

2006 POPULATION REPRESENTATION IN THE MILITARY SERVICES

Office of the Under Secretary of Defense, Personnel and Readiness

EXECUTIVE SUMMARY

This is the 33rd annual Department of Defense (DoD) report on social representation in the U.S. Military Services, including the Coast Guard. The 2006 report and technical appendices provide data on demographic, educational, and aptitude characteristics of applicants, new recruits, and enlisted and officer members of the Active and Reserve Components as well as time-series information. Except where otherwise noted, data are provided by the Defense Manpower Data Center (DMDC). Due to differences in data definitions, data provided will not always match official figures reported by the Directorate for Information Operations and Reports, other Department of Defense agencies, or the military services.

The FY 2006 end-strength of the Active Components was slightly under 1.15 million enlisted [B-22] and just under 208,000 officers [B-30]. The Selected Reserve (comprising the Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, and Air Force Reserve) totaled nearly 703,000 [C-15] with approximately 113,000 officers [C-24]. In FY 2006, over 160,000 non-prior service (NPS) recruits were enlisted [B-1] and approximately 12,000 prior service recruits were returned to the ranks [B-13]. About 16,500 newly commissioned officers reported for active duty [B-30]. Furthermore, more than 58,000 recruits without, and almost 83,000 with, prior military experience were enlisted into the Selected Reserve [C-1, C-9]. Just over 12,000 commissioned officers entered the National Guard or Reserves this past fiscal year as well [C-23].

FY 2006 Highlights

Age. The active duty military comprises a younger workforce than the civilian sector. Service policies and legal restrictions account for the relative youthfulness of the military. In FY 2006, 87 percent of new active duty recruits were 18 through 24 years of age compared to 37 percent of non-institutionalized civilians [B-1]. The mean age of new active duty recruits was approximately 20 [Footnote 1]. Almost half (47 percent) of the active duty enlisted force was 17-24 years old, in contrast to about 14 percent of the civilian labor force [B-22]. Officers were older than those in the enlisted ranks (mean ages 34 and 27, respectively [D-18, D-12]), but they too were younger than their civilian counterparts—college graduates in the workforce 21-49 [Footnote 2] years old (mean age 36).

The data for enlisted personnel in the Selected Reserve similarly showed a more youthful composition than that of the civilian labor force. Among enlisted Reserve Component members, 55 percent of NPS accessions were between the ages of 17 and 19, but only 16 percent of civilians within the 17-35 year age range were 17-19 years old [C-1]. Of course, prior service Reserve Component enlisted accessions were older than those without prior service, but still younger than the civilian workforce (e.g., 67 percent versus 49 percent were under 30 years of age) [C-9].

Race/Ethnicity. In FY 2006, African Americans were equitably represented in the military overall. In the enlisted force, African Americans were slightly underrepresented among NPS active duty accessions (13 percent) relative to the 18-24 year-old civilian population (14 percent) [B-3]. FY 2006 representation of “Other” minority enlisted accessions (American Indians and Alaskan Natives, Asians, Native Hawaiians and Pacific Islanders, and those of two or more

racess) stood at about 7 percent, nearly equal to their share of the civilian population. Hispanics, on the other hand, continued to be underrepresented, with 13 percent among NPS accessions compared with nearly 18 percent for comparable civilians [B-3]. In terms of the entire force, African Americans are overrepresented in the enlisted ranks when compared to their civilian cohorts. Higher retention rates among African Americans continue to boost their representation among active component enlisted members – 19 percent in contrast to the 13 percent of African Americans among 18-44 year-old civilians. With 11 percent of active duty enlisted members counted as Hispanic, this group remained underrepresented relative to the growing comparable civilian population (17 percent) [B-24].

Overall, minorities appear to be proportionately represented within the commissioned officer corps. Although African Americans comprised a much smaller proportion of officers (9 percent) [B-33] than they do of enlisted members (19 percent) [B-24], when compared to college graduates in the civilian workforce 21-49 years old (8 percent African American) [B-33], African Americans are equitably represented in the officer ranks. Asian officers are underrepresented, with 3 percent of the officer corps and 9 percent of 21-49 year-old college graduates in the workforce. American Indians and Alaskan Natives and Native Hawaiians and Pacific Islanders, a very small proportion of the officer corps, are equitably represented. Hispanic officers, at 5 percent, are slightly underrepresented compared to their civilian comparison group (7 percent Hispanic) [B-33].

