Population Representation in the Military Services

Fiscal Year 1999

November 2000

Chapter 1

INTRODUCTION

This is the 26th annual Department of Defense (DoD) report on social representation in the U.S. Military Services. In response to a mandate by the Senate Committee on Armed Services (Report 93-884, May 1974), the Directorate for Accession Policy, Office of the Assistant Secretary of Defense (Force Management Policy) has provided annual data addressing the quality and representativeness of military personnel since fiscal year (FY) 1975. Originally, the report was limited to an assessment of the active duty enlisted force only. In keeping with an increased emphasis and reliance on a Total Force, Accession Policy has expanded this effort to include statistics not only for enlisted personnel but also for officers and reservists. In addition to presenting data on each of the Military Services, since last year, data on the U.S. Coast Guard (USCG) are also provided. Although an armed service, the Coast Guard is part of the Department of Transportation except in times of war and national emergency when it reports to the Department of the Navy.

This report presents a broad array of characteristics—beyond routine demographics (e.g., age, gender, race/ethnicity). Estimates of cognitive ability (e.g., education, reading grade level, Armed Forces Qualification Test [AFQT] scores) supplemented with more complex composite measures (e.g., socioeconomic status) and service characteristics (e.g., years of service and pay grade) also are used to describe the force. Further, historical data are included to aid in analyzing trends to render the statistics more interpretable. Thus, recruit quality, representation rates, and the like can be viewed within the context of the preceding decades. These data are invaluable to military personnel policymakers and analysts as well as others interested in monitoring the characteristics of people serving in the Military Services.

The aim of the *Population Representation* report is to disseminate facts regarding the demographics and other characteristics of applicants, new recruits, and enlisted and officer members of the Active Forces and Reserve Components. Aptitude, education levels, age, race/ethnicity, and gender are among the mainstay statistics that shed light on the formidable task of recruiting and maintaining the force. Years of military service and pay grade provide measures of the degree of personnel experience as well as career progress that are particularly informative when examined by gender and race/ethnicity. Representation levels may change only slightly from year to year but monitoring racial/ethnic and gender participation together with additional relevant factors maintains needed attention on the characteristics and quality levels of the men and women who defend our country.

The chapters that follow provide a narrative description with selected tables and graphs, as well as a detailed set of technical appendices addressing many of the traits and characteristics of current military personnel. This chapter sets the tone and provides some interpretive guidance with regard to the voluminous contents of the *Population Representation* report.

Fiscal Year 1999: Acceptance of Minorities and Women

A diverse cadre of military members stands ready for the 21st century. Men and women from majority and minority racial and ethnic groups train and perform their duties within a multitude of occupational specialties so as to accomplish military missions on land, at sea, and in

the air. People from various social lines and geographic areas manage, operate, maintain, and coordinate complicated weapon systems gaining critical experience as they progress through the ranks. Their contributions to national defense are even more impressive given the sacrifices they are called upon to make.

To be sure, military life is honorable, but it can also be arduous. Recruiting and retention success is affected by the benefits *and* burdens of service. The representation of minority members, women and married members with dependents is vital to accomplishing today's warfighting, peacekeeping, humanitarian, and other missions. Although it may be a departure from the military's single white male manpower roots, diversity in the forces is now a fact. The demographic and background characteristics of modern military personnel are far from novel. What the statistics in this report should convey is the necessity of accepting and providing for a diverse force.

Blacks maintain their strong military presence in the enlisted ranks, at levels higher than population proportions. This minority group has achieved representation parity in the officer corps. Hispanics and other racial/ethnic minorities remain underrepresented but are making gains within the enlisted ranks and officer corps. Hispanic representation is important to monitor in light of their increasing population proportions and related issues of citizenship, English language proficiency, and high school graduation rates.

Unlike racial and ethnic minorities, the role of women in the military is still unsettled if not controversial. Although women comprise half of the youth population, in FY 1999, they made up only 18 and 20 percent of enlisted and officer accessions, respectively. However, these figures are all-time highs in the representation of women entering the military. Before the All Volunteer Force, in FY 1964, less than 1 percent of enlisted accessions were women. Women climbed to 5 percent in 1973 and shortly thereafter, they topped the 10-percent benchmark. Today, that figure has almost doubled, even in the face of a more streamlined force.

Although much progress has been achieved with regard to gender equity, much work remains. For example, gender-integration in basic training remains contested despite the fact that a 1999 Congressional Commission ruled favorably on this issue after considering a multitude of evidence.[1] Although the representation of women has increased and many previously closed positions have been opened to women, the military is (and must continue) considering current and future roles for women in uniform. Today, there is discussion of the potential assignment of women aboard submarines. Such deliberations are evidence of the significant presence, contributions, and progress of women in the military.

Recruiting Initiatives

At the close of FY 1999, the Total Force stood at just under 1.4 million active duty members and nearly 871,000 Selected Reservists. A booming economy, with full employment, increasing college enrollment rates, not to mention attitudes on the part of youth that may not be in sync with military enlistment, present challenges to recruiting. Recruiting initiatives must

[1] Congressional Commission on Military Training and Gender-Related Issues, *Final Report: Findings and Recommendations* (Arlington, VA: Author, July 1999).

inspire and maintain the volunteer spirit among men and women and majority and minority members alike. Attracting and keeping quality troops cannot be taken for granted. In the past, recruiting goals were met in the face of the declining male youth population of the 1980s in large part because of enlistment and retention trends of minorities and women. Data for the past half century are shown in Figure 1.1, with some projections for the future.

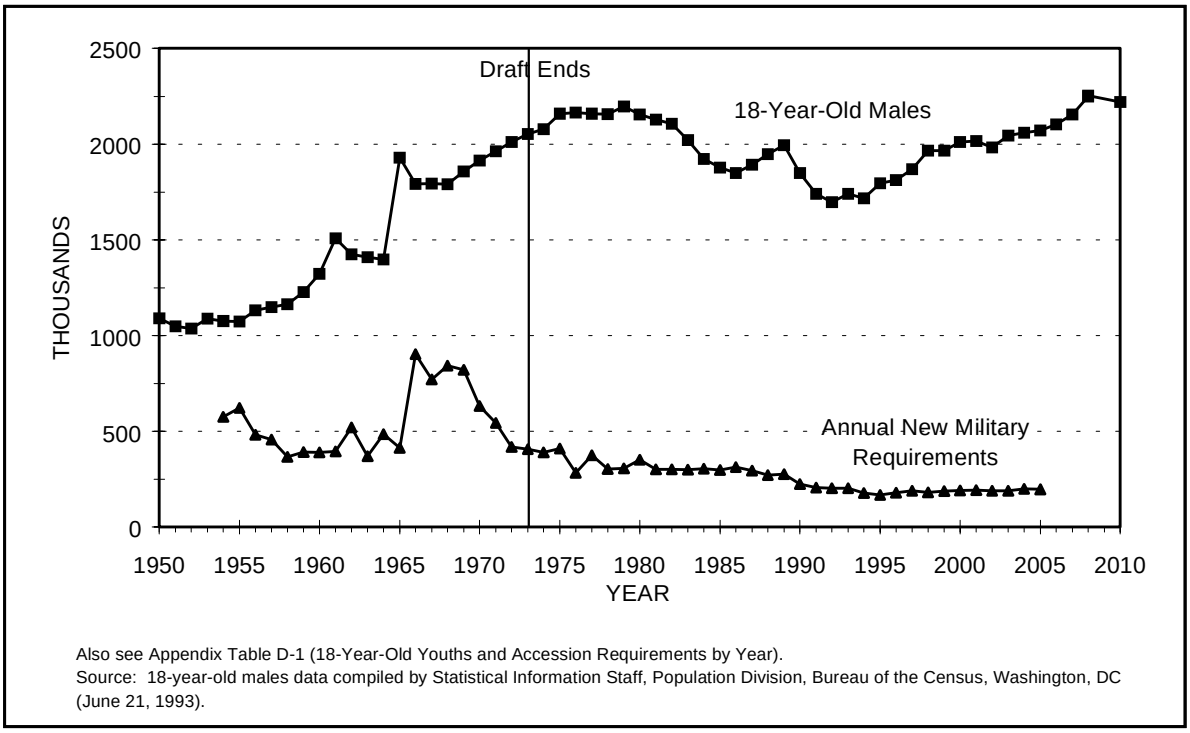

Figure 1.1. The population of 18-year-old males and Service non-prior service (NPS) recruiting requirements for fiscal years 1950–2010 (projected).

Recruiting initiatives are being devised to target those bound for two- and four-year college programs, promising high school dropouts, and Hispanic youth. The statistics presented in this report suggest that women remain an underutilized resource.

Data Sources

The primary sources for this report are computerized data files on military personnel maintained by the Defense Manpower Data Center (DMDC). In addition, the Bureau of Labor Statistics (BLS) provides the bulk of the comparison data on the national population. Though the data sources have remained constant, refinements have been made over the years, most of them in regard to the civilian comparisons. Starting with the report for FY 1994, Census data were adjusted to provide a more accurate comparison for military *applicants and accessions* (yearly average rather than last month of the fiscal year). Age comparisons for prior-service enlisted accessions to the Selected Reserve were also adjusted, from the 18- to 44-year-old civilian labor force to the 20- to 39-year-old civilian labor force. Comparisons for Selected Reserve enlisted members were changed from 18- to 44-year-old civilians to 18- to 49-year-olds. Starting with data for FY 1995, a further age refinement was introduced for comparisons with the officer corps. Previously the comparison group for Active Component officers comprised civilian

workforce college graduates who were 21 and older. This was adjusted by establishing an upper bound at age 49, making the more precise comparison, college graduates aged 21 to 49 who are in the workforce. In addition, beginning with the FY 1995 *Population Representation* report, DMDC provided edited, rather than raw, data on applicants for enlistment. In FY 1997, prior service accession data for the Active Component were added. U.S. Coast Guard representation statistics were included for the first time in FY 1998. A refinement to the age range of the civilian comparison group for Active Component prior service enlisted accessions—recently added—was made in FY 1999. The age range was extended from 18-24 year-olds to 17-35 year-olds, to better reflect the older composition of recruits with previous military experience. A brief description of the data sources for FY 1999 follows:

Subject	Data Source
Active Components	
Applicants to Enlisted Military	DMDC U.S. Military Entrance Processing Command (USMEPCOM) Edit Files, October 1998 through September 1999
Enlisted Accessions	DMDC USMEPCOM Edit Files, October 1998 through September 1999
Enlisted Force	DMDC Active and Loss Edit File, September 1999
Officer Accessions	DMDC Officer Gain Files, October 1998 through September 1999
Officer Corps	DMDC Officer Master and Loss Edit File, September 1999
Recruit Socioeconomic Status	DMDC Survey of Recruit Socioeconomic Backgrounds, October 1998 through September 1999
Reserve Components	
Selected Reserve Enlisted and Officer Accessions	DMDC Reserve Components Common Personnel Data System (RCCPDS), October 1998 through September 1999
Selected Reserve Enlisted Force and Officer Corps	DMDC Reserve Components Common Personnel Data System (RCCPDS), September 1999

Subject	Data Source
Civilian Comparisons	
Civilian Comparison Groups for Applicants, Accessions, and Active and Reserve Members	Bureau of Labor Statistics Current Population Survey Files, October 1998 through September 1999
Civilian Socioeconomic Comparison Data	Bureau of Labor Statistics Current Population Survey Files, October 1998 through September 1999
Civilian Comparisons for Military Entrance Test Data	*Profile of American Youth* (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], March 1982).

Chapter 2

ACTIVE COMPONENT ENLISTED APPLICANTS AND ACCESSIONS

The Services are one of the largest employers in the United States, enlisting more than 180,000 young men and women in the Active Components in FY 1999. Recruiting a quality force is as important as ever, perhaps more important, given the smaller number of men and women in the military and the increasing sophistication of weapons and methods for fighting modern wars. Service missions are changing to include peacekeeping and humanitarian efforts, requiring additional skills from today's men and women in uniform.

The Youth Attitude Tracking Study (YATS), conducted annually, measures propensity to enlist. Results from the 1999 YATS survey indicate a significant increase in propensity. More than one-quarter (29 percent) of young men (16- to 21-year-olds) reported that they planned definitely or probably to enlist in the military in the next few years.[1] Overall male propensity, as measured by YATS, remains below the 34-percent level of 1991; however, it has increased significantly over the 26-percent level of the past few years. YATS results suggest rising propensity across Services, race/ethnic groups, and gender. Propensity of 16- to 21-year-old women increased slightly from 13 percent in 1998 to 15 percent in 1999.[2]

With the prospering economy of the past few years, recruiters have experienced the greatest challenges to signing up new recruits since the advent of the All Volunteer Force. Although access to post-high school opportunities has expanded in recent years, the 1999 YATS results suggest that the Service recruiting campaigns are having an impact on the youth of our country. Nevertheless, the Assistant Secretary of Defense for Force Management Policy, Alphonso Maldon, Jr., states that "aggressive recruiting efforts are required to transform interest in the military to actual enlistment commitments."[3]

The Monitoring the Future (MtF) project, a survey of high school seniors, measures youth enlistment intentions shortly before graduation. Results from the most recent period—1991 to 1997—have shown the lowest propensity since the MtF project began collecting data in 1975. This time period can be characterized by a large-scale military downsizing during an economic boom. The percent reporting that they definitely will enlist in the Armed Forces, a stable measure across time and grade-level, dropped below 5 percent and at the same time the percent declaring that they definitely would not enlist climbed above 70 percent.[4]

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1 Enlistment propensity is measured with the Youth Attitude Tracking Study (YATS) conducted annually by the Department of Defense. Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.

2 Ibid.

3 Ibid.

4 Segal, D.R., Bachman, J.G., Freedman-Doan, P., and O'Malley, P.M., "Propensity to Serve in the U.S. Military: Temporal Trends and Subgroup Differences," *Armed Forces & Society, 25* (1999), pp. 407–427.

Results from the YATS and MtF projects differ for several reasons. First, YATS data are more recent (1999) than the MtF data (1997). Second, the MtF project asked high school seniors about their post-graduation plans, whereas the YATS survey sought responses from a broader range of youth (16-24 years-old). Further, YATS and MtF data were collected at different times of the year. While YATS was conducted in the Fall, the MtF survey was administered in the Spring, after many seniors had made decisions about their post-high school plans. Lastly, the MtF project included one multiple choice question assessing military propensity, but YATS included several questions on the subject. YATS respondents were directly asked whether they would join the military, using an aided prompt; aided propensity measures result in higher levels of propensity than unaided questions. Thus, military propensity, as measured by YATS, is greater than the MtF assessment of high school senior plans to join the Service.

As the United States experiences its lowest unemployment rate in more than 30 years,[5] employers—including the military—find recruiting qualified personnel very competitive. The increasing proportion of high school graduates attending college limits the supply of high-quality applicants to the Services. Most high school seniors report that they plan to go to college (77 percent right after high school and 20 percent a year or more after graduating).[6] About 66 percent of today's high school graduates actually enroll in college in the Fall after their senior year, compared to 67 percent last year and about half of high school graduates 20 years ago.[7] The increasing desire to participate in post-secondary education is important to monitor as propensity of college-bound youth is lower than for those not planning to attend college.[8] Faced with relatively low propensity, record low unemployment rates, and increasing competition with colleges and universities, military recruiters for the Army and Air Force were not able to meet FY 1999 accession requirements, falling short by almost 7,000 new recruits. Nevertheless, recruiters enlisted a high-quality accession cohort in FY 1999.[9] Recruiting is likely to continue to be a challenge as long as recruiting objectives increase amid a stable pool of eligible youth and a strong economy with increasing opportunities for post-secondary education.[10] This chapter

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5 Labor force statistics extracted from the Current Population Survey, Bureau of Labor Statistics. (Seasonally adjusted unemployment rate of 16-year-olds and older and 16- to 19-year-olds in the civilian labor force.) URL: http://www.dol.gov.

6 Lehnus, J. and Lancaster, A., "Declining Interest in Military Service: Quantitative Observations," in *Youth Attitudes Toward Military Service in the Post-Cold War Era: Selected Papers Presented at the International Military Testing Association*, San Antonio, Texas, 1996 (DMDC Report No. 97-001).

7 U.S. Department of Education, *The Digest of Education Statistics 1999* (NCES 2000-031) (Washington, DC: National Center for Education Statistics, 2000), Table 186.

8 Segal, D.R., Bachman, J.G., Freedman-Doan, P., and O'Malley, P.M., "Propensity to Serve in the U.S. Military: Temporal Trends and Subgroup Differences," *Armed Forces & Society, 25* (1999), pp. 407–427.

9 Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.

10 Gilroy, C. and Sellman, W.S., *Today's Recruiting Challenge and The Economic Implications of an All-Volunteer Force*, paper presented as part of Panel on Recruitment in the All-Volunteer Era: Theory, Practice, and

introduces the Active Component enlistment process, followed by demographic characteristics of enlisted applicants and recruits.

The Recruiting Process

Initial contacts between military recruiters and youth interested in military service are exploratory. In most cases, youth seek information from recruiters in more than one Service. Once they select a Service and take the Armed Services Vocational Aptitude Battery (ASVAB), youth may wait before deciding to proceed with enlistment processing.

In addition to providing information to the prospective enlistee, recruiters determine an applicant's eligibility for military service. They ask questions regarding age, citizenship, education, involvement with the law, use of drugs, and physical and medical conditions that could preclude enlistment. Most prospects take an aptitude screening test at a recruiting office. Estimates are that 10 to 20 percent of prospects do not continue beyond this point.[11]

The Armed Services Vocational Aptitude Battery. Prospects who meet initial qualifications take the ASVAB, the first formal step in the process of applying to enlist in the Armed Forces. The ASVAB is a battery of tests used by DoD to determine enlistment eligibility and qualifications for military occupations. It consists of 10 tests, four of which comprise the Armed Forces Qualification Test (AFQT): Arithmetic Reasoning, Mathematics Knowledge, Word Knowledge, and Paragraph Comprehension. The AFQT, a general measure of trainability and predictor of on-the-job performance, is the primary index of recruit aptitude.

AFQT scores, expressed on a percentile scale, reflect an applicant's standing relative to the national population of men and women 18–23 years of age.[12] The scores are grouped into five categories based on the percentile score ranges shown in Table 2.1. Persons who score in Categories I and II tend to be above average in trainability; those in Category III, average; those in Category IV, below average; and those in Category V, markedly below average. By law, Category V applicants and those in Category IV who have not graduated from high school are not eligible for enlistment. Over and above these legal restrictions, each Service prescribes its own aptitude and education criteria for eligibility. Each Service uses combinations of ASVAB test scores to determine an applicant's aptitude and eligibility for different military occupations.

Educational Credentials. DoD implemented a three-tier classification of education credentials in 1987. The three tiers are:

Results, at the 1999 Inter-University Seminar on Armed Forces and Society Biennial Conference, Baltimore, October 1999.

[11] Waters, B.K., Laurence, J.H., and Camara, W.J., *Personnel Enlistment and Classification Procedures in the U.S. Military* (Washington, DC: National Academy Press, 1987), p. 12.

[12] The score scale is based on a 1980 study, the Profile of American Youth, conducted by DoD in cooperation with the Department of Labor (DoL). Participants were drawn from a nationally representative sample of young men and women selected for an ongoing DoL study, the National Longitudinal Survey of Youth Labor Force Behavior. An effort is currently underway to update the Profile of American Youth study.

- Tier 1—Regular high school graduates, adult diploma holders, and non-graduates with at least 15 hours of college credit.

- Tier 2—Alternative credential holders, including those with a General Education Development (GED) certificate of high school equivalency.

- Tier 3—Those with no education credentials.

Table 2.1. Armed Forces Qualification Test (AFQT) Categories and Corresponding Percentile Score Ranges

AFQT Category	Percentile Score Range
I	93–99
II	65–92
IIIA	50–64
IIIB	31–49
IV	10–30
V	1–9

The system was developed after research indicated a strong relationship between education credentials and successful completion of the first term of military service.[13] Current research continues to show that education attainment of youth predicts first-term military attrition.[14] In conjunction with the National Academy of Sciences, the Defense Department developed a mathematical model that links recruit quality and recruiting resources to job performance. The model was then used to establish the recruit quality benchmarks now specified in Defense Planning Guidance. Service programs are required to ensure that a minimum of 90 percent of non-prior service (NPS) recruits are high school diploma graduates. At least 60 percent of recruits must be drawn from AFQT Categories I–IIIA; no more than 4 percent of the recruits can come from Category IV. This DoD policy does not prohibit the Services from setting their own targets above these benchmarks. These benchmarks were set by examining the relationship between costs associated with recruiting, training, attrition, and retention using as a standard the performance level obtained by the reference cohort of 1990, the cohort that served in

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13 See Flyer, E.S., *Factors Relating to Discharge for Unsuitability Among 1956 Airman Accessions to the Air Force* (Lackland AFB, TX: Personnel Research Laboratory, December 1959); and Elster, R.E. and Flyer, E.S., *A Study of the Relationship Between Educational Credentials and Military Performance Criteria* (Monterey, CA: Naval Postgraduate School, July 1981).

14 For attrition by education credential, see Department of Defense, *Educational Enlistment Standards: Recruiting Equity for GED Certificates*, Report to Congress (Washington, DC: Office of the Assistant Secretary of Defense [Force Management Policy], April 1996); Department of Defense, *Review of Minimum Active Enlisted Recruit Quality Benchmarks: Do They Remain Valid?* Report to Congress (Washington, DC: Office of the Assistant Secretary of Defense [Force Management Policy], March 2000); and Laurence, J.H., *Does Education Credential Still Predict Attrition?,* paper presented as part of Symposium, Everything Old is New Again—Current Research Issues in Accession Policy, at the 105th Annual Convention of the American Psychological Association, Chicago, August 1997.

Operations Desert Shield and Desert Storm. Thus, these benchmarks reflect the recruit quality levels necessary to minimize personnel and training costs while maintaining Desert Shield/Desert Storm cohort performance.[15]

The Services have different standards for individuals in each tier. Generally, Tier 3 applicants must have higher AFQT test scores than Tier 2 applicants, who must have higher test scores than Tier 1 individuals. The Air Force and Marine Corps follow these differential standards, requiring different minimum test scores for each tier. The other Services apply the standards slightly differently. The Army and Navy require applicants with alternative credentials (Tier 2) and those with no credentials (Tier 3) to meet the same AFQT standards, which are more stringent than those for high school graduates (Tier 1).

With the proliferation of alternative credential programs, particularly home schooling, the Department of Defense initiated a pilot study in FY 1999—The Alternative Educational Credential Pilot Program. The goals of the project are: (1) to assess the interest in enlistment of home school graduates and participants earning GED certificates through the National Guard ChalleNGe program, and (2) to evaluate the performance of the alternative credential holders in these programs who do enlist. At the conclusion of the study, the results will be used to provide a recommendation on permanent tier status of home school graduates and ChalleNGe GED applicants.[16]

Physical Examinations. If an applicant achieves qualifying ASVAB scores and wants to continue the application process, he or she is scheduled for a physical examination and background review at a Military Entrance Processing Station (MEPS). The examination assesses physical fitness for military service. It includes measurement of blood pressure, pulse, visual acuity, and hearing; blood testing and urinalysis; drug and HIV testing; and medical history. Some Services also require tests of strength and endurance. If a correctable or temporary medical problem is detected, the applicant may be required to get treatment before proceeding. Other applicants may require a Service waiver of some disqualifying medical conditions before being allowed to enlist.

Moral Character Standards. Each applicant must meet rigorous moral character standards. In addition to the initial screening by the recruiter, an interview covering each applicant's background is conducted at the MEPS. For some individuals, a financial credit check and/or a computerized search for a criminal record is conducted. Some types of criminal activity are clearly disqualifying; other cases require a waiver, wherein the Service examines the applicant's circumstances and makes an individual determination of qualification. Moreover, applicants with existing financial problems are not likely to overcome those difficulties on junior enlisted pay. Consequently, credit histories may be considered as part of the enlistment decision.

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15 Sellman, W.S., *Public Policy Implications for Military Entrance Standards,* Keynote Address presented at the 39th Annual Conference of the International Military Testing Association, Sydney, Australia, October 1998.

16 Statement of Honorable Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy) before the Personnel Subcommittee, Senate Committee on Armed Services on *Military Recruiting and Retention*, February 24, 2000.

Occupational Area Counseling. If the applicant's ASVAB scores, educational credentials, physical fitness, and moral character qualify for entry, he or she meets with a Service classification counselor at the MEPS to discuss options for enlistment. Up to this point, the applicant has made no commitment. The counselor has the record of the applicant's qualifications and computerized information on available Service training/skill openings, schedules, and enlistment incentives.

A recruit can sign up for a specific skill or for a broad occupational area (such as the mechanical or electronics areas). In the Army, all recruits enter for specific skill training. Approximately 60 percent of Air Force recruits enter for a specific skill, while the rest sign up for an occupational area and are classified into a specific skill while in basic training. In the Navy, approximately 70 percent of recruits enlist for a specific skill, while the rest go directly to the fleet after basic training, classified in airman, fireman, or seaman programs. Approximately 85 percent of Marine Corps enlistees enter with a guaranteed occupational area and are assigned a specific skill within that area after recruit training; the rest enlist with either a specific job guarantee or assignment to a job after recruit training.

Normally, an applicant will be shown a number of occupations. In general, the higher the individual's test scores, the more choices he or she will have. While the process differs by Service, specific skills and occupational groupings are arranged similarly to an airline reservation system, with the "seat" and time of travel (to recruit training) based upon either school or field unit position openings. The counselor discusses the applicant's interests and explains what the Service has to offer. The counselor may suggest incentives to encourage the applicant to choose hard-to-fill occupational specialties. The applicant, however, is free to accept or reject the offer.

Many applicants do not decide immediately, but take time to discuss options with family and friends; others decide not to enlist. A review of the enlistment decision process indicates that the military continues to compete with civilian employment and educational opportunities even after the prospect has completed the application stage of the enlistment process.[17]

The Delayed Entry Program (DEP). When the applicant accepts an offer, he or she signs an enlistment contract. Only a small proportion of new enlistees is sent to a recruit training center from the MEPS within a month of enlistment. Most enter the delayed entry program (DEP), which allows up to a year before the individual reports for duty, with up to a 365-day extension upon approval by the respective Service Secretary.[18] The DEP controls recruit flow into training "seats" at technical schools. Average time in the DEP is about four months.

Qualified high school students may enlist in the DEP with a reporting date after graduation; their enlistment contract is contingent upon successfully completing high school. Not all DEP enlistees actually enter active duty. By Service, an average of 15 to 24 percent—up

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17 Orvis, B.R. and Gahart, M.T., *Enlistment Among Applicants for Military Service: Determinants and Incentives* (Santa Monica, CA: RAND Corporation, 1990), p. vii.

18 10 U.S.C. 513, as amended October 1999.

from last year's 11 to 19 percent—of individuals in the DEP changed their minds and asked to be released from their enlistment contracts in FY 1999. The Services consider enlistment in the DEP a serious commitment, but they do not require youth to enter military service against their will during peacetime.

Characteristics of Active Component Non-Prior Service Applicants

In FY 1999, approximately 344,000 individuals applied to serve in the active enlisted military force (Appendix Table A-1). The distribution of FY 1999 Active Component NPS applicants by race/ethnicity and gender is shown in Table 2.2.

Table 2.2. Race/Ethnicity and Gender of FY 1999 Active Component NPS Applicants*, by Service (Percent)

	Army	Navy	Marine Corps	Air Force	DoD
MALES					
White	60.8	58.1	66.0	70.4	62.2
Black	22.6	20.9	15.0	17.0	20.0
Hispanic	10.9	11.1	13.6	6.7	10.9
Other	5.7	10.0	5.5	5.9	6.8
Total	100.0	100.0	100.0	100.0	100.0
FEMALES					
White	47.3	48.2	58.3	60.1	50.7
Black	36.1	30.9	20.7	25.8	31.9
Hispanic	10.2	11.2	14.9	7.5	10.2
Other	6.4	9.7	6.2	6.6	7.2
Total	100.0	100.0	100.0	100.0	100.0
TOTAL					
Male	75.0	78.5	91.1	69.0	77.6
Female	25.0	21.6	8.9	31.0	22.4

Columns may not add to total due to rounding.
* Applicant data reported for FY 1999 are based on the DMDC edit version of the MEPCOM file, which has been "cleaned" by the edit process. FY 1999 applicant data are consistent with Information Delivery System (IDS) data. However, comparisons of FY 1999 applicant data to data reported in Population Representation reports for FY 1994 or earlier (from unedited MEPCOM files) may show differences. Also see Appendix Tables A-3 (Race/Ethnicity by Service and Gender) and A-4 (Ethnicity by Service).

Seventy-eight percent of the applicants were male, of whom 62 percent were White, 20 percent Black, 11 percent Hispanic, and 7 percent "Other."[19] For female applicants, approximately 51 percent were White, 32 percent Black, 10 percent Hispanic, and 7 percent "Other." Additional statistics on applicant characteristics (e.g., age, education levels, AFQT scores, and marital status, by gender and race/ethnicity) are contained in Appendix A, Tables A-1 through A-8.

19 Includes Native Americans, Asians, and Pacific Islanders.

Characteristics of Active Component Accessions

During FY 1999, 183,768 Active Component non-prior service recruits (individuals who had not previously served in the military) and 5,628 prior service recruits (individuals with military experience) shipped to recruit training centers (Table 2.3). This does not include individuals who entered the DEP in FY 1999 but had not been sent to basic training by September 30, 1999, nor does it include Reserve Component recruits (see Chapter 5 for Reserve Component enlisted accession data).

Table 2.3. FY 1999 Active Component Non-Prior Service (NPS) and Prior Service Enlisted Accessions

Service	Enlisted Accessions			
	Prior Service	Non-Prior Service	Total	Non-Prior Service Percent of Service Total
Army	3,953	67,007	70,960	94.4
Navy	888	51,436	52,324	98.3
Marine Corps	99	32,998	33,097	99.7
Air Force	688	32,327	33,015	97.9
DoD Total	5,628	183,768	189,396	97.0

Also see Appendix Tables B-13 through B-22 (Prior Service Accessions).

In the Active Component, 97 percent of accessions have never served in the military before. The small number of prior service accessions enlisting in FY 1999 are older and more likely to be married than their NPS counterparts. Prior service recruits more closely resemble the Active Component enlisted force—in terms of age and marital status—from which most of them came. In terms of other characteristics, they are similar to their non-prior service counterparts. Additional statistics on prior service accession characteristics (e.g., race/ethnicity, education levels, and AFQT scores) are contained in Appendix B, Tables B-13 through B-22. The remainder of this section examines a number of sociodemographic characteristics of FY 1999 NPS recruits, and compares them with the 18- to 24-year-old civilian non-institutionalized U.S. population.

The proportion of accessions to applicants over FYs 1976–1999 is tracked in Figure 2.1. This ratio provides an index of the recruiting market. In the earlier years, recruiters sent far more applicants to MEPSs for processing to achieve recruiting objectives. In FY 1981, more than 800,000 applicants were processed through MEPSs to access approximately 301,000 new recruits, a 38 percent accession-to-applicant ratio. In the early 1980s, the Services implemented a series of management initiatives designed to emphasize quality and reduce overhead costs. Recruiting management objectives and award systems were changed to emphasize types of applicants (e.g., high school diploma graduates, Category IIIA and higher) in contrast to achieving purely numerical goals; enlistment screening tests were devised to estimate ASVAB performance prior to sending an individual to a test site.

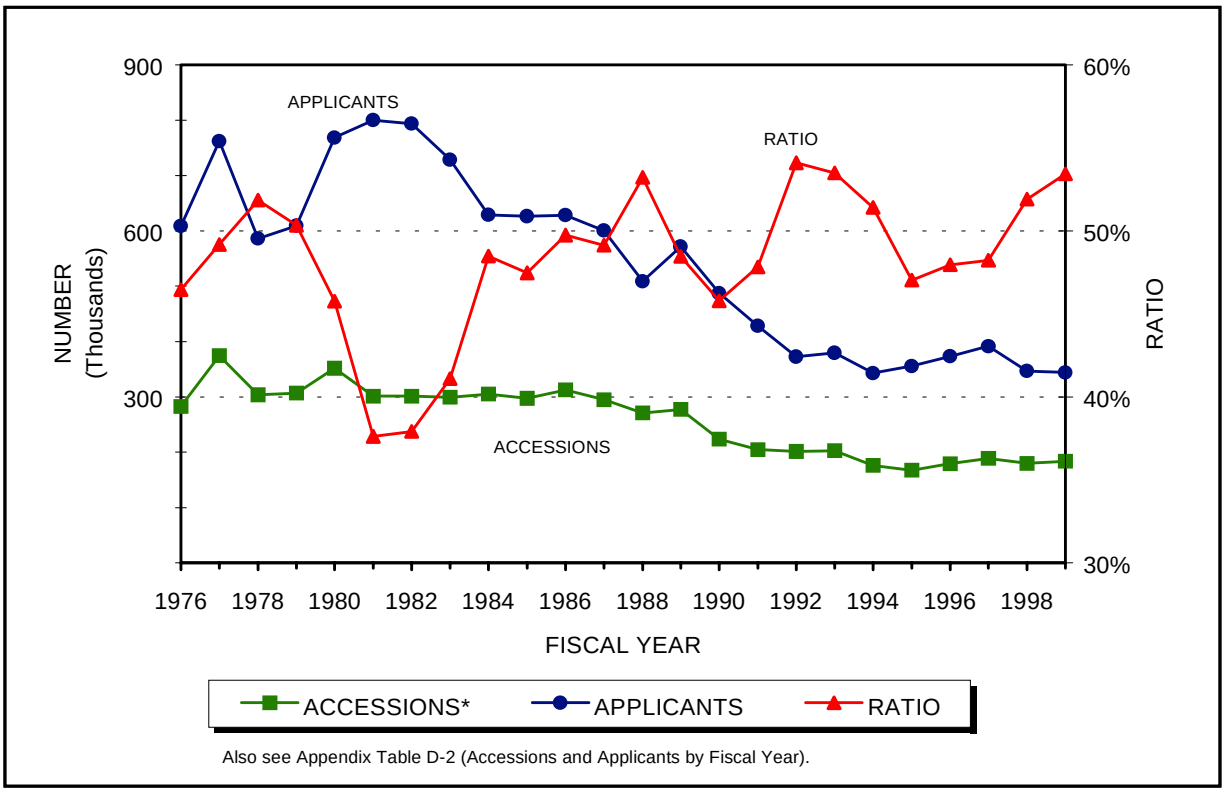

Figure 2.1. Number of accessions and applicants with ratio of accessions to applicants, FYs 1976–1999.

Over the last decade, recruiters have expended great effort in screening prospects. For most years, progressively fewer prospects were sent to MEPSs. In FY 1999, approximately 344,000 applicants were processed through MEPSs to access nearly 184,000 new recruits, a 53 percent ratio of accessions to applicants, improving upon the 52 percent ratio achieved in FY 1998.

Age. By law, Active Component recruits must be between 17 and 35 years old; 17-year-olds must have parental permission to enlist.[20] Within the 17–35 age range, the Services have different age ceilings. The Army and Navy accept applicants up to age 35; the Air Force accepts recruits prior to their 28th birthday, and the Marine Corps age limit is 29.

The age distribution of FY 1999 active duty NPS accessions is shown in Table 2.4. Approximately, 87 percent of new recruits are 18- to 24-year-olds, compared to about 29 percent of the comparable civilian population. The Marine Corps enlists the greatest percentage of 17- and 18-year-old recruits (48 percent) and the smallest percentage of those over age 21 (11

20 10 U.S.C. 505.

percent). The Army has the greatest proportion of recruits older than age 21 (24 percent) and the smallest proportion of 17- and 18-year-old recruits (37 percent).

Table 2.4. Age of FY 1999 Active Component NPS Accessions, by Service, and Civilians 17–35 Years Old (Percent)

Age	Army	Navy	Marine Corps	Air Force	DoD	17- to 35-Year-Old Civilians	Number of Accessions per 1,000 Civilians
17	6.3	6.3	6.9	4.7	6.1	4.4	2.8
18	30.7	34.0	41.8	34.5	34.3	4.4	15.9
19	20.5	22.1	24.1	24.0	22.2	4.4	10.3
20	11.4	11.7	10.5	13.0	11.6	4.0	6.0
21	7.7	7.4	6.0	8.3	7.4	4.0	3.7
22	5.7	4.9	3.8	5.6	5.1	3.9	2.6
23	4.2	3.5	2.3	3.4	3.5	3.8	1.9
24	3.2	2.6	1.6	2.5	2.6	4.0	1.3
>24	10.4	7.4	3.2	4.2	7.2	67.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	2.0

Columns may not add to total due to rounding.
Also see Appendix Table B-1 (Age by Service and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 - September 1999.

The right column of Table 2.4 shows the numerical rate at which civilian youth in each age group enlisted in the Armed Services in FY 1999. For example, an average of 15.9 of every 1,000 18-year-olds and 1.3 of every 1,000 24-year-olds enlisted in FY 1999.

Race/Ethnicity. Significant racial/ethnic differences exist among the Services, as shown in Table 2.5. Approximately 40 and 41 percent of Army and Navy accessions, respectively, are minorities, as compared to 32 percent of Marine Corps recruits and 31 percent of Air Force recruits. The overall percentage of minority recruits increased slightly from 36 percent in FY 1998 to 37 percent in FY 1999. The larger proportion of minority recruits generally mirrors the trend in the comparable civilian population.

Figure 2.2 illustrates the race/ethnicity distribution of enlisted accessions for the 26-year period, FYs 1973–1999.[21] Understanding the race/ethnicity profiles requires some explanation of events during the years up to 1985, before describing the current situation. The percentage of minority enlisted accessions increased, with some fluctuations, during the years following the end of conscription. The number of Black accessions peaked in FY 1979. Hispanic accessions also peaked in FY 1979 (ignoring aberrant data for FY 1976). Accessions of "Other" minorities, a very small proportion of new recruits, have generally shown a gradual increase from less than 1 percent in FY 1973 to nearly 7 percent in FY 1999. The increase of minorities coincided with a miscalibration of the ASVAB, and consequent drop in the aptitude of accessions, both Whites

[21] See Appendix Tables D-5 (White Accessions), D-6 (Black Accessions), D-7 (Hispanic Accessions), and D-8 ("Other" Accessions) by Service and Fiscal Year.

and minorities, beginning in January 1976. The miscalibration led to erroneous enlistment of many low-scoring applicants. Thus, representation of minorities, particularly Blacks (whose test scores, on average, are generally lower than those of Whites), increased during the miscalibration period. The error was corrected by September 1980.[22]

Table 2.5. Race/Ethnicity and Gender of FY 1999 Active Component NPS Accessions, by Service, and Civilians 18–24 Years Old (Percent)

	Army	Navy	Marine Corps	Air Force	DoD
MALES					
White	63.0	61.1	68.7	71.7	65.0
Black	21.2	18.4	12.6	15.6	17.8
Hispanic	10.9	11.1	13.8	7.2	10.9
Other	5.0	9.5	5.0	5.6	6.3
Total	100.0	100.0	100.0	100.0	100.0
FEMALES					
White	48.4	51.3	59.1	61.0	53.2
Black	35.6	27.2	18.8	24.8	29.3
Hispanic	9.9	12.0	15.0	7.4	10.2
Other	6.2	9.6	7.1	6.8	7.3
Total	100.0	100.0	100.0	100.0	100.0
TOTAL					
Male	80.2	82.0	93.0	73.1	81.8
Female	19.8	18.0	7.0	26.9	18.2
White	60.1	59.3	68.0	68.8	62.8
Black	24.0	20.0	13.1	18.1	19.9
Hispanic	10.7	11.2	13.9	7.2	10.8
Other	5.2	9.5	5.1	5.9	6.5

Non-Institutionalized Civilians 18–24 Years Old

White	Black	Hispanic	Other	Total	Male	Female
65.7	14.2	15.2	4.9	100.0	49.8	50.2

Columns may not add to total due to rounding.
Also see Appendix Tables B-3 (Race/Ethnicity by Service and Gender) and B-4 (Ethnicity by Service).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

Revised AFQT and education standards in the early 1980s limited the high minority representation levels of the late 1970s.[23] By FY 1983, the proportion of Black recruits had

22 Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics), *A Report to the House Committee on Armed Services: Aptitude Testing of Recruits* (Washington, DC, 1980).

23 Congressional Budget Office, *Social Representation in the U. S. Military* (Washington, DC, 1989), p. 54.

returned to approximately the same level as before the test scoring error (18 percent Blacks in FY 1975). By the mid-1980s, a gradual increase had resumed. Not until FY 1987 did Hispanic recruit levels return to FY 1975 proportions. Higher high school dropout rates among Hispanics (30 percent), compared to Whites and Blacks (8 and 14 percent, respectively), confound the recruitment of qualified Hispanic applicants.[24] The Services have accessed a greater proportion of Hispanics each year since FY 1985, when less than 4 percent of enlistees were Hispanic. Today, nearly 11 percent of enlistees are Hispanic.

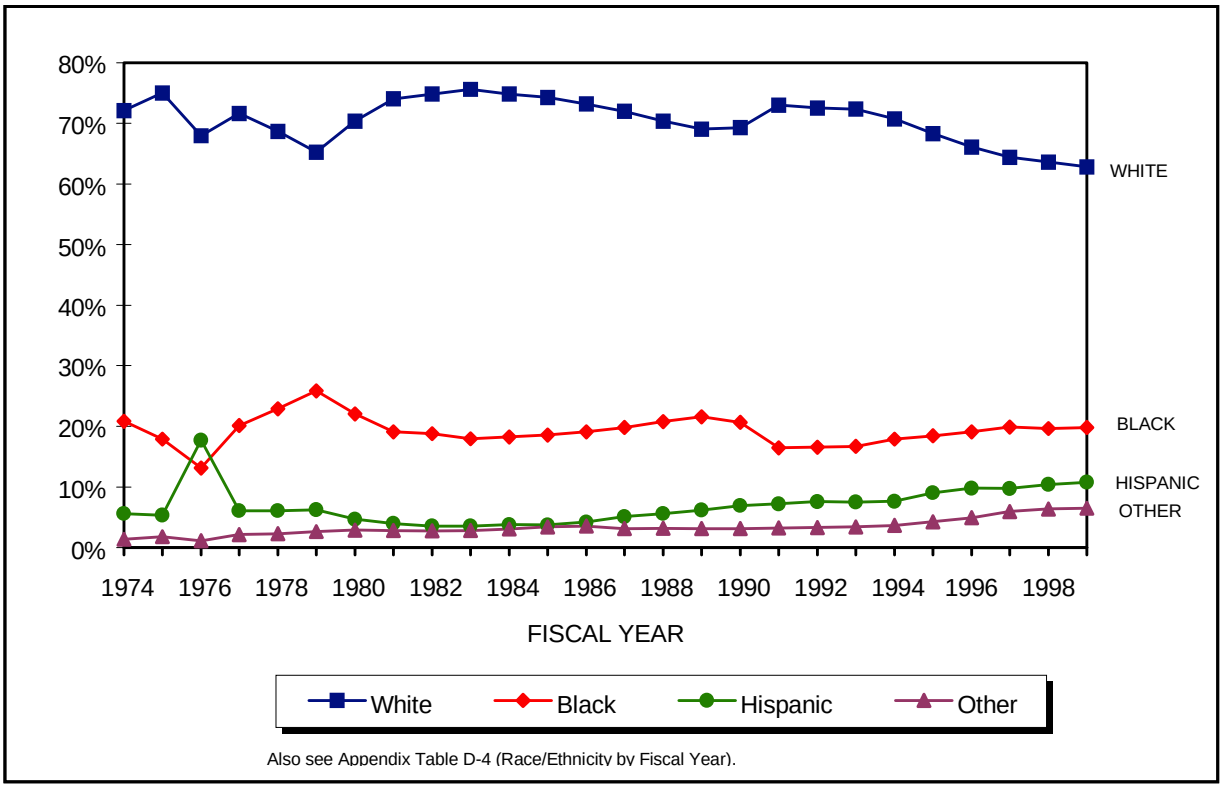

Figure 2.2. Race/ethnicity of Active Component NPS accessions, FYs 1973–1999.

