Final Report

# Population Representation in the Military Services 

Fiscal Year 2001

## Chapter 1

## INTRODUCTION

This is the $28^{\text {th }}$ annual Department of Defense (DoD) report on social representation in the U.S. Military Services. In response to a mandate by the Senate Committee on Armed Services (Report 93-884, May 1974), the Directorate for Accession Policy, Office of the Assistant Secretary of Defense (Force Management Policy) has provided annual data addressing the quality and representativeness of military personnel since fiscal year (FY) 1975. Originally, the report was limited to an assessment of the active duty enlisted force only. In keeping with an increased emphasis and reliance on a Total Force, Accession Policy has expanded this effort to include statistics not only for enlisted personnel but also for officers and reservists. In addition to presenting data on each of the Military Services, since FY 1998, data on the U.S. Coast Guard (USCG) have been provided. Although an armed force, the Coast Guard is part of the Department of Transportation except in times of war and national emergency when it reports to the Department of the Navy.

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

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

A special chapter on the impact of the attacks of September 11, 2001 on military recruiting is included in this report. Differences in propensity to join the military before and after the terrorist attacks are examined. Comparisons by gender, race/ethnicity, age, geographic region, and high school grades pinpoint the youth most affected by the events of September $11^{\text {th }}$.

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 comprehensive contents of the Population Representation report.

## Fiscal Year 2001: Military Opportunities

Offering entry-level positions, with paid training and numerous benefits, the Armed Services is one of the largest employers in our nation. In FY 2001, approximately 183,000 nonprior service (NPS) applicants were accepted into the enlisted ranks and about 18,000 new officers joined the officer corps of the Active Components. In addition, about 72,000 NPS enlistees began serving their country in the Selected Reserve during FY 2001. That's about 273,000 job openings annually. At the close of FY 2001, the Total Force stood at just under 1.4 million active duty members and more than 867,000 Selected Reservists. (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 Active Component non-prior service (NPS) recruiting requirements for fiscal years 1950-2010 (projected).

The military provides numerous employment opportunities to today's youth. Members of the Services receive training and work experience in a multitude of occupational specialties from infantry to maintenance and repair to medical to equipment operator to administrator. Servicemembers manage, operate, maintain, and coordinate the use of complicated weapon systems gaining critical technical and leadership experience as they progress through the ranks. With close to 400,000 new jobs each year, the military provides training and experience in a diverse array of technical specialties.

The Armed Forces is host to one of the most diverse workforces in our country, not solely in terms of the numerous types of jobs or missions available. Men and women from various racial and ethnic groups, of different social standing, and from all geographic areas have equal opportunity to seek a military career, provided they meet the basic entry requirements of the Services. Diversity in the forces is now a fact. The Services enlist and commission men and
women from many walks of life, who perform together as a cohesive team to accomplish their missions as they admirably serve to defend our nation.

Serving in the military is not without sacrifice or burden. Servicemembers contribute to national defense in a variety of ways, through warfighting, peacekeeping, humanitarian, and other missions. No single group should bear the brunt of the burden, particularly during times of war, nor profit from the benefits of training, experience, and prestige. Thus, it is important for the Services to strive for a representative force.

With respect to race/ethnicity, the Armed Forces maintain a fairly representative workforce. Blacks continue their historically strong military presence in the enlisted ranks, at levels higher than population proportions. This minority group has achieved representation parity in the officer corps. Hispanics remain underrepresented but are making gains within the enlisted ranks and officer corps. Hispanic representation is important to monitor in light of increasing Hispanic population proportions and related issues of citizenship, English language proficiency, and high school graduation rates.

Unlike racial and ethnic minorities, the role of women in the military is still unsettled if not controversial. Although women comprise half of the youth population, in FY 2001, they made up only 18 and 20 percent of enlisted and officer accessions, respectively. However, these figures are nearly all-time highs in the representation of women entering the military. Before the All Volunteer Force, in FY 1964, less than 1 percent of enlisted accessions were women. Women climbed to 5 percent in 1973 and shortly thereafter, they topped 10 percent. Today, that figure has almost doubled, even in the face of a more streamlined force.

Although much progress has been achieved with regard to gender equity, much work remains. The representation of women has increased and many previously closed positions have been opened to women. The military continues to consider current and future roles for women in uniform.

## The Youth Population

The booming economy of FY 2000 began to falter in FY 2001, with a reduction in manufacturing and an increase in layoffs. The terrorist attacks of September 11, 2001 not only shook American confidence in personal security, but also led to reduced confidence in our economy. ${ }^{1}$ Colleges and universities have been experiencing increasing enrollment rates during the last decade. Add to that, youth attitudes that may not be in sync with military enlistment. All of these factors affected military recruiting during FY 2001. The sharp boost in patriotism across the country following September $11^{\text {th }}$ brought a brief increase in interest in the military, but this did not translate into a significant number of recruits as many of those expressing interest did not meet Service qualifications. ${ }^{2}$ Given the attitudes of the new generation, current recruit marketing must not only reach youth, but inspire patriotism and the volunteer spirit among them.

1 Langdon, D.S., McMenamin, T.M., and Krolick, T.J. "U.S. Labor Market in 2001: Economy Enters a Recession," Monthly Labor Review, 125(2) (2002).

2 Rutherford, G. Impact of September 11, 2001, briefing presented to the Human Resources Research Organization, Alexandria, VA, May 2, 2002.

Recruiters must target men and women, majority and minority members alike. Current recruiting initiatives aimed at addressing the various choices youth have as they enter the workforce are being devised to target those bound for two- and four-year college programs, college dropouts and stopouts, promising high school dropouts, and Hispanic youth.

Attracting and keeping quality troops cannot be taken for granted. In the face of the declining male youth population of the 1980s, recruiting goals were met in large part because of enlistment and retention trends of minorities and women. Minority groups may indeed play a larger role in the future of the military as American society becomes increasingly diverse. By 2020, when babies born today will be eligible to join the military, the Census Bureau projects an increasing minority population, particularly for Hispanics and Asian and Pacific Islanders. ${ }^{3}$ Projections for the next 100 years portend a majority minority scenario, with a nearly $50-50$ split among 18- to 24 -year olds in 2040. Such projected changes in the civilian population warrant continued monitoring of representation in the military.

## Data Sources

The primary sources for this report are computerized data files on military personnel maintained by the Defense Manpower Data Center (DMDC). In addition, the Bureau of Labor Statistics (BLS) provides the bulk of the comparison data on the national population. Though the data sources have remained constant, refinements have been made over the years, most of them in regard to the civilian comparisons. Starting with the report for FY 1994, Census data were adjusted to provide a more accurate comparison for military applicants and accessions (yearly average rather than last month of the fiscal year). Age comparisons for prior-service enlisted accessions to the Selected Reserve were also adjusted, from the 18- to 44-year-old civilian labor force to the 20- to 39 -year-old civilian labor force. Comparisons for Selected Reserve enlisted members were changed from 18 - to 44 -year-old civilians to 18 - to 49 -year-olds. Starting with data for FY 1995, a further age refinement was introduced for comparisons with the officer corps. Previously the comparison group for Active Component officers comprised civilian workforce college graduates who were 21 and older. This was adjusted by establishing an upper bound at age 49 , making the more precise comparison, college graduates aged 21 to 49 who are in the workforce.

In addition, beginning with the FY 1995 Population Representation report, DMDC provided edited, rather than raw, data on applicants for enlistment. In FY 1997, prior service accession data for the Active Components were added. U.S. Coast Guard representation statistics were included for the first time in FY 1998. A refinement to the age range of the civilian comparison group for Active Component prior service enlisted accessions was made in FY 1999. The age range was extended from 18-24 year-olds to 17-35 year-olds, to better reflect the older composition of recruits with previous military experience. Some file format changes at DMDC during FYs 1999 and 2000 introduced some coding changes to more accurately reflect the characteristics of interest. As a result, there are some noticeable differences across years in the historical data. A brief description of the data sources for FY 2001 follows:

[^0]Subject

## Active Components

Applicants to Enlisted Military

Enlisted Accessions

Enlisted Force

Officer Accessions

Officer Corps

September 11th Data

## Reserve Components

Selected Reserve Enlisted and Officer Accessions

Selected Reserve Enlisted Force and Officer Corps

Data Source

DMDC U.S. Military Entrance
Processing Command (USMEPCOM)
Edit Files, October 2000 through September 2001.

DMDC USMEPCOM Edit Files, October 2000 through September 2001.

DMDC Active and Loss Edit File, September 2001.

DMDC Officer Gain Files, October 2000 through September 2001.

DMDC Officer Master and Loss Edit File, September 2001.

DMDC Advertising Tracking Study File, March 4, 2001 - March 23, 2002.

DMDC Reserve Components Common Personnel Data System (RCCPDS), October 2000 through September 2001.

DMDC Reserve Components Common Personnel Data System (RCCPDS), September 2001.

## Civilian Comparisons

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

Civilian Comparisons for Military Entrance Test Data

Bureau of Labor Statistics Current Population Survey Files, October 2000 through September 2001.

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 183,000 young men and women in the Active Components in FY 2001. Recruiting a quality force is as important as ever, perhaps more important, given the smaller number of men and women in the military and the increasing sophistication of weapons and methods for fighting modern wars. Service missions have changed to include peacekeeping and humanitarian efforts, requiring additional skills from today's men and women in uniform.

With the prospering economy of the past few years, recruiters have experienced the greatest challenges to signing up new recruits since the advent of the All Volunteer Force. Although access to post-high school opportunities has expanded in recent years, research suggests that the Service recruiting campaigns are having an impact on the youth of our country. Among today's youth, the military is perceived as providing opportunities, furthering education, helping individuals grow and mature, and contributing to the country. ${ }^{1}$

As the United States experiences relatively low unemployment rates, ${ }^{2}$ employersincluding the military-find recruiting qualified personnel very competitive. An increasing proportion of youth have college aspirations today. Most high school seniors report that they plan to go to college ( 82 percent respond that they definitely or probably will graduate from a 4year college). ${ }^{3}$ More than 63 percent of the graduates of the high school class of 2000 actually enrolled in college in the Fall after their senior year, compared to about half of high school graduates 20 years ago. ${ }^{4}$ By 2001, 58 percent of all 25 - to 29 -year-olds had completed some college and 29 percent had at least a bachelor's degree. ${ }^{5}$ The desire to participate in postsecondary education is important to monitor as propensity of college-bound youth is lower than for those not planning to attend college. ${ }^{6}$ Despite being faced with relatively low propensity, low unemployment rates, and increasing competition with colleges and universities, the hard work of military recruiters and innovative incentive programs helped the Army and Air Force

1 Sellman, W.S., Reinventing DoD Corporate Marketing, briefing presented to the International Workshop on Military Recruitment and Retention in the $21^{\text {st }}$ Century, The Hague, Netherlands, April 2001.

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

3 U.S. Department of Education, The Condition of Education 2001 (NCES 2001-072) (Washington, DC: National Center for Education Statistics, 2001), Table 19-1.

4 U.S. Department of Education, The Digest of Education Statistics 2001 (NCES 2002-130) (Washington, DC: National Center for Education Statistics, 2002), Table 185.

5 U.S. Department of Education, The Condition of Education 2002 (NCES 2002-025) (Washington, DC: National Center for Education Statistics, 2002), Indicator 25.

6 Segal, D.R., Bachman, J.G., Freedman-Doan, P., and O'Malley, P.M., "Propensity to Serve in the U.S. Military: Temporal Trends and Subgroup Differences," Armed Forces \& Society, 25 (1999), pp. 407-427.
meet their FY 2001 active enlisted accession requirements. The Navy and Marine Corps came very close to meeting their accession goals for FY 2001. Programs designed to attract collegebound youth, such as the Army's "College First" program that compensates recruits while they attend college during time in the Delayed Entry Program or in the Selected Reserve, helped the Services attract a high-quality accession cohort (high school graduates with above average aptitude) in FY 2001.7 This chapter introduces the Active Components enlistment process, followed by demographic characteristics of enlisted applicants and recruits.

## The Recruiting Process

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

In addition to providing information to the prospective enlistee, recruiters determine an applicant's eligibility for military service. They ask questions regarding age, citizenship, education, involvement with the law, use of drugs, and physical and medical conditions that could preclude enlistment. Most prospects take an aptitude screening test at a recruiting office. Estimates are that 10 to 20 percent of prospects do not continue beyond this point. ${ }^{8}$

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

AFQT scores, expressed on a percentile scale, reflect an applicant's standing relative to the national population of men and women 18-23 years of age. ${ }^{9}$ 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

7 Rutherford, G., Recruiting from the College-Oriented Market - information paper (Washington, DC: Office of the Assistant Secretary of Defense, July 6, 2001); Defense Manpower Data Center, Enlistment Supply in the 1990s: A Study of the Navy College Fund and Other Enlistment Incentive Programs (DMDC Report 2000-015) (Arlington, VA: Defense Manpower Data Center, 2001).

8 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.

9 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.
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.

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

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 credential.

The system was developed after research indicated a strong relationship between education credentials and successful completion of the first term of military service. ${ }^{10}$ Current research continues to show that education attainment of youth predicts first-term military attrition. ${ }^{11}$ In conjunction with the National Academy of Sciences, the Defense Department developed a mathematical model that links recruit quality and recruiting resources to job

10 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).

11 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.
performance. ${ }^{12}$ The model was then used to establish the recruit quality benchmarks now specified in Defense Planning Guidance. Service programs are required to ensure that a minimum of 90 percent of non-prior service (NPS) recruits are high school diploma graduates. At least 60 percent of recruits must be drawn from AFQT Categories I-IIIA; no more than 4 percent of the recruits can come from Category IV. This DoD policy does not prohibit the Services from setting their own targets above these benchmarks. These benchmarks were set by examining the relationship between costs associated with recruiting, training, attrition, and retention using as a standard the performance level obtained by the reference cohort of 1990, the cohort that served in 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. ${ }^{13}$

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).

There has been a proliferation of alternative credential programs, particularly home schooling, in recent years. According to the latest estimate, in 1999 an estimated 850,000 students were being home schooled, more than double the approximately 345,000 in 1994. ${ }^{14}$ To address such programs, the Department of Defense initiated a pilot study in FY 1999—The Alternative Educational Credential Pilot Program. The goals of the project are: (1) to assess the interest in enlistment of home school graduates and participants earning GED certificates through the National Guard Youth ChalleNGe program, and (2) to evaluate the performance of the alternative credential holders in these programs who do enlist. At the conclusion of the study, the results will be used to provide a recommendation on permanent tier status of home school graduates and ChalleNGe GED applicants. ${ }^{15}$

12 Department of Defense, Review of Minimum Active Enlisted Recruit Quality Benchmarks: Do They Remain Valid? Report to Congress (Washington, DC: Office of the Assistant Secretary of Defense [Force Management Policy], March 2000).

13 Sellman, W.S., Public Policy Implications for Military Entrance Standards, Keynote Address presented at the $39^{\text {th }}$ Annual Conference of the International Military Testing Association, Sydney, Australia, October 1998.

14 U.S. Department of Education, Home Schooling in the United States: 1999 (NCES 2001-033) (Washington, DC: National Center for Education Statistics, 2001); and U.S. Department of Education, Issues Related to Estimating the Home-Schooled Population in the United States With National Household Survey Data (NCES 2000-311) (Washington, DC: National Center for Educational Statistics, 2000), Table 1.

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

Physical Examinations. If an applicant achieves qualifying ASVAB scores and wants to continue the application process, he or she is scheduled for a physical examination and background review at one of the 65 Military Entrance Processing Station (MEPS). The examination assesses physical fitness for military service. It includes measurement of blood pressure, pulse, visual acuity, and hearing; blood testing and urinalysis; drug and HIV testing; and medical history. Some Services also require tests of strength and endurance. If a correctable or temporary medical problem is detected, the applicant may be required to get treatment before proceeding. Other applicants may require a Service waiver of some disqualifying medical conditions before being allowed to enlist.

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

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, most recruits ( 95 percent) enter for specific skill training; the others are placed in a military occupational specialty during basic training. Approximately 70 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 79 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 86 percent of Marine Corps enlistees enter with a guaranteed occupational area and are assigned a specific skill within that area after recruit training; the rest enlist with either a specific job guarantee or assignment to a job after recruit training.

Normally, an applicant will be shown a number of occupations. In general, the higher the individual's test scores, the more choices he or she will have. While the process differs by Service, specific skills and occupational groupings are arranged similarly to an airline reservation system, with the "seat" and time of travel (to recruit training) based upon either school or field unit position openings. The counselor discusses the applicant's interests and explains what the Service has to offer. The counselor may suggest incentives to encourage the applicant to choose hard-to-fill occupational specialties. The applicant, however, is free to accept or reject the offer. Many applicants do not decide immediately, but take time to discuss options with family and friends; others decide not to enlist.

The Delayed Entry Program (DEP). When the applicant accepts an offer, he or she signs an enlistment contract. Only a small proportion of new enlistees is sent to a recruit training center from the MEPS within a month of enlistment. Most enter the delayed entry program (DEP), which allows up to a year before the individual reports for duty, with up to a 365-day extension upon approval by the respective Service Secretary. ${ }^{16}$ The DEP controls recruit flow into training "seats" at technical schools. The Services also use the DEP to prepare enlistees for basic training, providing them with supervised exercise programs, if needed. The DEP acclimates recruits to the military and enhances training performance, which decreases attrition. ${ }^{17}$ Average time in the DEP is between three and 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 6 to 23 percentabout the same as last year's 8 to 21 percent-of individuals in the DEP changed their minds and asked to be released from their enlistment contracts in FY 2001. 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 2001, approximately 370,000 individuals applied to serve in the active enlisted military force (Appendix Table A-1), up from nearly 365,000 in FY 2000. The distribution of FY 2001 Active Component NPS applicants by race/ethnicity and gender is shown in Table 2.2.

Seventy-eight percent of the applicants were male, of whom 63 percent were White, 19 percent Black, 12 percent Hispanic, and 7 percent "Other." ${ }^{18}$ For female applicants, approximately 50 percent were White, 31 percent Black, 11 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 A1 through A-8.

## Characteristics of Active Component Accessions

During FY 2001, 182,976 Active Component non-prior service recruits (individuals who had not previously served in the military) and 11,960 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 2001 but had not been sent to basic training by September 30, 2001, nor does it include Reserve Component recruits (see Chapter 5 for Reserve Component enlisted accession data).

[^1]| Table 2.2. Race/Ethnicity and Gender of FY 2001 Active Component NPS Applicants,* by Service (Percent) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Army | Navy | Marine Corps | Air Force | DoD |
| MALES |  |  |  |  |  |
| White | 62.8 | 56.6 | 66.7 | 69.8 | 63.0 |
| Black | 20.1 | 22.1 | 13.6 | 18.1 | 19.1 |
| Hispanic | 11.8 | 12.2 | 13.8 | 6.6 | 11.5 |
| Other | 5.4 | 9.2 | 5.9 | 5.6 | 6.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| FEMALES |  |  |  |  |  |
| White | 46.2 | 48.3 | 58.3 | 57.2 | 49.9 |
| Black | 35.2 | 28.7 | 19.8 | 29.3 | 31.4 |
| Hispanic | 12.2 | 13.0 | 14.8 | 7.0 | 11.4 |
| Other | 6.4 | 9.9 | 7.1 | 6.6 | 7.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| TOTAL |  |  |  |  |  |
| Male | 75.2 | 78.6 | 91.4 | 70.6 | 77.7 |
| Female | 24.8 | 21.4 | 8.6 | 29.4 | 22.3 |
| Columns may not add to total due to rounding. <br> * Applicant data reported for FY 2001 are based on the DMDC edit version of the USMEPCOM file, which has been "cleaned" by the edi process. FY 2001 applicant data are consistent with Information Delivery System (IDS) data. <br> Also see Appendix Tables A-3 (Race/Ethnicity by Service and Gender) and A-4 (Ethnicity by Service). |  |  |  |  |  |


| Table 2.3. FY 2001 Active Component Non-Prior Service (NPS) and Prior Service Enlisted Accessions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Enlisted Accessions |  |  |  |
| Service | Prior Service | Non-Prior Service | Total | Non-Prior Service Percent of Service Total |
| Army | 7,067 | 69,109 | 76,176 | 90.7 |
| Navy | 2,541 | 49,870 | 52,411 | 95.2 |
| Marine Corps | 411 | 30,147 | 30,558 | 98.7 |
| Air Force | 1,941 | 33,850 | 35,791 | 94.6 |
| DoD Total | 11,960 | 182,976 | 194,936 | 93.6 |
| Also see Appendix Tables B-13 through B-22 (Prior Service Accessions). |  |  |  |  |

In the Active Components, almost 94 percent of accessions have never served in the military before. The nearly 12,000 prior service accessions representing approximately 6 percent of Active Component enlistees in FY 2001 is larger than last year's cohort of less than 10,000. Prior service accessions 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 2001 NPS recruits, and compares them with the 18 - to 24 -year-old civilian non-institutionalized U.S. population.

The proportion of accessions to applicants over FYs 1976-2001 is tracked in Figure 2.1. This ratio provides an index of the recruiting market. In the earlier years, recruiters sent far more applicants to MEPSs for processing to achieve recruiting objectives. In FY 1981, more than 800,000 applicants were processed through MEPSs to access approximately 301,000 new recruits, a 38 percent accession-to-applicant ratio. In the early 1980s, the Services implemented a series of management initiatives designed to emphasize quality and reduce overhead costs. Recruiting management objectives and award systems were changed to emphasize types of applicants (e.g., high school diploma graduates, Category IIIA and higher) in contrast to achieving purely numerical goals; enlistment screening tests were devised to estimate ASVAB performance prior to sending an individual to a test site.


Figure 2.1. Number of accessions and applicants with ratio of accessions to applicants, FYs 1976-2001.

Over the last decade, recruiters have expended great effort in screening prospects. For most years, progressively fewer prospects were sent to MEPSs. In FY 2001, approximately 370,000 applicants were processed through MEPSs to access nearly 183,000 new recruits, nearly a 50 percent ratio of accessions to applicants, inching upward from the 49 percent ratio achieved in FY 2000.

Age. By law, Active Component recruits must be between 17 and 35 years old; 17-yearolds must have parental permission to enlist. ${ }^{19}$ Within the 17-35 age range, the Services have different age ceilings. The Army and Navy accept applicants up to age 35; the Air Force accepts recruits prior to their $28^{\text {th }}$ birthday, and the Marine Corps age limit is 29 .

The age distribution of FY 2001 active duty NPS accessions is shown in Table 2.4. The average age of enlisted accessions is 19.3 years, ranging from 18.5 for the Marine Corps to 19.8 for the Army. Approximately, 87 percent of new recruits are 18 - to 24 -year-olds, compared to about 37 percent of the comparable civilian population. The Marine Corps enlists the greatest percentage of 17 - and 18-year-old recruits ( 51 percent) and the smallest percentage of those over age 21 ( 9 percent). The Army has the greatest proportion of recruits older than age 21 (23 percent) and the smallest proportion of 17- and 18-year-old recruits ( 36 percent).

| Table 2.4. Age of FY 2001 Active Component NPS Accessions, by Service, and |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Civilians 17-35 Years Old (Percent) |  |  |  |  |  |  |  |
| Age | Army | Navy | Marine <br> Corps | Air <br> Force | DoD | 17- to 35- <br> Year-Old <br> Civilians | Number of <br> Accessions per <br> 1,000 Civilians |
| 17 | 6.9 | 6.0 | 7.5 | 5.0 | 6.4 | 5.6 | 3.1 |
| 18 | 29.4 | 36.3 | 43.7 | 36.0 | 34.9 | 5.6 | 16.6 |
| 19 | 20.0 | 21.9 | 23.6 | 22.6 | 21.6 | 5.6 | 10.2 |
| 20 | 12.1 | 11.7 | 10.1 | 12.9 | 11.8 | 5.4 | 5.8 |
| 21 | 8.4 | 7.4 | 5.7 | 8.0 | 7.6 | 5.2 | 3.9 |
| 22 | 5.8 | 4.8 | 3.4 | 5.4 | 5.1 | 5.1 | 2.7 |
| 23 | 4.4 | 3.4 | 2.1 | 3.5 | 3.6 | 5.1 | 1.9 |
| 24 | 3.4 | 2.3 | 1.4 | 2.4 | 2.6 | 5.2 | 1.3 |
| $>24$ | 9.7 | 6.3 | 2.5 | 4.3 | 6.6 | 57.2 | 0.3 |

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 2001. For example, an average of 16.6 of every 1,000 18-year-olds and 1.3 of every 1,000 24-year-olds enlisted in FY 2001.

Race/Ethnicity. Significant racial/ethnic differences exist among the Services, as shown in Table 2.5. Approximately 38 and 43 percent of Army and Navy accessions, respectively, are minorities, as compared to 32 percent of Marine Corps recruits and 30 percent of Air Force recruits. The overall percentage of minority recruits has ranged between 36 and 38 percent in the past 5 years, with 37 percent in FY 2001. Compared to 10 years ago, when the military recruited less than 30 percent minorities, the increased proportion of minority recruits generally mirrors the trend in the comparable civilian population.

[^2]| Table 2.5. Race/Ethnicity and Gender of FY 2001 Active Component NPS Accessions, by Service, and Civilians 18-24 Years Old (Percent) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Army | Navy | Marine Corps | Air Force |  |  |
| MALES |  |  |  |  |  |  |
| White | 65.6 | 58.6 | 68.4 | 72.7 |  |  |
| Black | 18.9 | 19.7 | 11.8 | 15.9 |  |  |
| Hispanic | 11.1 | 12.5 | 14.4 | 6.8 |  |  |
| Other | 4.4 | 9.3 | 5.4 | 4.6 |  |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |  |  |
| FEMALES |  |  |  |  |  |  |
| White | 48.2 | 50.3 | 60.5 | 61.4 |  |  |
| Black | 35.7 | 26.5 | 16.7 | 25.4 |  |  |
| Hispanic | 10.9 | 13.3 | 16.9 | 7.4 |  |  |
| Other | 5.2 | 10.0 | 5.9 | 5.9 |  |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |  |  |
| TOTAL |  |  |  |  |  |  |
| Male | 79.5 | 81.6 | 93.1 | 75.7 |  |  |
| Female | 20.5 | 18.4 | 6.9 | 24.3 |  |  |
| White | 62.1 | 57.1 | 67.9 | 70.0 |  |  |
| Black | 22.4 | 20.9 | 12.2 | 18.2 |  |  |
| Hispanic | 11.1 | 12.6 | 14.6 | 6.9 |  |  |
| Other | 4.5 | 9.4 | 5.4 | 4.9 |  |  |
| NON-INSTITUTIONALIZED CIVILIANS 18-24 YEARS OLD |  |  |  |  |  |  |
| White 64.8 | Black <br> 14.3 | $\frac{\text { Hispanic }}{15.6}$ | Other $5.3$ | $\frac{\text { Total }}{100.0}$ | $\frac{\text { Male }}{49.9}$ | Female 50.1 |
| Columns may not add to total due to rounding. <br> Also see Appendix Tables B-3 (Race/Ethnicity by Service and Gender) and B-4 (Ethnicity by Service). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 2000 - September 2001. |  |  |  |  |  |  |

Figure 2.2 illustrates the race/ethnicity distribution of enlisted accessions for the 29-year period, FYs 1973-2001.20 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 2001. The increase of minorities coincided with a miscalibration of the ASVAB, and consequent drop in the aptitude of accessions, both Whites

20 See Appendix Tables D-5 (White Accessions), D-6 (Black Accessions), D-7 (Hispanic Accessions), and D-8 ("Other" Accessions) by Service and Fiscal Year.
and minorities, beginning in January 1976. The miscalibration led to erroneous enlistment of many low-scoring applicants. Thus, representation of minorities, particularly Blacks (whose test scores, on average, are generally lower than those of Whites), increased during the miscalibration period. The error was corrected by September 1980. ${ }^{21}$


Figure 2.2. Race/ethnicity of Active Component NPS accessions, FYs 1973-2001.
Revised AFQT and education standards in the early 1980s limited the high minority representation levels of the late 1970s. ${ }^{22}$ 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 (28 percent), compared to Whites and Blacks (7 and 13 percent, respectively), confound the recruitment of qualified Hispanic applicants. ${ }^{23}$ The Services have accessed a greater proportion

21 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).

