

**Population
Representation
in the Military Services**

Fiscal Year 1997

November 1998

Chapter 1

INTRODUCTION

This is the 24th annual Department of Defense (DoD) report on social representation in the U.S. Military Services. Such a profile of the social demography of the military was initiated in response to a mandate by the Senate Committee on Armed Services (Report 93-884, May 1974). Since fiscal year (FY) 1975, 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 enlisted accessions and personnel compared to the civilian population. In keeping with an increased emphasis and reliance on a Total Force, Accession Policy has expanded this report to include statistics not only for active duty enlisted personnel but for officers and reservists as well.

In addition to estimates of cognitive ability, routine demographics (e.g., age, gender, race/ethnicity) are supplemented with more complex composite measures (e.g., socioeconomic status) and service characteristics (e.g., years of service and pay grade). Further, historical data are included to aid in analyzing trends, and otherwise to render the statistics more interpretable. Thus 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 qualities and characteristics of the people serving in the Military Services.

The aim of the *Population Representation* report is to disseminate facts regarding the demographic, educational, aptitude, and socioeconomic levels 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. Years of service and pay provide measures of the degree of personnel experience as well as career progress that are particularly informative when examined by gender and race/ethnicity. Indeed this report has increased in volume and coverage over the years but it has not outgrown its usefulness. Representation levels may change only slightly from year to year but monitoring racial/ethnic and gender participation together with additional relevant factors maintains an ever present focus on equal opportunity.

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 1997: Reflecting on Race and Gender

FY 1997 marks the eve of the 50th anniversary of the integration of minorities and women in the military. In July of 1948, President Harry S. Truman issued Executive Order 9981 and ended the policy of racially segregating units. A month earlier, in that same year, Congress passed the Women's Armed Forces Integration Act. FY 1997 is

also the eve of the 25th Anniversary of the All Volunteer Force (AVF) at which point the enthusiastic participation of Blacks in the military and the expanded use of women became particularly noticeable.

At the close of FY 1997, the Total Force stood at just over 1.4 million active duty members and more than 902,000 Selected Reservists. Despite further trimming of the force during FY 1997 and a continued rebound in the number of male youth in the population pool, recruiting remains a challenge. Maintaining the volunteer spirit involves more than relatively low accession requirements and an ample youth population. 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.

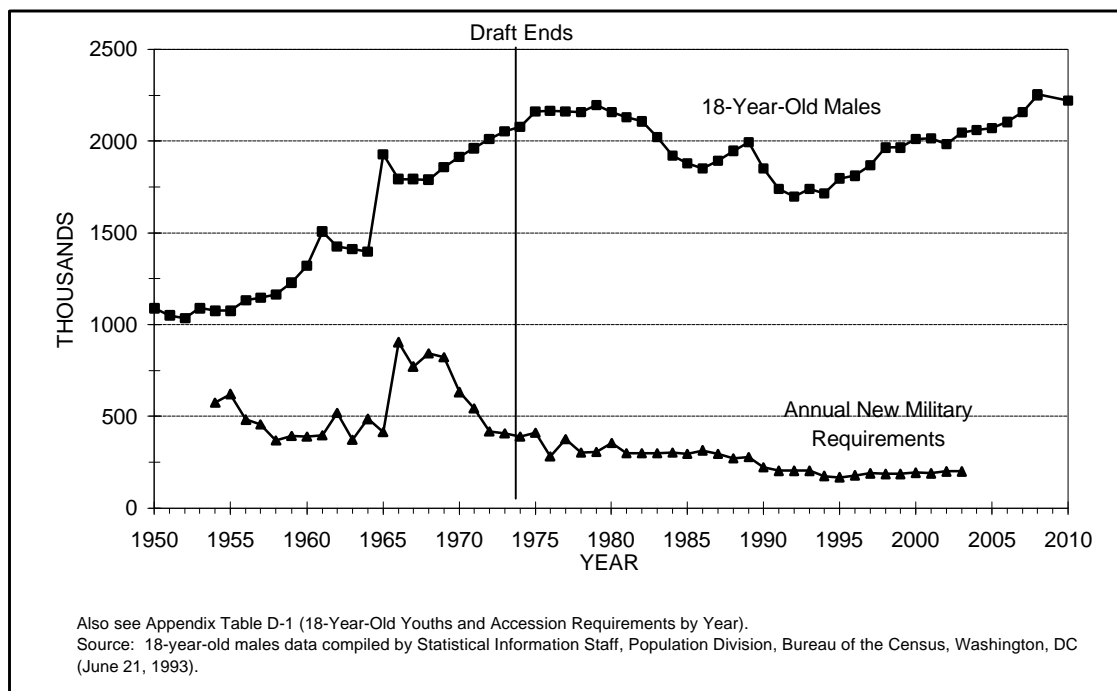


Figure 1.1. The population of 18-year-old males and the Services' non-prior service (NPS) recruiting requirements for years 1950-2010 (projected).

Diversity continues to grow. Blacks maintain their strong military presence and have even made gains in the officer corps. Hispanics and other racial/ethnic minorities comprise notable proportions of enlisted members and officers alike. The real representation issue concerns women. While they comprise half of the youth population, they stand at less than 20 percent of both enlisted and officer accessions. However, these figures are all-time highs in the representation of women entering the military. Before the AVF, in FY 1964, less than 1 percent of enlisted accessions were women. Women climbed to 5 percent in 1973. Ten years ago, women stood at 12 percent of accessions and as of FY 1997 they accounted for nearly 18 percent of new recruits. At 19 percent, their representation among officer accessions was even stronger. The representation

levels for women among active component enlisted members and the officer corps were also record breaking at 14 percent each.

Remaining Challenges

Volunteers for today's military lifestyle and missions come from a myriad of demographic and social lines and paths: Black, White, and "Other"; North, South, East, and West; middle class, rich, and poor; married and single; and men and women. This constellation of people train and fight or keep peace in an unstable interwoven world including the volatility of Bosnia and the lethal potential brought to the fore by nuclear testing in India and Pakistan.

Just as the missions are far from routine or traditional, neither is the mix of soldiers, sailors, marines, or airmen. Women and minorities have climbed proportionately since the passage of the Women's Armed Forces Integration Act and President Truman's racial integration executive order.

Representation is in many ways a success story. Remaining challenges include increasing integration of women and minorities. Progress and equity for women and minorities must go beyond numerical representation and consider factors related to career progression, including occupational assignment, retention, and promotion patterns, in addition to zero tolerance for a hostile work environment.

Fifty years ago, minorities and women were given a permanent role in the military. Today's volunteer military relies upon the resultant multicultural cadre of quality men and women who stand ready to carry out missions at home and around the globe. In the interest of military cohesion, morale, and readiness in the 21st century, progress toward equitable access to the risks and rewards of military service must continue.

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 18-44 year-old civilian labor force to the 20-39 year-old civilian labor force. Comparisons for Selected Reserve enlisted members were changed from 18-44 year-old civilians to 18-49 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 years 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. With

this report, prior service accession data for the Active Component have been added. A brief description of the data sources for FY 1997 follows:

<u>Subject</u>	<u>Data Source</u>
<u>Active Components</u>	
Applicants to Enlisted Military	DMDC Military Entrance Processing Command (USMEPCOM) Edit Files, October 1996 through September 1997
Enlisted Accessions	DMDC USMEPCOM Edit Files, October 1996 through September 1997
Enlisted Force	DMDC Active and Loss Edit File, September 1997
Officer Accessions	DMDC Officer Gain Files, October 1996 through September 1997
Officer Corps	DMDC Officer Master and Loss Edit File, September 1997
Recruit Socioeconomic Status	DMDC Survey of Recruit Socioeconomic Backgrounds, October 1996 through September 1997
<u>Reserve Components</u>	
Selected Reserve Enlisted and Officer Accessions	Reserve Components Common Personnel Data System (RCCPDS), October 1996 through September 1997
Selected Reserve Enlisted Force and Officer Corps	Reserve Components Common Personnel Data System (RCCPDS), September 1997

Civilian Comparisons

Civilian Comparison
Groups for Applicants,
Accessions, and Active and
Reserve Members

Bureau of Labor Statistics Current
Population Survey Files, October 1996
through September 1997

Civilian Socioeconomic
Comparison Data

Bureau of Labor Statistics Current
Population Survey Files, October 1996
through September 1997

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 nearly 189,000 young men and women in the Active Components in FY 1997. 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. The Services' missions are changing to include peacekeeping and humanitarian efforts, requiring additional skills from today's men and women in uniform. (See Chapter 8 for an analysis of the demographic characteristics of the Servicemen and Servicewomen serving in Bosnia during FY 1997.)

Military recruiting is more and more difficult. Data from the annual Youth Attitude Tracking Study (YATS) show that overall propensity to enlist among young men (16- to 21-year-olds) has not changed significantly since 1994. Today, 26 percent of those surveyed reported that they planned definitely or probably to enlist in the military in the next few years.¹ However, there was a significant drop in the propensity of 16-21 year-old Hispanic men, from 43 percent in 1996 to 37 percent in 1997. Also, propensity of 16-21 year-old women declined from 14 percent in 1996 to 12 percent in 1997.²

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 15 percent a year or more after graduating).³ About 65 percent of today's high schoolers actually enroll in college in the Fall after graduation, compared to about half of high school graduates 15 years ago.⁴ In spite of decreasing propensity and increasing competition with colleges and universities, military recruiters were able to enlist a high-quality accession cohort in FY 1997. Recruiting is likely to continue to be a challenge as recruiting objectives increase and with propensity at such low levels.⁵ This chapter introduces the Active Component enlistment process, followed by demographic characteristics of enlisted applicants and new recruits (non-prior service accessions). New to the report this year are data of prior service recruits.

¹ Enlistment propensity is measured with the Youth Attitude Tracking Study (YATS) conducted annually by the Department of Defense.

² Ibid.

³ 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).

⁴ U.S. Department of Education, *The Digest of Education Statistics 1997* (NCES 98-015) (Washington, DC: National Center for Education Statistics, 1997), Table 183.

⁵ Memorandum from F. M. Rush, Acting Assistant Secretary of Defense (Force Management Policy), Subject: 1997 Youth Attitude Tracking Study, January 15, 1998.

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.⁶

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 a 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 to 23 years of age.⁷ 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.

⁶ 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.

⁷ 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.

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

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

- 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.

The system was developed after research indicated a strong relationship between education credentials and successful completion of the first term of military service.⁸ Current research continues to show that education attainment of youth predicts first-term military attrition.⁹ 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. They used that model 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 the non-prior service (NPS) recruits are high school diploma graduates. At least 60 percent of these recruits must be drawn from AFQT Categories I-III A; 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

⁸ 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).

⁹ 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); 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.

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 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.¹⁰

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).

Physical Examination. 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 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.

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

¹⁰ 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 1997.

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.¹¹

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 their enlistment. Most enter the delayed entry program (DEP), which allows up to a year before the individual reports for duty, with up to a six month extension upon approval by the respective Service Secretary.¹² 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 11 to 19 percent of individuals in the DEP changed their minds and asked to be released from their enlistment contracts each month in FY 1997. 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 1997, nearly 392,000 individuals applied to serve in the active enlisted military force (Appendix Table A-1). The distribution of FY 1997 Active Component NPS applicants by race/ethnicity and gender is shown in Table 2.2.

Seventy-eight percent of the applicants are male, of whom 63 percent are White, 20 percent Black, 10 percent Hispanic, and 7 percent "Other."¹³ For female applicants,

¹¹ Orvis, B.R. and Gahart, M.T., *Enlistment Among Applicants for Military Service: Determinants and Incentives* (Santa Monica, CA: RAND Corporation, 1990), p. vii.

¹² 10 U.S.C. 513, as amended December 1996.

¹³ Includes Native Americans, Asians, and Pacific Islanders.

approximately 52 percent are White, 32 percent Black, 9 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.

Table 2.2. Race/Ethnicity and Gender of FY 1997 Active Component NPS Applicants*, by Service (Percent)					
	Army	Navy	Marine Corps	Air Force	DoD
MALES					
White	60.9	60.3	66.0	70.2	62.9
Black	23.0	19.9	15.9	17.0	20.2
Hispanic	10.4	10.2	12.0	6.6	10.2
Other	5.6	9.6	6.2	6.3	6.8
Total	100.0	100.0	100.0	100.0	100.0
FEMALES					
White	48.1	52.6	61.0	60.3	52.3
Black	36.9	29.3	20.6	26.1	32.2
Hispanic	9.0	8.9	11.3	6.5	8.6
Other	6.0	9.2	7.2	7.1	6.9
Total	100.0	100.0	100.0	100.0	100.0
TOTAL					
Male	74.2	82.3	90.7	68.5	77.9
Female	25.8	17.7	9.3	31.5	22.1
<small>Columns may not add to total due to rounding. * Applicant data reported for FY 1997 are based on the DMDC Edit version of the MEPCOM file, which has been "cleaned" by the edit process. FY 1997 applicant data are consistent with Information Delivery System (IDS) data. However, comparisons of FY 1997 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).</small>					

Characteristics of Active Component Accessions

During FY 1997, 188,895 Active Component non-prior service recruits (individuals who had not previously served in the military) and 6,828 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 1997 but had not been sent to basic training by September 30, 1997, nor does it include Reserve Component recruits (see Chapter 5 for Reserve Component enlisted accession data).

In the Active Component, more than 96 percent of accessions have never served in the military before. The small number of prior service accessions enlisting in FY 1997 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 1997 NPS recruits, and compares them with the 18- to 24-year-old civilian non-institutionalized U.S. population.

Table 2.3. FY 1997 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	5,731	75,727	81,458	93.0
Navy	684	49,131	49,815	98.6
Marine Corps	191	33,949	34,140	99.4
Air Force	222	30,088	30,310	99.3
DoD Total	6,828	188,895	195,723	96.5
Also see Appendix Tables B-13 through B-22 (Prior Service Accessions).				

The proportion of accessions-to-applicants over FYs 1976-1997 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.

Over the last decade, recruiters have expended great effort in screening prospects. For most years, progressively fewer prospects were sent to MEPSs. In FY 1997, approximately 392,000 applicants were processed through MEPSs to access 189,000 new recruits, a 48 percent ratio of accessions-to-applicants.

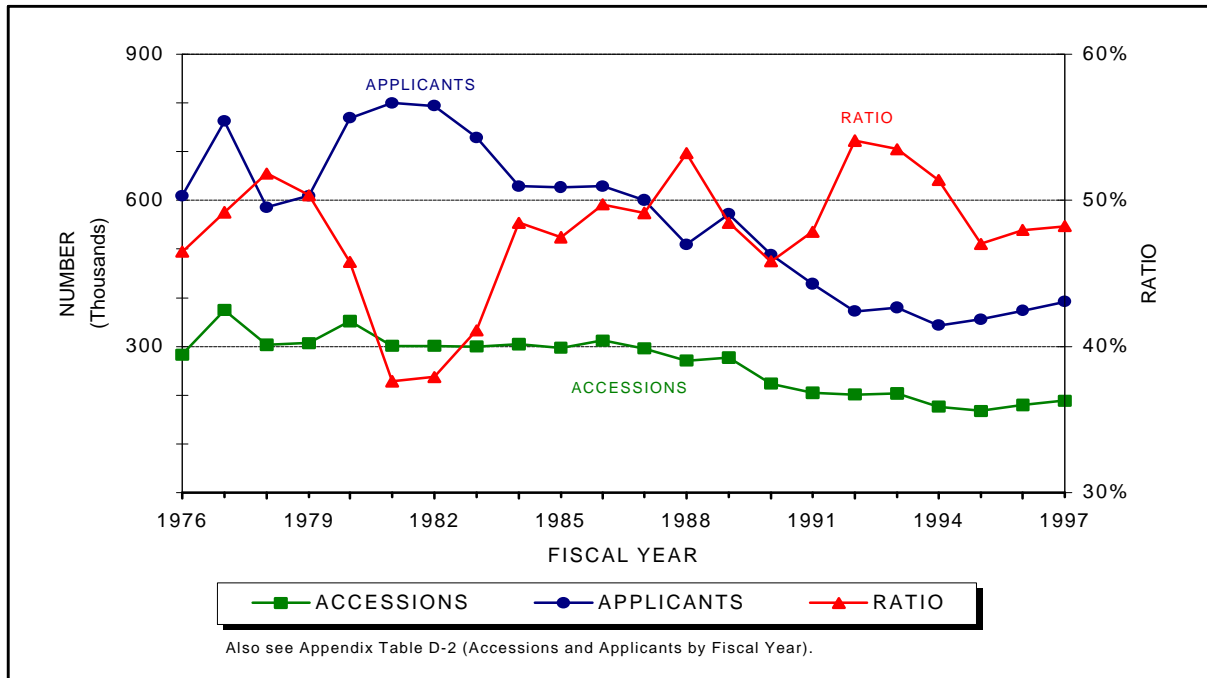


Figure 2.1. Number of accessions and applicants with ratio of accessions-to-applicants, FYs 1976-1997.

Age. By law, Active Component recruits must be between 17 and 35 years old; 17-year-olds must have parental permission to enlist.¹⁴ Within the 17- to 35-year 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 1997 active duty NPS accessions is shown in Table 2.4. Approximately, 88 percent of new recruits are 18- to 24-year-olds, compared to about 34 percent of the comparable civilian population. The Marine Corps enlists the greatest percentage of 17- and 18-year-old recruits (44 percent) and the smallest percentage of those over age 21 (12 percent). The Army has the greatest proportion of recruits older than age 21 (26 percent) and the smallest proportion of 17- and 18-year-old recruits (32 percent).

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 1997. For example, an average of 16.1 of every 1,000 18-year-olds and 1.5 of every 1,000 24-year-olds enlisted in FY 1997.

Race/Ethnicity. Significant racial/ethnic differences exist among the Services, as shown in Table 2.5. Approximately 38 and 39 percent of Army and Navy accessions, respectively, are minorities, as compared to 31 percent Marine Corps recruits and 30 percent Air Force recruits. The Services recruited a greater proportion of minorities in FY 1997 (36 percent) compared to FY 1996 (34 percent). The greatest increase was in the proportion of “Other” minorities (from 5 percent in FY 1996 to 6 percent in FY 1997).

¹⁴ 10 U.S.C. 505.

Table 2.4. Age of FY 1997 Active Component NPS Accessions, by Service, and Civilians 17-35 Years Old (Percent)							
Age	Army	Navy	Marine Corps	Air Force	DoD	17-35 Year-Old Civilians	Number of Accessions per 1,000 Civilians
17	4.3	4.1	5.2	3.8	4.3	5.3	2.1
18	28.0	31.3	39.1	32.4	31.6	5.1	16.1
19	20.9	24.1	25.8	24.5	23.2	5.2	11.6
20	12.5	13.8	11.6	14.4	13.0	4.9	6.9
21	8.5	8.1	6.4	8.6	8.0	4.7	4.4
22	6.2	5.5	4.1	6.1	5.6	4.7	3.1
23	4.8	4.0	2.6	3.7	4.0	4.6	2.2
24	3.7	2.6	1.8	2.6	2.9	5.0	1.5
>24	11.2	6.6	3.5	3.9	7.4	60.6	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	2.6

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 1996 - September 1997.

Figure 2.2 illustrates the race/ethnicity distribution of enlisted accessions for the 24-year period, FYs 1973-1997.¹⁵ 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 6 percent in FY 1997. The increase of minorities coincided with a miscalibration of the ASVAB, and consequent drop in the aptitude of accessions, both Whites 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 are generally lower than those of Whites), increased during the miscalibration period. The error was corrected by September 1980.¹⁶

¹⁵ 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.

¹⁶ 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).

Table 2.5. Race/Ethnicity and Gender of FY 1997 Active Component NPS Accessions, by Service (Percent)						
	Army	Navy	Marine Corps	Air Force	DoD	
MALES						
White	64.7	62.3	69.0	73.1	66.1	
Black	20.6	19.1	13.6	14.6	18.0	
Hispanic	9.9	10.3	12.4	6.8	10.1	
Other	4.8	8.3	5.1	5.5	5.9	
Total	100.0	100.0	100.0	100.0	100.0	
FEMALES						
White	52.2	56.3	63.1	62.8	56.5	
Black	34.6	26.3	18.9	24.0	29.0	
Hispanic	8.0	9.5	11.7	6.8	8.3	
Other	5.2	7.9	6.3	6.4	6.2	
Total	100.0	100.0	100.0	100.0	100.0	
TOTAL						
Male	79.8	85.9	92.8	72.0	82.5	
Female	20.2	14.1	7.2	28.0	17.5	
White	62.2	61.4	68.6	70.2	64.4	
Black	23.4	20.1	14.0	17.3	19.9	
Hispanic	9.6	10.2	12.3	6.8	9.8	
Other	4.9	8.3	5.2	5.8	6.0	
18-24 Year-Old Non-Institutionalized Civilians						
<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Other</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
66.1	14.4	14.5	5.0	100.0	50.0	50.0
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 1996 - September 1997.						

Revised AFQT and education standards in the early 1980s limited the high minority representation levels of the late 1970s.¹⁷ By FY 1983, the proportion of Black recruits had 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 (29 percent), compared to Whites and Blacks (7 and 13 percent, respectively), confound the

¹⁷ Congressional Budget Office, *Social Representation in the U. S. Military* (Washington, DC, 1989), p. 54.

recruitment of qualified Hispanic applicants.¹⁸ 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 10 percent of enlistees are Hispanic.

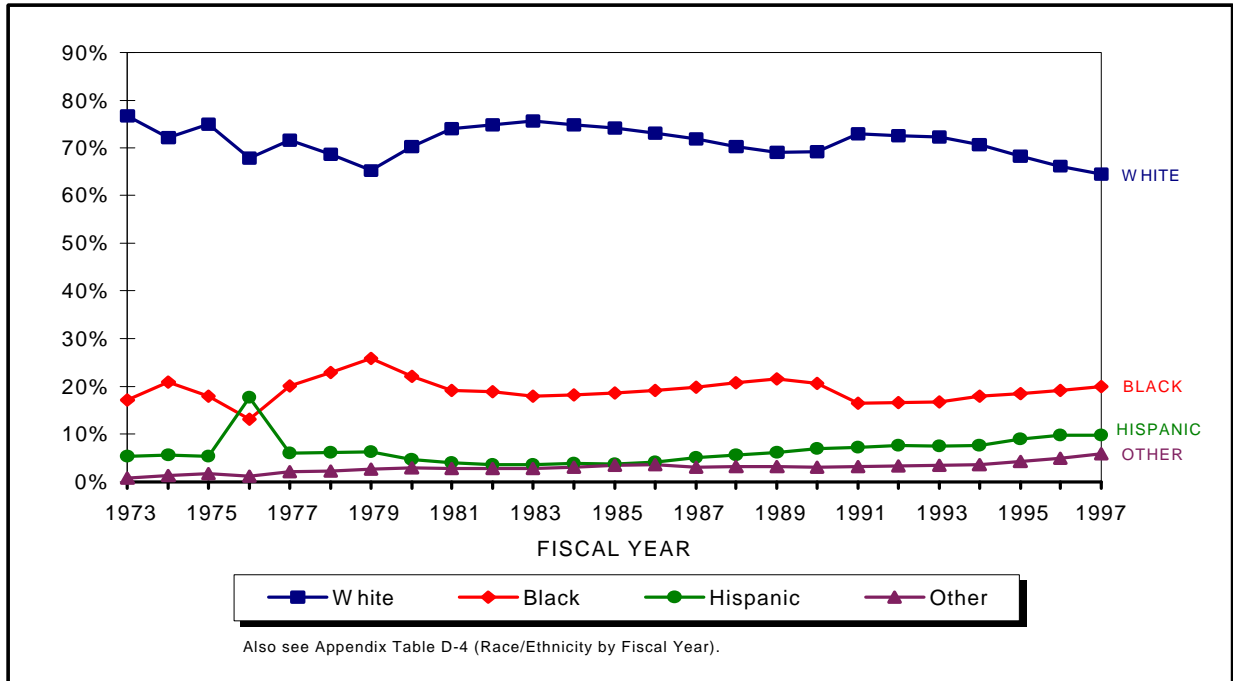


Figure 2.2. Race/ethnicity of Active Component NPS accessions, FYs 1973-1997.

Blacks. In FY 1997, 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, 23 percent in FY 1997. 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 1997 have shown slight increases each year toward pre-drawdown levels of 21 percent Black accessions.

While Black men comprise 18 percent of DoD male recruits, Black women make up 29 percent of female recruits (Table 2-5 and Appendix Table B-3). Black women in FY 1997 comprised 35 percent of Army female recruits, 26 percent of Navy female recruits, 19 percent of Marine Corps female recruits, and 24 percent of Air Force female 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 1997, 10 percent of recruits compared to 15 percent of civilian 18- to 24-year-olds. The Marine Corps had the highest proportion of Hispanic accessions (12 percent) in FY 1997, followed by the Army, Navy, and Air Force (10, 10, and 7 percent, respectively).

¹⁸ See U.S. Department of Education, *The Digest of Education Statistics 1997* (NCES 98-015) (Washington, DC: National Center for Education Statistics, 1997), Table 103.

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, 10 percent of enlisted accessions are Hispanic. One factor influencing the representation of Hispanics in the military is high school graduation rates. In FY 1997, 57 percent of 18- to 24-year-old Hispanics completed high school (Tier 1) or earned an alternative credential (Tier 2) compared to 74 percent of Blacks and 84 percent of Whites. Although Hispanics have a lower proportion of high school graduates than other racial/ethnic groups, the graduation rates for this ethnic group generally have been on the rise.¹⁹

"Other" minorities. Members of "Other" racial minorities (e.g., Native Americans, Asians, and Pacific Islanders), at 6 percent, are slightly overrepresented in the Services. The proportion of "Other" minorities ranges from 4.9 to 8.3 in the Services, with the Navy the highest. In the civilian population, 5 percent of 18- to 24-year-olds are "Other" racial minorities, an increase of more than 3 percentage points since 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 1997. 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 women in the Services, 18 percent in FY 1997, 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.²⁰ With policy changes concerning women in combat,²¹ more women may enter the Services and retention may increase among female members. The gender-integration policy is just beginning to have an effect on the numbers of women; FY 1995 was the first year under the new rules.²²

¹⁹ See U.S. Department of Education, *The Condition of Education 1997* (NCES 97-388) (Washington, DC: National Center for Education Statistics, 1997), p. 95; and previous *Population Representation* reports.

²⁰ 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.

²¹ 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.

²² Memorandum from William Perry, Secretary of Defense, Subject: Application of the Definition of Direct Ground Combat and Assignment Rule, July 28, 1994.