Blacks. In FY 1999, Blacks comprised nearly 20 percent of enlisted recruits, approximately 6 percentage points more than in the civilian population (14 percent). The Army continues to have the highest percentage of Black accessions, 24 percent in FY 1999. In the aftermath of Operations Desert Shield and Desert Storm and in the midst of the drawdown (FY 1991), there were lower proportions of Black recruits than in previous years. FYs 1992 to 1999 have seen slight increases most years toward pre-drawdown levels of 21 percent Black accessions. In FY 1999, there was a slight increase in Black enlistees.

While Black men comprise nearly 18 percent of DoD male recruits, Black women make up more than 29 percent of female recruits (Table 2-5 and Appendix Table B-3). Black women in FY 1999 comprised 36 percent of Army female recruits, 27 percent of Navy female recruits,

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24 See U.S. Department of Education, *The Digest of Education Statistics 1999* (NCES 2000-031) (Washington, DC: National Center for Education Statistics, 2000), Table 108.

19 percent of Marine Corps female recruits, and 25 percent of Air Force female recruits. In comparison, the proportion of Black men ranged from 13 percent of Marine Corps male recruits to 21 percent of Army male recruits.

Hispanics. As the proportion of Hispanics has been increasing in the civilian population, so has the proportion of enlisted Hispanics. However, Hispanics were underrepresented among enlisted accessions in FY 1999, 11 percent of recruits compared to 15 percent of civilian 18- to 24-year-olds. The Marine Corps had the highest proportion of Hispanic accessions (14 percent) in FY 1999, followed by the Army, Navy, and Air Force (11, 11, and 7 percent, respectively).

The proportion of Hispanic accessions has increased over the years (Appendix Table D-7). In FY 1983, less than 4 percent of new recruits were Hispanic. Today, nearly 11 percent of enlisted accessions are Hispanic. One factor influencing the representation of Hispanics in the military is high school graduation rates; Hispanics are less likely to earn a high school diploma than those in other racial/ethnic groups.[25] In FY 1999, 59 percent of 18- to 24-year-old Hispanics completed high school (Tier 1) or earned an alternative credential (Tier 2) compared to 73 percent of Blacks and 84 percent of Whites.

In contrast to Black females, Hispanic females are slightly less represented among female recruits than Hispanic men are among male recruits. Approximately 11 percent of NPS accessions are Hispanic; 11 percent of male recruits and 10 percent of female recruits are Hispanic.

"Other" minorities. Members of "Other" racial minorities (e.g., Native Americans, Asians, and Pacific Islanders) are approaching 7 percent; they are slightly overrepresented in the Services. The proportion of "Other" minorities ranges from 5 to 10 percent in the Services, with the Navy having the largest percentage. In the civilian population, 5 percent of 18- to 24-year-olds are "Other" racial minorities, an increase of more than 2 percentage points since FY 1981.

Gender. Figure 2.3 illustrates the trend in the proportion of female recruits since the start of the All Volunteer Force. Appendix Table D-9 shows the number and proportion of NPS female accessions by Service in FY 1964 and FYs 1970 through 1999. The Air Force traditionally has the largest proportion of women recruits and the Marine Corps the smallest, in part a result of the number of positions open to women in these Services.

The proportion of NPS women accessing into the Services, 18 percent in FY 1999, is not comparable to female representation in the civilian population (50 percent). One reason for the difference is the lower inclination of women than men to apply for and enter the military.[26] With

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[25] See U.S. Department of Education, *The Condition of Education 2000* (NCES 2000-062) (Washington, DC: National Center for Education Statistics, 2000), p. 56; U.S. Department of Education, *Dropout Rates in the United States 1998* (NCES 2000-022) (Washington, DC: National Center for Education Statistics, 2000), pp. 16-17; and previous *Population Representation* reports.

[26] The annual DoD-sponsored Youth Attitude Tracking Study indicates that young women, depending upon age, are approximately one-half less inclined to join the military than young men.

policy changes concerning women in combat,[27] more women may enter the Services and retention may increase among female members. The gender-integration policy has been in effect for five years—FY 1995 was the first year under the new rules—and during this time there has been a continued gradual increase in the number and percentage of women enlisting in the Services.[28]

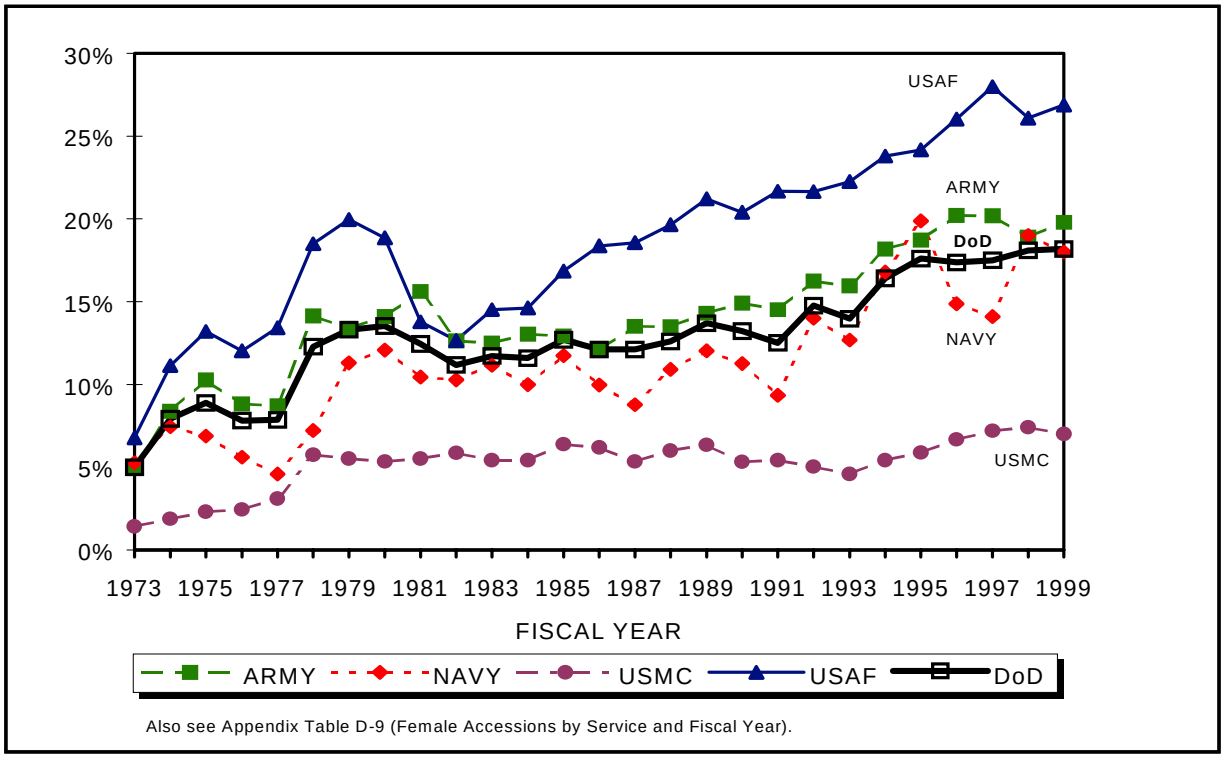

Figure 2.3. Women as a percentage of Active Component NPS accessions, FYs 1973–1999.

Under a gender-neutral recruiting program since FY 1990, the Air Force leads the Services in the proportion of female accessions. The Air Force has increased its proportion of female recruits, from 20 percent in FY 1990 to 27 percent in FY 1999, a slight increase from 26 percent in FY 1998, but not reaching the record-breaking 28 percent of FY 1997 (see Table D-9). When the Navy adopted a gender-neutral recruiting policy in FY 1994, the proportion of women accessions in the Navy increased 3 percentage points (from 17 percent in FY 1994 to 20 percent in FY 1995). However, the Navy dropped its gender-neutral recruiting policy because of the constrained berthing facilities on Navy vessels. The Navy's decision to rescind gender-neutral recruiting may be a factor in the 6-percentage-point drop of female accessions from FY 1995 to

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27 Memorandum from Les Aspin, Secretary of Defense, Subject: Policy on the Assignment of Women in the Armed Forces, April 28, 1993; Memorandum from Les Aspin, Secretary of Defense, Subject: Direct Ground Combat Definition and Assignment Rule, January 13, 1994.

28 Memorandum from William Perry, Secretary of Defense, Subject: Application of the Definition of Direct Ground Combat and Assignment Rule, July 28, 1994.

FY 1997 (from 20 to 14 percent).[29] However, the Navy was able to recruit a significantly larger proportion of women in FYs 1998 and 1999 (19 and 18 percent, respectively).

Marital Status. The majority of accessions are young high school graduates and the military is often their first full-time job. Thus, very few are married. In FY 1999, 9 percent of male and 12 percent of female recruits were married, compared to 53 and 43 percent of male and female enlisted members, respectively. Table 2.6 compares marriage rates of accessions in the Services with 18- to 24-year-old civilians in the labor force. Civilians are more likely to be married than accessions (15 versus 9 percent). Within the Services, Army recruits are most likely to be married (14 percent) and Marine Corps recruits are least likely (4 percent). Figure 2.4 shows marital status trends for FYs 1976–1999 by Service.

Table 2.6. FY 1999 Active Component NPS Accessions Who Are Married, by Gender and Service, and Civilians 18–24 Years Old (Percent)

Gender	Army	Navy	Marine Corps	Air Force	DoD	18- to 24-Year-Old Civilians
Males	13.0	5.9	3.8	9.6	8.6	10.7
Females	17.7	7.0	5.7	10.0	11.9	18.7
Total	14.0	6.1	3.9	9.7	9.2	14.7

Also see Appendix Table B-2 (Marital Status by Age and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

Research shows that marriage is important to a member's long-term career and can enhance individual readiness.[30] This is true if the member is in a strong marriage to a supportive but independent spouse. However, combining marriage and a military career can create challenges for younger Servicemembers as well as for the Service. Entering into marriage just prior to or soon after enlisting can place extra burdens on the recruit, the family, and the military, particularly when frequent or unexpected deployments separate the "new" family. Thus, marital status trends of accessions (and members) are an important characteristic to monitor.

Education. More than 30 years of research indicates that enlistees who are high school graduates are much more likely than non-graduates to complete their first term of enlistment (80 percent versus 50 percent).[31] In the late 1960s and early 1970s, the Services gave high school

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29 Born, D.H., *Women in the Military-Trends 1990 to 1996* (Washington, DC: Office of the Assistant Secretary of Defense [Force Management Policy/Accession Policy]).

30 Office of the Assistant Secretary of Defense (Personnel and Readiness), *Family Status and Initial Term of Service, Volume I – Summary* (Washington, DC: Author, December 1993).

31 See Flyer, E.S., *Factors Relating to Discharge for Unsuitability Among 1956 Airman Accessions to the Air Force* (Lackland AFB, TX: Personnel Research Laboratory, December 1959); Elster, R.E. and Flyer, E.S., *A Study of the Relationship Between Educational Credentials and Military Performance Criteria* (Monterey, CA: Naval Postgraduate School, July 1981); and Lindsley, D.H., *Recruiting of Women*, presented to 1995 Committee on Women in the NATO Forces Conference, June 2, 1995.

graduates, including those with alternative education credentials, higher priority for enlistment. In the mid- to late 1970s, the Army, Navy, and Air Force classified GED holders and high school graduates differently because evidence showed that persons with GED certification experienced higher first-term attrition. Today, in all Services, applicants with GEDs need higher AFQT scores to enlist than do high school diploma graduates.

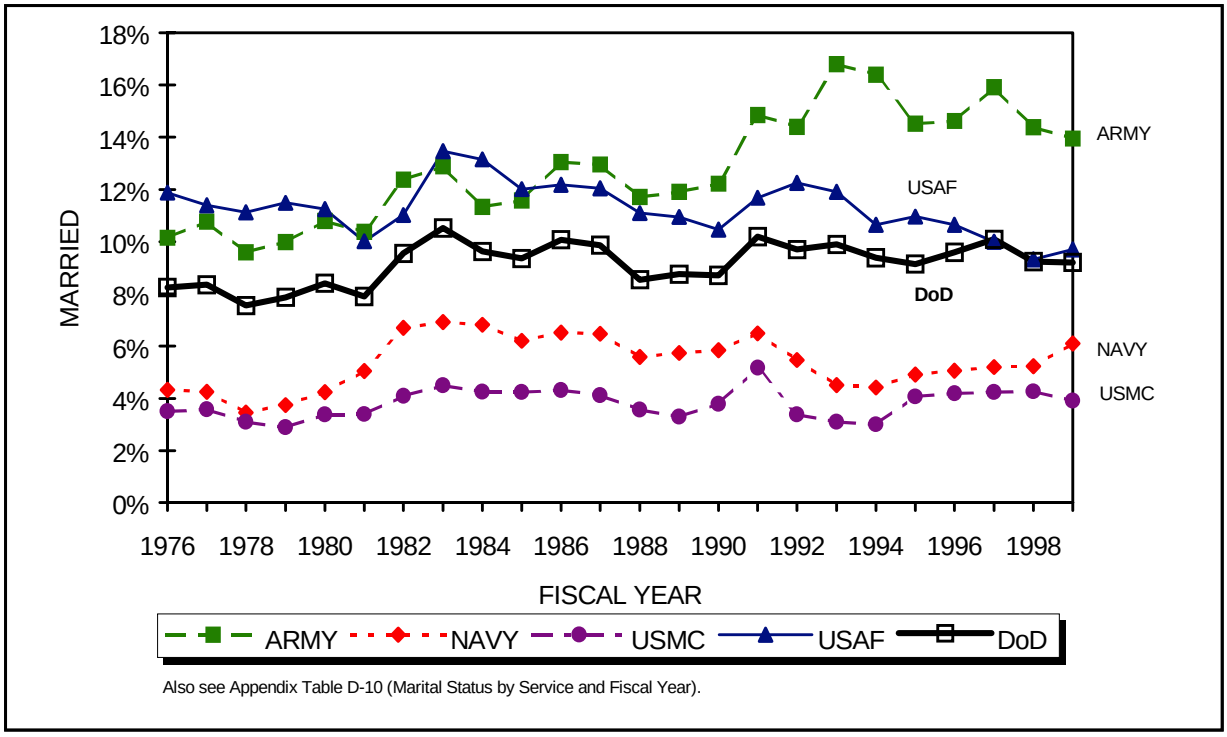

Figure 2.4. Marital status trends of Active Component NPS accessions, by Service, FYs 1976–1999.

Additional research indicates that those with other alternative credentials, such as adult education and correspondence school diplomas, also have attrition rates greater than regular high school graduates.[32] In 1987, DoD implemented a three-tier classification of education credentials. Table 2.7 shows the percentage of FY 1999 active duty NPS accessions by education tier. Ninety-three percent of recruits possessed high school diplomas and/or some college education (Tier 1); 6 percent held alternative high school credentials (Tier 2); and 1 percent had not completed high school (Tier 3). It should be noted that enlisted occupations are generally comparable to civilian jobs not requiring college education.

While 99 percent of FY 1999 accessions were in Tiers 1 and 2, only 79 percent of 18- to 24-year-old civilians were high school graduates or possessed a GED certificate. Differences

[32] Laurence, J.H., *Military Enlistment Policy and Educational Credentials: Evaluation and Improvement* (Alexandria, VA: Human Resources Research Organization, September 1987; Laurence, J.H., Ramsberger, P.F., and Arabian, J.M., *Education Credential Tier Evaluation* (Alexandria, VA: Human Resources Research Organization, September 1996); and Laurence, J.H., *Does Education Credential Still Predict Attrition?* paper presented as part of Symposium, Everything Old is New Again – Current Research Issues in Accession Policy, at the 105th Annual Convention of the American Psychological Association, Chicago, August 1997.

among Services in FY 1999 high school graduate accessions were small, ranging from 99+ percent (Air Force) to 90 percent (Army and Navy). The Army had the highest proportion of recruits with Tier 2 credentials (10 percent); the Air Force had the lowest (less than 1 percent). In FY 1999, the Army and the Air Force did not enlist any applicants without education credentials; the Marine Corps and the Navy accepted very few recruits with no high school credentials (1 and 4 percent, respectively).

Table 2.7 Levels of Education of FY 1999 Active Component NPS Accessions, by Service, and Civilians 18–24 Years Old (Percent)

Education Level[1]	Army	Navy	Marine Corps	Air Force	DoD	18- to 24-Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	90.1	90.0	95.5	99.8	92.8	78.8
Tier 2: GED, Alternative Credentials	9.9	5.8	3.1	0.2	6.0	
Tier 3: No Credentials	0.0	4.2	1.4	0.0	1.2	21.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
College Experience (Part of Tier 1)[2]	6.1	3.8	1.8	16.7	6.6	45.9

Columns may not add to total due to rounding.
* Civilian numbers and percentages combine Tiers 1 and 2 as civilian data include GED certificates with high school graduate rates.
1 Service data from OASD(FMP)(MPP)/Accession Policy have been reviewed and updated by the Services for official submission. Data presented in this table may differ slightly from the data shown in appendix tables that are taken from DMDC's USMEPCOM Edit File.
2 College experience data from the Services are defined as those individuals with the following credentials: associate degree, professional nursing diploma, baccalaureate, master's, post master's, doctorate, first-professional, or completed one semester of college.
Also see Appendix Tables B-7 (Education by Service and Gender) and B-8 (Education by Service and Race/Ethnicity).
Source: Service data from OASD(FMP)(MPP)/Accession Policy—submitted in accordance with DoD Instruction 7730.56. USMC college experience from DMDC's USMEPCOM Edit File. Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

The proportion of accessions with high school diplomas by Service for FYs 1973 through 1999 is shown in Figure 2.5. During most of the first decade of the volunteer military (FYs 1973–1982), the Services differed significantly in the proportion of high school diploma graduates. In addition, there were significant variations across years. Across Services, the proportion of accessions with high school diplomas fell from 75 percent in FY 1978 to 66 percent in FY 1980. The drop was most pronounced in the Army, declining from 73 to 52 percent over that period.

During the mid-1970s, the Services operated with reduced recruiting budgets. At the same time, there were highly publicized reports of shrinking military benefits and significant gaps in pay comparability with the civilian sector. Media articles cited the hemorrhage of talent from the Services due to loss of benefits, and the percentage of Servicemembers eligible for food stamps.

Because of lower education levels of new recruits, lower test scores, and increasing minority representation during this period, debates began on whether to replace the volunteer

force with either a form of national service or a return to the draft.[33] The Executive and Legislative branches of government funded major initiatives to reinvigorate the volunteer military, enhance recruiting programs, and improve Servicemembers' quality of life. Military pay and benefits and recruiting resources were increased substantially in 1981, resulting in a rapid increase in the quality of accessions. The proportion of high school graduate recruits jumped from 66 percent in FY 1980 to 83 percent in FY 1982. Further incentives, such as the Montgomery GI Bill and the Army, Navy, and Marine Corps College Funds, and Service emphasis on improving the quality of life for Servicemembers and their families led to improved recruiting. The proportion of high school graduates climbed to a peak of 98 percent in FY 1992. As previously stated, in FY 1999 the proportion of high school diploma graduates was 93 percent.

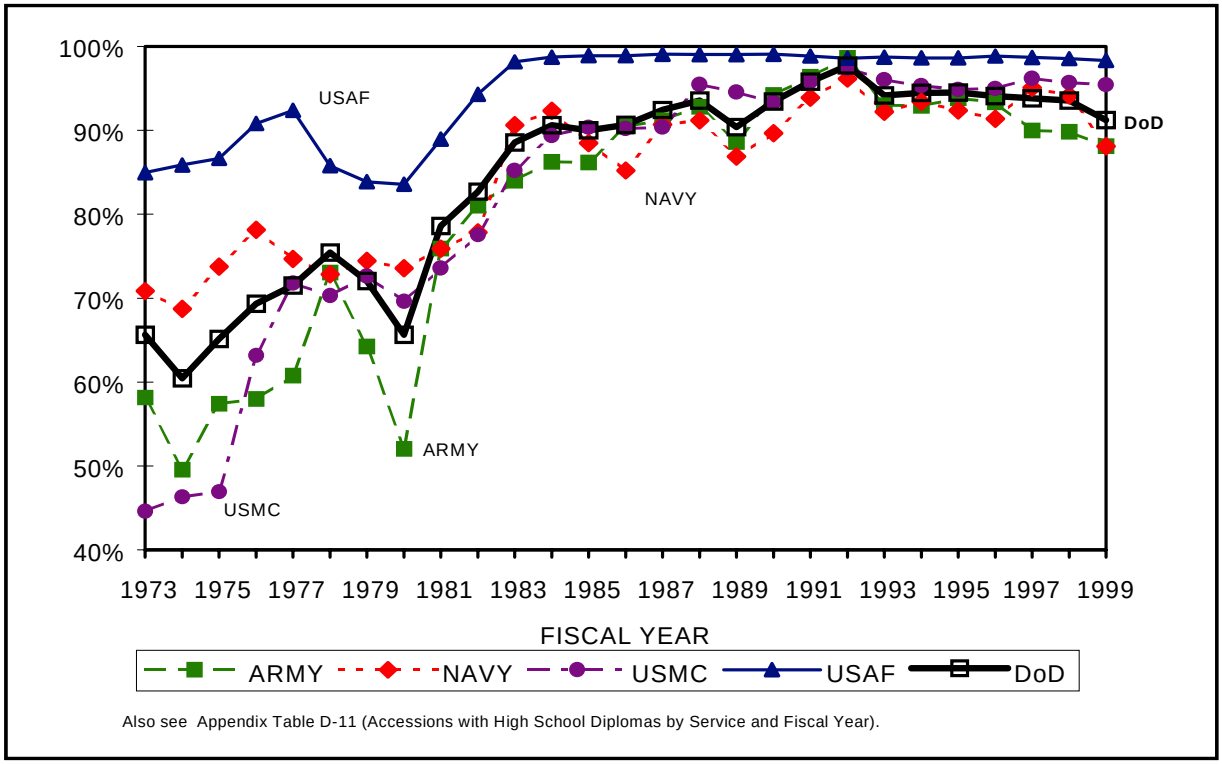

Figure 2.5. Active Component NPS accessions with high school diplomas, FYs 1973–1999.

Figure 2.6 compares FY 1999 accessions with civilians of similar age on the percentage of high school graduates (Tier 1) and those with alternative credentials (Tier 2), by gender and race/ethnicity. Although nearly all military recruits are in Tiers 1 and 2, the same is not true of 18- to 24-year-old civilians. Some dramatic differences in education level, by race/ethnicity, are evident in Figure 2.6. Only 73 percent of Black civilians and 59 percent of Hispanic civilians

[33] In December 1976, the Department of Defense released a report, *The All Volunteer Force: Current Status and Prospects*, that listed seven alternatives to the all volunteer military. On June 20, 1978, the Senate Subcommittee on Manpower and Personnel of the Committee on Armed Services conducted an extensive hearing, *Status of the All-Volunteer Armed Force*, on the problems of a volunteer force and the need to examine alternatives to the all volunteer military.

have high school diplomas or alternative credentials. Given these percentages, the Services' minority recruiting pool is limited. Thus, the race/ethnicity representation comparisons should be interpreted with these data in mind.

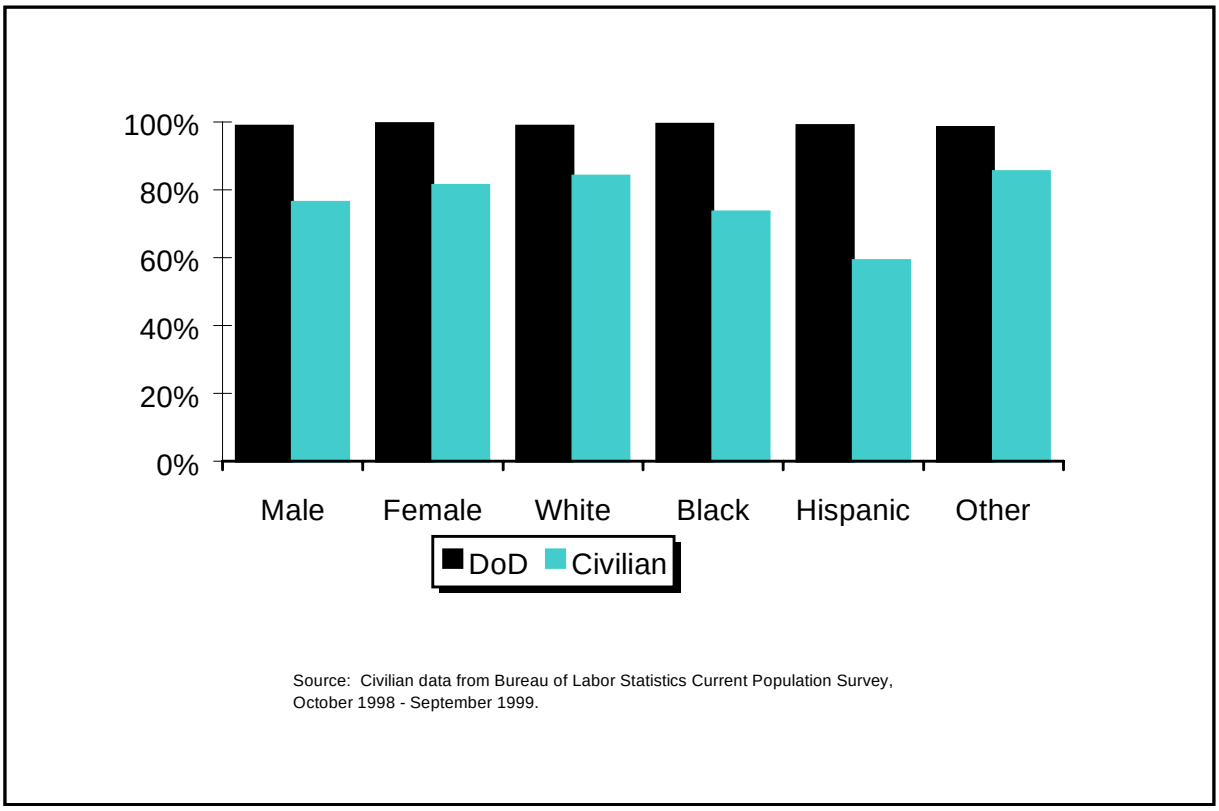

Figure 2.6. FY 1999 accessions and 18- to 24-year-old civilians who earned high school diplomas (Tier 1) or alternative credentials (Tier 2), by gender and race/ethnicity.

AFQT. AFQT scores are the primary measure of recruit potential. Figure 2.7 indicates the percentage of NPS recruits who scored at or above the 50th percentile (Categories I–IIIA) since FY 1973. Numerical data are in Appendix D, Table D-12. The drop in Category I–IIIA recruits after FY 1976 was due primarily to the miscalibration of the ASVAB.[34] In FY 1976, when new versions of the ASVAB were introduced, an error in calibrating the score scales made the new versions "easier" than the old versions (i.e., applicants received test scores higher than their actual ability). In FY 1980, an independent study of the calibration was made and the test was correctly calibrated. Then, Congress added legal provisions stipulating that no more than 20 percent of accessions could be in Category IV and that such accessions had to be high school

[34] See two documents: Sims, W.H. and Truss, A.R., *A Reexamination of the Normalization of Armed Services Vocational Aptitude Battery (ASVAB) Forms 6, 7, 6E, and 7E* (Alexandria, VA: Center for Naval Analyses, September 1980); and Laurence, J.H. and Ramsberger, P.F., *Low-Aptitude Men in the Military: Who Profits, Who Pays?* (New York: Praeger, 1991).

diploma graduates.[35] However, as previously stated, Defense Planning Guidance decreases this limit even further, allowing no more than 4 percent of recruits to come from Category IV.

Figure 2.7 shows FY 1977 as the low point and FY 1992 as the high point in accessing recruits in Categories I to IIIA. In FY 1977, 34 percent of accessions scored in the top half of the AFQT distribution. Only 13 percent of Blacks, 19 percent of Hispanics, and 20 percent of "Others" scored in Categories I–IIIA.[36] Fifteen years later, in FY 1992, the majority of minority accessions achieved scores in the I–IIIA range (Blacks - 56 percent, Hispanics - 67 percent, "Others" - 67 percent). Hispanics have shown the most marked increase, with a 48-percentage-point gain in Category I to IIIA accessions from FY 1977 to FY 1992.

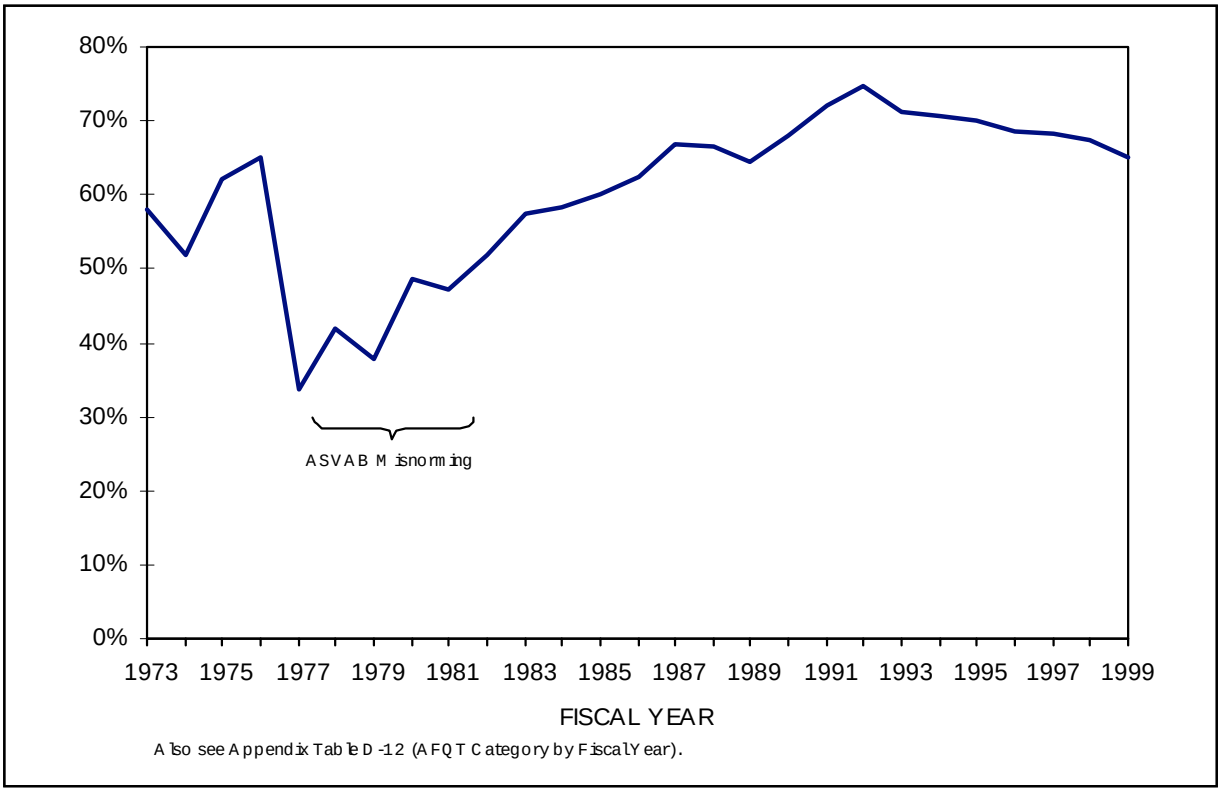

Figure 2.7. Percentage of NPS accessions in AFQT categories I–IIIA, FYs 1973–1999.

A graphic view of the increasing trend in AFQT performance of accessions from FY 1981 through FY 1992 is provided in Figure 2.8. The more significant gains were in Categories I to IIIA, where the percentages increased from 47 percent in FY 1981 to 75 percent in FY 1992. Conversely, there has been a steady decline in the percentage of Category IIIB accessions. Most dramatic has been the decrease in accessions who score in Category IV—from 33 percent in FY 1979 to one percent or less since FY 1991. There has been a gradual decline in the percentage of accessions in Categories I to IIIA in the last seven years, from 75 to 65 percent.

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35 10 U.S.C. 520.

36 Data from Defense Manpower Data Center.

The percentages of FY 1999 active duty NPS accessions in each AFQT category are shown in Table 2.8. The percentage of recruits in Categories I and II was approximately the same as their civilian counterparts (males - 39 versus 39 percent; females - 34 versus 33 percent). Category III accessions greatly exceeded civilian proportions (males - 61 versus 30 percent; females - 66 versus 37 percent), while the percentage of recruits in Category IV was much lower than in the civilian population (males - 1 percent versus 20 percent; females - less than 1 percent versus 22 percent). The low percentage of Category IV recruits is, in part, a result of DoD limits of 4 percent Category IV recruits, with even lower Service limits. Ten percent of civilian males and 9 percent of civilian females scored in Category V; DoD allows no Category V recruits.

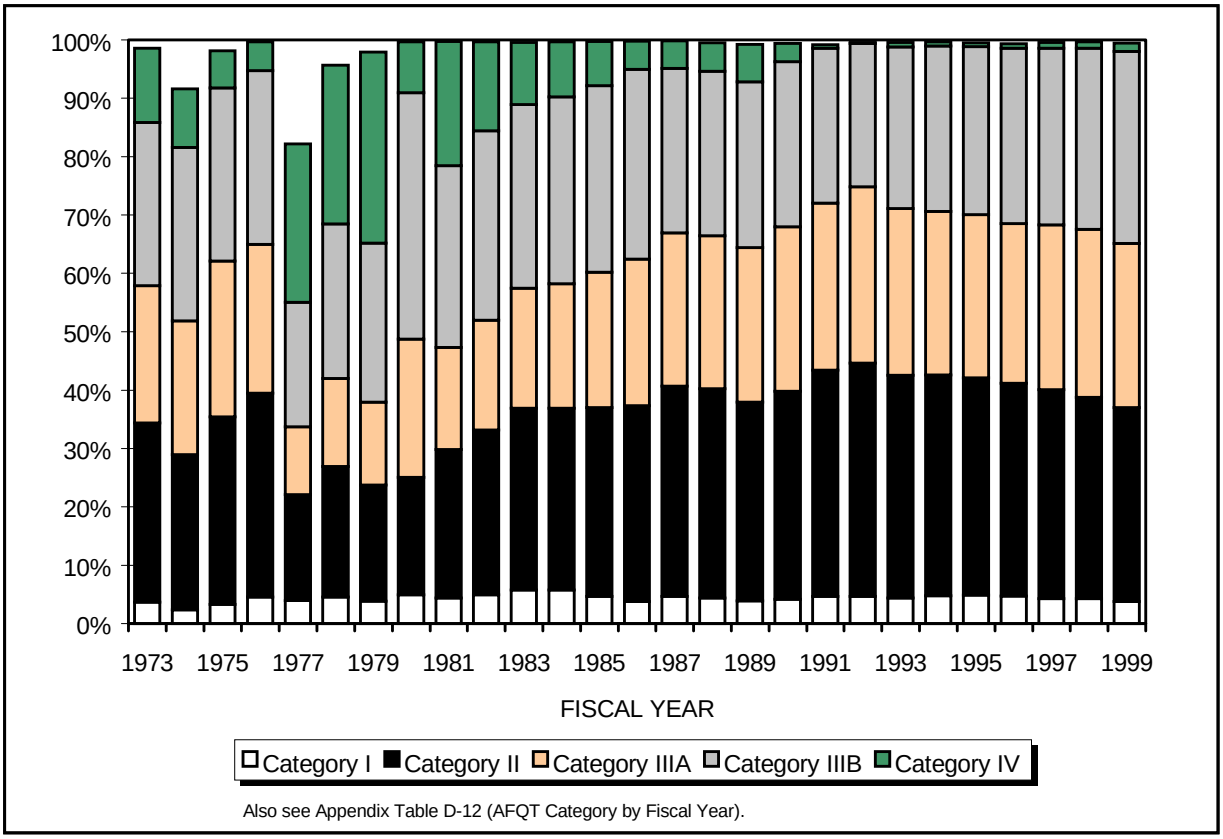

Figure 2.8. Percentage of NPS accessions in AFQT categories I–IV, FYs 1973–1999.

In FY 1999, 66 percent of recruits scored at or above the 50th percentile on the AFQT (Categories I–IIIA). Air Force recruits scored higher than those of the other three Services. Seventy-six percent of Air Force recruits scored in Categories I–IIIA, compared to 63 percent of Army, 64 percent of Marine Corps, and 65 percent of Navy recruits.

High Quality. One impact of the defense drawdown is the Services' redesign of a number of career fields with incumbents assuming a more diverse workload and greater responsibilities.[37] The redesign both increases the number of tasks assigned to an individual, and

[37] See Sellman, W.S., *Since We Are Reinventing Everything Else, Why Not Occupational Analysis?* Keynote address to the 9th Occupational Analyst Workshop, San Antonio, TX, May 31–June 2, 1995.

requires incumbents to perform new tasks of greater complexity. The Services believe that as the levels of job/task difficulty and importance increase, so will the need to bring in and retain greater proportions of individuals with above-average aptitude. The Services define high-quality recruits as high school diploma graduates who score in the top 50 percent on the AFQT, Categories I through IIIA. Figure 2.9 shows the trends in the proportion of high-quality accessions since FY 1973. In FY 1999, the percentage of high-quality recruits ranged from 52 percent in the Army to 72 percent in the Air Force.

Table 2.8. AFQT Scores of FY 1999 Active Component NPS Accessions, by Gender and Service (Percent)

AFQT Category[1]	Army	Navy	Marine Corps	Air Force	DoD
MALES					
I	4.0	4.5	3.1	5.2	4.2
II	30.5	34.1	33.3	44.1	34.3
IIIA	27.9	26.9	27.2	28.6	27.6
IIIB	35.3	34.5	35.4	21.9	32.9
IV	2.3	0.0	1.0	0.2	1.1
V	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0
FEMALES					
I	2.6	2.5	2.9	2.6	2.6
II	29.2	30.7	33.4	35.3	31.5
IIIA	33.2	28.9	31.7	32.8	31.8
IIIB	34.3	37.9	31.7	29.2	33.8
IV	0.7	0.0	0.3	0.1	0.3
V	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
[1] Service data from OASD(FMP)(MPP)/Accession Policy have been reviewed and updated by the Services for official submission. Data presented in this table may differ slightly from the data shown in appendix tables that are taken from DMDC's USMEPCOM Edit File. Also see Appendix Tables B-5 (AFQT by Service and Gender) and B-6 (AFQT by Service and Race/Ethnicity).
Source: Service data from OASD(FMP)(MPP)/Accession Policy—submitted in accordance with DoD Instruction 7730.56. The 1980 civilian comparison group distribution for the total population (males and females) is 7 percent in Category I, 28 percent in Category II, 15 percent in Category IIIA, 19 percent in Category IIIB, 21 percent in Category IV, and 10 percent in Category V. Civilian data from *Profile of American Youth* (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], March 1982).

Reading Ability. Because reading requirements for many military occupations are substantial, reading ability of recruits is important. The reading grade level (RGL) is estimated

by converting the ASVAB verbal composite score to its RGL equivalent.[38] Table 2.9 shows that the mean RGL for FY 1999 recruits was at a level that would be expected of an 11th grade student, compared to 10th grade level for the average FY 1984 accession.

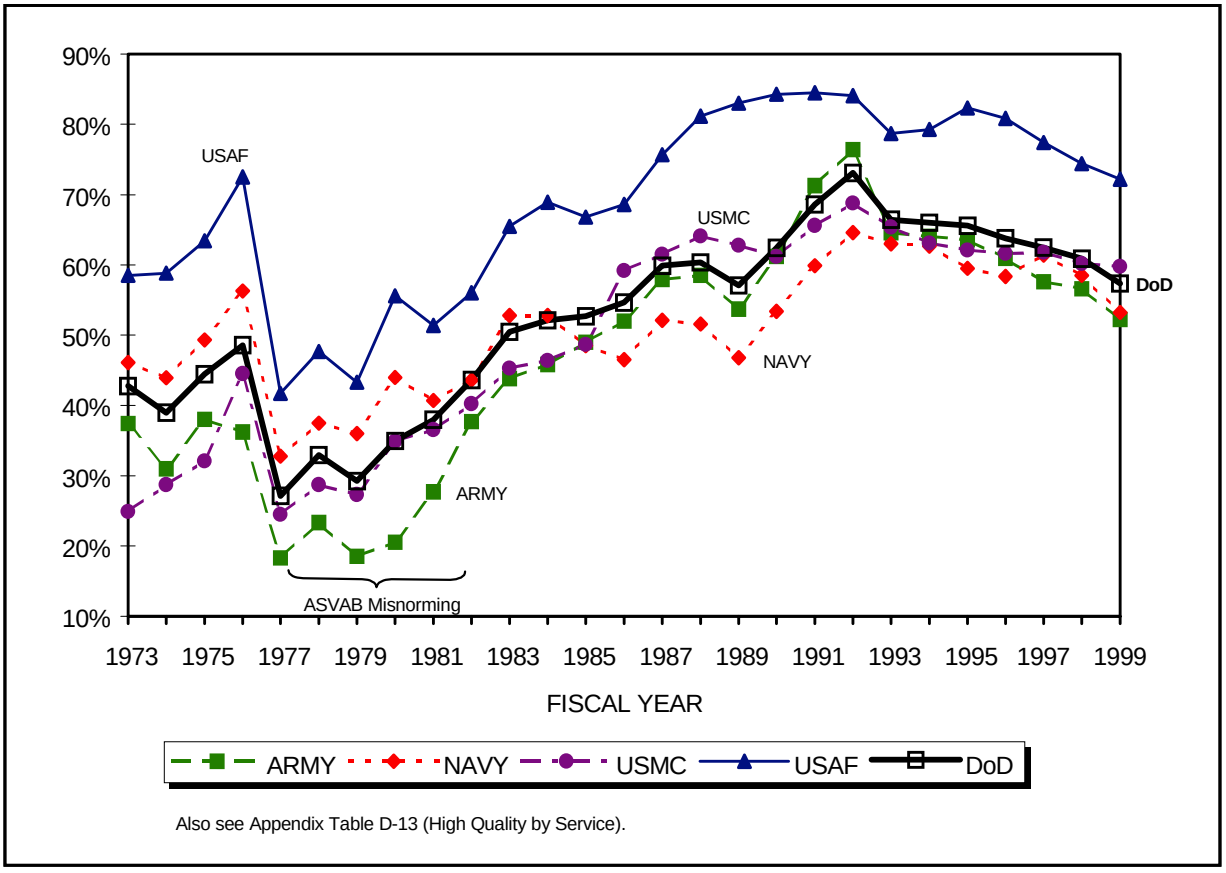

Figure 2.9. Percentage of high-quality NPS accessions, FYs 1973–1999.

Differences in RGL were relatively small in FY 1999, with mean RGLs ranging from 11.0 for the Army to 11.2 for the Air Force. The 1980 nationally representative sample of 18- to 23-year-olds, on whom ASVAB scores are based, read at a mean 10th grade level.

Geography. The percentages of recruits from some census regions of the United States have remained fairly stable since the inception of the volunteer force. However, as Figure 2.10 illustrates, in other regions some substantial shifts have taken place. The percentage of accessions from the Northeast dropped 8 points from a high of 22 percent in FY 1977 to a low of 14 percent in FY 1989. Today, 15 percent of enlisted recruits are Northeasterners. The proportion of accessions from the South increased 9 percentage points from 34 percent in FY 1985 to 43 percent in FY 1995. In FY 1999, 43 percent of new recruits were from the South.