22 Congressional Budget Office, Social Representation in the U. S. Military (Washington, DC, 1989), p. 54.
23 See U.S. Department of Education, The Digest of Education Statistics 2001 (NCES 2002-130) (Washington, DC: National Center for Education Statistics, 2002), Table 108; and U.S. Department of Education, Dropout Rates in the United States: 2000 (NCES 2002-114) (Washington, DC: National Center for Education Statistics, 2001), Table A.
of Hispanics each year since FY 1985, when less than 4 percent of enlistees were Hispanic. Today, more than 11 percent of enlistees are Hispanic.

Blacks. In FY 2001, Blacks comprised nearly 20 percent of enlisted recruits, approximately 5 percentage points more than in the civilian population ( 14 percent). The Army continues to have the highest percentage of Black accessions, 22 percent in FY 2001. 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. From FY 1992 to FY 2001 there were slight increases in Black accession rates most years, nearly reaching predrawdown levels of 21 percent Black accessions.

While Black men comprise approximately 17 percent of DoD male recruits, Black women make up more than 29 percent of female recruits (Table 2-5 and Appendix Table B-3). Black women in FY 2001 comprised 36 percent of Army female recruits, 26 percent of Navy female recruits, 17 percent of Marine Corps female recruits, and 25 percent of Air Force female recruits. In comparison, the proportion of Black men ranged from 12 percent of Marine Corps male recruits to 20 percent of Navy male recruits.

Hispanics. As the proportion of Hispanics has been increasing in the civilian population, so has the proportion of enlisted Hispanics. However, Hispanics were underrepresented among enlisted accessions in FY 2001, 11 percent of recruits compared to nearly 16 percent of civilian 18 - to 24 -year-olds. The Marine Corps had the highest proportion of Hispanic accessions ( 15 percent) in FY 2001, followed by the Navy, Army, and Air Force (13, 11, and 7 percent, respectively).

The proportion of Hispanic accessions has increased over the years (Appendix Table D7). In FY 1983, less than 4 percent of new recruits were Hispanic. Today, more than 11 percent of enlisted accessions are Hispanic. One factor influencing the representation of Hispanics in the military is high school graduation rates; Hispanics are less likely to earn a high school diploma than those in other racial/ethnic groups. ${ }^{24}$ In FY 2001, 58 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 85 percent of Whites.
"Other" minorities. Members of "Other" racial minorities (e.g., Native Americans, Asians, and Pacific Islanders) are greater than 6 percent; they are slightly overrepresented in the Services. The proportion of "Other" minorities ranges from 5 to 9 percent in the Services, with the Navy having the largest percentage. In the civilian population, 5 percent of 18- to 24 -yearolds are "Other" racial minorities, an increase of more than 2 percentage points since FY 1981.

Gender. Figure 2.3 illustrates the trend in the proportion of female recruits since the start of the All Volunteer Force. Appendix Table D-9 shows the number and proportion of NPS female accessions by Service in FY 1964 and FYs 1970 through 2001. The Air Force

24 See U.S. Department of Education, The Digest of Education Statistics 2001 (NCES 2002-130) (Washington, DC: National Center for Education Statistics, 2002), p. 126-129; U.S. Department of Education, Dropout Rates in the United States: 2000 (NCES 2002-114) (Washington, DC: National Center for Education Statistics, 2001), pp. 18-19; and previous Population Representation reports.
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.


Figure 2.3. Women as a percentage of Active Component NPS accessions, FYs 1973-2001.
The proportion of NPS women accessing into the Services, 18 percent in FY 2001, 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. ${ }^{25}$ The gender-integration policy, in effect for seven years, contributed to a continued gradual increase in the number and percentage of women enlisting in the Services. ${ }^{26}$ However, the increase in enlistment of women has leveled off during the last two years, likely a result of the relatively low level of propensity as well as other factors influencing enlistment decisions, such as economic conditions.

Under a gender-neutral recruiting program since FY 1990, the Air Force leads the Services in the proportion of female accessions. The Air Force had increased its proportion of female recruits, from 20 percent in FY 1990 to 27 percent in FY 1999, followed by slight decreases in the last two years to 24 percent in FY 2001 (see Table D-9). When the Navy adopted a gender-neutral recruiting policy in FY 1994, the proportion of women accessions in

25 The former annual DoD-sponsored Youth Attitude Tracking Study indicated that young women, depending upon age, were approximately one-half less inclined to join the military than young men.

26 Memorandum from William Perry, Secretary of Defense, Subject: Application of the Definition of Direct Ground Combat and Assignment Rule, July 28, 1994.
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 constrained berthing facilities on Navy vessels. The Navy's decision to rescind gender-neutral recruiting may have been a factor in the 6-percentage-point drop of female accessions from FY 1995 to FY 1997 (from 20 to 14 percent). ${ }^{27}$ However, the Navy was able to recruit a significantly larger proportion of women-18 to 19 percent-each year since FY 1997.

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 2001, 8 percent of male and 12 percent of female recruits were married, compared to 50 and 40 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 ( 14 versus 8 percent). Within the Services, Army recruits are most likely to be married (13 percent) and Marine Corps recruits are least likely (3 percent). Figure 2.4 shows marital status trends for FYs 1976-2001 by Service.

Table 2.6. FY 2001 Active Component NPS Accessions Who Are Married, by Gender and Service, and Civilians 18-24 Years Old (Percent)

| Gender | Army | Navy | Marine <br> Corps | Air <br> Force | DoD | 18- to 24-Year- <br> Old Civilians |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Males | 12.0 | 5.5 | 2.8 | 8.9 | 8.0 | 10.1 |
| Females | 16.5 | 6.8 | 6.1 | 10.1 | 11.6 | 18.3 |
| Total | 12.9 | 5.7 | 3.1 | 9.2 | 8.0 | 14.2 |

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 2000 - September 2001.

Research shows that marriage is important to a member's long-term career and can enhance individual readiness. ${ }^{28}$ This is true if the member is in a strong marriage to a supportive but independent spouse. However, combining marriage and a military career can create challenges for younger Servicemembers as well as for the Service. Entering into marriage just prior to or soon after enlisting can place extra burdens on the recruit, the family, and the military, particularly when frequent or unexpected deployments separate the "new" family. Thus, marital status trends of accessions (and members) are an important characteristic to monitor.

Education. More than 30 years of research indicates that enlistees who are high school graduates are much more likely than non-graduates to complete their first term of enlistment (80 percent versus 50 percent). ${ }^{29}$ In the late 1960s and early 1970s, the Services gave high school

27 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]).

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

29 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
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. In fact, the Services strive to meet a 90 percent Tier 1 benchmark established by Defense Planning Guidance.


Figure 2.4. Marital status trends of Active Component NPS accessions, by Service, FYs 19762001.

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. ${ }^{30}$ In 1987, DoD implemented a three-tier classification of education credentials. Table 2.7 shows the percentage of FY 2001 active duty NPS accessions by education tier. Ninety-one percent of recruits possessed high school diplomas and/or some college education (Tier 1); 8 percent held alternative high school credentials (Tier 2); and 1 percent had not completed high school (Tier 3). It should be noted that enlisted occupations are generally comparable to civilian jobs not requiring college education.

[^3]| Table 2.7 Levels of Education of FY 2001 Active Component NPS Accessions, by Service, and |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Civilians 18 -24 Years Old (Percent) |  |  |  |  |  |

While nearly 99 percent of FY 2001 accessions were in Tiers 1 and 2, only 79 percent of 18- to 24 -year-old civilians were high school graduates or possessed a GED certificate. Differences among Services in FY 2001 high school graduate accessions were small, ranging from 99 percent (Air Force) to 85 percent (Army). The Army had the highest proportion of recruits with Tier 2 credentials ( 15 percent); the Air Force had the lowest ( 1 percent). In FY 2001, the Air Force did not enlist any applicants without education credentials; the Army, Marine Corps, and Navy accepted very few recruits with no high school credentials (less than 1 percent, 1 percent, and 4 percent, respectively).

During FY 2000, the Army established the experimental GED+ program, to identify nonhigh school diploma graduates who would have low attrition rates. The Army allows up to 4,000 Active Component and 2,000 Reserve Component applicants who have earned a GED certificate or have no education credential to enlist without counting against the 90 percent Tier 1 benchmark for NPS enlisted accessions. To qualify for the GED+ program, recruits must have left high school for a non-disciplinary reason, be too old to return to high school, have no moral character problems, and score high on a test of motivation to enlist. ${ }^{31}$

The proportion of accessions with high school diplomas by Service for FYs 1973 through 2001 is shown in Figure 2.5. During most of the first decade of the volunteer military (FYs

[^4]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.


Figure 2.5. Active Component NPS accessions with high school diplomas, FYs 1973-2001.
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 a form of national service or a return to the draft. ${ }^{32}$ 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

32 In December 1976, the Department of Defense released a report, The All Volunteer Force: Current Status and Prospects, that listed seven alternatives to the all volunteer military. On June 20, 1978, the Senate Subcommittee on Manpower and Personnel of the Committee on Armed Services conducted an extensive hearing, Status of the All-Volunteer Armed Force, on the problems of a volunteer force and the need to examine alternatives to the all volunteer military.
recruiting resources were increased substantially in 1981, resulting in a rapid increase in the quality of accessions. The proportion of high school graduate recruits jumped from 66 percent in FY 1980 to 83 percent in FY 1982. Further incentives, such as the Montgomery GI Bill and the Army, Navy, and Marine Corps College Funds, and Service emphasis on improving the quality of life for Servicemembers and their families led to improved recruiting. The proportion of high school graduates climbed to a peak of 98 percent in FY 1992. From that peak, the proportion has gradually declined to 91 percent in FY 2001. (Note that the FY 2001 number is from Service data as described in Table 2.7 rather than the DMDC data sources used in Appendix Table D11.)

Figure 2.6 compares FY 2001 accessions with civilians of similar age on the percentage of high school graduates (Tier 1) and those with alternative credentials (Tier 2), by gender and race/ethnicity. Although nearly all military recruits are in Tiers 1 and 2, the same is not true of 18 - to 24 -year-old civilians. Some dramatic differences in education level, by race/ethnicity, are evident in Figure 2.6. Only 74 percent of Black civilians and 58 percent of Hispanic civilians have high school diplomas or alternative credentials. Given these percentages and the 90 percent Tier 1 requirement, the Services' minority recruiting pool is limited. Thus, the race/ethnicity representation comparisons should be interpreted with these data in mind.

AFQT. AFQT scores are the primary measure of recruit potential. Figure 2.7 indicates the percentage of NPS recruits who scored at or above the 50th percentile (Categories I-IIIA) since FY 1973. Numerical data are in Appendix D, Table D-12. The drop in Category I-IIIA recruits after FY 1976 was due primarily to the miscalibration of the ASVAB. ${ }^{33}$ In FY 1976, when new versions of the ASVAB were introduced, an error in calibrating the score scales made the new versions "easier" than the old versions (i.e., applicants received test scores higher than their actual ability). In FY 1980, an independent study of the calibration was made and the test was correctly calibrated. Then, Congress added legal provisions stipulating that no more than 20 percent of accessions could be in Category IV and that such accessions had to be high school diploma graduates. ${ }^{34}$ However, as previously stated, Defense Planning Guidance decreases this limit even further, allowing no more than 4 percent of recruits to come from Category IV.

Figure 2.7 shows FY 1977 as the low point and FY 1992 as the high point in accessing recruits in Categories I to IIIA. In FY 1977, 34 percent of accessions scored in the top half of the AFQT distribution. Only 13 percent of Blacks, 19 percent of Hispanics, and 20 percent of "Others" scored in Categories I-IIIA. ${ }^{35}$ Fifteen years later, in FY 1992, the majority of minority accessions achieved scores in the I-IIIA range (Blacks - 56 percent, Hispanics - 67 percent, "Others" - 67 percent). Hispanics have shown the most marked increase, with a 48-percentagepoint gain in Category I to IIIA accessions from FY 1977 to FY 1992.

33 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).

10 U.S.C. 520.

35
Data from Defense Manpower Data Center.


Figure 2.6. FY 2001 accessions and 18- to 24 -year-old civilians who earned high school diplomas (Tier 1) or alternative credentials (Tier 2), by gender and race/ethnicity.


Figure 2.7. Percentage of NPS accessions in AFQT categories I-IIIA, FYs 1973-2001.

A graphic view of the increasing trend in AFQT performance of accessions from FY 1981 through FY 1992 is provided in Figure 2.8. The more significant gains were in Categories I to IIIA, where the percentages increased from 47 percent in FY 1981 to 75 percent in FY 1992. Conversely, there has been a steady decline in the percentage of Category IIIB accessions. Most dramatic has been the decrease in accessions who score in Category IV-from 33 percent in FY 1979 to one percent or less since FY 1991. There was a gradual decline in the percentage of accessions in Categories I to IIIA from FY 1992 to FY 1999, from 75 to 63 percent. During FY 2001, recruit quality increased slightly to 66 percent in Categories I-IIIA.


Figure 2.8. Percentage of NPS accessions in AFQT categories I-IV, FYs 1973-2001.

The percentages of FY 2001 active duty NPS accessions in each AFQT category are shown in Table 2.8. The percentage of recruits in Categories I and II was the same as their civilian counterparts (males - 39 percent; females - 33 percent). Category III accessions greatly exceeded civilian proportions (males - 60 versus 30 percent; females - 67 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 - 1 percent versus 22 percent). The low percentage of Category IV recruits is, in part, a result of DoD limits of 4 percent Category IV recruits, with even lower Service limits. Ten percent of civilian males and 9 percent of civilian females scored in Category V; DoD allows no Category V recruits.


In FY 2001, 66 percent of recruits scored at or above the 50th percentile on the AFQT (Categories I-IIIA). Air Force recruits scored higher than those of the other three Services. Seventy-five percent of Air Force recruits scored in Categories I-IIIA, compared to 65 percent of Army, 65 percent of Marine Corps, and 63 percent of Navy recruits.

High Quality. One impact of the defense drawdown was the Services' redesign of a number of career fields with incumbents assuming a more diverse workload and greater responsibilities. The redesign both increased the number of tasks assigned to an individual, and required incumbents to perform new tasks of greater complexity. The Services believe that as the levels of job/task difficulty and importance increase, so will the need to bring in and retain
greater proportions of individuals with above-average aptitude. ${ }^{36}$ The Services define highquality recruits as high school diploma graduates who also 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 2001, the percentage of high-quality recruits ranged from 52 percent in the Army and Navy to 72 percent in the Air Force.


Figure 2.9. Percentage of high-quality NPS accessions, FYs 1973-2001.

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. ${ }^{37}$ Table 2.9 shows that the mean RGL for FY 2001 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.

36 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.

37 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).


Differences in RGL were relatively small in FY 2001, with mean RGLs ranging from 11.1 for the Army, Navy, and Marine Corps to 11.3 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, substantial shifts have taken place in other regions. The percentage of accessions from the Northeast dropped 8 points from a high of 22 percent in FY 1977 to a low of less than 14 percent in FY 2001. 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 2001, 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. ${ }^{38}$ Obviously, no one factor can explain

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


Figure 2.10. NPS accessions by geographic region, FYs 1973-2001.

Table 2.10 presents FY 2001 accession statistics by geographic region, division, and state. The third and fourth columns show percentages of accessions and percentages of the 18- to 24 -year-old civilian population, respectively, in each area. The fifth column presents military/civilian representation ratios-the percentage of enlisted accessions divided by the percentage of civilians in each area. A representation ratio of 1.00 means that the area has the same proportion of accessions as of the youth population-for example, 8 percent of all recruits and 8 percent of all youth aged $18-24$. A ratio of less than 1.00 means that relatively few youth in an area enlist in the military, while a ratio of more than 1.00 indicates above-average market penetration. The last two columns of the table present the percentages of high-quality accessions (high school graduates in AFQT Categories I-IIIA) and mean AFQT scores for each area.

The South region had the greatest ratio of enlistees (1.2). The West South Central division had the strongest representation (1.3). The Northeast region had a representation ratio of 0.8 and the North Central and West regions had ratios of 0.9 .

| Table 2.10. Selected Statistics for FY 2001 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 <br> Percent of All NPS Accessions | Area's Percent of All 18- to 24-YearOlds | Represen tation Ratio | Percent of High-Quality Accessions* | Mean <br> AFQT <br> Percentile <br> Score |
| NORTHEAST REGION | 25,298 | 14.0 | 17.3 | 0.8 | 57.1 | 59.0 |
| New England Division | 5,448 | 3.0 | 4.3 | 0.7 | 59.2 | 60.4 |
| Maine | 916 | 0.5 | 0.4 | 1.2 | 59.5 | 60.1 |
| New Hampshire | 668 | 0.4 | 0.4 | 0.9 | 64.4 | 63.8 |
| Vermont | 264 | 0.1 | 0.2 | 0.7 | 64.4 | 63.9 |
| Massachusetts | 1,967 | 1.1 | 2.1 | 0.5 | 58.6 | 60.1 |
| Rhode Island | 376 | 0.2 | 0.3 | 0.7 | 58.0 | 59.6 |
| Connecticut | 1,257 | 0.7 | 0.9 | 0.7 | 56.3 | 58.7 |
| Middle Atlantic Division | 19,850 | 11.0 | 13.0 | 0.8 | 56.5 | 58.6 |
| New York | 9,520 | 5.3 | 6.4 | 0.8 | 54.1 | 58.0 |
| New Jersey | 3,750 | 2.1 | 2.6 | 0.8 | 55.1 | 57.4 |
| Pennsylvania | 6,580 | 3.6 | 4.0 | 0.9 | 60.6 | 60.3 |
| NORTH CENTRAL REGION | 36,906 | 20.4 | 22.6 | 0.9 | 60.5 | 60.4 |
| East North Central Division | 26,228 | 14.5 | 15.9 | 0.9 | 59.9 | 60.1 |
| Ohio | 7,251 | 4.0 | 3.9 | 1.0 | 60.3 | 60.4 |
| Indiana | 3,579 | 2.0 | 1.9 | 1.0 | 63.6 | 61.4 |
| Illinois | 7,112 | 3.9 | 4.6 | 0.9 | 56.4 | 58.5 |
| Michigan | 5,496 | 3.0 | 3.5 | 0.9 | 58.9 | 59.7 |
| Wisconsin | 2,790 | 1.5 | 1.9 | 0.8 | 65.0 | 62.4 |
| West North Central Division | 10,678 | 5.9 | 6.7 | 0.9 | 62.2 | 61.3 |
| Minnesota | 1,944 | 1.1 | 1.7 | 0.6 | 62.2 | 62.5 |
| Iowa | 1,401 | 0.8 | 1.0 | 0.8 | 66.5 | 62.7 |
| Missouri | 3,630 | 2.0 | 1.9 | 1.1 | 59.2 | 59.8 |
| North Dakota | 379 | 0.2 | 0.2 | 0.9 | 69.9 | 63.9 |
| South Dakota | 583 | 0.3 | 0.3 | 1.2 | 62.4 | 61.0 |
| Nebraska | 1,085 | 0.6 | 0.7 | 0.9 | 64.2 | 61.2 |
| Kansas | 1,656 | 0.9 | 1.0 | 0.9 | 61.7 | 61.2 |
| SOUTH REGION | 77,565 | 42.9 | 35.1 | 1.2 | 55.8 | 57.8 |
| South Atlantic Division | 38,220 | 21.1 | 17.2 | 1.2 | 56.1 | 57.8 |
| Delaware | 443 | 0.2 | 0.3 | 0.9 | 57.8 | 58.8 |
| Maryland | 3,643 | 2.0 | 1.7 | 1.2 | 58.0 | 57.9 |
| District of Columbia | 203 | 0.1 | 0.2 | 0.5 | 38.9 | 53.1 |
| Virginia | 5,363 | 3.0 | 2.1 | 1.4 | 55.5 | 58.6 |
| West Virginia | 1,321 | 0.7 | 0.7 | 1.1 | 52.2 | 56.6 |
| North Carolina | 5,432 | 3.0 | 2.6 | 1.2 | 57.9 | 58.4 |
| South Carolina | 3,485 | 1.9 | 1.3 | 1.5 | 52.5 | 55.7 |
| Georgia | 5,909 | 3.3 | 3.0 | 1.1 | 53.5 | 56.8 |
| Florida | 12,421 | 6.9 | 5.3 | 1.3 | 58.0 | 58.5 |
| East South Central Division | 12,119 | 6.7 | 6.3 | 1.1 | 53.3 | 56.9 |
| Kentucky | 2,259 | 1.2 | 1.4 | 0.9 | 55.6 | 58.0 |
| Tennessee | 3,505 | 1.9 | 2.1 | 0.9 | 56.8 | 59.1 |
| Alabama | 4,054 | 2.2 | 1.8 | 1.2 | 52.2 | 56.3 |
| Mississippi | 2,301 | 1.3 | 1.0 | 1.3 | 47.5 | 53.7 |


| Table 2.10. Selected Statistics for FY 2001 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 <br> Percent of All NPS Accessions | Area's Percent of All 18- to 24-YearOlds | Represen- <br> tation <br> Ratio | Percent of High-Quality Accessions* | Mean <br> AFQT <br> Percentile <br> Score |
| SOUTH REGION (continued) |  |  |  |  |  |  |
| West South Central Division <br> Arkansas <br> Louisiana <br> Oklahoma <br> Texas | 27,226 2,088 4,159 2,936 18,043 | 15.0 1.2 2.3 1.6 10.0 | 11.6 1.0 1.8 1.3 7.6 | $\begin{aligned} & 1.3 \\ & 1.2 \\ & 1.3 \\ & 1.3 \\ & 1.3 \end{aligned}$ | $\begin{aligned} & 56.5 \\ & 53.8 \\ & 50.4 \\ & 56.2 \\ & 58.2 \end{aligned}$ | $\begin{array}{r} 58 . l \\ 56.8 \\ 54.6 \\ 58.6 \\ 59.0 \end{array}$ |
| WEST REGION | 41,198 | 22.8 | 25.0 | 0.9 | 58.3 | 59.5 |
| Mountain Division | 13,574 | 7.5 | 7.0 | 1.1 | 58.8 | 60.4 |
| Montana | 1,084 | 0.6 | 0.3 | 1.9 | 61.2 | 62.0 |
| Idaho | 1,134 | 0.6 | 0.5 | 1.2 | 61.2 | 62.6 |
| Wyoming | 500 | 0.3 | 0.2 | 1.7 | 63.8 | 62.2 |
| Colorado | 2,674 | 1.5 | 1.7 | 0.9 | 60.3 | 61.9 |
| New Mexico | 1,784 | 1.0 | 0.6 | 1.6 | 52.0 | 56.5 |
| Arizona | 3,745 | 2.1 | 2.1 | 1.0 | 58.3 | 59.8 |
| Utah | 1,070 | 0.6 | 1.0 | 0.6 | 62.4 | 61.6 |
| Nevada | 1,583 | 0.9 | 0.6 | 1.4 | 57.5 | 59.8 |
| Pacific Division | 27,624 | 15.3 | 18.1 | 0.8 | 58.0 | 59.0 |
| Washington | 4,241 | 2.3 | 2.3 | 1.0 | 61.4 | 62.9 |
| Oregon | 2,519 | 1.4 | 1.1 | 1.2 | 60.6 | 62.4 |
| California | 19,457 | 10.8 | 14.0 | 0.8 | 56.9 | 57.7 |
| Alaska | 638 | 0.4 | 0.2 | 1.5 | 63.2 | 62.9 |
| Hawaii | 769 | 0.4 | 0.4 | 1.0 | 55.3 | 55.4 |
| Total (50 STATES + D.C.) | 180,967** | 100.0 | 100.0 | 1.0 | 57.5 | 58.9 |

Columns may not add to total due to rounding.

* High-quality accessions are high school graduates who score at or above the $50^{\text {th }}$ 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 2,009 recruits from the territories and unknowns.
Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 2000 - September 2001.
Slightly more than half of the states had representation ratios of 1.0 or more. These included: Maine in the Northeast; Ohio, Indiana, Missouri, and South Dakota in the North Central; all states except Utah, Colorado, and California in the West; and all states except Kentucky, Tennessee, Delaware, and the District of Columbia in the South. Among all states, the ratios ranged from a low of 0.5 in Massachusetts and the District of Columbia to a high of 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 2001. The proportion of high-quality accessions by region ranged from a low of 56 percent in the South to a high of 61 percent in the North Central region. Differences across divisions were somewhat larger. Approximately 9 percentage points separated the East South Central and West North Central divisions. Differences at the state level were still larger, ranging from 39 percent in the District of Columbia to 69 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 2001, enlisted force end-strength was virtually the same as FY 2000 at 1.15 million. Enlisted end-strength dropped each year between FYs 1987 and 1999. The Active Components counted 1.85 million enlisted members in FY 1987, more than in any year since FY 1974. End-strength reached a low point in FY 1999 ( 1.151 million) with a marginal increase to 1.154 million in FY 2000, and 1.153 in FY 2001. 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 2001.


Figure 3.1. Active Component enlisted force end-strength, by Service, FYs 1973-2001.

## Characteristics of Active Component Enlisted Force

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

The mean number of months in service per enlisted Servicemember is highlighted in Figure 3.2. Mean time in service rose from 75 months in FY 1987 to 90 months in FY 1996 and then dropped slightly to 84 months in FY 2001. Although the cumulative effect of various policies put in place since the early 1980s resulted in an increase in the mean age of the Services' enlisted force from 25 years old in FY 1980 to a peak of almost 27 and a half years old in FYs 1996 and 1997, current retention problems have led to a slight decrease in mean age and time in
service during the last few years. The current mean age of the Services' enlisted force is almost exactly 27 years old.


Figure 3.2. Active Component enlisted force average age and months in service, FYs 19732001.

Force structure, retention, and personnel policies govern the distribution of Servicemembers by occupation and grade. These factors have resulted in an overall DoD force profile wherein approximately half the force ( 51 percent) has less than 6 years of service, with slightly less than half ( 45 percent) having 6 to 19 years, and 4 percent having more than 20 years. ${ }^{1}$ Pay grade and time in service are highly correlated. Paralleling the years in service data, pay grade distributions include slightly more than half of the enlisted force in pay grades E1 through E4 (54 percent) and slightly less than half in pay grades E5 through E9 (46 percent), as shown in Table 3.1. Progression from E1 and E2 (trainees) to E3 occurs quickly; consequently, relatively few enlisted members are in pay grades E1 and E2 (15 percent). Nearly three-quarters (73 percent) of the enlisted force are in pay grades E3 through E6. Service differences primarily are the result of retention trends as well as the force structure and personnel requirements needed to support Service-unique roles and missions. Thus, time in service and pay grade data should be interpreted cautiously.