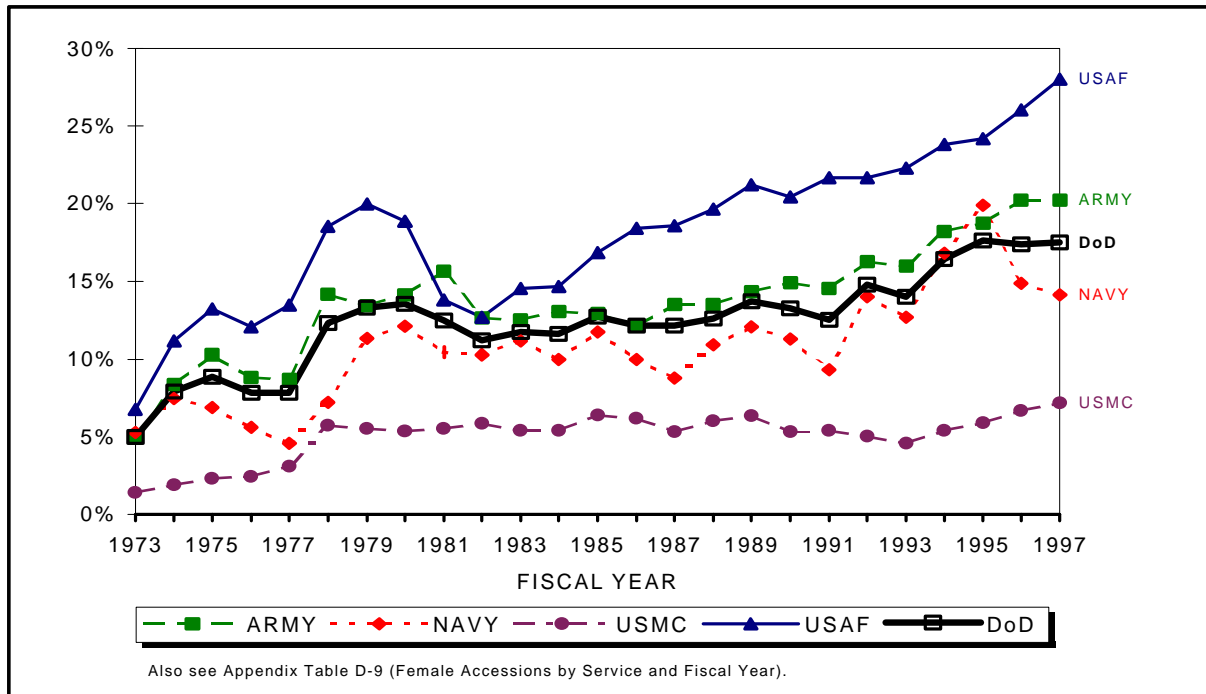


Figure 2.3. Women as a percentage of Active Component NPS accessions, FYs 1973-1997.

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 26 percent in FY 1996 to 28 percent in 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 5-percentage-point drop of female accessions from FY 1995 to FY 1996 (from 20 to 15 percent) and an additional 1-percentage-point drop from FY 1996 to FY 1997 (from 15 to 14 percent).²³

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 1997, 9 percent of male and 13 percent of female recruits were married, compared to 57 and 46 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 (16 versus 10 percent). Within the Services, Army recruits are most likely to be married (16 percent) and Marine Corps recruits are least likely (4 percent). Figure 2.4 shows marital status trends for FYs 1976-1997 by Service.

²³ 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]).

Table 2.6. FY 1997 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	18-24 Year-Old Civilians
Males	15.2	5.0	4.1	9.8	9.4	11.8
Females	18.9	6.6	5.9	10.4	13.2	20.1
Total	15.9	5.2	4.2	10.0	10.1	16.0

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 1996 - September 1997.

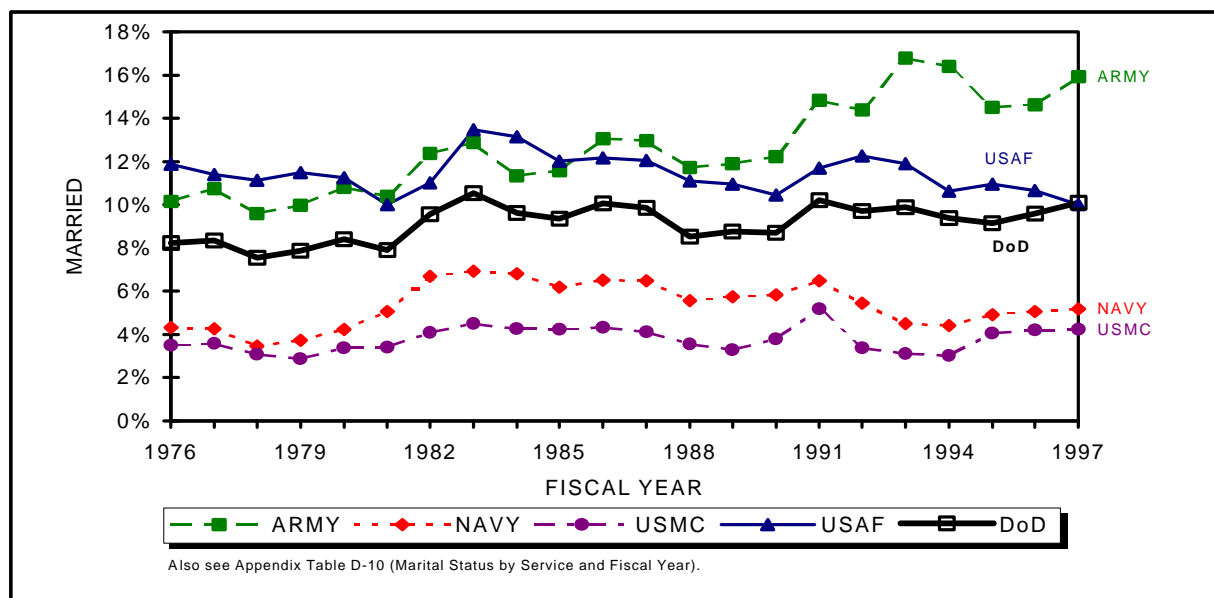


Figure 2.4. Marital status trends of Active Component NPS accessions, by Service, FYs 1976-1997.

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).²⁴ In the late 1960s and early 1970s, the Services gave high school 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.

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.²⁵ In 1987, DoD implemented a three-tier classification of education credentials.

²⁴ 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.

Table 2.7 shows the percentage of FY 1997 active duty NPS accessions by education tier. Ninety-four percent of recruits possessed high school diplomas and/or some college education (Tier 1); 5 percent held alternative high school credentials (Tier 2); and less than one 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.

Table 2.7 Levels of Education of FY 1997 Active Component NPS Accessions, by Service, and Civilians 18-24 Years Old (Percent)						
Education Level ¹	Army	Navy	Marine Corps	Air Force	DoD	18-24 Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	90.0	95.0	95.9	99.1	93.9	78.8
Tier 2: GED, Alternative Credentials	9.9	3.0	2.5	0.6	5.3	
Tier 3: No Credentials	**	2.0	1.6	0.2	0.8	21.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
College Experience (Part of Tier 1) ²	10.0	3.7	2.9	19.6	8.6	45.5
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. ** Less than one-tenth of one percent. 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 1996 - September 1997.						

While 99 percent of FY 1997 accessions were in Tiers 1 and 2, only 79 percent of 18- to 24-year-old civilians are high school graduates or possess a GED certificate. Differences among Services in FY 1997 high school graduate accessions are small, ranging from 99 percent (Air Force) to 90 percent (Army). The Army has the highest proportion of recruits with Tier 2 credentials (10 percent); the Air Force has the lowest (1 percent). In FY 1997, the Army enlisted less than one-tenth of one percent of applicants without education credentials; the other Services' acceptance of recruits with no high school credentials ranged from 0.2 to 2.0 percent.

The proportion of accessions with high school diplomas by Service for FYs 1973 through 1997 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.

²⁵ Laurence, J.H., *Military Enlistment Policy and Educational Credentials: Evaluation and Improvement* (Alexandria, VA: Human Resources Research Organization, September 1987).

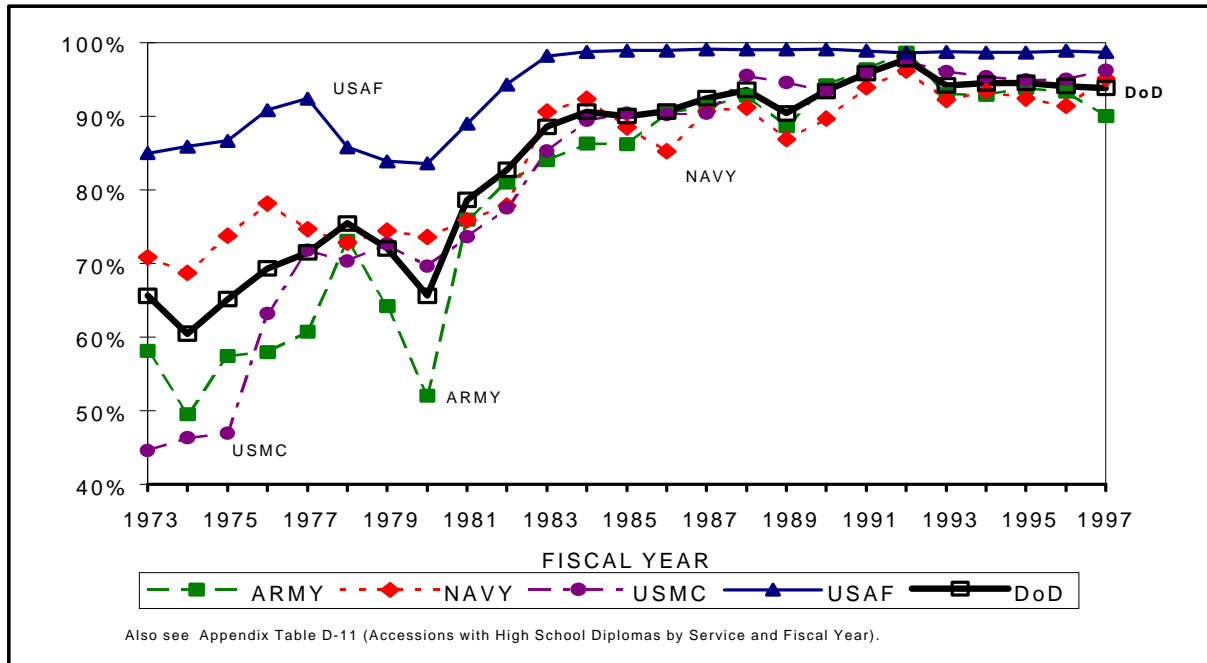


Figure 2.5. Active Component NPS accessions with high school diplomas, FYs 1973-1997.

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.²⁶ 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 and Navy College Funds, and the Services' emphasis on improving the quality of life for Servicemembers and their families led to improved recruiting. The proportion of high school graduates climbed to 98 percent in FY 1992. As previously stated, in FY 1997 the proportion of high school diploma graduates was 94 percent.

²⁶ In December 1976, the Department of Defense released a report, *The All Volunteer Force: Current Status and Prospects*, which 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.

Figure 2.6 compares FY 1997 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. While virtually 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 74 percent of Black civilians and 57 percent of Hispanic civilians 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.

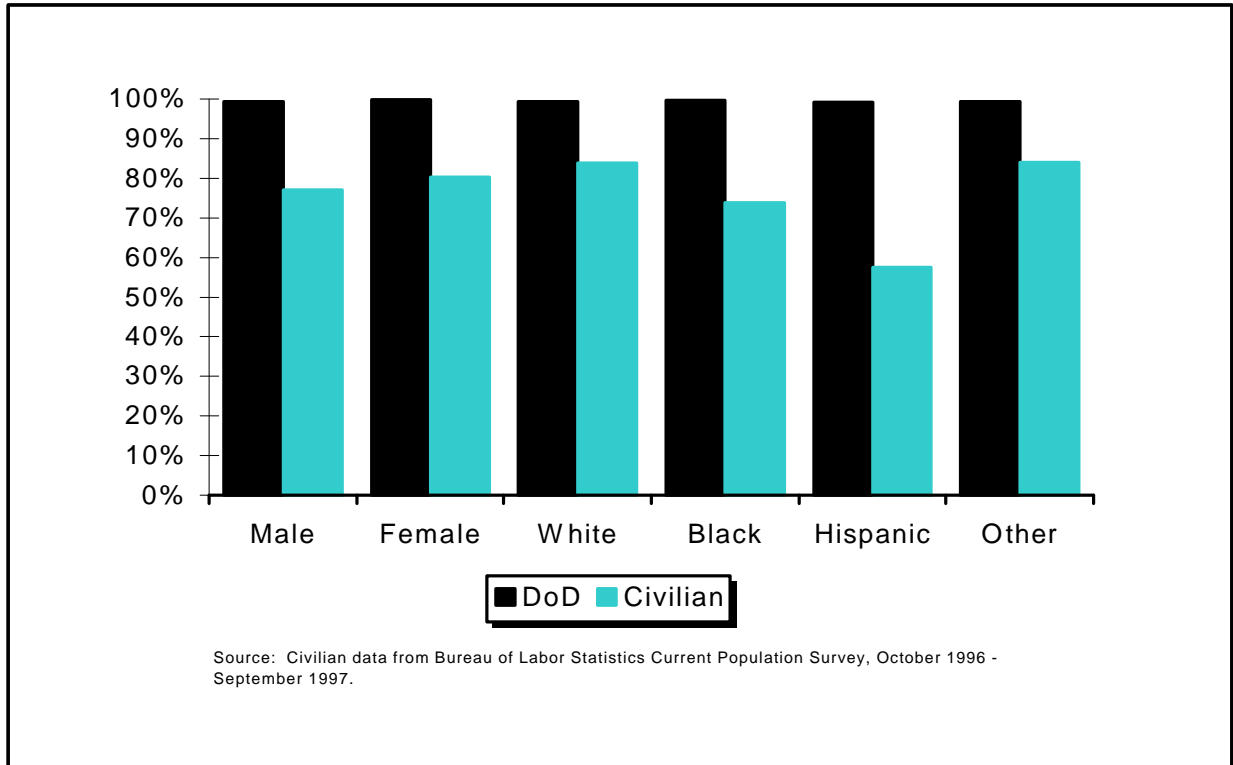


Figure 2.6. FY 1997 accessions and 18-24 year-old civilians who earned high school diplomas (Tier 1) or alternative credentials (Tier 2), by gender and race/ethnicity.

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-III) since FY 1973. Numerical data are in Appendix D, Table D-12. The drop in Category I-III recruits after FY 1976 was due primarily to the miscalibration of the ASVAB.²⁷ In 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 1980, an independent study of the calibration was made and the test was

²⁷ 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).

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 diploma graduates.²⁸ However, as previously stated, the FY 1997-2001 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-III A.²⁹ Fifteen years later, in FY 1992, the majority of minority accessions achieved scores in the I-III A 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.

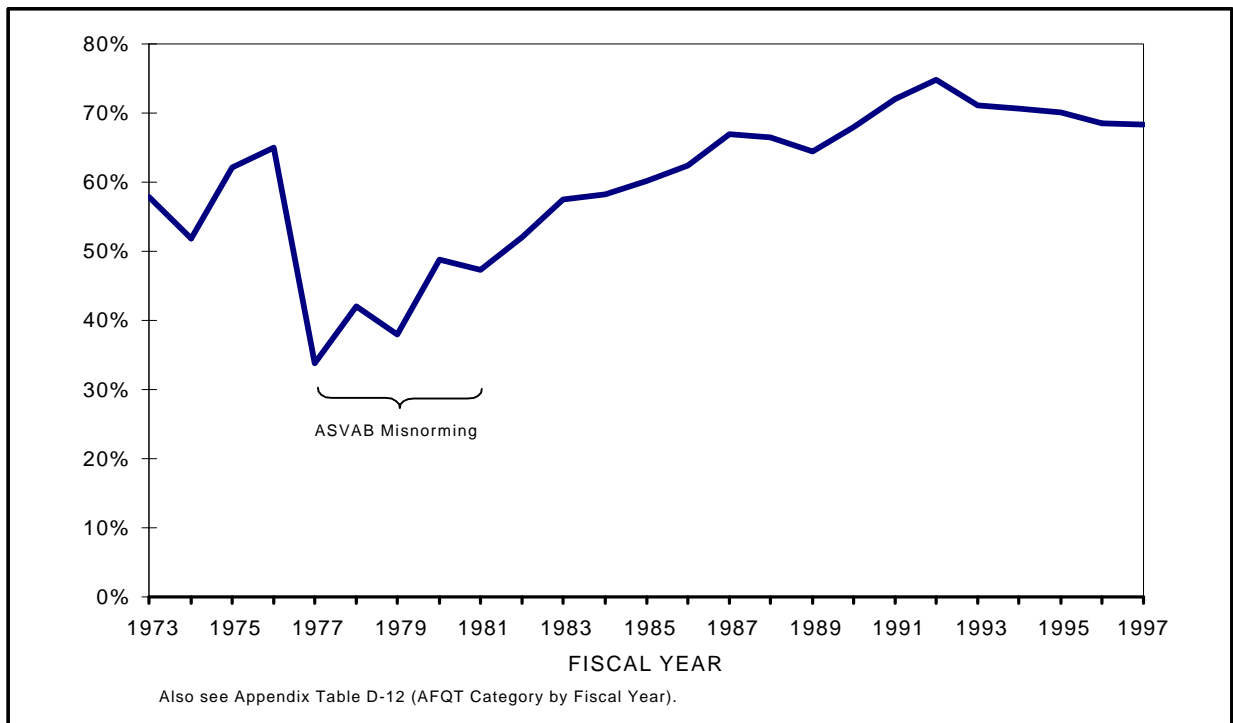


Figure 2.7. Percentage of NPS accessions in AFQT categories I-III A, FYs 1973-1997.

²⁸ 10 U.S.C. 520.

²⁹ Data from Defense Manpower Data Center.

A graphic view of the trend in the AFQT performance of accessions is provided in Figure 2.8. The figure clearly indicates the increase in AFQT scores of accessions from FY 1981 through 1992. The more significant gains were in Categories I to IIIA, where the percentages increased year by year from 47 percent of accessions in FY 1981 to 75 percent of accessions 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 of accessions in FY 1979 to less than one percent since FY 1991. There has been a slight decline in the percentage of accessions in Categories I to IIIA in the last five years, from 75 percent in FY 1992 to 68 percent in FY 1997.

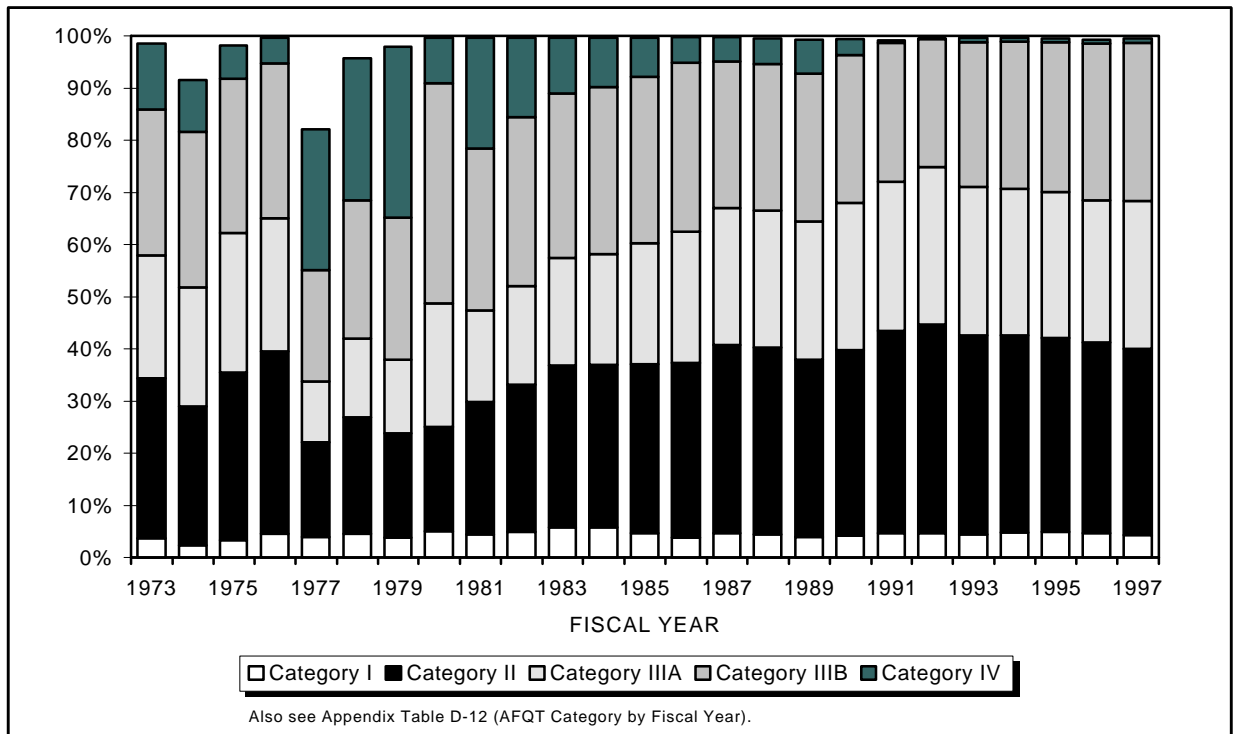


Figure 2.8. Percentage of NPS accessions in AFQT categories I-IV, FYs 1973-1997.

The percentages of FY 1997 active duty NPS accessions in each AFQT category are shown in Table 2.8. The percentage of recruits in Categories I and II was higher than for their civilian counterparts (male - 41 versus 39 percent; female - 38 versus 33 percent). Category III accessions greatly exceeded civilian group proportions (males - 58 versus 30 percent; females - 62 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 limiting the percentage of recruits from this group to 4 percent, with the Services setting their limits even lower. Ten percent of civilian males and 9 percent of civilian females scored in Category V, while DoD allows no recruits from this category.

Table 2.8. AFQT Scores of FY 1997 Active Component NPS Accessions, by Gender and Service (Percent)					
AFQT Category ¹	Army	Navy	Marine Corps	Air Force	DoD
MALES					
I	4.3	5.1	3.3	5.8	4.6
II	33.3	36.9	33.7	46.1	36.1
IIIA	28.8	23.9	27.1	29.0	27.2
IIIB	31.2	34.1	35.4	18.9	31.1
IV	2.4	*	0.4	0.2	1.0
V	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0
FEMALES					
I	2.8	3.1	2.4	3.4	3.0
II	33.7	33.8	34.3	38.8	35.1
IIIA	37.7	31.2	34.0	32.4	34.7
IIIB	25.4	31.9	29.0	25.4	27.0
IV	0.4	0.0	0.2	0.1	0.2
V	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0
<p>Columns may not add to total due to rounding. * Less than one-tenth of one percent. ¹ Service data from OASD(FMP)(MPP)/Accession Policy are "cleaned" 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 <i>Profile of American Youth</i> (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], March 1982).</p>					

Sixty-nine percent of recruits scored at or above the 50th percentile on the AFQT (Categories I-III A). Air Force recruits scored higher than those of the other three Services. Seventy-nine percent of Air Force recruits scored in Categories I-III A, compared to 68 percent of Army, 66 percent of Navy, and 65 percent of Marine Corps 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. The redesign both increases the number of tasks assigned to an individual, and requires incumbents to perform new tasks of greater complexity.³⁰ 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 1997, the percentage of high-quality recruits ranged from 58 percent in the Army to 77 percent in the Air Force.

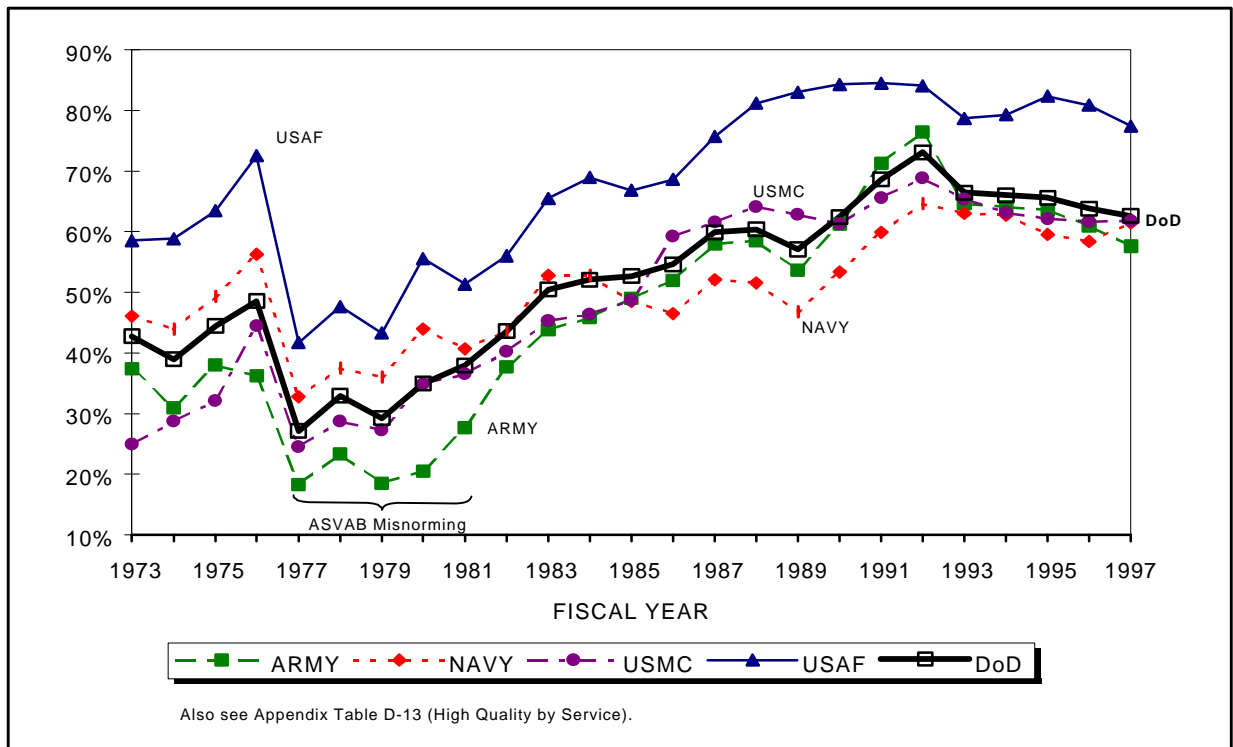


Figure 2.9. Percentage of high-quality NPS accessions, FYs 1973-1997.

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.³¹ Table 2.9 shows that the mean RGL for FY 1997 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.

³⁰ 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.

³¹ 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).

Table 2.9. Mean Reading Grade Level of FY 1984-1997 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	10.3
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	
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	

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).

