the TA program. A full load of courses for a part-time student would generally be 2 courses per semester or 6 courses per year. When program resources are limited, it seems better to provide adequate funding for the majority of individuals and limit the courses each individual takes, than to provide less than adequate funding and allow a smaller percentage of individuals to take an unlimited number of courses each year. With no service commitments for enlisted servicemembers, cases will arise where an individual takes an extremely high number of courses in the last year or two

of an enlistment to prepare for transition to the civilian sector. This type of TA usage limits the Navy's return on investment and may deprive other individuals of the opportunity to participate. Course caps are found in both private and military TA programs. Providing an option to request waivers for additional courses will allow NETPMSA to effectively manage the educational budget and approve additional courses on a case by case basis, when there is additional funding or as the situation warrants.

The internal controls within the Navy's program are very good. Centrally managing the Navy's TA program provides the best controls and ensures the Navy's TA budget is used effectively and efficiently. However, the Navy instructions and TA policy controls could be strengthened by requiring individuals to specifically delineate the number of courses and the proposed times of instruction on the special request chit submitted for command approval. The Commanding Officer should also be specifically identified as the approval authority for TA requests. This would strengthen the internal controls by providing the command with more detailed information to better weigh educational requirements against potential operational commitments and the servicemember's military duties. This change would ultimately decrease the number of withdrawals in the TA program and, thus, use the Navy's TA funds more efficiently.

It is further recommended that the TA policies be expanded to include computer courses as well as English, math and reading. The Air Force instruction specifically addresses this. With the increase in technology and the potential for increased productivity from computer training, it seems logical and cost effective to include this in the Navy's TA program.

APPENDIX A. THESIS QUESTIONNAIRE

1 March 1995

PII Redacted

From: LCDR Ray Turner, USN, [REDACTED]
SMC Box 2297, Naval Postgraduate School, Monterey CA 93943

To:

Subject: Thesis Assistance; Request for Tuition Assistance information.

1. The following questionnaire is one of the primary means of data collection for a thesis which will compare the different service Tuition Assistance programs with regards to entitlements and controls. In addition, these programs will be compared to programs instituted in large private corporations to see if significant differences exist. The results of the study may be useful to the Department of the Navy in further examining its current TA program to see if it should be revised to provide a comparable Tuition Assistance program with other services and civilian institutions. The recommendations and conclusions will be geared toward the Navy's program, but should provide significant information for all service and DOD education coordinators.

2. I appreciate any additional information that you might feel is important and not included in the questionnaire. The following is a summary of the thesis title and primary research questions I will address in my thesis.

Thesis Title: A Comparative Analysis of Armed Forces and Private Sector Tuition Assistance Programs

Research Questions:

- a) Are there significant differences in Tuition Assistance programs among the Navy, Marine Corps, Air Force, Army and civilian corporations?
- b) If the differences are significant, what are the possible causes for the disparity?
- c) Does the Navy Tuition Assistance program provide adequate funding to cover tuition costs at institutions in the vicinity of large Navy installations?
- d) If not, what additional costs would be incurred to bring the program in line with current tuition fees?
- e) Are adequate controls in place to prevent abuse of the program?
- f) What recommendations for changes to the Navy program are appropriate?

3. Due to the time constraints and importance of the thesis, I would appreciate it if you could respond by fax or mail by **March 17, 1995**. Questionnaires may be mailed to the above address or faxed to (510) 487-9661. In appreciation for your taking the time out of your busy schedule to help me in this academic endeavor, a copy of my thesis will be mailed to your office upon completion. If you have any questions I can be reached at (408) 739-2637 (Home) or (408) 656-2536 voice mail box 2297.

Very Respectfully,

C. R. Turner

Thesis Questionnaire

1. At what level did the Navy budget for their Tuition Assistance program for the past five fiscal years (FY91-95)?

FY91

FY92

FY93

FY94

FY95

2. Does this number include any other programs which you were unable to break out or may be specific to the Navy?

3. To what extent did the Navy actually spend budgeted funds during those years which were allocated for the Tuition Assistance program?