[^5]| Pay Grade | Army | Navy | Marine Corps | Air Force | DoD |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E1 | 7.8 | 6.2 | 8.3 | 5.1 | 6.8 |
| E2 | 9.9 | 8.5 | 12.8 | 4.0 | 8.5 |
| E3 | 15.9 | 15.0 | 28.1 | 18.5 | 17.9 |
| E4 | 23.0 | 20.1 | 18.4 | 19.0 | 20.6 |
| E5 | 17.3 | 23.0 | 14.9 | 24.9 | 20.4 |
| E6 | 13.8 | 16.5 | 8.9 | 15.1 | 14.2 |
| E7 | 9.0 | 7.4 | 5.7 | 10.4 | 8.4 |
| E8 | 2.6 | 2.2 | 2.1 | 2.0 | 2.3 |
| E9 | 0.7 | 1.0 | 0.9 | 1.0 | 0.9 |
| Unknown | 0.0 | * | 0.0 | 0.0 | * |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Less than one-tenth of one percent. <br> Also see Appendix Table B-46 (Active Component by Pay Grade and Service). |  |  |  |  |  |

In FY 2001, 48 percent of the enlisted force was 17-24 years old, yet a little more than 1 percent was older than 44, as shown in Table 3.2. For those who make the military a career, the 20-year retirement option results in many leaving the 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 ( 48,47 , and 68 percent, respectively). Marine Corps members were the "youngest" with more than two-thirds under age 25, and 3 percent 40 years or older. Air Force members were the "oldest" with 40 percent under age 25 , and 9 percent 40 years or older. The Marine Corps traditionally has the youngest accessions. Historically, the Air Force has experienced higher enlisted retention rates than the other Services, contributing to somewhat "older" enlisted members.

Although 48 percent of the enlisted force was in the 17-24 age group, approximately 15 percent of the civilian labor force fell in this range. At the other end of the distribution, just under one-fourth ( 24 percent) 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 2001 (38 and 31 percent, respectively). However, Hispanics were underrepresented among enlisted members ( 9 percent versus 13 percent).

In FY 2001, 23 percent of the enlisted force was Black, compared with 13 percent of the civilian labor force (18-44 year-olds). The Army had the highest proportion of Black enlisted members in FY 2001 (29 percent).

| Table 3.2. FY 2001 Age of Active Component Enlisted Members, by Service, and Civilian Labor Force 17 and Older (Percent) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Army | Navy | Marine Corps | Air Force | DoD | Civilian <br> Labor Force |
| 17-19 | 11.6 | 11.5 | 17.8 | 8.7 | 11.7 | 4.6 |
| 20-24 | 36.4 | 35.2 | 50.3 | 31.8 | 36.8 | 10.4 |
| 25-29 | 20.3 | 18.4 | 15.4 | 18.2 | 18.6 | 10.5 |
| 30-34 | 14.5 | 13.8 | 7.2 | 14.4 | 13.3 | 11.6 |
| 35-39 | 11.4 | 13.7 | 6.2 | 17.5 | 12.8 | 12.8 |
| 40-44 | 4.4 | 5.7 | 2.4 | 7.9 | 5.3 | 13.7 |
| 45-49 | 1.2 | 1.6 | 0.6 | 1.3 | 1.2 | 12.3 |
| 50+ | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 | 24.1 |
| Unknown | * | 0.0 | 0.0 | 0.0 | * | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Less than one-tenth of one percent. <br> Also see Appendix Table B-23 (Active Component by Age Group, Service, and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2001. |  |  |  |  |  |  |


| Table 3.3. FY 2001 Race/Ethnicity of Active Component Enlisted Members, <br> by Service, and Civilian Labor Force 18-44 Years Old (Percent) |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Race/ <br> Ethnicity | Army | Navy | Marine <br> Corps | Air <br> Force | DoD | 18- to 44-Year-Old <br> Civilians |
| White | 54.9 | 59.4 | 66.1 | 72.6 | 61.9 | 68.8 |
| Black | 28.9 | 21.1 | 15.8 | 18.5 | 22.5 | 12.7 |
| Hispanic | 9.7 | 10.5 | 14.0 | 5.6 | 9.5 | 13.4 |
| Other | 6.5 | 9.1 | 4.1 | 3.4 | 6.1 | 5.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> Also see Appendix Table B-25 (Race/Ethnicity by Service and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2001. |  |  |  |  |  |  |

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 decreased slightly during the past 10 years, from 32 percent in FY 1990 to 29 percent in FY 2001. The Marine Corps has experienced slight decreases in Blacks during recent years too. Decreases in the Army and Marine Corps parallel the drop in minority accessions in FY 1991 and the concomitant decrease in the propensity to enlist among Black
youth. ${ }^{2}$ The Navy, on the other hand, has exhibited a consistent long-term increase in the proportion of Blacks, from 8 percent in FY 1973 to 21 percent in FY 2001. 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).


Figure 3.3. Blacks as a percentage of Active Component enlisted members, by Service, FYs 1973-2001.

In FY 2001, active duty Hispanic enlisted members were a smaller part of the enlisted force than of the civilian labor force in the 18-44 age group ( 9 percent and 13 percent, respectively). The highest representation of Hispanics was in the Marine Corps (14 percent). The proportions of "Other" minority individuals in the Army and Navy were similar (7 and 9 percent, respectively), while the Marine Corps and Air Force had somewhat less (4 and 3 percent, respectively).

Although Hispanic enlisted members were underrepresented in FY 2001, Hispanic representation in the Services has increased 5 percentage points since 1985, when less than 4 percent of the enlisted force was Hispanic (Figure 3.4). Hispanics are the fastest growing group in the United States. In 1985, the 18- to 44 -year-old civilian labor force included nearly 7 percent declaring Hispanic descent. By 1994, the civilian population boasted more than 10 percent Hispanics, compared to less than 6 percent in the DoD. By FY 2001, Hispanics made up

[^6]more than 13 percent of the civilian labor force, with projections of continuing increases. ${ }^{3}$ The military's increases, on average, have nearly, but not quite, kept pace with the rate of growth of Hispanics in the civilian population during the last 15 years. However, DoD has not been able to catch up to the percentages of those of Hispanic origin in the civilian labor force.


Figure 3.4. Hispanics as a percentage of Active Component enlisted members, by Service, with the civilian labor force, FYs 1977-2001.

Gender. Trends in the percentage of enlisted women since FY 1973 are shown in Figure 3.5 (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. ${ }^{4}$ 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.

Four factors affect the proportion of enlisted female members. First, women tend to have a lower inclination to enlist than men do. ${ }^{5}$ Second, ground combat exclusion policies restrict the positions and skills in which women may serve. Third, the military personnel system is a "closed" system. Growth must come from within, and from the bottom up; lateral entries play

[^7]4 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.

5 Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.
virtually no role. Consequently, the gender structure of the career force is shaped primarily by the proportion of females recruited. Fourth, women leave the Services at a higher rate than men. Thus, the percentage of women in the military may not change much from current levels unless there are significant increases in female recruiting or retention.


Figure 3.5. Women as a percentage of Active Component enlisted members, by Service, FYs 1973-2001.

As a result of policy and social changes, the number of active duty enlisted women increased from nearly 32,000 in FY 1972 to a pre-drawdown peak of 196,000 in FY 1989, then down to 160,000 in FY 1995. The number and proportion of women has increased to just under $172,000,15$ percent of enlisted members, in FY 2001. 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.

[^8]As shown in Table 3.4, the Air Force has the highest proportion of women on active duty (20 percent), while the Marine Corps has the lowest ( 6 percent). Percentages in the Army and Navy are 16 and 14 percent, respectively. Service differences reflect differences in the proportion of positions closed to women and the availability of occupations of interest to women. Overall, the proportion of enlisted women has gradually increased (about half a percentage point each year) over the past nine years, from 11.6 to 14.9 percent from FY 1993 to FY 2001 (Appendix Table D-19).

| Table 3.4. FY 2001 Gender of Active Component Enlisted Members, by Service, and |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Civilian Labor Force 18-44 Years Old (Percent) |  |  |  |  |  |

Marital Status. Although only 9 percent of first-time enlisted recruits are married, a large percentage of enlisted Servicemembers are ( 48 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 3.6. The proportion of married enlisted members declined from FY 1977 (50 percent) to FY 1980 (47 percent). In FY 1981 the proportion began to increase until a peak of 57 percent in FY 1994. Since FY 1994, the proportion of married members has dropped to 48 percent in FY 2001. Marital status varies by Service. Air Force members are most likely to be married ( 57 percent), while Marines are least likely to be married (40 percent).

The percentages of FY 2001 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 (50 and 40 percent, respectively). The only Service where these proportions are not evident is the Marine Corps where only 40 percent of both men and women are married. Similarly, more civilian men were married than civilian women ( 52 versus 50 percent, respectively). The proportion of married Servicemen was slightly smaller than married 18 - to 44 -year-old men in the civilian population ( 50 and 52 percent, respectively). The proportion of married Servicewomen was lower than that of women in the comparable civilian population (40 and 50 percent, respectively).

The percentage of married military women has changed significantly since FY $1973 .{ }^{8}$ Twenty-five years ago women constituted 2 percent of military members. Military women were not expected to be married; retention directives implicitly encouraged separation of married

[^9]enlisted women. In FY 1973, 18 percent of military women were married, increasing to 36 percent in FY 1978 and to 40 percent in FY 2001.


Figure 3.6. Percentage of Active Component enlisted members who were married, by Service, FYs 1973-2001.

| Table 3.5. FY 2001 Active Component Enlisted Members Who Were Married, <br> by Gender and Service, and Civilian Labor Force 18-44 Years Old (Percent) |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Gender | Army | Navy | Marine <br> Corps | Air <br> Force | DoD | 18- to 44-Year-Old <br> Civilians |
| Male | 49.9 | 46.0 | 40.3 | 60.0 | 49.6 | 51.9 |
| Female | 41.1 | 30.6 | 40.3 | 46.5 | 40.3 | 49.9 |
| Total | 48.5 | 43.8 | 40.3 | 57.1 | 48.2 | 51.0 |
| Also see Appendix Table B-24 (Age by Marital Status and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2001. |  |  |  |  |  |  |

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

Larger proportions of men than women are married, but significantly greater proportions of women are members of dual-service marriages ( 46 percent of married women versus 7 percent of married men; Table 3.6). The Marine Corps has the greatest variance, with 6 percent of married men but 65 percent of married women in dual-service marriages. Proportionally, more Air Force personnel are members of dual-service marriages (18 percent). Across the Services, 12 percent of enlisted members are in dual-service marriages.

| Table 3.6. FY 2001 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 | 337,476 | 168,404 | 49.9 | 10,719 | 6.4 |
| Female | 62,827 | 25,803 | 41.1 | 10,482 | 40.6 |
| Total | 400,303 | 194,207 | 48.5 | 21,201 | 10.9 |
| NAVY |  |  |  |  |  |
| Male | 273,505 | 125,664 | 46.0 | 6,011 | 4.8 |
| Female | 44,630 | 13,676 | 30.6 | 4,272 | 31.2 |
| Total | 318,135 | 139,340 | 43.8 | 10,283 | 7.4 |
| MARINE CORPS |  |  |  |  |  |
| Male | 145,138 | 58,450 | 40.3 | 3,210 | 5.5 |
| Female | 9,552 | 3,853 | 40.3 | 2,501 | 64.9 |
| Total | 154,690 | 62,303 | 40.3 | 5,711 | 9.2 |
| AIR FORCE |  |  |  |  |  |
| Male | 225,396 | 134,363 | 59.6 | 14,227 | 11.0 |
| Female | 54,856 | 25,513 | 46.5 | 14,440 | 56.6 |
| Total | 280,252 | 159,876 | 57,1 | 28,667 | 17.9 |
| DoD |  |  |  |  |  |
| Male | 981,515 | 486,881 | 49.6 | 34,167 | 7.0 |
| Female | 171,865 | 68,845 | 40.1 | 31,695 | 46.0 |
| Total | 1,153,380 | 555,726 | 48.2 | 65,862 | 11.9 |
| * There are some differences between the number of males and females reporting dual-service marriages. <br> ** These percentages reflect the proportion of married enlisted members who are married to a Servicemember. For example, 10,719 male Army enlisted personnel are in dual-service marriages. That is, 6.4 percent of married male Army enlisted members $(168,404)$ are in dual-service marriages. |  |  |  |  |  |

Education. The majority of the enlisted force have high school diplomas (over 94 percent), as indicated in Table 3.7. In FY 2001, 97 percent of female and 94 percent of male enlisted personnel were high school diploma graduates (Tier 1). These results are very similar to FY 2000. Other trends that continue are that there were fewer people with no credentials in the military than in the civilian labor force (less than 1 percent versus 11 percent), and fewer people with college experience ( 27 percent versus 56 percent). This latter comparison is misleading because enlisted occupations are generally comparable to civilian occupations that do not require college degrees. Most military members with college degrees are officers ( 96 percent of officers have undergraduate or advanced degrees). The education levels of the officer corps are discussed in Chapter 4.

| Table 3.7. FY 2001 Education of Active Component Enlisted Members, by Service, and |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Civilian Labor Force 18-44 Years Old (Percent) |  |  |  |  |  |

The proportion of Marine Corps, Navy, and Air Force high school diploma graduate enlisted members changed very little from FY 2000 to FY 2001 ( 95,92 and 99 percent, respectively). The Army dropped from 94 percent in FY 2000 to 92 percent in FY 2001. Almost all Air Force members held diplomas (99+ percent). The Navy and Army have the largest proportion without at least a high school diploma ( 8 percent each). The Air Force had the smallest proportion (three-tenths of one percent).

The Services encourage enlisted members to continue their education while in the military. Many college-level classes and degree programs are offered on military installations around the world. A recent program, Army University Access Online, facilitates enrollment in college-level distance learning courses, assists soldiers in securing course credit for military training, and aids participants in earning degrees. 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. Each Service classifies enlisted occupations using DoD occupational codes. At the most general level, there are 10 one-digit categories as shown in Table 3.8. Occupational codes get more specific, with two- and three-digit codes. The number of codes increases with each level of specificity.

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

Infantry, gun crews, and seamanship includes more than infantry. Enlisted personnel serving on gun crews and those serving in some ship-based occupations are included. Specific specialties include infantryman, special forces, tank crewman, gunner's mate, in-flight refueling, and quartermaster.

Electronic equipment repairers consists of those jobs requiring knowledge of electronics to maintain and repair electronic equipment. Jobs included are electronics technician, radio repairer, communication and navigation systems specialist, air traffic control radar technician, missile systems maintenance, and computer technician.

Communications and intelligence specialists includes personnel who operate electronic equipment, such as radios, and others specializing in communication or intelligence. For example, radioman, air traffic controller, linguist, and intelligence/counter-intelligence specialist.

Medical and dental specialists are health care workers. Types of occupations within this category include medical service specialist, aeromedical specialist, pharmacy specialist, and dental laboratory specialist.

Other allied specialists includes a variety of occupations, those not included by the other codes. Examples of specific jobs are photojournalist, cartographer, weather specialist, musician, and disaster preparedness specialist.

Functional support and administration encompasses positions related to administrative functions of the Services. Personnelman, recruiter, information management specialist, computer programmer, accounting specialist, traffic manager, and public affairs specialist are the types of jobs included in this code.

Electrical/mechanical equipment repairers are involved in more mechanical, less electronically-sophisticated, maintenance and repair of Service-specific equipment compared to electronic equipment repairers. Types of jobs in the electrical/mechanical equipment repair area are aviation safety specialist, aircraft mechanic, vehicle mechanic, nuclear weapons specialist, and electrician's mate.

Craftsmen includes the skilled blue collar trades. Types of positions include metal workers, crane operator, plumber, and electrician.

Service and supply handlers include food service specialists, vehicle operators, military police, parachute riggers, and morale, welfare, and recreation specialists.

Non-occupational personnel are those who have not completed training for an occupation or who are unable to serve in the position for which they have been trained. Patients, prisoners, students, and recruits are included in this category.

The percentages of enlisted personnel by occupational area in FY 2001 are shown in Table 3.8. No shifts in the occupational distribution of the force occurred this year. The majority of enlisted members serve in electrical/mechanical equipment repair ( 20 percent), infantry, gun crews, and seamanship (17 percent), or functional support and administration (16
percent). These occupational areas have been predominant in the Armed Services at least since FY 1976, the earliest that reliable data are available. ${ }^{11}$

|  | Occupational Code and Area | Males | Females | Total <br> DoD |
| :---: | :---: | :---: | :---: | :---: |
| 0 | Infantry, Gun Crews, and Seamanship Specialists | 18.5 | 5.4 | 16.6 |
| 1 | Electronic Equipment Repairers | 10.2 | 6.2 | 9.6 |
| 2 | Communications and Intelligence Specialists | 8.9 | 9.7 | 9.0 |
| 3 | Medical and Dental Specialists | 5.2 | 15.4 | 6.7 |
| 4 | Other Allied Specialists | 3.0 | 3.1 | 3.0 |
| 5 | Functional Support and Administration | 13.3 | 34.1 | 16.4 |
| 6 | Electrical/Mechanical Equipment Repairers | 22.5 | 8.4 | 20.4 |
| 7 | Craftsmen | 4.0 | 1.8 | 3.6 |
| 8 | Service and Supply Handlers | 8.2 | 10.0 | 8.5 |
| 9 | Non-occupational* | 6.2 | 5.9 | 6.2 |
|  | Total | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Non-occupational includes patients, students, those with unassigned duties, and unknowns. <br> See Appendix Tables B-29 (Occupational Area by Service and Gender) and B-30 (Occupational Area by Service and Race/Ethnicity). |  |  |  |  |

Only modest changes are predicted in work characteristics of military occupations in the next ten years. Thus, the knowledge, skills, and characteristics required by military personnel are not likely to change substantially. Where changes are expected, they are a result of increasingly sophisticated technology of military equipment. ${ }^{12}$

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

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

[^11]Women and occupational assignments. The major shift that has occurred in assignment patterns for women in the last two decades has been to increase their presence in "nontraditional" jobs. In the early 1970s, most enlisted women (88 percent) were in two occupational areas: functional support and administration, and medical/dental. ${ }^{13}$ In FY 2001, 34 and 15 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 200145 percent of all enlisted women were in these occupations.

Women are ineligible for infantry and other positions in which the primary mission is to physically engage the enemy. ${ }^{14}$ However, women can serve on aircraft and ships engaged in combat. In FY 2001, 5 percent of enlisted women were in occupational code 0 (infantry, gun crews, and seamanship specialists). The percentage of enlisted men in these occupations was more than three times that of enlisted women because of the direct ground combat exclusion policy for women.

The occupational differences by gender are illustrated in Table 3.8. In FY 2001, nearly half of enlisted women were in functional support and administration or health care occupations. In contrast, nearly 19 percent of enlisted men were in these occupations. 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 enlisted personnel in these areas.

Minorities and occupational assignments. In FY 2001, the proportions of Black, White, and Hispanic Servicemembers were similar in four of the nine occupational areascommunications and intelligence specialists, medical and dental specialists, other allied specialists, and craftsmen (Table 3.9). In electronic equipment repair, where the proportions of Blacks, Hispanics, and "Others" were very similar, the proportion of Whites was higher. The proportions of Hispanics, "Others," and Whites were approximately the same in service and supply handlers, and were lower than Blacks. In electrical/mechanical equipment repair, Whites and "Others" were similar and were higher than Blacks and Hispanics. Blacks were more heavily represented in the functional support and administration area and, to a lesser extent, the service and supply area.

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

[^12]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.

| Table 3.9. FY 2001 Occupational Areas of Active Component Enlisted Personnel by Race/Ethnicity (Percent) |  |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: |
| Occupational Code and Area |  | White | Black | Hispanic | Other |
| 0 | Infantry, Gun Crews, and Seamanship <br> Specialists | 18.2 | 12.2 | 17.7 | 14.8 |
| 1 | Electronic Equipment Repairers | 10.9 | 7.0 | 7.9 | 7.8 |
| 2 | Communications and Intelligence <br> Specialists | 10.0 | 7.8 | 7.4 | 6.6 |
| 3 | Medical and Dental Specialists | 5.7 | 8.3 | 7.5 | 10.6 |
| 4 | Other Allied Specialists | 3.4 | 2.5 | 2.4 | 2.5 |
| 5 | Functional Support and Administration | 12.1 | 27.0 | 18.0 | 18.2 |
| 6 | Electrical/Mechanical Equipment Repairers | 22.4 | 15.0 | 19.0 | 21.5 |
| 7 | Craftsmen | 3.9 | 3.0 | 3.2 | 3.7 |
| 8 | Service and Supply Handlers | 7.2 | 12.2 | 8.6 | 8.4 |
| 9 | Non-occupational* | 6.3 | 5.0 | 8.3 | 5.9 |

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 ( 21 and 20 percent, respectively). This distribution is necessary to provide a sufficient number of trained leaders to fill the higher ranks; not all personnel in the lower ranks reenlist and progress to the higher grades. There are slight variations among racial/ethnic groups (Table 3.10) as well as differences between male and female enlisted members (Table 3.11).

A comparison of pay grade distributions by race/ethnicity shows differences in retention. Blacks traditionally have higher retention rates than other racial/ethnic groups, resulting in a larger percentage of Black enlisted members at pay grades E6 through E8. In contrast, Hispanic enlisted members are found more in lower grades (E1 through E4).

As shown in Table 3.11, 63 percent of enlisted women are in pay grades E1 to E4, while only 52 percent of enlisted men are in these grades. The primary reason for the difference by gender is lower retention rates among enlisted women.

Table 3.10. FY 2001 Pay Grade of Active Component Enlisted Members, by Race/Ethnicity (Percent)

| Pay Grade | White | Black | Hispanic | Other | Total DoD |
| :---: | :---: | :---: | :---: | :---: | ---: |
| E1 | 6.9 | 6.1 | 8.1 | 5.9 | 6.8 |
| E2 | 8.3 | 7.9 | 10.9 | 8.1 | 8.5 |
| E3 | 18.0 | 16.3 | 21.8 | 17.5 | 17.9 |
| E4 | 20.2 | 20.0 | 23.9 | 22.5 | 20.6 |
| E5 | 20.6 | 20.5 | 18.7 | 20.4 | 20.4 |
| E6 | 14.2 | 16.0 | 9.7 | 14.4 | 14.2 |
| E7 | 8.5 | 9.7 | 5.0 | 8.1 | 8.4 |
| E8 | 2.3 | 2.6 | 1.5 | 2.1 | 2.3 |
| E9 | 0.9 | 1.0 | 0.5 | 0.9 | 0.9 |
| Unknown | $*$ | 0.0 | $*$ | $*$ | $*$ |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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

Table 3.11. FY 2001 Pay Grade of Active Component Enlisted Personnel, by Gender (Percent)

| Pay Grade | Male | Female | Total DoD |
| :---: | :---: | :---: | :---: |
| E1 | 6.7 | 7.1 | 6.8 |
| E2 | 8.2 | 9.8 | 8.5 |
| E3 | 17.3 | 21.3 | 17.9 |
| E4 | 20.0 | 24.4 | 20.6 |
| E5 | 20.4 | 20.1 | 20.4 |
| E6 | 14.9 | 10.0 | 14.2 |
| E7 | 9.0 | 5.5 | 8.4 |
| E8 | 2.4 | 1.4 | 2.3 |
| E9 | 1.0 | 0.4 | 0.9 |
| Unknown | $*$ | 0.0 | $*$ |
| Total | 100.0 | 100.0 | 100.0 |

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

## Chapter 4

## ACTIVE COMPONENT OFFICERS

The commissioned officer corps is the senior leadership and management of the Armed Forces. This chapter presents a view of the demographic and social characteristics of the FY 2001 Active Component commissioned officer corps, including separate information regarding newly commissioned officers (i.e., those officers entering the corps for the first time, also known as officer accessions). ${ }^{1}$ 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 1973-2001.
These data depict two drawdowns and one buildup in the Active Component officer corps. The changes in military strength can be attributed, at least partially, to changes in the world situation. The first decline, during the 1973 to 1979 period, occurred during the demobilization following the end of the Vietnam Conflict; the defense buildup of the 1980s was generated by the escalation of the Cold War; and the current drawdown is the result of the fall of communism and the end of the Cold War. The end strength for FY 2001 indicates an end to the drawdown and a return to stability in the Active Component officer corps. At somewhat less than 201,000, the FY 2001 Active Component officer end-strength is only 1,000 smaller than in FY 2000, although it is approximately 69 percent the size of the FY 1986 officers corps, which

[^13]was the peak of the buildup. The FY 2001 officer end-strength represents the smallest officer corps since the advent of the All Volunteer Force 28 years ago.

The overall number of individuals commissioned by the Services remained essentially constant in FY 2001, increasing only slightly to approximately 17,600 (Figure 4.2). This level represents the highest number of accessions since FY 1990.


Figure 4.2. Active Component officer accessions, by Service, FYs 1973-2001.

## Characteristics of Active Component Officers

Table 4.1 shows the number and percentage of FY 2001 Active Component officer accessions and officers by Service. In total personnel, the Army is the largest Service, but the Air Force has the highest commissioned officer content. The Air Force stood at slightly more than 68,000 active duty officers in contrast to the Army's approximately 64,800 . This variation in force structure reflects differences in mission requirements (e.g., number of pilots) of the two Services.

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

| Table 4.1. FY 2001 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 | 5,937 | 33.8 | 64,797 | 32.2 |
| Navy | 5,022 | 28.6 | 51,928 | 25.8 |
| Marine Corps | 1,411 | 8.0 | 16,160 | 8.0 |
| Air Force | 5,211 | 29.6 | 68,038 | 33.9 |
| Total | 17,581 | 100.0 | 200,923 | 100.0 |
| Columns may not add to total due to rounding. <br> 1 Number of active component officer corps (end-strength) reflects commissioned officers only (it excludes warrant officers). <br> Also see Tables D-21 (Officer Accessions by Fiscal Year) and D-25 (Officer Strength). |  |  |  |  |

Pay Grade. The commissioned officer corps is divided into 10 pay grades (O-1 through $\mathrm{O}-10$ ). Officers in pay grades $\mathrm{O}-1$ through $\mathrm{O}-3$ 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 highest 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 (O10); in the Navy, rear admiral-lower half, rear admiral-upper half, vice admiral, and admiral.

As Table 4.2 shows, the force structure of the officer corps is that of a pyramid with the company grade officers making up the broad base ( 59 percent of officers in FY 2001), followed by field grade officers representing the narrower middle ( 41 percent of officers in FY 2001), and general/flag officers representing the pinnacle (less than 1 percent of officers in FY 2001). This pay grade distribution is influenced not only by the military's emphasis on youth and fitness, but also by the choices and competition engendered by "up or out" career progression policies.