Inter-Service differences in RGL were relatively small in FY 1997, with mean RGLs ranging from 11.1 for the Marine Corps to 11.6 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, 16 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 1997, 42 percent of new recruits were from the South.

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.³² 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.

³² Kostiuk, P.F., *Geographic Variations in Recruiting Market Conditions* (Alexandria, VA: Center for Naval Analyses, 1989).

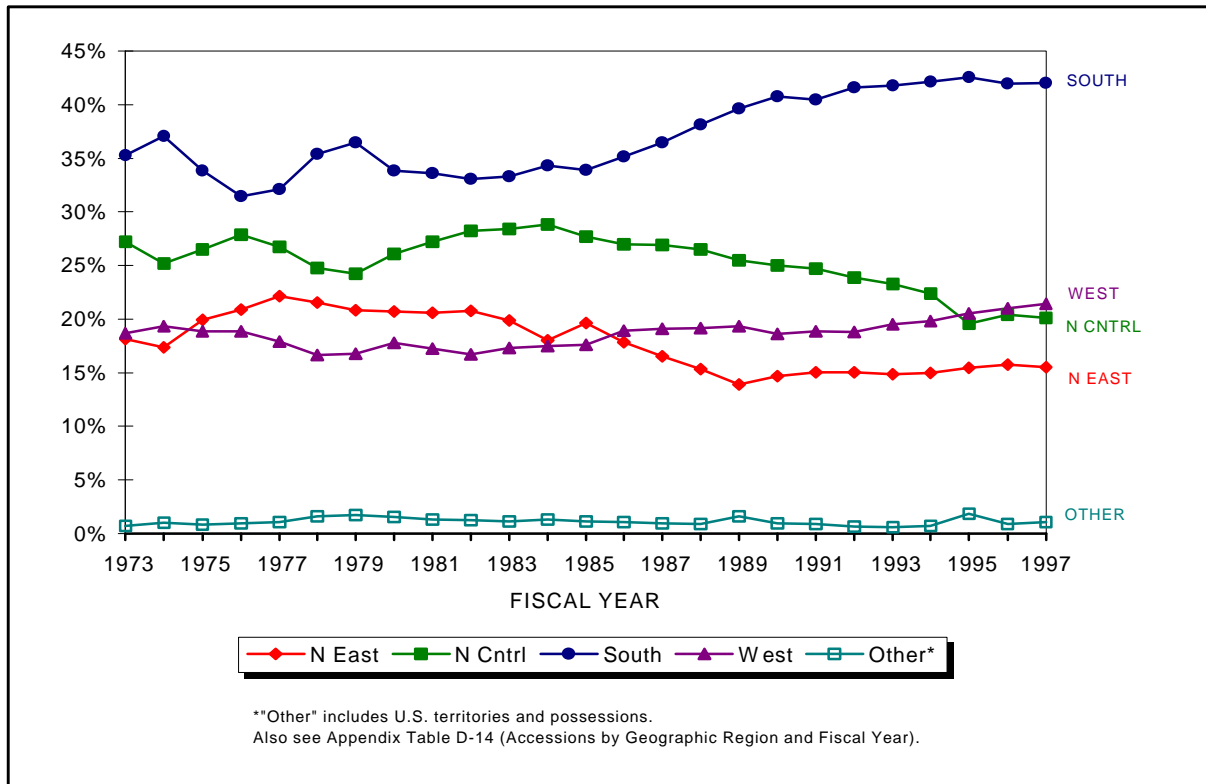


Figure 2.10. NPS accessions by geographic region, FYs 1973-1997.

Table 2.10 presents FY 1997 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-III A) and mean AFQT scores for each area.

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 and 1.2, respectively). The Northeast, North Central, and West regions had representation ratios of 0.9. Most states had representation ratios less than one; the exceptions were Maine, New Hampshire, and Rhode Island in the Northeast, Missouri, South Dakota, and Nebraska in the North Central, Delaware, Tennessee, and the District of Columbia in the South, and Colorado, Utah, California, and Hawaii in the West. The ratios ranged from 0.5 in Utah to 1.9 in Montana.

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 1997. The proportion of high-quality accessions by region ranged from a low of 60 percent in the South to a high of 67 percent in the North Central region. Differences across divisions were somewhat larger. Ten

Table 2.10. Selected Statistics for FY 1997 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 18-24 Year-Olds	Represent- ation Ratio	Percent of High-Quality Accessions*	Mean AFQT Percentile Score
NORTHEAST REGION	29,302	15.7	18.1	0.9	64.1	60.7
<i>New England Division</i>	6,937	3.7	4.4	0.9	63.6	61.2
Maine	1,268	0.7	0.4	1.6	67.0	63.5
New Hampshire	809	0.4	0.4	1.2	68.6	64.2
Vermont	353	0.2	0.2	0.9	70.3	64.4
Massachusetts	2,409	1.3	2.0	0.6	61.3	59.6
Rhode Island	569	0.3	0.3	1.0	60.8	59.4
Connecticut	1,529	0.8	1.0	0.8	61.5	60.3
<i>Middle Atlantic Division</i>	22,365	12.0	13.8	0.9	64.3	60.5
New York	10,692	5.7	6.8	0.8	63.1	60.3
New Jersey	4,101	2.2	2.7	0.8	63.1	59.3
Pennsylvania	7,572	4.1	4.3	0.9	66.6	61.5
NORTH CENTRAL REGION	37,899	20.3	23.5	0.9	66.5	61.9
<i>East North Central Division</i>	26,010	13.9	16.7	0.8	65.8	61.5
Ohio	7,425	4.0	4.3	0.9	66.1	61.2
Indiana	3,383	1.8	2.2	0.8	67.0	62.9
Illinois	6,886	3.7	4.6	0.8	62.7	60.5
Michigan	5,744	3.1	3.7	0.8	65.3	61.0
Wisconsin	2,572	1.4	1.9	0.7	72.7	64.5
<i>West North Central Division</i>	11,889	6.4	6.8	0.9	67.9	62.8
Minnesota	2,141	1.1	1.6	0.7	71.5	65.1
Iowa	1,855	1.0	1.1	0.9	70.9	63.8
Missouri	3,975	2.1	1.9	1.1	63.5	60.7
North Dakota	374	0.2	0.3	0.7	77.8	66.3
South Dakota	663	0.4	0.3	1.2	68.6	62.7
Nebraska	1,268	0.7	0.7	1.0	67.1	62.9
Kansas	1,613	0.9	1.0	0.9	68.5	62.7
SOUTH REGION	79,316	42.4	35.3	1.2	59.9	58.8
<i>South Atlantic Division</i>	39,926	21.4	17.1	1.3	59.7	58.7
Delaware	485	0.3	0.3	0.9	69.3	61.3
Maryland	3,591	1.9	1.6	1.2	61.5	58.8
District of Columbia	285	0.2	0.2	0.8	51.2	55.0
Virginia	6,039	3.2	2.4	1.4	60.3	59.5
West Virginia	1,650	0.9	0.7	1.3	59.1	57.6
North Carolina	5,339	2.9	2.9	1.0	59.5	58.3
South Carolina	3,866	2.1	1.4	1.5	55.6	56.5
Georgia	6,142	3.3	2.9	1.1	56.3	57.0
Florida	12,529	6.7	4.8	1.4	61.7	60.2
<i>East South Central Division</i>	12,369	6.6	6.3	1.0	57.5	57.8
Kentucky	2,616	1.4	1.4	1.0	61.7	59.3
Tennessee	3,515	1.9	2.0	0.9	61.8	60.4
Alabama	4,028	2.2	1.7	1.2	54.4	56.0
Mississippi	2,210	1.2	1.2	1.0	51.2	54.9
<i>West South Central Division</i>	27,021	14.5	11.9	1.2	61.4	59.5
Arkansas	2,242	1.2	1.1	1.1	56.6	58.3
Louisiana	3,753	2.0	1.8	1.1	56.9	56.8
Oklahoma	3,010	1.6	1.2	1.3	61.6	59.3
Texas	18,016	9.6	7.7	1.2	62.9	60.3

(Continued)

Table 2.10. Selected Statistics for FY 1997 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 18-24 Year-Olds	Represent- ation Ratio	Percent of High-Quality Accessions*	Mean AFQT Percentile Score
WEST REGION	40,339	21.6	23.0	0.9	64.2	60.8
<i>Mountain Division</i>	<i>13,104</i>	<i>7.0</i>	<i>7.0</i>	<i>1.0</i>	<i>66.4</i>	<i>62.2</i>
Montana	1,171	0.6	0.3	1.9	68.2	64.0
Idaho	1,074	0.6	0.5	1.2	68.0	63.5
Wyoming	567	0.3	0.2	1.6	67.6	62.8
Colorado	2,561	1.4	1.7	0.8	67.4	63.3
New Mexico	1,681	0.9	0.7	1.4	61.1	59.8
Arizona	3,659	2.0	2.0	1.0	65.5	61.4
Utah	1,028	0.6	1.1	0.5	71.4	63.5
Nevada	1,363	0.7	0.5	1.3	66.4	61.2
<i>Pacific Division</i>	<i>27,235</i>	<i>14.6</i>	<i>16.1</i>	<i>0.9</i>	<i>63.1</i>	<i>60.1</i>
Washington	4,134	2.2	2.0	1.1	68.4	63.4
Oregon	2,403	1.3	1.2	1.1	70.5	64.4
California	19,387	10.4	12.2	0.9	61.0	58.8
Alaska	588	0.3	0.2	1.5	67.2	64.0
Hawaii	723	0.4	0.5	0.8	60.9	58.2
Total (50 STATES + D.C.)	186,856**	100.0	100.0	1.0	62.8	60.1
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 2,039 recruits from the territories and unknowns.						
Source: Civilian data from Bureau of Labor Statistics Current Population Survey, File, October 1996 - September 1997						

percentage points separated the East South Central and West North Central divisions. Differences at the state level were still larger, ranging from 51 percent for the District of Columbia and Mississippi to 78 percent in North Dakota.

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 1997, enlisted force end-strength was under 1.2 million, down from just over 1.2 million in FY 1996. 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 1997.

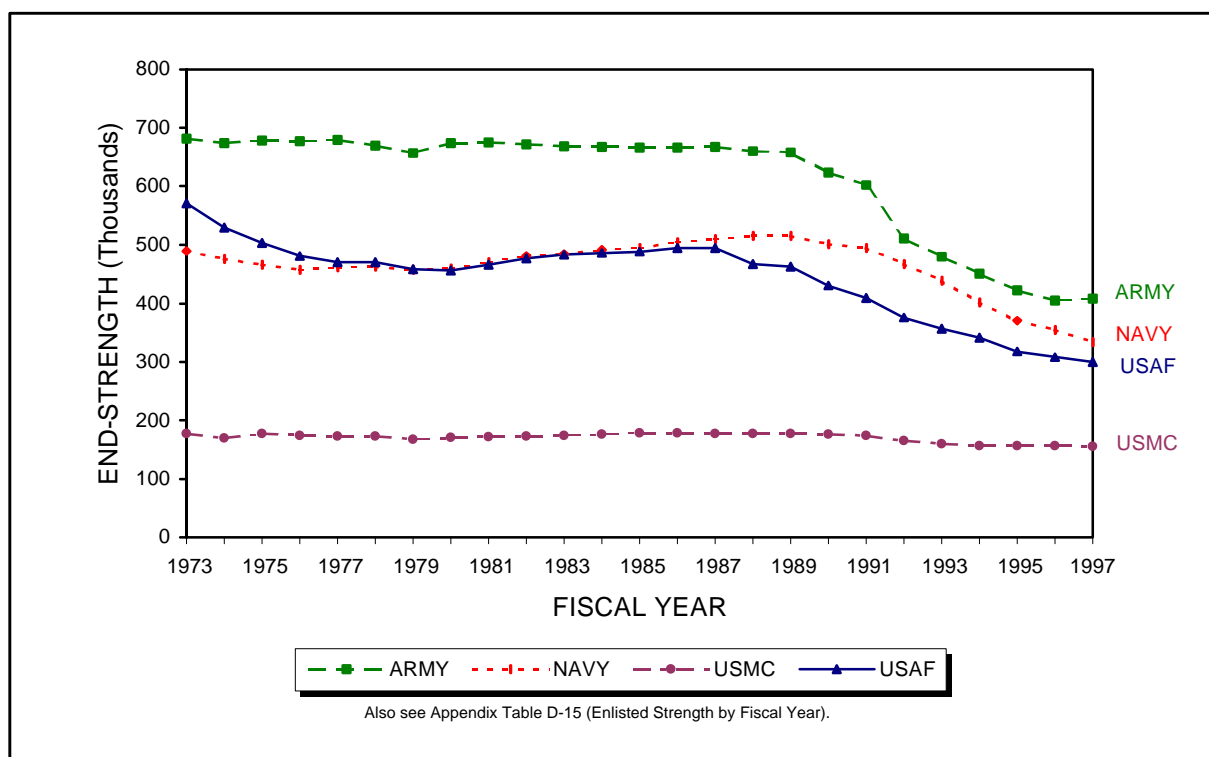


Figure 3.1. Active Component enlisted force end-strength, by Service, FYs 1973-1997.

Characteristics of Active Component Enlisted Force

Age. Trained person-years are more important than 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 89 months in FY 1997 (an increase of 19 percent). Increased retention as well as the cumulative effect of various policies put in place since the early 1980s have resulted in an increase in mean age of the Services' enlisted force to more than 27 years old.

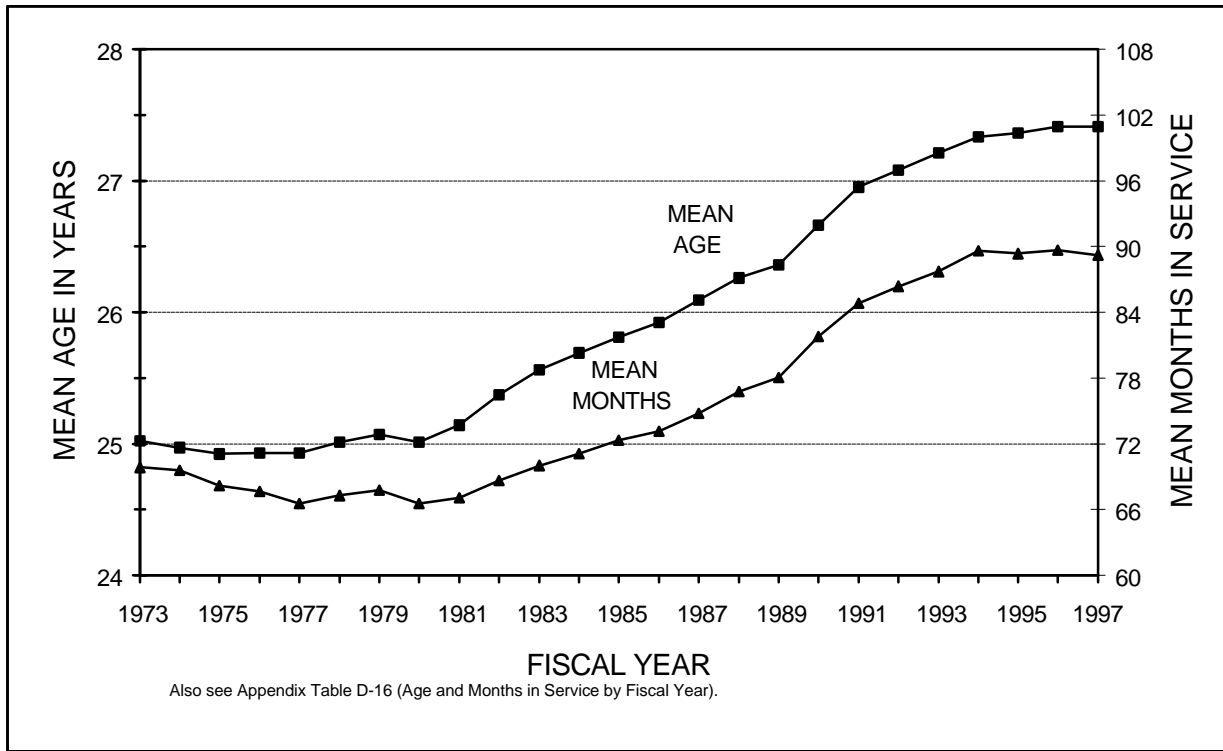


Figure 3.2. Active Component enlisted force average age and months in service, FYs 1973-1997.

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 (53 percent) and slightly less than half in pay grades E5 through E9 (47 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 (73 percent) of the enlisted force is 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.

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 1997 Pay Grade of Active Component Enlisted Members, by Service					
Pay Grade	Army	Navy	Marine Corps	Air Force	DoD
E1	6.8	6.0	9.2	3.8	6.1
E2	8.6	8.1	13.3	6.0	8.4
E3	13.7	15.7	28.0	14.5	16.3
E4	24.6	19.1	18.0	24.2	22.1
E5	18.9	21.9	14.3	26.0	20.9
E6	14.4	18.0	8.7	12.3	14.1
E7	9.5	8.0	5.5	10.3	8.7
E8	2.7	2.2	2.1	2.0	2.3
E9	0.8	1.0	0.9	1.0	0.9
Unknown	0.1	*	*	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 1997, 44 percent of the enlisted force was 17-24 years old, yet a little over 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 (44, 41, and 67 percent, respectively). Marine Corps members were the “youngest” with two-thirds under age 25, and 3 percent 39 years or older. Air Force members were the “oldest” with less than 35 percent under age 25, and 8 percent over age 39. The Marine Corps traditionally has the youngest accessions. The Air Force experiences higher enlisted retention rates, contributing to somewhat “older” enlisted members.

While 44 percent of the enlisted force was in the 17-24 age group, less than one-sixth of the civilian labor force fell in this range. At the other end of the distribution, 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 1997 (35 and 29 percent, respectively). While Hispanics were underrepresented among enlisted members (8 percent versus 12 percent), the Services have made gains since 1987, when only 4 percent of the enlisted force was Hispanic.

Table 3.2. FY 1997 Age of Active Component Enlisted Members, by Service, and Civilian Labor Force 17 Years and Older (Percent)						
Age	Army	Navy	Marine Corps	Air Force	DoD	Civilian Labor Force
17-19	10.6	8.7	17.2	6.4	9.9	4.6
20-24	33.6	32.4	49.6	28.0	33.9	9.9
25-29	23.4	21.0	14.9	20.7	21.0	11.9
30-34	15.5	16.7	8.5	18.9	15.8	12.8
35-39	11.2	14.5	7.0	18.5	13.4	14.3
40-44	4.3	5.1	2.3	6.3	4.8	13.7
45-49	1.2	1.3	0.6	1.1	1.1	11.5
50+	0.2	0.2	0.1	0.1	0.2	21.4
Unknown	0.2	*	*	*	0.1	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 1997.

Table 3.3. FY 1997 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	18-44 Year-Old Civilians
White	56.8	64.7	67.4	73.9	64.7	71.4
Black	29.7	19.5	16.8	17.4	22.1	12.3
Hispanic	7.0	8.5	11.6	4.8	7.5	11.9
Other	6.5	7.2	4.3	3.9	5.8	4.5
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 1997.

Twenty-two percent of the enlisted force was Black, compared with 12 percent of the civilian labor force (18-44 year-olds). This near 2:1 ratio for Black members was higher than for FY 1997 accessions, primarily because retention was higher among Blacks than Whites. The Army had the highest proportion of Black enlisted members in FY 1997 (30 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 1993 at 30 percent.

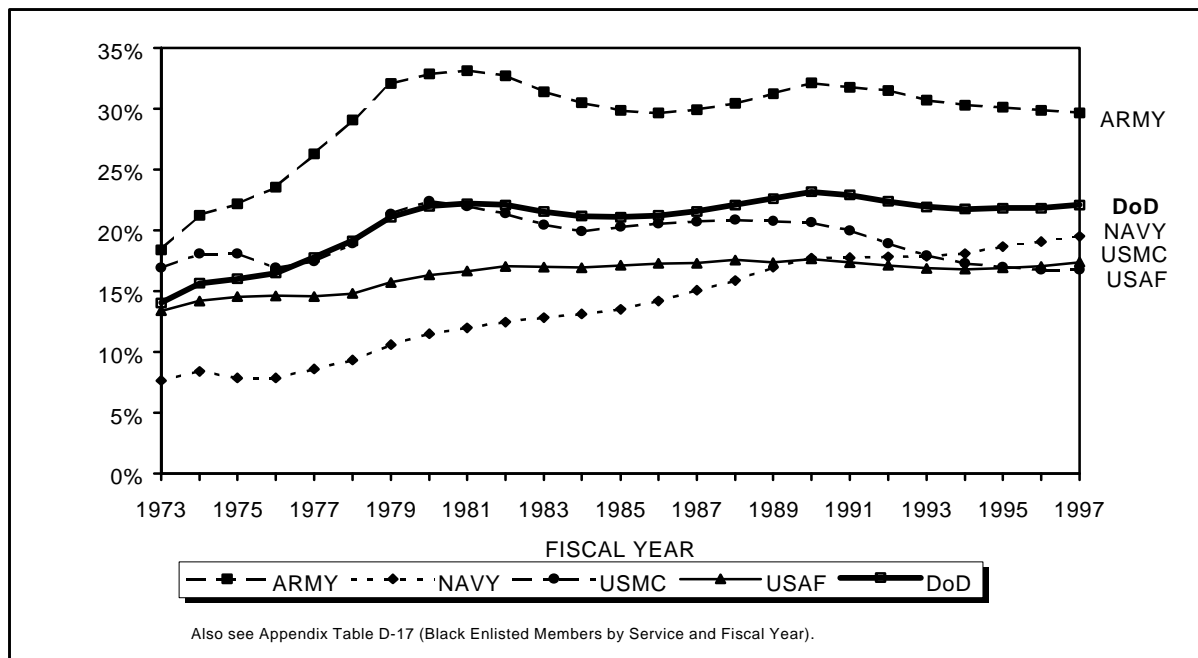


Figure 3.3. Blacks as a percentage of Active Component enlisted members, by Service, FYs 1973-1997.

The Marine Corps has experienced slight decreases in Blacks during recent years, paralleling the drop in minority accessions in 1991 and the concomitant decrease in the propensity to enlist among Black youth. Black male propensity declined 15 percentage points between 1991 and 1997.² 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 1997. 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 1997, 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 (8 percent and 12 percent, respectively). The highest representation of Hispanics was in the Marine Corps (12 percent). The proportions of "Other" minority individuals in the Army and Navy were similar (7 percent), while the Air Force and Marine Corps had somewhat less (4 percent).

² Memorandum from F. M. Rush, Acting Assistant Secretary of Defense (Force Management Policy), Subject: 1997 Youth Attitude Tracking Study, January 15, 1998.

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

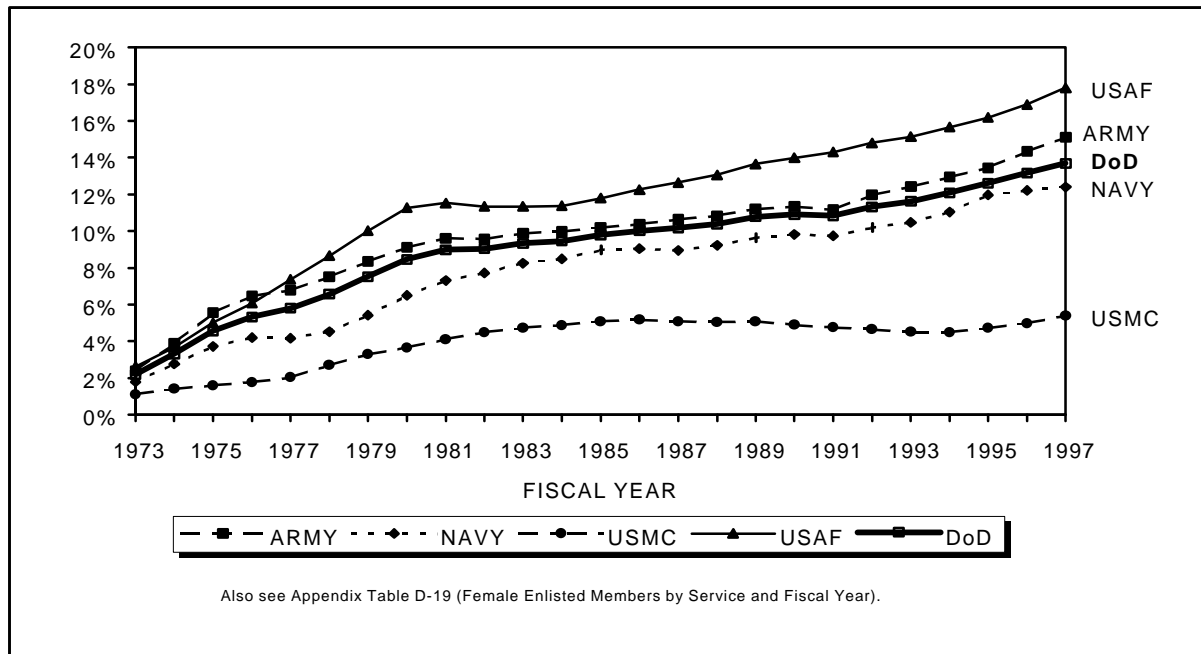


Figure 3.4. Women as a percentage of Active Component enlisted members, by Service, FYs 1973-1997.

Four factors affect the proportion of enlisted female members. First, women have a lower inclination to enlist than men do⁴; only 12 percent of females age 16-21 planned to enlist in 1997 compared to 26 percent of males age 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 no significant 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.

As a result of policy and social changes, the number of active duty enlisted women increased from 13,000 in FY 1972 to a pre-drawdown peak of 196,000 in FY 1989, then down

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 F.M. Rush, Acting Assistant Secretary of Defense (Force Management Policy), Subject: 1997 Youth Attitude Tracking Study, January 15, 1998.

⁵ Ibid.

to 160,000 in FY 1995. The number and proportion of women has increased to nearly 165,000, a record 14 percent women, in FY 1997. 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 (18 percent), while the Marine Corps has the lowest (5 percent). Percentages in the Army and Navy are 15 and 12 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 five years, from 11.6 to 13.7 percent from FY 1993 to FY 1997 (Appendix Table D-19).

Gender	Army	Navy	Marine Corps	Air Force	DoD	18-44 Year-Old Civilians
Male	84.9	87.6	94.6	82.2	86.3	53.6
Female	15.1	12.4	5.4	17.8	13.7	46.4
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 1997.

Marital Status. While 10 percent of enlisted recruits are married, a majority of enlisted Servicemembers are (55 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, and in FY 1997 it was 55 percent. Marital status varies by Service. Air Force members are most likely to be married (64 percent), while Marines are least likely to be married (43 percent).