Warrant officers account for 11 percent of active duty officer accessions and 7 percent of the officer corps [B-30, B-43]. The Air Force does not have warrant officers. Warrant officers on active duty have greater representation of African Americans than among commissioned officers

(17 percent warrant officers [B-44] versus 9 percent commissioned officers [B-33]). African American warrant officers are overrepresented (17 percent of the officer corps and 12 percent of the 18-49 year-old civilian labor force) [B-44]. Warrant officers are slightly more likely to be Hispanic (7 percent) than commissioned officers (5 percent) [B-44, B-33]. Hispanic warrant officers are underrepresented (7 percent of officers and 16 percent of the comparable civilian labor force) [B-44].

Racial/ethnic representation within the Reserve Components is similar. African Americans were equally represented among NPS Selected Reserve accessions [C-3] and overrepresented among prior service accessions [C-11]. Asians were underrepresented among NPS and prior service Selected Reserve accessions [C-3, C-11]. Likewise, Hispanics were underrepresented among Selected Reserve accessions [C-3]. As with the Active Components, the proportions of minorities among Selected Reserve officers were smaller than for enlisted personnel [C-27, C-17]. African American Reserve officers are on par with their cohorts in the comparable civilian labor force [C-27]. The percentage of Hispanic Reserve officers demonstrates continued underrepresentation, although the gap has closed to less than two percentage points in the last three years [C-27].

Warrant officers account for 8 percent of Selected Reserve officer accessions and 8 percent of the officer corps [C-23, C-24, C-36]. The Air National Guard and the Air Force Reserve do not have warrant officers. The National Guard and Reserve warrant ranks include similar proportions of minorities as commissioned officers [C-36, C-27]. Minority warrant officers in the Selected Reserve are underrepresented compared with the civilian labor force [C-36].

Gender. Women comprised about 17 percent of NPS active duty accessions [B-1, D-5] and 20 percent of NPS accessions to the Selected Reserve [C-1] compared to 50 percent of 18- to 24-year-old civilians. Among enlisted members on active duty, 14 percent were women [B-22, D-13]. For enlisted members in the Selected Reserves, the female composition was 17 percent [C-15]. Among the Reserve Components, the National Guard and Marine Corps components were less female at 14 and 5 percent, respectively [C-15]. This is generally due to these components' heavier combat arms mix, which precludes women from serving in many of those units. The representation of women among active duty officer accessions and within the officer corps was 20 and 16 percent, respectively [B-31]. Similar percentages were seen among Selected Reserve officers (20 and 19 percent, respectively) [C-25].

Military women, across the enlisted force in both the Active and Reserve Components, are more likely to be members of a racial minority group than are military men. In fact, 42 percent of the women in the Active Components' enlisted force are members of racial minority groups (excluding unknowns) [B-24]. Hispanic females enlist at about the same or slightly higher rates as Hispanic males depending on component [B-24].

Women are a minority of the Total Force. However, their representation has grown greatly since the inception of the All Volunteer Force. In FY 1994, when the direct ground combat rule replaced the risk rule, new jobs were opened to women. Since the introduction of that policy, nearly all career fields (92 percent) have been opened to women [Footnote 3]. Accordingly, the percentage of Active Component women increased to its highest proportion—15 percent—in FYs 2002 and 2003. For FY 2006 women represented 14 percent of the force [D-13].

Marital Status. In addition to the growing presence of women in the military, the occurrence of marriage among Servicemembers has also increased. However, unlike the growing percentages of women, the rise in marriage among Servicemembers has not maintained a steady growth. In FY 1974, approximately 43 percent of enlisted members were married. That statistic hit its high point in 1994 at 57 percent married, but decreased steadily to a FY 2001 rate of 48 percent. A slight upswing has occurred in recent years with the proportion of married servicemembers reaching 52 percent in 2006 [D-14].

Newcomers to the military are less likely than their civilian-age counterparts to be married [D-6]. Military members are slightly more likely to be married than those in the civilian sector [D-14]; however, the difference is less pronounced in the total active force than it is with accessions. Among enlisted members in the Reserve Components, 46 percent were married as of the end of FY 2006 [C-16]. In general, male servicemembers are much more likely to be married than female servicemembers [B-23, C-16].