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

[^14]| Table 4.2. FY 2001 Active Component Officer Corps, by Rank/Pay Grade ${ }^{1}$ and Service (Percent) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rank ${ }^{*}$ | Pay Grade | Army | Navy | Marine Corps | Air Force | DoD |
| Second Lieutenant (Ensign) | O-1 | 12.8 | 14.9 | 15.6 | 12.6 | 13.5 |
| First Lieutenant (Lieutenant Jr. Grade) | O-2 | 13.2 | 12.7 | 16.5 | 11.4 | 12.7 |
| Captain (Lieutenant) | O-3 | 33.2 | 32.7 | 31.5 | 33.3 | 32.9 |
| Major (Lieutenant Commander) | O-4 | 21.7 | 19.8 | 21.1 | 22.3 | 21.4 |
| Lieutenant Colonel (Commander) | O-5 | 13.1 | 13.4 | 11.0 | 14.7 | 13.5 |
| Colonel (Captain) | O-6 | 5.5 | 6.4 | 3.9 | 5.4 | 5.6 |
| Brigadier General (Rear Admiral - Lower Half) | O-7 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 |
| Major General (Rear Admiral - Upper Half) | O-8 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Lieutenant General (Vice Admiral) | O-9 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| General (Admiral) | O-10 | ** | ** | ** | ** | ** |
| Total |  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Ranks in parenthesis are Navy designations. <br> ** Less than one-tenth of one percent. <br> ${ }^{1}$ Excludes those with unknown rank/pay grade. <br> Also see Appendix Table B-48 (Pay Grade by Gender and Service). |  |  |  |  |  |  |

A 4-year college degree, while not a universal prerequisite for commissioning, is necessary for continued service in the military. To this end, two of the primary commissioning programs, the Service academies and the Reserve Officers Training Corps (ROTC), are administered in conjunction with an individual's academic preparation. The United States Military Academy (USMA), the United States Naval Academy (USNA), and the United States Air Force Academy (USAFA) each offer room, board, medical and dental care, salary, and tuition throughout a 4-year undergraduate program of instruction leading to a baccalaureate degree. ${ }^{3}$ Located at numerous undergraduate colleges and universities throughout the country, ROTC has both scholarship and non-scholarship options. ${ }^{4}$

The two remaining primary commissioning programs, Officers Candidate/Training School (OCS/OTS) and Direct Commissioning, are designed almost exclusively for individuals who already possess at least a baccalaureate degree. OCS/OTS exists as a rather quick

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

4 Non-scholarship ROTC is not without benefits. There is a subsistence allowance upon progress to advanced training.
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 personnel to earn a commission. Direct commissions, with a minimum of military training, are offered to professionals in fields such as law, medicine, and the ministry. Because of their advanced degrees and/or work experience, officers directly appointed are often commissioned at ranks higher than the customary second lieutenant or ensign. There are other specialized commissioning sources that, together with the primary programs, ensure that the Services have access to a number of different pools of personnel with diverse skills.

Table 4.3 highlights the flexibility in officer procurement afforded by the alternative commissioning programs. The largest proportion of FY 2001 officer accessions ( 34 percent) came through ROTC programs-and most of those were recipients of a college scholarship (19 percent of all officer accessions and 56 percent of ROTC accessions). Direct appointments and academy graduates accounted for 12 percent and 16 percent of incoming officers, respectively. OCS/OTS produced about 25 percent of FY 2001 Active Component officer accessions.

| Table 4.3. FY 2001 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 | 15.8 | 15.9 | 11.2 | 16.6 | 15.7 |
| ROTC-Scholarship | 34.7 | 16.8 | 2.3 | 6.4 | 18.6 |
| ROTC-No Scholarship | 17.0 | 2.4 | 0.0 | 28.4 | 14.9 |
| OCS/OTS | 14.2 | 25.5 | 72.9 | 24.8 | 25.3 |
| Direct Appointment | 2.8 | 21.5 | 0.3 | 15.1 | 11.6 |
| Other * | 15.5 | 17.9 | 12.3 | 8.6 | 13.9 |
| Unknown | ** | 0.1 | 0.8 | 0.0 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ACTIVE COMPONENT OFFICER CORPS |  |  |  |  |  |
| Academy | 16.3 | 19.3 | 12.1 | 19.6 | 17.9 |
| ROTC-Scholarship | 36.2 | 18.4 | 14.7 | 21.7 | 25.0 |
| ROTC-No Scholarship | 21.9 | 2.3 | 0.0 | 20.5 | 14.6 |
| OCS/OTS | 9.4 | 21.8 | 64.9 | 20.1 | 20.7 |
| Direct Appointment | 8.8 | 21.2 | 1.7 | 17.3 | 14.3 |
| Other * | 7.4 | 17.1 | 6.6 | 0.8 | 7.6 |
| Unknown | ** | 0.0 | 0.0 | 0.0 | ** |
| Total | 100.0 | 100.00 | 100.00 | 100.00 | 100.00 |
| Columns may not add to total due to rounding. <br> *Includes officers trained in one Service and accessed into another (primarily Marine Corps). <br> ** Less than one-tenth of one percent. <br> Also see Appendix Tables B-40 (Active Component Officer Accessions by Source of Commission, Service, and Gender) and B-41 (Active <br> Component Officer Corps by Source of Commission, Service, and Gender). |  |  |  |  |  |

The Services differ in their reliance on the various commissioning sources. For example, 73 percent of the Marine Corps' newly commissioned officers came through OCS-type pipelines, while comparable figures for the other Services were between 14 percent and 26 percent. Fewer than one percent of Marine Corps officer accessions were recipients of direct commissions
compared to 22 percent in the Navy. In fact, the Marine Corps does not have a Service academy or ROTC program. Midshipmen at the Naval Academy and in the Navy's ROTC program can opt to enter the Marine Corps upon program completion. The Marine Corps relies on the Navy for officers in medical and dental specialties and chaplains, thereby lowering its need for direct commissioning. The Service differences are probably influenced by retention rates, budget considerations, and historical fluctuations in officer recruiting needs.

Age. As shown in Table 4.4, officers, on average, tend to be older than enlisted personnel. Upon commissioning in FY 2001, the average officer was nearly 27 years old in contrast to 19 years old for the average enlisted accession. The mean age of all active officers was 34 years, while that of enlisted members was 27 years. The mean age of officer accessions varies by source of commission. In FY 2001, the average age of newly commissioned officers ranged from less than 23 years for Service academy graduates to over 31 years for officers accessed through direct appointment. ${ }^{5}$

| Table 4.4. FY 2001 Mean Age of Active Component Officer Accessions and |  |
| :--- | :---: | :---: |
| Officer Corps in Comparison to Enlisted Personnel |  |

Figures 4.3 and 4.4 (together with Appendix Table B-31) highlight the military's emphasis on youth. The importance of youth is particularly salient in the Marine Corps, in which approximately 7 percent of newly commissioned officers were 31 or older. In contrast, the proportion of officer accessions in this age range was 18 percent in the Army, 27 percent in the Navy, and 23 percent in the Air Force. The rigorous physical demands and rapid deployment of Marines, and this Service's absence of officers in medical and ministry fields, no doubt are related to the relative youth of Marine Corps officers.

Figure 4.5 shows that FY 2001 broke the recent trend of increasing average age and time in service for the officer corps. The average officer age remained nearly constant at somewhat over 34 years in FY 2001, while the average time in service decreased to a value slightly below 11 years. The trends in age and tenure of the officer corps reflect the transition from a period of drawdown to a period of stability in the size of the force.

[^15]

Figure 4.3. Age of FY 2001 Active Component officer accessions, by Service.


Figure 4.4. Age of FY 2001 Active Component officer corps, by Service.


Figure 4.5. Active Component officers' mean years of age and months of service, FYs 19732001.

Race/Ethnicity. The percentages of minorities among newly commissioned officers and the Active Component officer corps are shown in Table 4.5. In FY 2001, over 22 percent of entering officers were minorities-Blacks, Hispanics, and "Others" (e.g., Native Americans, Asians, and Pacific Islanders)-and almost 17 percent of all commissioned officers on active duty were members of minority groups. The Air Force had the smallest proportion of minority officer accessions at 19 percent, and the Army had the largest proportion at more than 26 percent. The most populous minority group, Blacks, represented approximately 10 percent of officer accessions and over 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 SAT scores for college-bound seniors in 2001 were 529 for Whites and 433 for Blacks; mean

[^16]math scores were 531 for Whites and 426 for Blacks. ${ }^{7}$ In light of these and other factors (e.g., fierce labor market competition for college-educated minorities), ${ }^{8}$ minority representation among officer accessions appears rather equitable when compared to the 21- to 35 -year-old civilian population of college graduates which stands at 8.2 percent Black, 5.8 percent Hispanic, and 9.8 percent "Other." Blacks are slightly overrepresented among officer accessions, while Hispanics and "Other" minorities are slightly underrepresented.

| Table 4.5. FY 2001 Active Component Minority Officer Accessions and Officer Corps, by Service (Percent) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Minority | Army | Navy | Marine Corps | Air Force | DoD |
| ACTIVE COMPONENT OFFICER ACCESSIONS |  |  |  |  |  |
| Black | 13.5 | 8.2 | 5.7 | 7.7 | 9.6 |
| Hispanic | 5.3 | 5.8 | 7.4 | 2.1 | 4.7 |
| Other | 8.0 | 7.7 | 7.1 | 9.2 | 8.2 |
| Total Minority Officer Accessions | 26.7 | 21.7 | 20.1 | 19.1 | 22.5 |
| ACTIVE COMPONENT OFFICER CORPS |  |  |  |  |  |
| Black | 11.9 | 6.8 | 6.5 | 6.6 | 8.3 |
| Hispanic | 4.3 | 4.7 | 5.3 | 2.4 | 3.8 |
| Other | 5.8 | 5.1 | 3.4 | 3.3 | 4.6 |
| Total Minority Officers | 22.0 | 16.5 | 15.1 | 12.2 | 16.7 |
| 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). |  |  |  |  |  |

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 2001, White officer accessions were more likely than minorities to have been commissioned via one of the academies, but were less likely to have come from an ROTC program without a scholarship. "Other" racial/ethnic officer accessions were more likely than other groups to have direct appointments, but were the least likely to attend OCS/OTS. Hispanic officer accessions were the least likely to have received a direct appointment or to have joined the officer corps with another commissioning method. For the overall Active Component officer corps in FY 2001, Black officers were less likely to have attended a Service academy, but more likely to have graduated from an ROTC program. Among the FY 2001 officer corps, "Other" minorities were more likely than other groups to have entered with a direct appointment or by another commissioning source. Hispanic officers were more likely to have entered the officer corps through OCS/OTS.

7 See U.S. Department of Education, Digest of Education Statistics 2001 (NCES 2002-130) (Washington, DC: National Center for Education Statistics, 2001), Table 134.

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

| Table 4.6 FY 2001 Source of Commission of Active Component Officer Accessions, |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| by Race/Ethnicity and Gender (Percent) |  |  |  |  |  |


| Table 4.7. FY 2001 Source of Commission of Active Component Officer Corps, |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| by Race/Ethnicity and Gender (Percent) |  |  |  |  |  |  |
| Source of Commission | White | Black | Hispanic | Other | Male | Female |
| Academy | 18.6 | 11.0 | 17.0 | 18.1 | 19.0 | 11.5 |
| ROTC-Scholarship | 25.3 | 25.0 | 21.9 | 22.1 | 25.1 | 24.1 |
| ROTC-No Scholarship | 13.7 | 22.9 | 17.2 | 13.0 | 15.1 | 12.0 |
| OCS/OTS | 20.7 | 19.4 | 25.8 | 18.2 | 21.8 | 14.6 |
| Direct Appointment* | 14.2 | 13.6 | 11.7 | 18.6 | 11.4 | 30.0 |
| Other** | 7.5 | 8.0 | 6.3 | 10.0 | 7.5 | 7.9 |
| Unknown | $* * *$ | $* * *$ | $* * *$ | $* * *$ | $* * *$ | $* * *$ |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Females accessed through direct appointment are primarily health care professionals. <br> $* * *$ Includes officers trained in one Service and accessed into another (primarily Marine Corps). <br> $* * *$ Less than one-tenth of one percent. |  |  |  |  |  |  |
| Also see Appendix Tables B-41 <br> Race/Ethnicity). |  |  |  |  |  |  |

The Department of Defense 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 10 percent of Blacks, for example, among officer accessions in FY 2001 compares favorably with figures from one and two decades ago (1990: 8.1 percent; 1980: 5.8 percent).

These accession trends have been contributing to greater minority strength levels in the total officer corps. For example, Blacks comprised 5 percent of all active duty officers in FY 1980, nearly 7 percent in FY 1990, and over 8 percent by the end of FY 2001. The lagging longterm 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.

| Race/Ethnicity and Pay Grade | Army | Navy | Marine Corps | Air Force | DoD |
| :---: | :---: | :---: | :---: | :---: | :---: |
| O-1 through O-3 |  |  |  |  |  |
| White | 75.7 | 80.0 | 82.0 | 86.8 | 81.0 |
| Black | 12.3 | 8.1 | 7.4 | 7.0 | 9.0 |
| Hispanic | 5.0 | 5.7 | 6.6 | 2.5 | 4.5 |
| Other | 7.0 | 6.2 | 4.1 | 3.7 | 5.5 |
| Total | 100.0 | 100.0 | 1000.0 | 100.0 | 100.0 |
| O-4 through O-6 |  |  |  |  |  |
| White | 81.3 | 88.7 | 89.9 | 89.0 | 86.5 |
| Black | 11.4 | 4.9 | 4.9 | 6.0 | 7.3 |
| Hispanic | 3.2 | 3.1 | 3.0 | 2.4 | 2.9 |
| Other | 4.1 | 3.3 | 2.2 | 2.7 | 3.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| O-7 through O-10 |  |  |  |  |  |
| White | 89.5 | 95.4 | 92.5 | 95.6 | 93.1 |
| Black | 7.4 | 2.3 | 5.0 | 3.7 | 4.8 |
| Hispanic | 1.9 | 1.8 | 2.5 | 0.0 | 1.4 |
| Other | 1.3 | 0.5 | 0.0 | 0.7 | 0.8 |
| 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-49 (Active Component Officer Corps by Pay Grade, Service, and Race/Ethnicity).
The racial/ethnic makeup of the lower grades (O-1 through O-3) fairly closely mimics that of officer accessions. Minorities comprise 19 percent of company grade officers, compared to 22 percent of officer accessions. However, higher grades are more predominantly occupied by whites. Minorities represent less than 14 percent of field grade officers and approximately 7 percent of general or flag officers. Some of these differences are undoubtedly a byproduct of the improvements in minority accessions that have occurred in the previous decades. Officers with higher grades were commissioned at a time when minorities comprised a smaller proportion of the total population and were more underrepresented within officer accessions. However, lower
minority representation among higher grades may also indicate that minorities are not promoted at the same rate as White officers, or that they tend to separate from service at an earlier date. ${ }^{9}$ To the extent that differences between racial and ethnic groups in retention and promotion rates exist, they should be addressed by career management policies. Factors such as increased college graduation rates and targeted recruiting programs have provided minorities with greater access to the officer corps. However, it is also important to monitor progress further along the pipeline. ${ }^{10}$

Gender. As shown in Table 4.9, women constituted about 20 percent of officer accessions and 15 percent of the officer corps in FY 2001. 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 2001 Active Component Female Officer Accessions and |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Officer Corps (Percent) |  |  |  |  |
| Active Component Accessions | Navy | Marine Corps | Air Force | DoD |  |
| Active Component Officer Corps | 21.2 | 18.9 | 9.3 | 22.8 | 20.1 |
| Also see Appendix Table B-32 (Gender by Service). | 15.8 | 15.2 | 5.3 | 17.4 | 15.3 |

The primary sources of commission for female officer accessions in FY 2001 were ROTC Scholarship ( 23 percent) and direct appointment (18 percent), as shown in Table 4.6. Female officer accessions were less likely than males to have attended an academy or to have received their commission through OCS/OTS. 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. While females comprised 17 percent of company grade officers, their representation decreased to 13 percent of field grade officers and 4 percent of general or flag officers.

Commissioning source differences complicate the interpretation of variations in pay grade distributions by gender. For example, direct commissions may provide an early grade boost for women, since advanced degree requirements associated with occupations in the professional echelons are rewarded by DoD with advanced pay grade initially for commissioned officers. Assignment qualifications, interests, and policy also affect pay grade. In the Air Force,

[^17]for example, status as a pilot usually enhances career prospects. (Assignment data are provided later in this chapter in the discussion of occupation areas.)

| Table 4.10. FY 2001 Pay Grade ${ }^{1}$ of Active Component Officers, by Service and Gender (Percent) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pay Grade | Army | Navy | Marine Corps | Air Force | DoD |
| O-1 through O-3 |  |  |  |  |  |
| Male | 82.1 | 83.9 | 93.2 | 79.7 | 82.7 |
| Female | 17.9 | 16.1 | 6.9 | 20.3 | 17.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| O-4 through O-6 |  |  |  |  |  |
| Male | 87.1 | 86.0 | 97.4 | 86.5 | 87.4 |
| Female | 12.9 | 14.0 | 2.7 | 13.5 | 12.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| O-7 through O-10 |  |  |  |  |  |
| Male | 96.5 | 95.4 | 98.8 | 96.3 | 96.4 |
| Female | 3.5 | 4.6 | 1.3 | 3.7 | 3.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> 1 <br> Excludes those with unknown rank/pay grade. <br> Also see Appendix Table B-48 (Pay Grade by Gender and Service) |  |  |  |  |  |

Marital Status. As indicated in Table 4.11, officers were more likely to be married than the enlisted personnel they lead. It is interesting to note that for officers as well as enlisted personnel, women on active duty were less likely than men to be married. In fact, while nearly three-quarters of male officers were married, only 51 percent of women officers had a spouse. Furthermore, whereas male officers were approximately as likely as their civilian counterparts (college graduates in the workforce 21 to 49 years of age) to be married, female officers were substantially 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 2001 Married Active Component Officer Corps and Enlisted Personnel, by Gender (Percent) |  |  |
| :--- | :---: | :---: |
| Gender | Officers | Enlisted |
| Males | 71.0 | 49.6 |
| Females | 50.7 | 40.1 |
| Total | 67.9 | 48.2 |
| 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 nearly eight times more likely than married male officers to have a spouse in uniform. This trend is more than a curiosity, as dual-
service marriages pose unique challenges to assignment and deployment, in addition to affecting Servicemembers' satisfaction with military life.

| Gender | End-Strength | Married |  | Married Who Were In Dual-Service Marriages |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number* | Percent |
| ARMY |  |  |  |  |  |
| Male | 54,547 | 39,674 | 72.7 | 2,498 | 6.3 |
| Female | 10,250 | 5,419 | 52.9 | 2,538 | 46.8 |
| Total | 64.797 | 45,093 | 69.6 | 5,036 | 11.2 |
| NAVY |  |  |  |  |  |
| Male | 44.036 | 28,371 | 64.4 | 443 | 1.6 |
| Female | 7,892 | 3,376 | 42.8 | 529 | 15.7 |
| Total | 51,928 | 31,747 | 61.1 | 972 | 3.1 |
| MARINE CORPS |  |  |  |  |  |
| Male | 15,301 | 10,569 | 69.1 | 383 | 3.6 |
| Female | 859 | 350 | 40.8 | 241 | 68.9 |
| Total | 16,160 | 10,919 | 67.6 | 624 | 5.7 |
| AIR FORCE |  |  |  |  |  |
| Male | 56,211 | 42,138 | 75.0 | 2,483 | 5.9 |
| Female | 11,827 | 6,498 | 54.9 | 2,517 | 38.7 |
| Total | 68,038 | 48,636 | 71.5 | 5,000 | 10.3 |
| DoD |  |  |  |  |  |
| Male | 170,095 | 120,752 | 71.0 | 5,807 | 4.8 |
| Female | 30,828 | 15,643 | 50.7 | 5,825 | 37.2 |
| Total | 200,923 | 136,395 | 67.9 | 11,632 | 8.5 |

Education. There are few exceptions to the Service requirements that commissioned officers have at least a 4-year college degree, so the education levels of FY 2001 Active Component officer accessions come as no surprise. Table 4.13 clearly shows the officer corps’ reliance on the college-educated. Approximately 9 percent of officers commissioned in FY 2001 did not have at least a bachelor's degree; most likely these officers were former enlisted personnel. A notable percentage of newly commissioned officers ( 11 percent)—mostly lawyers, chaplains, and health care professionals (i.e., physicians, dentists, etc.)-held advanced degrees.

| Table 4.13. FY 2001 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 | 2.0 | 9.1 | 0.6 | 18.7 | 8.9 |
| College Graduate (B.A., B.S., etc.) | 81.6 | 89.3 | 97.2 | 65.6 | 80.2 |
| Advanced Degree (M.A., Ph.D., etc.) | 16.4 | 1.6 | 2.2 | 15.7 | 10.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ACTIVE COMPONENT OFFICER CORPS |  |  |  |  |  |
| Less than College Graduate | 0.3 | 12.9 | 3.8 | 2.0 | 4.2 |
| College Graduate (B.A., B.S., etc.) | 56.6 | 45.2 | 78.6 | 43.4 | 51.1 |
| Advanced Degree (M.A., Ph.D., etc.) | 43.0 | 41.9 | 17.7 | 54.6 | 44.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> *Education credential information in the DMDC active and loss edit file is not always updated on a frequent basis. The Navy accession data were provided by the U.S. Navy, for more accurate information. <br> Percentages do not include "Unknown" data. <br> Also see Appendix Table B-35 (Education by Service). |  |  |  |  |  |

Not only are college graduates amply represented among newly commissioned officers, but the education levels in the officer corps indicate that the Services promote continuing education. Significant proportions of officers attained advanced degrees while serving. The Air Force had the greatest proportion ( 55 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. More than onethird 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 2001 occupational area data by Service, including personnel classified as nonoccupational.

Women and occupational assignments. 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 2001. Significantly greater percentages of men than women were in tactical operations (42 and 10 percent, respectively), whereas greater percentages of women than men were in "traditional" female occupations of administration (12 and 6 percent, respectively) and health care ( 42 and 15 percent, respectively). Appendix Table B-38 shows the assignment patterns by Service and gender.

Table 4.14. FY 2001 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 | 41.9 | 10.2 | 37.0 |
| Intelligence | 5.0 | 6.0 | 5.1 |
| Engineering and Maintenance | 12.4 | 10.9 | 12.2 |
| Scientists and Professionals | 4.8 | 4.8 | 4.8 |
| Health Care | 14.7 | 41.7 | 18.9 |
| Administration | 5.6 | 11.7 | 6.5 |
| Supply, Procurement, and Allied Occupations | 8.9 | 10.1 | 9.1 |
| Non-Occupational $*$ | 6.2 | 4.4 | 5.9 |
| Total | 100.0 | 100.0 | 100.0 |

Columns may not add to total due to rounding.
Calculations exclude 1 male Army, 602 male and 19 female Marine Corps, and 418 male and 24 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).

| Table 4.15. FY 2001 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 | 0.2 | 0.1 |
| Tactical Operations | 38.7 | 24.9 | 35.7 | 28.9 |
| Intelligence | 5.2 | 4.8 | 5.7 | 4.7 |
| Engineering and Maintenance | 11.9 | 15.9 | 11.8 | 12.1 |
| Scientists and Professionals | 5.0 | 4.2 | 3.9 | 4.3 |
| Health Care | 18.5 | 19.5 | 16.2 | 28.2 |
| Administration | 6.0 | 10.9 | 7.6 | 6.4 |
| Supply, Procurement, and Allied Occupations | 8.4 | 15.6 | 11.0 | 8.9 |
| Non-Occupational* | 6.0 | 3.8 | 7.9 | 6.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> Calculations exclude 1 White Army; 567 White, 33 Black, 16 Hispanic, and 5 "Other" Marine Corps; and 412 White, 21 Black, 4 Hispanic, and 3 "Other" Air Force O-6 officers classified as general officers by the Services. <br> * Non-occupational includes patients, students, those with unassigned duties, and unknowns. <br> Also see Appendix Table B-39 (Occupational Area by Service and Race/Ethnicity). |  |  |  |  |

Minorities and occupational assignments. The percentage of each racial/ethnic category by officer occupational areas is shown in Table 4.15. In FY 2001, racial and ethnic groups of officers generally had similar patterns of representation across occupational areas, although there are several specific differences in the patterns. Fewer Blacks and "Others" were assigned to tactical operations than were Whites and Hispanics. Similarly a greater percentage of officers in the "Other" racial category was in health care positions. Proportionately more Blacks than other racial/ethnic groups were in the engineering and maintenance, administration, and supply occupations. The Services strive to achieve racial/ethnic balance during the assignment process. Such a focus is important because occupational assignment is related to promotion opportunities and success as an officer.

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

## Warrant Officers ${ }^{11}$

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. ${ }^{12,13}$ 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 2001, 1,520 warrant officer accessions were added to the force and the overall total force of warrant officers on active duty stood at 14,864 . Table 4.16 presents gender and race/ethnicity statistics on FY 2001 warrant officers. They are overwhelmingly male ( 93 percent) but have greater minority representation than commissioned officers. Blacks, in particular, are more highly represented among warrant officers, accounting for 17 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.

[^18]12 Upper-level warrant officers, however, frequently function in foreman-type roles within their system specialties.

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

| Table 4.16. FY 2001 Active Component Warrant Officer Accessions and Officer Corps, by |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Race/Ethnicity, Gender, and Service* (Percent) |  |  |  |

## Chapter 5

## SELECTED RESERVE ENLISTED ACCESSIONS AND ENLISTED FORCE

The Ready Reserve, with an FY 2001 strength of more than 1.2 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 2001 composition of the Selected Reserve within the Ready Reserve.
Of the 867,422 Selected Reserve members, 736,642 are enlisted, 119,803 are officers and the remaining 10,977 are Warrant Officers. 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. ${ }^{1}$ 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 and deploy as units; augmentation units train as units in peacetime, but are absorbed into Active Component units upon mobilization.

[^19]
## 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 nonprior service (NPS) applicants through Military Entrance Processing Stations (MEPSs), following procedures almost identical to the Active Components.

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 a Reserve Component.

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 (54 percent in FY 2001) 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 enlistment, and other secondary job opportunities create recruiting and retention challenges for Selected Reserve units.

The occupational distribution among the Active and Reserve Components varies (e.g., 5 percent of active Navy enlistees serve as craftsmen while 15 percent of Naval Reserve [USNR] members serve as craftsmen). Some units have to recruit more NPS individuals to fill unit

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).
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.

The diversity of mission and force structure among the Reserve Components affects the demographic composition of units. For example, an Army 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, such as the proportional distribution of individuals with particular skills, the location of units, and the proportion of members with prior service experience.

This chapter provides demographic characteristics and the distribution of FY 2001 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 2001 Reserve Component recruiting results for NPS and prior service gains and assigned end-strengths are shown in Table 5.1. In FY 2001, the Reserve Components recruited 156,428 enlisted persons compared to the Active Component's 182,976 . The ARNG has the largest Reserve Component recruiting program, followed by the Army Reserve (USAR). The ARNG recruited 33,405 NPS enlistees, about 12,600 more than the USAR. The ARNG also recruited about 4,500 more prior service recruits than the USAR.

Selected Reserve recruiting achievements decreased by approximately 3,300 enlisted accessions from FY 2000 to FY 2001 (from 159,687 to 156,428). The USNR, ANG and USAFR experienced an increase in enlisted accession while all other components experienced a decrease.