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).

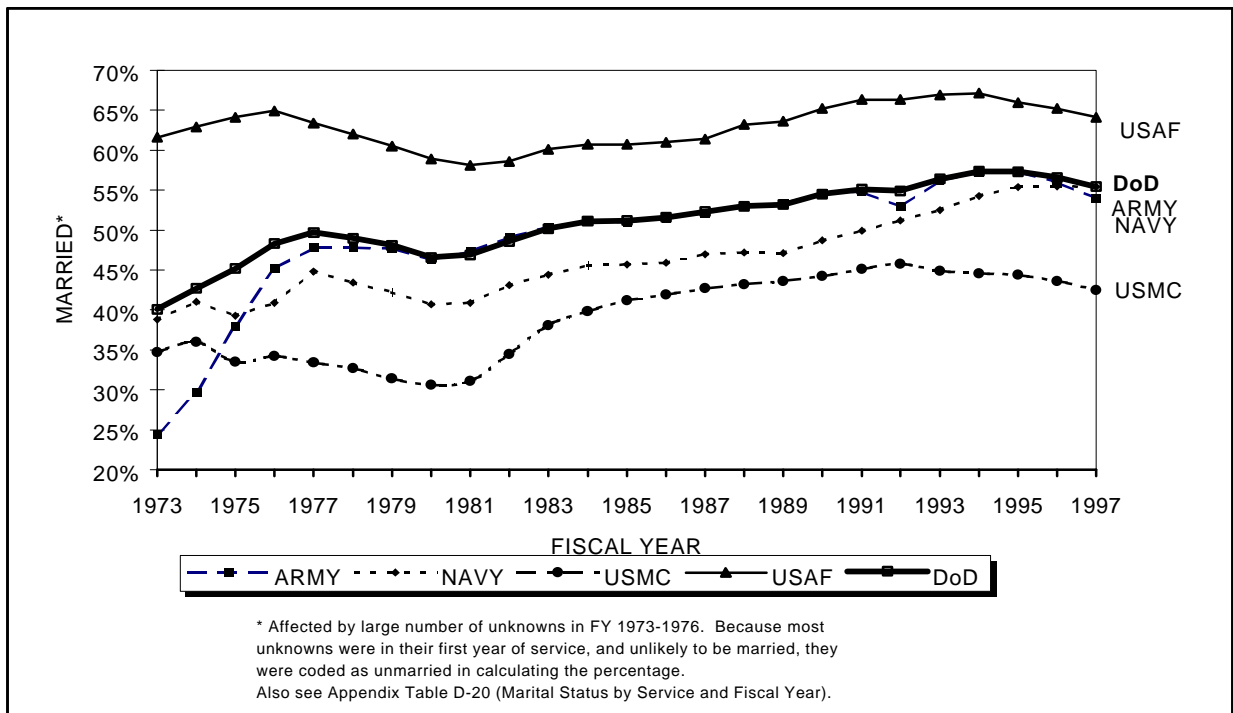


Figure 3.5. Percentage of Active Component enlisted members who were married, by Service, FYs 1973-1997.

The percentages of FY 1997 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 (57 and 46 percent, respectively), while the percentages for civilian men and women were nearly identical (54 versus 53 percent, respectively). The proportion of married Servicemen was slightly higher than married 18- to 44-year-old men in the civilian population (57 and 54 percent, respectively). The proportion of married Servicewomen was lower than that of women in the comparable civilian population (46 and 53 percent, respectively).

The percentage of married military women has changed significantly since FY 1973.⁸ Twenty years ago women constituted 5 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 46 percent in FY 1997.

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.

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 1997 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	18-44 Year-Old Civilians
Male	55.6	57.3	42.7	66.8	56.9	53.9
Female	44.6	41.8	39.4	51.6	45.9	52.8
Total	54.0	55.4	42.5	64.1	55.4	53.4

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 1997.

Table 3.6. FY 1997 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	346,458	192,733	55.6	12,426	6.4
Female	61,661	27,492	44.6	10,904	39.7
Total	408,119	220,225	54.0	23,330	10.6
NAVY					
Male	292,916	167,919	57.3	9,217	5.5
Female	41,309	17,273	41.8	7,597	44.0
Total	334,225	185,192	55.4	16,814	9.1
MARINE CORPS					
Male	147,668	63,040	42.7	2,901	4.6
Female	8,499	3,352	39.4	2,088	62.3
Total	156,167	66,392	42.5	4,989	7.5
AIR FORCE					
Male	246,206	164,556	66.8	14,956	9.1
Female	53,167	27,420	51.6	15,171	55.3
Total	299,373	191,976	64.1	30,127	15.7
DoD					
Male	1,033,248	588,248	56.9	39,500	6.7
Female	164,636	75,537	45.9	35,760	47.3
Total	1,197,884	663,785	55.4	75,260	11.3

* 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, 12,426 male Army enlisted personnel are in dual-service marriages. That is, 6.4 percent of married male Army enlisted members (192,733) are in dual-service marriages.

Larger proportions of men than women are married, but significantly greater proportions of women are members of dual-service marriages (47 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 62 percent of married women in dual-service marriages. Proportionally, more Air Force personnel are members of dual-service marriages (16 percent). Across the Services, 11 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 1997, 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 11 percent), and fewer people with college experience (25 versus 55 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 (98 percent of officers have undergraduate or advanced degrees). The education levels of the officer corps are discussed in Chapter 4.

Table 3.7. FY 1997 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	18-44 Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	95.7	93.4	95.2	99.8	96.0	88.6
Tier 2: GED, Alternative Credentials	3.8	4.6	4.7	0.2	3.2	
Tier 3: No Credentials	0.5	2.0	0.1	**	0.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0
College Experience (Part of Tier 1) ¹	10.2	4.9	2.7	78.7	24.9	54.6
* Civilian percentages combine Tiers 1 and 2.						
** Less than one-tenth of one percent.						
¹ 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 1997.						

The Army, Navy, and Marine Corps had roughly the same proportion of high school diploma graduate enlisted members in FY 1997, ranging from 93 to 96 percent. Almost all Air Force members held diplomas (99+ percent). The Navy had the largest proportion without at least a high school diploma (7 percent), while the Air Force had the smallest (two-tenths of one percent). Because of the way in which its forces are deployed, Air Force members can more readily schedule and attend off-duty education programs. As a result, more than three-fourths of Air Force members have some college experience--much more than in the other Services (3, 5, and 10 percent, for the Marine Corps, Navy, and Army, respectively).

The Services encourage members to continue their education while in the military. 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

Representation Within Occupations. The percentages of enlisted personnel by occupational area in FY 1997 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 include less than one-third (29 percent) of enlisted personnel. Many enlisted members (44 percent) are 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--make up about 21 percent of the force. The remaining 7 percent are non-occupational, to include patients, students, and those with unassigned duties.

Table 3.8. FY 1997 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	17.6	3.0	15.6
1	Electronic Equipment Repairers	10.1	5.4	9.5
2	Communications and Intelligence Specialists	8.8	9.4	8.9
3	Medical and Dental Specialists	5.6	17.0	7.2
4	Other Allied Specialists	3.0	2.7	2.9
5	Functional Support and Administration	13.3	33.2	16.1
6	Electrical/Mechanical Equipment Repairers	22.0	9.8	20.3
7	Craftsmen	4.1	2.0	3.8
8	Service and Supply Handlers	9.0	10.6	9.2
9	Non-occupational*	6.5	7.1	6.6
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.

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).

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 1997, 33 and 17 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 1997 half of all Servicewomen were in these occupations (50 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 1997 was 3 percent. The percentage of men in these occupations was approximately seven times that of women because of the direct ground combat exclusion policy for women. In the “traditional” female occupations, functional support and administration and medical/dental jobs, the percentage of women was more than two and a half times that of men.

The occupation differences by gender are illustrated in Table 3.8. In FY 1997, 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 1997, 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 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.

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.

Occupational Code and Area		White	Black	Hispanic	Other
0	Infantry, Gun Crews, and Seamanship Specialists	16.7	12.3	16.6	14.4
1	Electronic Equipment Repairers	10.9	6.8	7.3	6.5
2	Communications and Intelligence Specialists	9.6	8.2	7.5	5.9
3	Medical and Dental Specialists	6.4	8.3	7.8	10.7
4	Other Allied Specialists	3.2	2.4	2.3	2.5
5	Functional Support and Administration	12.4	25.6	17.4	19.0
6	Electrical/Mechanical Equipment Repairers	21.9	15.7	19.4	20.8
7	Craftsmen	4.1	3.0	3.3	3.6
8	Service and Supply Handlers	8.0	12.4	9.0	10.0
9	Non-occupational*	6.8	5.1	9.3	6.7
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 (53 percent). Grades E4 and E5 have the largest concentration of the enlisted force (22 and 21 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).

A comparison of pay grade distributions by race/ethnicity shows larger percentages of Black and "Other" minorities at pay grades E5 through E7 than Whites and Hispanics. Hispanics fill the lower grades (E1 through E3) in greater proportions than the other racial/ethnic groups. Retention rates play a role in these distributions. Blacks traditionally have higher retention rates than other racial/ethnic groups.

Table 3.10. FY 1997 Pay Grade of Active Component Enlisted Members, by Race/Ethnicity (Percent)					
Pay Grade	White	Black	Hispanic	Other	Total DoD
E1	6.1	5.5	8.6	5.8	6.1
E2	8.3	7.6	11.7	8.2	8.4
E3	16.3	14.5	21.1	16.1	16.3
E4	22.9	20.1	22.2	20.8	22.1
E5	20.9	22.4	17.0	20.8	20.9
E6	13.7	16.6	10.0	15.5	14.1
E7	8.6	10.0	6.3	9.2	8.7
E8	2.3	2.5	1.7	2.6	2.3
E9	1.0	0.8	0.5	1.1	0.9
Unknown	*	*	*	*	*
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-47 (Active Component by Pay Grade and Race/Ethnicity.)

Table 3.11. FY 1997 Pay Grade of Active Component Enlisted Personnel, by Gender (Percent)			
Pay Grade	Male	Female	Total DoD
E1	6.0	6.7	6.1
E2	8.2	10.0	8.4
E3	15.7	20.5	16.3
E4	21.5	26.2	22.1
E5	21.4	18.2	20.9
E6	14.7	10.5	14.1
E7	9.1	6.3	8.7
E8	2.5	1.4	2.3
E9	1.0	0.3	0.9
Unknown	*	*	*
Total	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 Gender).

As shown in Table 3.11, a larger proportion of women fill pay grades E1 to E4 (63 percent) than men (51 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 COMMISSIONED 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 1997.¹ 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.

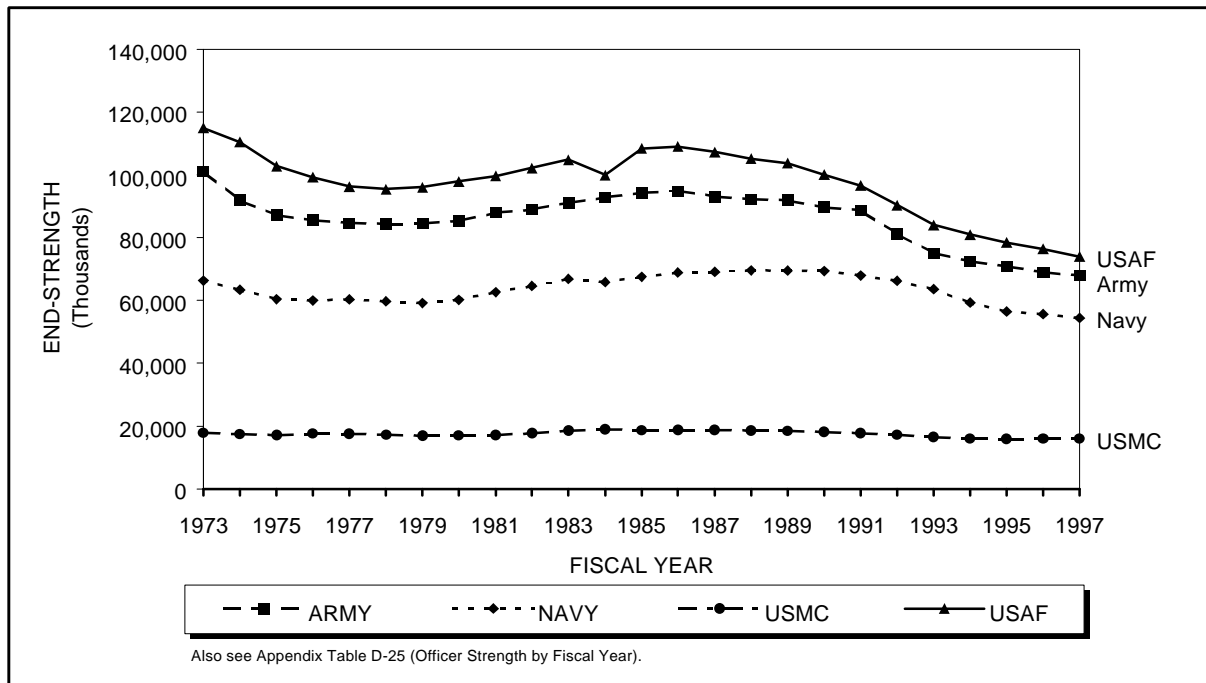


Figure 4.1. Active Component officer end-strength, by Service, FYs 1973-1997.

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, can be attributed to the demobilization following the end of the Vietnam conflict; the defense buildup of the 1980s was predicated by the escalation of the “Cold War”; and the most recent drawdown can be attributed to the fall of communism and the end of the “Cold War.” At just over 212,300, the FY 1997 Active Component officer end-strength is 2 percent smaller than in FY 1996 and represents the smallest officer corps in the last 20-plus years.

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

The number of individuals commissioned by the Services increased 5 percent in FY 1997 to over 15,700 (Figure 4.2). The increases were in the Army and Navy. Officer accessions in the Air Force remained about the same as the year before. After an increase in FY 1996, the Marine Corps officer accessions decreased slightly, so that the Marine Corps officer end-strength remained nearly constant.

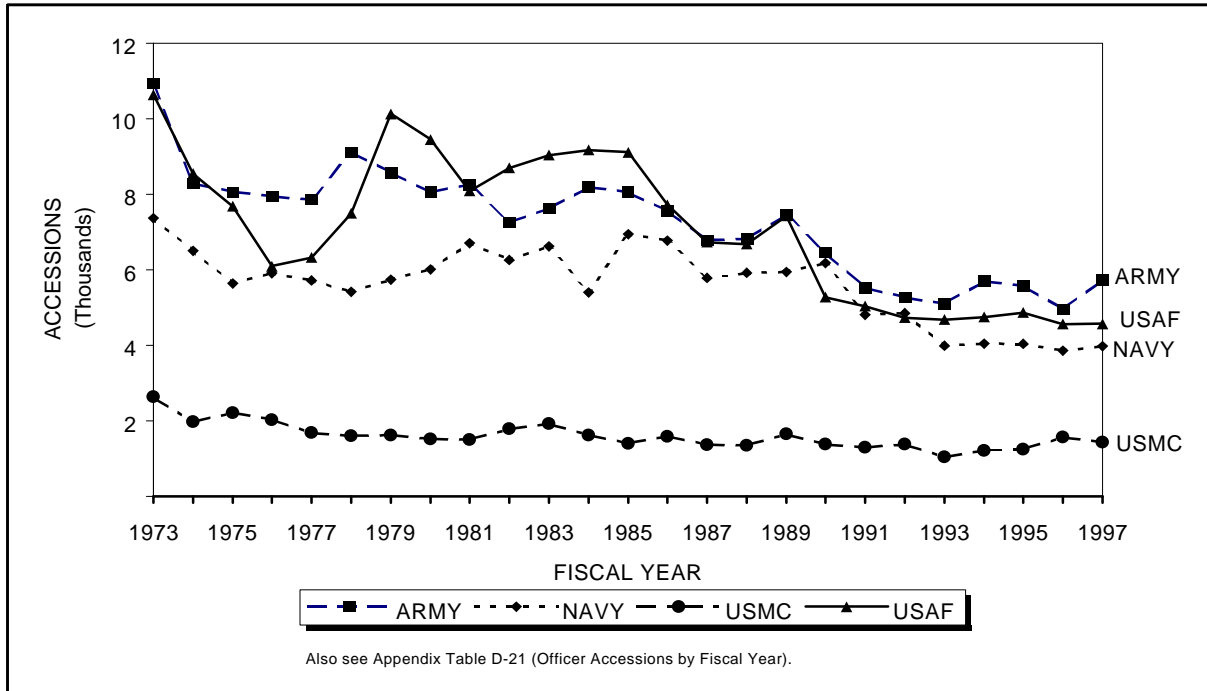


Figure 4.2. Active Component officer accessions, by Service, FYs 1973-1997.

Characteristics of Active Component Officers

Table 4.1 shows the number and percentage of FY 1997 Active Component officer accessions and officers by Service. In total personnel, the Army is the largest Service, but the Air Force has the highest officer content. The Air Force stood at almost 74,000 active duty officers in contrast to the Army's almost 68,000. 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 officers than the Army, the Army continues to access more officers 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 1997 Active Component Officer Accessions and Officer Corps (Number and Percent) ¹				
Service	Active Component Officer Accessions		Active Component Officer Corps	
	Number	Percent	Number	Percent
Army	5,736	36.5	67,994	32.0
Navy	3,981	25.3	54,382	25.6
Marine Corps	1,428	9.1	16,002	7.5
Air Force	4,573	29.1	73,984	34.8
Total	15,718	100.0	212,362	100.0

¹ End-strength reflects commissioned officers only (it excludes warrant officers).
Also see Tables D-21 (Officer Accessions) and D-25 (Officer Strength).

Pay Grade. The commissioned officer corps is divided into 10 pay grades [officer (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 (61 percent of officers in FY 1997), followed by field grade officers representing the narrower middle (39 percent of officers in FY 1997), and general/flag officers representing the pinnacle (less than 1 percent of officers in FY 1997). 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 education include age, U.S. citizenship, physical fitness, moral character, education, and cognitive ability. Given that officers form the military's leadership and professional echelons and that 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 1997 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	13.6	11.6	15.7	9.1	11.7
First Lieutenant (Lieutenant Jr. Grade)	O-2	13.3	11.9	16.0	10.4	12.1
Captain (Lieutenant)	O-3	34.4	36.8	32.7	40.2	36.9
Major (Lieutenant Commander)	O-4	19.5	20.0	20.6	21.3	20.3
Lieutenant Colonel (Commander)	O-5	13.4	13.1	10.7	13.6	13.2
Colonel (Captain)	O-6	5.4	6.2	3.9	5.2	5.4
Brigadier General (Rear Admiral - Lower Half)	O-7	0.2	0.2	0.3	0.2	0.2
Major General (Rear Adm. - Upper Half)	O-8	0.2	0.1	0.2	0.1	0.1
Lieutenant General (Vice Admiral)	O-9	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 (USFA) 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 promising enlisted

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

⁴ Non-scholarship ROTC is not without benefits, such as a subsistence allowance upon progress to advanced training.

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 afforded officer procurement by the alternative commissioning programs. The largest proportion of FY 1997 officer accessions (40 percent) came through ROTC programs--and most were recipients of a college scholarship (28 percent of all officer accessions and 70 percent of ROTC accessions). Among officers on active duty who were commissioned through ROTC, slightly more did not receive scholarships than those who did get them, especially in the Army. Direct appointments accounted for 21 percent and

Table 4.3. FY 1997 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	16.4	20.4	10.6	17.5	17.2
ROTC – Scholarship	38.1	17.4	7.6	30.8	27.9
ROTC- No Scholarship	22.0	1.8	0.0	11.2	11.7
OCS/OTS	4.6	22.6	69.3	12.1	17.2
Direct Appointment	17.9	23.7	0.1	27.9	20.7
Other *	0.0	13.6	12.4	0.5	4.7
Unknown	1.1	0.5	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0
ACTIVE COMPONENT OFFICER CORPS					
Academy	16.2	19.5	12.0	19.6	17.9
ROTC – Scholarship	18.0	20.0	17.3	20.9	19.5
ROTC- No Scholarship	40.3	2.6	0.0	20.9	20.8
OCS/OTS	8.5	20.5	56.1	20.2	19.2
Direct Appointment	16.2	21.4	1.0	18.2	17.1
Other *	0.1	14.7	13.6	0.2	4.9
Unknown	0.7	1.4	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).					

academy graduates accounted for 17 percent of incoming officers. OCS/OTS produced about 17 percent of FY 1997 Active Component officer accessions.

There were Service differences in reliance on the various commissioning sources. For example, over two-thirds (69 percent) of the Marine Corps' newly commissioned officers came through OCS-type pipelines and only one-tenth of one percent were recipients of direct commissions. 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 1997, the average officer was 26 years old in contrast to 20 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 1997, the average age of newly commissioned officers ranged from 23 years for Service academy graduates to 33 years for officers commissioned directly.⁵

Table 4.4. FY 1997 Mean Age of Active Component Officer Accessions and Officer Corps in Comparison to Enlisted Personnel		
	Officers	Enlisted
Active Component Accessions	25.8	20.0
Active Component Force	34.2	27.4
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. Less than 6 percent of Marine Corps officers were 30 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 30 years or older was 13 percent in the Army, 23 percent in the Navy, and 21 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.

⁵ Data from Defense Manpower Data Center.

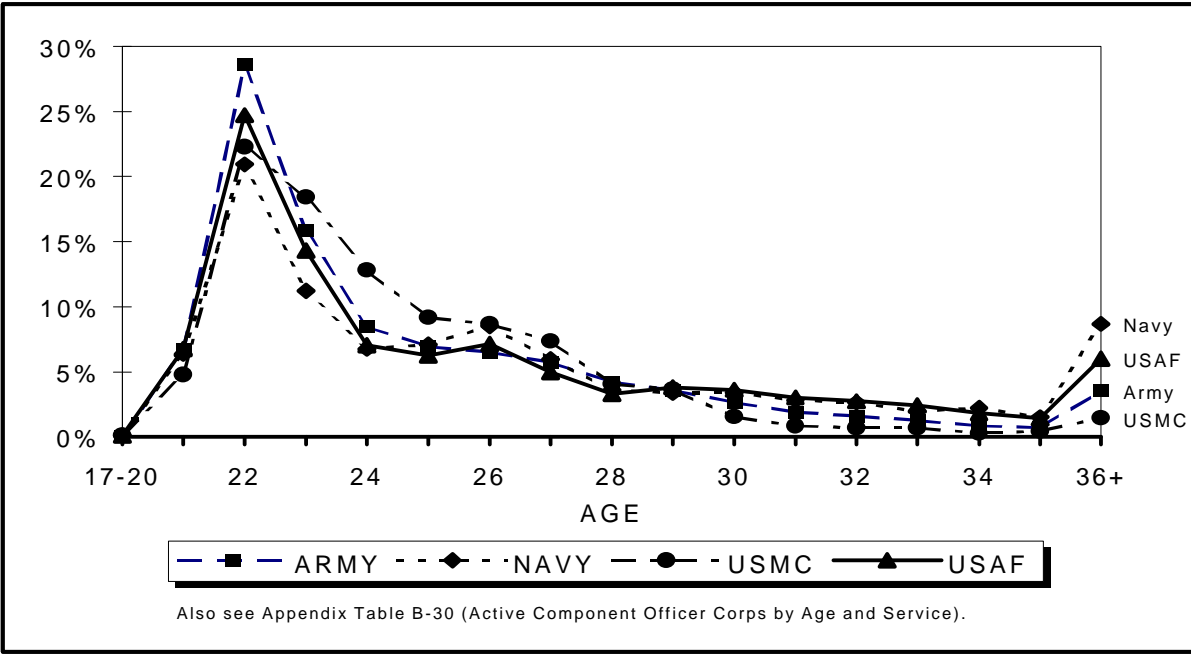


Figure 4.3. Age of FY 1997 Active Component officer accessions, by Service.

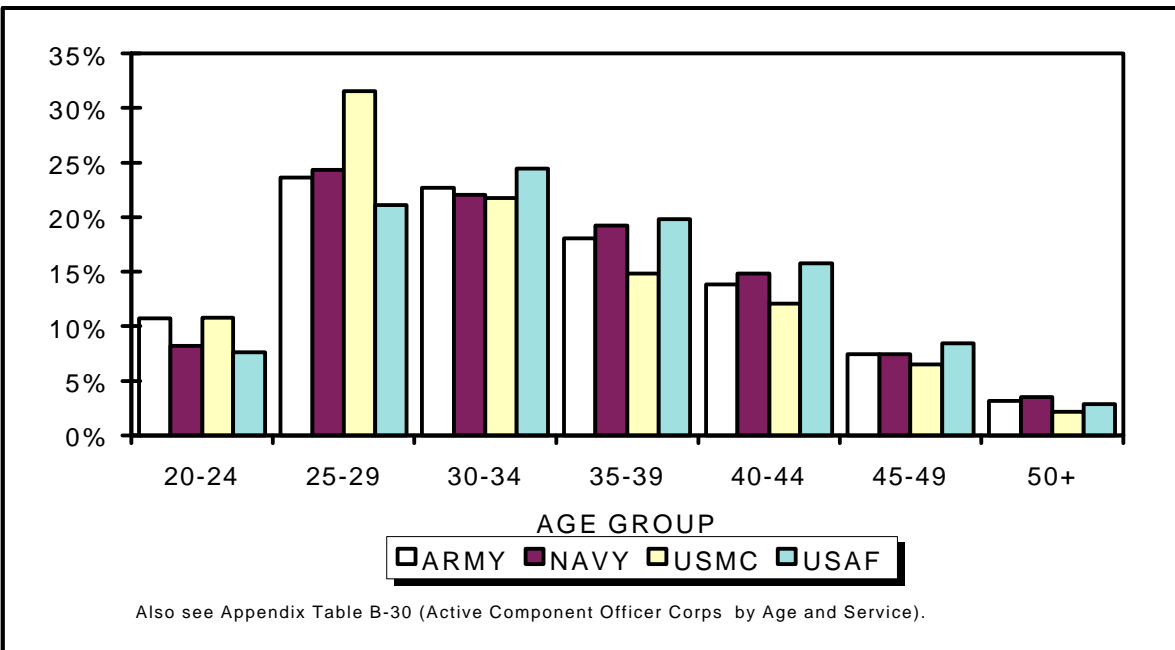


Figure 4.4. Age of FY 1997 Active Component officer corps, by Service.

Figure 4.5 shows that along with age, there has been a steady increase in the tenure of officers. On average, as of FY 1997, the typical commissioned officer was around 34 years old and had been in uniform for about 11 years.