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38 See Waters, B.K., Barnes, J.D., Foley, P., Steinhaus, S.D., and Brown, D.C., *Estimating the Reading Skills of Military Applicants: The Development of an ASVAB to RGL Conversion Table* (Alexandria, VA: Human Resources Research Organization, October 1988).

Changes in geographical representation are related to factors such as shifts in demographic patterns, unemployment, college enrollment, and employment compensation rates, which vary widely across regions of the country.[39] Obviously, no one factor can explain variations in enlistment rates between different sections of the country; they are more likely attributable to a wide array of economic, social, and demographic factors.

Table 2.9. Mean Reading Grade Level of FY 1984–1999 Active Component NPS Accessions, By Service, and 1980 Civilians 18–23 Years Old

Fiscal Year	Army	Navy	Marine Corps	Air Force	DoD	1980 Civilian Youth Population
1984	10.0	10.2	9.8	10.5	10.1	
1985	10.6	10.5	10.1	10.8	10.6	
1986	11.2	11.0	11.1	11.4	11.1	
1987	11.2	11.1	11.2	11.6	11.2	
1988	11.2	11.1	11.2	11.5	11.2	
1989	11.1	11.0	11.2	11.4	11.2	
1990	11.2	11.1	11.2	11.7	11.3	
1991	11.4	11.0	11.3	11.7	11.3	10.3
1992	11.5	11.4	11.3	11.7	11.5	
1993	11.5	11.5	11.2	11.8	11.5	
1994	11.4	11.3	11.2	11.7	11.4	
1995	11.3	11.3	11.2	11.7	11.4	
1996	11.3	11.3	11.1	11.7	11.4	
1997	11.2	11.2	11.1	11.6	11.3	
1998	11.2	11.2	11.1	11.5	11.2	
1999	11.0	11.1	11.1	11.2	11.1	

Source: 1980 civilian youth population data from the *Profile of American Youth* (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], March 1982); and Waters, et al., *Estimating the Reading Skills of Military Applicants: The Development of an ASVAB to RGL Conversion Table* (Alexandria, VA: Human Resources Research Organization, October 1988).

Table 2.10 presents FY 1999 accession statistics by geographic region, division, and state. The third and fourth columns show percentages of accessions and percentages of the 18- to 24-year-old civilian population, respectively, in each area. The fifth column presents military/civilian representation ratios—the percentage of enlisted accessions divided by the percentage of civilians in each area. A representation ratio of 1.00 means that the area has the same proportion of accessions as of the youth population—for example, 8 percent of all recruits and 8 percent of all youth aged 18–24. A ratio of less than 1.00 means that relatively few youth in an area enlist in the military, while a ratio of more than 1.00 indicates above-average market penetration. The last two columns of the table present the percentages of high-quality accessions (high school graduates in AFQT Categories I–IIIA) and mean AFQT scores for each area.

[39] Kostiuk, P.F., *Geographic Variations in Recruiting Market Conditions* (Alexandria, VA: Center for Naval Analyses, 1989).

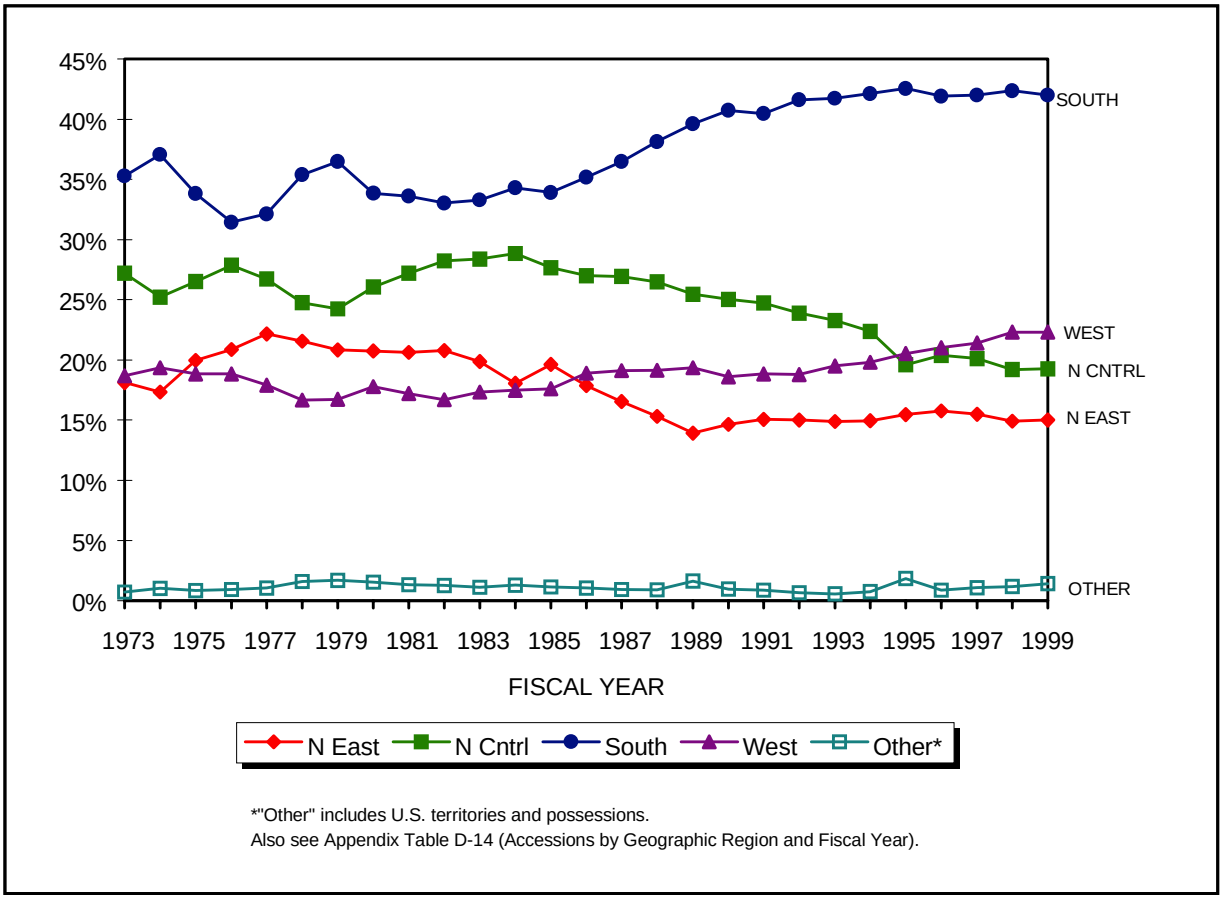

Figure 2.10. NPS accessions by geographic region, FYs 1973–1999.

The South region had the greatest ratio of enlistees (1.2). The South Atlantic and West South Central divisions had the strongest representation (1.3 each). The Northeast and North Central regions had representation ratios of 0.8 and the West region had a representation ratio of 1.0.

Slightly more than half of the states had representation ratios of 1.0 or more. These included: Maine and New Hampshire in the Northeast; Missouri and North and South Dakota in the North Central; all states except Utah and California in the West; and all states except Kentucky and the District of Columbia in the South. Among all states and the District of Columbia, the ratios ranged from a low of 0.6 in Massachusetts, Minnesota, the District of Columbia, and Utah to a high of 1.6 in Maine, Oklahoma, and Wyoming.

The sixth column of Table 2.10 shows the proportion of high-quality accessions by geographical area. There were only minor differences by region in FY 1999. The proportion of high-quality accessions by region ranged from a low of 55 percent in the South to a high of 61 percent in the North Central region. Differences across divisions were somewhat larger. Nearly 9 percentage points separated the East South Central and West North Central divisions. Differences at the state level were still larger, ranging from 43 percent in the District of Columbia to 73 percent in North Dakota.

Table 2.10. Selected Statistics for FY 1999 NPS Accessions by Region, Division, and State, and Civilians 18--24 Years Old

CENSUS REGION CENSUS DIVISION STATE	Area's Contribution of All NPS Accessions	Area's Percent of All NPS Accessions	Area's Percent of All 18- to 24-Year-Olds	Represen-tation Ratio	Percent of High-Quality Accessions*	Mean AFQT Percentile Score
NORTHEAST REGION	27,568	15.2	18.1	0.8	58.6	59.1
New England Division	*6,297*	*3.5*	*4.3*	*0.8*	*61.6*	*60.4*
Maine	1,100	0.6	0.4	1.6	63.1	61.0
New Hampshire	772	0.4	0.3	1.2	68.9	64.0
Vermont	319	0.2	0.2	0.9	69.6	64.4
Massachusetts	2,297	1.3	2.2	0.6	59.9	59.8
Rhode Island	509	0.3	0.3	0.9	55.4	57.6
Connecticut	1,300	0.7	0.9	0.8	59.3	59.0
Middle Atlantic Division	*21,271*	*11.7*	*13.8*	*0.8*	*57.8*	*58.7*
New York	10,104	5.6	6.6	0.8	56.0	58.3
New Jersey	3,945	2.2	2.9	0.7	56.2	57.3
Pennsylvania	7,222	4.0	4.3	0.9	61.1	59.9
NORTH CENTRAL REGION	35,396	19.5	23.4	0.8	60.5	60.4
East North Central Division	*24,458*	*13.5*	*16.4*	*0.8*	*59.8*	*60.0*
Ohio	6,829	3.8	4.2	0.9	59.8	59.8
Indiana	3,350	1.8	2.0	0.9	64.6	62.0
Illinois	6,872	3.8	4.4	0.9	56.0	58.6
Michigan	5,008	2.8	3.8	0.7	59.1	59.4
Wisconsin	2,399	1.3	1.9	0.7	65.5	63.2
West North Central Division	*10,938*	*6.0*	*7.1*	*0.9*	*62.0*	*61.3*
Minnesota	1,908	1.1	1.7	0.6	64.6	62.6
Iowa	1,468	0.8	1.1	0.7	66.0	63.1
Missouri	3,822	2.1	2.0	1.0	57.9	59.1
North Dakota	411	0.2	0.2	1.0	73.2	64.6
South Dakota	592	0.3	0.3	1.0	67.9	62.9
Nebraska	1,111	0.6	0.7	0.9	62.3	62.7
Kansas	1,626	0.9	1.0	0.9	60.2	61.0
SOUTH REGION	77,201	42.6	34.8	1.2	55.2	57.5
South Atlantic Division	*38,008*	*21.0*	*16.8*	*1.3*	*54.8*	*57.4*
Delaware	461	0.3	0.3	1.0	59.4	59.1
Maryland	3,693	2.0	1.5	1.4	56.9	58.1
District of Columbia	254	0.1	0.2	0.6	42.9	52.0
Virginia	5,733	3.2	2.2	1.5	55.3	58.2
West Virginia	1,618	0.9	0.7	1.3	54.5	57.1
North Carolina	5,085	2.8	2.7	1.0	54.8	57.4
South Carolina	3,635	2.0	1.3	1.5	51.4	55.4
Georgia	6,073	3.4	2.7	1.2	52.7	56.2
Florida	11,456	6.3	5.2	1.2	56.1	58.3
East South Central Division	*11,727*	*6.5*	*6.0*	*1.1*	*53.2*	*56.7*
Kentucky	2,376	1.3	1.4	0.9	57.0	57.7
Tennessee	3,224	1.8	1.8	1.0	57.1	59.3
Alabama	3,898	2.2	1.7	1.3	51.0	55.8
Mississippi	2,229	1.2	1.1	1.1	47.6	53.4
West South Central Division	*27,466*	*15.2*	*12.0*	*1.3*	*56.6*	*57.9*
Arkansas	2,207	1.2	1.0	1.2	51.9	56.4
Louisiana	3,923	2.2	1.9	1.1	51.8	54.3
Oklahoma	3,286	1.8	1.1	1.6	57.0	58.4
Texas	18,050	10.0	8.0	1.3	58.1	58.8

(Continued)

Table 2.10. Selected Statistics for FY 1999 NPS Accessions by Region, Division, and State, and Civilians 18–24 Years Old (Continued)

CENSUS REGION CENSUS DIVISION STATE	Area's Contribution of All NPS Accessions	Area's Percent of All NPS Accessions	Area's Percent of All 18- to 24-Year-Olds	Represen-tation Ratio	Percent of High-Quality Accessions*	Mean AFQT Percentile Score
WEST REGION	41,012	22.6	23.6	1.0	58.8	59.5
Mountain Division	*13,215*	*7.3*	*6.9*	*1.1*	*60.4*	*61.0*
Montana	1,037	0.6	0.4	1.5	63.7	62.6
Idaho	1,145	0.6	0.5	1.2	63.6	63.5
Wyoming	534	0.3	0.2	1.6	58.8	61.9
Colorado	2,683	1.5	1.4	1.0	60.3	61.9
New Mexico	1,732	1.0	0.6	1.5	57.0	58.0
Arizona	3,523	1.9	2.0	1.0	60.1	60.0
Utah	1,130	0.6	1.1	0.6	61.9	62.7
Nevada	1,431	0.8	0.6	1.3	59.4	60.4
Pacific Division	*27,797*	*15.3*	*16.7*	*0.9*	*58.1*	*58.8*
Washington	3,899	2.2	2.1	1.0	62.3	63.3
Oregon	2,366	1.3	1.3	1.0	65.4	63.2
California	20,048	11.1	12.7	0.9	56.5	57.6
Alaska	550	0.3	0.2	1.5	59.6	61.5
Hawaii	934	0.5	0.4	1.2	54.6	55.3
Total (50 STATES + D.C.)	181,177**	100.0	100.0	1.0	57.6	58.8

Columns may not add to total due to rounding.
* High-quality accessions are high school graduates who score at or above the 50th percentile on the AFQT. This column is the number of high-quality accessions in area divided by the total number of accessions in area.
** Does not include 2,591 recruits from the territories and unknowns.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

The last column of Table 2.10 shows the mean AFQT score by each geographical area. Occasionally interest has been expressed in using AFQT scores as an indicator of the performance of state educational systems. AFQT statistics are not particularly suitable for this purpose for several reasons. As a sample of youth in a state, ASVAB test-takers reflect a number of selection biases, the total effect of which is unknown. Those who take the test as part of the enlistment process exclude many students who intend to enroll in college, prospects who fail the enlistment screening test, and youth who do not have an interest in military enlistment. Therefore, youth who take the ASVAB should not be presumed to be representative of the communities or school systems from which they are drawn. Even without the biases, it would be difficult to determine how much the test scores reflect differences in school performance from state to state, or how much they reflect other state characteristics, such as social composition and economic conditions. In sum, while the ASVAB is an excellent instrument for the purposes for which it was designed, it does not provide valid state-by-state school performance data.

Nevertheless, AFQT scores by state may be of interest for purposes other than assessing school system performance. The AFQT figures in Table 2.10 reflect the mean AFQT percentile scores for accessions in each state. Percentiles displayed in Table 2.10 are all above 50 because low-scoring applicants are screened out.

Chapter 3

ACTIVE COMPONENT ENLISTED FORCE

At the end of Fiscal Year 1999, enlisted force end-strength was 1.15 million, down from 1.17 million in FY 1998. Enlisted end-strength has dropped each year since FY 1987, when the Active Component counted 1.85 million enlisted members, which was more than in any year since FY 1974. Figure 3.1 displays trend lines by Service for the active duty enlisted force size since FY 1973, and Appendix Table D-15 provides end-strength data by year and by Service for FYs 1964 and 1973 through 1999.

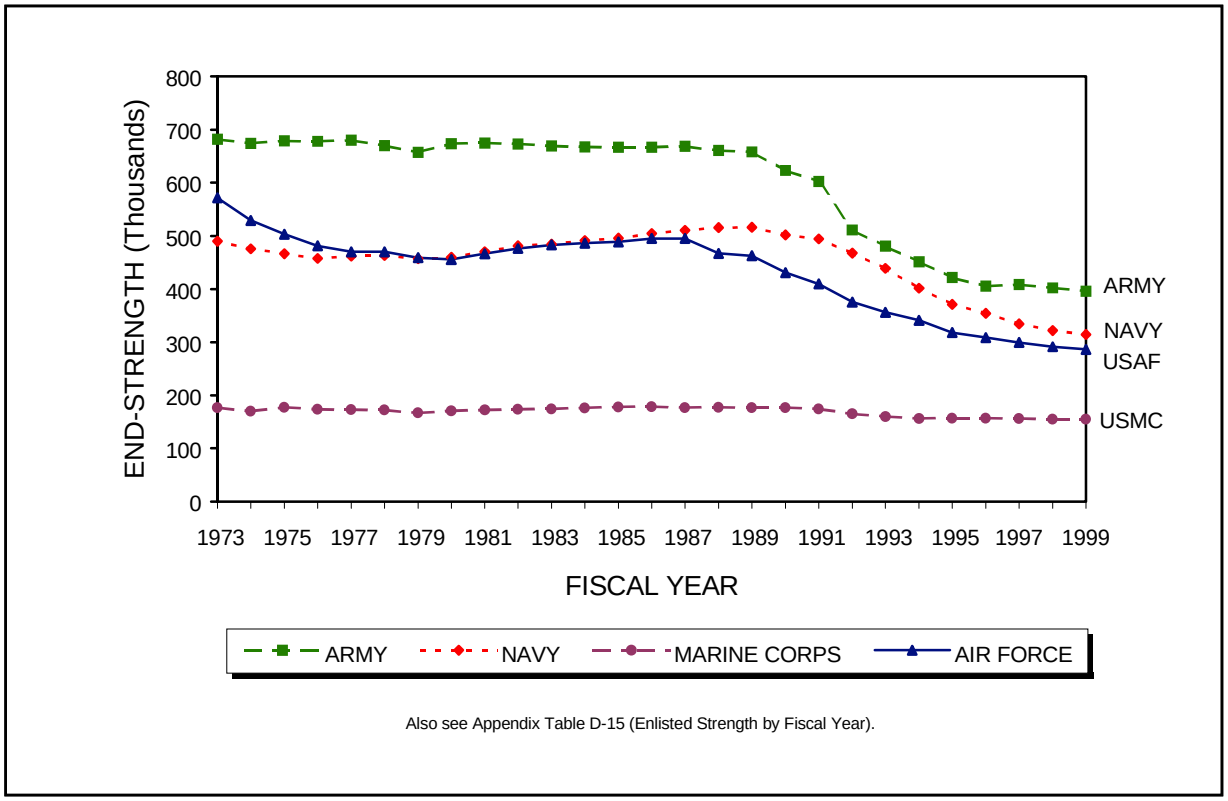

Figure 3.1. Active Component enlisted force end-strength, by Service, FYs 1973–1999.

Characteristics of Active Component Enlisted Force

Age. Trained person-years are equal in importance to aggregate end-strength when evaluating personnel readiness. Greater proportions of trained person-years reduce training costs and enable the Services to cut recruiting objectives. To gain increased person-years with the same number of Servicemembers, DoD and Service planners increase the mean initial term of enlistment and restructure the mix of first-term and career force personnel.

The mean number of months in service per enlisted Servicemember is highlighted in Figure 3.2. Mean time in service rose from 75 months in FY 1987 to 90 months in FY 1994 and then dropped slightly to 87 months in FY 1999. Although the cumulative effect of various policies put in place since the early 1980s resulted in an increase in the mean age of the Services'

enlisted force from 25 years old in FY 1980 to more than 27 years old in FY 1997, current retention problems have led to a slight decrease in mean age and time in service in FY 1999.

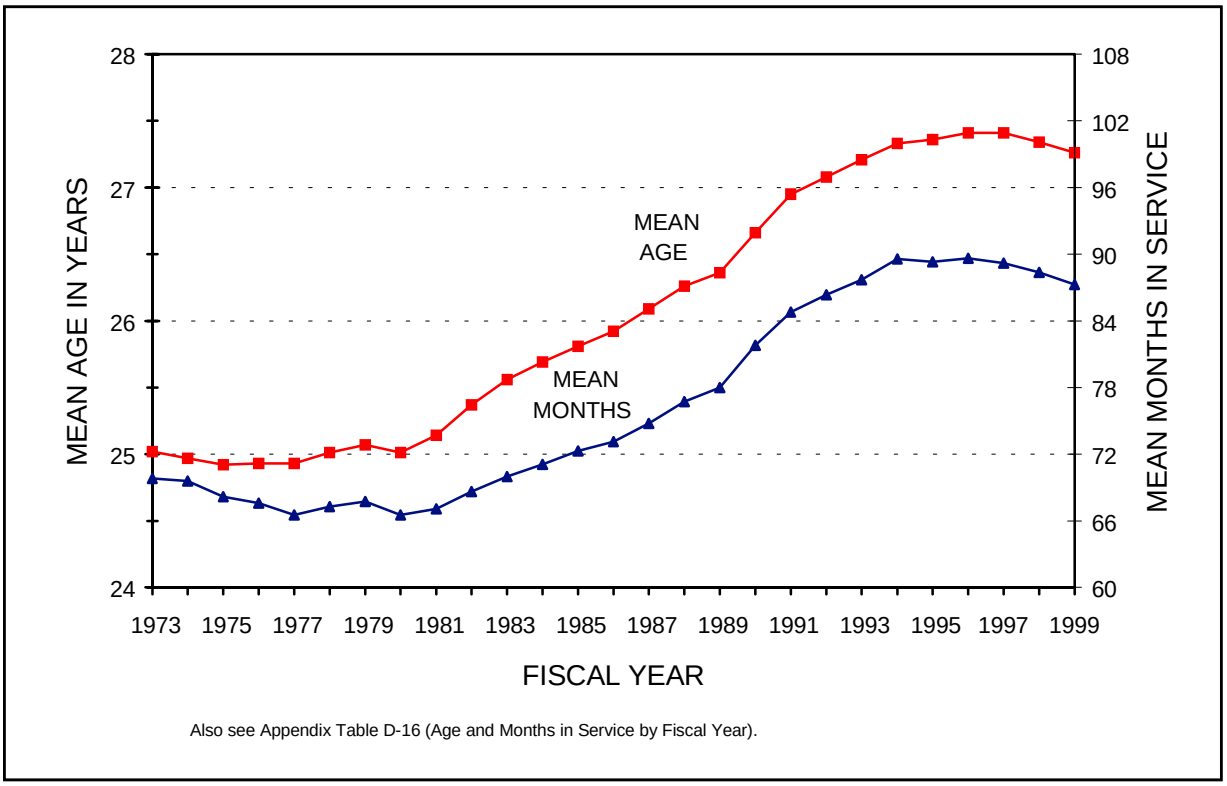

Figure 3.2. Active Component enlisted force average age and months in service, FYs 1973–1999.

Force structure, retention, and personnel policies govern the distribution of Servicemembers by occupation and grade. These factors have resulted in an overall DoD force profile wherein approximately half the force (51 percent) has less than 6 years of service, with slightly less than half (45 percent) having 6 to 19 years, and 4 percent having more than 20 years.[1] Pay grade and time in service are highly correlated. Paralleling the years in service data, pay grade distributions include slightly more than half of the enlisted force in pay grades E1 through E4 (54 percent) and slightly less than half in pay grades E5 through E9 (46 percent), as shown in Table 3.1. Progression from E1 and E2 (trainees) to E3 occurs quickly; consequently, relatively few enlisted members are in pay grades E1 and E2 (15 percent). Nearly three-quarters (74 percent) of the enlisted force are in pay grades E3 through E6. Service differences primarily are the result of retention trends as well as the force structure and personnel requirements needed to support Service-unique roles and missions. Thus, time in service and pay grade data should be interpreted cautiously.

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1 See Timenes, N., Jr., *Force Reductions and Restructuring in the United States*, presented to NATO Seminar on Defense Policy and Management, Brussels, Belgium, July 2, 1992. The derived force was based on the distribution by years of service from FY 1987 through FY 1989—a period of stable funding preceding the drawdown.

Table 3.1. FY 1999 Pay Grade of Active Component Enlisted Members, by Service (Percent)					
Pay Grade	Army	Navy	Marine Corps	Air Force	DoD
E1	7.0	7.7	8.8	4.5	6.8
E2	8.3	8.5	13.6	4.7	8.2
E3	13.9	14.2	27.0	17.1	16.5
E4	26.3	20.9	18.2	22.5	22.8
E5	17.6	21.4	14.7	24.3	20.0
E6	14.1	17.0	9.0	13.9	14.2
E7	9.3	7.3	5.8	9.9	8.5
E8	2.7	2.0	2.2	2.1	2.3
E9	0.8	1.0	0.8	1.0	0.9
Unknown	*	*	0.0	0.0	*
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Less than one-tenth of one percent.
Also see Appendix Table B-46 (Active Component by Pay Grade and Service).

In FY 1999, 46 percent of the enlisted force was 17–24 years old, yet a little more than 1 percent was older than 44, as shown in Table 3.2. For those who make the military a career, the 20-year retirement option results in many leaving service while in their late 30s and early 40s. In the Army, Navy, and Marine Corps, a large proportion of the enlisted force was under age 25 (46, 43, and 68 percent, respectively). Marine Corps members were the “youngest” with more than two-thirds under age 25, and 3 percent 40 years or older. Air Force members were the "oldest" with 37 percent under age 25, and 8 percent older than 39. The Marine Corps traditionally has the youngest accessions. Historically, the Air Force has experienced higher enlisted retention rates than the other Services, contributing to somewhat “older” enlisted members. Although the Air Force did not meet their FY 1999 retention goals, Air Force retention, particularly in the first term, was higher than retention in the other Services.

Although 46 percent of the enlisted force was in the 17–24 age group, approximately 15 percent of the civilian labor force fell in this range. At the other end of the distribution, just over one-fifth of the civilian labor force was 50 years old or older, compared with two-tenths of one percent of enlisted members.

Race/Ethnicity. The military attracts and retains higher proportions of Blacks and "Other" minority groups but lower proportions of Hispanics than are in the civilian labor force. As Table 3.3 indicates, the overall proportion of enlisted minorities was higher than in the civilian labor force in FY 1999 (37 and 30 percent, respectively). While Hispanics were underrepresented among enlisted members (9 percent versus 13 percent), the Services have made gains since 1987, when only 4 percent of the enlisted force was Hispanic.

Table 3.2. FY 1999 Age of Active Component Enlisted Members, by Service, and Civilian Labor Force 17 and Older (Percent)						
Age	Army	Navy	Marine Corps	Air Force	DoD	Civilian Labor Force
17–19	11.3	11.0	18.2	7.7	11.3	4.9
20–24	34.2	32.4	49.3	29.0	34.5	10.0
25–29	22.6	19.9	15.4	19.4	20.1	11.1
30–34	15.0	15.0	7.5	16.3	14.3	12.0
35–39	11.4	14.7	6.7	19.5	13.7	13.6
40–44	4.2	5.3	2.4	6.9	4.9	13.8
45–49	1.1	1.4	0.6	1.2	1.1	11.8
50+	0.2	0.2	0.1	0.1	0.2	22.7
Unknown	*	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Less than one-tenth of one percent.
Also see Appendix Table B-23 (Active Component by Age Group, Service, and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Table 3.3. FY 1999 Race/Ethnicity of Active Component Enlisted Members, by Service, and Civilian Labor Force 18–44 Years Old (Percent)						
Race/ Ethnicity	Army	Navy	Marine Corps	Air Force	DoD	18- to 44-Year-Old Civilians
White	55.6	61.7	66.0	72.2	62.8	70.1
Black	29.4	20.3	16.5	18.0	22.3	12.6
Hispanic	8.3	9.4	12.9	5.4	8.5	12.5
Other	6.8	8.6	4.6	4.5	6.4	4.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Table B-25 (Race/Ethnicity by Service and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

In FY 1999, 22 percent of the enlisted force was Black, compared with 13 percent of the civilian labor force (18–44 year-olds). This near 2:1 ratio for Black members was higher than for FY 1999 accessions, primarily because retention was higher among Blacks than Whites. The Army had the highest proportion of Black enlisted members in FY 1999 (29 percent).

Changes over time in the percentage of Black enlisted members in each Service are shown in Figure 3.3. Black soldiers in the Army increased from 18 percent in FY 1973 to a high of 33 percent in FY 1981. That proportion decreased to 30 percent by the mid-1980s, in large part due to an increase in entrance standards and the Army's decision not to renew enlistment

contracts of low-scoring members who entered during the ASVAB misnorming. The proportion of Blacks in the Army has remained stable since FY 1993 at 30 percent.

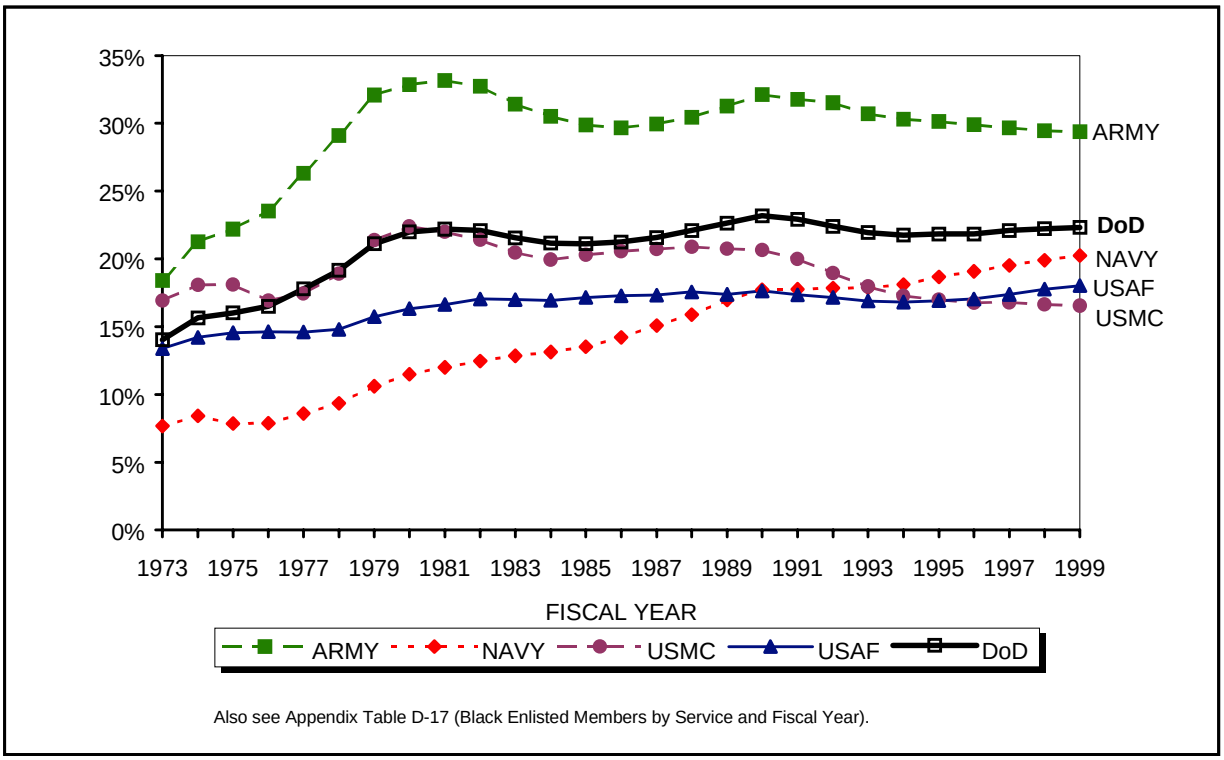

Figure 3.3. Blacks as a percentage of Active Component enlisted members, by Service, FYs 1973–1999.

The Marine Corps has experienced slight decreases in Blacks during recent years, paralleling the drop in minority accessions in FY 1991 and the concomitant decrease in the propensity to enlist among Black youth. Black male propensity declined 13 percentage points between 1991 and 1999.[2] The Navy, on the other hand, exhibited a consistent long-term increase in the proportion of Blacks, from 8 percent in FY 1973 to 20 percent in FY 1999. In all Services, the percentage of female members who are Black significantly exceeds the percentage of male members who are Black (Appendix Table B-25).

In FY 1999, active duty Hispanic enlisted members were a smaller part of the enlisted force than of the civilian labor force in the 18–44 age group (9 percent and 13 percent, respectively). The highest representation of Hispanics was in the Marine Corps (13 percent). The proportions of "Other" minority individuals in the Army and Navy were similar (7 and 9 percent, respectively), while the Marine Corps and Air Force had somewhat less (5 percent for both).

Gender. Trends in the percentage of enlisted women since FY 1973 are shown in Figure 3.4 (Appendix Table D-19 provides numerical data). Thirty years ago, because of legal

[2] Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.

restrictions, women constituted less than 2 percent of military members. In 1967, Public Law 90-30 removed the 2-percent cap on women in the military.[3] However, policies, particularly those related to the roles of women, did not change accordingly. It took nearly 20 years for the Services to achieve 10 percent representation of women.

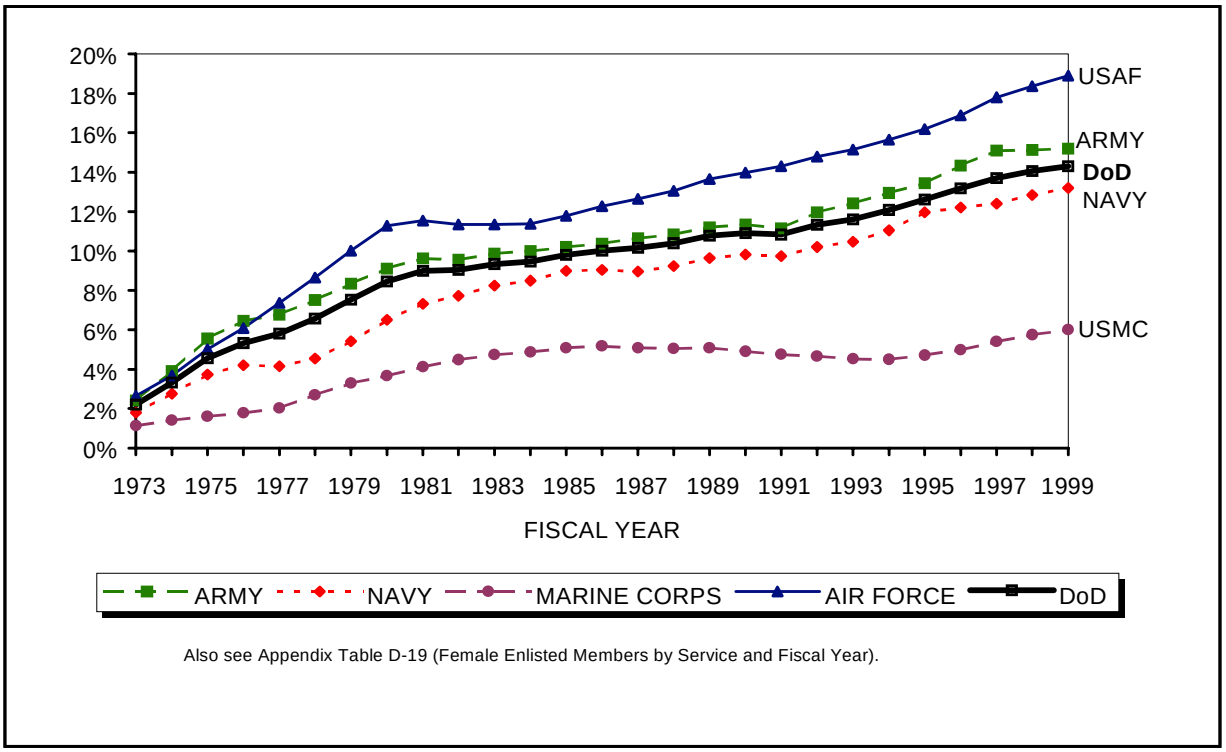

Figure 3.4. Women as a percentage of Active Component enlisted members, by Service, FYs 1973–1999.

Four factors affect the proportion of enlisted female members. First, women have a lower inclination to enlist than men do[4]; only 15 percent of females age 16–21 planned to enlist in 1999 compared to 29 percent of males ages 16–21.[5] Second, combat exclusion policies restrict the positions and skills in which women may serve. However, as directed by former Secretary of Defense Les Aspin, the Services have opened more positions for women. Third, the military personnel system is a "closed" system. Growth must come from within, and from the bottom up; lateral entries play virtually no role. Consequently, the gender structure of the career force is shaped primarily by the proportion of females recruited. Fourth, women leave the Services at a higher rate than men. Thus, the percentage of women in the military may not change much from current levels unless there are significant increases in female recruiting or retention.

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3 Born, D.H. and Lehnus, J.D., *The World of Work and Women at War*, paper presented at the International Military Testing Association, Toronto, Canada, October 1995.

4 Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.

5 Ibid.

As a result of policy and social changes, the number of active duty enlisted women increased from nearly 32,000 in FY 1972 to a pre-drawdown peak of 196,000 in FY 1989, then down to 160,000 in FY 1995. The number and proportion of women has increased to nearly 165,000, more than 14 percent, in FY 1999. The increase in women in the military since FY 1972 brought about significant changes across all aspects of personnel management: in training programs and physical fitness regimens, in assignments, in living arrangements, and in medical services. It also created new administrative issues regarding pregnancy, the proportion of single parents in the military, child care arrangements during peacetime and deployment, and dual-service marriages (where husband and wife both serve in uniform).

Nearly all career fields (92 percent) are now open to women: 91 percent in the Army, 96 percent in the Navy, 93 percent in the Marine Corps, and 99 percent in the Air Force.[6] Gradual increases in the proportion of women in the military underscore the Services' commitment to recruit and retain women.

As shown in Table 3.4, the Air Force has the highest proportion of women on active duty (19 percent), while the Marine Corps has the lowest (6 percent). Percentages in the Army and Navy are 15 and 13 percent, respectively. The differences are primarily a function of the proportion of positions closed to women in each Service. Overall, the proportion of enlisted women has gradually increased (about half a percentage point each year) over the past six years, from 11.6 to 14.3 percent from FY 1993 to FY 1999 (Appendix Table D-19).

Table 3.4. FY 1999 Gender of Active Component Enlisted Members, by Service, and Civilian Labor Force 18–44 Years Old (Percent)

Gender	Army	Navy	Marine Corps	Air Force	DoD	18- to 44-Year-Old Civilians
Male	84.8	86.8	94.0	81.1	85.7	53.5
Female	15.2	13.2	6.0	18.9	14.3	46.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Also see Appendix Table B-23 (Age by Service and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Marital Status. Although only 9 percent of first-time enlisted recruits are married, a majority of enlisted Servicemembers are (52 percent). By the end of the first term of service (typically four years), approximately 42 percent of male enlisted members have become married.[7] Trends in marital status of active duty members are shown in Figure 3.5. The proportion of married enlisted members declined from FY 1977 (50 percent) to FY 1980 (47 percent). In FY 1981 the proportion began to increase until a peak of 57 percent in FY 1994. Since FY 1994, the proportion of married members has dropped to less than 52 percent in FY 1999. Marital status

6 News release from Office of the Assistant Secretary of Defense (Public Affairs), "Secretary of Defense Perry Approves Plans to Open New Jobs for Women in the Military," July 29, 1994.

7 Department of Defense, *Family Status and Initial Term of Service*, Volume I-Summary (Washington, DC: Office of the Assistant Secretary of Defense [Personnel and Readiness], December 1993).

varies by Service. Air Force members are most likely to be married (61 percent), while Marines are least likely to be married (41 percent).

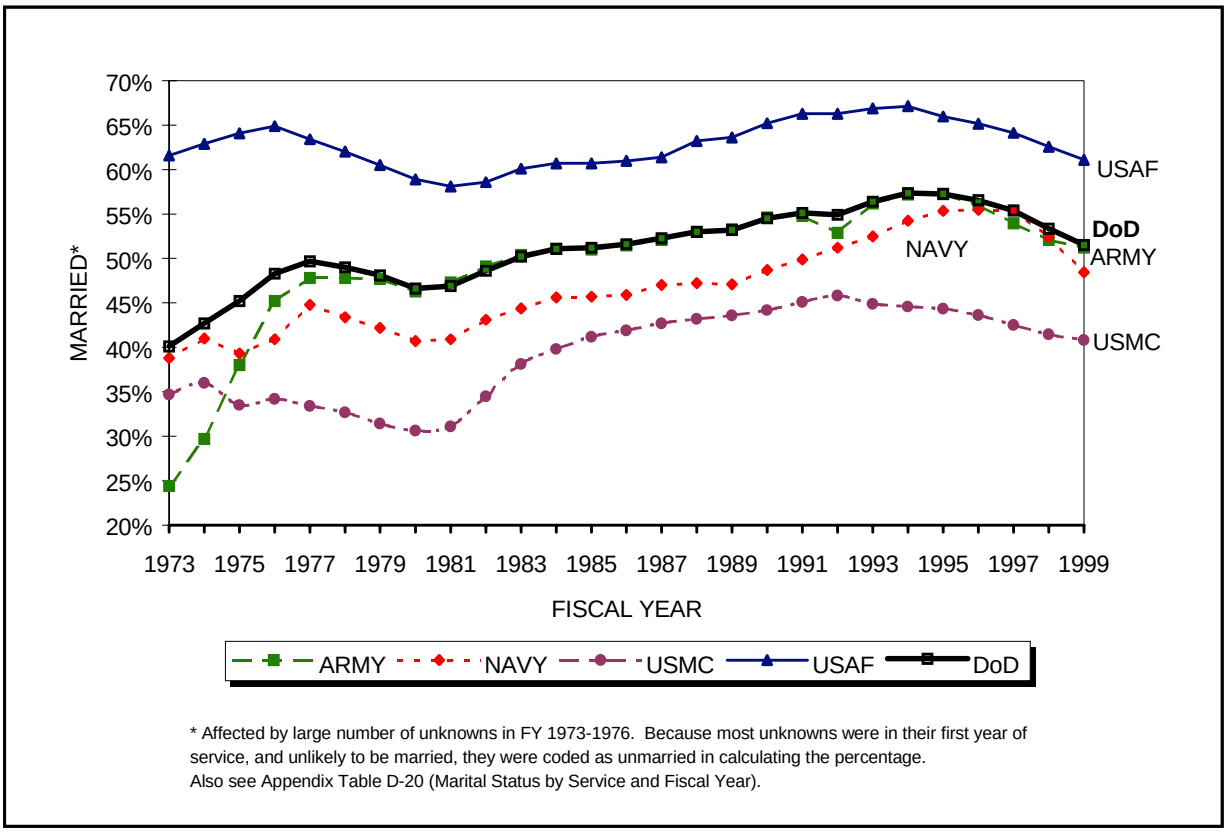

Figure 3.5. Percentage of Active Component enlisted members who were married, by Service, FYs 1973–1999.

The percentages of FY 1999 Active Component enlisted married males and females are shown by Service in Table 3.5 and by age in Appendix Table B-24. Proportionally, more Servicemen were married than Servicewomen (53 and 43 percent, respectively). Similarly, more civilian men were married than civilian women (53 versus 51 percent, respectively). The proportion of married Servicemen was almost identical to married 18- to 44-year-old men in the civilian population (53.0 and 53.1 percent, respectively). The proportion of married Servicewomen was lower than that of women in the comparable civilian population (43 and 51 percent, respectively).

The percentage of married military women has changed significantly since FY 1973.[8] Twenty-five years ago women constituted 2 percent of military members. Military women were not expected to be married; retention directives implicitly encouraged separation of married enlisted women. In FY 1973, 18 percent of military women were married, increasing to 36 percent in FY 1978 and to 43 percent in FY 1999.

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8 Department of Defense, *Population Representation in the Military Services: Fiscal Year 1989* (Washington, DC: Office of the Assistant Secretary of Defense [Force Management and Personnel], July 1990).

Table 3.5. FY 1999 Active Component Enlisted Members Who Were Married, by Gender and Service, and Civilian Labor Force 18–44 Years Old (Percent)						
Gender	Army	Navy	Marine Corps	Air Force	DoD	18- to 44-Year-Old Civilians
Male	52.6	50.7	40.9	64.0	53.0	53.1
Female	43.8	33.8	39.6	48.5	42.6	50.8
Total	51.2	48.5	40.8	61.1	51.5	52.1
Also see Appendix Table B-24 (Age by Marital Status and Gender). Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.						