Due to differences in mission and force structure, the size of recruit cohorts by component varied greatly. Therefore, comparisons between the Reserve Components percentages must be interpreted with care. The Army Components-the ARNG and USARhad the largest Selected Reserve recruit cohorts, recruiting 71 percent of total Reserve Component accessions ( 39 and 32 percent for the ARNG and USAR, respectively) in FY 2001. The Naval Reserve (USNR) and Air Force Reserve (USAFR) had the highest proportion of prior service recruits ( 81 and 70 percent of their total recruiting efforts, respectively). The Marine Corps Reserve (USMCR) had the lowest proportion of recruits with past military experience (39 percent). Prior service accessions provide the Reserve Components with a more experienced personnel base, contributing to increased readiness to meet future missions.

| Table 5.1. FY 2001 Selected Reserve Non-Prior Service (NPS) and Prior Service Enlisted Accessions and End-Strengths |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enlisted Accessions |  |  |  |  |
| Components | Non-Prior Service | Prior Service | Total | Prior Service Percent of Components Total | Enlisted End-Strength |
| Army National Guard | 33,405 | 28,942 | 62,347 | 46.4 | 315,250 |
| Army Reserve | 20,801 | 24,461 | 45,262 | 54.0 | 164,760 |
| Naval Reserve | 3,652 | 16,002 | 19,654 | 81.4 | 68,872 |
| USMC Reserve | 5,845 | 3,704 | 9,549 | 38.8 | 35,881 |
| Air National Guard | 5,844 | 5,198 | 11,042 | 47.1 | 95,060 |
| Air Force Reserve | 2,603 | 5,971 | 8,574 | 69.6 | 56,819 |
| DoD Total | 72,150 | 84,278 | 156,428 | 53.9 | 736,642 |
| Also see Appendix Tables C-1 (NPS Age by Component and Gender), C-9 (Prior Service Age by Component and Gender), and C-15 (Enlisted Member Age by Component and Gender). |  |  |  |  |  |

The increase in availability of prior service recruits, a temporary phenomenon due to the larger number of active duty members leaving service during the drawdown, ended in the late 1990s. The result is fewer prior service individuals from which the Reserve Components can recruit. In fact, the more successful the Military Services are in retaining active duty members, the smaller the prior service pool becomes. Thus, the Reserve Components must recruit NPS individuals, in direct competition with the Active Components. The numerical effects of the drawdown, changes in the Reserve mission with increased combat risks due to an increased operating tempo (OpTempo), as well as quality of life and compensation issues have made Reserve recruiting difficult as we enter the $21^{\text {st }}$ century. Potential recruits are likely to find combat risk, family hardships, and financial losses during a mobilization more important in the Reserve participation decision today and in the future." 3

Age. The largest proportions of FY 2001 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 70 percent falling in the 25 - to 34 -year age group.

Several factors contribute to age differences within the Reserve Components, 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 2001, 27 percent of ARNG NPS recruits were students still enrolled in high school. This is a decrease of 13percentage points from FY 2000. Thirteen percent of USAR NPS recruits were students still enrolled in high school.

[^20]| Table 5.2. FY 2001 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 <br> Reserve | Marine <br> Corps <br> Reserve | Air National Guard |  | Total DoD | $\begin{aligned} & 17-\text { to } 35- \\ & \text { Year-Old } \\ & \text { Civilians } \end{aligned}$ |
| 17-19 | 66.3 | 67.2 | 1.1 | 67.5 | 57.2 | 47.0 | 61.9 | 16.8 |
| 20-24 | 23.0 | 24.1 | 3.5 | 26.7 | 30.2 | 34.6 | 23.6 | 26.0 |
| 25-29 | 6.4 | 6.1 | 36.7 | 4.8 | 8.2 | 11.6 | 8.0 | 24.4 |
| 30-34 | 2.7 | 2.4 | 32.6 | 0.9 | 4.0 | 5.4 | 4.2 | 27.0 |
| 35-39 | 0.9 | 0.1 | 23.2 | 0.0 | 0.3 | 0.6 | 1.7 | 5.8 |
| 40-44 | 0.1 | 0.0 | 1.7 | 0.0 | * | 0.3 | 0.2 |  |
| 45-49 | 0.1 | * | 0.8 | 0.0 | 0.0 | 0.3 | * |  |
| 50+ | 0.1 | 0.0 | 0.4 | 0.0 | * | 0.1 | * |  |
| Unknown | 0.5 | 0.0 | * | * | * | 0.0 | 0.2 |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Less than one-tenth of one percent. <br> Also see Appendix Tables C-1 (Age by Component and Gender) and C-2 (Age by Marital Status and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 2000- September 2001. |  |  |  |  |  |  |  |  |

Race/Ethnicity. Table 5.3 presents the racial/ethnic makeup of FY 2001 NPS enlisted accessions by Selected Reserve Components. These figures are similar to those seen in FY 2000, except for the USAFR where the proportion of white NPS accessions have increased by 5 percent. For the ARNG there has been an increase in black NPS accessions from 15 percent in FY 2000 to almost 18 percent in FY 2001. For the USAFR, the proportion of Blacks, Hispanics and Other NPS accessions have decreased by 2, 3 and 1 percent respectively since FY 2000. This decrease in minorities is also true for ARNG prior service accessions. There has been an increase in White prior service accessions in the ARNG from 68 percent in FY 2000 to 76 percent in FY 2001. Subsequently, Black prior service accessions for the ARNG decreased by just over 8 percent in FY 2001.

Since the inception of the All Volunteer Force, Blacks have been somewhat overrepresented in the active duty ranks, while Whites and Hispanics have been underrepresented as compared to the nation's youth population as a whole. We would expect this to be reflected in the makeup of the Reserve Forces. Table 5.3, however, demonstrates that in the ARNG and ANG, the proportion of prior service Black accessions is lower compared to their representation among the 20- to 39 -year-old civilian labor force, the comparable civilian group. In the other components the proportion of prior service Black accessions is higher than in the civilian labor force. Hispanics are underrepresented across the board, with the exception of the USMCR's prior service recruits. In previous years, Whites also have made up a smaller proportion of Reserve accessions than of the comparison group. However, since FY 2000, the proportion of NPS White accessions in the ARNG, USMCR, and ANG was higher than in the civilian comparison groups. Prior service White accessions in the ARNG, USNR, ANG, and USAFR are also higher than in the civilian comparison group.

| Table 5.3. FY 2001 Selected Reserve Non-Prior Service and Prior Service Enlisted Accessions, |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| by Race/Ethnicity, and Civilians (Percent) |  |

Across the Reserve Components, among female accessions the proportion of Black women was 24 and 30 percent for NPS and prior service, respectively. Among males recruits, Black men, although more numerous than Black women, accounted for only 11 and 15 percent of NPS and prior service accessions, respectively (see Appendix Tables C-3 and C-11). The USAFR had the highest proportion of Black female NPS recruits ( 38 percent) while the USAR had the highest proportion of Black female prior service recruits (42 percent).

Gender. The proportion of Selected Reserve accessions in FY 2001 who were women was slightly greater ( 20 percent) than in the Active Components ( 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 29 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 9 percent of FY 2001 Selected Reserve NPS enlisted accessions were married (Table 5.5). The marriage rates of prior service recruits look markedly different, with 44 percent married. The FY 2001 prior service cohort, predominantly those leaving active duty enlisted service who chose to affiliate with the Reserves, were slightly less likely to be married than active duty enlisted members (48 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 ( 50 percent). Among FY 2001 prior service Reserve accessions, a
somewhat larger proportion of males were married than females (45 and 39 percent, respectively).

| Table 5.4. FY 2001 Selected Reserve Non-Prior Service and Prior Service Accessions, by Gender |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Percent) |  |  |  |  |  |  |  |

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 2001 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 <br> Service <br> Reserve Accessions | Civilians, 17-35 Years Old | Prior <br> Service <br> Reserve Accessions | Civilian Labor Force, 20-39 Years Old | Non-Prior Service Active Component Accessions | Active Component Enlisted Members |
| Male | 8.3 | 34.0 | 44.5 | 49.9 | 8.0 | 49.6 |
| Female | 10.1 | 40.4 | 38.7 | 49.0 | 11.6 | 40.1 |
| Total | 8.8 | 37.3 | 43.5 | 49.5 | 8.7 | 48.2 |
| Also see Appendix Tables B-2 (NPS Active Component Enlisted Accession by Age, Marital Status and Gender), B-24 (Active Component Enlisted Members by Age, Marital Status, and Gender), C-2 (NPS Age by Marital Status and Gender), and C-10 (Prior Service Age by Marital Status and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 2000 - September 2001. |  |  |  |  |  |  |

Education. More Selected Reserve NPS recruits completed high school than was the case for their civilian peers (Table 5.6). Approximately 99 percent of FY 2001 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. In the Army Reserve, 90 percent of NPS enlistees were high school diploma graduates. This is an increase of 7 percentage points from FY 2000. Excluding those enlisted under the GED+ program, the USAR recruited 99 percent in Tier 1.

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 ( 26 percent), in part, due to college credit earned through the Navy's Tech Prep partnerships with selected community colleges. Tech Prep is a federallyfunded educational program providing technical career training and job placement. The Navy has agreements with a number of community colleges that in turn work with feeder high schools.

Qualified, interested students sign up while in their junior or senior year of high school. They complete college credit Tech Prep courses during high school. After graduation, they attend two semesters at a local community college while in the Navy's delayed entry program. Following recruit training, the enlistees complete technical training courses provided by the Navy; the community college counts the Navy training toward the requirements for an associates degree.

The percentage of 18 - to 24 -year-old civilians with college experience is much greater than even the 26 percent in the Naval Reserve. Since most enlisted occupations are generally comparable to civilian jobs not requiring college education, this should not be surprising.

| Table 5.6. FY 2001 Selected Reserve Non-Prior Service Enlisted Accessions, by Education Tier and Component, and Civilians 18-24 Years Old (Percent) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education Tier | Army <br> National Guard ${ }^{1}$ | Army Reserve | Naval Reserve | Marine <br> Corps Reserve | Air National Guard | Air <br> Force Reserve | Total DoD | $18 \text { - to } 24-$ <br> Year-Old <br> Civilians* |
| Tier 1: Regular High School Graduate or Higher** | 86.0 | $\begin{gathered} 90.0 \\ \left(99.3^{* * *}\right) \end{gathered}$ | 97.5 | 96.9 | 80.7 | 94.2 | $\begin{gathered} 88.5 \\ \left(91.0^{* * *}\right) \end{gathered}$ | 79.1 |
| Tier 2: GED, Alternative Credentials | 12.5 | 8.5 | 0.8 | 3.0 | 17.4 | 2.2 | 10.0 |  |
| Tier 3: No Credentials | 1.4 | 1.6 | 1.7 | 0.1 | 1.9 | 3.7 | 1.5 | 20.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| College Experience (Part of Tier 1) ${ }^{2}$ | 2.8 | 5.5 | 25.6 | 3.1 | 6.4 | 3.8 | 5.1 | 46.7 |
| Columns may not add to total due to rounding. <br> *Civilian percentages combine Tiers 1 and 2. <br> **Tier 1 includes members still in high school. <br> ***Tier 1 data excluding GED+ participants from total accessions. GED+ is an experimental program enlisting up to 2,000 USAR applicants with a GED or no credential who have met special screening criteria for enlistment. <br> ${ }^{1}$ Army National Guard and Army Reserve data provided by Reserve Component Accession Policy. Data presented in this table may differ slightly from the data shown in appendix tables that are taken from DMDC's RCCPDS File. <br> 2 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. <br> Also see Appendix Tables C-7 (Education by Component and Gender) and C-8 (Education by Component and Race/Ethnicity). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, October 2000 - September 2001. |  |  |  |  |  |  |  |  |

AFQT. FY 2001 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 comparable civilians (56 versus 54 percent). Sixty-one to 76 percent of ARNG and USMCR NPS male accessions were in AFQT Categories I through IIIA, compared to 54 percent in the civilian group. A higher percentage of ARNG, USAR, USMCR, and ANG NPS female recruits scored in AFQT categories I-IIIA (55, 50, 78 and 50 percent, respectively) compared to 49 percent in the comparable female civilian group.

| Table 5.7. FY 2001 Selected Reserve Non-Prior Service Enlisted Accessions, by AFQT Category, Gender, and Component (Percent) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AFQT <br> Category | Army National Guard | Army <br> Reserve | Naval <br> Reserve | Marine Corps Reserve | Air National Guard | Air <br> Force <br> Reserve | Total DoD |
| I-IIIA | 60 | 66 | 73 | 76 | 79 | 73 | 64 |
| IIIB | 39 | 33 | 27 | 24 | 22 | 27 | 34 |
| IV | 1 | 2 | 0 | 0 | 0 | 0 | 1 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Columns may not add to total due to rounding. <br> Also see Appendix Tables C-5 (AFQT by Component and Gender) and C-6 (AFQT by Component and Race/Ethnicity). <br> Source: Service data from OUSD(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 RCCPDS File. The 1980 civilian comparison group distribution for the total population (males and females) is 7 percent in Category I, 28 percent in Category II, 15 percent in Category IIIA, 19 percent in Category IIIB, 21 percent in Category IV, and 10 percent in Category V. Civilian data from the Profile of American Youth (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], 1982). |  |  |  |  |  |  |  |

## Characteristics of the Selected Reserve Enlisted Force

Reserve Component forces perform a variety of important missions in the event of a national emergency and assist the Active Components in meeting their operating requirements. Figure 5.2 shows the Selected Reserve enlisted end-strengths for FYs 1974 to 2001.


Also see Appendix Table D-30 (Reserve Component Enlisted Strength).

Figure 5.2. Reserve Component enlisted end-strength, FYs 1974-2001.

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 37 percent, respectively, of enlisted members 40 years of age or older. These proportions are strikingly different from the Active Components and other Reserve Components. For example, only 3 percent of USMCR enlisted members are 40 or older.

| Table 5.8. FY 2001 Selected Reserve Enlisted Members, by Age and Component, and Civilian Labor Force Over 16 Years Old (Percent) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Group | Army <br> National Guard | Army <br> Reserve | Naval Reserve | Marine <br> Corps <br> Reserve | Air National Guard | Air <br> Force <br> Reserve | Total DoD | Civilians |
| 17-19 | 11.3 | 12.8 | 1.0 | 13.2 | 4.7 | 2.3 | 9.2 | 4.6 |
| 20-24 | 22.9 | 23.8 | 7.3 | 51.3 | 13.5 | 9.0 | 20.8 | 10.4 |
| 25-29 | 16.0 | 15.4 | 18.0 | 19.5 | 13.4 | 12.5 | 15.6 | 10.5 |
| 30-34 | 14.6 | 13.7 | 25.7 | 8.4 | 16.6 | 17.5 | 15.6 | 11.6 |
| 35-39 | 13.4 | 13.3 | 24.3 | 4.7 | 18.8 | 21.7 | 15.3 | 12.8 |
| 40-44 | 9.2 | 9.7 | 13.3 | 1.9 | 13.3 | 15.5 | 10.3 | 13.7 |
| 45-49 | 5.5 | 5.5 | 6.1 | 0.6 | 8.4 | 9.9 | 6.0 | 12.3 |
| 50+ | 7.2 | 5.5 | 4.4 | 0.4 | 11.3 | 11.6 | 7.1 | 24.1 |
| 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 2001. |  |  |  |  |  |  |  |  |

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.

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 Components ( 22 percent). The USAR has the largest proportion of Blacks ( 28 percent), while the ANG has the lowest ( 10 percent). The USMCR has the greatest proportion of Hispanic members ( 15 percent) and the greatest proportion of "Other" racial minorities (7 percent). The ANG and USAR are close behind with 6 percent each of "Other" racial minorities. All of these percentages are very similar to those of FY 2000.

| Table 5.9. FY 2001 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 <br> Reserve | Naval <br> Reserve | Marine Corps Reserve | $\begin{gathered} \text { Air } \\ \text { National } \\ \text { Guard } \end{gathered}$ | Air <br> Force Reserve | $\begin{aligned} & \text { Total } \\ & \text { DoD } \\ & \hline \end{aligned}$ |
| MALES |  |  |  |  |  |  |  |
| White | 73.4 | 58.8 | 71.6 | 66.9 | 80.2 | 72.2 | 70.7 |
| Black | 15.1 | 23.9 | 14.7 | 11.6 | 8.0 | 16.2 | 15.8 |
| Hispanic | 7.7 | 11.1 | 8.7 | 15.0 | 5.8 | 6.3 | 8.5 |
| Other | 3.9 | 6.3 | 5.1 | 6.5 | 6.1 | 5.3 | 5.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| FEMALES |  |  |  |  |  |  |  |
| White | 60.6 | 42.6 | 59.9 | 57.5 | 70.8 | 59.0 | 55.7 |
| Black | 27.9 | 42.0 | 26.5 | 18.9 | 16.4 | 29.3 | 30.9 |
| Hispanic | 6.8 | 9.5 | 8.5 | 16.3 | 5.7 | 6.1 | 7.8 |
| Other | 4.7 | 5.9 | 5.1 | 7.3 | 7.1 | 5.5 | 5.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| TOTAL |  |  |  |  |  |  |  |
| White | 71.8 | 54.7 | 69.2 | 66.5 | 78.5 | 69.4 | 68.2 |
| Black | 16.6 | 28.4 | 17.1 | 11.9 | 9.5 | 19.1 | 18.4 |
| Hispanic | 7.6 | 10.7 | 8.6 | 15.0 | 5.8 | 6.2 | 8.4 |
| Other | 4.0 | 6.2 | 5.1 | 6.5 | 6.2 | 5.4 | 5.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| CIVILIAN LABOR FORCE 18-49 YEARS OLD |  |  |  |  |  |  |  |
| White | Black |  | Hispanic |  | Other | Total |  |
| 70.1 | 12.4 |  | 12.5 |  | 5.0 | 100.0 |  |
| $\begin{array}{l}\text { Columns may not add to total due to rounding. } \\ \text { Also see Appendix Tables C-17 (Race/Ethnicity by Component and Gender) and C-18 (Ethnicity by Component). } \\ \text { Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2000 }\end{array}$ |  |  |  |  |  |  |  |

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 57 percent of USAR females are minorities: 42 percent Black, 10 percent Hispanic, and nearly 6 percent in the "Other" racial category. Conversely, the ANG has the lowest proportion of minority females ( 22 percent), comparable to the 18 - to 49 -year-old civilian labor force ( 30 percent).

Gender. The proportion of enlisted women is slightly higher in the Selected Reserve than in the Active Components ( 17 versus 15 percent, respectively) which is unchanged from FY 2000. Table 5.10 illustrates that there are more differences in the proportion of women among the Reserve Components. The component with the highest proportion of women is the USAR ( 25 percent), while the ARNG has 12 percent and the USMCR, with the lowest proportion, has 5 percent (up from 2 percent in FY 1999). 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 2001 Selected Reserve Enlisted Members, by Gender and Component, |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| and Civilian Labor Force 18-49 Years Old (Percent) |  |  |  |  |  |  |  |  |
| Gender | Army <br> National <br> Guard | Army <br> Reserve | Naval <br> Reserve | Marine <br> Corps <br> Reserve | Air <br> National <br> Guard | Air <br> Force <br> Reserve | Total <br> DoD | 18- to 49- <br> Year-Old <br> Civilians |
| Male | 87.6 | 75.0 | 79.4 | 95.3 | 82.4 | 78.4 | 83.0 | 53.4 |
| Female | 12.4 | 25.0 | 20.6 | 4.7 | 17.6 | 21.6 | 17.0 | 46.6 |
| Also see Appendix Table C-15 (Age by Component and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2001. |  |  |  |  |  |  |  |  |

Marital Status. Just under half of Selected Reserve members are married (Table 5.11). This proportion is lower than for the comparable civilian population ( 54 percent), but the same as enlisted members in the Active Components ( 48 percent). The proportion of married female Selected Reserve members ( 35 percent) is much lower than the proportion of married female civilians ( 53 percent). This difference is in part explained by the younger age of women enlisted members compared to their civilian counterparts.

| Table 5.11. FY 2001 Married Selected Reserve Enlisted Members, by Gender, <br> and Civilian Labor Force 18-49 Years Old (Percent) |  |  |
| :--- | :---: | :---: |
| Gender | DoD | 18- to 49-Year-Old Civilians |
| Male | 50.1 | 55.6 |
| Female | 34.7 | 52.8 |
| Total | 48.1 | 54.3 |
| Also see Appendix Table C-16 (Age by Marital Status and Gender). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2001. |  |  |

Education. As shown in Table 5.12, 96 percent of FY 2001 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 22 percent of enlisted members).

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

Table 5.14 indicates that the occupational distribution among Active and Reserve Components varies. The differences reflect each Reserve Component's unique mission requirements and force structure, which may preclude some direct transfers from active duty to the National Guard and Reserve within the same skill. For example, 15 percent of active Navy enlisted members serve in electronics specialties, but the Naval Reserve has only 11 percent in this skill area. On the other hand, only 10 percent of active Navy enlistees serve in administration while 21 percent of USNR enlistees serve in administration. Similar occupational differences are found in each Service component. Some occupational areas may not be able to
absorb all transfers, while other areas may have to recruit more NPS individuals to fill unit vacancies or retrain those with prior service. The occupational distribution percentages for FY 2001 are relatively similar to those of FY 2000.

| Table 5.12. FY 2001 Selected Reserve Enlisted Members, by Education Levels and Component, and Civilian Labor Force 18-49 Years Old (Percent) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education Tier | Army National Guard | Army <br> Reserve | Naval Reserve | Marine <br> Corps <br> Reserve | Air <br> National Guard | Air <br> Force <br> Reserve | Total DoD | 18- to 49- <br> Year-Old <br> Civilians* |
| Tier 1: Regular High School Graduate or Higher | 91.6 | 84.8 | 97.9 | 97.4 | 98.1 | 99.6 | 92.4 | 89.1 |
| Tier 2: GED, Alternative Credentials | * | 13.4 | 1.0 | 2.5 | 1.7 | 0.3 | 3.5 |  |
| Tier 3: No Credentials | 8.3 | 1.8 | 1.1 | 0.1 | 0.2 | 0.1 | 4.1 | 10.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| College Experience (Part of Tier 1) | 6.1 | 17.0 | 29.4 | 7.5 | 81.5 | 24.2 | 21.9 | 57.0 |
| Columns may not add to total due to rounding. <br> * Civilian percentages combine Tiers 1 and 2. <br> Also see Appendix Tables C-19 (Education by Component and Gender) and C-20 (Education by Component and Race/Ethnicity). <br> Source: Civilian data from Bureau of Labor Statistics Current Population Survey File, September 2001. |  |  |  |  |  |  |  |  |


| Table 5.13. Comparison of FY 2001 Reserve and Active Enlisted Occupational Areas (Percent) |  |  |  |
| :---: | :---: | :---: | :---: |
| Occupational Code and Area |  | Reserve | Active |
| 0 | Infantry, Gun Crews, and Seamanship Specialists | 16.4 | 16.6 |
| 1 | Electronic Equipment Repairers | 4.5 | 9.6 |
| 2 | Communications and Intelligence Specialists | 4.6 | 9.0 |
| 3 | Medical and Dental Specialists | 6.6 | 6.7 |
| 4 | Other Allied Specialists | 2.8 | 3.0 |
| 5 | Functional Support and Administration | 18.4 | 16.4 |
| 6 | Electrical/Mechanical Equipment Repairers | 15.8 | 20.4 |
| 7 | Craftsmen | 5.7 | 3.6 |
| 8 | Service and Supply Handlers | 10.8 | 8.5 |
| 9 | Non-occupationa** | 14.3 | 6.2 |
| Total 100.0 100.0 <br> Columns may not add to total due to rounding. <br> * Non-occupational includes patients, students, those with unassigned duties, and unknowns. <br> Also see Appendix Tables B-29 (Active Component Enlisted by Occupational Area, Service, and Gender), B-30 (Active Component Enlisted by Occupational Area, Service, and Race/Ethnicity), C-21 (Reserve Component Enlisted by Occupational Area, Component, and Gender), and C-22 (Reserve Component Enlisted by Occupational Area, Component, and Race/Ethnicity). |  |  |  |
|  |  |  |  |


| Table 5.14. Comparison of FY 2001 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 | 24.2 | 6.5 | 10.8 | 7.7 | 3.4 | 16.8 | 14.6 | 2.1 | 12.3 | 1.6 |
| Army National Guard | 23.2 | 3.0 | 4.9 | 4.3 | 2.5 | 13.5 | 13.7 | 3.9 | 11.2 | 19.8 |
| Army Reserve | 9.2 | 2.1 | 3.8 | 10.6 | 3.6 | 23.6 | 10.8 | 5.4 | 16.3 | 14.7 |
| NAVY |  |  |  |  |  |  |  |  |  |  |
| Active Component | 10.2 | 14.9 | 8.6 | 7.9 | 2.1 | 10.7 | 26.2 | 5.3 | 4.3 | 9.9 |
| Naval Reserve | 10.7 | 10.7 | 6.5 | 9.9 | 0.8 | 21.1 | 19.6 | 14.5 | 5.1 | 1.0 |
| MARINE CORPS |  |  |  |  |  |  |  |  |  |  |
| Active Component | 21.7 | 6.5 | 6.9 | 0.0 | 2.5 | 16.5 | 16.6 | 2.5 | 13.1 | 13.8 |
| USMC Reserve | 28.8 | 3.2 | 7.7 | 0.0 | 1.2 | 13.5 | 13.1 | 3.2 | 15.2 | 14.3 |
| AIR FORCE |  |  |  |  |  |  |  |  |  |  |
| Active Component | 10.2 | 9.6 | 8.2 | 7.8 | 3.9 | 22.1 | 24.3 | 4.6 | 5.2 | 4.3 |
| Air National Guard | 8.4 | 9.3 | 3.5 | 4.7 | 4.6 | 21.3 | 26.1 | 6.6 | 6.1 | 9.5 |
| USAF Reserve | 12.6 | 5.2 | 3.1 | 10.6 | 3.4 | 25.3 | 22.7 | 6.0 | 4.9 | 6.3 |
| $\qquad$ |  |  |  |  |  |  |  |  |  |  |

Minorities and occupational assignments. 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 and electrical/ mechanical repair occupations are the most prevalent among Whites and combat and functional support occupations are most prevalent among Hispanics.


Women and occupational assignments. The assignment patterns for Selected Reserve enlisted men and women in occupational areas are reflected in Table 5.16. Most Selected Reserve enlisted women are assigned to two occupational areas: functional support ( 39 percent) and medical ( 15 percent). Enlisted men are assigned primarily to infantry (19 percent) and electrical/mechanical equipment repair (18 percent).

|  | Occupational Code and Area | Male | Female |
| :---: | :---: | :---: | :---: |
| 0 | Infantry, Gun Crews, and Seamanship Specialists | 19.3 | 2.4 |
| 1 | Electronic Equipment Repairers | 4.9 | 2.6 |
| 2 | Communications and Intelligence Specialists | 4.9 | 3.2 |
| 3 | Medical and Dental Specialists | 4.9 | 14.5 |
| 4 | Other Allied Specialists | 2.9 | 2.5 |
| 5 | Functional Support and Administration | 14.2 | 38.8 |
| 6 | Electrical/Mechanical Equipment Repairers | 18.0 | 5.6 |
| 7 | Craftsmen | 6.4 | 2.3 |
| 8 | Service and Supply Handlers | 10.9 | 10.2 |
| 9 | Non-occupational* | 13.5 | 17.8 |
|  | Total | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Non-occupational includes patients, students, those with unassigned duties, and unknowns. Also see Appendix Table C-21 (Occupational Area by Component and Gender). |  |  |  |

The April 1993 policy ${ }^{4}$ to open more specialties and assignments to women resulted in new opportunities for women in both the Active and Reserve Components. Women are not permitted to serve in direct ground combat roles, but positions on ships and aircraft engaging in combat are now open to women. In FY 2001, 2 percent of women served in infantry, gun crew, and seamanship specialties, as illustrated in Table 5.16, 2 percent less than in FY 2000.