FY91

FY92

FY93

FY94

FY95 (to date)

4. How much was spent in each particular area of the Navy's TA program from FY91-FY94?

FY	High School	Undergraduate	Graduate	Vo-Tech	National Home Study	Total
FY91						
FY92						
FY93						
FY94						

5. What was the number of enrollees in the Navy's TA program during FY91-FY94 ?

FY	High School	Undergraduate	Graduate	Vo-Tech	National Home Study	Total Enrollees
FY91						
FY92						
FY93						
FY94						

6. What was the percentage of TA enrollees to service endstrength in FY91-94?

Fiscal Year	Total Endstrength	Total TA Enrollees	Percentage
FY91			
FY92			
FY93			
FY94			

7. What was the total enrollments (number of courses taken) in each particular area of the TA program for FY91-94?

FY	High School	Undergraduate	Graduate	Vo-Tech	National Home Study	Total Enrollment
FY91						
FY92						
FY93						
FY94						

8. What institutions did Navy personnel who utilized the Tuition Assistance program attend during FY94?

Ex: National University 2000, Old Dominion University 500, DANTESS 500, etc.

Institution	# Enrollees	Institution	# Enrollees	Institution	# Enrollees

General Remarks (Any opinions, historical policy changes in entitlements, comments on program controls, proposed changes being considered at this time, or recommendations for future revisions of the current program.)

APPENDIX B. MILITARY TUITION ASSISTANCE BENEFITS

COURSES	NAVY	ARMY	MARINE CORPS	AIR FORCE
HIGH SCHOOL	100%	100%	100%	100%
UNDERGRADUATE	75% of tuition to a maximum of \$125 per credit hour. NTE \$285 per course.	75% of tuition to a maximum of \$60 per semester hour or equivalent quarter hour credit for lower level; \$85 for upper level. NTE 9 SH per year. Proposed change in FY 1995 NTE 12 SH per year.	75% of tuition to a maximum of \$2150 per fiscal year. NTE 21 SH or 33 QH per year.	75% of tuition to a maximum of \$250 per SH or \$166 per QH.
GRADUATE	75% of tuition to a maximum of \$175 per credit hour. NTE \$395 per course.	75% of tuition to a maximum of \$170 per semester hour or equivalent quarter hour. NTE 9 SH per year. Proposed change in FY 1995 to 12 SH per year.	75% of tuition to a maximum of \$3000 per fiscal year. NTE 21 SH or 33 QH per year.	75% of tuition to a maximum of \$250 per SH or \$166 per QH.
VOCATIONAL-TECHNICAL NATIONAL HOME STUDY	75% of tuition to a maximum of \$1300 per fiscal year.	75% of tuition up to a maximum of \$750 per fiscal year. Personnel enrolled prior to 1 Oct 92 will be reimbursed 75% of tuition not to exceed \$1000.	75% of tuition to a maximum of \$1300 per fiscal year. Effective 1 Oct 94 courses must be MOS related.	75% of tuition to a maximum of \$250 per SH or \$166 per QH if applicable. Courses must be job related.

Source: DANES Matrix/Service Instructions

APPENDIX C. TUITION RATE SUMMARY

College/University	Type Institution 2-Year/4-Year Public/Private	Undergraduate Costs Semester Hour (SH) Quarter Hour (QH)	Graduate Costs SH/QH	Remarks
HAWAII				
Leeward Community College	2-Year/Public	\$20 SH	NA	<12 SH
Honolulu Community College	2-Year/Private	\$70 SH On -base \$20 SH On-campus	NA	
University of Hawaii Manoa	4-Year/Public	\$62 SH	\$75 SH	
Hawaii Pacific University	4-Year/Private	\$74 SH On-base \$120 SH On-campus	\$263 SH	Undergraduate tuition rates are for 1-7 SH
Chaminade University	4-Year/Private	\$70 SH (LL) \$100 SH (UL)	\$240 SH	On-base rates
CALIFORNIA				
Foothill College	2-Year/Public	\$9 QH	NA	Military in-state rates
Grossmont Community College	2-Year/Public	\$13 SH	NA	1 course=3 SH
San Jose State University	4-Year/Public	\$652 1-6 SH \$951 >6 SH	\$652 1-6 SH \$951 >6 SH	
San Diego State University	4-Year/Public	\$618 1-6 SH \$951 >6 SH	\$618 1-6 SH \$951 >6 SH	Military in-state rates first year second year non-resident charge add \$245 per SH
National University	4-Year/Private Extension	\$695 per course On-campus \$79 per unit On-base	\$730 per course	1 course=5 units course length is one month
Santa Clara University	4-Year/Private	No part time instruction	\$357 QH	
Univ. of San Diego	4-Year/Private	\$490 SH	\$505 SH	