As one might expect, owing to their being older and financially more secure, on average, officers were more likely to be married (70 percent of the Active Component [B-32] and 73 percent of the Reserve Component [C-26] officer corps were married) than enlisted personnel [B-23, C-16]. Again, women officers were less likely than their male colleagues to be married [B-32, C-26].

Education Level. The Military Services value and support the education of their members. The emphasis on education was evident in the data for FY 2006. Practically all active duty (98%) and Selected Reserve enlisted accessions (96 percent) had a high school diploma or equivalent, well above civilian youth proportions (81 percent of 18-24 year-olds) [B-6, C-7]. More important, 87 percent of NPS active duty and 86 percent of Selected Reserve enlisted recruits were high school

diploma graduates [B-6, C-7]. For the active components, this represents a decrease of 3 percent, accounted for largely by a decline in Army accessions with high school diplomas—from 82 percent in 2005 to 73 percent in 2006 [D-7].

Given that most officers are required to possess at least a baccalaureate college degree upon or soon after commissioning and that colleges and universities are among the Services' main commissioning sources (i.e., Service academies and ROTC), the academic standing of officers is not surprising. The fact that 94 percent of active duty officer accessions and 96 percent of the officer corps (both excluding those with unknown education credentials) were degree holders (approximately 16 and 39 percent had advanced degrees) is in keeping with policy and the professional status and expectations of officers [B-34]. Likewise, 84 percent of Reserve Component officer accessions and 94 percent of the total Reserve Component officer corps held at least a bachelor's degree, with 21 and 35 percent possessing advanced degrees, respectively [C-28].

Armed Forces Qualification Test (AFQT) Scores. Enlisted members, on average, tend to have higher cognitive aptitude than the civilian youth population, as measured by scores on the military's enlistment test. Persons who score in Categories I and II (65th to 99th percentiles) tend to be above average in trainability; those in Category III (31st to 64th percentiles), average; those in Category IV (10th to 30th percentiles), below average; and those in Category V (1st to 9th percentiles), markedly below average. The percentage of new recruits in Categories I and II (42 percent) was slightly higher than for their civilian counterparts (36 percent) [B-4]. Category IIIA and IIIB new accessions (26 and 29 percent, respectively) greatly exceeded the proportion of the civilian group (16 and 19 percent, respectively), while the percentage of recruits in Category IV

(2 percent) was much lower than in the civilian youth population (21 percent). No enlistees in Category V are permitted to enlist; 9 percent of the civilian population scored in this category [B-4].

Test score data were not reported for officers because of test variation by Service and commissioning source. Tough entry requirements (e.g., SAT scores) for the commissioning programs as well as the college degree hurdle ensure quality among officers.

High-Quality Recruits. To predict recruit quality in areas such as persistence, training outcome, and job performance in the enlisted ranks, the Services use level of education and AFQT scores. Because high school diploma graduates are more likely to complete their contracted enlistment terms, and higher AFQT-scoring recruits perform better in training and on the job, the Services strive to enlist AFQT Category I-III A (50th percentile and above on the AFQT) high school diploma graduates.

The military drawdown in the 1990s led the Services to redesign jobs so that Servicemembers of the 21st century assume more diverse workloads and greater responsibilities. Incumbents must perform more tasks and tasks of greater complexity. The Services need more personnel of high-quality levels to meet these job demands. In FY 2006, the proportion of NPS high-quality recruits ranged from 45 percent in the Army to 78 percent in the Air Force [B-8]. This represents an 11 percent drop in high quality recruits for the Army as compared to the previous year [D-9].

Reading Ability. Like aptitude levels, reading levels were higher in the enlisted military than in the non-military sector. FY 2006 NPS active duty enlisted accessions had a mean reading level

typical of a 11th grade student whereas the mean for civilian youth was at about the 10th grade level [Footnote 4].

Geographic Representation. Since FY 1996, the percentage of new recruits from the Northeast region has decreased with a corresponding increase in the percentage of recruits from the West region [D-10]. The geographic distribution of enlisted active accessions for FY 2006 shows that the South, and in particular the West South Central and South Atlantic Divisions of this region, continued to have the greatest representation; 42 percent of NPS accessions hailed from the South [B-10]. In fact, this was the only region to be slightly overrepresented among enlisted accessions compared to its proportion of 18-24 year-olds. The representation ratio (percentage of accessions divided by percentage of 18-24 year-olds from the region) for NPS active accessions from the South was 1.2, compared to 0.7 for the Northeast, 1.0 for the North Central, and 1.0 for the West [B-10] [Footnote 5].