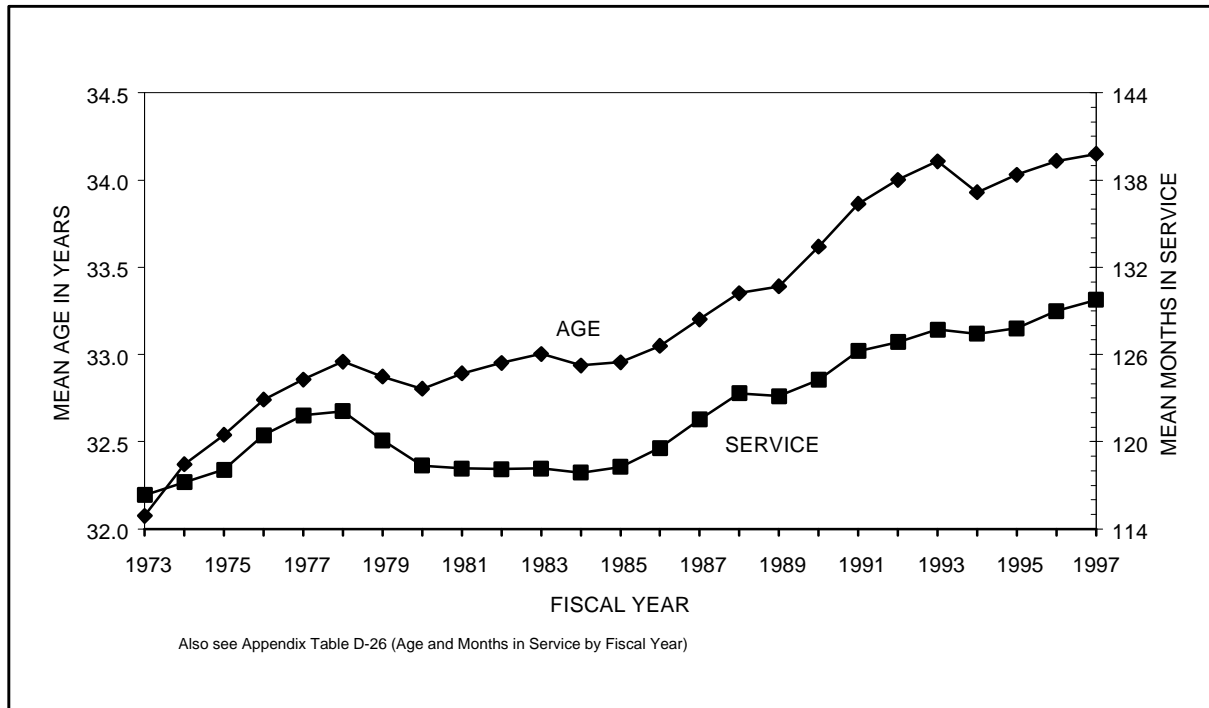


Figure 4.5. Active Component officers’ mean years of age and months of service, FYs 1973-1997.

Race/Ethnicity. The percentages of minorities among newly commissioned officers and the Active Component officer corps are shown in Table 4.5. In FY 1997, over 19 percent of entering officers were minorities--Black, Hispanic, and “Other” (e.g., Native Americans, Asians, and Pacific Islanders)--and 15 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 18 percent and the Army had the largest proportion at 21 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 mean verbal Scholastic Assessment Test (SAT) scores for college-bound seniors in 1995 were 448 for Whites and 356 for Blacks; mean math scores were 498 for Whites and 388 for Blacks.⁷

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).

⁷ See U.S. Department of Education, *The Condition of Education 1996, Supplemental Table 22-2* (Washington, DC: National Center for Education Statistics, 1996).

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 21-35 year-old civilian population of college graduates which stands at 7 percent Black, 5 percent Hispanic, and 8 percent “Other.” Blacks are proportionately represented and Hispanics and “Other” minorities are slightly underrepresented.

Table 4.5. FY 1997 Active Component Minority Officer Accessions and Officer Corps, by Service (Percent)					
Minority	Army	Navy	Marine Corps	Air Force	DoD
ACTIVE COMPONENT OFFICER ACCESSIONS					
Black	9.9	7.5	8.9	7.5	8.5
Hispanic	4.0	5.6	5.9	2.1	4.0
Other	7.2	5.8	4.3	8.8	7.0
Total Minority Officer Accessions	21.1	18.9	19.1	18.4	19.5
ACTIVE COMPONENT OFFICER CORPS					
Black	11.0	5.8	5.9	5.9	7.5
Hispanic	3.4	3.8	4.1	2.2	3.1
Other	4.9	4.1	2.9	4.5	4.4
Total Minority Officers	19.3	13.7	12.9	12.6	15.0
<small>Columns may not add to total due to rounding. “Other” includes Native Americans, Asians, and Pacific Islanders. Also see Appendix Table B-34 (Race/Ethnicity by Service).</small>					

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 1997, Hispanic officer accessions were more likely than other racial/ethnic groups to be commissioned via one of the academies, but were less likely to have received an ROTC scholarship than other groups. “Other” racial/ethnic officer accessions were more likely than other groups to have ROTC scholarships and direct appointments, but were the least likely to attend OCS/OTS. For the overall active component officer corps in FY 1997, Black officers were less likely to have attended a Service academy.

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 1997 Source of Commission of Active Component Officer Accessions, by Race/Ethnicity and Gender (Percent)						
Source of Commission	White	Black	Hispanic	Other	Male	Female
Academy	17.8	11.4	20.2	15.6	18.7	11.0
ROTC - Scholarship	27.9	27.7	22.2	32.3	27.1	31.2
ROTC - No Scholarship	10.7	19.6	14.2	12.5	12.1	10.2
OCS/OTS	17.1	18.2	27.1	11.5	19.1	9.6
Direct Appointment*	21.1	17.5	11.2	24.9	17.1	35.7
Other**	4.8	5.4	4.9	3.4	5.4	2.0
Unknown	0.6	0.2	0.2	0.0	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 Table B-42 (Source of Commission by Service and Race/Ethnicity) and B-40 (Source of Commission by Service and Gender).						

Table 4.7. FY 1997 Source of Commission of Active Component Officer Corps, by Race/Ethnicity and Gender (Percent)						
Source of Commission	White	Black	Hispanic	Other	Male	Female
Academy	18.4	11.8	17.6	19.5	19.3	9.8
ROTC - Scholarship	19.8	16.7	16.0	20.0	19.8	17.4
ROTC - No Scholarship	19.7	33.1	23.9	20.5	21.7	15.8
OCS/OTS	19.7	16.8	21.0	13.2	20.1	14.1
Direct Appointment*	16.9	16.7	15.8	22.6	13.4	39.6
Other**	5.0	4.6	5.4	3.5	5.2	2.9
Unknown	0.6	0.3	0.3	0.7	0.6	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 Table B-43 (Source of Commission by Service and Race/Ethnicity) and B-41 (Source of Commission by Service and Gender).						

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 8.5 percent of Blacks, for example, among officer accessions in FY 1997 compares favorably with figures from one and two decades ago (1987: 7.0 percent; 1977: 6.7 percent).

These accession trends have been contributing to greater minority strength levels in the total officer corps. For example, Blacks comprised 4 percent of all active duty officers in FY 1977, 6 percent in FY 1987, and 8 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 1997 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	60.0	58.1	62.4	58.8	59.3
O-4 through O-6	39.4	41.4	37.0	40.8	40.3
O-7 through O-10	0.5	0.5	0.6	0.4	0.5
Total	100.0	100.0	100.0	100.0	100.0
Black					
O-1 through O-3	63.0	73.1	74.6	60.0	64.9
O-4 through O-6	36.6	26.7	25.1	39.8	34.8
O-7 through O-10	0.4	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	70.3	74.3	81.4	56.7	69.4
O-4 through O-6	29.6	25.7	18.5	43.0	30.5
O-7 through O-10	0.1	0.1	0.2	0.3	0.1
Total	100.0	100.0	100.0	100.0	100.0
Other					
O-1 through O-3	71.6	73.5	79.6	75.9	74.0
O-4 through O-6	28.4	26.4	20.4	23.9	25.9
O-7 through O-10	0.1	*	0.0	0.2	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 Marine Corps, where 62 percent of Whites held the rank of captain or lower but 75 percent of Blacks and 81 percent of Hispanics were company grade officers. The pay grade distributions

were closest in the Air Force, with approximately 1 percentage point separating Whites and Blacks in terms of the percentage in grade O-3 and below. Factors such as increased college graduation rates and targeted recruiting programs have provided minorities greater access to the officer corps. However, it is also important to monitor progress further along the pipeline.

Gender. As shown in Table 4.9, women constituted about 19 percent of officer accessions and 14 percent of the officer corps in FY 1997. 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 1997 Active Component Female Officer Accessions and Officer Corps (Percent)					
	Army	Navy	Marine Corps	Air Force	DoD
Active Component Accessions	19.5	17.3	7.3	24.7	19.4
Active Component Officer Corps	14.2	14.2	4.2	16.2	14.2
Also see Appendix Table B-32 (Gender by Service).					

The primary source of commission for women in FY 1997 continued to be the direct appointment (36 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, 40 percent of male officers were O-4s through O-6s, whereas the percentage of women in these grades was 8 percentage points lower at 32 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 the 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 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 1997 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	60.0	59.8	64.0	57.7	59.5
O-4 through O-6	39.4	39.7	35.5	41.8	40.0
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
FEMALES					
O-1 through O-3	68.8	62.7	75.5	69.3	67.5
O-4 through O-6	31.2	37.2	24.4	30.7	32.4
O-7 through O-10	0.1	0.1	0.2	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 three-quarters of male officers were married, only 55 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 1997 Married Active Component Officer Corps and Enlisted Personnel, by Gender (Percent)		
Gender	Officers	Enlisted
Males	74.9	56.9
Females	54.7	45.9
Total	72.1	55.4
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, deployment, and overall readiness in addition to affecting Servicemembers' satisfaction with military life.

Table 4.12. FY 1997 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	58,334	42,916	73.6	2,474	5.8
Female	9,660	5,265	54.5	2,489	47.3
Total	67,994	48,181	70.9	4,963	10.3
NAVY					
Male	46,678	34,366	73.6	713	2.1
Female	7,704	4,077	52.9	928	22.8
Total	54,382	38,443	70.7	1,641	4.3
MARINE CORPS					
Male	15,334	10,795	70.4	315	2.9
Female	668	293	43.9	198	67.6
Total	16,002	11,088	69.3	513	4.6
AIR FORCE					
Male	61,975	48,504	78.3	2,481	5.1
Female	12,009	6,809	56.7	2,598	38.2
Total	73,984	55,313	74.8	5,079	9.2
DoD					
Male	182,321	136,581	74.9	5,983	4.4
Female	30,041	16,444	54.7	6,213	37.8
Total	212,362	153,025	72.1	12,196	8.0
* There are some differences between the number of males and females reporting dual-service marriages.					

Education. Given Service requirements, with few exceptions, that commissioned officers have at least a 4-year college degree, the education levels of FY 1997 Active Component officer accessions come as no surprise. Table 4.13 clearly shows the officer corps' reliance on the college-educated. Five percent of officers commissioned in FY 1997 did not have at least a bachelor's degree; most likely these officers were former enlisted personnel. A notable percentage of officers (13 percent)--mostly lawyers, chaplains, and health care professionals (i.e., physicians, dentists, etc.)--held advanced degrees upon commissioning.

Table 4.13. FY 1997 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	1.8	14.6	2.7	3.4	5.3
College Graduate (B.A., B.S., etc.)	88.0	71.0	94.0	77.6	81.5
Advanced Degree (M.A., Ph.D., etc.)	10.2	14.4	3.3	19.0	13.2
Total	100.0	100.0	100.0	100.0	100.0
ACTIVE COMPONENT OFFICER CORPS					
Less than College Graduate	0.9	5.6	5.0	0.5	2.2
College Graduate (B.A., B.S., etc.)	60.0	56.9	77.1	43.2	54.6
Advanced Degree (M.A., Ph.D., etc.)	39.1	37.5	17.9	56.3	43.2
Total	100.0	100.0	100.0	100.0	100.0
<small>Columns may not add to total due to rounding. Percentages do not include "Unknown" data. * Marine Corps data provided by U.S. Marine Corps, Officer Appointments. Also see Appendix Table B-35 (Education by Service).</small>					

Not only are college graduates amply represented among the 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 (56 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. Over 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 1997 occupational area data by Service, including personnel classified as non-occupational.

Table 4.14. FY 1997 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	43.6	8.2	38.6
Intelligence	4.9	5.8	5.0
Engineering and Maintenance	12.0	10.3	11.8
Scientists and Professionals	4.9	4.8	4.9
Health Care	14.3	46.4	18.8
Administration	4.8	12.5	5.9
Supply, Procurement, and Allied Occupations	8.8	8.6	8.7
Non-Occupational*	6.3	3.4	5.9
Total	100.0	100.0	100.0
<small>Columns may not add to total due to rounding. Calculations exclude 1 male Navy, 594 male and 11 female Marine Corps and 525 male and 15 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).</small>			

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 1997. Significantly greater percentages of men than women were in tactical operations (44 and 8 percent, respectively), whereas greater percentages of women than men were in "traditional" female occupations of administration (13 and 5 percent, respectively) and health care (46 and 14 percent, respectively). Appendix Table B-38 shows the assignment patterns 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 1997, 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 were in intelligence, administration, and supply occupations. Proportionately more Blacks than other demographic categories were in the engineering and maintenance, supply, 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.

Table 4.15. FY 1997 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	40.3	26.7	34.9	29.0
Intelligence	5.0	4.5	6.2	5.0
Engineering and Maintenance	11.5	14.8	11.0	13.0
Scientists and Professionals	5.0	4.3	4.2	4.4
Health Care	18.5	19.3	17.3	26.1
Administration	5.5	10.7	6.8	6.2
Supply, Procurement, and Allied Occupations	8.1	14.8	10.3	8.9
Non-Occupational*	5.8	4.6	9.2	7.5
Total	100.0	100.0	100.0	100.0
Columns may not add to total due to rounding. Calculations exclude 1 Hispanic Navy, 568 White, 23 Black, 11 Hispanic, and 3 "Other" Marine Corps and 513 White, 12 Black, 7 Hispanic, and 8 "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).				

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.

Warrant Officers⁹

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.^{10, 11} 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 1997, 1,234

⁹ For more detailed information on warrant officers, see Department of Defense, *DoD Report on the "Warrant Officer Management Act" (WOMA)* (Washington, DC: Author, 1989).

¹⁰ Upper-level warrant officers, however, frequently function in foreman-type roles within their system specialties.

¹¹ The Air Force discontinued its warrant officer program in 1959 and increased promotion opportunities for senior enlisted personnel.

warrant officer accessions were added to the force and the overall total force of warrant officers on active duty stood at 15,225. Table 4.16 presents gender and race/ethnicity statistics on FY 1997 warrant officers. They are overwhelmingly male (94 percent) but have more "generous" minority representation levels than commissioned officers. Blacks, in particular, are more highly represented among warrant officers, accounting for 15 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 1997 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	66.7	76.9	73.9	69.0
Black	23.4	21.7	16.6	22.1
Hispanic	4.7	0.0	8.0	4.7
Other	5.2	1.4	1.5	4.1
Male	88.2	97.2	96.5	90.6
Female	11.8	2.8	3.5	9.4
Total	100.0	100.0	100.0	100.0
ACTIVE COMPONENT WARRANT OFFICER CORPS				
White	75.8	79.2	78.8	76.6
Black	14.8	14.2	13.1	14.5
Hispanic	4.5	1.5	6.4	4.4
Other	4.8	5.1	1.7	4.5
Male	93.8	94.8	93.4	93.9
Female	6.2	5.2	6.6	6.1
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.				
See also 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 1997 strength of more than 1.5 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.

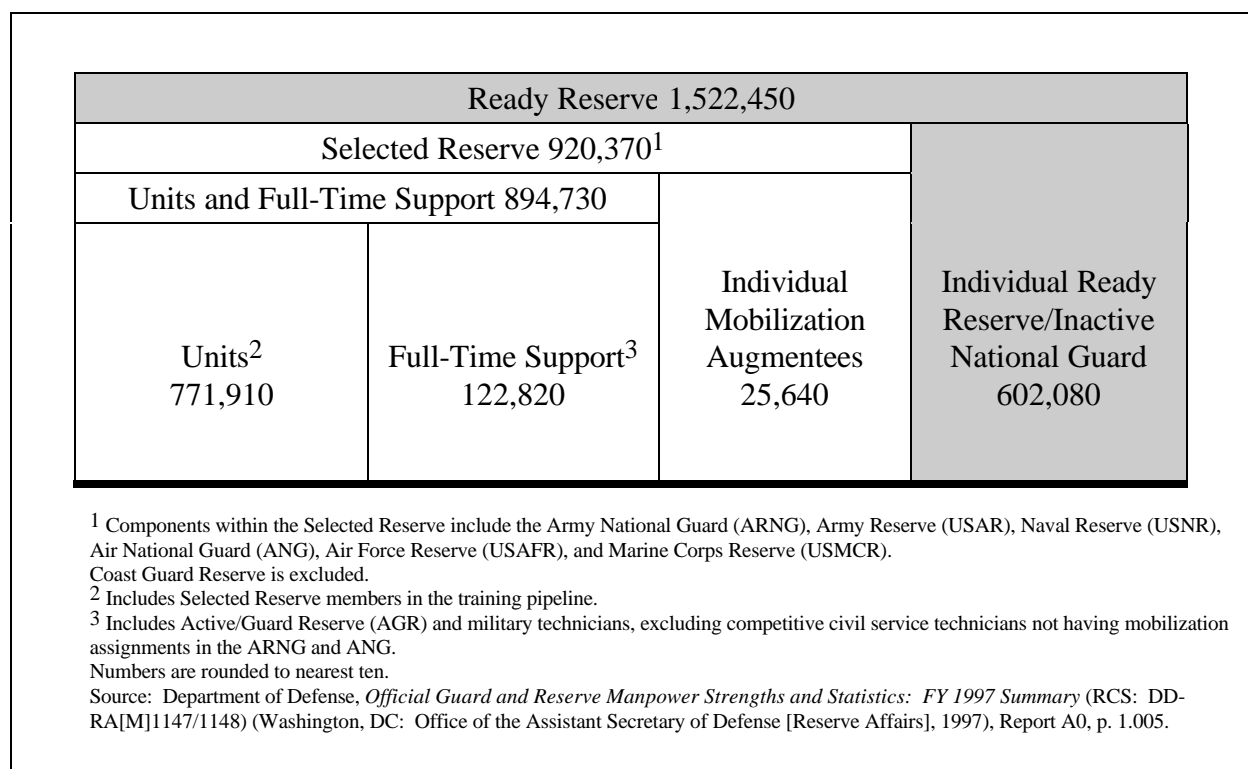


Figure 5.1. FY 1997 composition of the Selected Reserve within the Ready Reserve.

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 1997 Summary* (RCS: DD-RA(M)1147/1148) (Washington, DC: Office of the Assistant Secretary of Defense [Reserve Affairs], 1997), 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 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 (63 percent in FY 1997) 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.

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 1997 Youth Attitude Tracking Study shows that enlistment propensity for the Selected Reserve is lower than for the active Services (20 percent versus 26 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, there is an 8 percentage point difference between interest in the two components (9 percent National Guard versus 17 percent Reserves); smaller differences (3 percentage points) are found with 22-24 year-old males and 16-24 year-old females. Propensity among 16- to 21-year-old women significantly decreased during 1997 (12 percent in 1996, 9 percent in 1997). While trends indicate less interest today among the primary recruit population--male youth 16 to 21 years old--to enter the Selected Reserve than six years ago (25 percent in 1991, 20 percent in 1997), results of the survey illustrate relatively stable levels of National Guard and Reserve propensity over the last three years.³

The occupational distribution among the Active and Reserve Components varies (e.g., 11 percent of active Navy enlistees serve in administration while 22 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
- The impact of the Active Component's force structure on National Guard and Reserve recruiting.

³ Memorandum from F.M. Rush, Acting Assistant Secretary of Defense (Force Management Policy), Subject: 1997 Youth Attitude Tracking Study, January 15, 1998.

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).

This chapter provides demographic characteristics and the distribution of FY 1997 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 1997 Reserve Component recruiting results for NPS and prior service gains and assigned end-strengths are shown in Table 5.1. In FY 1997, the Reserve Component recruited nearly 144,000 enlisted persons compared to the Active Component's almost 189,000. The Army Reserve (USAR) is the largest Reserve Component recruiting program, unlike FY 1996 when the largest was the ARNG. The USAR recruited more than 16,000 NPS enlistees, approximately 6,700 less than the ARNG. However, the USAR recruited just over 33,700 prior service recruits, 11,000 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.

Table 5.1. FY 1997 Selected Reserve Non-Prior Service (NPS) and Prior Service Enlisted Accessions and End-Strengths					
Component	Enlisted Accessions				Enlisted End-Strength
	Non-Prior Service	Prior Service	Total	Prior Service Percent of Component Total	
Army National Guard	22,784	22,522	45,306	49.7	329,288
Army Reserve	16,018	33,718	49,736	67.8	168,596
Naval Reserve	2,967	18,169	21,136	86.0	75,373
USMC Reserve	6,316	4,413	10,729	41.1	37,254
Air National Guard	3,553	6,197	9,750	63.6	96,716
Air Force Reserve	1,033	6,157	7,190	85.6	56,068
DoD Total	52,671	91,176	143,847	63.4	763,295

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

Selected Reserve recruiting achievements decreased slightly, dropping by more than 9,000 enlisted accessions from FY 1996 to FY 1997 (from 152,000 to 144,000). All components experienced cuts, except the Air Force Reserve which experienced an increase of about 700

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

accessions. The ARNG accessed fewer NPS recruits and fewer prior service recruits, for an overall loss in new enlistees of 15 percent in FY 1997.

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 66 percent of total Reserve Component accessions (31 and 35 percent for the ARNG and USAR, respectively) in FY 1997. The Naval Reserve (USNR) and Air Force Reserve (USAFR) had the highest proportion of prior service recruits (86 percent of their total recruiting efforts). The Marine Corps Reserve (USMCR) had the lowest proportion of recruits with past military experience (41 percent). Prior service accessions provide the Reserve Component with a more experienced personnel base, contributing to increased readiness to meet future missions.

The increase in availability of prior service recruits is a temporary phenomenon due to the larger number of active duty members leaving service. The end of the active force drawdown will ultimately reduce the number of prior service individuals from which the Reserve Component can recruit. The numerical effects of the drawdown coupled with changes in the Reserve mission and increased combat risks may lead to difficulties in Reserve recruiting. "Future Reserve recruits are likely to consider [the] risk, the costs and benefits associated with [serving], and the likelihood that security threats in the future will differ from those in the past."⁶ A decision to join the Selected Reserve today likely involves more tradeoffs than in the past. 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.

Age. The largest proportions of FY 1997 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 66 percent falling in the 25- to 34-year age group. This percentage is substantially larger than the 47 percent falling in the 25- to 34-year age group in FY 1996, as there were significant drops in the 17- to 19-year age group (7 percent to 1 percent from FY 1996 to FY 1997) and the 20- to 24-year age group (10 percent to 2 percent from FY 1996 to FY 1997). This may have been a result of the decrease in the percentage of unknown NPS Reserve Component accessions for the USNR (21 percent to 11 percent from FY 1996 to FY 1997).

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 1997, 39 and 20 percent, respectively, of ARNG and 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 1997 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	17-35 Year-Old Civilians
17-19	62.1	66.6	0.5	66.7	49.7	42.2	59.3	15.6
20-24	24.0	23.9	2.3	27.5	34.0	37.3	24.1	23.9
25-29	8.3	6.2	33.9	5.2	10.5	13.6	9.0	25.9
30-34	3.5	2.7	32.0	0.5	5.3	6.3	4.7	28.5
35-39	1.1	0.2	19.7	*	0.4	0.7	1.7	6.1
40-44	0.4	0.0	0.3	0.0	*	0.0	0.2	
45-49	0.2	*	0.1	0.0	0.1	0.0	0.1	
50+	0.1	*	0.0	0.0	0.0	0.0	0.1	
Unknown	0.2	0.5	11.2	0.1	*	0.0	0.9	
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.
* 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 1996-September 1997.

Race/Ethnicity. Table 5.3 presents the racial/ethnic make-up of FY 1997 NPS enlisted accessions by Selected Reserve Component. These figures are similar to those seen in FY 1996, with the greatest changes being found in the USNR NPS recruits, as the percentage of Whites decreased from 68 percent in FY 1996 to 62 percent in FY 1997, while minorities increased (3 percent for both Blacks and Hispanics). The percentage of USAR prior service Whites decreased significantly from FY 1996 to FY 1997 (66 to 62 percent). Other than these results, differences in the racial/ethnic make-up of the FY 1996 and FY 1997 cohorts were generally less than 2 percentage points.

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 make-up of the Reserve Forces. Table 5.3 demonstrates that the proportion of prior service Black accessions in each of the Selected Reserve components, except the ANG, is higher than their representation among the 20-39 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 have also made up a smaller proportion of Reserve accessions than of the comparison group. However, in FY 1997, the proportion of NPS White accessions in the ARNG, USMCR, and ANG and prior service White accessions in the ARNG and ANG is 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 (30 and 32 percent for NPS and prior service, respectively) was nearly twice that of Black men (14 and 18 percent for NPS and prior service, respectively). The USAR had the highest proportion of Black female recruits (38 percent of NPS and 39 percent of prior service).

Table 5.3. FY 1997 Selected Reserve Non-Prior Service and Prior Service Enlisted Accessions, by Race/Ethnicity (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	74.5	59.3	61.6	69.6	75.4	61.1	68.4	66.1
Black	14.9	27.1	17.0	11.6	11.6	25.9	18.3	14.4
Hispanic	6.1	7.7	13.9	12.5	5.9	4.8	7.7	14.5
Other	4.5	5.9	7.5	6.4	7.2	8.2	5.6	5.0
PRIOR SERVICE								
White	73.9	62.3	71.3	67.7	79.1	73.8	69.1	70.6
Black	17.8	27.0	15.8	15.1	11.8	16.7	20.2	12.4
Hispanic	4.6	5.3	8.3	12.5	4.6	4.6	6.0	12.4
Other	3.7	5.4	4.7	4.6	4.5	4.8	4.7	4.6
TOTAL ACCESSIONS								
White	74.2	61.4	69.9	68.8	77.7	72.0	68.9	
Black	16.4	27.0	15.9	13.0	11.7	18.0	19.5	
Hispanic	5.3	6.1	9.1	12.5	5.1	4.7	6.6	
Other	4.1	5.6	5.1	5.6	5.4	5.3	5.0	
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.								
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 1996-September 1997.								