College/University	Type Institution 2-Year/4-Year Public/Private	Undergraduate Costs Semester Hour (SH) Quarter Hour (QH)	Graduate Costs SH/QH	Remarks
WASHINGTON				
Olympic College	2-Year/Public	\$86.40 1-4 QH \$216 5-8 QH	NA	Tuition fee is total cost from 1-4 QH
North Seattle Community College	2-Year/Public	\$86.40 1-4 QH \$216 5-8 QH	NA	Same as above
University of Washington	4-Year/Public	\$89 QH \$969 per Qtr	\$1087 1-6 QH \$1522 7-18 QH	Military in-state rates
University of Western Washington	4-Year/Public	\$75 QH <9 QH	\$120 QH	Military in-state rates
Seattle Pacific University	4-Year/Private	\$202 SH <8 QH \$353 SH >9 QH	\$355 QH	
Seattle University	4-Year/Private	\$285 QH	\$370 QH	
FLORIDA				
Florida Community College at Jacksonville	2-Year/Public	\$35.80 SH	NA	Military in-state rates
Pensacola Community College	2-Year/Public	\$37.75 SH	NA	1course=3 SH
University of Central Florida	4-Year/Public	\$57.19 SH	\$109.11 SH	Military in-state rates
University of North Florida	4-Year/Public	\$57.71 SH	\$109.63 SH	Same as above
University of Miami	4-Year/Private	\$672 SH	\$672 SH	
University of Jacksonville	4-Year/Private	\$320 SH	\$335 SH	
VIRGINIA				
Tidewater Community College	2-Year/Public	\$46.65 SH	NA	
Northern Virginia Community College	2-Year/Public	\$46.65 SH	NA	In-county rates. Out of county rate \$156 SH
Old Dominion University	4-Year/Public	\$ 133 SH	\$170 SH	Military in-state rate through SAC

College/University	Type Institution 2-Year/4-Year Public/Private	Undergraduate Costs Semester Hour (SH) Quarter Hour (QH)	Graduate Costs SH/QH	Remarks
Norfolk State University	4-Year/Public	\$80 SH On-base \$110 SH On-campus	\$122 SH On-base \$170 SH On-campus	On-base courses limited to two curricula
George Mason University	4-Year/Public	\$450 SH	\$450 SH	
University of Virginia	4-Year/Public	\$834 1-3 SH \$1629 4-8 SH	\$183 SH	Graduate courses at Norfolk Graduate Center
WASHINGTON D.C.				
Northern Virginia Community College	2-Year/Public	\$46.65 SH	NA	
Charles County Community College (Maryland)	2-Year/Public	\$58 SH In-county \$156 SH Out- of-county	NA	Tuition rate based on residence or actual location of duty station
Univ. of Maryland (University College)	4-Year/Public	\$174 SH	\$260 SH	Night school
Univ. of Maryland (College Park)	4-Year/Public	\$160 SH	\$230 SH	
Central Michigan University	4-Year/Public	NA	\$185 SH	On-base rates (Pentagon)
Catholic University	4-Year/Private	NA	\$363 SH	MS-Engineering
Howard University	4-Year/Private	\$321 SH	\$498 SH	
Marymount University	4-Year/Private	NA	\$345 SH	Teaching Certificate Program
American University	4-Year/Private	\$531 SH	\$667 SH	Graduate tuition cost is for MBA courses
George Washington	4-Year/Private	\$575 SH	\$575 SH	

College/University	Type Institution 2-Year/4-Year Public/Private	Undergraduate Costs Semester Hour (SH) Quarter Hour (QH)	Graduate Costs SH/QH	Remarks
UNIVERSITY EXTENSION PROGRAMS				
Troy State University	4-Year/Public Extension	NA	\$231 SH	MS Education On-base Hickam AFB, HI.
University of Oklahoma	4-Year/Public Extension	NA	\$203.75 SH	MS Public Admin On-base rate
Central Michigan Univ	4-Year/Public Extension	NA	\$189 SH	MSA-Admin
Emery-Riddle Univ	4-Year/Private Extension	NA	\$191 SH	MS BA or Aero Science
Univ of Southern Cal	4-Year/Private	NA	\$444 SH	Phd Ed Leadership
University of Maryland (Asian /European Divisions)	4-Year/Public	\$96.60 SH <i>\$111.88 SH</i>	\$240 SH <i>\$185.67 SH</i>	European course costs in italics.
Southern Illinois University	4-Year/Public	\$150 SH	NA	
DANTES EXTERNAL DEGREES (CORRESPONDENCE)				
University of Alabama	4-Year/Public	\$55 SH		Various degrees
Emery Riddle Aeronautical Univ.	4-Year/Private	\$140 SH	\$205 SH	Various degrees
Syracuse University	4-Year/Private	\$105 SH		Various degrees
Univ. of Oklahoma	4-Year/Public	\$55 SH		Various degrees
University of Missouri	4-Year/Public	\$101 SH	\$205 SH	Various degrees
University of Arizona	4-Year/Public	\$93 SH		Various degrees
City University	4-Year/Private	NA	\$232 QH	MBA/MPA
University of Phoenix	4-Year/Private	NA	\$260 SH \$395 SH	\$395 per SH for MBA courses
Auburn University	4-Year/Public	NA	\$198 QH	10 various Masters programs