During and after the Persian Gulf War, questions were raised regarding the deployment of both parents in a dual-service marriage (i.e., a marriage wherein both husband and wife are military members). The proportion of members in each Service who are married and the proportion of those married who are members of a dual-service marriage are shown in Table 3.6.

Larger proportions of men than women are married, but significantly greater proportions of women are members of dual-service marriages (48 percent of married women versus 7 percent of married men; Table 3.6). The Marine Corps has the greatest variance, with 5 percent of married men but 61 percent of married women in dual-service marriages. Proportionally, more Air Force personnel are members of dual-service marriages (16 percent). Across the Services, 12 percent of enlisted members are in dual-service marriages.

Education. The majority of the enlisted force have high school diplomas (96 percent), as indicated in Table 3.7. In FY 1999, 98 percent of female and 96 percent of male enlisted personnel were high school diploma graduates (Tier 1). There were fewer people with no credentials in the military than in the civilian labor force (1 versus 12 percent), and fewer people with college experience (28 versus 56 percent). This latter comparison is misleading because enlisted occupations are generally comparable to civilian occupations that do not require college degrees. Most military members with college degrees are officers (97 percent of officers have undergraduate or advanced degrees). The education levels of the officer corps are discussed in Chapter 4.

The Army, Navy, and Marine Corps had roughly the same proportion of high school diploma graduate enlisted members in FY 1999, 96, 93, and 95 percent, respectively. Almost all Air Force members held diplomas (99+ percent). The Navy had the largest proportion without at least a high school diploma (7 percent). The Air Force had the smallest proportion (one-tenth of one percent).

The Services encourage enlisted members to continue their education while in the military. Many college-level classes and degree programs are offered on military installations around the world. In-service tuition assistance programs pay 75 percent of tuition costs. Members also can use the Montgomery GI Bill to cover the majority of the cost of off-duty

college and technical courses.[9] The investment in continuing education is a sound one. Enlisted personnel who used tuition assistance had higher promotion rates and stayed in the service longer than those who did not.[10]

Table 3.6. FY 1999 Active Component Enlisted Personnel Who Were Married, and in Dual-Service Marriages, by Gender and Service (Number and Percent)

Gender	End-Strength	Married		Married Who Were In Dual-Service Marriages	
		Number	Percent	Number*	Percent**
ARMY					
Male	335,872	176,514	52.6	12,093	6.9
Female	60,283	26,382	43.8	11,137	42.2
Total	396,155	202,896	51.2	23,230	11.5
NAVY					
Male	272,887	138,314	50.7	7,341	5.3
Female	41,399	13,978	33.8	5,602	40.1
Total	314,286	152,292	48.5	12,943	8.5
MARINE CORPS					
Male	145,554	59,522	40.9	2,988	5.0
Female	9,276	3,672	39.6	2,256	61.4
Total	154,830	63,194	40.8	5,244	8.3
AIR FORCE					
Male	232,202	148,665	64.0	14,131	9.5
Female	53,968	26,192	48.5	14,401	55.0
Total	286,170	174,857	61.1	28,532	16.3
DoD					
Male	986,515	523,015	53.0	36,553	7.0
Female	164,926	70,224	42.6	33,396	47.6
Total	1,151,441	593,239	51.5	69,949	11.8

* There are some differences between the number of males and females reporting dual-service marriages.
** These percentages reflect the proportion of married enlisted members who are married to a Servicemember. For example, 12,093 male Army enlisted personnel are in dual-service marriages. That is, 6.9 percent of married male Army enlisted members (176,514) are in dual-service marriages.

9 Department of Defense, *Biennial Report to Congress on the Montgomery GI Bill Education Benefits Program* (Washington, DC: Office of the Assistant Secretary of Defense [Force Management Policy], May 1998).

10 See Boesel, D. and Johnson, K., *The DoD Tuition Assistance Program: Participation and Outcomes* (Arlington, VA: Defense Manpower Data Center, May 1988).

Table 3.7. FY 1999 Education of Active Component Enlisted Members, by Service, and Civilian Labor Force 18–44 Years Old (Percent)						
Education Level	Army	Navy	Marine Corps	Air Force	DoD	18- to 44-Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	96.0	92.8	95.4	99.9	96.0	88.6
Tier 2: GED, Alternative Credentials	3.6	5.2	4.5	0.1	3.3	
Tier 3: No Credentials	0.5	2.0	0.2	**	0.7	11.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
College Experience[1] (Part of Tier 1)	9.8	4.7	2.6	91.8	27.8	55.5

* Civilian percentages combine Tiers 1 and 2.
** Less than one-tenth of one percent.
[1] Due to coding differences, the Air Force reports one year of college, whereas the other Services report 2-year college graduates. Military data represent only enlisted members. Officers, who usually have college degrees, are not included. See Chapter 4 for a discussion of officers. Also see Appendix Table B-27 (Education by Service and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Representation Within Occupations. The percentages of enlisted personnel by occupational area in FY 1999 are shown in Table 3.8. No shifts in the occupational distribution of the force occurred during that year. Occupations such as infantry and related specialties, craftsmen, and service and supply included less than one-third (29 percent) of enlisted personnel. Many enlisted members (43 percent) were in jobs requiring mid-level skills, including medical and dental specialties, functional support and administration, and electrical/mechanical equipment repair. The high-skilled and high-tech areas—electronic equipment repair, communications and intelligence specialists, and other allied specialists—made up about 21 percent of the force. The remaining 7 percent were non-occupational, to include patients, students, and those with unassigned duties.

Table 3.8. FY 1999 Occupational Areas of Active Component Enlisted Personnel by Gender (Percent)				
Occupational Code and Area		Males	Females	Total DoD
0	Infantry, Gun Crews, and Seamanship Specialists	19.0	4.9	17.0
1	Electronic Equipment Repairers	10.0	5.4	9.4
2	Communications and Intelligence Specialists	8.9	10.0	9.0
3	Medical and Dental Specialists	5.4	16.0	6.9
4	Other Allied Specialists	3.0	3.0	3.0
5	Functional Support and Administration	13.1	33.2	16.0
6	Electrical/Mechanical Equipment Repairers	21.8	8.2	19.8
7	Craftsmen	3.8	1.8	3.5
8	Service and Supply Handlers	8.2	9.8	8.5
9	Non-occupational*	6.7	7.9	6.9
Total		100.0	100.0	100.0

Columns may not add to total due to rounding.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
See Appendix Tables B-29 (Occupational Area by Service and Gender) and B-30 (Occupational Area by Service and Race/Ethnicity).

The assignment of enlisted personnel to military occupations depends on eligibility (determined by ASVAB scores and sometimes other tests or requirements), individual preference, and the availability of openings. As part of the occupational classification process, the military uses aptitude composites made up of ASVAB test scores related to occupations. The composites vary by Service, and are developed empirically to predict the probability of training success.

Men tend to score higher than women on the ASVAB tests in the mechanical and electronics composites, while women tend to do better on administrative measures. On average, Whites have higher test scores than Hispanics and "Other" minorities, who in turn have higher scores than Blacks. Within each demographic group, there is wide variation in ASVAB test scores, and most recruits qualify for a number of occupations. The recruits' preferences and the availability of openings for which they are qualified determine the occupations to which individuals are assigned.

Representation of women within occupations. The major shift that has occurred in assignment patterns for women in the last two decades has been to increase their presence in "non-traditional" jobs. In the early 1970s, most enlisted women (88 percent) were in two occupational areas: functional support and administration, and medical/dental.[11] In FY 1999, 33 and 16 percent, respectively, served in these occupations. Viewed another way, approximately 12 percent of enlisted women in the 1970s served in areas considered non-traditional (gun crews, communications, craftsmen, etc.), and in FY 1999 half of all Servicewomen were in these occupations (51 percent).

Women are ineligible for infantry and other positions in which the primary mission is to physically engage the enemy.[12] However, the direct ground combat rule allows women to serve on aircraft and ships engaged in combat. The proportion of women in occupational code 0 (infantry, gun crews, and seamanship specialists) in FY 1999 was 5 percent. The percentage of men in these occupations was approximately four times that of women because of the direct ground combat exclusion policy for women.

The occupational differences by gender are illustrated in Table 3.8. In FY 1999, the percentage of women in functional support and administration as well as medical and dental occupations was approximately two and a half times that of men. Although the percentages of women in the technical and craftsmen occupations are greater now than when women first joined the military, men account for the preponderance of Servicemembers in these areas.

Representation of minorities within occupations. In FY 1999, the proportions of Blacks, Whites, and Hispanics were similar in four of the nine occupational areas—communications and intelligence specialists, medical and dental specialists, other allied specialists, and craftsmen (Table 3.9). In electronic equipment repair, where the proportions of Blacks and Hispanics were

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11 Department of Defense, *Population Representation in the Military Services: Fiscal Year 1993* (Washington, DC: Office of the Assistant Secretary of Defense [Force Management Policy], November 1994), p. 4-13.

12 Memorandum from Les Aspin, Secretary of Defense, Subject: Direct Ground Combat Definition and Assignment Rule, January 13, 1994.

very similar, the proportion of Whites was substantially higher. The proportions of Hispanics and Whites were approximately the same in service and supply handlers, and were lower than Blacks. In electrical/mechanical equipment repair, Whites and Hispanics were similar and were higher than Blacks. Blacks were more heavily represented in the functional support and administration area and, to a lesser extent, the service and supply area.

Table 3.9. FY 1999 Occupational Areas of Active Component Enlisted Personnel by Race/Ethnicity (Percent)

Occupational Code and Area		White	Black	Hispanic	Other
0	Infantry, Gun Crews, and Seamanship Specialists	18.3	13.3	18.3	15.5
1	Electronic Equipment Repairers	10.8	6.7	7.4	6.8
2	Communications and Intelligence Specialists	9.8	8.2	7.6	6.4
3	Medical and Dental Specialists	6.0	8.2	7.6	10.5
4	Other Allied Specialists	3.3	2.5	2.4	2.6
5	Functional Support and Administration	12.1	25.9	17.4	18.1
6	Electrical/Mechanical Equipment Repairers	21.8	14.7	18.3	20.1
7	Craftsmen	3.8	3.0	3.1	3.4
8	Service and Supply Handlers	7.1	12.0	8.5	8.9
9	Non-occupational*	7.0	5.5	9.3	7.7
Total		100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Tables B-29 (Occupational Area by Service and Gender) and B-30 (Occupational Area by Service and Race/ Ethnicity).

Pay Grade. Enlisted pay grades, E1 to E9, correspond to the ranks of Private in the Army and Marine Corps, Seaman Recruit in the Navy, and Airman Basic in the Air Force through Sergeant Major in the Army and Marine Corps, Master Chief Petty Officer in the Navy, and Chief Master Sergeant in the Air Force. Enlisted personnel in grades E1 and E2 are trainees. Members in pay grades E3 and E4 are at the apprentice level, working under journeymen, who are at pay grades E5 and E6. Supervisor positions are at pay grades E7 through E9. Soldiers, marines, and airmen at pay grades E5 and above and some at E4 are noncommissioned officers (NCOs), with demonstrated ability in the job and as a leader. In the Navy, those at pay grades E4 and above are petty officers, with leadership responsibilities. Servicemembers in NCO and petty officer positions are required to lead, supervise, and train entry-level enlisted personnel. They perform the work as well as direct the work of others.

More than half of the enlisted force is in pay grades E1 through E4 (54 percent). Grades E4 and E5 have the largest concentration of the enlisted force (23 and 20 percent, respectively). This distribution is necessary to provide a sufficient number of trained leaders to fill the higher ranks; not all personnel in the lower ranks reenlist and progress to the higher grades. There are slight variations among racial/ethnic groups (Table 3.10) as well as differences between male and female enlisted members (Table 3.11).

Table 3.10. FY 1999 Pay Grade of Active Component Enlisted Members, by Race/Ethnicity (Percent)					
Pay Grade	White	Black	Hispanic	Other	Total DoD
E1	6.7	6.1	8.8	7.4	6.8
E2	8.1	7.3	10.9	8.4	8.2
E3	16.2	15.3	21.5	17.3	16.5
E4	23.0	21.4	25.5	22.8	22.8
E5	20.4	20.4	16.5	18.7	19.9
E6	14.0	16.3	9.4	14.4	14.2
E7	8.5	9.8	5.4	8.0	8.5
E8	2.3	2.6	1.6	2.1	2.3
E9	1.0	0.9	0.5	1.0	0.9
Unknown	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Table B-47 (Active Component by Pay Grade and Race/Ethnicity.)

Table 3.11. FY 1999 Pay Grade of Active Component Enlisted Personnel, by Gender (Percent)			
Pay Grade	Male	Female	Total DoD
E1	6.7	7.4	6.8
E2	8.0	9.3	8.2
E3	15.9	20.9	16.5
E4	22.0	27.7	22.8
E5	20.3	17.7	19.9
E6	14.8	10.2	14.2
E7	8.9	5.9	8.5
E8	2.4	1.4	2.3
E9	1.0	0.4	0.9
Unknown	0.0	0.0	0.0
Total	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Table B-46 (Active Component by Pay Grade and Gender).

A comparison of pay grade distributions by race/ethnicity shows a larger percentage of Blacks at pay grades E6 through E8 than any other racial/ethnic group. Hispanics fill the lower grades (E1 through E3) in greater proportions than any other racial/ethnic group. Retention rates play a role in these distributions. Blacks traditionally have higher retention rates than other racial/ethnic groups.

As shown in Table 3.11, a larger proportion of women fill pay grades E1 to E4 (65 percent) than men (53 percent). At higher pay grades, there are more men. The primary reason for the difference by gender is lower retention rates among enlisted women.

Chapter 4

ACTIVE COMPONENT OFFICERS

The commissioned officer corps (with civilian oversight) is the senior leadership and management of the Armed Forces. This chapter presents a view of the demographic and social characteristics of both Active Component officer accessions and the commissioned officer corps in FY 1999.[1] Also highlighted are longitudinal changes among officers. Figure 4.1 illustrates the trend in Active Component officer strength by Service since 1973. Supporting data are provided in Appendix Table D-25.

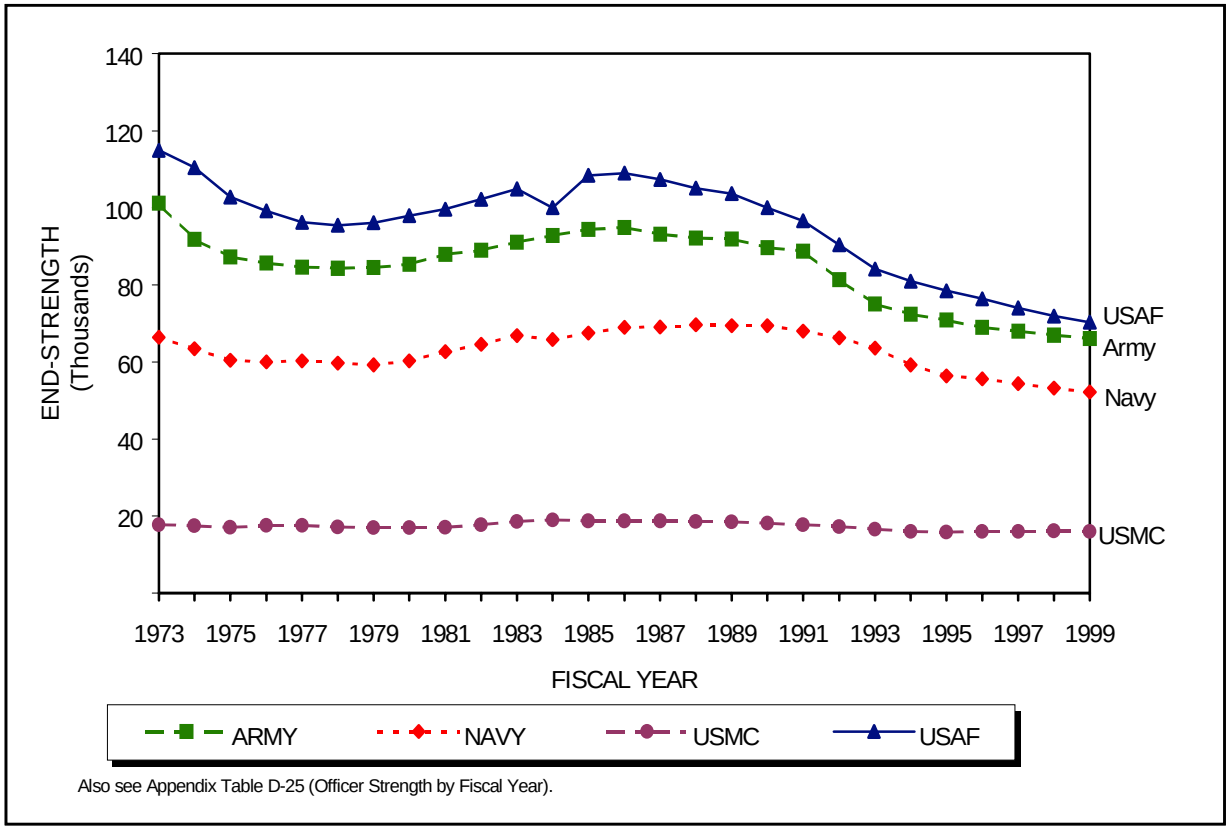


Figure 4.1. Active Component officer end-strength, by Service, FYs 1973–1999.

These data depict two drawdowns and one buildup in the Active Component officer corps. These changes in military strength can be attributed, at least partially, to changes in the world situation. The first decline, during the 1973 to 1979 period, occurred during the demobilization following the end of the Vietnam Conflict; the defense buildup of the 1980s was generated by the escalation of the "Cold War"; and the fall of communism and the end of the Cold War led to the most recent drawdown. At a few more than 204,600, the FY 1999 Active Component officer end-strength is nearly 2 percent smaller than in FY 1998 and less than three-quarters the size of the FY 1986 officers corps, which was the peak of the buildup. The FY 1999

[1] Data are for commissioned officers; warrant officers are excluded. A brief sketch of warrant officers is presented at the end of this chapter.

officer end-strength represents the smallest officer corps since the advent of the All Volunteer Force 26 years ago.

The overall number of individuals commissioned by the Services increased slightly (5 percent) in FY 1999 to approximately 16,400 (Figure 4.2). As the Army experienced a 2-percent drop in accessions, the other Services increased their number of officer appointments. The Navy accessed 13 percent more new officers than in FY 1998. The FY 1999 Air Force accession cohort grew by almost 7 percent compared to FY 1998. The Marine Corps virtually remained unchanged, increasing only 0.2 percent compared to FY 1998.

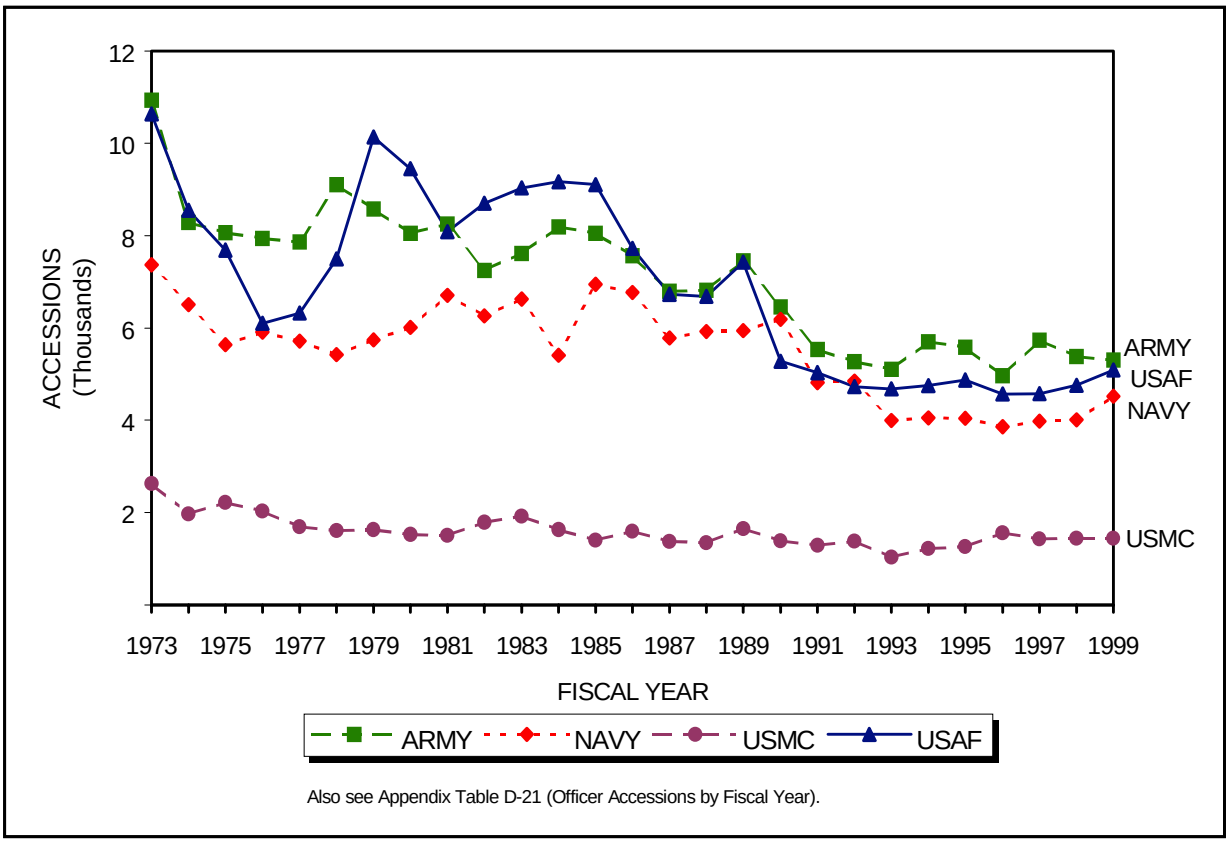


Figure 4.2. Active Component officer accessions, by Service, FYs 1973–1999.

Characteristics of Active Component Officers

Table 4.1 shows the number and percentage of FY 1999 Active Component officer accessions and officers by Service. In total personnel, the Army is the largest Service, but the Air Force has the highest commissioned officer content. The Air Force stood at slightly more than 70,000 active duty officers in contrast to the Army's approximately 66,000. This variation in force structure is most likely due to variations in mission requirements of the two Services.

While the Air Force has more total active duty commissioned officers than the Army, the Army continues to access more officers each year than the Air Force. This pattern suggests that annual requirements rest on more than the relative size of the Service, to include retention and its underlying influencers.

Table 4.1. FY 1999 Active Component Officer Accessions and Officer Corps (Number and Percent)[1]				
	Active Component Officer Accessions		Active Component Officer Corps	
Service	Number	Percent	Number	Percent
Army	5,303	32.4	66,104	32.3
Navy	4,518	27.6	52,136	25.5
Marine Corps	1,446	8.8	16,055	7.9
Air Force	5,090	31.1	70,321	34.4
Total	16,357	100.0	204,616	100.0

[1] Number of active component officer corps (end-strength) reflects commissioned officers only (it excludes warrant officers).
Also see Tables D-21 (Officer Accessions by Fiscal Year) and D-25 (Officer Strength).

Pay Grade. The commissioned officer corps is divided into 10 pay grades [O-1 through O-10]. Officers in pay grades O-1 through O-3 are considered company grade officers. In the Army, Marine Corps, and Air Force, these pay grades correspond to the ranks of second lieutenant (O-1), first lieutenant (O-2), and captain (O-3), and in the Navy, ensign, lieutenant junior grade, and lieutenant. Officers in the next three pay grades (O-4 through O-6) are considered field grade officers. In the Army, Marine Corps, and Air Force, these pay grades correspond to the ranks of major (O-4), lieutenant colonel (O-5), and colonel (O-6), and in the Navy, lieutenant commander, commander, and captain. The last four pay grades are reserved for general officers in the Army, Marine Corps, and Air Force, and flag officers in the Navy. The ranks associated with each pay grade are as follows: in the Army, Marine Corps, and Air Force, brigadier general (O-7), major general (O-8), lieutenant general (O-9), and general (O-10); in the Navy, rear admiral-lower half, rear admiral-upper half, vice admiral, and admiral.

As Table 4.2 shows, the force structure of the officer corps is that of a pyramid with the company grade officers making up the broad base (59 percent of officers in FY 1999), followed by field grade officers representing the narrower middle (41 percent of officers in FY 1999), and general/flag officers representing the pinnacle (less than 1 percent of officers in FY 1999). This pay grade distribution is influenced not only by the military's emphasis on youth and fitness, but also by the choices and competition engendered by "up or out" career progression policies.

Source of Commission. The criteria for the selection of potential officers for commissioning include age, U.S. citizenship, physical fitness, moral character, education, and cognitive ability. Given that officers form the military's leadership and professional echelon and that financial investment in officer education programs is high, the selection standards are quite stringent.[2]

[2] See Eitelberg, M.J., Laurence, J.H., and Brown, D.C., "Becoming Brass: Issues in the Testing, Recruiting, and Selection of American Military Officers," in B.R. Gifford and L.C. Wing (Eds.), *Test Policy in Defense: Lessons from the Military for Education, Training, and Employment* (Boston: Kluwer Academic Publishers, 1991).

Table 4.2. FY 1999 Active Component Officer Corps, by Rank/Pay Grade[1] and Service (Percent)						
Rank*	Pay Grade	Army	Navy	Marine Corps	Air Force	DoD
Second Lieutenant (Ensign)	O-1	12.4	12.4	16.1	10.9	12.2
First Lieutenant (Lieutenant Jr. Grade)	O-2	14.2	12.0	16.6	9.9	12.3
Captain (Lieutenant)	O-3	32.6	34.7	30.8	36.5	34.3
Major (Lieutenant Commander)	O-4	21.4	19.8	21.2	22.1	21.2
Lieutenant Colonel (Commander)	O-5	13.5	14.2	11.0	14.6	13.9
Colonel (Captain)	O-6	5.5	6.5	3.9	5.6	5.7
Brigadier General (Rear Admiral - Lower Half)	O-7	0.2	0.2	0.3	0.2	0.2
Major General (Rear Admiral - Upper Half)	O-8	0.2	0.2	0.2	0.1	0.1
Lieutenant General (Vice Admiral)	O-9	0.1	0.1	0.1	0.1	0.1
General (Admiral)	O-10	**	**	**	**	**
Total		100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Ranks in parenthesis are Navy designations.
** Less than one-tenth of one percent.
[1] Excludes those with unknown rank/pay grade.
Also see Appendix Table B-48 (Pay Grade by Gender and Service).

With few exceptions, a 4-year college degree is a prerequisite for commissioning. To this end, two of the primary commissioning programs, the Service academies and the Reserve Officers Training Corps (ROTC), are administered in conjunction with an individual's academic preparation. The United States Military Academy (USMA), the United States Naval Academy (USNA), and the United States Air Force Academy (USAFA) each offer room, board, medical and dental care, salary, and tuition throughout a 4-year undergraduate program of instruction leading to a baccalaureate degree.[3] Located at numerous undergraduate colleges and universities throughout the country, ROTC has both scholarship and non-scholarship options.[4]

The two remaining primary commissioning programs, Officers Candidate/Training School (OCS/OTS) and Direct Commissioning, are designed almost exclusively for individuals who already possess at least a baccalaureate degree. OCS/OTS exists as a rather quick commissioning source for college graduates who did not receive military training or indoctrination as part of their undergraduate education. This source also provides a means for

[3] There is no separate academy for the Marine Corps, but a percentage of each Naval Academy graduating class pledges to become Marine Corps officers.

[4] Non-scholarship ROTC is not without benefits. There is a subsistence allowance upon progress to advanced training.

promising enlisted personnel to earn a commission. Direct commissions, with a minimum of military training, are offered to professionals in fields such as law, medicine, and the ministry. Because of their advanced degrees and/or work experience, officers directly appointed are often commissioned at ranks higher than the customary second lieutenant or ensign. There are other specialized commissioning sources that, together with the primary programs, ensure that the Services have access to a number of different pools of personnel with diverse skills.

Table 4.3 highlights the flexibility in officer procurement afforded by the alternative commissioning programs. The largest proportion of FY 1999 officer accessions (36 percent) came through ROTC programs—and most were recipients of a college scholarship (26 percent of all officer accessions and 74 percent of ROTC accessions). Direct appointments and academy graduates each accounted for 18 percent of incoming officers. OCS/OTS produced about 22 percent of FY 1999 Active Component officer accessions.

Table 4.3. FY 1999 Source of Commission of Active Component Officer Accessions and Officer Corps, by Service (Percent)

Source of Commission	Army	Navy	Marine Corps	Air Force	DoD
ACTIVE COMPONENT OFFICER ACCESSIONS					
Academy	18.7	16.9	10.5	18.7	17.5
ROTC–Scholarship	35.6	17.4	11.6	29.1	26.4
ROTC–No Scholarship	16.8	1.4	0.0	11.3	9.3
OCS/OTS	11.2	23.5	63.4	20.7	22.2
Direct Appointment	16.9	24.0	0.2	20.1	18.4
Other *	0.0	15.8	14.3	0.2	5.7
Unknown	0.8	1.0	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0
ACTIVE COMPONENT OFFICER CORPS					
Academy	16.5	19.6	11.9	20.0	18.1
ROTC–Scholarship	19.6	19.2	16.2	22.4	20.2
ROTC–No Scholarship	38.9	2.4	0.0	19.8	20.0
OCS/OTS	8.5	20.7	57.4	19.5	19.2
Direct Appointment	15.6	22.1	1.1	18.3	17.0
Other *	0.1	14.8	13.4	0.1	4.9
Unknown	0.9	1.2	0.0	0.0	0.6
Total	100.0	100.00	100.00	100.00	100.00

Columns may not add to total due to rounding.
* Includes officers trained in one Service and accessed into another (primarily Marine Corps).
Also see Appendix Tables B-40 (Active Component Officer Accessions by Source of Commission, Service, and Gender) and B-41 (Active Component Officer Corps by Source of Commission, Service, and Gender).

The percentage of new officers hailing from OCS/OTS increased by 5-percentage points compared to FY 1998. Other sources of commissioning, such as ROTC and direct appointments, accounted for fewer officer accessions in FY 1999. This trend was most pronounced in the Army and Air Force, where the proportion of OCS/OTC commissions nearly doubled.

There were Service differences in reliance on the various commissioning sources. For example, 63 percent of the Marine Corps' newly commissioned officers came through OCS-type pipelines, a 4-percentage point increase from FY 1998. Less than one percent of Marine Corps officer accessions were recipients of direct commissions compared to 24 percent in the Navy. In fact, the Marine Corps does not have a Service academy or ROTC program. Midshipmen at the Naval Academy and in the Navy's ROTC program can opt to enter the Marine Corps upon program completion. The Marine Corps relies on the Navy for officers in medical and dental specialties and chaplains, thereby lowering its need for direct commissioning. The Service differences are probably influenced by retention rates, budget considerations, and historical fluctuations in officer recruiting needs.

Age. As shown in Table 4.4, officers, on average, tend to be older than enlisted personnel. Upon commissioning in FY 1999, the average officer was 26 years old in contrast to 19 years old for the average enlisted accession. The mean age of all active officers was 34 years and that of enlisted members was 27 years. The mean age of officer accessions varies by source of commission. In FY 1999, the average age of newly commissioned officers ranged from 23 years for Service academy graduates to 31 years for officers commissioned directly.[5]

Table 4.4. FY 1999 Mean Age of Active Component Officer Accessions and Officer Corps in Comparison to Enlisted Personnel

	Officers	Enlisted
Active Component Accessions	26.4	19.4
Active Component Force	34.3	27.3
Also see Appendix Table B-31 (Age by Service).		

Figures 4.3 and 4.4 (together with Appendix Table B-31) highlight the military's emphasis on youth. In particular, Marine Corps officer accessions and officer corps were younger than those in other Services. About 6 percent of Marine Corps officers were 31 or older upon entry. The proportion within this age range among the other Services' newly commissioned officers was greater but still notably small. The percentage who were 31 years or older was 12 percent in the Army, 28 percent in the Navy, and 16 percent in the Air Force. The rigorous physical demands and rapid deployment of Marines, and this Service's absence of officers in medical and ministry fields, no doubt are related to the relative youth of Marine Corps officers.

Figure 4.5 shows that along with age, there has been a steady increase in the tenure of officers. On average, as of FY 1999, the typical commissioned officer was around 34 years old and had been in uniform for nearly 11 years.

5 Data from Defense Manpower Data Center.

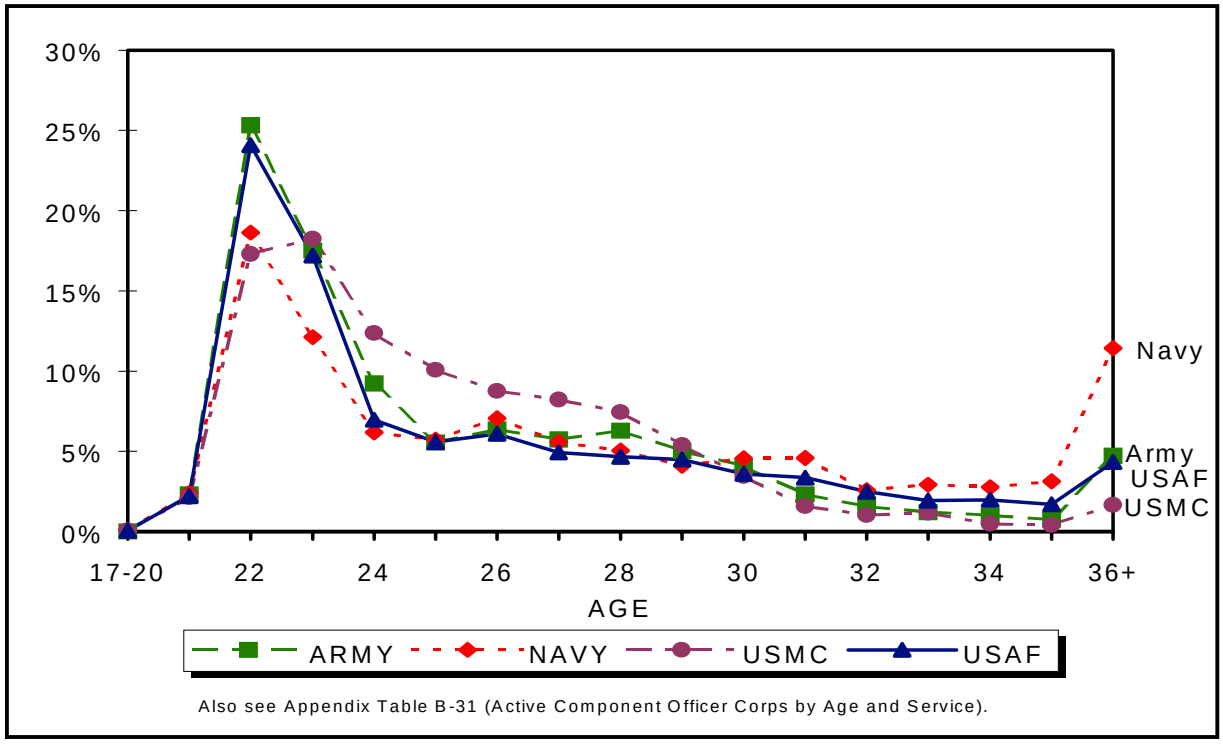


Figure 4.3. Age of FY 1999 Active Component officer accessions, by Service.

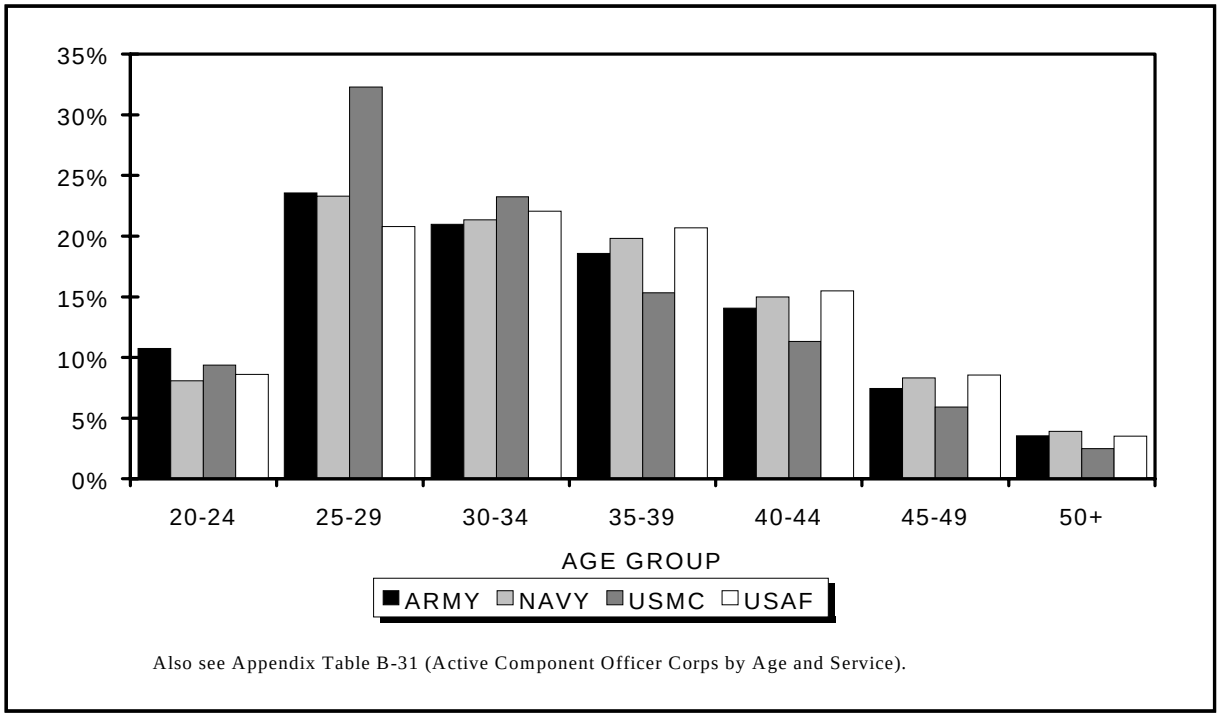


Figure 4.4. Age of FY 1999 Active Component officer corps, by Service.

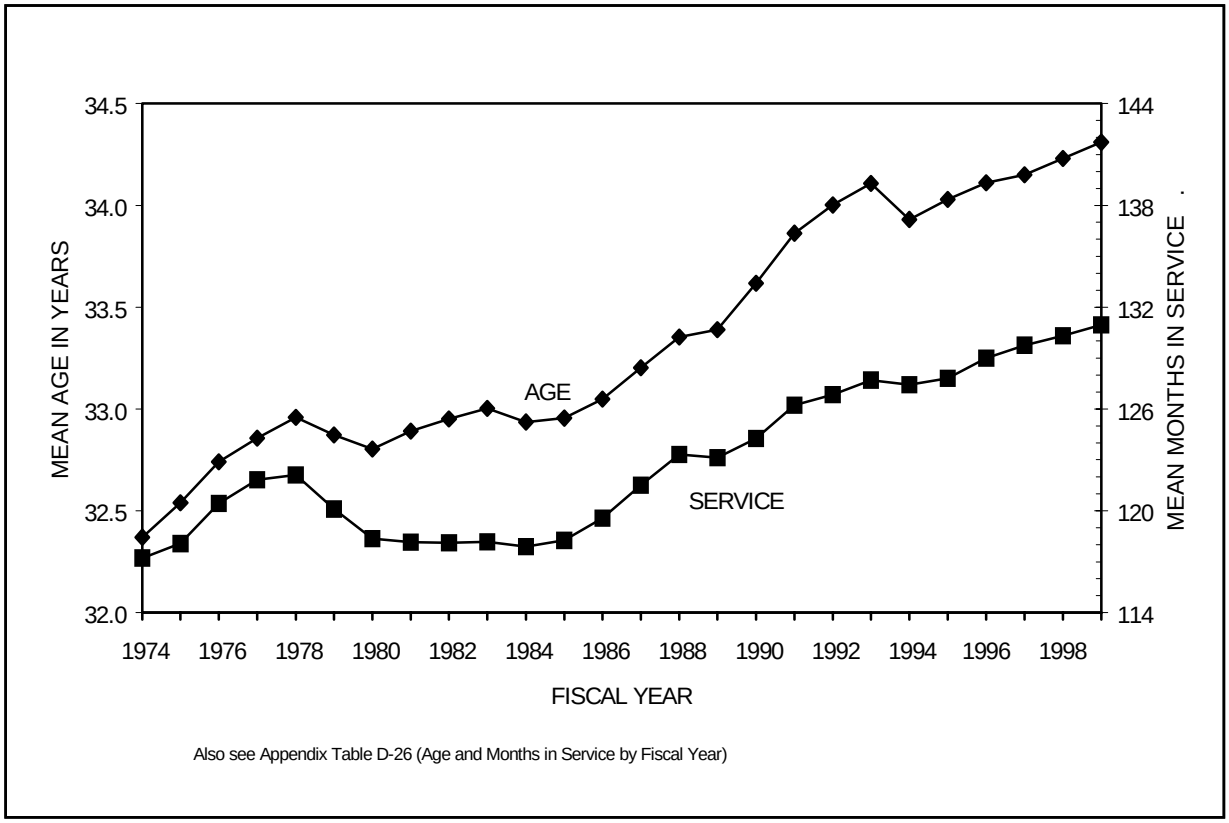


Figure 4.5. Active Component officers' mean years of age and months of service, FYs 1973–1999.

Race/Ethnicity. The percentages of minorities among newly commissioned officers and the Active Component officer corps are shown in Table 4.5. In FY 1999, almost 22 percent of entering officers were minorities—Blacks, Hispanics, and "Others" (e.g., Native Americans, Asians, and Pacific Islanders)—and nearly 17 percent of all commissioned officers on active duty were members of minority groups. The Air Force had the smallest proportion of minority officer accessions at 19 percent and the Army had the largest proportion at more than 23 percent. The most populous minority group, Blacks, were represented at 9 percent of officer accessions and 8 percent of all active duty officers.

Over the last few years the focus on minority representation within the officer corps has increased. Concern stems from the appearance of underrepresentation among officers in stark contrast to the trends for the enlisted ranks. A number of factors contribute to the seeming underrepresentation of Blacks and Hispanics (though not "Other" minorities) in the officer corps. For reasons too complicated to dissect within this report, minorities disproportionately suffer from poverty and disorderly learning environments.[6] These risk factors take their toll in the form of lower college enrollment and graduation rates, and, on average, lower achievement than other population groups. Although test score trends have improved for minorities over the past two decades, large average differences compared to Whites remain. For example, the

6 See Smith, T.M., *The Educational Progress of Black Students* (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, May 1996).

mean verbal Scholastic Assessment Test (SAT) scores for college-bound seniors in 1998 were 526 for Whites and 434 for Blacks; mean math scores were 528 for Whites and 426 for Blacks.[7] In light of these and other factors (e.g., fierce labor market competition for college-educated minorities),[8] minority representation among officer accessions appears rather equitable when compared to the 21- to 35-year-old civilian population of college graduates which stands at 7.4 percent Black, 5.3 percent Hispanic, and 9.1 percent "Other." Blacks and Hispanics are proportionately represented and "Other" minorities are slightly underrepresented.

Table 4.5. FY 1999 Active Component Minority Officer Accessions and Officer Corps, by Service (Percent)

Minority	Army	Navy*	Marine Corps	Air Force	DoD
ACTIVE COMPONENT OFFICER ACCESSIONS					
Black	11.6	7.5	7.3	6.9	8.6
Hispanic	4.6	5.5	8.2	1.6	4.3
Other	7.2	9.9	5.2	10.5	8.8
Total Minority Officer Accessions	23.4	22.9	20.6	19.0	21.7
ACTIVE COMPONENT OFFICER CORPS					
Black	11.3	6.3	6.5	6.2	7.9
Hispanic	3.8	5.2	4.9	2.2	3.7
Other	5.3	4.6	3.4	5.4	5.0
Total Minority Officers	20.4	16.0	14.8	13.7	16.5

Columns may not add to total due to rounding.
* Navy accession data provided by U.S. Navy, Minority Affairs Office.
"Other" includes Native Americans, Asians, and Pacific Islanders.
Also see Appendix Table B-34 (Race/Ethnicity by Service).