Gender. The proportion of Selected Reserve accessions in FY 1997 who were women was slightly greater (19 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 (26 and 23 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.

Marital Status. Approximately 11 percent of FY 1997 Selected Reserve NPS enlisted accessions were married (Table 5.5), which was a little higher than in the Active Component. The marriage rates of prior service recruits look markedly different, with 42 percent married. The FY 1997 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 (55 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 (52 percent). Among FY 1997 NPS Reserve accessions, a slightly larger proportion of females were married than males, consistent with the trend in the 17-35 year-old civilian population. Marital status differences by gender were reversed for FY 1997 prior service Reserve accessions; more males were married than females.

Table 5.4. FY 1997 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	82.0	18.0	90.8	9.2	86.4	13.6
Army Reserve	61.2	38.8	79.8	20.2	73.8	26.2
Naval Reserve	68.7	31.3	85.6	14.4	83.2	16.8
USMC Reserve	95.3	4.7	94.3	5.7	94.9	5.1
Air National Guard	71.0	29.0	82.0	18.0	78.0	22.0
Air Force Reserve	63.5	36.5	79.0	21.0	76.8	23.2
DoD Total	75.4	24.6	84.5	15.5	81.1	18.9

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

Table 5.5. FY 1997 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	17-35 Year-Old Civilians	Prior Service Reserve Accessions	Civilian Labor Force, 20-39 Years Old	Non-Prior Service Active Component Accessions	Active Component Enlisted Members
Male	11.0	36.7	43.1	51.9	9.4	56.9
Female	11.7	43.3	36.0	52.0	13.2	45.9
Total	11.2	40.0	42.0	51.9	10.1	55.4

Also see Appendix Tables C-2 (NPS Age by Marital Status and Gender), C-10 (Prior Service Age by Marital Status and Gender), B-2 (NPS Active Component Enlisted Accession by Age, Marital Status and Gender), and B-23 (Active Component Enlisted Members by Age, Service, and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1996-September 1997.

Education. More Selected Reserve NPS recruits completed high school than was the case for their civilian peers, as indicated in Table 5.6. Approximately 98 percent of FY 1997 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. Differences between Reserve Components in FY 1997 high school graduate NPS recruits were generally small. In the Army National Guard, with approximately half of its recruits without military experience, 83 percent of NPS enlistees were high school diploma graduates. In comparison, the Air Force Reserve, with relatively few NPS recruits (as shown in Table 5.1), accessed 98 percent NPS high school graduates. The percentage in Tier 1 for all Components except the Air Force Reserve decreased from FY 1996 to 1997, with decreases ranging from less than 1 percentage point to 7 percentage points. The Army National Guard had the highest proportion of Tier 2 accessions (17 percent), which is a large increase from the 9 percent of FY 1996. At the same time, the Army National Guard experienced a significant decrease in Tier 3 accessions from 1.2 percent in FY 1996 to 0.1 percent in FY 1997.

Table 5.6. FY 1997 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	18-24 Year-Old Civilians**
Tier 1: Regular High School Graduate or Higher***	82.7	93.6	95.1	97.0	92.8	98.4	91.1	78.8
Tier 2: GED, Alternative Credentials	17.2	3.8	4.0	2.8	6.4	1.7	7.2	
Tier 3: No Credentials	0.1	2.6	0.9	0.2	0.8	0.0	1.7	21.3
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	4.3	31.7	3.6	5.5	5.8	5.1	45.5

Columns may not add to total due to rounding.
 * Service provided data from Recruiting Commands. Data presented in this table may differ slightly from the data shown in appendix tables which are taken from DMDC's RCCPDS file.
 ** 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 1996-September 1997.

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 (32 percent). Most enlisted occupations are generally comparable to civilian jobs not requiring college education.

AFQT. FY 1997 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 (61 versus 54 percent). Seventy-one to 80 percent of USAR, USMCR, ANG, and USAFR NPS male accessions were in AFQT Categories I through IIIA, compared to 54 percent in the civilian group. Fifty-four percent of ARNG NPS male recruits scored in AFQT Categories I through IIIA, equal to the civilian group. The differences between scores of female recruits and their comparable civilian group were similar to male accessions; however, the ARNG did have more NPS female recruits scoring in AFQT Categories I through IIIA than their comparable civilian group (5 percentage points more).

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 1997.

Table 5.7. FY 1997 Selected Reserve Non-Prior Service Enlisted Accessions, by AFQT Category, Gender, and Component (Percent)							
AFQT Category	Army National Guard	Army Reserve	Naval Reserve ¹	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD ²
MALES							
I	4.3	6.0	N/A	7.4	7.1	8.8	5.5
II	28.6	37.0	N/A	43.7	47.4	44.1	34.7
IIIA	21.1	28.1	N/A	21.1	22.9	27.0	23.1
IIIB	38.6	21.9	N/A	22.8	21.3	19.1	30.2
IV	2.8	2.6	N/A	0.2	*	0.2	2.1
V	0.0	0.0	N/A	0.0	0.0	0.0	0.0
Unknown	4.6	4.4	N/A	4.8	1.3	0.9	4.3
Total	100.0	100.0	N/A	100.0	100.0	100.0	100.0
FEMALES							
I	2.7	2.8	N/A	8.4	4.2	3.7	3.1
II	27.1	25.7	N/A	39.7	37.9	40.9	28.1
IIIA	24.4	23.2	N/A	33.0	26.9	23.1	24.2
IIIB	42.2	42.5	N/A	14.5	30.3	31.8	40.3
IV	1.0	1.4	N/A	0.1	0.0	0.0	1.0
V	0.0	0.0	N/A	0.0	0.0	0.0	0.0
Unknown	2.6	4.4	N/A	4.4	0.7	0.5	3.3
Total	100.0	100.0	N/A	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 Data were not available for this report.							
² DoD data do not include the Naval Reserve.							
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 <i>Profile of American Youth</i> (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 34 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.

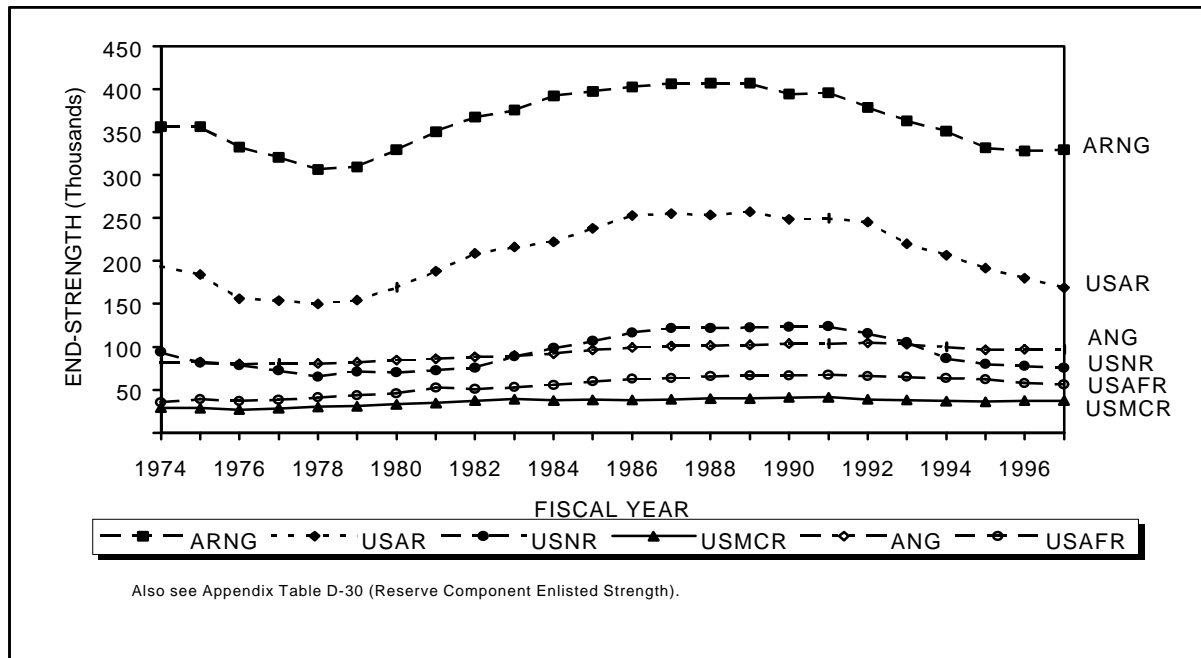


Figure 5.2. Reserve Component enlisted end-strength, FYs 1974-1997.

Table 5.8. FY 1997 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	8.5	10.4	1.2	12.9	2.4	0.8	7.1	4.6
20-24	20.3	22.4	11.4	47.9	10.9	6.8	19.1	9.9
25-29	21.3	19.9	22.1	22.7	17.1	16.1	20.2	11.9
30-34	15.5	14.8	22.9	8.4	19.8	21.9	16.8	12.8
35-39	12.7	12.7	19.6	4.5	17.3	20.2	14.1	14.3
40-44	8.2	8.6	11.6	1.8	11.3	13.4	9.1	13.7
45-49	7.1	6.2	6.5	1.0	10.9	11.0	7.3	11.5
50+	6.3	4.7	4.8	0.7	10.4	9.8	6.3	21.4
Unknown	*	0.3	*	*	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 1997.

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 (22 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 (13 percent) and the ANG has the greatest proportion of "Other" racial minorities (6 percent). The USAR data are affected by the large number of FY 1997 accessions with unknown race/ethnicity who are included in the "Other" minorities category.

Table 5.9. FY 1997 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	73.9	61.3	75.0	69.7	80.8	73.9	72.1
Black	15.4	24.0	13.2	12.1	7.6	15.9	15.7
Hispanic	7.4	8.8	7.5	12.5	5.6	5.5	7.6
Other	3.4	5.9	4.4	5.8	6.0	4.7	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FEMALES							
White	61.2	45.8	66.2	59.8	72.8	63.4	58.0
Black	28.9	41.7	22.4	21.4	15.3	27.3	30.6
Hispanic	6.0	6.8	7.0	13.2	5.2	4.6	6.3
Other	4.0	5.8	4.4	5.7	6.7	4.7	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TOTAL							
White	72.7	57.6	73.4	69.3	79.5	71.9	70.1
Black	16.6	28.3	14.9	12.4	8.8	18.1	17.9
Hispanic	7.3	8.3	7.4	12.5	5.6	5.4	7.4
Other	3.5	5.9	4.4	5.8	6.1	4.7	4.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18-49 YEAR-OLD CIVILIAN LABOR FORCE							
White	Black		Hispanic		Other		Total
72.3	12.0		11.2		4.4		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 1997.							

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 55 percent of USAR females are minorities: 42 percent Black, 7 percent Hispanic, and 6 percent in the "Other" racial category. Conversely, the ANG has the lowest proportion of minority females (27 percent), compared to 28 percent in the 18- to 49-year-old civilian labor force.

Gender. The proportion of enlisted women is slightly greater in the Selected Reserve than in the Active Component (15 versus 14 percent, respectively). However, as Table 5.10 makes clear, there are differences in the proportion of women among the Reserve Components. The Component with the highest proportion of women is the USAR (24 percent), while the other Army Component, the ARNG, has 9 percent and the USMCR, with the lowest proportion, has 4 percent. 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 1997 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	18-49 Year-Old Civilians
Male	90.6	76.0	81.8	95.9	84.4	80.6	85.2	53.6
Female	9.4	24.0	18.2	4.1	15.6	19.4	14.8	46.4

Also, see Appendix Table C-15 (Age by Component and Gender).
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 1997.

Marital Status. Just over half of Selected Reserve members are married (Table 5.11). This proportion is lower than for the comparable civilian population (56 percent), and for enlisted members in the Active Component (55 percent). The proportion of married female Selected Reserve members is much lower than the proportion of married female civilians (37 and 55 percent, respectively). This difference is in part explained by the younger age of women enlisted members compared to their civilian counterparts.

Table 5.11. FY 1997 Married Selected Reserve Enlisted Members, by Gender, and Civilian Labor Force 18-49 Years Old (Percent)		
Gender	DoD	18-49 Year Old Civilians
Male	54.1	57.4
Female	37.0	54.9
Total	51.6	56.2

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 1997.

Education. As shown in Table 5.12, 97 percent of FY 1997 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 14 percent of enlisted members).

Table 5.12. FY 1997 Selected Reserve Enlisted Members, by Education Levels and Component, and Civilian Labor Force 18-49 Years Old (Percent)								
Education Tier	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	Total DoD	18-49 Year-Old Civilians*
Tier 1: Regular High School Graduate or Higher	85.6	93.2	94.8	97.2	98.9	99.6	91.5	89.0
Tier 2: GED, Alternate Credentials	10.1	3.9	4.4	2.7	1.0	0.3	5.9	
Tier 3: No Credentials	4.3	2.9	0.8	0.1	0.1	0.1	2.6	11.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
College Experience (Part of Tier 1)	8.5	14.0	33.7	8.0	17.0	22.2	14.3	55.6
Columns may not add to total due to rounding. * Civilian percentages combine Tiers 1 and 2. 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 1997.								

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 5.13. Comparison of FY 1997 Reserve and Active Enlisted Occupational Areas (Percent)			
Occupational Code and Area		Reserve	Active
0	Infantry, Gun Crews, and Seamanship Specialists	18.3	15.6
1	Electronic Equipment Repairers	4.7	9.5
2	Communications and Intelligence Specialists	4.9	8.9
3	Medical and Dental Specialists	6.9	7.2
4	Other Allied Specialists	2.8	2.9
5	Functional Support and Administration	18.5	16.1
6	Electrical/Mechanical Equipment Repairers	16.6	20.3
7	Craftsmen	5.8	3.8
8	Service and Supply Handlers	10.4	9.2
9	Non-occupational*	11.0	6.6
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 7 percent of this skill area. On the other hand, only 11 percent of active Navy enlistees serve in administration while 22 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 1997 are relatively similar to those of FY 1996.

Table 5.14. Comparison of FY 1997 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	25.1	7.1	10.4	8.4	3.2	16.2	14.4	2.0	12.3	0.9
Army National Guard	25.5	3.7	4.9	4.7	2.4	13.7	14.6	3.7	10.9	15.9
Army Reserve	15.7	2.4	4.5	11.7	3.3	23.2	10.6	4.9	14.4	9.3
NAVY										
Active Component	9.2	13.1	9.7	8.0	2.0	10.7	27.1	5.8	5.0	9.4
Naval Reserve	10.6	7.1	7.4	9.9	1.5	22.0	21.3	14.3	4.6	1.4
MARINE CORPS										
Active Component	22.5	5.7	7.0	0.0	2.3	16.0	15.4	2.5	13.3	15.2
USMC Reserve	25.5	3.0	7.7	0.0	1.1	12.5	12.1	3.0	14.5	20.6
AIR FORCE										
Active Component	6.2	10.6	7.0	8.3	3.9	22.0	23.2	4.6	7.5	6.7
Air National Guard	6.8	10.3	3.5	4.6	4.8	21.9	27.3	8.4	6.8	5.7
USAF Reserve	9.8	5.6	2.5	10.4	3.4	26.4	25.3	7.1	6.6	2.9
* 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 (42 percent) and medical (16 percent). Enlisted men are assigned primarily to infantry (21 percent) and electrical/mechanical equipment repair (19 percent).

Table 5.15. FY 1997 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	19.2	14.6	19.6	17.9
1	Electronic Equipment Repairers	5.1	3.6	3.9	4.8
2	Communications and Intelligence Specialists	5.3	3.7	4.3	4.1
3	Medical and Dental Specialists	6.3	8.5	7.7	8.5
4	Other Allied Specialists	3.0	2.4	2.5	2.2
5	Functional Support and Administration	16.5	26.1	18.1	20.2
6	Electrical/Mechanical Equipment Repairers	17.8	12.3	16.8	15.6
7	Craftsmen	6.3	4.2	5.2	5.5
8	Service and Supply Handlers	9.6	13.6	11.4	8.3
9	Non-occupational*	10.9	10.9	10.5	12.9
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 1997 Occupational Areas of Selected Reserve Enlisted Personnel, by Gender (Percent)			
Occupational Code and Area		Male	Female
0	Infantry, Gun Crews, and Seamanship Specialists	20.9	3.8
1	Electronic Equipment Repairers	5.1	2.4
2	Communications and Intelligence Specialists	5.0	3.8
3	Medical and Dental Specialists	5.3	16.3
4	Other Allied Specialists	2.9	2.3
5	Functional Support and Administration	14.5	41.7
6	Electrical/Mechanical Equipment Repairers	18.5	5.6
7	Craftsmen	6.5	2.2
8	Service and Supply Handlers	10.7	8.9
9	Non-occupational*	10.6	13.1
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 C-21 (Occupational Area by Component and Gender).

The proportion of Selected Reserve women in technical and craftsmen occupations is relatively low, as illustrated in Table 5.16. Women are nearly three times more likely than men to serve in medical and administrative areas. Because of the proportions of prior service accessions to the Selected Reserve, changes to the distribution of women among Selected Reserve occupations will depend to a considerable extent on the occupational preferences of female accessions; the number of Active Component women in "non-traditional" skills and their willingness to join a Selected Reserve unit upon separating from active duty; and the proportion of technical skill unit vacancies. The April 1993 policy⁷ to open more specialties and assignments to women resulted in significant 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 1997, 4 percent of women served in infantry, gun crew, and seamanship specialties.

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 1997.¹ The force drawdown continued in FY 1997 for Reserve officer accessions (from 16,000 in FY 1996 to 14,000 in FY 1997). The FY 1997 officer corps decreased by about 3 percent from FY 1996 (from 130,000 to 127,000). On the whole, however, the Selected Reserve officer corps of FY 1997 looks similar to the FY 1996 officer corps. Figure 6.1 shows the Reserve Component officer corps end-strengths for FYs 1974 to 1997.

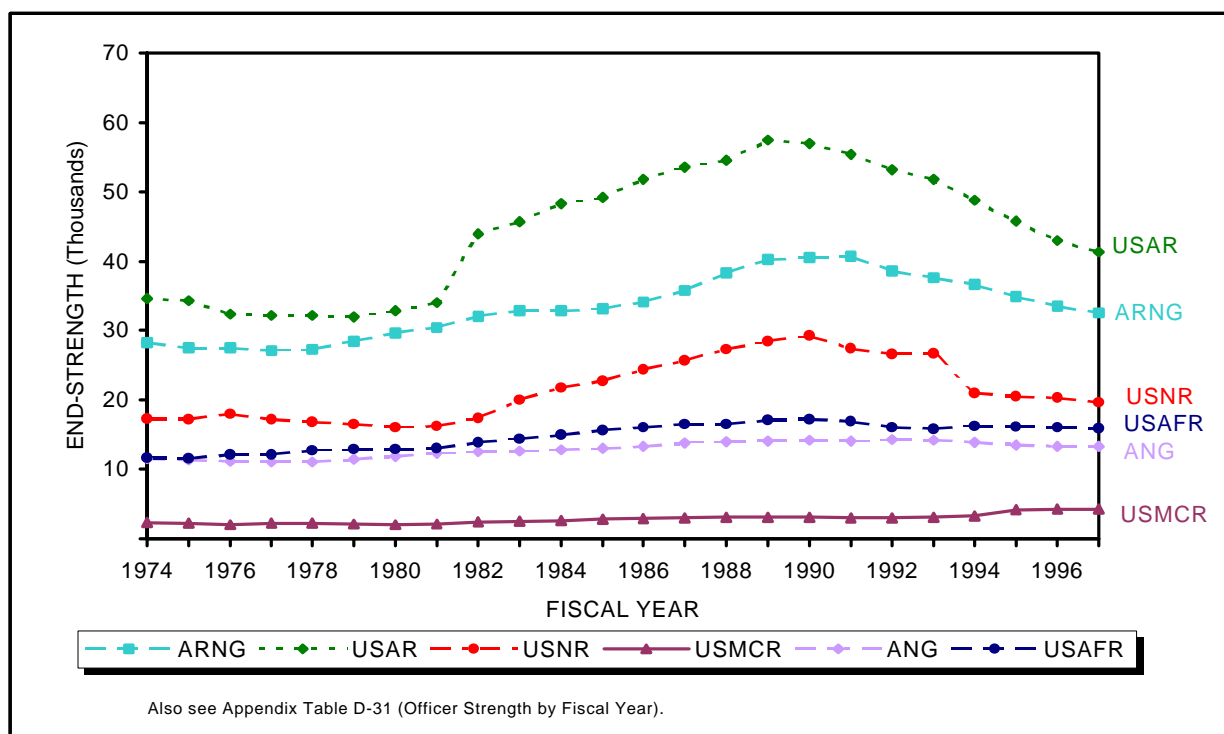


Figure 6.1. Reserve Component officer corps end-strength, FYs 1974-1997.

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 57 percent of Reserve officer accessions and 58 percent of Reserve officer end-strength. With the exception of the USAR and ANG, all components' accessions decreased in FY 1997. Even with the increases in Army Reserve and Air National Guard accessions, though, their end-strengths decreased along with the remaining components.

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 1997 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	2,048	14.2	32,585	25.7
Army Reserve	6,095	42.4	41,304	32.5
Naval Reserve	2,487	17.3	19,664	15.5
USMC Reserve	929	6.5	4,232	3.3
Air National Guard	1,054	7.3	13,306	10.5
Air Force Reserve	1,766	12.3	15,918	12.5
Total	14,379	100.0	127,009	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 Components affect the age composition of the officer corps as shown in Figure 6.2. The USAR and USAFR have the largest proportions of officers aged 40 and older (53 and 54 percent, respectively). Conversely, the ARNG and USMCR have the smallest proportions of officers 40 or older (34 and 40 percent, respectively). The ARNG and USAR have the greatest proportions of officers aged 29 and younger (20 and 10 percent, respectively).

Recruiting policies affect the age structure of the Selected Reserve officer corps. As in the Active Components, 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. The percentages of FY 1997 Selected Reserve officer accessions and officer corps by race/ethnicity are shown in Table 6.2. The proportions of Black and Hispanic officer accessions in the Selected Reserve are comparable to the proportions in the Active Component (Blacks: Active - 8 percent, Reserve - 8 percent; Hispanics: Active - 4 percent, Reserve - 3 percent). In FY 1997, the Active Component accessed more new officers of "Other" race/ethnicity than the Selected Reserve (7 percent versus 5 percent), but the Reserve Component maintained the same proportion as the Active Component of "Others" in their officer corps (4 percent each).

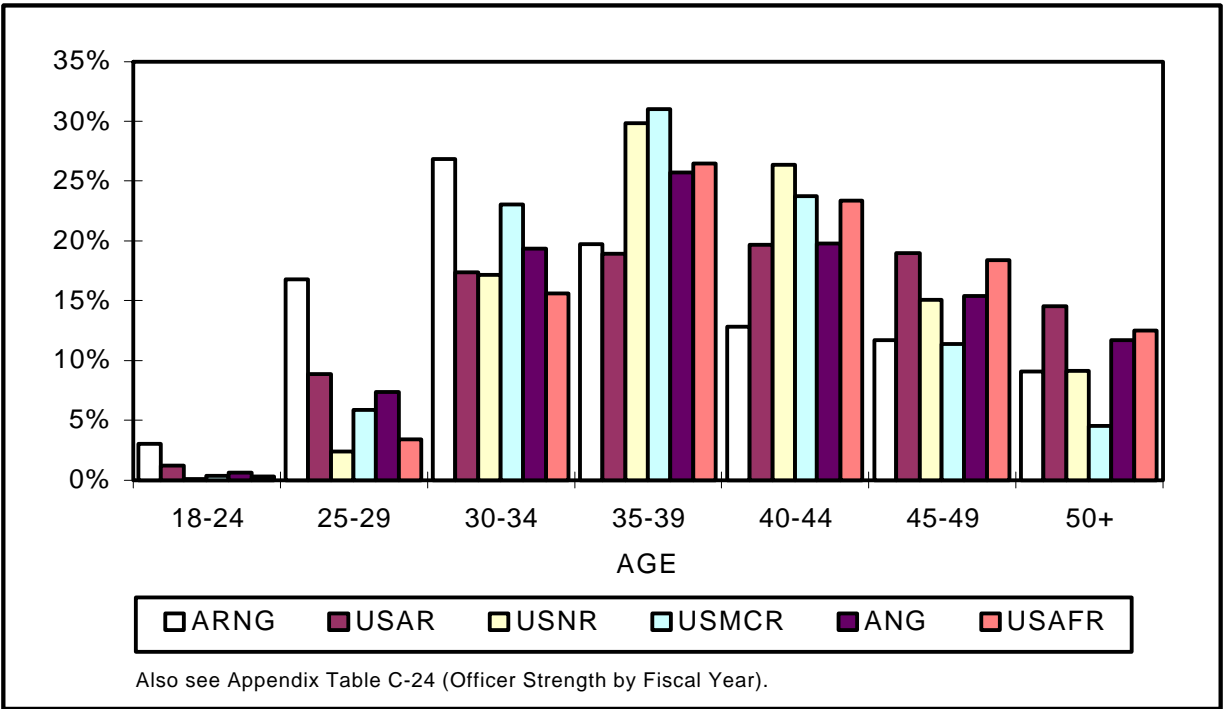


Figure 6.2. Percent of Selected Reserve officer corps by age group, FY 1997.

The Army components of the Selected Reserve have the highest proportions of Black and Hispanic officers (Blacks: ARNG 7 percent/USAR 14 percent; Hispanic: both 4 percent), while the USNR has the lowest (Blacks: 3 percent; Hispanics 2 percent). In the remaining components, the proportions of Black officers range from 4 to 6 percent and the proportions of Hispanic officers are all approximately 3 percent.

Gender. Women comprise 19 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 the same as the Active Components (both 19 percent). However, the proportion of women in the Selected Reserve officer corps is larger than in the Active Component (18 and 14 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 6 percent, while 25 percent of both USAR and USAFR officers are female. Reasons for this divergence are discussed in the portion of this chapter dealing with the occupational assignment of officers.

Table 6.2. FY 1997 Selected Reserve Officer Accessions and Officer Corps, by Race/Ethnicity (Percent)					
Component	White	Black	Hispanic	Other	Total
SELECTED RESERVE OFFICER ACCESSIONS					
Army National Guard	83.8	6.7	4.9	4.5	100.0
Army Reserve	79.3	12.0	3.3	5.5	100.0
Naval Reserve	90.1	3.3	2.6	4.1	100.0
USMC Reserve	88.1	5.3	3.0	3.7	100.0
Air National Guard	85.4	7.1	2.8	4.7	100.0
Air Force Reserve	86.9	5.8	2.5	4.9	100.0
Total DoD	83.7	8.2	3.3	4.9	100.0
SELECTED RESERVE OFFICER CORPS					
Army National Guard	85.5	7.4	4.4	2.8	100.0
Army Reserve	77.9	13.8	3.7	4.6	100.0
Naval Reserve	91.2	3.4	1.7	3.7	100.0
USMC Reserve	90.6	4.4	2.5	2.4	100.0
Air National Guard	87.5	4.7	3.0	4.8	100.0
Air Force Reserve	88.1	5.6	2.5	3.8	100.0
Total DoD	84.6	8.2	3.3	3.8	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 1997 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	11.4	24.2	16.0	5.9	19.5	22.8	19.2
Officer Corps	9.4	24.7	17.4	5.6	14.0	24.5	17.9
Also see Appendix Table C-25 (Gender by Component).							