Representation in Occupations. The Services need a steady supply of combat and combat support personnel; they rely heavily on mechanics and infantrymen and guncrew specialists. In addition, the Services require technicians, health care specialists, and other support personnel. Assignment to and training in one of the military's many occupational specialties, which carry varying cognitive and noncognitive demands, is part of the enlistment or commissioning package. Less than one-third (31 percent) of FY 2006 active duty enlisted personnel were in occupations such as infantry, craftsmen, and service and supply handling [B-28]. A plurality of enlisted members (43 percent) served in mid-level skill jobs in medical and dental, functional support and administration, and electrical/mechanical equipment repair. The remainder were in

high-skill areas (21 percent), including electronic equipment repair, communications and intelligence, and other allied specialties, or in non-occupational categories (5 percent) [B-28].

During the last two decades, assignment patterns for women have shifted toward “non-traditional” jobs. Previously, most enlisted women were in either functional support and administration or medical and dental occupations. By FY 2006, smaller proportions (32 and 16 percent, respectively) served in these jobs [B-28]. Although women are excluded from infantry and other assignments in which the primary mission is to physically engage the enemy, the direct ground combat rule allows women to serve on aircraft and ships engaged in combat. The proportion of women serving in such operational positions (i.e., gun crews and seamanship specialties) in FY 2006 was 5 percent. In contrast, the percentage of men in these occupations was approximately 20 percent [B-28].

In FY 2006, the proportions of African Americans and Whites were similar in most of the nine occupational areas (electronic equipment repairers, communications and intelligence, medical and dental, other allied specialists, and craftsmen). Differences were found in four areas, with higher proportions of Whites serving in infantry and electrical/mechanical equipment repair, and a higher proportion of Blacks in functional support/administrative positions and supply [B-29].

The most common occupational area for active duty officers was tactical operations (e.g., fighter pilots, combat commanders—37 percent) with health care a distant second (17 percent) [B-36].

Assignment patterns differed between men and women. Greater percentages of men were in tactical operations (42 percent), whereas greater percentages of women were in health care (39 percent) and administration (11 percent) [B-37]. In FY 2006, racial groups of officers generally had similar assignment patterns across occupational areas although there was a lower percentage

of African Americans in tactical operations with a corresponding greater percentage in administration and supply. A larger proportion of Asians served in health care (27 percent) positions than those of other races [B-38].

The occupational distributions among Active and Reserve Components varied somewhat [B-28, C-21]. In FY 2006, the Reserve Components were somewhat “lighter” in technical occupational areas such as electronic and electrical/mechanical equipment repair, and communications and intelligence and somewhat “heavier” in craftsmen, and supply. There were also some occupational differences between Active and Reserve officers; the Reserve Components had slightly smaller proportions in tactical operations and engineering but slightly larger proportions in health care. However, differences were greater between Services than between Active and Reserve members [B-36, C-30].

U.S. Coast Guard. The Coast Guard—with about 48,000 total members—is the smallest of the Armed Forces. It is a part of the Department of Homeland Security during peacetime, but during times of war it becomes a part of the Department of Defense. Compared to the other Services, the Coast Guard is very similar with respect to demographic variables, with slightly greater proportions of males [B-22, B-31, E-14, E-18] and Whites [B-24, B-33, E-15, E-18].

Conclusions. The FY 2006 Population Representation report shows both the diversity and the quality of the Total Force. Men and women of various racial and ethnic groups of divergent backgrounds, from every state in our country, serve as Active and Selected Reserve enlisted members and officers of the Army, Navy, Marine Corps, Air Force, and Coast Guard. Of particular note, the mean cognitive ability and educational levels of these soldiers, sailors, marines, airmen, and coast guardsmen are above the average of comparably-aged U.S. citizens.

Although the force is diverse, it is not an exact replica of society as a whole. The military way of life is more attractive to some members of society than to others, and that is the nature of a volunteer force—individuals making choices. Among the enlisted ranks, the proportion of African Americans continues to exceed its population representation within the civilian labor force. Hispanics are underrepresented in the military, but their percentages have increased considerably over the years. Minorities comprise proportionally less of the officer corps; however, their representation levels are in keeping with minority statistics among the pool of college graduates from which second lieutenants and ensigns are drawn. Women continue to be underrepresented in the military, compared to their proportion in civilian society. However, accession statistics show that women have generally continued to gain in both numerical and proportional strength.