Academic achievement differences factor into the divergent racial/ethnic distributions across the commissioning sources as shown in Tables 4.6 and 4.7. In FY 1999, White and "Other" minority officer accessions were more likely than other racial/ethnic groups to be commissioned via one of the academies, but were less likely to have attended OCS/OTS than other groups. "Other" racial/ethnic officer accessions were more likely than other groups to have direct appointments, but were the least likely to attend OCS/OTS. For the overall Active Component officer corps in FY 1999, Black officers were less likely to have attended a Service academy, but more likely to have graduated from an ROTC program. Among the FY 1999 officer corps, "Other" minorities were more likely than other groups to be given a direct appointment.

7 See U.S. Department of Education, *Digest of Education Statistics 1999* (NCES 2000-031) (Washington, DC: National Center for Education Statistics, 2000), Table 134.

8 See Eitelberg, M.J., Laurence, J.H., and Brown, D.C., "Becoming Brass: Issues in the Testing, Recruiting, and Selection of American Military Officers," in B.R. Gifford and L.C. Wing (Eds.), *Test Policy in Defense: Lessons from the Military for Education, Training, and Employment* (Boston: Kluwer Academic Publishers, 1991).

Table 4.6 FY 1999 Source of Commission of Active Component Officer Accessions, by Race/Ethnicity and Gender (Percent)						
Source of Commission	White	Black	Hispanic	Other	Male	Female
Academy	18.3	11.3	14.8	15.8	18.8	12.4
ROTC–Scholarship	26.7	28.6	22.1	24.7	25.1	31.7
ROTC–No Scholarship	8.8	13.7	12.4	8.9	9.7	8.1
OCS/OTS	22.4	22.9	32.6	15.1	23.8	15.5
Direct Appointment*	17.8	16.3	11.8	31.2	15.7	29.3
Other**	5.8	7.0	6.3	4.5	6.5	2.6
Unknown	0.3	0.1	0.0	0.0	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Females accessed through direct appointment are primarily health care professionals.
** Includes officers trained in one Service and accessed into another (primarily Marine Corps).
Also see Appendix Tables B-40 (Source of Commission by Service and Gender) and B-42 (Source of Commission by Service and Race/Ethnicity).

Table 4.7. FY 1999 Source of Commission of Active Component Officer Corps, by Race/Ethnicity and Gender (Percent)						
Source of Commission	White	Black	Hispanic	Other	Male	Female
Academy	18.5	11.4	22.7	19.7	19.4	10.7
ROTC–Scholarship	20.5	18.3	15.8	21.6	20.3	19.9
ROTC–No Scholarship	18.9	31.4	21.5	18.7	20.8	15.2
OCS/OTS	19.6	17.2	21.7	13.4	20.1	13.9
Direct Appointment*	16.9	16.5	13.5	22.8	13.6	37.1
Other**	5.0	5.0	4.7	3.4	5.3	2.7
Unknown	0.7	0.2	0.2	0.4	0.6	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Females accessed through direct appointment are primarily health care professionals.
** Includes officers trained in one Service and accessed into another (primarily Marine Corps).
Also see Appendix Tables B-41 (Source of Commission by Service and Gender) and B-43 (Source of Commission by Service and Race/Ethnicity).

The DoD is actively looking into issues affecting minority officer recruitment, performance, promotion, and retention in keeping with its track record of dedication to equal opportunity. The Services have programs designed to increase minority participation in the officer corps. In addition to academy preparatory schools, ROTC programs have a considerable presence at Historically Black Colleges and Universities (HBCUs) and there are Army ROTC units placed at predominantly Hispanic institutions. Furthermore, there are incentive and preparation programs aimed at boosting the presence of minorities within ROTC programs and the officer corps.

Targeted recruiting programs, together with a focus on equal opportunity once commissioning takes place, have contributed to increased representation of minorities (especially Blacks) within the officer corps over the years (see Appendix Tables D-22, D-23, D-27, and D-28). The 8.6 percent of Blacks, for example, among officer accessions in FY 1999 compares favorably with figures from one and two decades ago (1989: 7.5 percent; 1979: 6.4 percent).

These accession trends have been contributing to greater minority strength levels in the total officer corps. For example, Blacks comprised 4.6 percent of all active duty officers in FY 1979, 6.8 percent in FY 1989, and 7.9 percent by the end of this past fiscal year. The lagging long-term minority progress seen through the Active Component officer percentages, relative to the near-term success seen among officer accessions, is mirrored in the pay grade distribution differences by minority status as shown in Table 4.8.

Table 4.8. FY 1999 Pay Grade[1] of Active Component Officers, by Service and Race/Ethnicity (Percent)

Race/Ethnicity and Pay Grade	Army	Navy	Marine Corps	Air Force	DoD
White					
O-1 through O-3	57.8	56.2	61.2	55.9	57.0
O-4 through O-6	41.6	43.4	38.2	43.6	42.5
O-7 through O-10	0.5	0.5	0.5	0.4	0.5
Total	100.0	100.0	100.0	100.0	100.0
Black					
O-1 through O-3	60.1	71.4	73.9	59.9	63.2
O-4 through O-6	39.6	28.4	25.8	39.9	36.5
O-7 through O-10	0.3	0.2	0.3	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0
Hispanic					
O-1 through O-3	68.6	78.0	79.8	55.0	70.4
O-4 through O-6	31.2	21.9	19.9	44.9	29.5
O-7 through O-10	0.1	0.1	0.3	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0
Other					
O-1 through O-3	70.0	73.6	76.8	77.0	73.8
O-4 through O-6	29.9	26.3	23.2	23.0	26.1
O-7 through O-10	0.1	*	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Less than one-tenth of one percent.
[1] Excludes those with unknown rank/pay grade.
Also see Appendix Table B-49 (Active Component Officer Corps by Pay Grade, Service, and Race/Ethnicity).

Compared to Whites, higher percentages of minority members are found in the lower grades (O-1 through O-3). More notable differences between Whites and minorities were found in the Navy and Marine Corps, where 56 and 61 percent of Whites, respectively, held the rank of captain or lower but 71 and 74 percent of Blacks and 78 and 80 percent of Hispanics,

respectively, were company grade officers. The pay grade distributions were closest in the Air Force, with approximately 4 percentage points separating Whites and Blacks in terms of the percentage in grade O-3 and below. Additionally, the Air Force has a slightly greater proportion of Hispanics than Whites in field grade positions. Factors such as increased college graduation rates and targeted recruiting programs have provided minorities with greater access to the officer corps. However, it is also important to monitor progress further along the pipeline.[9]

Gender. As shown in Table 4.9, women constituted about 20 percent of officer accessions and 15 percent of the officer corps in FY 1999. The Air Force holds its place as the most gender-integrated regarding officers, with the Army and the Navy not far behind. Though the levels of women in the officer corps are nowhere near college graduate population proportions, sustained growth has occurred in the representation of women among officers (see Appendix Tables D-24 and D-29 for trends among accessions and the officer corps since FY 1973).

Table 4.9. FY 1999 Active Component Female Officer Accessions and Officer Corps (Percent)

	Army	Navy	Marine Corps	Air Force	DoD
Active Component Accessions	21.5	18.2	8.0	23.8	20.1
Active Component Officer Corps	14.7	14.7	4.9	16.8	14.7

Also see Appendix Table B-32 (Gender by Service).

The primary source of commission for women in FY 1999 continued to be the direct appointment (29 percent), as shown in Table 4.6. Female officer accessions were less likely than males to have attended an academy. The majority of directly appointed officers are in the professional groups (i.e., medical, dental, legal, and ministry). Officers from these professional groups are classified as "non-line," are managed separately, and do not assume command responsibilities over "line" officers. Career opportunities tend to be somewhat limited for non-line officers and can result in differences in pay grade distributions. Table 4.10 shows pay grade by gender for each of the Services and for DoD as a whole. There were pay grade differences between the genders, though not to the same degree as among racial/ethnic groups. Across DoD, 42 percent of male officers were O-4s through O-6s, whereas the percentage of women in these grades was 8 percentage points lower at 34 percent.

Commissioning source differences complicate the interpretation of variations in pay grade distributions by gender. For example, direct commissions may provide an early grade boost for women, since advanced degree requirements associated with occupations in the professional echelons are rewarded by DoD with advanced pay grade initially for commissioned officers. However, assignment differences and command restrictions, as well as networking obstacles, may retard retention, continuation, and hence career progression for women. Assignment qualifications, interests, and policy also affect pay grade. In the Air Force, for example, status as

9 Department of Defense, *Career Progression of Minority and Women Officers* (Washington, DC: Office of the Under Secretary of Defense [Personnel and Readiness], August 1999).

a pilot would contribute to enhanced career prospects. (Assignment data are provided later in this chapter in the discussion of occupation areas.)

Table 4.10. FY 1999 Pay Grade[1] of Active Component Officers, by Service and Gender (Percent)					
Pay Grade	Army	Navy	Marine Corps	Air Force	DoD
MALES					
O-1 through O-3	57.8	58.4	62.7	55.3	57.5
O-4 through O-6	41.6	41.1	36.8	44.3	42.0
O-7 through O-10	0.5	0.5	0.5	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0
FEMALES					
O-1 through O-3	66.8	62.7	79.5	67.4	66.3
O-4 through O-6	33.1	37.2	20.4	32.6	33.6
O-7 through O-10	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
[1] Excludes those with unknown rank/pay grade.
Also see Appendix Table B-48 (Pay Grade by Gender and Service).

Marital Status. As indicated in Table 4.11, officers were more likely to be married than the enlisted personnel they lead. It is interesting to note that for officers as well as enlisted personnel, women on active duty were less likely than men to be married. In fact, while nearly three-quarters of male officers were married, only 53 percent of women officers had a spouse. Furthermore, whereas male officers were more likely than their civilian counterparts (college graduates in the workforce 21 to 49 years of age) to be married, female officers were less likely to be married. This suggests that women in the officer corps are more divergent from their civilian peers regarding family patterns.

Table 4.11. FY 1999 Married Active Component Officer Corps and Enlisted Personnel, by Gender (Percent)		
Gender	Officers	Enlisted
Males	72.9	53.0
Females	52.7	42.6
Total	70.0	51.5

Also see Appendix Table B-33 (Marital Status by Service).

Though female officers are less likely to be married than male officers, among those who are married women are considerably more likely to be a partner in a dual-military marriage. As can be seen from Table 4.12, married female officers are more than eight times more likely than married male officers to have a spouse in uniform. This trend is more than a curiosity, as dual-

service marriages pose unique challenges to assignment and deployment, in addition to affecting Servicemembers' satisfaction with military life.

Table 4.12. FY 1999 Active Component Officers Who Were Married, and in Dual-Service Marriages, by Gender and Service (Number and Percent)

Gender	End-Strength	Married		Married Who Were In Dual-Service Marriages	
		Number	Percent	Number*	Percent
ARMY					
Male	56,364	40,850	72.5	2,479	6.1
Female	9,740	5,236	53.8	2,539	48.5
Total	66,104	46,086	69.7	5,018	10.9
NAVY					
Male	44,467	30,778	69.2	533	1.7
Female	7,669	3,693	48.2	720	19.5
Total	52,136	34,471	66.1	1,253	3.6
MARINE CORPS					
Male	15,274	10,714	70.2	343	3.2
Female	781	319	40.9	213	66.8
Total	16,055	11,033	68.7	556	5.0
AIR FORCE					
Male	58,480	44,976	76.9	2,343	5.2
Female	11,841	6,575	55.5	2,447	37.2
Total	70,321	51,551	73.3	4,790	9.3
DoD					
Male	174,585	127,318	72.9	5,698	4.5
Female	30,031	15,823	52.7	5,919	37.4
Total	204,616	143,141	70.0	11,617	8.1

* There are some differences between the number of males and females reporting dual-service marriages.

Education. There are few exceptions to the Service requirements that commissioned officers have at least a 4-year college degree, so the education levels of FY 1999 Active Component officer accessions come as no surprise. Table 4.13 clearly shows the officer corps' reliance on the college-educated. Eight percent of officers commissioned in FY 1999 did not have at least a bachelor's degree; most likely these officers were former enlisted personnel. A

notable percentage of newly commissioned officers (18 percent)—mostly lawyers, chaplains, and health care professionals (i.e., physicians, dentists, etc.)—held advanced degrees.

Table 4.13. FY 1999 Educational Attainment of Active Component Officer Accessions and Officer Corps, by Service (Percent)

Educational Attainment	Army	Navy	Marine Corps*	Air Force	DoD
ACTIVE COMPONENT OFFICER ACCESSIONS					
Less than College Graduate	4.1	19.0	4.5	2.5	7.3
College Graduate (B.A., B.S., etc.)	69.1	62.1	92.5	80.3	74.4
Advanced Degree (M.A., Ph.D., etc.)	26.8	19.0	3.0	17.2	18.4
Total	100.0	100.0	100.0	100.0	100.0
ACTIVE COMPONENT OFFICER CORPS					
Less than College Graduate	0.9	7.1	4.5	0.5	2.6
College Graduate (B.A., B.S., etc.)	56.6	54.4	77.5	42.9	52.9
Advanced Degree (M.A., Ph.D., etc.)	42.4	38.5	18.0	56.6	44.5
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
*Education credential information in the DMDC active and loss edit file is not always updated on a frequent basis. The Marine Corps accession data was provided by U.S. Marine Corps for more accurate information.
Percentages do not include "Unknown" data.
Also see Appendix Table B-35 (Education by Service).

Not only are college graduates amply represented among newly commissioned officers, but the education levels in the officer corps indicate that the Services promote continuing education. Significant proportions of officers attained advanced degrees while serving. The Air Force had the greatest proportion (57 percent) of officers with advanced degrees, and was the only Service with a greater proportion of officers with advanced degrees than bachelor's degrees. The Marine Corps had fewer officers with advanced degrees than the other Services. A contributing factor may be that the Navy provides the Marine Corps with health professionals, chaplains, or other such direct appointees, who typically have advanced degrees.

Representation Within Occupations. Tables 4.14 and 4.15 present the distribution of officers across occupational areas by gender and race/ethnic group, respectively. At a glance, the data suggest the need for officers to have technical knowledge in addition to more general leadership and management skills. More than one-third of officers were working in jobs classified as part of tactical operation. Together, the second, third, and fourth most populous occupations—health care, engineering and maintenance, and supply—approximated the manning levels of tactical operations. Appendix Table B-37 provides FY 1999 occupational area data by Service, including personnel classified as non-occupational.

Representation of women within occupations. Table 4.14 shows significant assignment differences between male and female officers. Despite expanding numbers of and roles for women, it takes time to bring women into new positions and career fields, as has been the case in FY 1999. Significantly greater percentages of men than women were in tactical operations (43

and 9 percent, respectively), whereas greater percentages of women than men were in "traditional" female occupations of administration (13 and 6 percent, respectively) and health care (44 and 14 percent, respectively). Appendix Table B-38 shows the assignment patterns by Service and gender.

Table 4.14. FY 1999 Occupational Areas of Active Component Officer Corps, by Gender (Percent)

Occupational Area	Males	Females	Total
General Officers and Executives	0.5	0.1	0.4
Tactical Operations	42.8	9.0	37.8
Intelligence	5.0	5.9	5.1
Engineering and Maintenance	11.9	10.5	11.7
Scientists and Professionals	4.9	4.9	4.9
Health Care	14.3	44.3	18.7
Administration	6.0	13.0	7.0
Supply, Procurement, and Allied Occupations	8.6	8.9	8.6
Non-Occupational*	6.1	3.4	5.7
Total	100.0	100.0	100.0

Columns may not add to total due to rounding.
Calculations exclude 595 male and 12 female Marine Corps and 501 male and 21 female Air Force O-6 officers classified as general officers by the Services.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Table B-38 (Occupational Area by Service and Gender).

Representation of minorities within occupations. The percentage of each racial/ethnic category by officer occupational areas is shown in Table 4.15. In FY 1999, racial and ethnic groups of officers generally had similar patterns of representation across occupational areas, although fewer Blacks, Hispanics, and "Others" were assigned to tactical operations. Greater percentages of officers in the "Other" racial category than Whites, Blacks, or Hispanics were in health care positions. Larger proportions of Hispanics than Whites and “Other” minorities were in intelligence, administration, and supply occupations. Proportionately more Blacks than other racial/ethnic groups were in the engineering and maintenance, and administration occupations. The Services strive to achieve racial/ethnic balance during the assignment process. Such a focus is important because occupational assignment is related to promotion opportunities and success as an officer.

Regardless of race/ethnicity, the largest percentage of officers worked in tactical operations; the lowest percentages worked in intelligence and scientific/professional occupations. Appendix Table B-39 provides data on occupational areas by Service and race/ethnicity.

Table 4.15. FY 1999 Occupational Areas of Active Component Officer Corps, by Race/Ethnicity (Percent)				
Occupational Area	White	Black	Hispanic	Other
General Officers and Executives	0.5	0.3	0.1	0.1
Tactical Operations	39.7	25.9	33.3	28.1
Intelligence	5.1	4.9	5.6	5.2
Engineering and Maintenance	11.4	14.7	10.6	12.7
Scientists and Professionals	5.1	4.2	4.2	4.4
Health Care	18.4	19.2	14.6	26.2
Administration	6.3	11.6	13.3	7.9
Supply, Procurement, and Allied Occupations	8.0	15.0	9.3	8.5
Non-Occupational*	5.6	4.1	9.1	7.1
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Calculations exclude 558 White, 30 Black, 15 Hispanic, and 4 "Other" Marine Corps and 496 White, 16 Black, 4 Hispanic, and 6 "Other" Air Force O-6 officers classified as general officers by the Services.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Table B-39 (Occupational Area by Service and Race/Ethnicity).

Warrant Officers [10]

Warrant officers comprise a relatively small but vital group of technicians and specialists who serve in the Army, Navy, and Marine Corps. These Servicemembers ordinarily do not assume typical officer command responsibilities and their careers emphasize depth rather than breadth of experience, in contrast to commissioned officers.[11, 12] The status and duties of these experts, trainers, and specialty managers have grown and otherwise changed since their grades were established around 1920. Today, they can be found advancing within military careers such as aviation, physicians' assistant, nuclear weapons, and administration.

Although some warrant officers may enter directly from civilian life (e.g., helicopter pilots), most warrant officers previously were in the upper enlisted ranks. In FY 1999, 1,437 warrant officer accessions were added to the force and the overall total force of warrant officers

10 For more detailed information on warrant officers, see Department of Defense, *DoD Report on the "Warrant Officer Management Act" (WOMA)* (Washington, DC: Author, 1989).

11 Upper-level warrant officers, however, frequently function in foreman-type roles within their system specialties.

12 The Air Force discontinued its warrant officer program in 1959 and increased promotion opportunities for senior enlisted personnel.

on active duty stood at 15,087. Table 4.16 presents gender and race/ethnicity statistics on FY 1999 warrant officers. They are overwhelmingly male (94 percent) but have greater minority representation than commissioned officers. Blacks, in particular, are more highly represented among warrant officers, accounting for 16 percent of active duty warrant officers (in contrast to 8 percent of commissioned officers). Appendix Tables B-44 and B-45 provide a glimpse of warrant officer accessions and the corps of warrant officers on active duty by gender and race/ethnicity.

Table 4.16. FY 1999 Active Component Warrant Officer Accessions and Officer Corps, by Race/Ethnicity, Gender, and Service* (Percent)

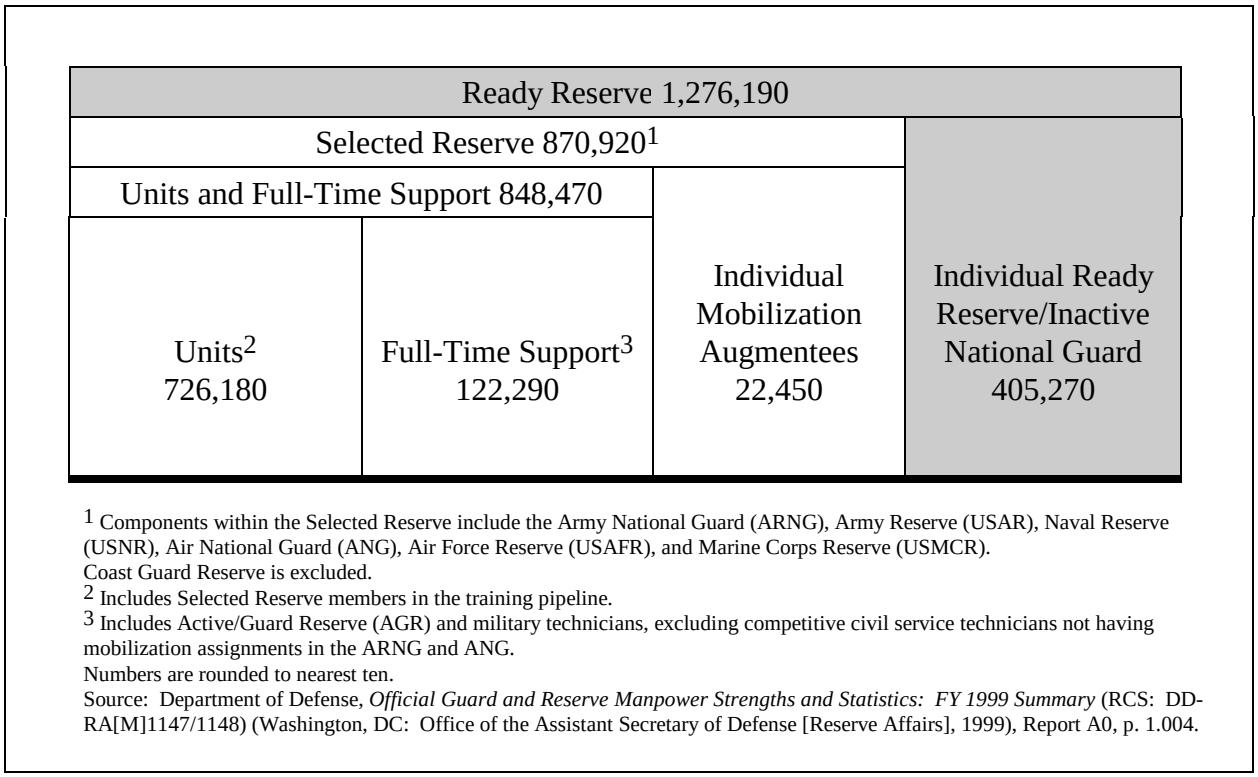
Race/Ethnicity and Gender	Army	Navy	Marine Corps	DoD
ACTIVE COMPONENT WARRANT OFFICER ACCESSIONS				
White	74.1	84.4	74.6	76.1
Black	15.1	12.9	14.9	14.7
Hispanic	5.5	0.4	6.9	4.8
Other	5.3	2.3	3.6	4.5
Male	93.4	92.4	95.6	93.6
Female	6.6	7.6	4.4	6.4
Total	100.0	100.0	100.0	100.0
ACTIVE COMPONENT WARRANT OFFICER CORPS				
White	74.4	77.9	76.3	75.1
Black	15.7	15.8	14.6	15.6
Hispanic	5.0	1.5	6.7	4.8
Other	4.9	4.8	2.5	4.6
Male	93.4	94.9	94.2	93.6
Female	6.7	5.1	5.8	6.4
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* The Air Force does not have warrant officers.
Also see Appendix Tables B-44 (Warrant Officer Accessions and Officers by Gender) and B-45 (Warrant Officer Accessions and Officers by Race/Ethnicity).

Chapter 5

SELECTED RESERVE ENLISTED ACCESSIONS AND ENLISTED FORCE

The Ready Reserve, with an FY 1999 strength of almost 1.3 million, is the major source of manpower augmentation for the Active force. As illustrated in Figure 5.1, the two principal elements of the Ready Reserve are the Selected Reserve and the Individual Ready Reserve. Reserve Component data in this report include only the Selected Reserve.



[1] Components within the Selected Reserve include the Army National Guard (ARNG), Army Reserve (USAR), Naval Reserve (USNR), Air National Guard (ANG), Air Force Reserve (USAFR), and Marine Corps Reserve (USMCR). Coast Guard Reserve is excluded.
[2] Includes Selected Reserve members in the training pipeline.
[3] Includes Active/Guard Reserve (AGR) and military technicians, excluding competitive civil service technicians not having mobilization assignments in the ARNG and ANG.
Numbers are rounded to nearest ten.
Source: Department of Defense, *Official Guard and Reserve Manpower Strengths and Statistics: FY 1999 Summary* (RCS: DD-RA[M]1147/1148) (Washington, DC: Office of the Assistant Secretary of Defense [Reserve Affairs], 1999), Report A0, p. 1.004.

Figure 5.1. FY 1999 composition of the Selected Reserve within the Ready Reserve.

The Selected Reserve includes three types of personnel: (1) those trained in units (including full-time support personnel) who are organized, equipped, and trained to perform wartime missions; (2) trained individuals (Individual Mobilization Augmentees [IMAs]) who provide wartime augmentation on or shortly after mobilization; and (3) those in the training pipeline (including personnel currently on or awaiting initial active duty for training, personnel awaiting the second part of initial active duty training, Active Guard/Reserve [AGR] currently on or awaiting initial active duty training, personnel in simultaneous membership programs [SMP], and personnel in other training programs).[1] Reservists and Guardsmen in the training pipeline may not deploy. Selected Reservists assigned to units and some IMAs train throughout the year. Selected Reserve units may be either operational or augmentation units. Operational units train

[1] Department of Defense, *Official Guard and Reserve Manpower Strengths and Statistics: FY 1999 Summary* (RCS: DD-RA(M)1147/1148) (Washington, DC: Office of the Assistant Secretary of Defense [Reserve Affairs], 1999), Appendix C, p. 3.003.

and deploy as units; augmentation units train as units in peacetime, but are absorbed into Active Component units upon mobilization.

The Selected Reserve Recruiting Process

The recruiting process is similar for the Reserve and Active Components.[2] With the exception of a number of Air National Guard (ANG) units, Reserve recruiters process their non-prior service (NPS) applicants through Military Entrance Processing Stations (MEPSs), following procedures almost identical to the Active Component.

Recruiters describe the demands and opportunities of military service, and evaluate prospective recruits to determine eligibility for enlistment. The prospect is asked about his or her age, education, involvement with the law, use of drugs, and physical and medical factors that could preclude enlistment. The prospect may take an enlistment screening test. Non-prior service prospects take the ASVAB at either a local test site or at a MEPS. If an NPS applicant achieves qualifying ASVAB scores and wishes to continue the application process, he or she is scheduled for a physical examination and background review at a MEPS. If the applicant's education, ASVAB scores, physical fitness, and moral character qualify for enlistment, he or she meets with a Service classification counselor at a MEPS (or in some instances at a National Guard unit) to discuss options for enlistment.

Up to this point, the applicant has made no commitment. The counselor has the record of the applicant's qualifications and computerized information on available training/skill openings, schedules, and enlistment incentives. They discuss the applicant's interests. The counselor may offer bonuses to encourage the applicant to choose hard-to-fill occupational specialties. The applicant, however, is free to accept or reject the offer. Many applicants do not decide immediately, but take time to discuss options with family and friends. When the applicant accepts the offer, he or she signs an enlistment contract and is sworn into the Reserve.

One of the most critical factors in achieving Reserve readiness is the ability to meet Selected Reserve manpower requirements—in numbers, skills, and quality. More than half (62 percent in FY 1999) of Selected Reserve accessions have prior service experience, primarily from active duty. However, a sizable proportion of new recruits enter the National Guard or Reserve without previous military affiliation. Recruiting must target both populations. Success in meeting recruiting and retention goals varies significantly from unit to unit. First, there are substantial differences in unit size; larger units require greater effort. Second, National Guard and Reserve units differ significantly in skills required. Third, National Guard and Reserve units exist in thousands of localities, and each locality presents a unique set of labor market characteristics. The size of the community, distinct demographic and socioeconomic profiles, the mix of skills in the local civilian labor force and among recent veterans, local civilian wage levels and hours worked, frequency and duration of employment, employer attitudes regarding National Guard or Reserve duty, attitudes toward the military, effect of recent mobilizations on propensity to enlist, and other secondary job opportunities create recruiting and retention challenges for Selected Reserve units.

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[2] For a description of NPS Selected Reserve recruiting, see Tan, H.W., *Non-prior Service Reserve Enlistments: Supply Estimates and Forecasts* (Santa Monica, CA: RAND Corporation, 1991).

The 1999 Youth Attitude Tracking Study shows that enlistment propensity for the Selected Reserve is lower than for the active Services (21 percent versus 29 percent, respectively, for 16- to 21-year-old males). Moreover, propensity is consistently higher for the Service Reserves than for the National Guard. Among 16- to 21-year-old males and 22- to 24-year-old males, there is a 5-percentage point difference between interest in the two components (11 percent National Guard versus 16 percent Reserves and 8 versus 13 percent, respectively). A smaller difference (4 percentage points) is found with 16- to 21-year-old females. Propensity among 16- to 21-year-old women increased 2 percentage points from 1998 to 1999 after no change in the National Guard or Reserves the previous two years. While trends indicate less interest today among the primary recruit population—male youth 16- to 21-years old—to enter the Selected Reserve than 8 years ago (25 percent in 1991, 21 percent in 1999), results of the survey illustrate relatively stable levels of National Guard and Reserve propensity over the last 7 years.[3]

The occupational distribution among the Active and Reserve Components varies (e.g., 9 percent of active Navy enlistees serve in administration while 21 percent of Naval Reserve [USNR] members serve in administration). Some units have to recruit more NPS individuals to fill unit vacancies. Another factor that can create large differences in manning success across skills is marketability, including civilian skill transferability, quality of training, equipment, and promotion opportunity. To combat the limited training opportunities, expense of field training, and lack of access to training facilities, the Reserve Component Virtual Training Program was created at the Mounted Warfare Simulation Training Center in Fort Knox, Kentucky. It provides structured, simulation-based training currently used in the Army National Guard (ARNG).[4]

The diversity of mission and force structure among the Reserve Components affects the demographic composition of units. A National Guard or Reserve company with a combat mission may need a significantly higher proportion of young NPS accessions. Conversely, combat service support functions may require more experienced personnel and thus have greater proportions of prior service recruiting requirements.

The population representation profiles of the Reserve Components are different from the Active Services due to a number of factors:

- The proportional distribution of combat, combat support, and combat service support skills in the Selected Reserve;
- The location of units, given the requirement for Reserve Components to recruit for local unit vacancies within a 50-mile radius; and

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[3] Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.

[4] Hoffman, R.G., Graves, C.R., Koger, M.E., Flynn, M.R., and Sever, R.S., *Developing the Reserve Component Virtual Training Program: History and Lessons Learned* (Fort Knox, KY: U.S. Army Research Institute for the Behavioral and Social Sciences, 1994).

- Differences between the force structure and occupational distribution of the Active and Reserve Components in conjunction with the prior service requirements of the National Guard and Reserve.

This chapter provides demographic characteristics and the distribution of FY 1999 enlisted accessions and the enlisted force of the Selected Reserve. Characteristics of Selected Reserve NPS accessions are described and, where applicable, are compared to prior service accessions. Characteristics and distribution of Selected Reserve officer accessions and the officer corps are contained in Chapter 6.

Characteristics of Selected Reserve Accessions

FY 1999 Reserve Component recruiting results for NPS and prior service gains and assigned end-strengths are shown in Table 5.1. In FY 1999, the Reserve Component recruited 143,855 enlisted persons compared to the Active Component's almost 184,000. The ARNG has the largest Reserve Component recruiting program, followed by the Army Reserve (USAR). The ARNG recruited nearly 29,000 NPS enlistees, approximately 15,000 more than the USAR. However, the USAR recruited just over 30,000 prior service recruits, nearly 2,000 more than the ARNG. Recognizing the importance of experience provided by qualified prior service personnel to the Reserve Forces, Congress established additional prior service accessions for the ARNG as part of the Army Guard Combat Reform Initiative: "The Secretary of the Army, shall increase the number of qualified prior active-duty enlisted members in the Army National Guard."[5] While the legislation applies only to the ARNG, the Secretary of the Army has required the Army Reserve to comply, which would explain the large number of prior service accessions to the USAR and the ARNG.

Selected Reserve recruiting achievements decreased by approximately 2,000 enlisted accessions from FY 1998 to FY 1999 (from almost 146,000 to nearly 144,000). The Army National Guard and the Naval Reserve increased while all other components experienced cuts.

Due to differences in mission and force structure, the size of recruit cohorts by component varied greatly. Therefore, comparisons between the Reserve Component percentages must be interpreted with care. The Army Components—the ARNG and USAR—had the largest Selected Reserve recruit cohorts, recruiting 70 percent of total Reserve Component accessions (40 and 30 percent for the ARNG and USAR, respectively) in FY 1999. The Naval Reserve (USNR) and Air Force Reserve (USAFR) had the highest proportion of prior service recruits (85 percent and 82 percent of their total recruiting efforts, respectively). The Marine Corps Reserve (USMCR) had the lowest proportion of recruits with past military experience (39 percent). Prior service accessions provide the Reserve Component with a more experienced personnel base, contributing to increased readiness to meet future missions.

5 Army National Guard Combat Readiness Reform Act of 1992, Section 1111, Public Law 102-484.

Table 5.1. FY 1999 Selected Reserve Non-Prior Service (NPS) and Prior Service Enlisted Accessions and End-Strengths					
	Enlisted Accessions				
Component	Non-Prior Service	Prior Service	Total	Prior Service Percent of Component Total	Enlisted End-Strength
Army National Guard	28,663	28,447	57,110	49.8	319,161
Army Reserve	13,484	30,125	43,609	69.1	161,930
Naval Reserve	2,641	15,251	17,892	85.2	69,999
USMC Reserve	5,778	3,758	9,536	39.4	35,947
Air National Guard	3,467	4,930	8,397	58.7	92,424
Air Force Reserve	1,335	5,976	7,311	81.7	55,557
DoD Total	55,368	88,487	143,855	61.5	735,018
Also see Appendix Tables C-1 (NPS Age by Component and Gender), C-9 (Prior Service Age by Component and Gender), and C-15 (Enlisted Member Age by Component and Gender).					

The increase in availability of prior service recruits, a temporary phenomenon due to the larger number of active duty members leaving service during the drawdown, has ended. The result is fewer prior service individuals from which the Reserve Component can recruit. In fact, the more successful the Military Services are in retaining active duty members, the smaller the prior services pool becomes. Thus, the Reserve Component must recruit NPS individuals, in direct competition with the Active Component. The numerical effects of the drawdown, changes in the Reserve mission with increased combat risks due to an increased operating tempo (OpTempo), as well as quality of life and compensation issues have made Reserve recruiting difficult as we enter the 21st century. Potential recruits are likely to find combat risk, family hardships, and financial losses during a mobilization more important in the Reserve participation decision today and in the future."[6]

Age. The largest proportions of FY 1999 NPS Reserve Component accessions were in the 17- to 19-year age group (Table 5.2). The one exception to this trend was the USNR, which had 68 percent falling in the 25- to 34-year age group. This was true, despite the high percentage of unknown age for NPS Reserve Component accessions to the USNR (15 percent in FY 1999).

Several factors contribute to age differences within the Reserve Component, including the size of the recruiting mission and the incentives used by recruiters. ARNG and USAR recruiters work extensively with the high school population because of the size of their respective NPS recruiting missions. Although the high school senior market is their primary target, recruiters use the split training option as an important incentive. This option allows high school juniors to enlist and attend basic training after their junior year of high school, and then enter skill training a year later upon graduating from high school. In FY 1999, 40 percent of ARNG NPS recruits were students still enrolled in high school. This is an increase of 7-percentage points from FY 1998. Twenty-one percent of USAR NPS recruits were students still enrolled in high school.

6 Asch, B.J., *Reserve Supply in the Post-Desert Storm Recruiting Environment* (Santa Monica, CA: RAND Corporation, 1993), p. 5.

Table 5.2. FY 1999 Selected Reserve Non-Prior Service Enlisted Accessions, by Age and Component, and Civilian Labor Force 17–35 Years Old (Percent)

Age Group	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	17- to 35-Year-Old Civilians
17–19	63.3	71.4	0.1	65.6	56.9	40.1	61.5	16.5
20–24	23.1	20.4	1.1	28.5	29.6	38.7	22.7	24.6
25–29	8.1	5.4	37.7	5.0	9.2	14.6	8.7	25.5
30–34	3.4	2.2	29.9	0.9	3.6	5.9	4.2	27.2
35–39	1.3	0.5	16.1	*	0.6	0.7	1.6	6.3
40–44	0.4	*	0.2	0.0	*	0.0	0.2	
45–49	0.2	*	0.0	0.0	*	0.0	*	
50+	0.1	*	0.0	0.0	*	0.0	*	
Unknown	0.2	*	14.9	*	*	0.0	0.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Less than one-tenth of one percent.
Also see Appendix Tables C-1 (Age by Component and Gender) and C-2 (Age by Marital Status and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

Race/Ethnicity. Table 5.3 presents the racial/ethnic makeup of FY 1999 NPS enlisted accessions by Selected Reserve Component. These figures are similar to those seen in FY 1998, with no component increasing or decreasing by more than 3 percentage points. The greatest change was a decrease of 2.7 percentage points in prior service Whites in the Army Reserve.

Since the inception of the All Volunteer Force, Blacks have been somewhat overrepresented in the active duty ranks, while Whites and Hispanics have been underrepresented as compared to the nation's youth population as a whole. We would expect this to be reflected in the makeup of the Reserve Forces. Table 5.3 demonstrates that the proportion of prior service Black accessions in each of the Selected Reserve components is higher than their representation among the 20- to 39-year-old civilian labor force. Conversely, Hispanics are underrepresented across the board, with the exception of the USMCR's prior service recruits. In previous years, Whites also have made up a smaller proportion of Reserve accessions than of the comparison group. However, in FY 1999, the proportion of NPS White accessions in the ARNG, USMCR, and ANG and prior service White accessions in the ARNG, USNR, ANG, and USAFR was higher than in the civilian comparison groups.

Black females represented the largest proportion of minority Reserve accessions (see Appendix Tables C-3 and C-11). Across the Reserve Component, the proportion of Black women (27 and 32 percent for NPS and prior service, respectively) was nearly twice that of Black men (14 and 17 percent for NPS and prior service, respectively). The USAR had the highest proportion of Black female recruits (32 percent of NPS and 38 percent of prior service). The USAFR had 35 percent NPS Black females and 32 percent prior service Black females.

Gender. The proportion of Selected Reserve accessions in FY 1999 who were women was slightly greater (20 percent) than in the Active Component (18 percent). Table 5.4 reflects the gender percentages for NPS and prior service accessions by Component. The USAR and

USAFR had the highest proportion of female accessions in the Selected Reserve (27 and 26 percent, respectively), while the USMCR had the lowest (5 percent). With the exception of the USMCR, the proportion of prior service female recruits was lower than NPS female recruits.

Table 5.3. FY 1999 Selected Reserve Non-Prior Service and Prior Service Enlisted Accessions, by Race/Ethnicity, and Civilians (Percent)

Race/ Ethnicity	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	Civilians*
NON-PRIOR SERVICE								
White	73.3	64.3	62.9	69.5	75.0	57.8	70.0	65.7
Black	15.9	23.3	19.4	9.8	10.4	25.7	16.9	14.2
Hispanic	6.0	7.5	11.6	13.9	5.3	7.5	7.5	15.2
Other	4.7	5.9	6.1	6.8	9.3	5.7	5.7	4.9
PRIOR SERVICE								
White	70.0	63.1	70.0	65.4	75.6	72.8	67.9	69.3
Black	19.2	25.0	17.0	13.2	13.0	15.7	20.0	12.8
Hispanic	6.4	6.2	8.4	16.1	6.4	6.0	7.1	13.1
Other	4.4	5.7	4.6	5.4	5.1	5.4	5.0	4.8
TOTAL ACCESSIONS								
White	71.7	63.4	68.9	67.9	75.3	70.1	68.7	
Black	17.6	24.2	17.4	11.1	11.9	17.5	18.8	
Hispanic	6.2	6.6	8.9	14.8	5.9	6.3	7.2	
Other	4.6	5.8	4.8	6.2	6.8	6.1	5.3	

Columns may not add to total due to rounding.
* NPS civilian comparison is 18- to 24-year-old civilians; prior service civilian comparison is 20- to 39-year-old civilian labor force.
Also see Appendix Tables C-3 (NPS Race/Ethnicity by Component and Gender) and C-11 (Prior Service Race/Ethnicity by Component and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

Table 5.4. FY 1999 Selected Reserve Non-Prior Service and Prior Service Accessions, by Gender (Percent)

Component	Non-Prior Service		Prior Service		Total	
	Males	Females	Males	Females	Males	Females
Army National Guard	79.3	20.7	89.8	10.2	84.5	15.5
Army Reserve	66.8	33.2	76.3	23.7	73.4	26.6
Naval Reserve	68.0	32.0	82.2	17.8	80.1	19.9
USMC Reserve	95.1	4.9	94.2	5.8	94.8	5.2
Air National Guard	71.4	28.6	81.3	18.7	77.2	22.8
Air Force Reserve	59.8	40.2	76.8	23.2	73.7	26.3
DoD Total	76.2	23.6	82.7	17.3	80.3	19.7

Also see Appendix Tables C-1 (NPS Age by Component and Gender) and C-9 (Prior Service Age by Component and Gender).

Marital Status. Approximately 10 percent of FY 1999 Selected Reserve NPS enlisted accessions were married (Table 5.5). The marriage rates of prior service recruits look markedly different, with 42 percent married. The FY 1999 prior service cohort, predominantly those leaving active duty enlisted service who chose to affiliate with the Reserves, were less likely to be married than active duty enlisted members (52 percent). Also, prior service Reserve recruits were less likely to be married than their civilian counterparts, 20- to 39-year-old civilians in the labor force (51 percent). Among FY 1999 prior service Reserve accessions, a somewhat larger proportion of males were married than females, consistent with the trend in the 20- to 39-year-old civilian population. There were practically no marital status differences by gender for FY 1999 NPS Reserve accessions.

Table 5.5. FY 1999 Married Selected Reserve Non-Prior Service and Prior Service Enlisted Accessions and Active Component Non-Prior Service Enlisted Accessions and Enlisted Members, by Gender, and Civilians (Percent)

Gender	Non-Prior Service Reserve Accessions	Civilians, 17–35 Years Old	Prior Service Reserve Accessions	Civilian Labor Force, 20–39 Years Old	Non-Prior Service Active Component Accessions	Active Component Enlisted Members
Male	10.1	35.0	43.0	50.8	8.6	53.0
Female	11.1	41.7	35.9	49.9	11.9	42.6
Total	10.3	38.4	41.8	50.4	9.2	51.5

Also see Appendix Tables B-2 (NPS Active Component Enlisted Accession by Age, Marital Status and Gender), B-23 (Active Component Enlisted Members by Age, Service, and Gender), C-2 (NPS Age by Marital Status and Gender), and C-10 (Prior Service Age by Marital Status and Gender.

Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

Education. More Selected Reserve NPS recruits completed high school than was the case for their civilian peers, as indicated in Table 5.6. Approximately 93 percent of FY 1999 Selected Reserve NPS accessions were in Tiers 1 (high school graduates) and 2 (alternative credentials), compared to 79 percent of 18- to 24-year-old civilians. The most marked differences among the Reserve Components in FY 1999 high school graduate NPS recruits were between the Army and "non-Army" Components. In the Army National Guard and Army Reserve, 91 and 71 percent, of NPS enlistees were high school diploma graduates, respectively. In comparison, the USMCR, accessed 97 percent NPS high school graduates. The percentage in Tier 1 for the Army Reserve and the USAFR decreased between FY 1998 and 1999 (from 77 and 96 percent to 71 and 93 percent, respectively). The Army National Guard increased by 4 percentage points while the USMCR and ANG remained the same from 1998 to 1999. The Army National Guard and Air National Guard had the highest proportion of Tier 2 accessions (8 and 6 percent, respectively). The Army Reserve experienced a significant increase in Tier 3 accessions from 20 percent in FY 1998 to 27 percent in FY 1999.