Marital Status. In FY 1997, 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 Components, more males were married than females. As detailed in Appendix Table C-26, the proportion of married male Selected Reserve officers (77 percent) is larger than the proportion of the male civilian college graduate labor force who are married (71 percent). However, the proportion of married female Selected Reserve officers (56 percent) is lower than for their comparable female civilian college graduate labor force who are married (62 percent).

Table 6.4. FY 1997 Married Selected Reserve Officers and Enlisted Members, by Gender, and Civilians (Percent)						
Gender	Reserve Officer Accessions	21-35 Year-Old Civilian College Graduates	Reserve Officer Corps	Civilian College Graduates in the Work Force	Reserve Enlisted	18-49 Year-Old Civilians
Male	60.7	50.2	77.4	71.3	54.1	57.4
Female	43.2	55.4	55.8	62.3	37.0	54.9
Total	57.3	53.0	73.5	67.2	51.6	56.2
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 1996 – September 1997.						

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. For example, in FY 1997, 20 percent of ARNG officer accessions received their commissions through the ARNG Officer Candidate Schools (OCS) located in each state and territory; 29 percent of ANG officer accessions were commissioned through its Academy of Military Science (AMS) located in Tennessee (Table 6.5).

Table 6.5. FY 1997 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	1.9	2.7	10.3	3.9	8.0	9.0	5.1
ROTC- Scholarship	8.9	4.7	14.5	0.0	6.7	12.4	7.8
ROTC- No Scholarship	19.7	14.5	3.0	12.7	15.3	16.8	13.5
OCS/OTS/PLC	3.9	3.0	21.8	83.4	12.2	16.3	13.9
ANG AMS/ARNG OCS	20.2	1.9	0.0	0.0	29.1	2.5	6.1
Direct Appointment	11.0	19.4	40.8	0.0	26.6	42.5	24.0
Other	33.4	0.8	6.3	0.0	2.1	0.7	6.4
Unknown	1.0	53.0	3.3	0.0	0.0	0.0	23.2
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).							

The variation in levels of reliance on the various sources of commission by the Reserve Components is evident in Table 6.5. In the USNR and USAFR, the largest source of commissions was through direct appointments. The overwhelming majority of USMCR officer accessions (83 percent) obtained their commissions through OCS or the Marine Corps Platoon

Leader Class (PLC). PLC is a split-training program where 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 6 percent of officer accessions are commissioned from other programs, primarily through the aviation cadet and aviation training programs.²

Education. The Reserve Components also tend to vary in the educational attainment levels of their officer accessions (Table 6.6). Overall in FY 1997, 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 (99.6 percent). In the other components, the percentage of officer accessions with degrees ranged from 70 percent in the ARNG to 91 percent in the USAFR.

Table 6.6. FY 1997 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	30.2	14.7	0.4	9.8	22.2	9.4	15.2
College Graduate (B.A., B.S., etc.)	57.1	61.5	62.7	72.0	54.4	50.7	59.5
Advanced Degree (M.A., Ph.D., etc.)	12.7	23.8	36.9	18.2	23.4	39.8	25.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SELECTED RESERVE OFFICER CORPS							
Less than College Graduate	20.7	11.7	0.1	1.5	5.6	3.8	10.4
College Graduate (B.A., B.S., etc.)	59.8	54.3	59.1	70.6	66.2	48.9	57.6
Advanced Degree (M.A., Ph.D., etc.)	19.5	34.0	40.8	28.0	28.3	47.3	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 78 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

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

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 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 (56 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 39 percent, respectively), but a greater proportion of officers in health care (22 and 19 percent, respectively).

Table 6.7. FY 1997 Occupational Areas of Active and Selected Reserve Officer Corps (Percent)		
Occupational Area	Active Components	Reserve Components
General Officers and Executives *	0.4	0.4
Tactical Operations	38.6	34.2
Intelligence	5.0	5.2
Engineering and Maintenance	11.8	10.1
Scientists and Professionals	4.9	6.3
Health Care	18.8	21.5
Administration	5.9	7.7
Supply, Procurement, and Allied Occupations	8.7	10.3
Non-Occupational**	5.9	4.2
Total	100.0	100.0
<small>* Reserve Component calculations do not include 770 O-6 officers classified as general or executive officers by the Services (1 - ARNG, 1 - USAR, 305 - USMCR, 314 - ANG, and 149 - USAFR). ** Non-occupational includes patients, students, those with unassigned duties, and unknowns. Also see Appendix Tables B-29 (Occupational Area by Service and Gender) and C-31 (Occupational Area by Component).</small>		

Differences in occupational assignment among the Reserve Components are shown in Table 6.8. With the exception of the USAR and the USAFR, 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 (48 and 57 percent, respectively). The USAR and USAFR have the smallest proportions of officers in tactical operations (20 and 27 percent, respectively).

Table 6.8. Comparison of FY 1997 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	39.4	6.5	9.8	4.1	21.7	5.8	10.4	1.8
Army National Guard	0.6	48.1	2.5	8.1	3.6	10.9	6.5	10.2	9.6
Army Reserve	0.2	19.9	4.8	8.8	9.3	30.7	9.2	13.2	3.8
NAVY									
Active Component	0.4	39.1	4.0	9.9	3.9	20.8	5.0	5.6	11.4
Naval Reserve	0.2	38.5	10.5	10.2	3.6	22.6	6.3	7.1	0.9
MARINE CORPS									
Active Component	0.5	52.7	4.0	7.9	2.7	0.0	5.5	12.5	14.2
USMC Reserve	0.3	57.4	5.0	8.1	5.8	0.0	6.4	15.5	1.4
AIR FORCE									
Active Component	0.4	34.6	4.6	15.8	6.8	18.7	6.8	8.7	3.8
Air National Guard	0.9	40.6	2.6	16.7	4.4	15.6	10.1	6.7	2.6
USAF Reserve	0.5	26.7	7.3	12.5	9.3	28.5	5.9	8.7	0.6
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 770 O-6 officers classified as general or executive officers by the Services (1 - ARNG, 1 - USAR, 305 - USMCR, 314 - ANG, and 149 - USAFR).									
Also see Appendix Tables B-29 (Occupational Area by Service and Gender) and C-30 (Occupational Area by Component).									

Many Selected Reserve officers are health care professionals. The USAR and USAFR have the greatest proportion of officers in health care occupations (31 and 29 percent, respectively). Health care comprises the second largest percentage of officers in the ARNG and USNR (11 and 23 percent, respectively). Relatively few Reserve officers are in intelligence, science and professional, and administrative occupations.

Representation of women within occupations. The occupational assignments by gender of Selected Reserve officers are shown in Table 6.9. More than half (54 percent) of all female officers are assigned to health care positions and 13 percent to administration positions. 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 34 percent in the ARNG to 60 percent in the USAR. Two percent of USAR female officers hold tactical operations positions compared to 9 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.

Table 6.9. FY 1997 Occupational Areas of Selected Reserve Officer Corps, by Gender (Percent)			
Occupational Area	Male	Female	Total
General Officers and Executives*	0.5	**	0.4
Tactical Operations	40.9	3.9	34.2
Intelligence	5.2	5.1	5.2
Engineering and Maintenance	10.8	7.0	10.1
Scientists and Professionals	7.0	3.1	6.3
Health Care	14.4	54.3	21.5
Administration	6.4	13.2	7.7
Supply, Procurement, and Allied Occupations	10.4	10.1	10.3
Non-Occupational***	4.4	3.3	4.2
Total	100.0	100.0	100.0
Columns may not add to total due to rounding.			
* Calculations do not include 752 male and 18 female O-6 officers classified as general or executive officers by the Services.			
** Less than one-tenth of one percent.			
*** Non-occupational includes patients, students, those with unassigned duties, and unknowns.			
Also see Appendix Table C-31 (Occupational Area by Component and Gender).			

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 (27 and 30 percent, respectively).

As detailed in Appendix Table C-32, there are race/ethnicity differences between Reserve Components by occupational areas. The most noticeable demonstration of these differences appears in tactical operations, where the greatest differences are in the ANG (42 percent of Whites compared to 20 percent of Blacks). In the health care occupations, the largest diversity is in the USAFR where 43 percent of Blacks, 42 percent of "Other" racial categories, and 34 percent of Hispanics serve in health care, compared to 27 percent of Whites.

Table 6.10. FY 1997 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	0.4	0.3	0.4
Tactical Operations	36.2	18.9	29.9	27.1	34.2
Intelligence	5.5	2.5	4.0	5.1	5.2
Engineering and Maintenance	9.9	11.9	11.3	10.7	10.1
Scientists and Professionals	6.7	4.5	4.1	4.8	6.3
Health Care	20.6	27.1	22.7	29.7	21.5
Administration	7.1	12.9	9.3	7.3	7.7
Supply, Procurement, and Allied Occupations	9.6	17.2	12.9	8.8	10.3
Non-Occupational**	4.0	4.8	5.4	6.3	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 745 White, 7 Black, 6 Hispanic, and 12 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 1997 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 from

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.

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

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 1991-1996*.

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.

of socioeconomic status, which together may represent the construct 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 socioeconomic 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

The Survey of Recruit Socioeconomic Backgrounds, first administered in March 1989, is currently administered on a continuing basis at recruit training centers. Participants answer 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 is 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 Cho¹⁶ 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

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.

Warren¹⁸ 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. For the civilian population, the TSEI can be calculated from information included in the Current Population Survey, conducted by the Bureau of the Census.

In FY 1997, the Survey of Recruit Socioeconomic Backgrounds was given to both active duty and Reserve Component recruits without prior military experience. Approximately 15,200 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.

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 saying 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 1997 recruit survey and civilian comparison data from the CPS. These data provide several measures of socioeconomic status, including the SEI scores.

Family Status. The Survey of Recruit Socioeconomic Backgrounds asks respondents to indicate the people who were in their household when they last lived with their parents, step-parents, or guardians. More than 68 percent of accessions indicated that they lived with both father and mother,²² 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 least for the Army (66 percent) and greatest for the Air Force (72 percent). There were no 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, although accessions were slightly less likely to live with both father and mother.

Table 7.1. Parents in Family of FY 1997 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	7.3	7.6	7.4	6.5	7.2	7.6	7.3	6.0
Mother, Stepmother, or Female Guardian	27.2	24.0	22.3	21.7	24.6	24.2	24.5	23.6
Both	65.5	68.4	70.4	71.8	68.2	68.2	68.2	70.5

Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1996 - September 1997.

Education. CPS fathers were somewhat better educated than DoD fathers (Table 7.2). The CPS fathers were more likely to have graduated from college (28 percent for CPS and 24 percent for DoD) than DoD fathers, while DoD fathers were more likely to have had less than four years of college (28 percent for DoD and 25 percent for CPS). The percentage of fathers who have attended college, whether or not they graduated, was nearly the same for DoD (52 percent) and CPS (53 percent) fathers. The overall pattern was similar for mothers but the differences were smaller, at 2 percent or less.

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 (24 percent for DoD and 28 percent for CPS) than among mothers (20 percent for DoD and 21

²² 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.

percent for CPS). Mothers, on the other hand, were more likely than fathers to be a high school graduate or to have some college. Mothers and fathers in both the DoD and the CPS groups were equally likely to have less than a high school diploma.

Table 7.2. Education of Parents of FY 1997 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	15.0	19.5	13.1	16.8	16.3	16.7	15.5
High School Graduate	31.8	31.7	30.9	31.9	31.6	30.6	31.4	31.9
Some College (No 4-Yr. Degree)	27.0	30.2	27.5	30.3	28.5	27.6	28.3	24.5
College Graduate*	22.9	23.1	22.1	24.6	23.1	25.5	23.7	28.1
MOTHERS								
Less than High School Graduate	17.5	16.4	19.8	11.9	16.7	16.7	16.7	15.2
High School Graduate	34.4	33.5	34.3	36.2	34.5	34.2	34.4	36.4
Some College (No 4-Yr. Degree)	29.6	29.3	27.6	32.2	29.6	27.5	29.1	27.2
College Graduate*	18.5	20.8	18.3	19.7	19.3	21.6	19.8	21.3
<small>Columns may not add to 100 percent due to rounding. * College graduate includes "greater than college graduate" level. Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1996 - September 1997.</small>								

Differences in parent education among the active duty Military Services were greater in some respects than the differences between DoD and CPS parents. Parents of Air Force accessions had the most advanced educational credentials. Both Air Force fathers and mothers were more likely to have at least a high school diploma (87 percent for fathers and 88 percent for mothers) than the overall active duty average (83 percent for both fathers and mothers). They were also more likely to have attended or graduated college (55 percent for fathers and 52 percent for mothers) than the active duty average (52 percent for fathers and 49 percent for mothers). On the other hand, parents of Marine Corps accessions were less likely to have attended or graduated from college (50 percent for fathers and 46 percent for mothers) than the active duty average, although the difference for fathers was small. There were no differences of note in parent education between parents of active duty and Reserve Component accessions.

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.²³ Thus, the measure of recruit mothers' education becomes important as an indicator of high-quality recruits. Approximately 20 percent of recruit mothers earned a college degree or better; an additional 29 percent accrued some college credits.

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 were more likely to own their home if their child enlisted in the Air Force rather than one of the other Services. Finally, both DoD and CPS fathers were more likely to own their home than mothers, who were more likely to rent.

Table 7.3. Home Ownership Status of Parents of FY 1997 NPS Recruits, by Gender and Service, with Civilian Comparison Group (Percent)								
Residence	Active Component				DoD Subtotal		Total	
	Army	Navy	Marine Corps	Air Force	Active Duty	Guard/ Reserve	DoD	CPS
FATHERS								
Own	77.5	78.1	75.9	79.5	77.7	77.8	77.7	83.8
Rent	17.7	17.1	18.3	15.5	17.3	17.1	17.3	15.3
Other	4.8	4.8	5.9	5.0	5.0	5.1	5.0	1.0
MOTHERS								
Own	70.0	71.6	71.6	73.9	71.3	72.4	71.6	76.6
Rent	25.5	24.1	22.7	21.0	24.0	22.9	23.7	22.4
Other	4.5	4.3	5.6	5.0	4.8	4.8	4.8	1.0

Cells may not sum to 100 percent due to rounding.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1996- September 1997.

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.²⁴ 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

²³ 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.

²⁴ See Bureau of the Census, *Statistical Abstract of the United States: 1997* (Washington, DC: U.S. Government Printing Office, 1992), p. 395, 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.²⁵ 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 (78 percent for DoD mothers and 73 percent for CPS mothers).²⁶ Fathers were more likely to be employed than mothers, but there were no differences in employment between CPS and DoD fathers (89 percent of CPS and DoD fathers were employed). Employment rates were very similar across Services and components.

Gender of Parent	Active Component				DoD Subtotal		Total	
	Army	Navy	Marine Corps	Air Force	Active Duty	Guard/ Reserve	DoD	CPS
Male	88.5	90.0	89.7	90.5	89.5	88.1	89.1	88.5
Female	76.2	78.4	78.4	79.0	77.7	78.7	77.9	72.7

DoD percentages exclude "no longer living" and "don't know" responses.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 1996 - September 1997.

Occupation.²⁷ 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, or transportation. They were also slightly more prevalent in protective service occupations and as technicians. DoD mothers were more likely than their CPS counterparts to be in service occupations. Finally, both DoD fathers and mothers were more likely to be in the military than were CPS parents.²⁸ There were no significant differences between the occupations of Active and Reserve Component parents.

²⁵ Approximately 7 percent of recruits' fathers, 16 percent of recruits' mothers, 9 percent of CPS fathers, and 24 percent of CPS mothers were reported as "not in the labor force."

²⁶ 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.

²⁷ 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.

²⁸ 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

Table 7.5. Parents of FY 1997 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	14.7	13.0	18.3	9.5	8.4	13.0
Professional	8.3	8.4	13.8	15.1	15.2	18.8
Technicians & Related Services	4.4	4.8	2.4	4.6	4.6	3.8
Sales	6.8	6.6	10.2	10.2	9.6	9.9
Clerical & Administrative Support	4.8	4.3	4.8	27.5	26.0	25.1
Protective Services	4.8	4.3	2.4	0.9	1.0	0.6
Other Service Occupations	3.5	3.7	4.5	18.4	19.5	16.0
Farming, Forestry, & Fishing	3.0	3.0	4.0	0.7	0.9	1.3
Precision Production, Craft, & Repair	27.4	27.6	21.4	2.8	3.2	2.6
Machine Operators	6.1	7.0	7.5	5.1	6.8	6.4
Transportation	9.7	11.2	7.5	1.5	1.8	1.0
Handlers, Helpers, Laborers	3.4	3.3	3.4	2.5	2.5	1.7
Military	3.2	3.0	**	0.3	0.5	**
Columns may not sum to 100 percent due to rounding.						
* Those not classified (17.1 percent of male parents and 28.0 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 1996 - September 1997.						

Socioeconomic Index Scores. Socioeconomic index scores reflecting the education, income, and prestige associated with different occupations were computed from responses to DoD and CPS surveys. We used an index developed by Hauser and Warren,²⁹ based on occupational prestige ratings obtained in 1989,³⁰ and characteristics of the workforce measured in the 1990 Census. Although separate indices exist for males and females, we used the Total

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.

²⁹ 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).

³⁰ 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.

Socioeconomic Index (TSEI), following the recommendations of the index developers. The 1990 Census made several changes in the occupational codes that are reflected in the reported scores.

The occupational data in Table 7.5 show that DoD parents were underrepresented in certain high-prestige occupational categories, such as executive and professional occupations. Socioeconomic index scores summarize the differences in prestige between occupations, as assessed by the education required and the earnings provided. Each occupational category includes a variety of jobs with different levels of prestige. The socioeconomic indices are based on individual occupations, so that a certain range of index values includes occupations of similar prestige across different occupational areas.

The TSEI scores ranged from 7 to 81 for both DoD and CPS fathers. Figure 7.1 shows the distribution of TSEI scores for active duty, Reserve Component, and CPS fathers. Both Active and Reserve Component fathers were overrepresented in three of the lowest four TSEI categories. Furthermore, DoD fathers were underrepresented in nine of the highest 10 categories.

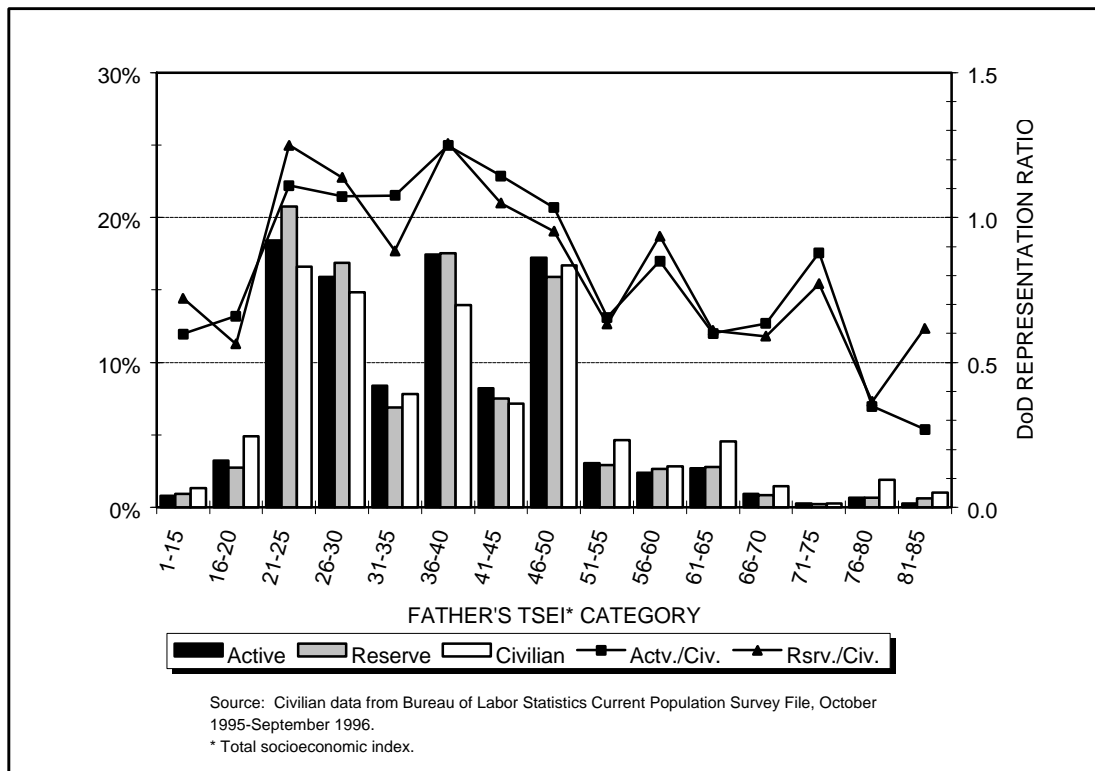


Figure 7.1. TSEI distribution for DoD and CPS fathers with DoD representation ratio.

The highest four categories represent only 4 percent of the CPS population and 1 percent of the DoD population.

The lines in Figure 7.1 are the active duty and Reserve representation ratios for the TSEI ranges. That is, each line shows the ratio of the percentage of DoD fathers (either active duty or Reserve Component) in the range to the 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.

The representation ratios for active duty and Reserve Component fathers were nearly identical; 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 86 percent of DoD fathers. This difference produces a representation ratio of 1.1, indicating a slightly larger proportion of DoD fathers than CPS fathers in this range. For TSEI scores between 51 and 75, DoD representation decreased. It averages 0.69 over the range, which encompasses 9 percent of DoD fathers and 14 percent of CPS fathers. DoD representation was lowest for the two highest TSEI categories; one percent of DoD fathers and 3 percent of CPS fathers were included in these categories. Thus, enlisted accessions tend to have fathers with occupations that come from families in the middle of the TSEI distribution, with both the high and low extremes underrepresented.

Mothers' TSEI scores ranged from 7 to 81 for both DoD and CPS mothers. As was the case with fathers, the TSEI distribution was nearly identical for Active and Reserve Components. As shown in Figure 7.2, the pattern of results for mothers is similar to the pattern for fathers shown in Figure 7.1. DoD mothers were underrepresented in both the lowest two and highest two TSEI categories, with representation ratios of approximately 0.8 and 0.4, respectively. The range of TSEI between 21 and 45 included a larger proportion of DoD mothers than CPS mothers (for a representation ratio of 1.1). Finally, the representation of DoD mothers generally decreased in the range of TSEI scores from 46 to 75, with some exceptions. Since the Survey of Recruit Socioeconomic Backgrounds excludes officer accessions, it would be expected to understate the status of DoD parents.

Although both DoD mothers and fathers 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. However, because a particularly common job among CPS fathers occurred at the boundary between the third and fourth quartile, the third quartile contained approximately 30 percent of the population, while the fourth quartile contained 20 percent. This anomaly tends to produce a lower representation for DoD fathers in the fourth quartile, and higher representation in the third quartile.

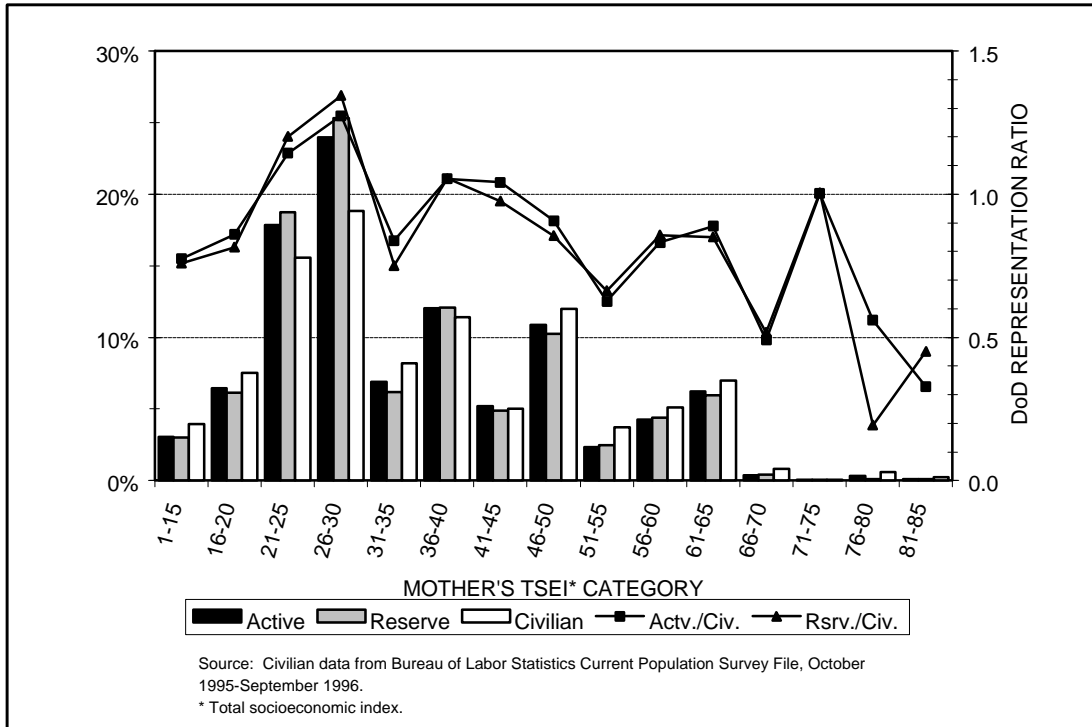


Figure 7.2. TSEI distribution for DoD and CPS mothers with DoD representation ratio.