The proportion of Selected Reserve women in non-traditional occupations, such as technical and craftsmen, was relatively low in FY 2001. Women were more than twice as likely than men to serve in the traditional occupational areas of medical and administration. In the future, the proportion of women enlisting in non-traditional positions in the National Guard and Reserves will depend to a considerable extent on the number of Active Component women in non-traditional skills, their willingness to join a Selected Reserve unit upon separating from active duty, and the proportion of technical skill vacancies in Guard and Reserve units. However, with the end of the military drawdown, there are fewer prior service women available to enter the Selected Reserve. Consequently, it is important to continue monitoring occupational trends by gender in both the Active and Reserve Components.

[^21]
## Chapter 6

## SELECTED RESERVE OFFICER ACCESSIONS AND OFFICER CORPS

This chapter describes demographic characteristics of Selected Reserve officer accessions and commissioned officers in FY 2001. ${ }^{1}$ The total officer accessions for Reserves decreased in FY 2001 (from 15,097 in FY 2000 to 14,653 in FY 2001). Similarly, the size of the officer corps decreased from 120,865 in FY 2000, to 119,803 in FY 2001. Figure 6.1 shows officer corps end-strengths for the Reserve Components for FYs 1974 to 2001.


Figure 6.1. Reserve Components officer corps end-strength, FYs 1974-2001.

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 55 percent of Reserve officer accessions and 56 percent of Reserve officer end-strength. With the exception of the ARNG and USNR, accessions decreased for all components in FY 2001. End-strength decreased in the ARNG, USAR and USMCR, but increased slightly in the Navy and Air Force components, USNR, ANG, and USAFR.

[^22]| Table 6.1. FY 2001 Selected Reserve Officer Accessions and Officer Corps End-Strength (Number and Percent) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reserve Officer Accessions |  | Reserve Officer Corps End-Strength |  |
| Components | Number | Percent | Number | Percent |
| Army National Guard | 2,717 | 18.5 | 29,002 | 24.2 |
| Army Reserve | 5,288 | 36.1 | 38,118 | 31.8 |
| Naval Reserve | 3,059 | 20.9 | 18,808 | 15.7 |
| USMC Reserve | 803 | 5.5 | 3,512 | 2.9 |
| Air National Guard | 980 | 6.7 | 13,425 | 11.2 |
| Air Force Reserve | 1,806 | 12.3 | 16,938 | 14.1 |
| Total | 14,653 | 100.0 | 119,803 | 100.0 |
| Columns may not add to total due to rounding. <br> 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, USNR, and USAFR have the largest proportions of officers aged 40 and older (53, 55, and 52 percent, respectively). The ARNG, USMCR and ANG have smaller proportions of officers 40 or older (35, 46, and 49 percent, respectively). The ARNG, ANG and USAR have the greatest proportions of officers aged 29 and younger ( 14,7 and 6 , percent, respectively), while the USNR has the smallest proportion of officers aged 29 and younger ( 2 percent).

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. Table 6.2 shows the FY 2001 Selected Reserve officer accessions and officer corps by race/ethnicity. The proportions of Black and Hispanic officer accessions in the Selected Reserve ( 9 and 4 percent, respectively) are nearly identical to the proportions in the Active Components. In FY 2001, the Selected Reserve accessed a slightly smaller proportion of new officers of "Other" race/ethnicity than the Active Components ( 7 percent versus 8 percent).

The Army components of the Selected Reserve have the highest proportions of Black (ARNG - 8 percent, USAR - 16 percent) and Hispanic (ARNG and USAR 5 percent, each) officers. The USNR has the lowest percentage of Blacks (4 percent); the USNR and USAFR both have less than 3 percent Hispanic officers - the lowest of the Reserve Components. In the remaining components, the proportion of Black officers is approximately 4 to 6 percent and the proportion of Hispanic officers is slightly above 3 percent. The Reserve Components maintained
an equal percentage of officers of the "Other" race/ethnicity group as the Active Components (5 percent).


Figure 6.2. Percent of Selected Reserve officer corps by age group, FY 2001.

Gender. Women comprise nearly 18 percent of Selected Reserve officer accessions and almost 19 percent of the Selected Reserve officer corps, as shown in Table 6.3. The proportion of Selected Reserve female officer accessions is lower than in the Active Components ( 18 and 20 percent, respectively). However, the proportion of women in the Selected Reserve officer corps is larger than in the Active Components (19 and 15 percent, respectively), due to higher retention among female officers in the Reserve Components.

The impact of force structure and mission diversity is reflected in the distribution of women officers among the Reserve Components. The proportion of female officers in the USMCR is 5 percent, while 25 percent each of the 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.

Marital Status. In FY 2001, the proportion of Selected Reserve officer accessions and officers who were married was higher than for enlisted members. As in the Active Components, more males were married than females. Table 6.4 shows that the proportion of married male Selected Reserve officers (78 percent) is larger than the proportion of the male civilian college graduate labor force who are married ( 71 percent). The proportion of married female Selected Reserve officers ( 59 percent) is lower than for the comparable married, female, civilian college graduate labor force ( 62 percent).

| Table 6.2. FY 2001 Selected Reserve Officer Accessions and Officer Corps, by Race/Ethnicity (Percent) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Components | White | Black | Hispanic | Other | Total |
| SELECTED RESERVE OFFICER ACCESSIONS |  |  |  |  |  |
| Army National Guard | 84.3 | 5.6 | 4.6 | 5.5 | 100.0 |
| Army Reserve | 71.7 | 14.3 | 4.5 | 9.5 | 100.0 |
| Naval Reserve | 89.7 | 4.5 | 2.2 | 3.5 | 100.0 |
| USMC Reserve | 85.1 | 6.2 | 4.7 | 4.0 | 100.0 |
| Air National Guard | 86.7 | 5.6 | 3.7 | 4.0 | 100.0 |
| Air Force Reserve | 85.3 | 5.6 | 2.1 | 7.0 | 100.0 |
| Total DoD | 81.2 | 8.6 | 3.7 | 6.5 | 100.0 |
| SELECTED RESERVE OFFICER CORPS |  |  |  |  |  |
| Army National Guard | 84.3 | 7.6 | 4.7 | 3.4 | 100.0 |
| Army Reserve | 73.7 | 15.7 | 4.8 | 5.8 | 100.0 |
| Naval Reserve | 90.1 | 3.9 | 2.1 | 4.0 | 100.0 |
| USMC Reserve | 89.2 | 4.5 | 3.4 | 2.9 | 100.0 |
| Air National Guard | 87.0 | 5.2 | 3.1 | 4.6 | 100.0 |
| Air Force Reserve | 86.8 | 5.9 | 2.6 | 4.6 | 100.0 |
| Total DoD | 82.6 | 9.0 | 3.8 | 4.6 | 100.0 |
| Rows may not add to total due to rounding. <br> Also see Appendix Table C-27 (Race/Ethnicity by Component). |  |  |  |  |  |

Table 6.3. FY 2001 Selected Reserve Female Officer Accessions and Officer Corps (Percent)

|  | Army <br> National <br> Guard | Army <br> Reserve | Naval <br> Reserve | USMC <br> Reserve | Air <br> National <br> Guard | Air <br> Force <br> Reserve | DoD <br> Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Officer Accessions | 12.4 | 21.7 | 14.9 | 6.6 | 14.4 | 24.5 | 17.6 |
| Officer Corps | 10.3 | 25.1 | 17.1 | 5.2 | 14.9 | 24.6 | 18.5 |
| Also see Appendix Table C-25 (Gender by Component). |  |  |  |  |  |  |  |

Source of Commission. Each Reserve Component applies its own selection procedures for officer candidates. Many officers who transfer from an Active Component already possess at least a college degree. Officer candidates who do not have a degree undergo rigorous selection procedures and must successfully complete an officer candidate or training school. Just over one-quarter of all ANG officer accessions were commissioned through the ANG Academy of Military Sciences (AMS) and slightly less than half of USAR's officer accessions (43 percent) were commissioned through the Reserve Officers Training Corps (ROTC).

| Table 6.4. FY 2001 Married Selected Reserve Officers and Enlisted Members, by Gender, |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| and Civilians (Percent) |  |  |  |  |  |

Table 6.5. FY 2001 Source of Commission of Selected Reserve Officer Accessions (Percent)

| Source of Commission | Army <br> National <br> Guard* | Army <br> Reserve* | Naval <br> Reserve | USMC <br> Reserve | Air <br> National <br> Guard | Air <br> Force <br> Reserve | DOD <br> Total |
| :--- | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| Service Academy | NA | NA | 15.7 | 5.6 | 11.0 | 18.3 | 14.5 |
| ROTC-Scholarship | NA | NA | 20.7 | 0.0 | 4.7 | 16.0 | 14.6 |
| ROTC-No Scholarship | NA | NA | 3.9 | 14.2 | 11.7 | 19.6 | 10.6 |
| OCS/OTS/PLC | NA | NA | 19.0 | 77.6 | 11.9 | 11.5 | 23.0 |
| ANG AMS/ARNG OCS | NA | NA | 0.0 | 0.0 | 26.0 | 2.9 | 4.6 |
| Direct Appointment | NA | NA | 27.9 | 0.0 | 19.2 | 30.7 | 24.0 |
| Other | NA | NA | 4.3 | 0.0 | 15.4 | 1.1 | 4.6 |
| Unknown | NA | NA | 8.5 | 2.6 | 0.0 | 0.0 | 4.2 |
| Total | NA | NA | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Columns may not add to total due to rounding.

* Due to data issues, accurate source of commission data are not available for the Army components.

Also see Appendix Table C-33 (Officers by Source of Commission and Component).

Table 6.5 shows the sources of commission that each of the Reserve Components most frequently use. In the USNR and USAFR, the largest source of commissions was through direct appointments. The overwhelming majority of USMCR officer accessions (78 percent) obtained their commissions through OCS or the Marine Corps Platoon Leader Class (PLC). PLC is a split-training program in which candidates normally attend officer training in the summers after their junior and senior years of college. The Army components rely heavily on ROTC, primarily without scholarships. For last fiscal year (2000), approximately 2 percent of officer accessions were commissioned from other programs, primarily through the aviation cadet and aviation training programs. ${ }^{2}$ This number has increased to 17 percent for FY 2001, primarily a result of

2 For Reserve Component commissioned officer accessions, "other" sources of commission are defined as: Merchant Marine Academy, Aviation Cadet, and Aviation Training Program.
the large proportion of ARNG officer candidates accessed through these alternate programs in FY 2001.

Education. The Reserve Components also tend to vary in the educational attainment levels of its officer accessions (Table 6.6). Overall in FY 2001, 81 percent of Reserve officer accessions were at least college graduates (bachelor and/or advanced degrees). The USMCR and the USNR had the highest proportion of officer accessions with at least a college degree ( 98 percent each). In the other components, the percentage of officer accessions with degrees ranged from 70 percent in the ARNG to 93 percent in the Air Force Reserve.

| Table 6.6. FY 2001 Educational Attainment of Selected Reserve Officer Accessions and Officer Corps (Percent) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Educational Attainment* | Army National Guard | Army Reserve | Naval Reserve | USMC <br> Reserve | Air National Guard |  | DoD <br> Total |
| SELECTED RESERVE OFFICER ACCESSIONS |  |  |  |  |  |  |  |
| Less than College Graduate | 29.6 | 23.7 | 2.6 | 2.3 | 24.3 | 7.2 | 18.6 |
| College Graduate (B.A., B.S., etc.) | 60.4 | 55.1 | 62.6 | 79.9 | 52.7 | 56.2 | 58.8 |
| Advanced Degree (M.A., Ph.D., etc.) | 10.0 | 21.2 | 34.9 | 17.9 | 23.0 | 36.6 | 22.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| SELECTED RESERVE OFFICER CORPS |  |  |  |  |  |  |  |
| Less than College Graduate | 13.6 | 20.5 | 1.6 | 0.7 | 5.3 | 3.2 | 11.3 |
| College Graduate (B.A., B.S., etc.) | 64.7 | 48.4 | 53.9 | 68.9 | 64.9 | 47.4 | 55.7 |
| Advanced Degree (M.A., Ph.D., etc.) | 21.7 | 31.2 | 44.5 | 30.4 | 29.7 | 49.3 | 33.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Excludes unknowns. <br> Also see Appendix Table C-28 (Education by Component). |  |  |  |  |  |  |  |

Overall in the Reserve Components, the proportion of officers with at least an undergraduate degree is higher than that of its officer accessions, though the difference is slight. This difference is most evident, however, in the ANG where 76 percent of the accessions and 95 percent of the officer corps have a college degree.

Several factors help explain why more officers have college degrees than do officer accessions. A number of Selected Reserve accessions have college credits but have not yet earned a degree when they join the Selected Reserve. Because of Service emphasis on an educated officer corps, many individuals join to take advantage of educational opportunities and 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 Active and Reserve Components. Overall, the largest proportions of officers in the Reserve and Active Components are assigned to tactical operations and health care positions ( 55 and 56 percent, respectively). However, due to assigned missions, the Reserve Components have a smaller proportion than the Active Components in tactical operations (33 and 37 percent, respectively), but a greater proportion of officers in health care ( 21 and 19 percent, respectively).

| Table 6.7. FY 2001 Occupational Areas of Active and Selected Reserve Officer Corps (Percent) |  |  |
| :--- | :---: | :---: |
| Occupational Area | Active <br> Components | Reserve <br> Components |
| General Officers and Executives * | 0.4 | 0.5 |
| Tactical Operations | 37.0 | 33.4 |
| Intelligence | 5.1 | 5.4 |
| Engineering and Maintenance | 12.2 | 9.7 |
| Scientists and Professionals | 4.8 | 6.7 |
| Health Care | 18.9 | 21.4 |
| Administration | 6.5 | 7.3 |
| Supply, Procurement, and Allied Occupations | 9.1 | 10.2 |
| Non-Occupational** | 5.9 | 5.5 |
| Total | 100.0 | 100.0 |

Columns may not add to total due to rounding.

* Reserve Components calculations do not include 665 O-6 officers classified as general or executive officers by the Services (6-ARNG, 6 USAR, 252 - USMCR, 245 - ANG, and 156 - USAFR).
${ }^{* *}$ Non-occupational includes patients, students, those with unassigned duties, and unknowns.
Also see Appendix Tables B-37 (Occupational Area by Service and Gender) and C-31 (Occupational Area by Component).

Differences in occupational assignment among the Reserve Components are shown in Table 6.8. With the exception of the USAR, the largest proportion of officers in each component is in tactical operations. Among the Reserve components, the ARNG and USMCR have the greatest proportions of officers in tactical operations (46 and 57 percent, respectively). The USAR has the smallest proportion of officers in tactical operations (18 percent).

Many Selected Reserve officers are health care professionals. The USAR and USAFR have the greatest proportion of officers in health care occupations ( 32 and 26 percent, respectively). Health care comprises the second largest percentage of officers in the USAFR, ANG and USNR (26, 16 and 21 percent, respectively). Relatively few Reserve officers are in intelligence, science and professional, and administrative occupations.

| Table 6.8. Comparison of FY 2001 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 | 37.2 | 6.1 | 12.0 | 4.5 | 22.8 | 6.0 | 10.8 | 0.1 |
| Army National Guard | 0.6 | 46.2 | 3.0 | 7.7 | 3.7 | 10.4 | 6.1 | 10.4 | 11.8 |
| Army Reserve | 0.3 | 18.3 | 4.6 | 8.6 | 10.0 | 31.8 | 8.6 | 13.5 | 4.4 |
| NAVY |  |  |  |  |  |  |  |  |  |
| Active Component | 0.4 | 38.2 | 3.8 | 10.4 | 3.9 | 21.3 | 6.3 | 5.6 | 10.1 |
| Naval Reserve | 0.3 | 39.0 | 11.1 | 10.4 | 4.1 | 20.6 | 6.4 | 6.9 | 1.2 |
| MARINE CORPS |  |  |  |  |  |  |  |  |  |
| Active Component | 0.5 | 50.9 | 4.7 | 8.0 | 2.9 | 0.0 | 6.1 | 13.7 | 13.1 |
| USMC Reserve | 0.3 | 57.3 | 5.4 | 7.5 | 6.5 | 0.0 | 6.3 | 15.2 | 1.7 |
| AIR FORCE |  |  |  |  |  |  |  |  |  |
| Active Component | 0.4 | 32.7 | 5.3 | 14.8 | 6.4 | 17.7 | 7.2 | 9.1 | 6.6 |
| Air National Guard | 1.2 | 37.8 | 2.6 | 14.1 | 4.6 | 16.2 | 9.3 | 6.6 | 7.6 |
| USAF Reserve | 0.5 | 30.9 | 7.3 | 11.6 | 8.7 | 25.7 | 6.2 | 7.9 | 1.3 |
| Rows may not add to total due to rounding. <br> * Occupational Area Codes: $0=$ General Officers, $1=$ Tactical Operations, $2=$ Intelligence, $3=$ Engineering and Maintenance, $4=$ Scientists and <br> Professionals, $5=$ Health Care, $6=$ Administration, $7=$ Supply, Procurement, and Allied, $8=$ Non-occupational. <br> ** Reserve Components calculations do not include 665 O-6 officers classified as general or executive officers by the Services (6-ARNG, 6 <br> - USAR, 252 - USMCR, 245 - ANG, and 156 - USAFR). <br> Also see Appendix Tables B-37 (Occupational Area by Service and Gender) and C-30 (Occupational Area by Component). |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Women and occupational assignments. The occupational assignments by gender of Selected Reserve officers are shown in Table 6.9. Half of all female officers are assigned to health care positions, 13 percent to administration positions, and 10 percent to supply, procurement and allied occupations. As indicated in Appendix Table C-31, the assignment of women into officer occupational areas differs by component. Across components, female officers serving in health care positions range from 28 percent in the ARNG to 59 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 female officers in Active Components 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.

Minorities and occupational assignments. 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 27 percent, respectively); the largest percentages of Black and "Other" racial category officers are in health care occupations (27 and 32 percent, respectively).

As detailed in Appendix Table C-32, there are race/ethnicity differences among the Reserve Components by occupational areas. For example, 60 percent of White officers in the USMCR have occupations in tactical operations, while only 34 percent of Black officers do. Other occupational areas such as health care attract members of different race/ethnic groups more uniformly. For example, in the USAFR, 42 percent of Blacks, 35 percent of "Other" minorities, and 34 percent of Hispanics serve in health care, compared to 24 percent of Whites.

| Table 6.9. FY 2001 Occupational Areas of Selected Reserve Officer Corps, by Gender (Percent) |  |  |  |
| :--- | :---: | :---: | ---: |
| Occupational Area | Male | Female | Total |
| General Officers and Executives* | 0.6 | 0.1 | 0.5 |
| Tactical Operations | 39.9 | 4.8 | 33.4 |
| Intelligence | 5.3 | 5.6 | 5.4 |
| Engineering and Maintenance | 10.2 | 7.2 | 9.7 |
| Scientists and Professionals | 7.2 | 4.2 | 6.7 |
| Health Care | 14.8 | 50.3 | 21.4 |
| Administration | 6.1 | 12.9 | 7.3 |
| Supply, Procurement, and Allied Occupations | 10.2 | 10.3 | 10.2 |
| Non-Occupational** | 5.8 | 4.6 | 5.5 |
| Total | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Calculations do not include 644 male and 21 female O-6 officers classified as general or executive officers by the Services. <br> ** Non-occupational includes patients, students, those with unassigned duties, and unknowns. <br> Also see Appendix Table C-31 (Occupational Area by Component and Gender). |  |  |  |


| Table 6.10. FY 2001 Occupational Areas of Selected Reserve Officer Corps, by Race/Ethnicity (Percent) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | ---: |
| Occupational Area | White | Black | Hispanic | Other | Total |
| General Officers and Executives* | 0.6 | 0.2 | 0.2 | 0.2 | 0.5 |
| Tactical Operations | 35.9 | 17.6 | 27.3 | 23.3 | 33.4 |
| Intelligence | 5.7 | 2.9 | 4.5 | 5.2 | 5.4 |
| Engineering and Maintenance | 9.5 | 11.2 | 10.2 | 9.9 | 9.7 |
| Scientists and Professionals | 7.0 | 4.9 | 4.9 | 5.5 | 6.7 |
| Health Care | 20.1 | 27.1 | 23.4 | 31.5 | 21.4 |
| Administration | 6.7 | 12.5 | 8.7 | 6.4 | 7.3 |
| Supply, Procurement, and Allied <br> Occupations | 9.4 | 17.2 | 12.9 | 8.7 | 10.2 |
| Non-Occupational** | 5.1 | 6.3 | 8.0 | 9.3 | 5.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Calculations do not include 624 White, 19 Black, 9 Hispanic, and 13 |  |  |  |  |  |
| Services. <br> ** Other O-6 officers classified as general or executive officers by the <br> Nlso see Appendix Table C-32 (Occupational Areas by Component and Race/Ethnicity). |  |  |  |  |  |

## Chapter 7

## U. S. COAST GUARD

The U.S. Coast Guard (USCG), sometimes referred to as "America's Shield of Freedom," is the nation's oldest continuous seagoing service. The USCG traces its history to 1790 with the introduction of the Revenue Cutter Service, whose mission was the enforcement of the first Congressional tariff laws enacted under the Constitution. Today's Coast Guard is actually a combination of five former Federal agencies. In addition to the Cutter Service, these agencies include the Lighthouse Service, the Steamboat Inspection Service, the Bureau of Navigation, and the Lifesaving Service. ${ }^{1}$ The multiple missions and responsibilities of today's Coast Guard can be traced back to these initial agencies with five strategic goals today-maritime safety, maritime mobility, maritime security, national defense, and protection of natural resources. ${ }^{2}$

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

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

## Characteristics of Active Component Non-Prior Service Applicants

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

In FY 2001, a total of 8,901 individuals without prior military experience applied to serve in the USCG, slightly less than the 9,034 in FY 2000. The distribution of FY 2001 USCG and overall DoD Active Component NPS applicants' race/ethnicity by gender is shown in Table 7.1. Eighty-five percent of the USCG applicants were male (Appendix Table E-2), of whom 79 percent were White, 6 percent Black, 9 percent Hispanic, and 5 percent "Other." For female applicants, approximately 74 percent were White, 11 percent Black, 8 percent Hispanic, and 8 percent "Other." Additional statistics on applicant characteristics (e.g., age, education levels,

[^23]and AFQT scores, by gender and race/ethnicity) are contained in Appendix E, Tables E-1 through E-4 for the USCG and Appendix A for the overall DoD.


## Characteristics of Active Component Non-Prior Service Accessions

Of the 8,901 individuals who applied for service in the USCG, a total of $3,951^{5}$ actually accessed. This number represents a 43-percent accession-to-applicant ratio, down from 47 percent in FY 2000. The distribution of race/ethnicity by gender for FY 2001 Coast Guard and overall DoD Active Component NPS accessions is shown in Table 7.1. Eighty-eight percent of USCG NPS accessions were male (Appendix Table E-6), of whom 85 percent were White, 4 percent Black, 8 percent Hispanic, and 4 percent "Other." Of the female USCG accessions, 79 percent were White, 6 percent Black, 9 percent Hispanic, and 6 percent "Other." Overall, USCG accessions were more likely to be White and male than accessions in DoD. The proportion of Black USCG accessions is approximately one-fifth of the percentage for the overall DoD .

Age. While the overall acceptable age range for enlistment in the Armed Services is between 17 and 35, the USCG further restricts its new accessions to the 17 to 27 age range. In FY 2001, 89 percent of USCG NPS accessions were between the ages of 18 and 24 as compared to 87 percent of overall DoD accessions, and 37 percent of the comparable civilian population.

5 The total number of Coast Guard accessions is provided by Coast Guard Recruiting Command. This number differs slightly from the total number provided by the Defense Manpower Data Center and shown in appendix tables.

Age differences are explained, in part, by different age requirements in each Service. The Army and Navy (accounting for 65 percent of overall DoD NPS accessions) accept 17 to 35 year olds. For detailed age statistics, see Appendix Table E-5 for USCG and Appendix Table B-1 for overall DoD figures.

Education. As shown in Table 7.2, approximately 90 percent of USCG NPS accessions in FY 2001 were regular high school diploma graduates. The USCG accepted nearly 10 percent GED holders this year, but virtually no applicants without education credentials were accepted for duty in the Coast Guard (one-tenth of one percent). For both the USCG and DoD as a whole, the overall percentage of accessions with high school credentials, either diplomas or GED certificates, was 99 percent, exceeding the comparable civilian group at 79 percent.

| Table 7.2. Education Levels and AFQT Categories of FY 2001 USCG and DoD Active Component NPS Accessions and Civilians 18-24 Years Old (Percent) |  |  |  |
| :---: | :---: | :---: | :---: |
| Education Level | Coast Guard ${ }^{1}$ | DoD | 18- to 24-Year-Old Civilians* |
| Tier 1: Regular High School Graduate or Higher | 89.8 | 90.9 | 79.1 |
| Tier 2: GED, Alternative Credentials | 10.2 | 7.6 |  |
| Tier 3: No Credentials | 0.0 | 1.4 | 20.9 |
| Total | 100.0 | 100.0 | 100.0 |
| College Experience (Part of Tier 1) | 4.6 | 6.9 | 46.7 |
| Columns may not add to total due to rounding. <br> * Civilian numbers/percentages for education combine Tiers 1 and 2; civilian data include GED certificates with high school graduate rates. <br> ${ }^{1}$ U.S. Coast Guard education tier data from Coast Guard Recruiting Command. <br> Also see Appendix Tables B-7 (NPS Active Component Enlisted Accessions by Education, Service, and Gender) and E-8 (Coast Guard NPS Active Component Enlisted Accessions by Education, Gender, and Race/Ethnicity). |  |  |  |

## Characteristics of Active Component Enlisted Force

At the end of FY 2001, the enlisted end-strength of the USCG stood at 28,067, up from 27,825 in FY 2000. The FY 2001 Coast Guard enlisted force was 90 percent male and 10 percent female. Relative to the overall DoD, proportionally the Coast Guard has more male enlisted members ( 90 and 85 percent, respectively).

Race/Ethnicity. The distribution of race/ethnicity by gender for FY 2001 USCG and overall DoD Active Component enlisted members along with the applicable civilian comparison group is shown in Table 7.3. Relative to the comparable civilian population, the USCG enlisted force was more likely to be White ( 82 and 69 percent, respectively) and less likely to be Black (12 and 13 percent, respectively) or Hispanic ( 7 and 13 percent, respectively). Furthermore, compared to the overall DoD enlisted force, the USCG is more likely to enlist Whites and less likely to enlist minorities, particularly Blacks (12 percent Blacks in the USCG vs. 23 percent Blacks in the DoD).