College experience refers to individuals who have completed at least one semester in junior college or a 4-year institution. The USNR had, by far, the highest proportion of accessions with college experience (36 percent), in part, due to college credit given by the Navy for

technical training through their TechPrep program. Most enlisted occupations are generally comparable to civilian jobs not requiring college education.

Table 5.6. FY 1999 Selected Reserve Non-Prior Service Enlisted Accessions, by Education Tier and Component, and Civilians 18–24 Years Old (Percent)

Education Tier	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	18- to 24-Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher**	91.0	71.4	97.6	96.5	92.5	92.7	87.3	78.8
Tier 2: GED, Alternative Credentials	8.1	1.5	0.9	3.4	5.6	2.8	5.4	
Tier 3: No Credentials	0.8	27.1	1.5	0.1	2.0	4.6	7.3	21.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
College Experience (Part of Tier 1)[1]	2.5	4.1	35.7	3.8	5.0	6.4	4.8	45.9

Columns may not add to total due to rounding.
*Civilian percentages combine Tiers 1 and 2.
**Tier 1 includes members still in high school.
[1] These military data represent only Selected Reserve NPS enlisted accessions. Officers, who usually have college degrees, are not included. See Chapter 6 for a discussion of Reserve officers.
Also see Appendix Tables C-7 (Education by Component and Gender) and C-8 (Education by Component and Race/Ethnicity).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

AFQT. FY 1999 Selected Reserve NPS accessions are compared with civilian youth by AFQT category, gender, and Reserve Components in Table 5.7. The percentage of Reserve male recruits who scored in AFQT Categories I to IIIA was greater than for their civilian counterparts (60 versus 50 percent). Sixty-nine to 76 percent of USAR, USMCR, ANG, and USAFR NPS male accessions were in AFQT Categories I through IIIA, compared to 50 percent in the civilian group. Fifty-five percent of ARNG NPS male recruits scored in AFQT Categories I through IIIA, comparable to the civilian group. The differences between scores of female recruits and their comparable civilian group were similar to male accessions; however, ARNG NPS female recruits scored 2 percentage points higher in AFQT Categories I–IIIA than the comparable civilian group.

Characteristics of the Selected Reserve Enlisted Force

Reserve Component forces perform a variety of important missions in the event of national emergency and assist the Active Component in meeting its peacetime operating requirements. Figure 5.2 shows the Selected Reserve enlisted end-strengths for FYs 1974 to 1999.

Table 5.7. FY 1999 Selected Reserve Non-Prior Service Enlisted Accessions, by AFQT Category, Gender, and Component (Percent)

AFQT Category	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD
MALES							
I	3.9	5.8	0.2	8.7	7.8	6.4	5.1
II	29.1	34.8	4.5	41.4	47.7	43.0	32.2
IIIA	21.6	27.9	4.5	23.3	20.8	26.8	22.5
IIIB	37.9	24.7	5.4	23.7	21.2	22.9	30.6
IV	2.4	2.8	0.7	0.5	0.0	0.3	2.0
V	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	5.1	3.9	84.8	2.4	2.7	0.6	7.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FEMALES							
I	2.2	3.0	0.2	5.0	4.0	3.7	2.6
II	26.6	29.3	1.5	41.7	37.8	33.3	27.4
IIIA	23.6	29.0	3.4	31.8	26.8	26.1	24.7
IIIB	43.6	33.1	2.7	17.3	30.7	36.9	35.5
IV	1.4	1.5	0.4	0.7	0.0	0.0	1.2
V	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	2.6	4.1	91.7	3.5	0.6	0.0	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Less than one-tenth of one percent.
Also see Appendix Tables C-5 (AFQT by Component and Gender) and C-6 (AFQT by Component and Race/Ethnicity).

Source: Service data from Defense Manpower Data Center. The 1980 civilian comparison group distribution for the total population (males and females) is 7 percent in Category I, 28 percent in Category II, 15 percent in Category IIIA, 19 percent in Category IIIB, 21 percent in Category IV, and 10 percent in Category V. Civilian data from the *Profile of American Youth* (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], 1982).

Age. Substantive differences exist among the Reserve Components in the proportion of enlisted members in various age groups, as shown in Table 5.8. The Air Force Reserve Components (ANG and USAFR) have the "oldest" members with 33 and 35 percent, respectively, of enlisted members 40 years of age or older. These proportions are strikingly different from the Active Component and other Reserve Components. For example, only 4 percent of USMCR enlisted members are 40 or older.

Age differences among the Components result from diverse mission requirements and retention. The mission drives the NPS/prior service mix in each of the Reserve Components. For example, the labor-intensive requirements of infantry and other ground combat units usually mandate the need for younger individuals, while equipment-intensive requirements demand more formal training. Normally, longer training periods result in the Services seeking recruits for longer terms of enlistment or maintaining a force with greater experience. Individuals in

equipment-intensive or high-technology fields, such as those found more often in the USNR, ANG, and USAFR, usually are more experienced, and therefore older.

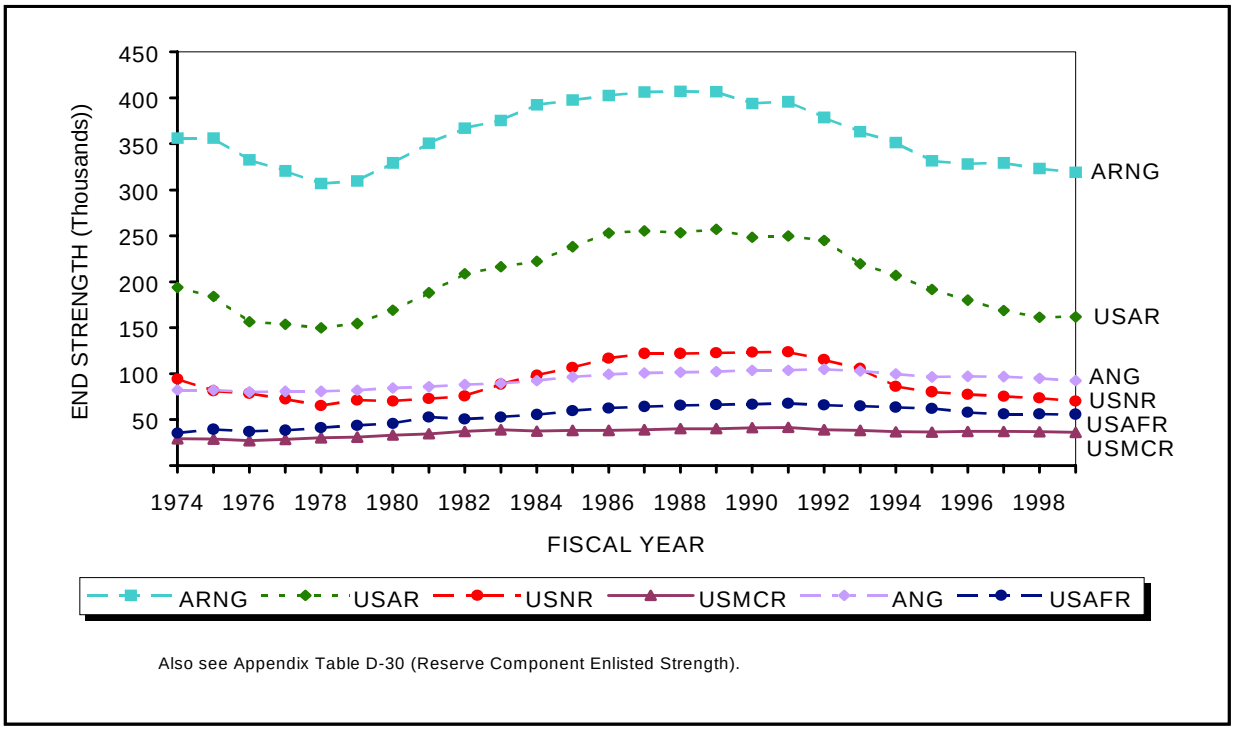

Figure 5.2. Reserve Component enlisted end-strength, FYs 1974–1999.

Table 5.8. FY 1999 Selected Reserve Enlisted Members, by Age and Component, and Civilian Labor Force Over 16 Years Old (Percent)

Age Group	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	Civilians
17–19	9.2	11.0	1.1	12.6	2.9	1.1	7.6	4.9
20–24	20.8	22.7	9.6	49.6	11.2	7.4	19.3	10.0
25–29	19.3	18.0	20.5	21.0	14.9	14.3	18.3	11.1
30–34	15.1	14.1	23.9	8.6	18.1	19.7	16.1	12.0
35–39	13.9	13.9	22.0	4.9	19.7	22.4	15.6	13.6
40–44	8.6	9.3	12.0	1.9	12.1	14.2	9.6	13.8
45–49	6.0	5.5	6.1	0.8	9.6	9.8	6.4	11.8
50+	7.1	5.3	4.9	0.6	11.5	11.2	7.0	22.7
Unknown	0.0	0.3	0.0	0.2	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Less than one-tenth of one percent.
Also see Appendix Table C-15 (Age by Component and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Race/Ethnicity. As shown in Table 5.9, the proportion of minority Servicemembers varies by Reserve Component. The proportion of Blacks is higher than in the comparable civilian group (18 and 12 percent, respectively), but lower than in the Active Component (23 percent). The USAR has the largest proportion of Blacks (28 percent), while the ANG has the lowest (9 percent). The USMCR has the greatest proportion of Hispanic members (14 percent). The USAR has the greatest proportion of "Other" racial minorities (7 percent), while the USMCR and ANG are close behind with 6 percent each. The USAR data are affected by the large number of FY 1999 accessions with unknown race/ethnicity who are included in the "Other" minorities category.

Table 5.9. FY 1999 Selected Reserve Enlisted Members, by Race/Ethnicity, Gender, and Component, and Civilian Labor Force 18–49 Years Old (Percent)

Race/ Ethnicity	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD
MALES							
White	73.6	59.9	73.4	68.1	80.4	73.2	71.4
Black	15.3	23.9	14.0	11.6	7.8	15.9	15.8
Hispanic	7.4	9.6	8.0	14.0	5.7	5.9	7.9
Other	3.6	6.6	4.7	6.3	6.1	5.0	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FEMALES							
White	61.0	44.0	63.3	60.3	71.8	61.6	56.9
Black	28.6	42.1	24.4	19.2	15.9	27.8	30.9
Hispanic	6.1	7.5	7.7	14.3	5.4	5.4	6.7
Other	4.4	6.4	4.6	6.2	6.9	5.3	5.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TOTAL							
White	72.3	56.0	71.4	67.8	79.0	70.8	69.1
Black	16.7	28.4	16.0	11.9	9.2	18.3	18.2
Hispanic	7.3	9.1	8.0	14.0	5.6	5.8	7.7
Other	3.7	6.6	4.7	6.3	6.2	5.1	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

CIVILIAN LABOR FORCE 18–49 YEARS OLD				
White	Black	Hispanic	Other	**Total**
71.3	12.3	11.7	4.7	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables C-17 (Race/Ethnicity by Component and Gender) and C-18 (Ethnicity by Component).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999

Substantial gender differences exist in the racial and ethnic composition of Reserve Component members (Appendix Table C-17). While Black males represent 16 percent of the male enlisted Selected Reserve, Black females represent 31 percent of females. Approximately 56 percent of USAR females are minorities: 42 percent Black, 8 percent Hispanic, and 6 percent in the "Other" racial category. Conversely, the ANG has the lowest proportion of minority females (28 percent), compared to 29 percent in the 18- to 49-year-old civilian labor force.

Gender. The proportion of enlisted women is slightly less in the Selected Reserve than in the Active Component (16 versus 18 percent, respectively). However, as Table 5.10 illustrates, there are differences in the proportion of women among the Reserve Components. The Component with the highest proportion of women is the USAR (25 percent), while the ARNG has 11 percent and the USMCR, with the lowest proportion, has 2 percent (down from 4 percent in FY 1998). Differences in gender composition are the result of the types of units in the Components. For example, the ARNG and USMCR have mainly combat units and the USAR has primarily combat support and combat service support units.

Table 5.10. FY 1999 Selected Reserve Enlisted Members, by Gender and Component, and Civilian Labor Force 18–49 Years Old (Percent)

Gender	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	18- to 49-Year-Old Civilians
Male	89.3	75.4	80.6	98.5	83.5	79.8	84.3	53.5
Female	10.7	24.6	19.4	1.5	16.5	20.2	15.7	46.5

Also see Appendix Table C-15 (Age by Component and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Marital Status. Just over half of Selected Reserve members are married (Table 5.11). This proportion is lower than for the comparable civilian population (58 percent), and for enlisted members in the Active Component (52 percent). The proportion of married female Selected Reserve members (37 percent) is much lower than the proportion of married female civilians (53 percent). This difference is in part explained by the younger age of women enlisted members compared to their civilian counterparts.

Table 5.11. FY 1999 Married Selected Reserve Enlisted Members, by Gender, and Civilian Labor Force 18–49 Years Old (Percent)

Gender	DoD	18- to 49-Year-Old Civilians
Male	53.2	56.9
Female	36.7	53.2
Total	50.6	55.2

Also see Appendix Table C-16 (Age by Marital Status and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Education. As shown in Table 5.12, 98 percent of FY 1999 Selected Reserve enlisted members have a high school diploma or alternative credential (Tiers 1 and 2), compared to 89 percent of the comparably aged civilian labor force. Comparing Table 5.6 (education levels of Selected Reserve accessions) with Table 5.12 suggests that a significant number of enlisted members gain college experience while in the Selected Reserve (5 percent of NPS accessions versus 20 percent of enlisted members).

Representation Within Occupations. The assignment of Reserve Component personnel to occupations is based upon individual qualifications and desires, military requirements, and unit vacancies. The changing missions of the Armed Services, including domestic and international humanitarian efforts, affect personnel assignment. Table 5.13 shows the occupational area distribution of Reserve and Active Components.

Table 5.12. FY 1999 Selected Reserve Enlisted Members, by Education Levels and Component, and Civilian Labor Force 18–49 Years Old (Percent)[1]								
Education Tier	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	18- to 49-Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	99.2	89.9	98.1	97.4	99.2	99.6	97.0	89.0
Tier 2: GED, Alternative Credentials	0.1	4.6	1.1	2.5	0.7	0.3	1.4	
Tier 3: No Credentials	0.7	5.4	0.8	0.1	0.1	0.1	1.6	11.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
College Experience (Part of Tier 1)	20.9	15.8	34.9	8.2	17.3	24.5	20.3	56.3

Columns may not add to total due to rounding.
* Civilian percentages combine Tiers 1 and 2.
[1] Comparisons between FY 1999 data and previous years' data may show some large changes due to extensive updates and corrections made to the education data in October 1998.
Also see Appendix Tables C-19 (Education by Component and Gender) and C-20 (Education by Component and Race/Ethnicity).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1999.

Table 5.13. Comparison of FY 1999 Reserve and Active Enlisted Occupational Areas (Percent)			
Occupational Code and Area		Reserve	Active
0	Infantry, Gun Crews, and Seamanship Specialists	18.3	17.0
1	Electronic Equipment Repairers	4.5	9.4
2	Communications and Intelligence Specialists	5.0	9.0
3	Medical and Dental Specialists	6.9	6.9
4	Other Allied Specialists	2.8	3.0
5	Functional Support and Administration	18.6	16.0
6	Electrical/Mechanical Equipment Repairers	16.5	19.8
7	Craftsmen	5.8	3.5
8	Service and Supply Handlers	10.6	8.5
9	Non-occupational*	11.1	6.9
Total		100.0	100.0

Columns may not add to total due to rounding.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Tables B-29 and C-21 (Occupational Area by Service/Component and Gender) and B-30 and C-22 (Occupational Area by Service/Component and Race/Ethnicity).

Table 5.14 indicates that the occupational distribution among Active and Reserve Components varies. The differences reflect each Reserve Component's unique mission requirements and force structure. These differences may preclude some direct transfers from

active duty to the National Guard and Reserve within the same skill. For example, 13 percent of active Navy enlisted members serve in electronics specialties, but Naval Reserve requirements account for only 8 percent of this skill area. On the other hand, only 10 percent of active Navy enlistees serve in administration while 21 percent of USNR enlistees serve in administration. Similar occupational differences are found in each Service component. Some occupational areas may not be able to absorb all transfers, while other areas may have to recruit more NPS individuals to fill unit vacancies or retrain those with prior service. The occupational distribution percentages for FY 1999 are relatively similar to those of FY 1998.

Table 5.14. Comparison of FY 1999 Occupational Area Distribution of Enlisted Members, by Active and Reserve Components (Percent)

Active and Reserve Components	Occupational Area*									
	0	1	2	3	4	5	6	7	8	9
ARMY										
Active Component	26.1	6.8	10.2	8.0	3.4	16.2	14.3	2.1	12.4	0.5
Army National Guard	24.6	3.4	5.0	4.5	2.4	13.8	14.2	3.9	11.2	17.0
Army Reserve	15.5	2.3	4.2	11.6	3.4	23.5	11.0	5.3	15.4	7.8
NAVY										
Active Component	10.3	13.4	10.0	8.0	2.1	10.1	25.7	5.2	4.5	10.9
Naval Reserve	10.1	7.5	9.0	9.9	0.8	21.1	21.2	14.2	5.1	1.1
MARINE CORPS										
Active Component	22.2	6.3	7.1	0.0	2.5	16.1	15.8	2.5	12.9	14.8
USMC Reserve	26.9	3.0	7.8	0.0	1.2	12.6	12.8	3.2	15.5	17.0
AIR FORCE										
Active Component	8.9	10.1	7.5	8.1	3.8	22.1	23.2	4.3	4.9	7.2
Air National Guard	7.9	10.1	3.6	4.9	4.8	22.4	27.0	7.4	6.0	6.0
USAF Reserve	11.9	5.4	3.0	11.0	3.3	26.4	24.2	6.2	4.8	3.8

* Occupational Area Codes: 0=Infantry, 1=Electronics, 2=Communications, 3=Medical, 4=Other Technical, 5=Administration, 6=Electrical, 7=Craftsmen, 8=Supply, 9=Non-occupational.

Representation of minorities within occupations. As shown in Table 5.15, about two-thirds of all Selected Reserve personnel are in four occupational areas: infantry, administration, electrical/mechanical equipment repair, and service and supply. The largest percentage of Blacks and "Others" are in functional support and administration, while combat occupations are the most prevalent among Whites and Hispanics.

Representation of women within occupations. The assignment patterns for Selected Reserve enlisted men and women in occupational areas are reflected in Table 5.16. Most National Guard and Reserve enlisted women are assigned to two occupational areas: functional support (41percent) and medical (16 percent). Enlisted men are assigned primarily to infantry (21 percent) and electrical/mechanical equipment repair (19 percent).

Table 5.15. FY 1999 Occupational Areas of Selected Reserve Enlisted Personnel within Race/Ethnicity (Percent)					
Occupational Code and Area		White	Black	Hispanic	Other
0	Infantry, Gun Crews, and Seamanship Specialists	19.3	13.9	19.9	18.1
1	Electronic Equipment Repairers	4.9	3.5	3.7	4.5
2	Communications and Intelligence Specialists	5.5	3.7	4.6	4.4
3	Medical and Dental Specialists	6.3	8.5	7.5	8.4
4	Other Allied Specialists	2.9	2.4	2.4	2.3
5	Functional Support and Administration	16.3	26.9	18.6	20.2
6	Electrical/Mechanical Equipment Repairers	17.7	12.1	16.4	15.2
7	Craftsmen	6.3	4.2	5.2	5.2
8	Service and Supply Handlers	9.7	14.1	11.5	8.7
9	Non-occupational*	11.1	10.8	10.4	13.1
Total		100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Table C-22 (Occupational Area by Component and Race/Ethnicity).

Table 5.16. FY 1999 Occupational Areas of Selected Reserve Enlisted Personnel, by Gender (Percent)			
Occupational Code and Area		Male	Female
0	Infantry, Gun Crews, and Seamanship Specialists	21.0	4.3
1	Electronic Equipment Repairers	4.9	2.3
2	Communications and Intelligence Specialists	5.2	3.9
3	Medical and Dental Specialists	5.3	15.9
4	Other Allied Specialists	2.8	2.4
5	Functional Support and Administration	14.5	40.8
6	Electrical/Mechanical Equipment Repairers	18.5	5.6
7	Craftsmen	6.4	2.4
8	Service and Supply Handlers	10.8	9.6
9	Non-occupational*	10.8	12.9
Total		100.0	100.0

Columns may not add to total due to rounding.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Table C-21 (Occupational Area by Component and Gender).

The April 1993 policy[7] to open more specialties and assignments to women resulted in new opportunities for women in both the Active and Reserve Components. Women are not permitted to serve in direct ground combat roles, but positions on ships and aircraft engaging in combat are now open to women. In FY 1999, 4 percent of women served in infantry, gun crew, and seamanship specialties, as illustrated in Table 5.16 and the same as in FY 1998.

The proportion of Selected Reserve women in non-traditional occupations, such as technical and craftsmen, was relatively low in FY 1999. Women were nearly three times more likely than men to serve in the traditional occupational areas of medical and administration. In the future, the proportion of women enlisting in non-traditional positions in the National Guard and Reserves will depend to a considerable extent on the number of Active Component women in non-traditional skills, their willingness to join a Selected Reserve unit upon separating from active duty, and the proportion of technical skill vacancies in Guard and Reserve units. However, with the end of the military drawdown, there are fewer prior service women available to enter the Selected Reserve. Consequently, it is important to continue monitoring occupational trends by gender in both the Active and Reserve Components.

[7] Memorandum from Les Aspin, Secretary of Defense, Subject: Policy on the Assignment of Women in the Armed Forces, April 28, 1993.

Chapter 6

SELECTED RESERVE OFFICER ACCESSIONS AND OFFICER CORPS

This chapter describes demographic characteristics of Selected Reserve officer accessions and commissioned officers in FY 1999.[1] The total officer accessions for Reserves increased in FY 1999 (from 15,482 in FY 1998 to 17,447 in FY 1999). The size of the FY 1999 officer corps remained virtually the same compared to FY 1998 (124,329 to 124,309, respectively). On the whole the Selected Reserve officer corps of FY 1999 looks similar to the FY 1998 officer corps. Figure 6.1 shows the Reserve Component officer corps end-strengths for FYs 1974 to 1999.

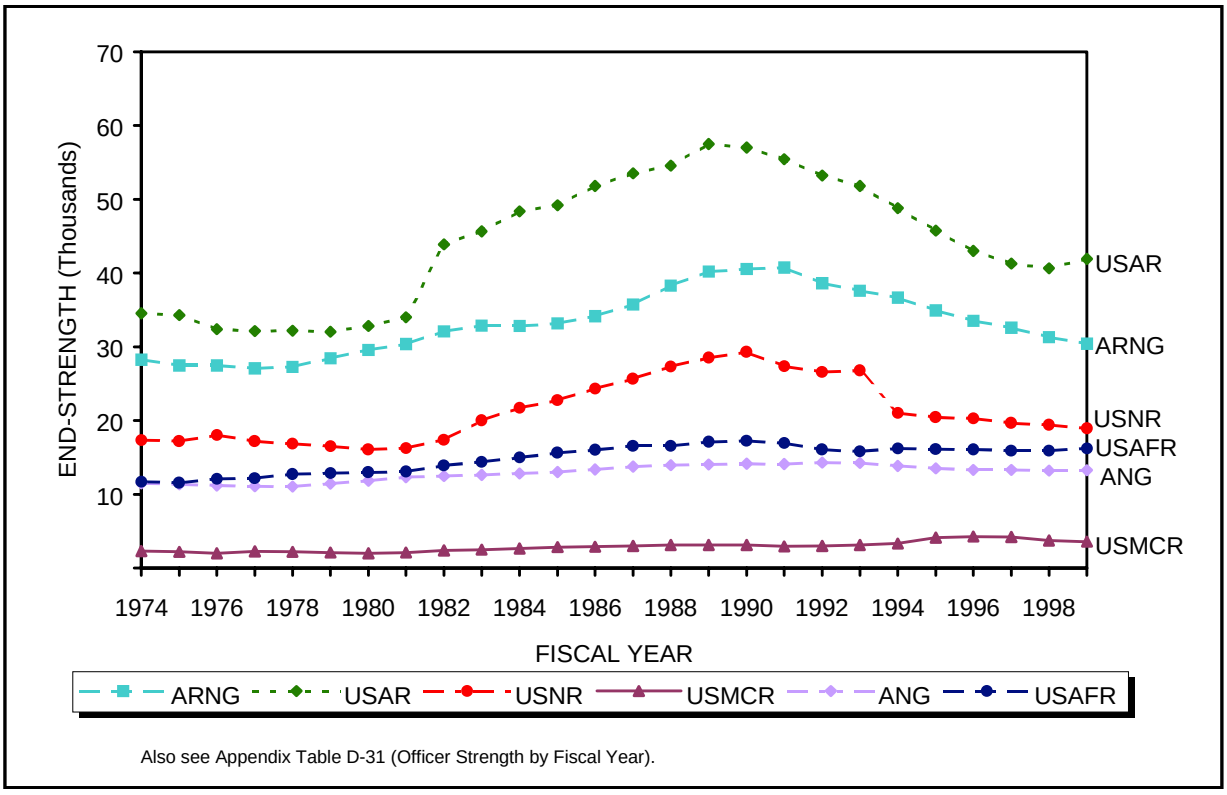

Figure 6.1. Reserve Component officer corps end-strength, FYs 1974–1999.

Table 6.1 compares the number and proportion of Reserve officer accessions with the officer corps. The ARNG and the USAR account for the largest proportion of Selected Reserve officers. The two Army components comprise 60 percent of Reserve officer accessions and 58 percent of Reserve officer end-strength. With the exception of the USNR, accessions increased for all components in FY 1999. End-strength decreased in the ARNG, USNR, and USMCR, but increased in the USAR, ANG and USAFR.

[1] Data are for commissioned officers; warrant officers are excluded. A brief look at Reserve Component warrant officers is provided in Appendix Tables C-34 and C-35.

Table 6.1. FY 1999 Selected Reserve Officer Accessions and Officer Corps End-Strength (Number and Percent)				
Component	Reserve Officer Accessions		Reserve Officer Corps End-Strength	
	Number	Percent	Number	Percent
Army National Guard	2,427	13.9	30,418	24.5
Army Reserve	8,064	46.2	41,933	33.7
Naval Reserve	2,942	16.9	18,907	15.2
USMC Reserve	843	4.8	3,565	2.9
Air National Guard	1,150	6.6	13,291	10.7
Air Force Reserve	2,021	11.6	16,215	13.0
Total	17,447	100.0	124,329	100.0
Columns may not add to total due to rounding. Also see Appendix Tables C-23 (Officer Accessions by Age and Component) and C-24 (Officers by Age and Component).				

Characteristics of Selected Reserve Officer Accessions and Officer Corps

Age. The differing missions and force structures of the Reserve Component affect the age composition of the officer corps as shown in Figure 6.2. The USAR, USAFR and USNR have the largest proportions of officers aged 40 and older (50, 54, and 50 percent, respectively). Conversely, the ARNG, USMCR and ANG have the smallest proportions of officers 40 or older (34, 44, and 45 percent, respectively). The ARNG and USAR have the greatest proportions of officers aged 29 and younger (16 and 9 percent, respectively), while the USNR has the smallest proportion of officers aged 29 and younger (3 percent).

Recruiting policies affect the age structure of the Selected Reserve officer corps. As in the Active Component, one might expect the USMCR to have a greater proportion of younger officers than the other Reserve Components. However, this is not the case. The USMCR's policy to recruit only officers with prior military service increases the age of its officers.

Race/Ethnicity. Table 6.2 shows the FY 1999 Selected Reserve officer accessions and officer corps by race/ethnicity. The proportion of Black officer accessions in the Selected Reserve (10 percent) is comparable to the proportion in the Active Component (8 percent), but the Active Component accessed a higher percentage of Hispanic officers (7 percent versus 3 percent). In FY 1999, the Active Component accessed more new officers of "Other" race/ethnicity than the Selected Reserve (8 percent versus 5 percent), but the Reserve Component maintained similar proportions of "Other" officers as the Active Component (4 and 5 percent, respectively).

The Army components of the Selected Reserve have the highest proportions of Black (ARNG – 9 percent, USAR – 14 percent) and Hispanic (ARNG and USAR 4 percent, each). The

USNR has the lowest percent of Blacks (4 percent), and the USNR and USAFR have 2 percent Hispanic officers – the lowest of the Reserve Components. In the remaining components, the proportion of Black officers is approximately 5 percent and the proportion of Hispanic officers ranges from 2 to 5 percent.

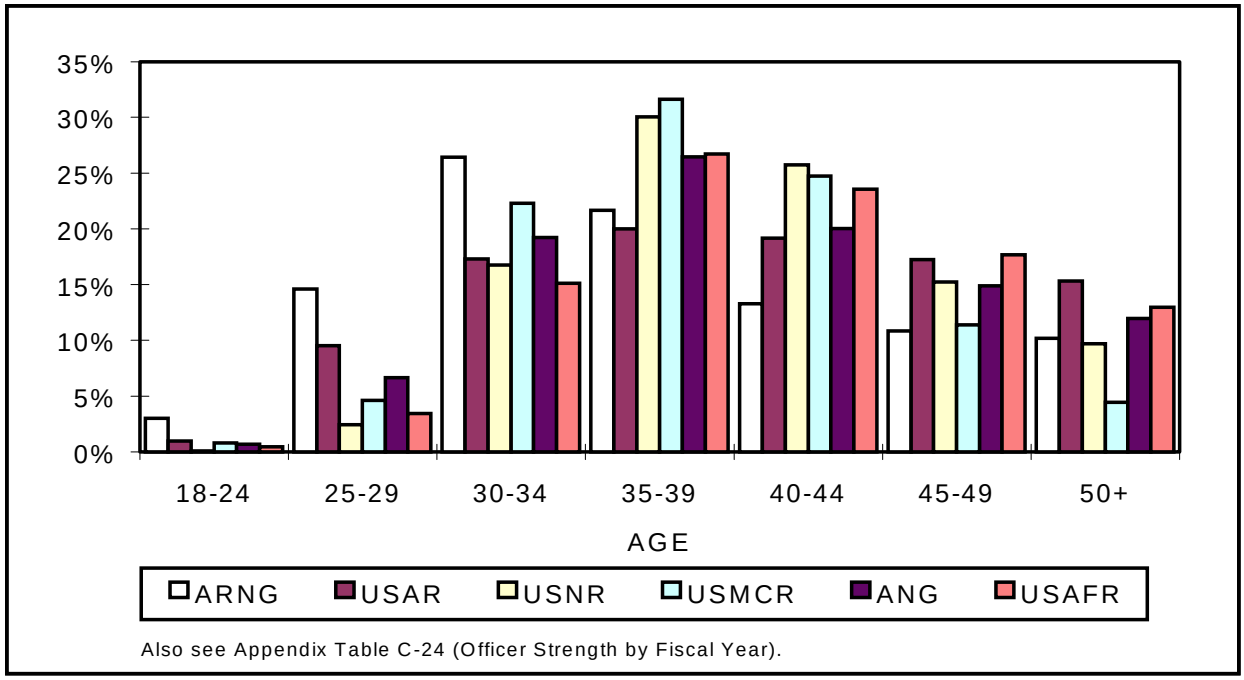

Figure 6.2. Percent of Selected Reserve officer corps by age group, FY 1999.

Gender. Women comprise 18 percent of Selected Reserve officer accessions and 18 percent of the Selected Reserve officer corps, as shown in Table 6.3. The proportion of Selected Reserve female officer accessions is lower than the Active Component (18 and 20 percent, respectively). However, the proportion of women in the Selected Reserve officer corps is larger than in the Active Component (18 and 15 percent, respectively), due to higher retention among female officers in the Reserve Component.

The impact of force structure and mission diversity is reflected in the distribution of women officers among the Reserve Component. The proportion of female officers in the USMCR is 5 percent, while 25 percent of the USAR and 24 percent of the USAFR officers are female. Reasons for this divergence are discussed in the portion of this chapter dealing with the occupational assignment of officers.

Marital Status. In FY 1999, the proportion of Selected Reserve officer accessions and officers who were married was higher than for enlisted members (Table 6.4). As in the Active Component, more males were married than females. Appendix Table C-26 shows that the proportion of married male Selected Reserve officers (76 percent) is larger than the proportion of the male civilian college graduate labor force who are married (60 percent). The proportion of married female Selected Reserve officers (57 percent) is higher than for the comparable married, female, civilian college graduate labor force (56 percent), though the difference is slight.

Table 6.2. FY 1999 Selected Reserve Officer Accessions and Officer Corps, by Race/Ethnicity (Percent)					
Component	White	Black	Hispanic	Other	Total
SELECTED RESERVE OFFICER ACCESSIONS					
Army National Guard	82.2	8.7	4.3	4.7	100.0
Army Reserve	76.4	14.5	3.5	5.7	100.0
Naval Reserve	89.9	4.3	1.8	4.0	100.0
USMC Reserve	87.2	4.7	4.9	3.2	100.0
Air National Guard	85.7	4.9	4.4	5.0	100.0
Air Force Reserve	87.5	4.9	2.5	5.2	100.0
Total DoD	81.9	9.7	3.3	5.0	100.0
SELECTED RESERVE OFFICER CORPS					
Army National Guard	85.0	7.5	4.5	3.0	100.0
Army Reserve	75.7	14.9	4.2	5.3	100.0
Naval Reserve	90.6	3.6	1.9	3.9	100.0
USMC Reserve	90.0	4.3	3.1	2.6	100.0
Air National Guard	87.1	5.0	3.1	4.8	100.0
Air Force Reserve	87.7	5.6	2.5	4.2	100.0
Total DoD	83.4	8.8	3.5	4.2	100.0

Rows may not add to total due to rounding.
Also see Appendix Table C-27 (Race/Ethnicity by Component).

Table 6.3. FY 1999 Selected Reserve Female Officer Accessions and Officer Corps (Percent)							
	Army National Guard	Army Reserve	Naval Reserve	USMC Reserve	Air National Guard	Air Force Reserve	DoD Total
Officer Accessions	11.8	22.6	14.4	5.5	16.0	20.1	18.2
Officer Corps	9.9	24.9	17.3	5.4	14.6	24.2	18.3

Also see Appendix Table C-25 (Gender by Component).

Source of Commission. Each Reserve Component applies its own selection procedures for officer candidates. Many officers who transfer from an Active Component already possess at least a college degree. Officer candidates who do not have a degree undergo rigorous selection procedures and must successfully complete an officer candidate or training school. In FY 1999, 16 percent of ARNG officer accessions received their commissions through the ARNG Officer

Candidate Schools (OCS) located in each state and territory (up from 14 percent in FY 1998); 36 percent of ANG officer accessions were commissioned through its Academy of Military Science (AMS) located in Tennessee (up from 28 percent in FY 1998; Table 6.5).

Table 6.4. FY 1999 Married Selected Reserve Officers and Enlisted Members, by Gender, and Civilians (Percent)

Gender	Reserve Officer Accessions	21- to 35-Year-Old Civilian College Graduates	Reserve Officer Corps	Civilian College Graduates in the Work Force	Reserve Enlisted Members	18- to 49-Year-Old Civilians
Male	60.3	49.7	75.7	71.9	53.2	56.9
Female	50.7	55.4	57.4	61.4	36.7	53.2
Total	58.5	52.7	71.9	67.1	50.6	55.1

Also see Appendix Tables C-16 (Enlisted Members by Age, Marital Status, and Gender) and C-26 (Officers by Gender, Marital Status, and Component).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998 – September 1999.

Table 6.5. FY 1999 Source of Commission of Selected Reserve Officer Accessions (Percent)

Source of Commission	Army National Guard	Army Reserve	Naval Reserve	USMC Reserve	Air National Guard	Air Force Reserve	DOD Total
Service Academy	1.2	3.7	13.9	4.9	10.8	14.5	6.0
ROTC–Scholarship	5.9	10.7	20.3	0.0	5.7	15.1	8.2
ROTC–No Scholarship	19.4	21.0	4.1	16.7	16.0	18.6	11.4
OCS/OTS/PLC	2.4	3.3	21.1	78.4	11.0	16.1	11.3
ANG AMS/ARNG OCS	15.8	4.2	0.0	0.0	28.2	3.3	5.2
Direct Appointment	11.5	12.0	31.0	0.0	25.9	31.4	18.7
Other	41.9	1.0	7.7	0.0	2.4	1.0	9.2
Unknown	1.4	44.2	1.9	0.0	0.0	0.0	30.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Table C-33 (Officers by Source of Commission and Component).

Table 6.5 shows the sources of commission that each of the Reserve Components most frequently use. In the USNR and USAFR, the largest source of commissions was through direct appointments. The overwhelming majority of USMCR officer accessions (78 percent) obtained their commissions through OCS or the Marine Corps Platoon Leader Class (PLC). PLC is a split-training program in which candidates normally attend officer training in the summers after their junior and senior years of college. The Army's components rely heavily on the Reserve Officers Training Corps (ROTC), primarily without scholarships. Approximately 8 percent of

officer accessions are commissioned from other programs, primarily through the aviation cadet and aviation training programs.[2]

Education. The Reserve Component also tends to vary in the educational attainment levels of its officer accessions (Table 6.6). Overall in FY 1999, 85 percent of Reserve officer accessions were at least college graduates (bachelor and/or advanced degrees). The USNR had the highest proportion of officer accessions with at least a college degree (98 percent). In the other components, the percentage of officer accessions with degrees ranged from 73 percent in the ARNG to 96 percent in the USAFR.

Table 6.6. FY 1999 Educational Attainment of Selected Reserve Officer Accessions and Officer Corps (Percent)

Educational Attainment*	Army National Guard	Army Reserve	Naval Reserve	USMC Reserve	Air National Guard	Air Force Reserve	DoD Total
SELECTED RESERVE OFFICER ACCESSIONS							
Less than College Graduate	26.6	12.6	1.0	5.2	25.5	4.0	12.1
College Graduate (B.A., B.S., etc.)	61.5	53.8	25.8	74.3	52.3	55.4	51.2
Advanced Degree (M.A., Ph.D., etc.)	12.0	18.0	13.2	20.4	21.9	38.7	19.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SELECTED RESERVE OFFICER CORPS							
Less than College Graduate	16.5	11.6	1.8	1.2	4.8	2.8	9.3
College Graduate (B.A., B.S., etc.)	62.5	57.5	55.8	68.9	66.6	49.4	58.8
Advanced Degree (M.A., Ph.D., etc.)	21.0	31.0	42.4	29.8	28.6	47.8	31.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Excludes unknowns.
Also see Appendix Table C-28 (Education by Component).

For all of the Reserve Components, the proportion of officers with at least an undergraduate degree is higher than that of its officer accessions. This difference is particularly evident in the ANG where 74 percent of the accessions and 95 percent of the officer corps have a college degree.

Several factors help explain why more officers have college degrees than do officer accessions. A number of Selected Reserve accessions have college credits but have not yet earned a degree when they join the Selected Reserve. Because of Service emphasis on an educated officer corps, many individuals join to take advantage of educational opportunities and

[2] For Reserve Component commissioned officer accessions, "other" sources of commission are defined as: Merchant Marine Academy, Aviation Cadet, and Aviation Training Program.

education financing (e.g., the Montgomery G.I. Bill), and many non-degreed officers complete their college education while serving in the Selected Reserve.

Representation Within Occupations. The distribution of officers across occupational areas is shown in Table 6.7 for both Active and Reserve Components. The largest proportions of Reserve Component officers (55 percent) and Active Component officers (57 percent) are assigned to tactical operations and health care positions. However, due to assigned missions, the Reserve Component has a smaller proportion than the Active Component in tactical operations (34 and 38 percent, respectively), but a greater proportion of officers in health care (21 and 19 percent, respectively).

Table 6.7. FY 1999 Occupational Areas of Active and Selected Reserve Officer Corps (Percent)

Occupational Area	Active Component	Reserve Component
General Officers and Executives *	0.4	0.4
Tactical Operations	37.8	33.9
Intelligence	5.1	5.4
Engineering and Maintenance	11.7	10.2
Scientists and Professionals	4.9	6.4
Health Care	18.7	21.1
Administration	7.0	7.7
Supply, Procurement, and Allied Occupations	8.6	10.7
Non-Occupational**	5.7	4.2
Total	100.0	100.0

* Reserve Component calculations do not include 664 O-6 officers classified as general or executive officers by the Services (2 - ARNG, 194 - USMCR, 297 - ANG, and 171 - USAFR).
** Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Tables B-37 (Occupational Area by Service and Gender) and C-31 (Occupational Area by Component).

Differences in occupational assignment among the Reserve Component are shown in Table 6.8. With the exception of the USAR, the largest proportion of officers in each component is in tactical operations. The ARNG and USMCR have the greatest proportions of officers in tactical operations (47 and 58 percent, respectively). The USAR and USAFR have the smallest proportions of officers in tactical operations (20 and 30 percent, respectively).

Many Selected Reserve officers are health care professionals. The USAR and USAFR have the greatest proportion of officers in health care occupations (30 and 27 percent, respectively). Health care comprises the second largest percentage of officers in the ARNG, ANG and USNR (11, 16 and 22 percent, respectively). Relatively few Reserve officers are in intelligence, science and professional, and administrative occupations.

Table 6.8. Comparison of FY 1999 Occupational Area Distribution of Officers, by Active and Reserve Component (Percent)									
Active and Reserve Components	Occupational Area*								
	0**	1	2	3	4	5	6	7	8
ARMY									
Active Component	0.5	38.6	6.4	10.6	4.6	21.1	6.0	10.3	1.9
Army National Guard	0.5	46.8	2.5	8.1	3.7	10.7	6.3	10.4	11.1
Army Reserve	0.3	20.3	4.9	9.5	9.1	29.8	9.4	14.3	2.5
NAVY									
Active Component	0.4	38.1	3.9	10.0	3.8	21.4	8.8	5.0	8.5
Naval Reserve	0.3	38.7	11.2	10.4	3.9	21.5	6.1	7.0	1.1
MARINE CORPS									
Active Component	0.5	51.4	4.4	7.7	2.7	0.0	5.9	12.6	14.9
USMC Reserve	0.3	57.8	5.6	7.5	6.0	0.0	6.0	15.3	1.7
AIR FORCE									
Active Component	0.4	33.7	4.9	14.8	6.6	18.7	7.0	8.8	5.1
Air National Guard	1.1	40.1	2.7	15.7	4.6	15.9	10.3	6.8	2.9
USAF Reserve	0.5	29.7	7.3	12.3	8.9	26.6	6.1	8.0	0.7

Rows may not add to total due to rounding.
* Occupational Area Codes: 0=General Officers, 1=Tactical Operations, 2=Intelligence, 3=Engineering and Maintenance, 4=Scientists and Professionals, 5=Health Care, 6=Administration, 7=Supply, Procurement, and Allied, 8=Non-occupational.
** Reserve Component calculations do not include 664 O-6 officers classified as general or executive officers by the Services (2 - ARNG, 194 - USMCR, 297 - ANG, and 171 - USAFR).
Also see Appendix Tables B-37 (Occupational Area by Service and Gender) and C-30 (Occupational Area by Component).