APPENDIX D. TA REIMBURSEMENTS (TOP 20 INSTITUTIONS)

	SCHOOL	TOTAL AMOUNT	OVERSEAS CONTRACT/ CONUS EXT	UNDERGRADUATE COST PER HOUR	GRADUATE COST PER HOUR	UNDERGRADUATE COST PER COURSE	GRADUATE COST PER COURSE
1	UNIV OF MARYLAND UNIV COLL/EUROPE	\$1,465,587	CONT/EXT	\$111.88 EUR/\$96.60 ASIA SH \$174 SH CONUS NIGHT	\$185.67 EUR/\$240 ASIA SH \$260 SH CONUS NIGHT	\$335.64 EUR/\$290 ASIA \$522 CONUS NIGHT	\$557 EUR/\$720 ASIA 4780 CONUS NIGHT
2	SO. ILL UNIV CARBONDALE	\$1,456,254	EXTENSION	\$150 SH	NA	\$450	NA
3	SAINT LEO COLLEGE	\$1,384,198	EXTENSION	\$87 SH	NA	\$261	NA
4	EMBRY RIDDLE AERO UNIV	\$1,251,587	CONT/EXT	\$112 SH	\$191 SH	\$336	\$573
5	UNIV OF MD COLLEGE PARK	\$1,243,110	CAMPUS/EXT	\$160 SH	\$230 SH	\$480	\$690
6	CHAPMAN UNIVERSITY	\$1,093,894	EXTENSION	\$163 SH	\$210 SH	\$489	\$630
7	NATIONAL UNIVERSITY	\$829,050	CAMPUS/EXT	\$79 QH (ON-BASE) \$139 QH (ON-CAMPUS)	\$146 QH	\$395 (ON-BASE) \$695 (ON-CAMPUS)	\$730
8	COLUMBIA COLL OF MISSOURI	\$773,878	EXTENSION	\$90 SH	NA	\$270	NA
9	TIDEWATER COMM COLLEGE	\$717,600	CAMPUS/EXT	\$46.65 SH	NA	\$139.95	NA
10	CENTRAL TEXAS COLLEGE	\$706,988	CONTRACT	\$68 SH	NA	\$204	NA
11	TROY STATE UNIVERSITY	\$577,152	CONT/EXT	\$45 QH	\$70 QH	\$225	\$350
12	CHAMINADE UNIVERSITY	\$576,811	CAMPUS/EXT	\$70 SH (LL)/\$100 SH (UL)	\$240 SH	\$210 (LL)/\$300 (UL)	\$720
13	CITY COLLEGE OF CHICAGO	\$575,553	CONTRACT	\$90 SH	NA	\$270	NA
14	OLD DOMINION UNIVERSITY	\$521,552	CAMPUS/EXT	\$133 SH (SAC RATE)	\$158 SH (ON-BASE) \$170 SH (ON-CAMPUS)	\$399	\$474 (ON-BASE) \$510 (ON-CAMPUS)
15	HAWAII PACIFIC UNIVERSITY	\$481,399	CAMPUS/EXT	\$74 (LL)/\$106 (UL) SH-BASE \$120 SH-CAMPUS	\$263 SH	\$222 (LL) /\$318 (UL) \$360 SH ON-CAMPUS	\$789
16	FLORIDA COMM COLLEGE	\$431,070	CAMPUS/EXT	\$435.80 SH	NA	\$107.40	NA
17	WEBSTER UNIVERSITY	\$402,713	EXTENSION	NA	\$220 SH	NA	\$660
18	NEW HAMPSHIRE COLLEGE	\$398,403	EXTENSION	\$90 SH	\$142 SH	\$270	\$426
19	GEORGIA MIL COLLEGE	\$340,098	CAMPUS/EXT	\$48 SH	NA	\$144	NA
20	SAN DIEGO CITY COLLEGE	\$294,019	CAMPUS/EXT	\$13 SH	NA	\$39	NA

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