Age. Youth dominates enlisted members, particularly in the overall DoD, where nearly half ( 49 percent) of the force was 25 years or younger compared to 41 percent in the USCG (Table 7.4). Thirty-nine percent of the USCG enlisted force was 30 years of age or older as compared to 33 percent of the overall DoD, and 75 percent of the civilian group. The USCG enlisted force tends to be older than the overall DoD enlisted force, but still younger than the comparable civilian group.

| Table 7.3. Race/Ethnicity by Gender of FY 2001 USCG and DoD Active Component Enlisted Members and Civilians 18-24 Years Old (Percent) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race/Ethnicity |  | Coast Guard |  |  | DoD |  |  |
|  |  | Male | Female | Total | Male | Female | Total |
|  |  | ACTIVE COMPONENT ENLISTED MEMBERS |  |  |  |  |  |
| White |  | 83.0 | 75.5 | 82.2 | 64.2 | 49.0 | 61.9 |
| Black |  | 5.4 | 11.5 | 11.5 | 20.2 | 35.3 | 22.5 |
| Hispani |  | 7.2 | 7.2 | 7.2 | 9.5 | 9.4 | 9.5 |
| Other |  | 4.4 | 5.8 | 5.8 | 6.1 | 6.4 | 6.1 |
| Total |  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| CIVILIANS 18-44 YEARS OLD |  |  |  |  |  |  |  |
| White | Black | Hispanic | Other | Total |  |  | Female |
| 68.8 | 12.7 | 13.4 | 5.1 | 100.0 |  |  | 46.5 |

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

|  | Coast Guard | DoD | Civilian Comparison |
| :---: | :---: | :---: | :---: |
| Age |  |  | Civilian Labor Force 17 and Older |
| 17-19 | 7.5 | 11.7 | 4.6 |
| 20-24 | 33.0 | 36.8 | 10.4 |
| 25-29 | 20.5 | 18.6 | 10.5 |
| 30-34 | 14.7 | 13.3 | 11.6 |
| 35-39 | 14.4 | 12.8 | 12.8 |
| 40-44 | 8.1 | 5.3 | 13.7 |
| 45-49 | 1.5 | 1.2 | 12.3 |
| 50+ | 0.3 | 0.2 | 24.1 |
| Unknown | 0.0 | * | 0.0 |
| Total | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> * Less than one-tenth of one percent. <br> Also see Appendix Tables B-23 (Active Component Enlisted Members by Age Group, Service, and Gender) and E-14 (Coast Guard Active Component Enlisted Members by Age Group and Gender). |  |  |  |

Representation Within Occupations. The representation of USCG enlisted force by race/ethnicity and gender in occupational areas with the overall DoD rates for comparison is presented in Table 7.5. The USCG is unique in that all occupations are open to both men and women-there are no combat restrictions. However, women were still underrepresented in the infantry, gun crews, and seamanship specialties compared to men in the USCG (9 and 16 percent, respectively). Restructuring of the Coast Guard's aviation rating from late FY 1997 through FY 1999 with additional reclassification occurring in FYs 2000 and 2001 led to some changes in occupational area distributions. The most notable differences were an increase in the number of positions classified as infantry, gun crews, and seamanship with a corresponding decrease in electrical/mechanical equipment repair. In FY 2000 there was a decrease in infantry,
gun crews, and seamanship with increases in electrical/mechanical equipment repair and electronic equipment repair. Then, in FY 2001 there was an increase in electrical/mechanical equipment repair with a corresponding decrease in electronic equipment repair as the USCG moved jobs into the appropriate occupational code to reflect updated job requirements.

| Table 7.5. Occupational Areas of FY 2001 USCG and DoD Active Component Enlisted Personnel by |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race/Ethnicity and Gender (Percent) |  |  |  |  |  |  |  |  |

Columns may not add to total due to rounding.

* Non-occupational includes patients, students, those with unassigned duties, and unknowns.
** Less than one-tenth of one percent.
Also see Appendix Tables B-29 (Active Component Enlisted Members by Occupational Area, Service, and Gender) and E-16 (Coast Guard Active Component Enlisted Members by Occupational Area, Gender, and Race/Ethnicity).

Historically, all new USCG enlisted members were directly assigned to field units before attending specialty training in the A-schools where the introductory job-specific training courses are taught. Presently, an effort is being made to assign more recruits directly to A-schools in critical specialties. Approximately 15 percent of USCG recruits go directly to advanced training after basic training. A USCG member is admitted to any A-school for which he or she is qualified based on the individual's ASVAB scores. ${ }^{6}$ Training takes place as openings become available, which may explain the higher percentage of those classified as non-occupational in the USCG enlisted force compared to the overall DoD (18 and 6 percent, respectively).

## Characteristics of Active Component Officers

The USCG uses a variety of officer commissioning programs. These include programs for civilians and active USCG enlisted members and warrant officers to become commissioned

[^24]officers. In FY 2001, the USCG commissioned a total of 399 new officers, down from 437 in FY 2000. The USCG commissioned officer corps stood at 5,550 at the end of FY 2001, up from FY 2000 when the end-strength stood at 5,542 .

Source of Commission. In Table 7.6, the distribution of new USCG officers (accessions) and current officers (corps) by source of commission is presented with applicable overall DoD figures for comparison. The USCG relies heavily on the U. S. Coast Guard Academy for its officer accessions. The USCG gets 83 percent of its new officers from its Academy and Officer Candidate School as compared to less than half that ( 41 percent) for DoD as a whole. This large difference can be explained almost entirely by the fact that the USCG does not have an ROTC program. The fact that an even greater proportion of the USCG officer corps compared to USCG officer accessions were academy graduates is an indication that the retention rate for graduates is higher than for the other sources of officers.

| Table 7.6. FY 2001 USCG and DoD Active Component Officer Accessions and Officer Corps <br> by Source of Commission (Percent) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Officer Accessions |  |  |  |
|  | Coast Guard | DoD | Coast Guard | DoD |
| Source of Commission |  |  |  |  |
| Academy |  |  | 15.7 | 47.9 |
| ROTC - Scholarship | 39.5 | 18.6 | 0.0 | 17.9 |
| ROTC - No Scholarship | 0.0 | 14.9 | 0.0 | 25.0 |
| OCS/OTS | 43.5 | 25.3 | 33.4 | 14.6 |
| Direct Appointment | 0.3 | 11.6 | 5.2 | 20.7 |
| Other | 16.7 | 13.9 | 13.5 | 14.3 |
| Total | 100.0 | 100.0 | 100.0 | 7.6 |
| Columns may not add to total due to rounding. <br> Percentages do not include "Unknown" data. <br> Also see Appendix Tables B-40 (Active Component Officer Corps by Source of Commission, Service, and Gender), B-41 (Active <br> Component Officer Corps by Source of Commission), and E-20 (Coast Guard Active Component Officer Accessions and Officer Corps by <br> Source of Commission, Gender, and Race/Ethnicity). |  |  |  |  |

Race/Ethnicity and Gender. The USCG percentage of Whites was slightly higher than the overall DoD rate for officer accessions ( 82 and 78 percent, respectively) and officers ( 86 and 83 percent, respectively), as shown in Table 7.7. By gender, the USCG officer accessions were slightly more likely to be male than were DoD officer accessions ( 81 and 80 percent, respectively). Similarly, members of the USCG's officer corps were slightly more likely to be male than were DoD officers ( 87 and 85 percent, respectively).

Representation Within Occupations. As was noted previously, the USCG does not have any combat restrictions. By gender, more USCG female officers were in tactical operations than male officers. Women were underrepresented in engineering and maintenance, and overrepresented in the non-occupational area (Table 7.8). By race/ethnicity, Black officers were underrepresented in tactical operations and Hispanic officers were underrepresented in engineering and maintenance. Compared to the overall DoD, the USCG officer corps comprised, proportionally, more engineering and maintenance officers and fewer health care providers. The
difference in health care can be partially explained by the USCG's reliance on the Public Health Service for some of its medical and dental care.

| Table 7.7. Race/Ethnicity and Gender of FY 2001 USCG and DoD <br> Active Component Officer Accessions and Officer Corps (Percent) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Officer Accessions |  | Officer Corps |  |
|  | Coast Guard | DoD | Coast Guard | DoD |  |  |  |  |  |
| Race/Ethnicity |  |  |  |  |  |  |  |  |  |
| White | 82.2 | 77.5 | 86.3 | 83.3 |  |  |  |  |  |
| Black | 5.8 | 9.6 | 4.8 | 8.3 |  |  |  |  |  |
| Hispanic | 7.3 | 4.7 | 4.5 | 3.8 |  |  |  |  |  |
| Other | 4.8 | 8.2 | 4.4 | 4.6 |  |  |  |  |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |  |
| Gender |  |  |  |  |  |  |  |  |  |
| Male | 80.7 | 79.9 | 87.0 | 84.7 |  |  |  |  |  |
| Female | 19.3 | 20.1 | 13.0 | 15.3 |  |  |  |  |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |  |

Columns may not add to total due to rounding.
Also see Appendix Tables B-32 (Active Component Officer Accessions and Officer Corps by Gender and Service), B-34 (Active Component Officer Accessions and Officer Corps by Race/Ethnicity and Service), and E-18 (Coast Guard Active Component Officer Accessions and Officer Corps by Race/Ethnicity and Gender).

| Table 7.8. Occupational Areas of FY 2001 USCG and DoD Active Component Officer Personnel byRace/Ethnicity and Gender (Percent) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ast Guar |  |  |  |  |
| Occupational Area | Male | Female | White | Black | Hispanic | Other | $\begin{aligned} & \hline \text { USCG } \\ & \text { Total } \end{aligned}$ | $\begin{aligned} & \text { DoD } \\ & \text { Total } \end{aligned}$ |
| General Officers and Executives | 0.6 | 0.3 | 0.7 | 0.4 | 0.0 | 0.0 | 0.6 | 0.4 |
| Tactical Operations | 41.7 | 44.5 | 42.8 | 29.6 | 38.1 | 44.3 | 42.0 | 37.0 |
| Intelligence | 0.5 | 0.7 | 0.5 | 0.0 | 1.6 | 0.4 | 0.5 | 5.1 |
| Engineering and Maintenance | 32.7 | 26.3 | 32.2 | 33.7 | 25.5 | 29.9 | 31.9 | 12.2 |
| Scientists and Professionals | 0.6 | 1.5 | 0.7 | 0.4 | 0.8 | 0.8 | 0.7 | 4.8 |
| Health Care | 0.4 | 0.4 | 0.4 | 1.1 | 0.4 | 0.0 | 0.4 | 18.9 |
| Administration | 9.7 | 8.6 | 9.6 | 8.2 | 9.3 | 9.8 | 9.5 | 6.5 |
| Supply, Procurement, and Allied Occupations | 0.8 | 0.3 | 0.7 | 0.8 | 1.2 | 1.2 | 0.7 | 9.1 |
| Non-Occupational | 13.1 | 17.4 | 12.5 | 25.8 | 23.1 | 13.5 | 13.7 | 5.9 |
| 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. <br> Also see Appendix Tables B-37 (Active Component Officer Corps by Occupational Area and Service) and E-19 (Coast Guard Active Component Officer Corps by Occupational Area, Gender, and Race/Ethnicity). |  |  |  |  |  |  |  |  |

## Warrant Officers

In FY 2001, the USCG accessed a total of 221 new warrant officers; the warrant officer end-strength was 1,431 . The distribution by race/ethnicity and gender of USCG warrant officer accessions and warrant officers with overall DoD rates for comparison is presented in Table 7.9. In general, USCG warrant officers were more likely to be White and male than their overall DoD counterparts.

| Table 7.9. FY 2001 USCG and DoD Active Component Warrant Officer Accessions and Officer Corps by Race/Ethnicity and Gender (Percent) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Warrant Officer Accessions |  | Warrant Officer Corps |  |
|  | Coast Guard | DoD | Coast Guard | DoD |
| Race/Ethnicity |  |  |  |  |
| White | 84.6 | 73.2 | 86.9 | 73.6 |
| Black | 8.1 | 15.6 | 6.6 | 16.7 |
| Hispanic | 4.1 | 5.5 | 3.6 | 5.2 |
| Other | 3.2 | 5.7 | 2.9 | 4.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Gender |  |  |  |  |
| Male | 94.6 | 93.0 | 95.5 | 93.3 |
| Female | 5.4 | 7.0 | 4.5 | 6.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> Also see Appendix Tables B-44 (Active Component Warrant Officer Accessions and Warrant Officer Corps by Gender and Service), B-45 (Active Component Warrant Officer Accessions and Warrant Officer Corps by Race/Ethnicity and Service), and E-21 (Coast Guard Active Component Warrant Officer Accessions and Warrant Officer Corps by Race/Ethnicity and Gender). |  |  |  |  |

## Characteristics of USCG Reserve Enlisted Accessions

In FY 2001, the USCG Reserve accessed a total of 1,405 new enlisted personnel down from 1,540 in FY 2000. Of these, 236 ( 17 percent) had no prior military experience, and 1,169 (83 percent) had served in the Armed Forces previously.

Race/Ethnicity and Gender. Compared to the overall DoD, USCG Reserve enlisted accessions were more likely to be White, as shown in Table 7.10. In FY 2001, 86 percent of USCG Reserve NPS enlisted accessions were male and 14 percent were female (Appendix E, Table E-25), with somewhat greater proportions of males than the overall DoD Reserve Components ( 75 percent male and 25 percent female).

## Characteristics of Reserve Component Enlisted Force

At the end of FY 2001, the USCG Reserve enlisted force stood at 6,771. The race/ethnicity by gender distribution of these enlisted members is presented in Table 7.11.

| Table 7.10. Race/Ethnicity by Gender of FY 2001 USCG and DoD Reserve Component Enlisted Accessions and Civilians (Percent) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race/Ethnicity | Coast Guard |  |  | DoD |  |  |
|  | Male | Female | Total | Male | Female | Total |
| NON-PRIOR SERVICE |  |  |  |  |  |  |
| White | 92.8 | 81.8 | 90.3 | 74.2 | 61.1 | 71.0 |
| Black | 1.1 | 7.3 | 2.5 | 11.5 | 24.0 | 14.6 |
| Hispanic | 2.2 | 9.1 | 3.8 | 9.0 | 9.0 | 9.0 |
| Other | 3.9 | 1.8 | 3.4 | 5.4 | 5.8 | 5.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| PRIOR SERVICE |  |  |  |  |  |  |
| White | 86.2 | 81.0 | 85.3 | 69.4 | 54.9 | 67.0 |
| Black | 3.1 | 6.5 | 3.7 | 14.9 | 30.3 | 17.5 |
| Hispanic | 6.9 | 7.5 | 7.0 | 8.6 | 7.5 | 8.4 |
| Other | 3.8 | 5.0 | 4.0 | 7.1 | 7.3 | 7.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| TOTAL ACCESSIONS |  |  |  |  |  |  |
| White | 87.2 | 81.2 | 86.1 | 71.5 | 58.4 | 68.8 |
| Black | 2.8 | 6.7 | 3.5 | 13.4 | 26.8 | 16.2 |
| Hispanic | 6.2 | 7.8 | 6.5 | 8.7 | 8.3 | 8.7 |
| Other | 3.8 | 4.3 | 3.9 | 6.3 | 6.5 | 6.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 18-24/20-39 YEAR-OLD NON-INSTITUTIONALIZED CIVILIANS |  |  |  |  |  |  |
| White $\quad$ Black | Hispanic | Other | Total |  |  | Female |
| 64.8/67.5 14.3/13.0 | 15.6/14.2 | 5.3/5.3 | 100.0 |  |  | 50.1/46.4 |
| Columns may not add to total due to rounding. <br> Also see Appendix Tables C-3 (NPS Selected Reserve Enlisted Accessions by Race/Ethnicity, Component, and Gender), C-11 (Prior Service Selected Reserve Enlisted Accessions by Race/Ethnicity, Component, and Gender), E-23 (NPS Coast Guard Reserve Enlisted Accessions by Race/Ethnicity and Gender), and E-25 (Prior Service Coast Guard Reserve Enlisted Accessions by Race/Ethnicity and Gender). |  |  |  |  |  |  |

Table 7.11. Race/Ethnicity by Gender of FY 2001 USCG and DoD Reserve Component Enlisted Members and Civilian Labor Force 18-49 Years Old (Percent)

| Race/Ethnicity |  | Coast Guard |  |  | DoD |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Total | Male | Female | Total |
| RESERVE ENLISTED MEMBERS |  |  |  |  |  |  |  |
| White |  | 86.2 | 77.2 | 84.9 | 70.7 | 55.7 | 68.2 |
| Black |  | 4.1 | 10.2 | 5.0 | 15.8 | 30.9 | 18.4 |
| Hispanic |  | 5.9 | 7.0 | 6.1 | 8.5 | 7.8 | 8.4 |
| Other |  | 3.8 | 5.6 | 4.1 | 5.0 | 5.6 | 5.1 |
| Total |  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| CIVILIAN LABOR FORCE 18-49 YEARS OLD |  |  |  |  |  |  |  |
| White | Black | Hispanic | Other | Total | Male |  | Female |
| 70.1 | 12.4 | 12.5 | 5.0 | 100.0 | 53.4 |  | 46.6 |

Columns may not add to total due to rounding.
Also see Appendix Tables C-17 (Selected Reserve Enlisted Members by Race/Ethnicity, Component, and Gender) and E-27 (Coast Guard
Reserve Enlisted Members by Race/Ethnicity and Gender).

Race/Ethnicity and Gender. Overall, USCG Reserve enlisted members were more likely to be White than either the overall DoD or the comparable civilian group. USCG Reserve enlisted members were also slightly less likely to be female than were their DoD counterparts (14 and 17 percent, respectively).

Age. In general, USCG Reserve enlisted members tended to be older than the DoD comparison group. Almost 37 percent of USCG Reserve enlisted members were 40 years of age or older, while only 23 percent of the DoD Reserve comparison group fell into this category, but more than 50 percent of the civilian comparison group was 40 or older (Table 7.12). This can be explained, in part, by the proportion of prior service individuals in each Service. The Coast Guard Reserve relies more on prior service recruits to fill its enlisted ranks than the overall DoD Reserve Components (83 and 54 percent prior service accessions in FY 2001, respectively). Therefore, members of the USCG enlisted force joined the Coast Guard Reserve at an older age, on average, than those joining the overall DoD Reserve Components.

| Table 7.12. Age of FY 2001 USCG and DoD Reserve Component <br> Enlisted Members and Civilians (Percent) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Coast <br> Guard | DoD | Civilian Comparison |

## Characteristics of Reserve Component Officers

In FY 2001, the USCG Reserve accessed a total of 172 new officers and the overall Reserve officer corps end-strength stood at 1,028 . Accessions were stable, and the corps was up from FY 2000 (172 accessions and 1,015 end-strength). By race/ethnicity and gender, USCG Reserve officer accessions were more likely to be White and more likely to be female than their peers in the DoD Reserve Components. Members of the overall USCG Reserve officer corps, however, were more likely to be White and more likely to be male than were their DoD Reserve counterparts, as shown in Table 7.13.

Source of Commission. Table 7.14 presents source of commission for Reserve officer accessions and Reserve officers in the Coast Guard and overall DoD Reserve Components. The most often cited source of commission for both new USCG Reserve officer accessions and
members of the USCG Reserve officer corps was OCS/OTS. The remainder of new officer accessions or officer corps members were commissioned via either the Coast Guard Academy or "Other" sources, such as officers trained in one military Service, but accessed or serving in another Service. The Coast Guard Reserve does not have an ROTC program.

| Table 7.13. Race/Ethnicity and Gender of FY 2001 USCG and DoD Reserve Component |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Officer Accessions and Officer Corps (Percent) |  |  |  |  |


| Table 7.14. FY 2001 USCG and DoD Reserve Component Officer Accessions and Officer Corps by Source of Commission (Percent) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reserve Officer Accessions |  | Reserve Officer Corps |  |
|  | Coast Guard | DoD | Coast Guard | DoD |
| Source of Com |  |  |  |  |
| Academy | 3.1 | 9.4 | 1.1 | 5.7 |
| ROTC - Scholarship | 0.0 | 14.4 | 0.0 | 11.3 |
| ROTC - No Scholarship | 0.0 | 17.8 | 0.0 | 22.2 |
| OCS/OTS | 74.6 | 13.3 | 84.4 | 12.0 |
| ANG AMS/ARNG OCS | 0.0 | 5.9 | 0.0 | 16.6 |
| Direct Appointment | 0.0 | 20.7 | 0.0 | 30.2 |
| Other | 22.2 | 18.8 | 14.5 | 2.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. <br> Percentages do not include "Unknown" data. <br> Also see Appendix Tables C-33 (Selected Reserve Officer Accessions by Source of Commission), C-34 (Selected Reserve Officers by Source of Commission), and E-30 (Coast Guard Reserve Officer Accessions and Officers by Source of Commission). |  |  |  |  |

## Reserve Component Warrant Officers

In FY 2001, the USCG Reserve accessed a total of 26 new warrant officers; their endstrength was 177. The number of USCG Reserve warrant officer accessions was approximately the same as in FY 2000; end-strength decreased by 12 from 189 in FY 2000. Any differences between the USCG and overall DoD information should be interpreted with caution given the small numbers of USCG Reserve warrant officer accessions and warrant officers (Table 7.15).

| Table 7.15. FY 2001 USCG and DoD Reserve Component Warrant Officer Accessions and Officer Corps by Race/Ethnicity and Gender (Percent) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reserve Warrant Officer Accessions |  | Reserve Warrant OfficerCorps |  |
|  | USCG | DoD | USCG | DoD |
| Race/Ethnicity |  |  |  |  |
| White | 96.2 | 88.9 | 92.1 | 87.9 |
| Black | 3.9 | 4.9 | 5.1 | 6.1 |
| Hispanic | 0.0 | 3.4 | 1.7 | 3.6 |
| Other | 0.0 | 2.9 | 1.1 | 2.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Gender |  |  |  |  |
| Male | 92.3 | 91.9 | 87.6 | 92.5 |
| Female | 7.7 | 8.1 | 12.4 | 7.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Columns may not add to total due to rounding. Also see Appendix Tables C-35 (Selected Reserve Warrant Officer Accessions and Warrant Officers by Gender and Component), C-36 (Selected Reserve Warrant Officer Accessions and Warrant Officers by Race/Ethnicity and Component), and E- 31 (Coast Guard Reserve Warrant Officer Accessions and Warrant Officers by Race/Ethnicity and Gender). |  |  |  |  |

## Closing

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

On a daily basis numerous Coast Guard personnel are protecting our nation's ports, shores, and waters. On average, each day in FY 2001 the Coast Guard: conducted nearly 400 small boat missions, flew roughly 160 aircraft missions, boarded close to 145 vessels, seized nearly 500 pounds of illegal drugs worth approximately 10 million dollars, conducted about 110 search and rescue cases, assisted nearly 200 people in distress, saved 10 lives, and protected nearly three million dollars worth of property within more than 3.4 million square miles of Exclusive Economic Zones. ${ }^{8}$

The Coast Guard has always held a key role in ensuring our nation's maritime homeland security. However, the pace of security activities in and around our ports has increased tremendously since September $11^{\text {th }}$. Operation Noble Eagle, launched after the attacks of September 11, 2001, is the Coast Guard's largest homeland port security operation since World

[^25]War II. ${ }^{9}$ With such varied missions, roles, and responsibilities, the U.S. Coast Guard truly is a full-time military organization with a genuine peacetime mission.

[^26]
## Chapter 8

## EFFECTS OF SEPTEMBER $11{ }^{\text {TH }}$ ATTACKS

## Background

The Department of Defense (DoD) routinely collects information concerning youth attitudes toward the military in support of military recruiting. Prior to the year 2000, one measure used to assess the likelihood that young adults would enter the military was the Youth Attitude Tracking Study or YATS. In 2001, DoD replaced the annual YATS with quick turnaround polls of young people. The intended purpose of these polls is to collect a more continuous flow of information on attitudes and opinions about the military, to identify those aspects of service that encourage or discourage enlistment, and to learn how current events affect those attitudes. ${ }^{1}$ DoD also obtains general and specialized market research information from various private-sector market research firms, including Roper, Yankelovich, and Teenage Research Unlimited. In addition, in 2001, DoD implemented its first Advertising Tracking Study to provide fast, continuous feedback on how well the various advertising campaigns were working. This effort tracked all DoD advertising and broad-scale attitudes toward the military. The results are quantifiable measures of the effects of marketing activities on the attitudes of respondents toward military service. In sum, a variety of market research instruments are used to inform recruiting practice and policy. These tools allow the Department of Defense to assess the potential impact of policy decisions, labor market conditions, and national and global events on recruiting.

## Youth Polls

Youth polls are conducted approximately three times a year. Poll samples include about 2,000 youth ages 15 - to 21 -years-old. Data are available from polls conducted in March, July, and October of 2001. Propensity can be measured in several ways: unaided (e.g., "What do you think you might be doing once you finish high school?"), aided (e.g., "How likely is it that you will be serving in the military in the next few years? Definitely, Probably, Probably Not, or Definitely Not?"), or as a combination of questions. In this chapter, propensity results reflect a composite measure created from the highest level of reported propensity across the four Services. That is, individuals are asked "How likely are you to join the...Army/Navy/Marine Corps/Air Force?" A related question included in the Youth Poll is: "Before we talked today, had you ever considered the possibility of joining the military? Never Thought About It, Gave It Some Consideration, or Gave It Serious Consideration?" Additional questions cover topics such as knowledge of the military, feelings of patriotism, and comparisons between military and civilian jobs. Following the attacks on the World Trade Center and the Pentagon, questions addressing terrorism and the military were included in Youth Poll 3. For example, respondents were asked: "Does the situation related to the World Trade Center and the Pentagon make you more likely or does it make you less likely to consider joining the military as an option?" and "Does the

[^27]situation related to the military action in the Middle East against terrorists make you more likely or less likely to consider joining the military as an option?" Because of sample sizes and reporting, we can present Youth Poll data overall and by gender, but comparisons by age, race/ethnicity, geographic region, or school grades are not possible.

## Advertising Tracking Study

The Advertising Tracking Study is essentially a daily opinion poll. Approximately 17 young men and women, 15- to 21 -years old, are interviewed each day. Military propensity questions have been included since March 2001. On September 13, 2001, the following question was added to the youth Advertising Tracking Study: "Does the current situation related to the World Trade Center and the Pentagon make you more likely or does it make you less likely to consider the military as an option?"

## Effects of the Attack on Representation Issues

Since the terrorist attacks occurred near the end of fiscal year (FY) 2001, there was no time during that fiscal year for their effects to be seen in the enlistment behavior of applicants, the number of new accessions, or the size of the military force. However, the future composition of the Military Services can be forecast based on the attitudes of the civilian youth who make up the pool of potential officers and enlisted personnel. This chapter reviews selected results of the youth polls and advertising tracking study regarding youth attitudes toward military enlistment and provides information on how these attitudes were affected by the events of September $11^{\text {th }}$ and how the effects of the attacks varied between different segments of the youth population.

The events of September $11^{\text {th }}$ and the military response to the events may affect the demographic distribution of the military forces if they differentially encourage or discourage specific population groups to enlist for military service. Using the demographic data in the Advertising Tracking Study it is possible to identify differences between some groups of youth in their perceptions of military service. This chapter reviews two measures of enlistment propensity: (1) the stated likelihood that the respondent would enlist in the military and (2) the extent to which the events of September $11^{\text {th }}$ increased or decreased the perceived likelihood that the respondents would enlist.

Regarding the first measure, respondents were asked to indicate how likely it was that they would be serving in the military in the next few years. Those who indicated that they would definitely or probably serve in the military were considered to have positive propensity for military service. Data were combined for each of two quarters before September 2001 and two quarters after that date. Combining data over a three-month period provides a reasonable amount of statistical precision, while facilitating the examination of trends. ${ }^{2}$ Data from the month of September 2001 are reported separately. Since the percentages for this month are based on a
${ }^{2}$ Overall random sampling error is somewhat less than 3 percentage points. For comparisons involving individual age groups, genders, or average high school grades, a difference of 5 or more percentage points is statistically significant. For comparisons involving race/ethnicity or geographical region, a difference of 7 or more percentage points is statistically significant.
smaller sample than those for the quarters before or after it, the resulting values are subject to greater sampling error.