Representation of women within occupations. The occupational assignments by gender of Selected Reserve officers are shown in Table 6.9. More than half (52 percent) of all female officers are assigned to health care positions, 13 percent to administration positions, and 11 percent to supply, procurement and allied occupations. As indicated in Appendix Table C-31, the assignment of women into officer occupational areas differs by component. Across components, female officers serving in health care positions range from 31 percent in the ARNG to 57 percent in both the USAR and the USNR. Two percent of USAR female officers hold tactical operations positions compared to 10 percent in the ANG. As in the Selected Reserve enlisted force, reasons for this distribution include the differing missions of each component; the occupational preferences of female officers; the number of Active Component female officers possessing such skills who join a Selected Reserve unit after separation from active duty; the proportion of technical skill unit vacancies; and direct ground combat exclusion policies.

Representation of minorities within occupations. An overview of the distribution of Selected Reserve officers by race/ethnicity is provided in Table 6.10. More than half of Whites, Hispanics, and "Others" serve in either tactical operations or health care occupations. The largest proportions of White and Hispanic officers are in tactical operations (36 and 30 percent, respectively); the largest percentages of Black and "Other" racial category officers are in health care occupations (26 and 31 percent, respectively).

As detailed in Appendix Table C-32, there are race/ethnicity differences among the Reserve Components by occupational areas. For example, 42 percent of White officers in the ANG have occupations in tactical operations, while only 20 percent of Black officers do. Other occupational areas such as health care attract members of different race/ethnic groups more

uniformly. For example, in the USAFR, 42 percent of Blacks, 39 percent of "Other" racial categories, and 32 percent of Hispanics serve in health care, compared to 25 percent of Whites.

Table 6.9. FY 1999 Occupational Areas of Selected Reserve Officer Corps, by Gender (Percent)

Occupational Area	Male	Female	Total
General Officers and Executives*	0.5	0.1	0.4
Tactical Operations	40.6	4.3	33.9
Intelligence	5.4	5.5	5.4
Engineering and Maintenance	10.9	7.4	10.2
Scientists and Professionals	7.0	3.7	6.4
Health Care	14.3	51.5	21.1
Administration	6.4	13.4	7.7
Supply, Procurement, and Allied Occupations	10.6	10.9	10.7
Non-Occupational**	4.4	3.2	4.2
Total	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Calculations do not include 653 male and 11 female O-6 officers classified as general or executive officers by the Services.
** Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Table C-31 (Occupational Area by Component and Gender).

Table 6.10. FY 1999 Occupational Areas of Selected Reserve Officer Corps, by Race/Ethnicity (Percent)

Occupational Area	White	Black	Hispanic	Other	Total
General Officers and Executives*	0.5	0.2	0.2	0.2	0.4
Tactical Operations	36.2	18.4	29.4	25.7	33.9
Intelligence	5.7	2.5	4.5	5.5	5.4
Engineering and Maintenance	10.0	12.1	11.1	10.2	10.2
Scientists and Professionals	6.7	4.6	4.7	4.9	6.4
Health Care	20.0	26.1	22.4	31.1	21.1
Administration	7.1	13.2	9.1	7.3	7.7
Supply, Procurement, and Allied Occupations	9.8	18.2	13.1	9.1	10.7
Non-Occupational**	4.0	4.7	5.6	6.0	4.2
Total	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Calculations do not include 638 White, 9 Black, 7 Hispanic, and 10 Other O-6 officers classified as general or executive officers by the Services.
** Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Table C-32 (Occupational Areas by Component and Race/Ethnicity).

Chapter 7

SOCIOECONOMIC STATUS OF ENLISTED ACCESSIONS

Differing viewpoints on the socioeconomic status of accessions have been the basis for serious debates regarding the viability of the All Volunteer Force. While the concern that the volunteer military would recruit primarily from the lower economic and social levels has not been borne out, it is important to understand the socioeconomic composition of the military. This chapter reviews issues surrounding these aspects of the military and provides data on the social background of FY 1999 recruits.

Socioeconomic Status in Perspective

Imbalances in socioeconomic representation in the military often have been a controversial social and political issue.[1] In debate over the establishment of the volunteer force, opponents argued that it would lead to a military composed of those from poor and minority backgrounds, forced to turn to the military as an employer of last resort. Some critics anticipated that the consequences would be not only inequitable, but dangerous. They argued that by recruiting primarily from an underclass, the volunteer force would create a serious cleavage between the military and the rest of society.[2]

The belief that the enlisted military drew recruits primarily from lower socioeconomic groups was a major element in proposals for either a return to conscription or some form of national service program that would draw all classes into military or civilian service. The philosophical basis for these proposals was the conviction that all social classes should contribute their share to the national defense. A 1988 report by the Democratic Leadership Council stated, "We cannot ask the poor and under-privileged alone to defend us while our more fortunate sons and daughters take a free ride, forging ahead with their education and careers."[3]

Many of the assertions about the class composition of the military have been based on impressions and anecdotes rather than on empirical data. Analysis of Vietnam era veterans indicated that individuals of high socioeconomic status comprised about half the proportion of draftees compared to their representation in the overall population.[4] Three systematic analyses of the socioeconomic composition of accessions during the volunteer period suggest that little has changed with the All Volunteer Force. All found that members of the military tended to come

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1 See, for example, Cooper, R.V.L., *Military Manpower and the All-Volunteer Force* (Santa Monica, CA: RAND Corporation, 1977).

2 See, for example, Janowitz, M., "The All Volunteer Military as a Socio-Political Problem," *Social Problems* (February 1975), pp. 432–449.

3 Democratic Leadership Council, *Citizenship and National Service: A Blueprint for Civic Enterprise* (Washington, DC: Author, May 1988), p. 25.

4 Boulanger, G., "Who Goes to War?" in A. Egendorf, C. Kadushin, R.S. Laufer, G. Rothbart, and L. Sloan (Eds.), *Legacies of Vietnam: Comparative Adjustment of Veterans and Their Peers, Vol. 4. Long-term Stress Reactions: Some Causes, Consequences, and Naturally Occurring Support Systems* (Washington, DC: U.S. Government Printing Office, 1981), pp. 494–515.

from backgrounds that were somewhat lower in socioeconomic status than the U.S. average, but that the differences between the military and the comparison groups were relatively modest.[5] These results have been confirmed in recent editions of this report, which portray a socioeconomic composition of enlisted accessions similar to the population as a whole, but with the top quartile of the population underrepresented.[6] While the socioeconomic status of recruits is slightly lower than the general population, today's recruits have higher levels of education, measured aptitudes, and reading skills than their civilian counterparts.

Operations Desert Shield and Desert Storm revived concerns that Blacks would bear a disproportionate share of fighting and dying in future wars. The Chairman of the House Committee on Armed Services stated, "The…Committee spent some considerable time on this [issue] and came to a rather surprising conclusion about it. It's not true."[7] A related report concluded that the volunteer system provided quality enlistees; that minorities would not bear a much heavier burden of combat; and that a draft would neither be as fair nor produce a force as high in quality as the current system.[8] The report indicated that a draft would lead to a less educated, less motivated, and less competent force, even though it might be more representative of the upper and lower social strata.

Defining Socioeconomic Status

Although the term "socioeconomic status" is used frequently, there is no general consensus regarding how to define and measure this construct. Often, measures cited in the literature are those of convenience or availability (e.g., race, zip code). In general, socioeconomic status is considered as an indicator of economic and social position.[9]

Research suggests that occupation is the best single indicator of socioeconomic position.[10] However, including additional information, such as education and income, can increase explained variance in the measure of social class. In addition, different items may assess unique dimensions of socioeconomic status, which together may represent the construct

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5 See (1) Cooper, R.V.L., *Military Manpower and the All-Volunteer Force* (Santa Monica, CA: RAND Corporation, 1977), pp. 223–250; (2) Fredland, J.E. and Little, R.D., *Socioeconomic Characteristics of the All Volunteer Force: Evidence from the National Longitudinal Survey, 1979* (Annapolis, MD: U.S. Naval Academy, 1982); (3) Fernandez, R.L., *Social Representation in the U.S. Military* (Washington, DC: Congressional Budget Office, October 1989).

6 See *Population Representation in the Military Services*, Fiscal Years 1991–1997.

7 Aspin, L., Chairman, House Committee on Armed Services, *The All Volunteer Force: Assessing Fairness and Facing the Future*, before the Association of the U. S. Army, Crystal City, VA, April 26, 1991.

8 Aspin, L., *All Volunteer: A Fair System, A Quality Force* (Washington, DC: Chairman, House Committee on Armed Services, April 26, 1991).

9 Stawarski, C.A. and Boesel, D., *Representation in the Military: Socioeconomic Status* (Alexandria, VA: Human Resources Research Organization, 1988).

10 Powers, M.G., "Measures of Socioeconomic Status: An Introduction," in M.G. Powers (Ed.), *Measures of Socioeconomic Status: Current Issues* (Boulder, CO: Westview, 1981), pp. 1–28.

more completely.[11] The variables traditionally used to assess social standing are education, occupation, and income; additional measures include employment status, possessions, and presence of reading materials in the home.[12]

Measuring Socioeconomic Status

Socioeconomic representation has been included in the annual *Population Representation in the Military Services* since the FY 1986 report. However, there were no reliable socio-economic data to report at that time. Available data included the zip code of a recruit's current address and associated statistics from census data. While this type of data is useful for demographic trend analysis and advertising and marketing research, it is not reliable for comparing socioeconomic representation in the military to that of the general population. For example, applicants and recruits may not come from the background indicated by the zip code for their current address (i.e., these individuals may move away from home to go to college or to work).[13]

In FY 1999, the Survey of Recruit Socioeconomic Backgrounds, first administered in March 1989, was again administered at recruit training centers. Participants answered questions about their parents' education, employment status, occupation, and home ownership. While income is a widely used measure of socioeconomic status, research provides evidence that recruit-aged youth are not accurate at estimating their parents' income.[14] Therefore, home ownership was included as a proxy for income.

Several researchers have devised a summary statistic for socioeconomic status.[15] The socioeconomic index (SEI), derived from predicted prestige scores based on levels of income and education within occupations, is one means of defining socioeconomic status. Stevens and Cho[16] developed such scores for each 3-digit occupation code in the 1980 Census, revising earlier work by Duncan, and Featherman et al.[17] More recently, this index has been revised by Hauser and

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11 Nam, C.B. and Terrie, E.W., "Measurement of Socioeconomic Status from United States Census Data," in M.G. Powers (Ed.), *Measures of Socioeconomic Status: Current Issues* (Boulder, CO: Westview, 1981), pp. 29–42.

12 Department of Defense, *Population Representation in the Military Services: Fiscal Year 1986* (Washington, DC: Office of the Assistant Secretary of Defense [Force Management and Personnel], 1987).

13 Ibid.

14 Ibid.

15 Stevens, G. and Cho, J.H., "Socioeconomic Indices and the New 1980 Census Occupational Classification Scheme," *Social Science Research, 14* (1985), pp. 142–168.

16 Ibid.

17 See Duncan, O.D., "A Socioeconomic Index for All Occupations," in A.J. Reiss, Jr. (Ed.), *Occupations and Social Status* (New York: Free Press, 1981), pp. 139–161; Featherman, D.L., Jones, F.L., and Hauser, R.M., "Assumptions of Social Mobility Research in the U.S.: The Case of Occupational Status," *Social Science Research, 4* (1975), pp. 329–360.

Warren[18] to incorporate prestige ratings from the General Social Survey conducted by the National Opinion Research Center,[19] as well as occupational income and education data from the 1990 Census. This report uses a version of the SEI that incorporates income and educational data about both males and females; it is termed the Total Socioeconomic Index (TSEI). TSEI scores for recruits can be calculated using parental occupational information reported in the Survey of Recruit Socioeconomic Backgrounds.

In FY 1999, the Survey of Recruit Socioeconomic Backgrounds was given to both active duty and Reserve Component recruits without prior military experience. Approximately 14,100 active duty and 3,500 Reserve Component enlisted accessions provided information on the marital status, education, employment, and occupation of their parents.[20] The survey requested information on the parents with whom the recruit was last living, whether they were biological parents, stepparents, or other legal guardians. Throughout this discussion, these will be referred to as "recruit or DoD parents."

For civilians, similar information is collected by the Bureau of the Census. These measures include marital status, highest level of education, home ownership, employment status, and occupation. For comparison, information is provided for parents of civilian youth between the ages of 14 and 21, inclusive, who were living at home. These data are taken from the Current Population Survey (CPS), an ongoing survey conducted by the Bureau of the Census for the Bureau of Labor Statistics.[21] They will be referred to as "CPS parents."

Comparisons between DoD and CPS parents should be tempered by the fact that the DoD group does not include officer accessions. Since Active Component officer accessions represent nearly 8 percent of total Active Component accessions, adding officer socioeconomic measures could produce a moderate change in the overall DoD results. However, for most of the variables reported in this section, including officer data would produce little change in the reported values, because the civilian and military distributions are quite similar. Specific areas in which adding officer data might change the comparisons will be noted in the following discussion.

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18 Hauser, R.M. and Warren, J.R. *Socioeconomic Indexes for Occupations: A Review, Update, and Critique* (Madison, WI: Center for Demography and Ecology, June 1996).

19 Nakao, K. and Treas, J., "Updating Occupational Prestige and Socioeconomic Scores: How the New Measures Measure Up," in P. Marsden (Ed.), *Sociological Methodology, 1994* (Washington, DC: American Sociological Association, 1994), pp. 1–72.

20 Navy recruits who said that they were in the TARS program were counted as active duty recruits.

21 To facilitate comparison between the military and civilian data sets, the CPS data were weighted to match the military data in terms of age. CPS sample weights were ratio-adjusted to age distributions, in 5-year intervals, of recruits' parents. Consequently, the adjusted CPS data contain the same percentage of parents in a specific gender and age group (e.g., male parents age 40–44) as the military data set. When sample sizes are large, small differences in magnitude can be statistically significant. For comparisons between DoD and CPS parents, any difference greater than about one percentage point is statistically significant; the comparable figure for comparisons between Services or between active duty and Reserve Components is 3 percent.

Socioeconomic Status of Enlisted Accessions and Civilians

The remainder of this chapter presents the results of the 1999 recruit survey and civilian comparison data from the CPS. These data provide several measures of socioeconomic status, including the TSEI scores.

Family Status. The number of parents in a family household is closely related to other indicators of socioeconomic status. For example, data from the CPS indicate that the median income of family households with two parents present is more than twice that of households headed by single females and 38 percent greater than households headed by single males.[22] The Survey of Recruit Socioeconomic Backgrounds asks respondents to indicate the people who were in their household when they last lived with their parents, stepparents, or guardians. Approximately 69 percent of accessions indicated that they lived with both father and mother,[23] compared with 71 percent of CPS households (Table 7.1). Those who lived with one parent were more than three times more likely to live with their mother than with their father. The percentage of accessions living with two parents was greater for the Air Force (72 percent) than for the other three Services (from 66 to 68 percent). There were no other differences of consequence among the other Services, nor between active duty and Reserve Component accessions. Overall, the family composition of enlisted accessions was quite similar to that of the civilian population.

Table 7.1. Parents in Family of FY 1999 NPS Recruits, by Service, with Civilian Comparison Group (Percent)

Adults at Home	Active Component				DoD Subtotal		Total	
	Army	Navy	Marine Corps	Air Force	Active Duty	Guard/ Reserve	DoD	CPS
Father, Stepfather, or Male Guardian	7.1	7.7	9.1	6.0	7.4	6.5	7.2	5.2
Mother, Stepmother, or Female Guardian	24.8	26.0	23.1	22.1	24.3	24.3	24.3	23.5
Both	68.1	66.3	67.8	71.9	68.3	69.2	68.5	71.3

Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999.

Education. The socioeconomic status of children and adolescents is closely related to mothers' education, fathers' education, average family income, and fathers' occupational status. Analysis of data collected for the *Profile of American Youth* study showed that mothers' education approximated the effects of all four variables.[24] Thus, the measure of recruit mothers'

[22] U.S. Census Bureau, Current Population Reports, P60-206, *Money Income in the United States: 1998*, U.S. Government Printing Office, Washington, DC, 1999.

[23] For purposes of this discussion, the term "father" represents either a biological father, a stepfather, or other male guardian, and the term "mother" represents either a biological mother, a stepmother, or other female guardian.

[24] Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics), *Profile of American Youth: 1980 Nationwide Administration of the Armed Services Vocational Aptitude Battery* (Washington, DC: March 1982), pp. 40–42.

education becomes important as an indicator of high-quality recruits. Approximately 19 percent of recruit mothers earned a college degree or better; an additional 31 percent accrued some college credits.

CPS fathers were somewhat better educated than DoD fathers (Table 7.2). The CPS fathers were more likely to have graduated from college than DoD fathers (30 percent for CPS and 22 percent for DoD), while DoD fathers were more likely to have less advanced educational credentials. CPS mothers were also slightly better educated than their DoD counterparts, although the pattern of results is somewhat different. Approximately 50 percent of DoD and CPS mothers attended college, whether or not they graduated. However, a slightly greater percentage of CPS mothers graduated college than did DoD mothers (22 percent for CPS and 19 percent for DoD).

Table 7.2. Education of Parents of FY 1999 NPS Recruits, by Gender and Service, with Civilian Comparison Group (Percent at Each Education Level)

Highest Level of Education	Active Component				DoD Subtotal		Total	
	Army	Navy	Marine Corps	Air Force	Active Duty	Guard/ Reserve	DoD	CPS
FATHERS								
Less than High School Graduate	18.3	16.1	19.8	10.0	16.2	15.8	16.1	14.0
High School Graduate	33.8	33.0	32.7	32.1	33.0	30.6	32.4	31.0
Some College (No 4-Yr. Degree)	28.7	28.5	27.1	34.0	29.5	29.7	29.5	25.4
College Graduate*	19.2	22.3	22.3	23.9	21.3	24.0	22.0	29.7
MOTHERS								
Less than High School Graduate	18.2	15.1	19.2	10.4	15.9	14.9	15.6	14.9
High School Graduate	35.9	35.3	35.8	34.3	35.4	32.5	34.7	35.3
Some College (No 4-Yr. Degree)	29.5	31.6	27.0	36.0	31.0	30.3	30.8	28.1
College Graduate*	16.5	18.0	18.0	19.3	17.8	22.4	18.9	21.7

* College graduate includes "greater than college graduate" level.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999.

For both DoD and CPS parents, fathers were somewhat more educated than mothers. This difference is reflected in the greater percentage of college graduates among fathers (22 percent for DoD and 29 percent for CPS) than among mothers (19 percent for DoD and 22 percent for CPS). CPS fathers were also more likely to have education beyond high school than

CPS mothers (55 percent for CPS fathers and 50 percent for CPS mothers); while a comparable difference was not found between DoD fathers and mothers.

On the average, parents of Air Force accessions had more advanced educational credentials than parents in the other Services. Both Air Force fathers and mothers were more likely to have at least a high school diploma (90 percent for both fathers and mothers) than the overall active duty average (84 percent for both fathers and mothers). They were also more likely to have attended or graduated college (58 percent for fathers and 55 percent for mothers) than the active duty average (51 percent for fathers and 49 percent for mothers). There were no other differences of note in parent education between Services. Reserve Component parents were slightly more likely to have graduated college (24 percent for fathers and 22 percent for mothers) than their active duty counterparts (21 percent for fathers and 18 percent for mothers).

Home Ownership. Both CPS mothers and fathers were more likely to own their home than DoD parents (Table 7.3). On the other hand, CPS parents were less likely than DoD parents to have housing arrangements other than buying or renting. This arrangement was very rare among CPS parents, but occurred for roughly 5 percent of DoD parents. Although there were no differences between the parents of Active and Reserve Component accessions, within the active duty Service categories both mothers and fathers of Air Force recruits were more likely to own their homes than parents in the other Services. Finally, both DoD and CPS fathers were more likely to own their homes than mothers, who were more likely to rent.

Table 7.3. Home Ownership Status of Parents of FY 1999 NPS Recruits, by Gender and Service, with Civilian Comparison Group (Percent)

	Active Component				DoD Subtotal		Total	
Residence	Army	Navy	Marine Corps	Air Force	Active Duty	Guard/ Reserve	DoD	CPS
FATHERS								
Own	76.2	76.5	77.9	80.0	77.3	79.6	77.9	84.3
Rent	19.2	19.1	16.7	14.5	17.8	16.0	17.4	14.8
Other	4.7	4.4	5.4	5.5	4.9	4.4	4.8	0.9
MOTHERS								
Own	70.6	70.5	72.9	76.0	72.0	74.6	72.6	76.5
Rent	25.1	25.1	22.1	18.9	23.4	21.4	22.4	22.4
Other	4.4	4.3	5.1	5.1	4.6	4.0	4.5	1.1

Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999.

Employment Status. Table 7.4 reports, by Service, the rates of fathers and mothers who were employed. In the CPS, the civilian labor force is defined as all employed and unemployed civilians 16 years and over.[25] Unemployed, however, is limited to those civilians who made a specific effort to find a job within the past four weeks. All other persons are "not in the labor force." For this report, civilian comparison employment computations are based on all parents in

[25] See U. S. Census Bureau, *Statistical Abstract of the United States: 1999* (Washington, DC: U.S. Government Printing Office, 1999), pp. 408–409, for a detailed explanation of labor force employment categories and the component parts of each category.

the non-institutional population, including those not in the labor force.[26] The three employment categories (employed, unemployed, not in the labor force) are included because recruits' parents represent the total population, not just the defined "labor force."

DoD recruit mothers were somewhat more likely to be employed than CPS mothers (79 percent for DoD mothers and 74 percent for CPS mothers).[27] Fathers were more likely to be employed than mothers, but there were no notable differences in employment between CPS and DoD fathers (89 percent of CPS and 90 percent of DoD fathers were employed). Employment rates were similar across Services and components, although mothers of Air Force accessions were slightly more likely to be employed than the active duty average.

Table 7.4. Employed Parents of FY 1999 NPS Recruits, by Gender and Service, with Civilian Comparison Group (Percent)

Gender of Parent	Active Component				DoD Subtotal		Total	
	Army	Navy	Marine Corps	Air Force	Active Duty	Guard/ Reserve	DoD	CPS
Male	88.7	89.7	91.1	92.1	90.1	90.4	90.1	88.9
Female	76.6	78.4	79.6	81.6	78.6	79.2	78.7	74.1

DoD percentages exclude "no longer living" and "don't know" responses.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999.

Occupation.[28] Table 7.5 compares the occupations of recruit and CPS parents. Although there was considerable similarity between the occupations held by DoD parents and those held by CPS parents, the data show that DoD parents were underrepresented in certain high-status occupations. Both DoD fathers and mothers were less likely to have either executive, administrative, and managerial occupations, or professional occupations. In addition, DoD fathers were underrepresented in sales occupations. On the other hand, DoD fathers were more likely than CPS fathers to have occupations involving precision production, craft, and repair. They were also slightly more prevalent in protective service and transportation occupations. DoD mothers were more likely than their CPS counterparts to be in service occupations. Finally,

[26] Approximately 7 percent of recruits' fathers, 15 percent of recruits' mothers, 9 percent of CPS fathers, and 23 percent of CPS mothers were reported as "not in the labor force."

[27] The recruit survey asks recruits whether the parent is currently working at a paid job, in a business, or on a farm, while the CPS asks whether the individual was employed in the last week. Thus, comparisons of employment rates from the two data sets must be interpreted with caution.

[28] To determine occupation, recruits provided open-ended descriptions of their parents' jobs. CPS respondents answered similarly about their own primary occupation. The descriptions were manually coded to 3-digit Census occupation codes, which were then collapsed into 13 major Census categories.

both DoD fathers and mothers were more likely to be in the military than were CPS parents.[29] There were no significant differences between the occupations of Active and Reserve Component parents.

Table 7.5. Parents of FY 1999 NPS Recruits in Each Occupational Category, by Gender and Component, with Civilian Comparison Group (Percent)

Occupation*	Fathers			Mothers		
	Active	Reserve	CPS	Active	Reserve	CPS
Executive, Administration, & Managerial	15.9	13.9	19.5	12.9	12.5	13.8
Professional	8.5	10.5	14.3	15.7	18.8	19.2
Technicians & Related Services	3.7	3.4	2.5	4.3	3.7	3.8
Sales	7.7	8.1	10.1	11.0	9.8	10.2
Clerical & Administrative Support	4.5	4.2	4.6	24.5	23.0	24.0
Protective Services	5.0	4.6	2.7	1.0	1.2	0.7
Other Service Occupations	4.0	4.5	4.2	19.4	19.4	16.3
Farming, Forestry, & Fishing	3.4	4.4	3.7	1.0	1.3	1.3
Precision Production, Craft, & Repair	25.7	27.1	21.0	2.9	3.0	2.4
Machine Operators	5.5	4.3	6.8	3.9	4.1	5.3
Transportation	10.0	9.3	7.1	1.6	1.7	1.3
Handlers, Helpers, Laborers	2.5	2.7	3.4	1.3	1.3	1.7
Military	3.7	3.2	**	0.6	0.4	**

* Those not classified (24.5 percent of male parents and 33.7 percent of female parents) are excluded.
** Less than one-tenth of one percent.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999.

Socioeconomic Index Scores. Socioeconomic index scores reflecting the education, income, and prestige associated with individual occupations were computed from responses to DoD and CPS surveys. We used a common scale, the TSEI,[30] to indicate occupation prestige for both fathers and mothers.

The TSEI scores ranged from 10 to 81 for DoD fathers and from 7 to 81 for CPS fathers. Figure 7.1 shows the distribution of TSEI scores for active duty, Reserve Component, and CPS fathers. In addition, the figure shows the Active and Reserve Component representation ratios for each of the TSEI categories. For any range of TSEI scores, this number is the ratio of the percentage of DoD fathers (either active duty or Reserve Component) in the range to the

[29] Differences in the number of parents in the military are due, at least in part, to differences in the way these occupations are coded in the military and civilian surveys. In the CPS data, an occupation is assigned a military code only if the military job cannot be classified in another occupational category. In the DoD data, all parents in the military are assigned a military occupational code.

[30] Hauser, R.M. and Warren, J.R. *Socioeconomic Indexes for Occupations: A Review, Update, and Critique* (Madison, WI: Center for Demography and Ecology, October 1996).

percentage of CPS fathers in the range. A representation ratio of greater than 1.0 for any TSEI category indicates a greater proportion of DoD parents in the category, compared to CPS parents, while a ratio of less than 1.0 indicates fewer DoD parents in the category, compared to CPS parents. The magnitude of the representation ratio indicates the extent to which the DoD and CPS distributions differ.

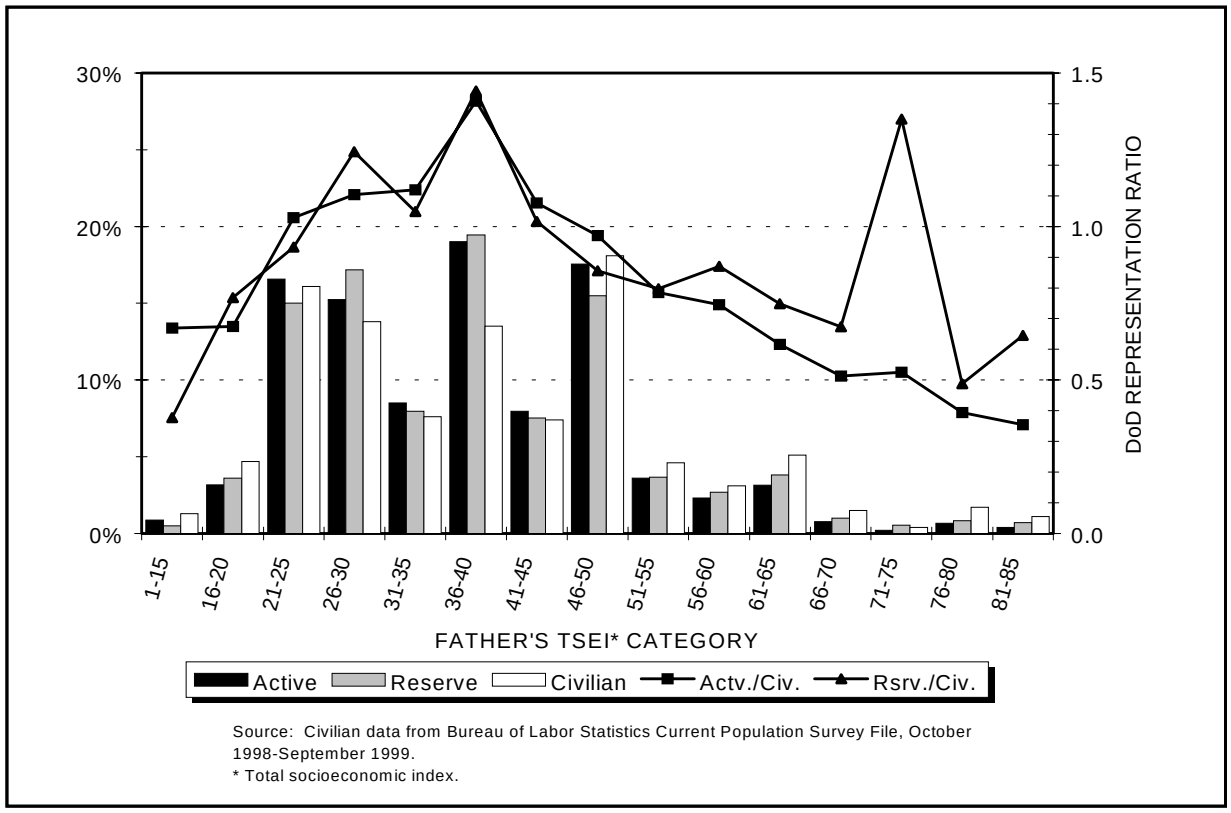

Figure 7.1. TSEI distribution for DoD and CPS fathers with DoD representation ratio.

With one exception, the representation ratios for active duty and Reserve Component fathers were very close; consequently, they will be described together. DoD fathers were underrepresented in the lowest two TSEI categories. This range of scores includes low-status service occupations, as well as some machine operators. The range of TSEI scores from 21 to 50 included over three quarters of the CPS fathers and 84 percent of DoD fathers. This difference produced a representation ratio of 1.1, indicating a slightly larger proportion of DoD fathers than CPS fathers in this range. For TSEI scores greater than 50, DoD representation decreased. It averaged approximately 0.8 over the range, which encompasses 12 percent of DoD fathers and 15 percent of CPS fathers. Thus, enlisted accessions tended to have fathers with occupations in the middle of the TSEI distribution, with both the high and low extremes underrepresented. The single deviation from the general trend involved Reserve Component representation in the range of TSEI scores from 71 to 75. The high representation ratio for this group (1.4) most likely reflects variability caused by the small number of respondents in this category.

Mothers' TSEI scores ranged from 7 to 81 for both DoD and CPS mothers. As was the case with fathers, the TSEI distribution was similar for Active and Reserve Components. As shown in Figure 7.2, levels of TSEI below 65 were represented relatively equally among both Active and Reserve Component mothers, as indicated by a representation ratio that is fairly close to 1.0 (ranging from 0.8 to 1.2). The representation ratio varies considerably for levels of TSEI above 65, due to the small number of respondents in these categories. In this range, the average representation ratio was approximately 0.8. Consequently, although there was a slight tendency for DoD mothers to be underrepresented in the lowest and highest TSEI groups, the accessions reasonably reflect the entire range of the distribution of mother's TSEI scores. Since the Survey of Recruit Socioeconomic Backgrounds excludes officer accessions, it would be expected to understate the average status of DoD parents.

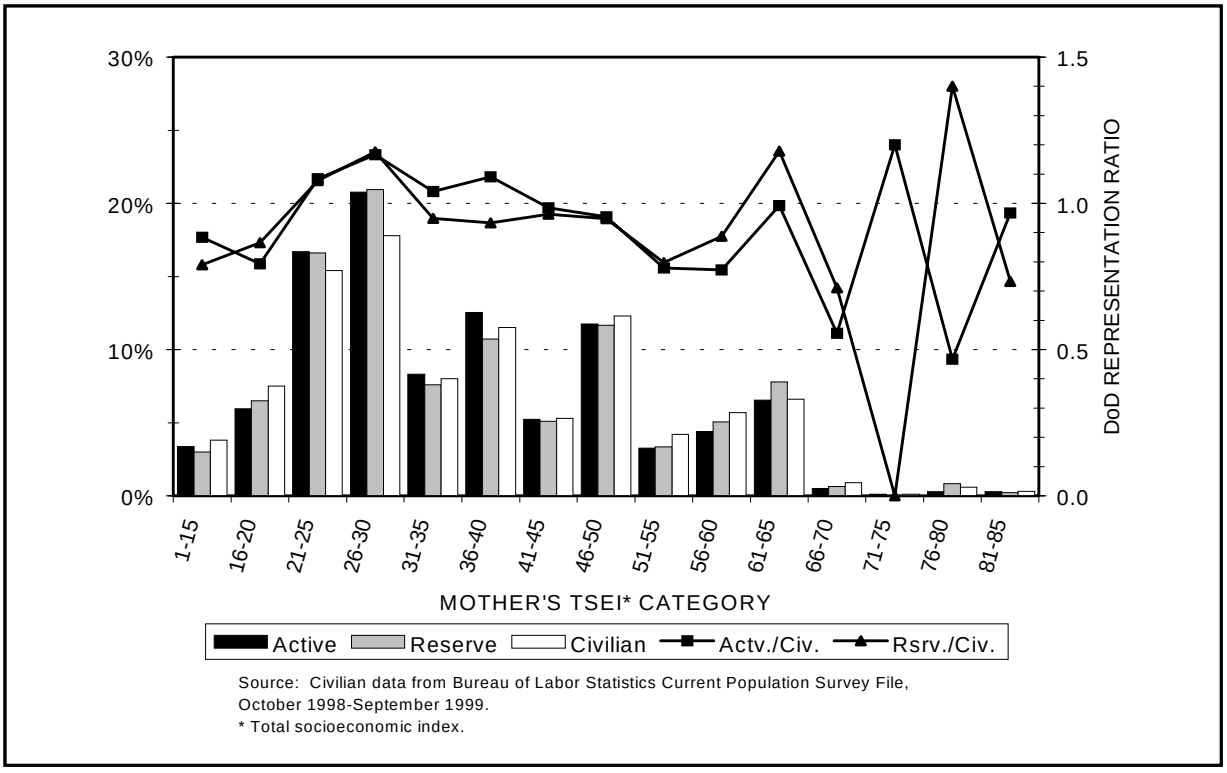

Figure 7.2. TSEI distribution for DoD and CPS mothers with DoD representation ratio.

Although DoD fathers, and to a lesser extent DoD mothers, were underrepresented in high-status occupations, as measured by the TSEI scales, these occupations represent only a small portion of the overall TSEI distribution in the general population. Figure 7.3 shows the representation of DoD parents from each quartile of the general population. As the quartiles divide CPS parents into equal fourths with regard to TSEI, DoD parents would also be equally divided among the quartiles if they were represented equally at all levels of TSEI. Figure 7.3 shows that the highest quartile of the TSEI distribution was underrepresented among enlisted accessions. For fathers, the deficit in the fourth quartile was compensated for by an excess in the second quartile, while the first and third quartiles were relatively accurately represented. For mothers, the deviations from expected levels were small, and occurred in both the second and third quartiles. Mothers of Reserve Component accessions were evenly distributed across the

four quartiles. These results give no indication that enlisted personnel are drawn primarily from the lowest social strata.

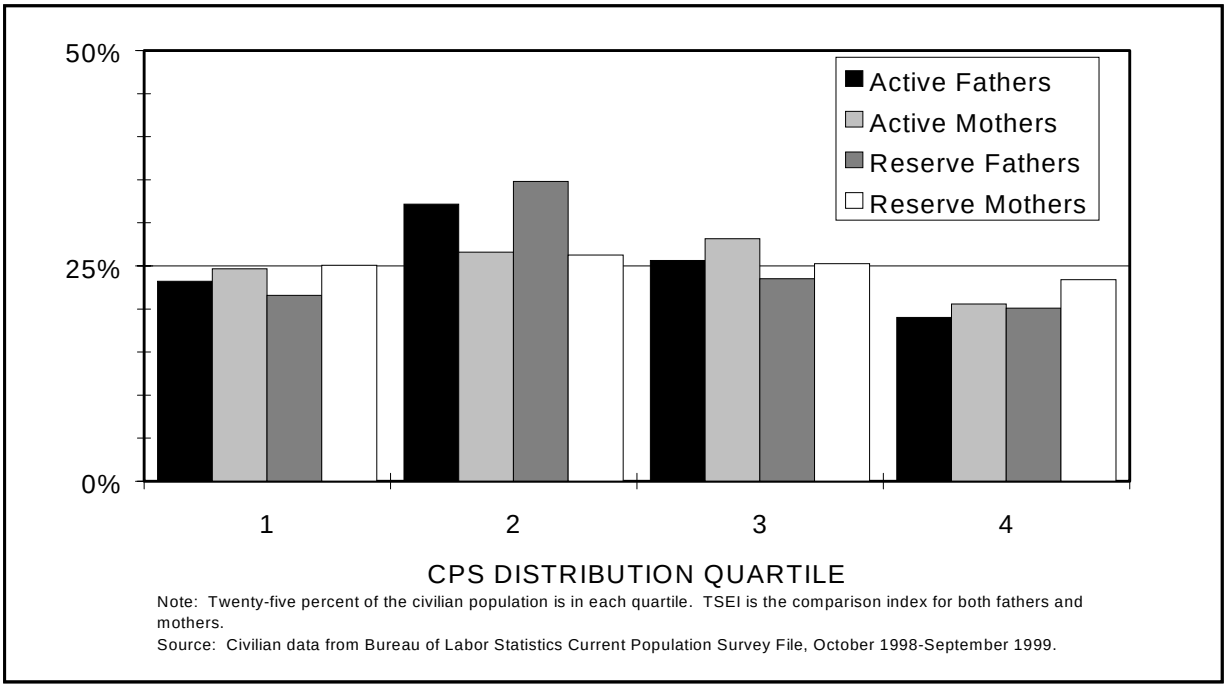

Figure 7.3. DoD TSEI distribution related to CPS distribution quartiles.

In summary, enlisted accessions come from all socioeconomic levels. However, there is a tendency for accessions to come from families in the lower three-quarters of the status distribution. These differences are expressed in the occupations of the parents of accessions, as well as discrepancies in education and home ownership. No systematic differences were discovered between active duty and Reserve Component accessions. Including officer accessions in the analysis would be expected to increase the representation of higher social strata among military accessions.

Racial and Ethnic Differences in Socioeconomic Status. Racial and ethnic differences in socioeconomic status are reflected in the characteristics of DoD parents, as well as in CPS comparison data. Both Hispanics and Blacks show lower socioeconomic status than Whites using several measures. However, racial and ethnic differences among recruits are less than the comparable differences in the civilian population, as the following discussion illustrates.

Table 7.6 shows the number of parents in the family for White, Black, and Hispanic recruits, and gives comparable percentages for the civilian population. Black youth are much less likely to live with both parents than are White youth. In the civilian population, fewer than half (44 percent) of Black youth live with two parents, while more than three-quarters (77 percent) of White youth and two-thirds of Hispanic youth (67 percent) do. Both White and Hispanic recruits are similar to their CPS counterparts in this respect. Black recruits are more likely than Black CPS youth to live with both parents (52 percent vs. 44 percent), although they are still less likely than either White or Hispanic recruits to live with two parents (75 percent and 66 percent, respectively).

Table 7.6. Parents in Family of FY 1999 Recruits, by Race/Ethnicity, with Civilian Comparison Group (Percent)								
Adults at Home	DoD				CPS			
	White	Black	Hispanic	Total	White	Black	Hispanic	Total
Father, Stepfather, or Male Guardian	7.4	6.3	7.3	7.2	5.2	5.7	5.0	5.2
Mother, Stepmother, or Female Guardian	17.9	41.2	27.1	24.3	17.7	50.2	28.2	23.5
Both	74.7	52.4	65.5	68.5	77.1	44.2	66.8	71.3
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999								

Other measures also indicate the relative disadvantage of minority families within the civilian population, although the patterns vary (Table 7.7). Within the CPS data, 52 percent of Hispanic fathers and 51 percent of Hispanic mothers completed high school compared to the overall average of 86 percent for fathers and 85 percent for mothers. Similarly, White fathers and mothers are more likely to own their home (90 percent and 85 percent, respectively) than are either Black (74 percent and 55 percent, respectively) or Hispanic (65 percent and 57 percent, respectively) parents. Differences in employment rates are smaller, but indicate greater employment for White parents. Overall differences within the civilian population are summarized by the median TSEI scores, which are highest for White parents and lowest for Hispanic parents, with Black parents obtaining intermediate values.

Table 7.7. Selected Characteristics of Parents of FY 1999 NPS Recruits, by Race/Ethnicity, with Civilian Comparison Group								
Highest Level of Education	DoD				CPS			
	White	Black	Hispanic	Total	White	Black	Hispanic	Total
FATHERS								
High School Graduate of More	87.7%	85.0%	63.0%	83.9%	91.7%	82.5%	52.2%	86.0%
Own Their Home	81.5%	69.2%	71.3%	77.9%	89.6%	73.9%	64.6%	84.3%
Currently Employed	91.7%	86.4%	87.9%	90.1%	91.2%	79.7%	84.5%	88.9%
Median TSEI	36.7	34.9	31.4	36.1	38.5	29.8	26.0	37.9
MOTHERS								
High School Graduate of More	88.7%	85.7%	64.9%	84.4%	92.7%	80.0%	50.5%	85.1%
Own Their Home	77.5%	60.3%	66.0%	72.6%	85.0%	54.7%	56.6%	76.5%
Currently Employed	80.7%	78.0%	70.9%	78.7%	76.9%	72.2%	61.5%	74.1%
Median TSEI	33.8	30.3	29.7	31.3	36.0	29.7	25.5	33.1
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1998–September 1999.								

The disparity in socioeconomic status among CPS parents is represented at a reduced level among DoD parents. In general, White DoD parents have lower values on several different socioeconomic measures than their CPS counterparts, while minority parents of recruits have higher values than do minority CPS parents. As shown in Table 7.7, there is a relatively small

range (4 points) in the median TSEI among DoD mothers, while there is a 10-point range among CPS mothers. Similarly, the difference in TSEI scores among DoD fathers across racial and ethnic groups is approximately 5 points, compared to a nearly 13-point difference among CPS fathers. Overall, racial and ethnic differences in socioeconomic status among recruit parents reflect differences in the population as a whole, but at a reduced level.

Chapter 8

U. S. COAST GUARD

The U.S. Coast Guard (USCG) is the Nation's oldest continuous seagoing service. The USCG can trace its history to 1790 with the introduction of the Revenue Cutter Service, whose mission was the enforcement of the first tariff laws enacted by Congress under the Constitution. What we know as today's Coast Guard is actually a combination of five Federal agencies. In addition to the Cutter Service, these agencies included the Lighthouse Service, the Steamboat Inspection Service, the Bureau of Navigation, and the Lifesaving Service.[1] The multiple missions and responsibilities of today's Coast Guard can be traced back to these initial agencies with four main mission areas today—maritime law enforcement, maritime safety, marine environmental protection, and national security.[2]

While on a day-to-day basis the USCG falls under the jurisdiction of the Department of Transportation (DoT), the USCG is at all times an armed force—a full time military organization with a true peacetime mission.[3] During times of war or at the direction of the President, the USCG functionally transfers to the Department of Defense under the Secretary of the Navy.

In this chapter, the characteristics of both the Active and Reserve Components of the USCG are presented. Comparisons are presented for applicants (active enlisted only), accessions, and end-strength for enlisted members, officer corps, and warrant officers. Where applicable, comparisons include overall DoD[4] figures and comparable civilian data for reference.

Characteristics of Active Component Non-Prior Service Applicants

As with the other Armed Services, the USCG has entrance standards for age, physical fitness, maximum number of dependents, citizenship status, moral character, and mental ability to include minimum scores on the Armed Forces Qualification Test (AFQT). In this section various demographic characteristics of USCG active component enlisted applicants along with similar overall DoD figures and civilian comparisons are reported.