FY 2006—Impact of Recruiting Challenges

There are three primary factors that have made recruiting more challenging in FY 2006 compared to the previous four years. The first is the ongoing hostilities in Iraq and Afghanistan. Results from the 2005 DoD Recruiter Quality of Life Survey [Footnote 6] indicate that nearly three quarters of active duty recruiters agreed that these operations make it harder for them to achieve their recruiting goals. Unlike in previous eras when the operations tempo was much less, youth enlisting in the military, particularly the Army and Marine Corps, are aware that it is likely they will be asked to serve in hostile environments.

The second factor is higher education. According to the Bureau of Labor Statistics (BLS), in October of 2006, nearly 66 percent of those who graduated the previous spring were enrolled in colleges or universities [Footnote 7]. Figures for young men and young women were nearly

identical in this regard. Further, 92 percent of those who matriculated directly to college were enrolled full time. Obviously, to the extent that the norm becomes direct matriculation from secondary to postsecondary education, this represents a challenge to military recruiters who are offering an alternative course.

The third is a growing economy and declining unemployment. BLS reports that the national unemployment rate for those ages 16 and above at the end of FY 2006 was 4.6 [D-2]. Although the rate is much higher among youth (e.g., 15.6 percent among teenagers), the fact remains that when the economy is strong and civilian jobs are readily available, it is much harder for recruiters to make their goals.

Although reports of recruiting problems have surfaced routinely in the media, the fact remains that the Services have been able to meet their overall recruiting goals. In 2006, each of the Services was able to fulfill their numerical recruiting missions [Footnote 8]. One question that can be asked, however, is whether there are changes in the demographic makeup of recent accessions that could be linked to recruiting difficulties. As mentioned, the proportion of Army accessions in 2006 who were regular high school diploma graduates declined from 82 to 73 percent. This contributed to the fact that in 2006 the Army had the lowest proportion of high quality accessions since 1983.

Further, data from the Spring 2007 Joint Advertising, Marketing Research and Studies' Youth and Influencer polls indicate that an end to recruiting challenges may not be in sight [Footnote 9]. Overall, 69 percent of youth poll participants in 2007 indicated that the war on terrorism made them less likely to enlist in the military, an increase of 4 percentage points since the last time this question was asked in the spring of 2006. Differences by race/ethnicity were large, with 83

percent of Blacks indicating a negative impact, as compared to 72 percent of Hispanics and 64 percent of Whites. Similar patterns were found in the survey of influencers of youth (parents, teachers, and coaches, for example), with 76 percent of Blacks saying they were less likely to recommend military service because of the war on terrorism, compared to 70 percent of Hispanics and 55 percent of White influencers [Footnote 10]. It is not surprising that recruiting has remained challenging.

Endnotes

[Footnote 1] The mean age of new active duty recruits was provided by Defense Manpower Data Center.

[Footnote 2] Civilian data from Bureau of Labor Statistics Current Population Survey File, 2006.

[Footnote 3] 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.

[Footnote 4] 1980 civilian youth population data from the *Profile of American Youth* (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], March 1982); and Waters, et al., *Estimating the Reading Skills of Military Applicants: The Development of an ASVAB to RGL Conversion Table* (Alexandria, VA: Human Resources Research Organization, October 1988).

[Footnote 5] Representation ratios are calculated from data provided by Defense Manpower Data Center.

[Footnote 6] U.S. Government Accountability Office (2006). *Military recruiting: DoD and Services need better data to enhance visibility over recruiter irregularities* (GAO-06-846). Washington, DC: Author.

[Footnote 7] Bureau of Labor Statistics (2006). *College enrollment and work activity of 2006 high school graduates* (News Release USDL 07-0604). Washington, DC: Author.

[Footnote 8] Under Secretary of Defense (Personnel and Readiness) <http://www.dod.gov/prhome/mpprecruiting.html>.

[Footnote 9] Joint Advertising, Market Research and Studies (2007). June 2007 Youth Poll: Findings presentation. Retrieved from <http://dmren.org/jamrs/execute/mrs/studies/poll-youth/13>

[Footnote 10] Joint Advertising, Market Research and Studies (2007). June 2007 Influencer Poll: Findings presentation. Retrieved from <http://dmren.org/jamrs/execute/mrs/studies/poll-influencer/8>