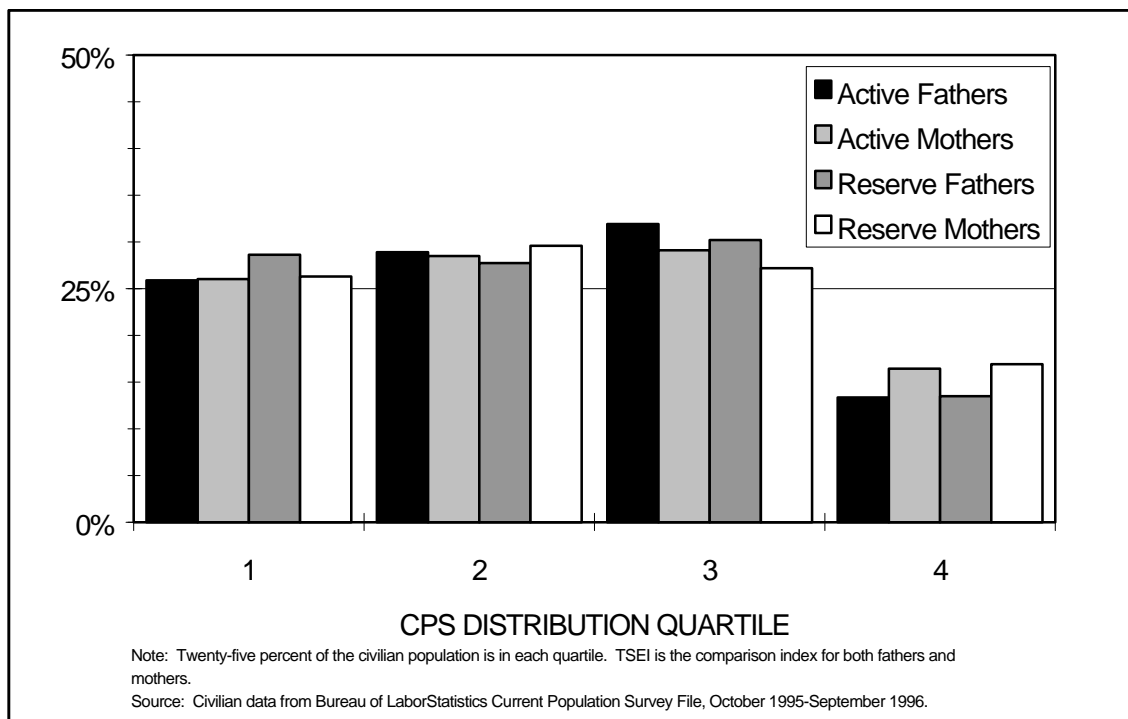


Figure 7.3. DoD TSEI distribution related to CPS distribution quartiles.

Figure 7.3 shows that the fourth quartile of the TSEI distribution was underrepresented among enlisted accessions. This difference was exaggerated among fathers because of the discontinuity in the CPS distribution described previously. Otherwise, there were no substantial differences between mothers and fathers or between active duty and Reserve Component accessions. The deficit in the fourth quartile seems to be evenly distributed among the other three quartiles. There is no indication that enlisted personnel are drawn primarily from the lowest social strata.

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 probably increase the representation of higher social strata among military accessions, but would not eliminate differences between DoD and CPS parents.

Chapter 8

REPRESENTATION IN FISCAL YEAR 1997 DEPLOYMENTS TO BOSNIA¹

One critical reason for monitoring social representation within the military stems from the difficulties and dangers Servicemembers face during deployments. As individuals and units respond to threats to our national security and vital interests in distant lands, it is incumbent upon personnel policy makers to consider the background of those deployed so as to monitor whether undue burdens are being placed on particular social and/or demographic groups.

Operations Joint Endeavor and Joint Guard in Bosnia represent one of the recent multinational security missions in which American military members have participated. To help enforce the Bosnia Peace Agreement, less than 2 percent of Active Component (more than 21,000 commissioned officers and enlisted personnel) and less than 1 percent of Selected Reservists (approximately 3,000 commissioned officers and enlisted members) were deployed to Bosnia and Herzegovina during FY 1997 (Figure 8.1). Active duty enlisted members provided the backbone for the peacekeeping mission, comprising the bulk of those deployed. Nearly two-thirds of the troops sent to this area were members of the Army, with the Air Force providing about one-third of the contingent (Figure 8.2). Very few enlisted members or commissioned officers from the Navy and Marine Corps participated in the Bosnia mission during FY 1997.

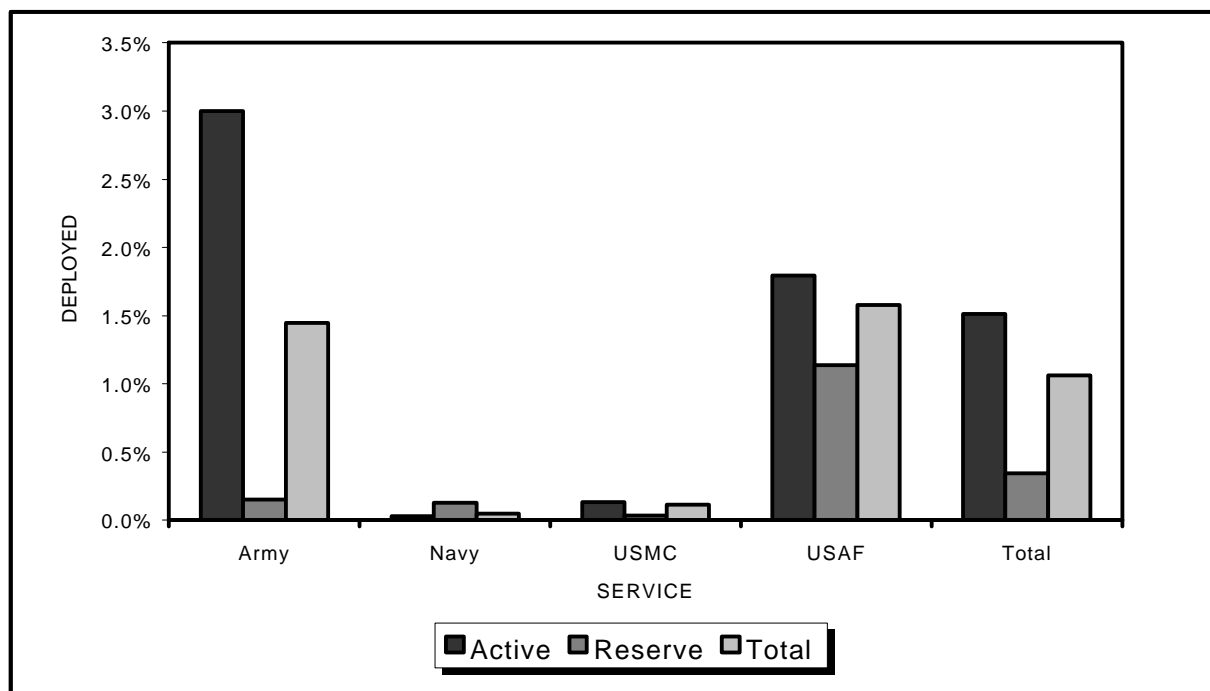


Figure 8.1. Percent of Total Active and Reserve Component Forces deployed to Bosnia by Service in FY 1997.

¹ The data on which this chapter is based include forces serving in Bosnia during FY 1997.

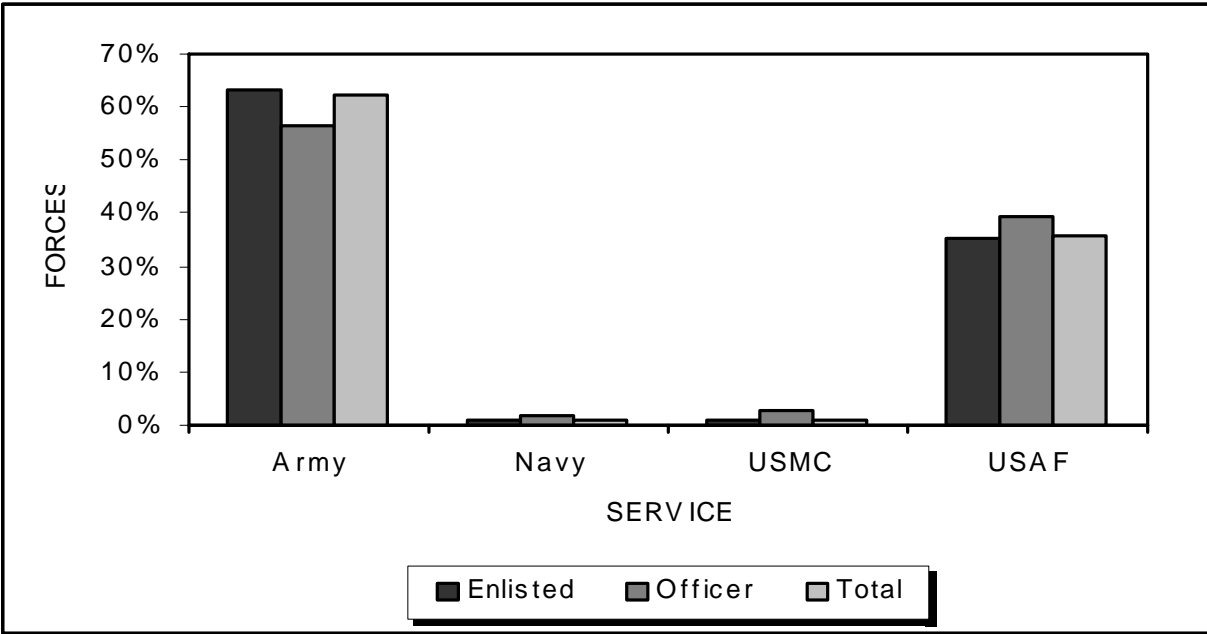


Figure 8.2. Distribution of forces deployed to Bosnia by Service, FY 1997.

Characteristics of Enlisted Personnel and Commissioned Officers Deployed to Bosnia

This chapter provides a description of the Servicemen and Servicewomen assigned to Bosnia and Herzegovina during FY 1997. Characteristics of interest include gender, race/ethnicity, and occupational assignment.

Gender. Table 8.1 presents the breakdown by gender and component of those deployed to Bosnia as compared to the Total Force. In general, women tended to be underrepresented in this mission as compared to their role in the active duty and Reserve forces. For instance, while 14 percent of all active enlisted personnel are women, only 9 percent of the active enlisted forces sent to Bosnia were women. Similarly, underrepresentation of women serving in Bosnia was found among the Active Component officer corps and both enlisted members and commissioned officers in the Selected Reserves. This is not due to any assignment bias against deploying women; rather, it results from the occupational mix of military units in Bosnia.

Occupational representation provides insight into the underrepresentation of women among those members deployed to Bosnia. For instance, the two most frequently represented occupational categories were infantry and electrical. These two job clusters accounted for approximately 46 percent of the troops deployed to the Bosnia region. Among enlisted women, however, only 13 percent hold jobs that are included in the occupational areas of electrical/mechanical equipment repairers and infantry, gun crews, and seamanship.² Therefore, the underrepresentation of women in Bosnia seems to be at least in part a function of the types of personnel required to carry out the missions of Operations Joint Endeavor and Joint Guard.

² Although women do not serve in infantry positions, they do serve in other positions, such as gun crews, air crews, and seamanship positions, which are included in the “infantry” occupational area.

Table 8.1. Gender of FY 1997 Enlisted Personnel and Commissioned Officers Deployed to Bosnia by Component Compared to the Total Force (Percent)									
Gender	Enlisted			Officer			Total		
	Active	Reserve	Total	Active	Reserve	Total	Active	Reserve	Total
Bosnia									
Male	90.7	90.4	90.7	92.0	86.8	90.4	90.9	88.9	90.6
Female	9.3	9.6	9.3	8.0	13.2	9.6	9.1	11.1	9.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Force									
Male	86.3	85.2	85.9	85.9	82.1	84.5	86.2	84.8	85.7
Female	13.7	14.8	14.1	14.2	17.9	15.5	13.8	15.2	14.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Also see Appendix Tables E-1 (Active Enlisted by Gender), E-4 (Active Officer Corps by Gender), E-6 (Reserve Enlisted by Gender), and E-9 (Reserve Officer Corps by Gender) for numbers deployed to Bosnia and B-25 (Active Enlisted by Gender), B-32 (Active Officer Corps by Gender), C-17 (Reserve Enlisted by Gender), and C-25 (Reserve Officer Corps by Gender) for Total Force comparisons.

Race/Ethnicity. The racial/ethnic composition of enlisted personnel and officers deployed to Bosnia is compared to the Total Force in Table 8.2. In general, the make-up of active duty forces deployed to Bosnia during FY 1997 was representative of the Total Force. There was a slight overrepresentation of Whites and underrepresentation of Hispanics. The race/ethnicity differences between the Bosnia and total forces were more pronounced among the Selected Reserves than the Active Component. As in the Total Force, the Active Component force in Bosnia included a larger proportion of minorities than the Reserve Component (31 percent versus 14 percent, respectively).

Table 8.2. Race/Ethnicity of FY 1997 Enlisted Personnel and Officers Deployed to Bosnia by Component Compared to the Total Force (Percent)									
Race/Ethnicity	Enlisted			Officer			Total		
	Active	Reserve	Total	Active	Reserve	Total	Active	Reserve	Total
Bosnia									
White	66.5	86.6	68.2	87.1	84.7	86.4	69.1	85.8	71.2
Black	22.6	6.6	21.1	6.3	7.5	6.7	20.5	7.0	18.8
Hispanic	5.6	2.7	5.4	2.4	2.4	2.4	5.2	2.6	4.9
Other	5.4	4.0	5.2	4.2	5.3	4.5	5.2	4.6	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(Continued)

Table 8.2. Race/Ethnicity of FY 1997 Enlisted Personnel and Officers Deployed to Bosnia by Component Compared to the Total Force (Percent) (Continued)									
Race/Ethnicity	Enlisted			Officer			Total		
	Active	Reserve	Total	Active	Reserve	Total	Active	Reserve	Total
Total Force									
White	64.7	70.1	66.8	85.0	84.6	84.8	67.7	72.1	69.4
Black	22.1	17.9	20.5	7.5	8.2	7.8	19.9	16.5	18.6
Hispanic	7.5	7.4	7.4	3.1	3.3	3.2	6.8	6.8	6.8
Other	5.8	4.6	5.3	4.4	3.8	4.2	5.6	4.5	5.1
Total	100.0	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 E-1 (Active Enlisted by Race/ethnicity), E-5 (Active Officer Corps by Race/ethnicity), E-6 (Reserve Enlisted by Race/ethnicity), and E-10 (Reserve Officer Corps by Race/ethnicity) for numbers deployed to Bosnia and B-25 (Active Enlisted by Race/ethnicity), B-34 (Active Officer Corps by Race/ethnicity), C-17 (Reserve Enlisted by Race/ethnicity), and C-27 (Reserve Officer Corps by Race/ethnicity) for Total Force comparisons.

Occupational Representation. The occupational representation of enlisted members deployed to Bosnia is presented in Table 8.3. In Bosnia during FY 1997, those with infantry, gun crews, and seamanship and electrical/mechanical equipment repair specialties were in greatest demand, constituting 25 and 21 percent, respectively, of the contingent to this area. These same occupations, however, made up only 16 and 20 percent, respectively, of the Total Force in FY 1997.

Overall, administration specialties were underrepresented in Bosnia; 16 percent of the Total Force is assigned to administrative positions, while only 13 percent of jobs in Bosnia fell in this category. This underrepresentation was found consistently across race/ethnicity groups. The exception to this trend was women deployed to Bosnia; they were more likely to serve in administrative support positions than are women in the Total Force.

As with administrative positions, women serving in Bosnia were overrepresented in supply occupations compared to the percentage serving in these positions in the Total Force. Only 11 percent of women in the Total Force occupy supply positions; however, 20 percent of women deployed to Bosnia held these types of jobs.

Table 8.3. Occupational Representation of FY 1997 Active Component Enlisted Members Deployed to Bosnia Compared to the Total Enlisted Force (Percent)								
Occupational Code and Area		White	Black	Hispanic	Other	Male	Female	Total
Bosnia								
0	Infantry, Gun Crews, And Seamanship Specialists	25.9	20.8	30.2	26.3	27.2	3.6	25.0
1	Electronic Equipment Repairers	9.6	7.0	6.8	7.1	9.0	6.0	8.7
2	Communications and Intelligence Specialists	12.2	9.0	9.5	10.5	11.5	8.7	11.3
3	Medical and Dental Specialists	3.3	4.3	4.7	6.8	3.3	8.7	3.8
4	Other Allied Specialists	2.9	2.1	2.1	3.5	2.6	3.5	2.7
5	Functional Support And Administration	9.0	21.6	15.0	15.0	10.2	35.0	12.5
6	Electrical/Mechanical Equipment Repairers	23.6	15.5	20.0	16.6	22.2	11.5	21.2
7	Craftsman	3.1	3.7	2.6	3.8	3.4	2.4	3.3
8	Service and Supply Handlers	10.0	15.4	8.6	9.8	10.2	20.0	11.1
9	Non-occupational*	0.5	0.6	0.7	0.6	0.5	0.7	0.5
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Force								
0	Infantry, Gun Crews, And Seamanship Specialists	16.7	12.3	16.6	14.4	17.6	3.0	15.6
1	Electronic Equipment Repairers	10.9	6.8	7.3	6.5	10.1	5.4	9.5
2	Communications and Intelligence Specialists	9.6	8.2	7.5	5.9	8.8	9.4	8.9
3	Medical and Dental Specialists	6.4	8.3	7.8	10.7	5.6	17.0	7.2
4	Other Allied Specialists	3.2	2.4	2.3	2.5	3.0	2.7	2.9

(Continued)

Table 8.3. Occupational Representation of FY 1997 Active Component Enlisted Members Deployed to Bosnia Compared to the Total Enlisted Force (Percent) (Continued)								
Occupational Code and Area		White	Black	Hispanic	Other	Male	Female	Total
5	Functional Support And Administration	12.4	25.6	17.4	19.0	13.3	33.2	16.1
6	Electrical/Mechanical Equipment Repairers	21.9	15.7	19.4	20.8	22.0	9.8	20.3
7	Craftsman	4.1	3.0	3.3	3.6	4.1	2.0	3.8
8	Service and Supply Handlers	8.0	12.4	9.0	10.0	9.0	10.6	9.2
9	Non-occupational*	6.8	5.1	9.3	6.7	6.5	7.1	6.6
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
Columns may not add to total due to rounding.								
*Non-occupational includes patients, students, those with unassigned duties, and unknowns.								
Also see Appendix Tables E-2 and E-3 for deployments and Tables B-29 and B-30 for total force comparisons.								

Chapter 9

REPRESENTATION: CONTINUING INTEREST AND ISSUES

Before the All-Volunteer Force

Under the draft, especially in times of war, representation was a critical concern. In previous eras, a term of service was a common experience among young men. Participation in the military by minorities was viewed as a road to achieving full acceptance in mainstream American society. However, the potential for career disruption, not to mention bloodshed, required judicious accession policy. It was incumbent upon manpower planners to ensure that the burdens of war did not fall disproportionately upon the shoulders of society's less fortunate sons while upper class White men furthered their education or otherwise avoided the call to arms. This was especially the case during the unpopular Vietnam War, when manpower needs were far short of full mobilization. Representation was key in the consideration of "who serves when not all serve."

After the Draft Ended

When the draft was abolished, representation remained an important, and, at times, contentious issue. Initial forecasts suggested that Blacks would play a dominant role in manning the military. Mounting enlistment rates on the part of minorities were viewed with alarm. Arguments ensued that reliance on the underclass, motivated to enlist because of economic considerations, would detract from military effectiveness. Personnel quality was a problem during the first decade of the All Volunteer Force (AVF), but not because of minority participation. The Services had to learn to advertise and market their "product." What's more, psychometric errors in instituting a new aptitude test led to the inadvertent enlistment of a deluge of low-aptitude recruits from 1976 to 1980.¹

Attention to recruiting, manpower, personnel, and training programs, policies, and practices averted disaster and built up a first-rate fighting force. Relative to population benchmarks, minority youth, Blacks in particular, were more likely than their White counterparts to enlist and remain in service. Women were gaining representation as well, though not anywhere near population or even labor force participation proportions. These trends have continued in the subsequent decades of the AVF and have contributed to the achievement of a high-quality, experienced force.

In contrast to the conscripted force and the early days of the AVF, over the course of the modern volunteer era there has been a concentration on the benefits of service. That is, representation has been examined primarily on the basis of the positive aspects of the military, including employment opportunities, education benefits, and the like. Minority overrepresentation has become a signal that the military is an equal opportunity employer. In fact, the drawdown in response to the dissolution of the Soviet Union and the end of the Cold

¹ See Laurence, J.H. and Ramsberger, P.F., *Low-Aptitude Men in the Military: Who Profits, Who Pays?* (New York: Praeger, 1991).

War was received with a mixture of joy and woe.² Many feared that the smaller military would mean disproportionately fewer opportunities for minorities. This “benefits” focus on representation was interrupted by the Gulf War with renewed fears of minorities bearing too big a burden. But all-in-all, access to, and participation in, the military on the part of population subgroups continues to be viewed favorably.

Is the Grass Greener?

Periodically, there are laments from some outside the Defense establishment regarding the absence of the draft.³ If only the draft were operating again, the nostalgic arguments go, representation would be assured, declining propensity would be countered, women would not be needed to substitute for men, and all would be well. These assumptions turn out to be more wishful thinking than iron-clad reality.

A draft does not replace voluntary enlistments. Rather, a draft supplements the supply of volunteers *if* necessary. Thus, given the downsized personnel requirements, it is doubtful that a draft would result in proportional representation for major segments of youth. Furthermore, manpower procurement via the draft would likely *lower* personnel quality. Non-graduates and persons with lower aptitude scores would be more vulnerable to Uncle Sam’s draft call than they would be to today’s invitation to enlist.

The Point of Representation

The voluminous data contained in the *Population Representation* report call attention to the characteristics of military personnel—the myriad of people who operate and maintain the high-tech equipment in defense of our nation and its vital interests. Technology, global responsibilities, varied missions and deployments, not to mention our nation’s ideals contribute to the complexity of military roles and readiness. There is no hard and fast, either/or characteristic that guarantees military effectiveness. Rather, success depends on garnering requisite numbers of quality individuals and training them to be responsible, cohesive, technically proficient, duty- and honor-bound unit members.

Military bearing demands many traits that go beyond personal appearance and physical fitness. Soldiers, sailors, marines, and airmen are expected to be loyal, honest, respectful, self-sacrificing, and disciplined. Although age, citizenship, moral character, physical fitness, education, and aptitude screens and policies promote these values, the selection net must be cast deep and wide into America’s demographic melting pot to attract sufficient numbers of available, interested, and qualified recruits. And once attracted, experienced, stable, and motivated members must be retained for the career force.

Members are accessed from White, Black, Hispanic, and other racial/ethnic groups. They come from across the geographic and socioeconomic spectrums of the United States. Practically all have a high school diploma when they enter service as enlisted members. Further, officers

² Laurence, J.H. , *Implications of the Defense Drawdown For Minorities*, paper presented at the Biennial Conference of the Inter-University Seminar on Armed Forces and Society, Baltimore, MD, 1991.

³ See for example, Lippman, T.W., “Socially and Politically, Nation Feels the Absence of a Draft,” *The Washington Post* (September 8, 1998), p. A13.

are college educated from the start and they are encouraged, as are enlisted members, to pursue further education. While military life is oftentimes disruptive to family life, many members have family responsibilities. And today, more than any other time in the military's history, women are a critical component of the military establishment.

Arguments over the "correct" military representation levels of population subgroups are not likely to reach resolution. The continuing need for ample numbers of quality personnel within this regimented institution, with its hardships, risks, and varied missions, requires reliance on all demographic and social segments of America. By monitoring propensity and representation, military personnel planners and policymakers can be attuned to changing societal opinions of the profession of arms. For example, the declining propensity among Black youth in the recent past provided an early warning to those responsible for recruitment and quality-of-life policies and programs. Appropriate action in response to demographic trends is necessary to maintain the AVF and improve America's military.

Military Tradition and Women in the Military

Although there is no correct level of representation for any subgroup, the relatively low participation by women has not raised concern. In economic parlance, women are "demand constrained." However, their presence has increased notably since the inception of the AVF. In the absence of the draft, highly qualified and motivated women have contributed to meeting recruitment and force strength objectives. On average, more women recruits are high school diploma graduates and score higher on the enlistment test than their male recruit counterparts. Women in uniform serve not just in medical specialties but throughout the various occupations. They have taken part in dangerous missions including deployments to Grenada, Panama, Saudi Arabia, and Bosnia.⁴ As more and more positions open to women and they gain status as partners in defense, the controversy over their role ensues.

Even as the military approaches the 50th anniversary of the Armed Forces Women's Integration Act, women in uniform remain somewhat of a curiosity, at least to those outside the military. Gender-integrated basic training practiced by the Army, Navy, and Air Force is currently under review by a Congressionally-mandated commission. This commission follows in the footsteps of a recently completed Defense panel (headed by former Senator Nancy Kassebaum-Baker) convened to review similar policies. And, it wasn't that long ago (1991) that a Presidential commission debated the issue of women in the military and in combat. Although panels have been plentiful, consensus regarding the appropriate military participation of women remains elusive.

Concern over career progression, accounts of sexual harassment, perceptions of double standards with regard to fraternization and adultery, and other affronts to diversity show that obstacles still exist and there is room for improvement with regard to gender relations.⁵ The presence of women in increasing proportions does not ensure acceptance. Readiness and cohesion require that they also be *included, mentored, trained, and prepared* as unit members

⁴ See Manos, A.M. and Hickerson, P.P., *The Emerging Roles of Women in the Army*, paper presented at the 102nd Annual Convention of the American Psychological Association, Los Angeles, CA, August 12, 1994.

⁵ Laurence, J.H., *Women in the Military: Representation and Acceptance*, paper presented at the 106th Annual Convention of the American Psychological Association, San Francisco, CA, August 15, 1998.

rather than eschewed as an affront to military tradition. Since women are key to the success of the modern volunteer force, it is important to take the necessary time to examine their strengths and their roles in the enlisted ranks and officer corps.

E Pluribus Unum

Opening the military's ranks to increasing proportions of women and minorities is not enough. To counter the disruptive aspects of service life and address the concerns of its diverse members, an array of family, community, and transition programs and services is required in addition to meeting fundamental pay, housing, and health care needs. Beyond these basics, commitment to a diverse force calls for more than reporting group proportions. These statistics should guide concerted and continuing efforts to monitor and evaluate assignment progress, prospects, and career progression.

Qualified citizens with a myriad of characteristics must be represented as enlisted personnel, commissioned officers, and warrant officers, on active duty and in the Selected Reserve alike. The smaller military is still a large employer that must attract youth of requisite quantity and quality. Although a military career is not for everyone, the continued success of volunteer recruiting requires continuous participation by all segments of society to fill vital roles and serve their country with honor, courage, and commitment. The commitment to diversity must reach beyond numerical inclusion and proportional representation of women and minorities. Equal opportunity and diversity are core human values that our nation seeks to protect and defend. Who better than the military should embody the American ideal: "e pluribus unum?"