In FY 1999, a total of 7,823 individuals without prior military experience applied to serve in the USCG, down from 7,999 in FY 1998. The distribution of FY 1999 USCG and overall DoD Active Component NPS applicants' race/ethnicity by gender is shown in Table 8.1. Eighty-four percent of the USCG applicants were male (Appendix Table E-2), of whom 78 percent were White, 6 percent Black, 12 percent Hispanic, and 5 percent "Other." For female applicants, approximately 75 percent were White, 10 percent Black, 10 percent Hispanic, and 5 percent "Other." Additional statistics on applicant characteristics (e.g., age, education levels, and AFQT scores, by gender and race/ethnicity) are contained in Appendix E, Tables E-1 through E-4 for the USCG and Appendix A for the overall DoD.

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1 URL: http://www.uscg.mil/hq/g-ci/history/faqs/when.html.

2 USCG International Training Handbook (9th ed.). URL: http://www.uscg.mil/hq/g-ci/2000ith/ITHnew.htm.

3 Ibid.

4 Overall DoD refers to the combined total of the Army, Navy, Marine Corps, and Air Force.

Table 8.1. Race/Ethnicity by Gender of FY 1999 USCG and DoD Active Component NPS Applicants and Accessions, and Civilians 18–24 Years Old (Percent)						
Race/Ethnicity	Coast Guard			DoD		
	Male	Female	Total	Male	Female	Total
NPS ACTIVE COMPONENT APPLICANTS						
White	77.5	75.0	77.1	62.2	50.7	59.7
Black	6.4	9.8	6.9	20.0	31.9	22.7
Hispanic	11.5	9.9	11.3	10.9	10.2	10.8
Other	4.6	5.4	4.7	6.8	7.2	6.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
NPS ACTIVE COMPONENT ACCESSIONS						
White	83.5	81.8	83.3	65.0	53.2	62.8
Black	3.8	4.9	4.0	17.8	29.3	19.9
Hispanic	8.9	6.7	8.6	10.9	10.2	10.8
Other	3.8	6.7	4.2	6.3	7.3	6.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Non-Institutionalized Civilians 18–24 Years Old						
White	Black	Hispanic	Other	Total	Male	Female
65.7	14.2	15.2	4.9	100.0	49.8	50.2

Columns may not add to total due to rounding.
Also see Appendix Tables A-3 (Applicants for Active Component Enlistment by Race/Ethnicity, Service, and Gender), B-3 (NPS Active Component Enlisted Accessions by Race/Ethnicity, Service, and Gender), E-2 (Coast Guard Applicants for Active Component Enlistment by Race/Ethnicity and Gender), and E-6 (Coast Guard NPS Active Component Enlisted Accessions by Race/Ethnicity and Gender).

Characteristics of Active Component Non-Prior Service Accessions

Of the 7,823 individuals who applied for service in the USCG, a total of 3,769 actually accessed. This number represents a 48-percent accession-to-applicant ratio, up from 44 percent in FY 1998. The distribution of race/ethnicity by gender for FY 1999 Coast Guard and overall DoD Active Component NPS accessions is shown in Table 8.1. Eighty-seven percent of USCG NPS accessions were male (Appendix Table E-6), of whom 84 percent were White, 4 percent Black, 9 percent Hispanic, and 4 percent "Other." Of the female USCG accessions, 82 percent were White, 5 percent Black, 7 percent Hispanic, and 7 percent "Other." Overall, USCG accessions were slightly more likely to be White and male than accessions in DoD. The proportion of USCG accessions who were Black is approximately one fifth of the percentage for the overall DoD.

Age. While the overall acceptable age range for enlistment in the Armed Services is between 17 and 35, the USCG further restricts its new accessions to the 17 to 27 age range. In FY 1999, 90 percent of USCG NPS accessions were between the ages of 18 and 24 as compared to 87 percent of overall DoD accessions, and 29 percent of the comparable civilian population. Age differences are explained, in part, by different age requirements in each Service. The Army and Navy (accounting for 65 percent of overall DoD NPS accessions) accept 17 to 35 year olds. For detailed age statistics, see Appendix Table E-5 for USCG and Appendix Table B-1 for overall DoD figures.

Education. As shown in Table 8.2, almost 96 percent of USCG NPS accessions in FY 1999 were regular high school diploma graduates as compared to 93 percent for the overall DoD. The difference between the USCG and overall DoD can be accounted for in the numbers of GED holders accepted by the USCG (4 percent) compared to DoD (6 percent). For both the USCG and DoD as a whole, the overall percentage of accessions with high school credentials, either diplomas or GED certificates, was 99 percent, exceeding the comparable civilian group at 79 percent.

Table 8.2. Education Levels and AFQT Categories of FY 1999 USCG and DoD Active Component NPS Accessions and Civilians 18–24 Years Old (Percent)

Education Level	Coast Guard	DoD	18- to 24-Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	95.8	92.8	78.8
Tier 2: GED, Alternative Credentials	4.1	6.0	
Tier 3: No Credentials	0.2	1.2	21.2
Total	100.0	100.0	100.0
College Experience (Part of Tier 1)	5.3	6.6	45.9
AFQT CATEGORY			
MALE			
	Coast Guard	DoD	
I	4.6	4.1	
II	42.2	33.7	
IIIA	31.7	27.3	
IIIB	21.5	32.8	
IV	0.0	1.6	
Other/Unknown	**	0.6	
Total	100.0	100.0	
FEMALE			
I	3.0	2.5	
II	42.6	31.0	
IIIA	31.3	31.4	
IIIB	23.0	33.9	
IV	0.0	0.7	
Other/Unknown	0.0	0.5	
Total	100.0	100.0	

Columns may not add to total due to rounding.
* Civilian numbers/percentages for education combine Tiers 1 and 2 as civilian data include GED certificates with high school graduate rates.
** Less than one-tenth of one percent.
Also see Appendix Tables B-5 (NPS Active Component Enlisted Accessions by AFQT Category, Service, and Gender), B-7 (NPS Active Component Enlisted Accessions by Education, Service, and Gender), E-7 (Coast Guard NPS Active Component Enlisted Accessions by AFQT Category, Gender, and Race/Ethnicity), and E-8 (Coast Guard NPS Active Component Enlisted Accessions by Education, Gender, and Race/Ethnicity).

AFQT. The primary measure of a recruit's potential for success in training is his or her AFQT score. Table 8.2 shows FY 1999 USCG accessions were more likely than their DoD counterparts to be in AFQT Categories I – IIIA (i.e., top 50 percent). The overall proportion of

FY 1999 USCG accessions in AFQT Categories I–IIIA was comparable to the distribution in the Air Force (79 and 76 percent, respectively).

Characteristics of Active Component Enlisted Force

At the end of FY 1999, the enlisted end-strength of the USCG stood at 27,392, up from 27,297 in FY 1998. The FY 1999 Coast Guard enlisted force was 90 percent male and 10 percent female. Relative to the overall DoD, proportionally the Coast Guard has more male enlisted members (90 and 86 percent, respectively).

Race/Ethnicity. The distribution of race/ethnicity by gender for FY 1999 USCG and overall DoD Active Component enlisted members along with the applicable civilian comparison group is shown in Table 8.3. Relative to the comparable civilian population, the USCG enlisted force was more likely to be White (81 and 70 percent, respectively) and less likely to be Black (7 and 13 percent, respectively) or Hispanic (also 7 and 13 percent, respectively). Furthermore, compared to the overall DoD enlisted force, the USCG is more likely to enlist Whites and less likely to enlist minorities, particularly Blacks (7 percent Blacks in the USCG vs. 22 percent Blacks in the DoD).

Table 8.3. Race/Ethnicity by Gender of FY 1999 USCG and DoD Active Component Enlisted Members and Civilians 18–24 Years Old (Percent)

Race/Ethnicity	Coast Guard			DoD		
	Male	Female	Total	Male	Female	Total
	ACTIVE COMPONENT ENLISTED MEMBERS					
White	82.0	74.2	81.2	64.9	50.3	62.8
Black	6.2	12.3	6.8	20.2	34.9	22.3
Hispanic	7.2	7.2	7.2	8.6	8.2	8.5
Other	4.6	6.3	4.8	6.4	6.6	6.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Civilians 18–44 Years Old						
White	Black	Hispanic	Other	Total	Male	Female
70.1	12.6	12.5	4.8	100.0	53.5	46.5

Columns may not add to total due to rounding.
Also see Appendix Tables B-25 (Active Component Enlisted Members by Race/Ethnicity, Service, and Gender) and E-15 (Coast Guard Active Component Enlisted Members by Race/Ethnicity and Gender).

Age. The USCG enlisted force tends to be older than the overall DoD enlisted force, but still younger than the comparable civilian group. Forty-three percent of the USCG enlisted force was 30 years of age or older as compared to 34 percent of the overall DoD, and 74 percent of the civilian group (Table 8.4).

Education. Overall, enlisted members of the USCG and DoD, as a whole, were more likely than the comparable civilian group to have high school graduation credentials, but the civilians were more likely to have college experience (Table 8.4). While the USCG participates in tuition assistance programs and the Montgomery GI Bill, the enlisted members of the USCG were less likely than the overall DoD group to have college experience. However, it should be

noted that the percentage of individuals with college experience in the overall DoD was skewed; the percentage of enlisted personnel reporting college experience, by Service, ranges from 3 percent to 92 percent. Comparisons of enlisted members in the USCG and the Navy show that they had the same rate, on average, of post-secondary education (5 percent). Enlisted jobs do not require college experience and thus are generally comparable to civilian occupations not needing college education.

Table 8.4. Age and Education Level of FY 1999 USCG and DoD Active Component Enlisted Members and Civilians (Percent)

	Coast Guard	DoD	Civilian Comparison
Age			Civilian Labor Force 17 and Older
17–19	7.2	11.3	4.9
20–24	29.0	34.5	10.0
25–29	21.3	20.1	11.1
30–34	15.5	14.3	12.0
35–39	18.3	13.7	13.6
40–44	7.3	4.9	13.8
45–49	1.2	1.1	11.8
50+	0.3	0.2	22.7
Unknown	0.0	**	0.0
Total	100.0	100.0	100.0
Education Level			18- to 44-Year-Old Civilians*
Tier1: Regular High School Graduate or Higher	95.8	96.0	88.6
Tier 2: GED, Alternative Credentials	3.1	3.3	
Tier 3: No Credentials	1.1	0.7	11.5
Total	100.0	100.0	100.0
College Experience (Part of Tier 1)	5.1	27.8	55.5

Columns may not add to total due to rounding.
* Civilian numbers/percentages for education combine Tiers 1 and 2 as civilian data include GED certificates with high school graduate rates.
** Less than one-tenth of one percent.
Also see Appendix Tables B-23 (Active Component Enlisted Members by Age Group, Service, and Gender), B-27 (Active Component Enlisted Members by Education, Service, and Gender), E-14 (Coast Guard Active Component Enlisted Members by Age Group and Gender), and E-16 (Coast Guard Active Component Enlisted Members by Education, Gender, and Race/Ethnicity).

Representation Within Occupations. The representation of USCG enlisted force by race/ethnicity and gender in occupational areas with the overall DoD rates for comparison is presented in Table 8.5. The USCG is unique in that all occupations are open to both men and women—no combat restrictions, but women were still underrepresented in the infantry, gun crews, and seamanship specialties compared to men in the USCG (9 and 26 percent, respectively). Restructuring of the Coast Guard's aviation rating from late FY 1997 through FY 1999 has led to some changes in occupational area distributions during this time. The most notable differences have been an increase in the number of positions classified as infantry, gun crews, and seamanship with a corresponding decrease in electrical/mechanical equipment repair.

Historically, all new USCG enlisted members were directly assigned to field units before attending specialty training in the A-schools where the introductory job-specific training courses

are taught. Presently, an effort is being made to assign more recruits directly to A-schools in critical specialties. Approximately 15 percent of USCG recruits go directly to advanced training after basic training. A USCG member is admitted to any A-school for which he or she is qualified based on the individual's ASVAB scores.[5] Training takes place as openings become available, which may explain the higher percentage of non-occupationals in the USCG enlisted force compared to the overall DoD (18 and 7 percent, respectively).

Table 8.5. Occupational Areas of FY 1999 USCG and DoD Active Component Enlisted Personnel by Race/Ethnicity and Gender (Percent)

Occupational Code and Area		Coast Guard							DoD Total
		Male	Female	White	Black	Hispanic	Other	USCG Total	
0	Infantry, Gun Crews, and Seamanship Specialists	26.1	9.0	26.6	6.9	18.5	20.4	24.4	17.0
1	Electronic Equipment Repairers	11.1	5.0	10.6	7.6	11.2	11.4	10.5	9.4
2	Communications and Intelligence Specialists	5.5	7.2	5.6	7.4	6.1	5.5	5.7	9.0
3	Medical and Dental Specialists	2.3	5.3	2.2	4.7	3.8	3.9	2.6	6.9
4	Other Allied Specialists	5.3	4.0	5.4	3.8	3.9	5.5	5.2	3.0
5	Functional Support and Administration	12.4	36.7	12.2	40.7	18.4	17.8	14.8	16.0
6	Electrical/Mechanical Equipment Repairers	6.5	2.1	5.9	7.6	6.5	6.6	6.1	19.8
7	Craftsmen	13.8	3.5	13.3	8.0	12.2	11.1	12.8	3.5
8	Service and Supply Handlers	0.1	**	0.1	0.0	0.1	0.0	0.1	8.5
9	Non-Occupational*	16.9	27.2	18.2	13.3	19.4	17.8	17.9	6.9
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
** Less than one-tenth of one percent.
Also see Appendix Tables B-29 (Active Component Enlisted Members by Occupational Area, Service, and Gender) and E-17 (Coast Guard Active Component Enlisted Members by Occupational Area, Gender, and Race/Ethnicity).

Characteristics of Active Component Officers

The USCG uses a variety of officer commissioning programs. These include programs for civilians and active USCG enlisted members and warrant officers to become commissioned officers. In FY 1999, the USCG commissioned a total of 329 new officers, down from 390 in FY 1998. The USCG commissioned officer corps stood at 5,504 at the end of FY 1999, also down from FY 1998 when the end-strength stood at 5,530. In Table 8.6, the distribution of new USCG officers (accessions) and current officers (corps) by source of commission and level of education is presented with applicable overall DoD figures for comparison.

5 USCG Frequently Asked Questions About Recruiting. URL: http://www.uscg.mil/jobs/faq.htm.

Table 8.6. FY 1999 USCG and DoD Active Component Officer Accessions and Officer Corps by Source of Commission and Educational Attainment (Percent)				
	Officer Accessions		Officer Corps	
	Coast Guard	DoD	Coast Guard	DoD
Source of Commission				
Academy	49.0	17.6	57.8	18.2
ROTC – Scholarship	0.0	26.6	0.0	20.3
ROTC – No Scholarship	0.0	9.4	0.0	20.1
OCS/OTS	51.0	22.3	42.2	19.3
Direct Appointment	0.0	18.5	0.0	17.1
Other	0.0	5.7	0.0	4.9
Total	100.0	100.0	100.0	100.0
Education Level				
Less than College Graduate	32.3	7.3	18.1	2.6
College Graduate (B.A., B.S., etc.)	60.7	74.4	67.4	52.9
Advanced Degree (M.A., Ph.D., etc.)	7.0	18.4	14.5	44.5
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Percentages do not include "Unknown" data.
Also see Appendix Tables B-35 (Active Component Officer Accessions and Officer Corps by Education and Service), B-40 (Active Component Officer Accessions by Source of Commission, Service, and Gender), B-41 (Active Component Officer Corps by Source of Commission, Service, and Gender), E-20 (Coast Guard Active Component Officer Accessions and Officer Corps by Education), and E-22 (Coast Guard Active Component Officer Accessions and Officer Corps by Source of Commission, Gender, and Race/Ethnicity).

Source of Commission. The USCG relies heavily on the U. S. Coast Guard Academy for its officer accessions. The USCG gets almost half of its new officers from its Academy as compared to 18 percent for DoD as a whole, as shown in Table 8.6. This large difference can be at least partially explained by the fact that the USCG does not have an ROTC program. The fact that an even greater proportion of the USCG officer corps were academy graduates is an indication that the retention rate for graduates is higher than for the other sources of officers.

Educational Attainment. Table 8.6 shows that USCG officer accessions and members of the officer corps were less likely than their overall DoD counterparts to possess a college degree. The USCG has two commissioning programs that provide opportunities for a commission without a college degree. An enlisted member of the USCG who has attained the grade of E-5 and has at least 30 college credits can apply to attend the USCG's Officer Candidate School (OCS), thereby making a commission possible without college completion. In a related program, a USCG member who achieves the rank of chief warrant officer may apply for OCS attendance or a commission via the "Warrant-to-Lieutenant" program.[6] These programs are indicative of USCG's emphasis on experience and education in its commissioning decisions.

6 USCG Frequently Asked Questions About Recruiting. URL: http://www.uscg.mil/jobs/faq.htm.

Race/Ethnicity and Gender. The USCG percentage of Whites was slightly higher than the overall DoD rate for officer accessions (80 and 78 percent, respectively) and officers (88 and 84 percent, respectively), as shown in Table 8.7. By gender, the USCG officer accessions were slightly more likely to be female than were DoD officer accessions (23 and 20 percent, respectively), but members of the USCG's officer corps were slightly more likely to be male than were DoD officers (88 and 85 percent, respectively).

Table 8.7. Race/Ethnicity and Gender of FY 1999 USCG and DoD Active Component Officer Accessions and Officer Corps (Percent)

	Officer Accessions		Officer Corps	
	Coast Guard	DoD	Coast Guard	DoD
Race/Ethnicity				
White	80.2	78.3	87.6	83.5
Black	7.0	8.6	4.3	7.9
Hispanic	5.8	4.3	3.9	3.7
Other	7.0	8.8	4.2	5.0
Total	100.0	100.0	100.0	100.0
Gender				
Male	77.2	79.9	88.3	85.3
Female	22.8	20.1	11.7	14.7
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables B-32 (Active Component Officer Accessions and Officer Corps by Gender and Service), B-34 (Active Component Officer Accessions and Officer Corps by Race/Ethnicity and Service), and E-19 (Coast Guard Active Component Officer Accessions and Officer Corps by Race/Ethnicity and Gender).

Representation Within Occupations. As was noted previously, the USCG does not have any combat restrictions. By gender, USCG female officers were almost equally represented in tactical operations, underrepresented in engineering and maintenance, and overrepresented in the non-occupational area (Table 8.8). By race/ethnicity, Black officers were underrepresented in tactical operations and Hispanic officers were underrepresented in engineering and maintenance. Compared to the overall DoD, the USCG officer corps comprised, proportionally, more engineering and maintenance officers and fewer health care providers. The difference in health care can be partially explained by the USCG's reliance on the Public Health Service for some of its medical and dental care.

Warrant Officers

In FY 1999, the USCG accessed a total of 224 new warrant officers; the warrant officer end-strength was 1,438. The distribution by race/ethnicity and gender of USCG warrant officer accessions and warrant officers with overall DoD rates for comparison is presented in Table 8.9. In general, both USCG warrant officer accessions and warrant officers were more likely to be White and male than their overall DoD counterparts.

Table 8.8. Occupational Areas of FY 1999 USCG and DoD Active Component Officer Personnel by Race/Ethnicity and Gender (Percent)								
	Coast Guard							
Occupational Area	Male	Female	White	Black	Hispanic	Other	USCG Total	DoD Total
General Officers and Executives	0.7	0.0	0.6	0.4	0.0	0.0	0.6	0.4
Tactical Operations	44.6	44.4	45.3	33.8	44.0	41.6	44.6	37.8
Intelligence	0.6	0.6	0.6	0.0	0.9	0.0	0.6	5.1
Engineering and Maintenance	34.2	30.5	34.0	35.9	27.8	32.5	33.7	11.7
Scientists and Professionals	1.2	1.4	1.3	0.8	0.5	0.4	1.2	4.9
Health Care	0.3	0.0	0.3	0.4	0.5	0.0	0.3	18.7
Administration	9.6	10.0	9.6	9.3	11.1	8.7	9.6	7.0
Supply, Procurement, and Allied Occupations	0.7	0.3	0.7	0.8	0.5	0.4	0.7	8.6
Non-Occupational	8.3	12.8	7.7	18.6	14.8	16.5	8.8	5.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables B-37 (Active Component Officer Corps by Occupational Area and Service) and E-21 (Coast Guard Active Component Officer Corps by Occupational Area, Gender, and Race/Ethnicity).

Table 8.9. FY 1999 USCG and DoD Active Component Warrant Officer Accessions and Officer Corps by Race/Ethnicity and Gender (Percent)				
	Warrant Officer Accessions		Warrant Officer Corps	
	Coast Guard	DoD	Coast Guard	DoD
Race/Ethnicity				
White	86.6	76.1	89.1	75.1
Black	7.6	14.7	5.2	15.6
Hispanic	2.7	4.8	3.1	4.8
Other	3.1	4.5	2.6	4.6
Total	100.0	100.0	100.0	100.0
Gender				
Male	93.3	93.6	96.5	93.6
Female	6.7	6.4	3.5	6.4
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables B-44 (Active Component Warrant Officer Accessions and Warrant Officer Corps by Gender and Service), B-45 (Active Component Warrant Officer Accessions and Warrant Officer Corps by Race/Ethnicity and Service), and E-23 (Coast Guard Active Component Warrant Officer Accessions and Warrant Officer Corps by Race/Ethnicity and Gender).

Characteristics of USCG Reserve Enlisted Accessions

In FY 1999, the USCG Reserve accessed a total of 2,313 new enlisted personnel up from 1,813 in FY 1998. Of these, 448 (19 percent) had no prior military experience, and 1,865 (81 percent) had served in the Armed Forces previously.

Race/Ethnicity and Gender. Compared to the overall DoD, USCG Reserve enlisted accessions were more likely to be White, as shown in Table 8.10. In FY 1999, 76 percent of USCG Reserve NPS enlisted accessions were male and 24 percent were female (Appendix E, Table E-25), comparable to the overall DoD Reserve Component (likewise 76 percent male and 24 percent female).

Table 8.10. Race/Ethnicity by Gender of FY 1999 USCG and DoD Reserve Component Enlisted Accessions and Civilians (Percent)

Race/Ethnicity	Coast Guard			DoD		
	Male	Female	Total	Male	Female	Total
NON-PRIOR SERVICE						
White	78.5	69.7	76.3	72.9	60.6	70.0
Black	8.6	11.0	9.2	13.8	27.0	16.9
Hispanic	5.9	6.4	6.0	7.7	6.6	7.5
Other	7.1	12.8	8.5	5.6	5.8	5.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
PRIOR SERVICE						
White	82.2	84.1	82.4	70.3	56.5	67.9
Black	4.0	6.7	4.3	17.4	32.2	20.0
Hispanic	7.4	5.4	7.2	7.3	6.2	7.1
Other	6.4	3.8	6.1	5.0	5.1	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
TOTAL ACCESSIONS						
White	81.5	79.6	81.2	71.3	58.4	68.7
Black	4.8	8.0	5.3	16.1	29.8	18.8
Hispanic	7.2	5.7	7.0	7.4	6.4	7.2
Other	6.5	6.6	6.5	5.2	5.4	5.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

18–24/20–39 Year-Old Non-Institutionalized Civilians						
White	Black	Hispanic	Other	Total	Male	Female
65.7/69.3	14.2/12.8	15.2/13.1	4.9/4.8	100.0	49.8/53.7	50.2/46.3

Columns may not add to total due to rounding.
Also see Appendix Tables C-3 (NPS Selected Reserve Enlisted Accessions by Race/Ethnicity, Component, and Gender), C-11 (Prior Service Selected Reserve Enlisted Accessions by Race/Ethnicity, Component, and Gender), E-25 (NPS Coast Guard Reserve Enlisted Accessions by Race/Ethnicity and Gender), and E-29 (Prior Service Coast Guard Reserve Enlisted Accessions by Race/Ethnicity and Gender).

Educational Attainment. Table 8.11 shows that 86 percent of FY 1999 USCG Reserve accessions had earned high school diplomas compared with 96 percent active Coast Guard NPS accessions and 92 percent of overall DoD Reserve accessions. The USCG Reserve accessed more individuals, proportionally, with GEDs than did the overall DoD. Relative to the comparable civilian group, USCG Reserve enlisted accessions were more likely to have high school credentials.

Table 8.11. Education Level of FY 1999 USCG and DoD Reserve Component Accessions and Civilians (Percent)			
Education Level	Coast Guard	DoD	Civilian Comparison*
NON-PRIOR SERVICE RESERVE COMPONENT ACCESSIONS			
Tier 1: Regular High School Graduate or Higher	87.7	87.3	
Tier 2: GED, Alternative Credentials	11.8	5.4	78.8**
Tier 3: No Credentials	0.5	7.3	21.2
Total	100.0	100.0	100.0
College Experience (Part of Tier 1)	17.9	4.8	45.9
PRIOR SERVICE RESERVE COMPONENT ACCESSIONS			
Tier 1: Regular High School Graduate or Higher	85.9	94.9	
Tier 2: GED, Alternative Credentials	13.6	3.3	89.3**
Tier 3: No Credentials	0.5	1.8	10.7
Total	100.0	100.0	100.0
College Experience (Part of Tier 1)	21.7	8.4	60.0
TOTAL RESERVE COMPONENT ACCESSIONS			
Tier 1: Regular High School Graduate or Higher	86.3	92.0	
Tier 2: GED, Alternative Credentials	13.2	4.1	
Tier 3: No Credentials	0.5	3.9	
Total	100.0	100.0	
College Experience (Part of Tier 1)	21.0	7.1	

Columns may not add to total due to rounding.
* NPS civilian comparison is 18–24 year-old civilians; prior service civilian comparison is 20–39 year-old civilian labor force.
** Civilian numbers/percentages for education combine Tiers 1 and 2 as civilian data include GED certificates with high school graduate rates.
Also see Appendix Tables C-7 (NPS Selected Reserve Enlisted Accessions by Education, Component, and Gender), C-13 (Prior Service Reserve Enlisted Accessions by Education, Component, and Race/Ethnicity), E-27 (NPS Coast Guard Reserve Enlisted Accessions by Education, Gender, and Race/Ethnicity), and E-30 (Prior Service Coast Guard Reserve Enlisted Accessions by Education, Gender, and Race/Ethnicity).

Characteristics of Reserve Component Enlisted Force

At the end of FY 1999, the USCG Reserve enlisted force stood at 6,808 up from 6,312 in FY 1998. The race/ethnicity by gender distribution of these enlisted members is presented in Table 8.12.

Table 8.12. Race/Ethnicity by Gender of FY 1999 USCG and DoD Reserve Component Enlisted Members and Civilian Labor Force 18–49 Years Old (Percent)						
Race/Ethnicity	Coast Guard			DoD		
	Male	Female	Total	Male	Female	Total
Reserved Enlisted Members						
White	86.0	75.7	84.6	71.4	56.9	69.1
Black	4.4	11.8	5.3	15.8	30.9	18.2
Hispanic	5.6	6.8	5.7	7.9	6.7	7.7
Other	4.1	5.8	4.3	4.9	5.6	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Civilian Labor Force 18–49 Years Old						
White	Black	Hispanic	Other	Total	Male	Female
71.3	12.3	11.7	4.7	100.0	53.2	46.8

Columns may not add to total due to rounding.
Also see Appendix Tables C-17 (Selected Reserve Enlisted Members by Race/Ethnicity, Component, and Gender) and E-32 (Coast Guard Reserve Enlisted Members by Race/Ethnicity and Gender).

Race/Ethnicity and Gender. Overall, USCG Reserve enlisted members were more likely to be White than either the overall DoD or the comparable civilian group. USCG Reserve enlisted members were also slightly less likely to be female than were their DoD counterparts (13 and 16 percent, respectively).

Age. In general, USCG Reserve enlisted members tended to be older than the DoD comparison group. Almost 40 percent of USCG Reserve enlisted members were 40 years of age or older, while only 23 percent of the DoD Reserve comparison group fell into this category, but more than 48 percent of the civilian comparison group was 40 or older (Table 8.13). This can be explained, in part, by the proportion of prior service individuals in each Service. The Coast Guard Reserve relies more on prior service recruits to fill its enlisted ranks than the overall DoD Reserve Components (81 and 62 percent prior service accessions in FY 1999, respectively). Therefore, members of the USCG enlisted force joined the Coast Guard Reserve at an older age, on average, than those joining the overall DoD Reserve Components.

Table 8.13. Age and Education Level of FY 1999 USCG and DoD Reserve Component Enlisted Members and Civilians (Percent)

	Coast Guard	DoD	Civilian Comparison
Age			Civilian Labor Force
17–19	3.9	7.6	4.9
20–24	9.9	19.3	10.0
25–29	16.3	18.3	11.1
30–34	15.3	16.1	12.0
35–39	15.2	15.6	13.6
40–44	12.0	9.6	13.8
45–49	11.3	6.4	11.8
50+	16.3	7.0	22.7
Unknown	0.0	0.1	0.0
Total	100.0	100.0	100.0
Education Level			18- to 49-Year-Old Civilian Labor Force
Tier 1: Regular High School Graduate or Higher	87.0	97.0	89.0*
Tier 2: GED, Alternative Credentials	12.3	1.4	
Tier 3: No Credentials	0.7	1.6	11.0
Total	100.0	100.0	100.0
College Experience (Part of Tier 1)	35.0	20.3	56.3

Columns may not add to total due to rounding.
* Civilian numbers/percentages for education combine Tiers 1 and 2 as civilian data include GED certificates with high school graduate rates.
** Less than one-tenth of one percent.
Also see Appendix Tables C-15 (Selected Reserve Enlisted Members by Age Group, Component, and Gender), C-19 (Selected Reserve Enlisted Members by Education, Component, and Gender), E-31 (Coast Guard Reserve Enlisted Members by Age Group and Gender), and E-33 (Coast Guard Enlisted Members by Education, Gender, and Race/Ethnicity).

Educational Attainment. More than 99 percent of the USCG Reserve enlisted members have at least high school credentials, exceeding the civilian comparison of 89 percent (Table 8.13). As far as college experience, USCG Reserve enlisted members were more likely than their DoD Reserve counterparts to have college experience, but less likely than the civilian comparison group to have at least some college.

Representation Within Occupations. FY 1999 occupational representation of the USCG Reserve enlisted force by gender and race is presented in Table 8.14. Female and Black USCG Reserve enlisted members were overrepresented in the functional support and administration occupational area (45 and 31 percent, respectively, compared to 15 percent for the USCG Reserve as a whole). Relative, proportionally, to DoD, the USCG had more craftsmen, other allied specialists, and service and supply handlers; and fewer electrical/mechanical equipment repairers and medical and dental specialists. Some of the difference between the USCG Reserve and DoD Reserve Components in the medical and dental specialties may be explained by the fact that the USCG uses both internal and external sources (i.e., Public Health Service personnel) for medical/dental services.

Table 8.14. Occupational Areas of FY 1999 USCG and DoD Reserve Component Enlisted Personnel by Race/Ethnicity and Gender (Percent)

		Coast Guard							
	Occupational Code and Area	Male	Female	White	Black	Hispanic	Other	USCG Total	DoD Total
0	Infantry, Gun Crews, and Seamanship Specialists	21.2	13.1	21.1	11.0	14.4	18.7	20.1	18.3
1	Electronic Equipment Repairers	5.0	1.8	4.6	4.4	4.4	5.4	4.6	4.5
2	Communications and Intelligence Specialists	3.6	7.2	4.0	4.4	4.9	3.7	4.1	5.0
3	Medical and Dental Specialists	1.5	4.1	1.7	2.8	2.3	1.7	1.8	6.9
4	Other Allied Specialists	11.6	8.1	11.3	9.4	7.7	13.3	11.1	2.8
5	Functional Support and Administration	9.8	45.4	13.2	31.1	15.6	16.7	14.5	18.6
6	Electrical/Mechanical Equipment Repairers	6.0	1.2	5.4	2.8	7.4	4.4	5.3	16.5
7	Craftsmen	16.2	1.8	15.0	8.0	12.6	10.2	14.3	5.8
8	Service and Supply Handlers	17.1	4.2	15.5	12.7	19.0	11.9	15.4	10.6
9	Non-Occupational*	8.2	13.1	8.1	13.5	11.8	14.0	8.8	11.1
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
*Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Tables C-21 (Selected Reserve Enlisted Members by Occupational Area, Component, and Gender) and E-34 (Coast Guard Reserve Enlisted Members by Occupational Area, Gender, and Race/Ethnicity).

Characteristics of Reserve Component Officers

In FY 1999, the USCG Reserve accessed a total of 155 new officers and the overall Reserve officer corps end-strength stood at 1,078, both up from FY 1998 (114 accessions and 1,059 end-strength). By race/ethnicity and gender, members of the overall USCG Reserve officer corps were more likely to be White and male than were their DoD Reserve counterparts, as shown in Table 8.15.

Source of Commission. Table 8.16 presents source of commission for Reserve officer accessions and Reserve officers in the Coast Guard and overall DoD Reserve Components. The most often cited source of commission for both new USCG Reserve officer accessions and members of the USCG Reserve officer corps was "Other," which includes officers trained in one Service, but accessed or serving in another Service. The remainder of new officer accessions or

officer corps members were commissioned via either OCS or the Coast Guard Academy. The Coast Guard Reserve does not have an ROTC program.

Table 8.15. Race/Ethnicity and Gender of FY 1999 USCG and DoD Reserve Component Officer Accessions and Officer Corps (Percent)

	Reserve Officer Accessions		Reserve Officer Corps	
	Coast Guard	DoD	Coast Guard	DoD
Race/Ethnicity				
White	81.3	81.9	89.9	83.4
Black	5.8	9.7	3.8	8.8
Hispanic	6.5	3.3	3.6	3.5
Other	6.5	5.0	2.7	4.2
Total	100.0	100.0	100.0	100.0
Gender				
Male	78.1	81.8	85.7	81.7
Female	21.9	18.2	14.3	18.3
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables C-25 (Selected Reserve Officer Accessions and Officers by Gender), C-27 (Selected Reserve Officer Accessions and Officers by Race/Ethnicity), and E-36 (Coast Guard Reserve Officer Accessions and Officer Corps by Race/Ethnicity and Gender).

Table 8.16. FY 1999 USCG and DoD Reserve Component Officer Accessions and Officer Corps by Source of Commission and Educational Attainment (Percent)

	Reserve Officer Accessions		Reserve Officer Corps	
	Coast Guard	DoD	Coast Guard	DoD
Source of Commission				
Academy	0.7	9.2	0.3	5.5
ROTC – Scholarship	0.0	14.2	0.0	10.7
ROTC – No Scholarship	0.0	21.7	0.0	23.2
OCS/OTS	49.0	14.3	23.4	12.6
ANG AMS/ARNG OCS	0.0	8.7	0.0	16.1
Direct Appointment	0.0	22.1	0.0	29.2
Other	50.3	9.8	76.4	2.7
Total	100.0	100.0	100.0	100.0
Education Level				
Less than College Graduate	32.9	14.6	20.3	9.3
College Graduate (B.A., B.S., etc.)	54.2	62.2	59.7	58.8
Advanced Degree (M.A., Ph.D., etc.)	12.9	23.2	20.0	31.9
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Percentages do not include "Unknown" data.
Also see Appendix Tables C-28 (Selected Reserve Officer Accessions and Officers by Education), C-33 (Selected Reserve Officer Accessions by Source of Commission), C-34 (Selected Reserve Officers by Source of Commission), and E-37 (Coast Guard Selected Reserve Officer Accessions and Officers by Education), and E-40 (Coast Guard Reserve Officer Accessions and Officers by Source of Commission).

Educational Attainment. Both Coast Guard Reserve officer accessions and officer corps members were less likely than their DoD comparison groups to be college graduates (Table 8.16). As was mentioned for the Active Component, USCG has specialized programs that offer commissions to enlisted members who are traditionally less likely to have college credentials.

Representation Within Occupations. USCG Reserve officer corps females were almost equally represented with their male counterparts in tactical operations (Table 8.17). But,

similar to the Active Component Coast Guard, women in the USCG Reserve were underrepresented in engineering and maintenance and overrepresented in non-occupational areas. Minority USCG Reserve officers were underrepresented in tactical operations and overrepresented in the non-occupational area.

Table 8.17. Occupational Areas of FY 1999 USCG and DoD Reserve Component Officer Personnel by Race/Ethnicity and Gender (Percent)

Occupational Area	Coast Guard							DoD Total
	Male	Female	White	Black	Hispanic	Other	USCG Total	
General Officers and Executives	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.4
Tactical Operations	24.0	26.6	25.8	14.6	15.4	3.5	24.4	33.9
Intelligence	3.4	2.6	3.1	2.4	7.7	3.5	3.3	5.4
Engineering and Maintenance	28.0	19.5	27.0	31.7	18.0	24.1	26.8	10.2
Scientists and Professionals	1.1	0.7	1.0	2.4	0.0	0.0	1.0	6.4
Health Care	0.8	0.7	0.8	0.0	0.0	0.0	0.7	21.1
Administration	3.7	5.2	4.1	2.4	0.0	3.5	3.9	7.7
Supply, Procurement, and Allied Occupations	5.1	2.0	4.9	0.0	5.1	3.5	4.6	10.7
Non-Occupational	33.8	42.9	33.0	46.3	53.9	62.1	35.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables C-30 (Selected Reserve Officers by Occupational Area and Component) and E-39 (Coast Guard Reserve Officers by Occupational Area, Gender, and Race/Ethnicity).

Reserve Component Warrant Officers

In FY 1999, the USCG Reserve accessed a total of 24 new warrant officers; their end-strength was 224. While the number of USCG Reserve warrant officer accessions was the same in FY 1999 and 1998, their end-strength increased by 8 from 216 in FY 1998. Any differences between the USCG and overall DoD information should be interpreted with caution given the small numbers of USCG Reserve warrant officer accessions and warrant officers (Table 8.18).

Table 8.18. FY 1999 USCG and DoD Reserve Component Warrant Officer Accessions and Officer Corps by Race/Ethnicity and Gender (Percent)

	Reserve Warrant Officer Accessions		Reserve Warrant Officer Corps	
	USCG	DoD	USCG	DoD
Race/Ethnicity				
White	91.7	84.9	90.6	88.8
Black	4.2	8.1	6.7	5.5
Hispanic	4.2	3.9	0.9	3.3
Other	0.0	3.1	1.8	2.4
Total	100.0	100.0	100.0	100.0
Gender				
Male	87.5	89.2	86.6	93.1
Female	12.5	10.8	13.4	6.9
Total	100.0	100.0	100.0	100.0

Columns may not add to total due to rounding.
Also see Appendix Tables C-35 (Selected Reserve Warrant Officer Accessions and Warrant Officers by Gender and Component), C-36 (Selected Reserve Warrant Officer Accessions and Warrant Officers by Race/Ethnicity and Component), and E- 41 (Coast Guard Reserve Warrant Officer Accessions and Warrant Officers by Race/Ethnicity and Gender).

Closing

While the Coast Guard's organizational positioning is unique—part of one cabinet level department during peace (Transportation) and another during war or under Presidential direction (Defense)—its contributions to national defense have been significant. The USCG represents the oldest continuous seagoing service in this country and has fought in almost every war since implementation of the U.S. Constitution to include battles with pirates, the War of 1812, the Mexican War, the Seminole Indian uprising, the Spanish-American War, both world wars, Korea, Vietnam[7], and most recently the Persian Gulf War, where the USCG was the only Armed Service with the ship search capabilities necessary to make the embargo of seagoing goods a success.

On a daily basis numerous Coast Guard personnel are serving in joint billets and as part of joint task forces falling under direct oversight of the Department of Defense. In FY 1999, the USCG sent training teams to help more than 50 nations develop coast guards; participated in nation building in the Caribbean and South America; and sent cutters to support Operation Allied Force in the Mediterranean and the USS Constellation battle group enforcing the Iraqi oil embargo in the Persian Gulf.[8] The U. S. Coast Guard truly is a full-time military organization with a genuine peacetime mission.

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7 Scheina, R. The Coast Guard at War. URL: http://www.uscg.mil/hq/g-cp/history/h_CGatwar.html.

8 The 1999 Annual Report of the U. S. Coast Guard. pp. 7 and 30–31. (also available at URL: http://www.uscg.mil).

Chapter 9

THE FUTURE MILITARY

Serving Force XXI

As the United States Military embarks upon a new millennium, it is time to take a fresh look at military personnel management issues. The All Volunteer Force, in existence for more than 25 years, has proven itself viable and successful, yet ever so challenging to maintain. The military attracts quality members from a broad demographic base. Military personnel include minorities and women in increasing proportions. Further, the total force is committed to the military and their families. These and other factors place quality-of-life matters at the forefront of human resource interests and force management.

Despite our nation's status as the sole superpower, our armed forces train and deploy for numerous missions and operations that include warfighting, peacekeeping, antiterrorism, humanitarian assistance, disaster relief, and other less-traditional roles. The post-Cold War world has drawn the military into regional conflicts, civil wars, and ethnic disputes beyond traditional U.S. security interests. What's more, the role of the military may be transformed mid-mission. It is an important and perplexing task to try to understand how the military's evolving responsibilities affect today's military recruiting and personnel management.

In addition to advanced weapon systems and technology, visions of the future include a broadened understanding of the knowledge, skills, abilities, and other characteristics required by those who operate, maintain, and support military technology. Readiness will depend increasingly upon the interdependence of a multitude of attributes possessed by our men and women in uniform. Task cohesion must be forged not only within units, but also across units, within Service, across Services, and, in the case of multi-national peacekeeping forces, across nations.

Recruiting Challenges and Potential

One challenge that the military must face is how to project an image of viable career contender for all Americans regardless of economic conditions. Although military service is a noble calling, the profession of arms is not a popular career choice. Compounding this is a booming U.S. economy with the lowest unemployment rate in the history of the All Volunteer Force as well as growing college enrollment rates among youth of enlistment age. The economic and educational opportunities to be found in and through the military face strong competition from the public and private sector. Middle class youth typically drawn to service may be dissuaded from a term of service in favor of a less-restrictive and demanding civilian job or the opportunity to pursue a college degree.

As the smaller force of the future places greater cognitive demands on and requires versatility from Servicemembers, personnel recruitment and maintenance must adapt accordingly. As always, reliance on all demographic and social segments in the United States is imperative. Traditionally, African-Americans have participated in the military at higher

proportions than their overall representation in the general population, but Asian-Americans and Hispanics tend to be underrepresented.

Certainly, the preceding chapters have suggested that there is potential for even greater military participation by women. Although women are making inroads into leadership positions, their military roles are still unsettled if not contested. Military readiness and performance depend upon multiple factors—beyond brains and brawn. As such, all Servicemembers should be valued for the contributions and strengths they bring to the force.

College graduates, although well represented among the officer corps and among the reserves are underrepresented in the military's enlisted ranks. This trend is significant, not so much as an equity concern but because an increasing number of high school graduates are college bound. The Department of Defense must learn to attract recruits from the growing segment of enlistment-aged youth who are college-oriented.

Recruiting for the new millennium requires reexamining markets that are typically ignored such as college stopouts and dropouts and non-high school graduates. Quality as currently conceptualized may decline somewhat but remediation of weakness and the search for salient compensating factors may be in order. It is also wise to keep in mind that quality has been at unprecedented levels and small declines do not necessarily signal an unprepared or ineffective force.

The U.S. military is increasing in diversity though it does not reflect completely the population from which it is derived. Selection standards and policies as well as personal preferences contribute to the extent to which the military demographically mirrors American society. Nonetheless, population proportions are an important benchmark for gauging the attractiveness, if not the relevance, of the military to all segments of society. In addition to tracking these statistics, the trends captured in the *Population Representation* report compel us to be aware of the changing youth markets.