The second question was added to the survey in September 2001, shortly after the attack. Respondents were asked whether the situation related to the World Trade Center and the Pentagon made them more or less likely to consider joining the military as on option. This question provides information that may corroborate any changes in propensity identified by the previous question. In addition, it may uncover changes in propensity that are too small to change a response on the four-alternative propensity scale. Results are reported for September 2001, and for each of the two following quarters.

Gender. Table 8.1 shows the percentage of Advertising Tracking Study respondents with positive propensity for military service before and after the September $11^{\text {th }}$ attack, as a function of age and gender. The overall total indicates that propensity was essentially unchanged, with the same proportion of respondents indicating that they would probably or definitely serve in the military before as after September 2001 (19 percent). The high level of propensity ( 23 percent) for the month of September 2001 may indicate a short-lived increase, but should be interpreted with caution because of the small sample of respondents for that single month. A Defense Department spokesperson noted, "[w]hile we experienced an approximate doubling in the number of people expressing interest in the [A]rmed [F]orces in the wake of 911, that did not later translate into any marked increase in enlistment." ${ }^{3}$ It isn't possible to determine completely any effects of the attacks of September $11^{\text {th }}$ on enlistment, as there are many external factors that have the potential to affect interest and enlistment in the military (e.g., unemployment rates, college aspirations and enrollment, national economy, foreign policy).

| Table 8.1. Propensity for Military Service by Gender, Age Group, and Time Period |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Mar-May } \\ 2001 \end{gathered}$ | $\begin{gathered} \text { Jun-Aug } \\ 2001 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Sep } \\ 2001 \end{gathered}$ | $\begin{gathered} \text { Oct-Dec } \\ 2001 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Jan-Mar } \\ 2002 \\ \hline \end{gathered}$ |
| Gender |  |  |  |  |  |
| Male | 23.8 | 22.6 | 32.6 | 26.7 | 24.6 |
| Female | 14.1 | 12.3 | 14.0 | 11.7 | 13.4 |
| Total | 19.8 | 18.2 | 23.3 | 19.1 | 18.9 |
| Age Group |  |  |  |  |  |
| 15-17 | 26.9 | 25.2 | 32.8 | 22.4 | 24.8 |
| 18-21 | 14.1 | 12.6 | 15.9 | 16.4 | 14.3 |

The data in Table 8.1 indicate propensity for military enlistment was substantially higher for males ( 25 percent) than for females ( 13 percent), a result that is consistent with previous surveys. After a substantial spike in September 2001, male propensity was slightly higher in the

3 Solis, D., "Uncle Sam Wants You, And You, And You ...," Dallas Morning News, October 10, 2002.
months after that date than in the months before. However, it is not possible to rule out sampling error as the cause of these changes.

Similar results are found in the Youth Poll data. ${ }^{4}$ Propensity to join the military tended to increase for males 16- to 21 -years-old, from 25 and 21 percent in March and July 2001, respectively, to 32 percent in October 2001. During the same time period, propensity of women generally remained stable, with a slight decrease following the September $11^{\text {th }}$ incidents. Propensity for women in the 16 - to 21 -year age range decreased from 14 percent to 12 percent between July and October 2001.

Overall, respondents in the Advertising Tracking Study indicated that the events at the World Trade Centers and the Pentagon had a positive effect on their inclinations toward military service. Figure 8.1 shows the percentage of respondents who indicated that the events had either no effect or a positive effect on the chances that they would enlist, as a function of gender and time period. Nearly one-half of those surveyed ( 49 percent) indicated that the events increased the likelihood that they would consider enlisting for military service, while less than one-third (32 percent) said that the events decreased the likelihood that they would serve. The figure shows that males indicated a substantially more positive effect on enlistment likelihood than did females. The 59 percent average effect for females includes 39 percent who indicated a positive effect on enlistment and approximately 19 percent who indicated no effect. The remaining 41 percent of the female respondents indicated a negative effect. Thus, females were evenly divided between positive and negative effects, while the effect for males was predominantly positive, in agreement with the increased propensity for military enlistment. As Figure 8.1 shows, there was no variation in positive or neutral effects of the September $11^{\text {th }}$ attacks on military propensity over time.


Figure 8.1. Positive or neutral effects of September $11^{\text {th }}$ attacks on military propensity, by gender.

[^28]Age. As Table 8.1 shows, respondents to the Advertising Tracking Study, between 15 and 17 years old, were more likely to indicate that they would enlist than 18 to 21 year-old respondents, consistent with previous propensity research. The difference between these age groups decreased slightly after September 2001, as younger respondents were less likely than before to express a positive propensity for military service, and their older counterparts were slightly more likely to respond favorably toward the Services than prior to the attacks. In addition, younger respondents indicated a slightly more positive effect of the attacks on the likelihood that they would consider military service compared to the older group, as shown in Figure 8.2. Specifically 71 percent of respondents between 15 and 17 years old indicated a positive effect or no effect of the events, while 66 percent of older respondents made a similar indication. There was no evidence that these judgments varied with time.


Figure 8.2. Positive or neutral effects of September $11^{\text {th }}$ attacks on military propensity, by age group.

Race/Ethnicity. As shown in Table 8.2, Hispanics and Blacks were more likely to express an inclination for military service in the Advertising Tracking Study than their White or Other race/ethnic counterparts. In the quarter after the attacks, Hispanic propensity rose 13 percentage points (from 26 percent in the quarter prior to September 2001 to 39 percent in the quarter following September 2001). Similarly, Other race propensity rose 7 percentage points (from 13 to 20 percent over the same time period). For Hispanics, at least, the increased enlistment propensity was temporary and essentially disappeared in the following quarter. For all other racial groups, the percentage of respondents with positive propensity six months after the attacks was not much different from what it was a year earlier.

When asked directly whether the events of September $11^{\text {th }}$ had an effect on their consideration of military service, there were some substantial racial differences in responses, as shown in Figure 8.3. More than half ( 53 percent, across all time periods) of Blacks indicated that
the events decreased the likelihood that they would consider military service. ${ }^{5}$ Most members of other racial/ethnic groups indicated that the events had a positive effect on the likelihood that they would consider enlistment. The difference between Blacks and other racial/ethnic groups did not appear to diminish over time.

| Table 8.2. Propensity for Military Service by Race/Ethnicity and Time Period |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Time Period |  |  |  |  |
|  | Mar-May | Jun-Aug | Sep | Oct-Dec | Jan-Mar |
|  | 2001 | 2001 | 2001 | 2001 | 2002 |
|  | 15.1 | 16.2 | 21.6 | 13.9 | 16.0 |
|  | 24.9 | 20.2 | 20.0 | 22.6 | 22.3 |
| Hispanic | 35.8 | 26.1 | 30.5 | 38.5 | 28.0 |
| Other | 18.6 | 12.6 | 28.0 | 20.0 | 20.0 |
| Total | 19.8 | 18.2 | 23.3 | 19.1 | 18.9 |
| Source: Data provided by DMDC from the Advertising Tracking Study, March 4, 2001- March 23,2002. |  |  |  |  |  |



Figure 8.3. Positive or neutral effects of September $11^{\text {th }}$ attacks on military propensity, by race/ethnicity.

Geographical Region. As Table 8.3 shows, there was considerable variation in propensity, measured by the Advertising Tracking Study, in the Northeast, Midwest, and West census regions before September 2001. Given this level of variability, it is difficult to interpret the changes that occurred after September $11^{\text {th }}$, which are of lower magnitude. These changes do not show a general pattern. However, there was a substantial increase in propensity for the Northeast region from March 2001 to September 2001. This increase may have been caused by an unusually low value for the first quarter.

[^29]School Grades. School grades may be considered as a surrogate measure for aptitude. ${ }^{6}$ As Table 8.3 indicates, youth with lower grades (i.e., mostly B's or lower, accounting for approximately 52 percent of the youth participating in the Advertising Tracking Survey) have higher propensity for military service. This difference remained relatively constant throughout the 13 months covered in this chapter. In addition, no differences between groups were found in the direct assessment of the effects of the events on September $11^{\text {th }}$ on the likelihood that respondents would consider military service.


## Summary

The overall effects of the September $11^{\text {th }}$ attack on enlistment propensity were small, and would probably require a larger survey to specify precisely. Across all age, gender, and race/ethnicity groups, there was no statistically significant change in propensity between the two quarters before September 2001 and the two quarters after that month. However, male propensity did increase, while female propensity decreased.

Despite the relatively small differences in propensity, most respondents to the Youth Polls and Advertising Tracking Survey indicated that the events at the World Trade Center and the Pentagon increased the likelihood that they would consider military service. This increase was fairly constant across the demographic groups that were discussed, with two exceptions. Females were evenly divided between indicating a positive and a negative effect of the attacks on their inclinations toward enlistment. Blacks predominantly indicated a negative effect of the events.

Results may be tempered by time. The percentage of respondents indicating that they would definitely or probably be serving in the military in the next few years increased from 19 to

[^30]21 percent following the attacks of September 2001 (pre-attack to post-attack). ${ }^{7}$ In October, following the first U.S. military strikes in Afghanistan, long-term propensity remained high (21 percent). Propensity returned to the pre-attack level (19 percent) in November 2001. Possibly due to the holidays, the propensity measure dropped 3-percentage points to 16 percent in December 2001. But, the figure was up to a high of 24 percent in January during military strikes on terrorist targets before returning to pre-attack levels of 19 percent in February. These comparisons across time are generally not statistically significant-differences of 5 or more percentage points are statistically significant-however, increases in propensity are often considered to have practical significance to military recruiting.

[^31]
## Chapter 9

## YOUTH AND MILITARY SERVICE

In 1999, the Department of Defense asked the National Research Council of the National Academy of Sciences to form a Committee on the Youth Population and Military Recruitment. The Committee's charter was to examine the entire array of factors that influence propensity and enlistment and develop recommendations regarding strategies that will positively influence both. Its members included individuals with expertise in the areas of demography, military manpower and sociology, psychology, adolescent development, economics, and advertising. A variety of sources of data were used to accomplish the Committee's goals, including the Census Bureau, the National Center for Education Statistics (NCES), and the Defense Manpower Data Center (DMDC). In addition, large-scale studies of youth attitudes were reviewed, as were past and current practices in military recruiting and advertising. This work was reported in a National Academy Press publication entitled Attitudes, Aptitudes, and Aspirations of American Youth: Implications for Military Recruitment. ${ }^{1}$ This chapter examines some of the demographic and other trends highlighted in this report that may have an effect on representation in the military in the years to come, as well as some related conclusions of the Committee.

## Size and Composition of the Youth Population

Using data and projections supplied by the Census Bureau, the Committee examined trends in the size and make-up of the cohort of youth in the prime recruiting pool (i.e., 18 yearolds). In 1999, there were approximately 3.9 million residents in the United States who fell into this group. Projections suggest that the number of 18 year-olds will grow in the years immediately ahead, reaching a high of about 4.4 million in the year 2009. After that, it is anticipated that the upward trend will ebb to some degree, stabilizing at about 4.1 to 4.2 million between 2015 and 2020. The Committee concluded that the increased numbers of youth in the prime recruiting pool will offset other trends that might suggest greater recruiting difficulties in the future (see below).

As reported in Chapter 2 of this volume, the racial and ethnic composition of 2001 Active Component NPS accessions closely mirrored the civilian population of 18-24 year olds, with Hispanics being slightly under represented and Blacks somewhat over represented. Again using Census Bureau projections, the Committee examined likely changes in the racial/ethnic make-up of the youth population in the years to come. They found that the proportion of non-Hispanic Blacks will hold stable at approximately 14 percent, while non-Hispanic Whites will decline from around 66 percent of 18 year-olds to 57 percent in the next two decades. This difference will be countered by a corresponding growth in the numbers of Hispanic youth, whose proportional representation will increase from 14 to 22 percent. In fact, the U.S. Hispanic population grew by 58 percent between 1990 and 2000, a much greater growth rate than for the total population (13 percent). ${ }^{2}$ The Committee noted, however, that the proportion of foreign-

1 Committee on the Youth Population and Military Recruitment, National Research Council, P. Sackett and A. Mavor (Eds.). Attitudes, Aptitudes, and Aspirations of American Youth: Implications for Military Recruitment. (Washington, DC: National Academy Press, 2002).

2 U.S. Census Bureau. (2001). The Hispanic Population. Census 2000 Brief. URL: http://www.census.gov/ population/www/cen2000/briefs.html.
born youth has remained relatively stable over the past several years (less than one-tenth of one percent), and is expected to remain so.

## Educational Achievement of Youth

Over the past 40 years the proportion of high school dropouts among persons 16-24 years old has declined from just over 27 percent in 1960 to approximately 11 percent in $2000 .{ }^{3}$ Although declines in dropout rates are consistent across genders and racial/ethnic groups, the rate at which Hispanic youth leave high school is notably higher ( 32 percent for males, 23 percent for females) than rates for other racial/ethnic groups.

Given the substantial evidence indicating that high school graduates are more successful in the military than nongraduates, and the resulting desire on the part of the Services to enlist young men and women who have completed their secondary education, the decline in dropout rates can be viewed as a plus for military recruiting. However, the increasing rates at which youth are entering college immediately following high school has served as a counterbalance. Using data supplied by the NCES, the Committee noted that in 1970 approximately 52 percent of males enrolled in college the semester following their graduation. By 1999, this figure had increased to 63 percent. Corresponding increases among women ( 48 to 64 percent) and Blacks ( 42 to 59 percent) were even more substantial. After examining these data, the Committee concluded that, "The dramatic increase in college enrollment is arguably the single most significant factor affecting the environment in which military recruiting takes place." ${ }^{4}$

The Committee cited research that suggests that the impact of higher rates of educational achievement is circular. ${ }^{5}$ Data indicate that the level of education attained by parents becomes the baseline for their offspring. This appears to be particularly true in regard to those who have at least some college experience, which has a large impact on whether children reach this same level of schooling. Therefore, as the proportion of youth attending college increases, we should expect to see continued increases in the generations to come.

## Military Experience of Parents

Just as the educational choices and experiences of parents can have an impact on their children, so too can their military experience. Using data from the National Educational Longitudinal Survey (NELS), Kilburn and Klerman found that, among high school graduates, having a parent who served in the military significantly raised enlistment probabilities. ${ }^{6}$ The Commission's report presents some rather dramatic numbers in this regard. In 1970, 40 percent

3 U.S. Department of Education. The Digest of Education Statistics 2001 (NCES 2002-130) (Washington, DC: National Center for Education Statistics, 2002), Table 108.

4 Committee on the Youth Population and Military Recruitment, National Research Council, P. Sackett and A. Mavor (Eds.). Attitudes, Aptitudes, and Aspirations of American Youth: Implications for Military Recruitment. (Washington, DC: National Academy Press, 2002), p. 9-5.

5 Mare, R. D., "Changes in Educational Attainment and School Enrollment," in R. Farley (Ed.), State of the Union: America in the 1990s. Economic trends, 1 (New York: Russell Sage Foundation, 1995), pp. 155-213.

6 Kilburn, M. R. and Klerman, J. A. Enlistment decisions in the 1990s: Evidence from individual-level data. (Washington, DC: RAND Corporation, 1999).
of births were to couples with at least one parent who had served in the military. By the year 2000, this number declined to 8 percent. Among the 2000 cohort of 18 year-olds, 18 percent had a father or mother who had served in the military. This means that between 1982 and 2000 the fraction of 18 year-olds with veteran parents declined by more than 50 percent, and between 2000 and 2018 it is projected to decline another 50 percent.

## Trends in Qualification Rates

As explained in Chapter 2 of this document, the primary criteria used to determine eligibility for military service are education achievement, scores on the Armed Forces Qualification Test (AFQT), ability to meet physical standards, and moral character screening. The Committee examined recent data related to each of these standards to see if there were positive or negative trends in regard to future military recruiting. As previously mentioned, high school graduation rates have been on an upward rise over the past several decades. The Committee noted that, overall, this rate increased from 80 percent in 1972 to 88 percent in 2000. Only small increases were seen for Whites over this period. However, among Blacks there was a 20 percent increase in the proportion of high school graduates from 65 percent in 1972 to 85 percent in 1995. Although upward, the trend for Hispanics was far less dramatic, increasing from 58 percent in 1976 to 63 percent in 2000. In general, however, the increases in high school graduation rates are a plus for the Services as they represent an expansion of the qualified pool on at least this dimension.

The Committee examined aptitude trends using data from the National Assessment of Educational Progress (NAEP). This is an achievement test given every two to four years to students in $4^{\text {th }}, 9^{\text {th }}$, and $12^{\text {th }}$ grades in various subject areas, including reading, mathematics computation and concepts, and science. Outcomes for these three assessments were of particular interest due to the overlap of their content with certain subtests of the AFQT (e.g., word knowledge, paragraph comprehension, arithmetic reasoning, and mathematics knowledge). In examining trends in NAEP scores over the past three decades, the Committee found that reading results were relatively stable, however there was evidence of gains made in math and science starting around 1982. This latter result led to the conclusion that additional increases in these scores may be seen in the future. In comparing racial/ethnic groups, the Committee noted that Whites tend to score highest, followed by Hispanics and then Blacks. However, between 1970 and 1990, these gaps closed significantly, which suggests that more minority youth may be found in the group labeled "highly qualified" for military service-high school graduates who score above the $50^{\text {th }}$ percentile on the AFQT.

To gain some insight into the potential trends regarding moral character and physical screening, the Committee examined data on drug use, arrest rates, and two common medical problems-asthma and obesity. Although a modest increase in the reported usage of marijuana among youth was noted starting in 1992, the conclusion was reached that this poses little problem for the Services even if it should continue because most do not require a moral waiver for pre-service marijuana use. Decreases in both violent and property crimes in the late 1990s suggest that this favors the military and will pose few problems in recruiting. The news regarding health status is less favorable. Asthma rates doubled between 1980 and 1995, and rates of obesity in 12-17 year-olds tripled between 1980 and 1999. If such trends continue, the Committee concluded, they could have a negative impact on both military recruiting and performance.

## Trends in Propensity

Using data from sources such as the Youth Attitude Tracking Study (YATS) and Monitoring the Future (MTF), the Committee examined trends in youth attitudes towards the military and their intentions regarding military service (i.e., propensity). Overall, the Committee found that the proportion of male high school seniors who say they definitely will serve in the military remained fairly stable at about 10 percent from 1976 through 2001. The largest shift noted in this group was in those who said they definitely would not serve; this proportion was less than 40 percent in 1983, but increased to 60 percent in 1996. The Committee noted that a similar shift was found in young men who were not planning to attend college. Thus, the change cannot be attributed solely to the increase in the proportion of youth who go directly from high school to post-secondary education. Among the other trends noted in the data was a sharp increase in the number of $12^{\text {th }}$ grade males who say they definitely will not serve in the military compared to the number of $10^{\text {th }}$ grade males who say they definitely will not join one of the Services. This suggests that there are at least some young men who look favorably on military service when they are sophomores, but whose views switch by the time they are seniors. Another finding the Committee highlighted was that in the 1980s half or more of male senior high school students said they would volunteer for a war that they felt was necessary. More recently, this number has decreased to just over one-third.

Based on results from DMDC's Youth Poll 2 (July 2001), researchers noted that young adults know relatively little about the military. ${ }^{7}$ They know few members of the military. On average, today's youth know only five or six people who are either currently serving or have recently served in the military. Approximately, 44 percent of 15 - to 21 -year-olds know two or fewer Servicemembers. Considering the fact that impressions of the military are formed through personal contacts, for the most part, there is a need to convey positive information and knowledge about the military to youth and the adults in their lives - parents, teachers, etc. - who influence their career decisions.

The Committee examined several sources of data for evidence regarding the relationship between youth attitudes and propensity to enlist in the military. For instance, for young men a correlation of .73 was found between finding the military "an acceptable place to work" and propensity. A group of YATS items was found to be especially related to propensity. These were termed "Patriotic Adventure," and include seeking adventure and a physical challenge, wanting to do something for one's country, an interest in foreign and domestic travel, and wanting to do something of which one can be proud. In general, youth who have such aspirations have a greater propensity for military service. However, other YATS data suggest that there have been decreases over time in the percentage of youth who believe they have more opportunity to do something for their country by serving in the military than they would in a civilian job. This led to the suggestion that highlighting service to country as a benefit of enlisting in the military may be as, or even more effective than, stressing tangible benefits (e.g., money for college, job knowledge).

[^32]
## Conclusions

In addition to the data sources mentioned here, the Committee also examined current recruiting practices and advertising strategies. Based on all this input, several conclusions and recommendations emerged. These included:

- No evidence was found that there will be major changes in manpower needs in the foreseeable future. Further, the anticipated increase in the size of the recruiting pool should offset other less positive trends (e.g., smaller proportions of veteran parents).
- Despite recruiting difficulties, the enlisted force remains highly qualified and the supply of qualified youth should remain stable.
- The Committee recommended that military performance requirements and training be reviewed periodically to ensure that recruiting goals and training practices reflect military needs.
- The compensation and benefits structure should be reviewed to make the military a more attractive option in today's job market. In particular, the effects of increased investments in recruiting, educational benefits, enlistment bonuses, and advertising should be evaluated to determine the most cost-effective mix of strategies. The Committee concluded that across-the-board increases in compensation are the least cost-effective approach to improving recruiting and retention.
- Influencers of youth should also be targeted as part of recruiting efforts, particularly mothers.
- Advertising should focus on aspects of military service that are attractive to youth such as more time off, pay, job security, and service to country.
- There will need to be an increased focus on college aspirants and older youth as potential recruits, and efforts to allow for in-service education should be continued.

For information on obtaining the complete report, contact the National Academy Press (www.nap.edu).


[^0]:    3 U.S. Census Bureau, Projections of the Total Resident Population by 5-Year Age Groups, Race, and Hispanic Origin with Special Age Categories: Middle Series, 1999 to 2100 (Washington, DC: Population Division, U.S. Census Bureau, 2000). (URL: http://www.census.gov/population/www/projections/natsum.html)

[^1]:    1610 U.S.C. 513, as amended October 1999.

    17 Gilmore, G., Recruit Attrition Rates Fall Across the Services (Washington, DC: American Forces Press Service, August 13, 2001).

[^2]:    $19 \quad 10$ U.S.C. 505.

[^3]:    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.

    30 Laurence, J.H., Military Enlistment Policy and Educational Credentials: Evaluation and Improvement (Alexandria, VA: Human Resources Research Organization, 1987); Laurence, J.H., Ramsberger, P.F., and Arabian, J.M., Education Credential Tier Evaluation (Alexandria, VA: Human Resources Research Organization, 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 $105^{\text {th }}$ Annual Convention of the American Psychological Association, Chicago, August 1997.

[^4]:    31 Rutherford, G., Hispanic Population Projections, Enlistment Propensity and the FY 2001 Recruiting Results - information paper (Washington, DC: Office of the Assistant Secretary of Defense, 2001).

[^5]:    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.

[^6]:    2 Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: 1999 Youth Attitude Tracking Study, January 11, 2000.

[^7]:    3 U.S. Census Bureau. Projections of the Resident Population by Race, Hispanic Origin, and Nativity: Middle Series, 2006 to 2010. URL: http://www.census.gov/population/www/projections/popproj.html

[^8]:    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.

[^9]:    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).

    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).

[^10]:    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 2001); Memorandum from Alphonso Maldon, Jr., Assistant Secretary of Defense (Force Management Policy), Subject: Uniform Tuition Assistance Policy, April 4, 2000.

[^11]:    11 Gribben, M., Trends in Distribution of Military Personnel Across Occupational Categories, paper presented to the Committee on the Youth Population and Military Recruitment of the National Academy of Sciences, Washington, DC, May 2001.

    12 Levy, D.G., Thie, H.J., Robbert, A.A., Naftel, S., Cannon, C., Ehrenberg, R., and Gershwin, M., Characterizing the Future Defense Workforce (Santa Monica, CA: RAND Corporation, 2001).

[^12]:    13 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.

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

[^13]:    1 Data are for commissioned officers; warrant officers are excluded. A brief sketch of warrant officers is presented at the end of this chapter.

[^14]:    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).

[^15]:    5 Data from Defense Manpower Data Center.

[^16]:    ${ }^{6}$ 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).

[^17]:    9 See Hosek, S.D., Tiemeyer, P., Kilburn, M.R., Strong, D.A., Ducksworth, S., and Ray, R., Minority and Gender Differences in Officer Career Progression (Santa Monica, CA: Rand Corporation).

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

[^18]:    11 For more detailed information on warrant officers, see Department of Defense, DoD Report on the "Warrant Officer Management Act" (WOMA) (Washington, DC: Author, 1989).

[^19]:    1 Department of Defense, Official Guard and Reserve Manpower Strengths and Statistics: FY 2001 Summary (RCS: DD-RA[M]1147/1148) (Washington, DC: Office of the Assistant Secretary of Defense [Reserve Affairs], 2001), Report AO, p. 1.005.

[^20]:    3 Asch, B.J., Reserve Supply in the Post-Desert Storm Recruiting Environment (Santa Monica, CA: RAND Corporation, 1993), p. 5.

[^21]:    4 Memorandum from Les Aspin, Secretary of Defense, Subject: Policy on the Assignment of Women in the Armed Forces, April 28, 1993.

[^22]:    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.

[^23]:    1 URL: http://www.uscg.mil/hq/g-cp/history/h_USCGhistory.html.
    2 Fiscal Year 2001 Coast Guard Report: FY 2000 Performance Report and FY 2002 Budget in Brief. URL: http://www.uscg.mil/hq/g-cp/comrel/factfile/Factcards/CGReport.html.

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

[^24]:    6 USCG Frequently Asked Questions About Recruiting. URL: http://www.gocoastguard.com/faq.html.

[^25]:    7 Scheina, R. The Coast Guard at War. URL: http://www.uscg.mil/hq/g-cp/history/h_CGatwar.html.
    8 U.S. Coast Guard Average Day Factoids. URL: http://www.uscg.mil/hq/g-cp/comrel/factfile/Factcards/ AvgDay.html.

[^26]:    9 U.S. Coast Guard Homeland Security and the New Normalcy. URL: http://www.uscg.mil/hq/g-cp/comrel/ factfile/Factcards/Homeland.htm.

[^27]:    1 Sellman, W.S. U.S. Military Recruiting Initiatives. Keynote address to the International Workshop on Military Recruitment and Retention in the $21^{\text {st }}$ Century. Sponsored by the Belgian Defense Staff, Royal Netherlands Army, and U.S. Office of Naval Research (The Hague, The Netherlands, 2001).

[^28]:    4 Defense Manpower Data Center. Youth Attitudes Toward the Military: Recent Findings. Briefing for Force Management Policy, Deputy Chief of Staff of Personnel, Manpower and Reserve Affairs Meeting, February, 19, 2002.

[^29]:    5 As denoted in Figure 8.3, fewer than 50 percent of Blacks reported that the terrorist attacks of September 11, 2001 had a positive effect or no effect on military propensity.

[^30]:    ${ }^{6}$ Other, more accurate (and more complex) surrogates for aptitude exist. See, for example, Orvis, B.R., Sastry, N., and McDonald, L.L. Military Recruiting Outlook: Recent Trends in Enlistment Propensity and Conversion of Potential Enlisted Supply (Santa Monica, CA: RAND Corporation, 1996).

[^31]:    7 Millward Brown. US Military Services Tracking - America Under Attack: Impact on Propensity (March 14, 2002). Arlington, VA: Defense Manpower Data Center, 2002.

[^32]:    7 Wirthlin Worldwide. Department of Defense Youth Poll - Wave 2, July 2001 (presentation prepared for Director, Accession Policy) (Arlington, VA: Defense Manpower Data Center, 2001).

