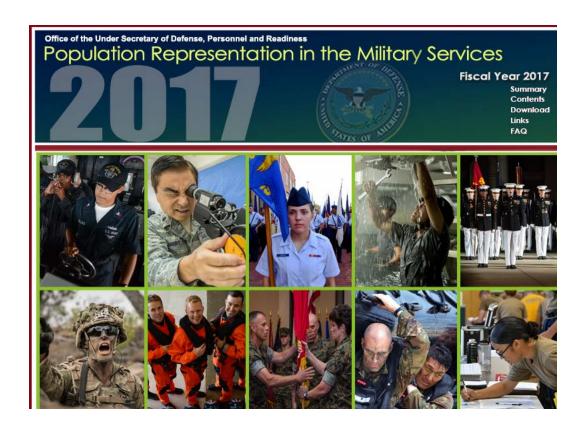
# Population Representation in the Military Services: Fiscal Year 2017 Summary Report





### **Preface**

Since 1974, the Department of Defense (DOD) has provided this congressionally-mandated annual report on the demographic and service-related characteristics of U.S. military personnel. The *Population Representation in the Military Services (PopRep)* provides comprehensive, reliable, and consistent data tabulations on military personnel for policy-makers, the media, and the general public.

This summary report highlights recent and historical personnel trends in the DOD services (the Army, Navy, Marine Corps, and Air Force) and the U.S. Coast Guard, which is part of the Department of Homeland Security. It examines both the active component (AC) and the reserve component (RC) of each service. It describes the demographic and socioeconomic characteristics of military applicants, accessions, enlisted personnel, and officers, referencing data from the tables in the technical appendixes, as well as from previous *PopRep* reports.

A primary purpose of this report is to provide an accessible overview of the extensive amount of publicly available information on military personnel. The full selection of FY17 data tables, as well as *PopRep* reports for FY97 through FY16, can be found at <a href="https://www.cna.org/research/pop-rep">www.cna.org/research/pop-rep</a>. The FY17 technical appendixes (A through E), located on the "Contents" page of the FY17 *PopRep* website, provide FY17 data on the demographics—including education and aptitude—of new recruits (accessions), enlisted personnel, and officers of the AC and RC, as well as historical data on their selected demographic and service-related characteristics. Except where otherwise noted, data are provided by the Defense Manpower Data Center (DMDC). This summary document provides summary figures, tables, and descriptions of the data in the appendix tables. In this document, table references starting with letters refer to tables in the technical appendixes (e.g., Table A-1 refers to a table in Appendix A), while table references without letters (e.g., Table 1) refer to tables in the main text of the summary document.

The FY17 summary report differs in organization from prior reports, although much of the content remains unchanged. The summary report now includes a table of contents to help the reader find specific topics and subsections of interest. The main sections are organized as follows: Section I summarizes overall endstrength and accessions for FY17 and gives an overview of the demographic highlights found throughout the rest of the report. Sections II and III have been reorganized to focus specifically on the DOD AC enlisted force and officer corps, respectively. Sections IV and V focus on the DOD RC and U.S. Coast Guard, respectively.

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### Glossary

AC Active Component

ACS American Community Survey
AFQT Armed Forces Qualification Test
AIAN American Indian/Alaska Native

ANG Air National Guard
ARNG Army National Guard
AVF All-Volunteer Force

BRS Blended Retirement System

DHS Department of Homeland Security
DMDC Defense Manpower Data Center

DOD Department of Defense

FY Fiscal Year

NPS Non-Prior-Service

OMB Office of Management and Budget

PopRep Population Representation

PS Prior-Service

RC Reserve Component
USAFR U.S. Air Force Reserve
USAR U.S. Army Reserve

USMCR U.S. Marine Corps Reserve

USNR U.S. Navy Reserve

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# Section I: Executive Summary

### **FY17 Total Endstrength and Accessions**

Each year, Congress sets authorized endstrength—the maximum number of servicemembers allowed—for each service. During a fiscal year (FY), actual endstrength may differ from authorized endstrength, however, because the former refers to the number of servicemembers as of September 30<sup>th</sup> in a given FY. To meet authorized endstrength, each service balances retention (those remaining in the service) with accessions (those entering the service). In this report, the word endstrength refers to actual endstrength. Department of Defense (DOD) active component (AC) endstrength, the largest military component, has become relatively stable recently after years of drawing down since FY10 (see Figure 1). Table 1 shows each service's total endstrength—the sum of enlisted members, commissioned officers, and warrant officers—for FY15 through FY17. The table also shows FY17 endstrength by personnel type (enlisted members, commissioned officers, and warrant officers).

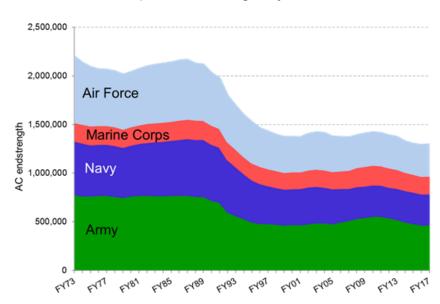


Figure 1. Total active component endstrength, by service, FY73-FY17

Source: Table D-39.

Table 1. Actual endstrength, by service and personnel type, FY15–FY17

	<u>Endstrength</u>			FY17 endstrength, by personnel type		
Component/			_		Commissioned	Warrant
service	FY15	FY16	FY17	Enlisted	officers	officers
DOD AC						_
Army	487,366	471,271	472,047	379,937	77,755	14,355
Navy	323,334	320,101	319,492	265,024	52,776	1,692
Marine Corps	183,417	183,501	184,401	163,290	19,049	2,062
Air Force <sup>a</sup>	307,326	313,723	318,580	256,983	61,597	0
Total	1,301,443	1,288,596	1,294,520	1,065,234	211,177	18,109
DOD RC b						
ARNG	350,023	341,589	343,603	297,741	37,235	8,627
USAR	198,552	198,395	194,318	156,745	34,118	3,455
USNR	57,359	57,980	57,824	43,559	14,179	86
USMCR	38,906	38,517	38,682	34,308	4,123	251
ANG	105,728	105,887	105,670	90,413	15,257	0
USAFR	68,494	69,364	68,798	55,126	13,672	0
Total	819,062	811,732	808,895	677,892	118,584	12,419
U.S. Coast Guard						
AC	39,090	39,597	41,553	32,324	6,545	2,684
RC	7,044	6,573	6,239	5,171	938	130
Total	46,134	46,170	47,792	37,495	7,483	2,814

Source: Tables <u>B-17</u>, <u>B-23</u>, <u>B-34</u>, <u>D-20</u>, <u>D-21</u>, <u>D-41</u>, <u>E-13</u>, <u>E-16</u>, <u>E-19</u>, <u>E-24</u>, <u>E-26</u>, and <u>E-19</u>. Notes:

In FY17, there were almost 1.3 million military personnel in DOD's active component and about 809,000 in its reserve component (RC). The Army continues to be the largest of DOD's military services, with an FY17 AC endstrength of about 472,000; the Marine Corps is the smallest, with an AC endstrength of about 184,000. FY17 DOD AC endstrength was almost 6,000 more than in FY16 and 7,000 fewer than in FY15. In this period, the Army's AC endstrength fell by about 3 percent, while that of the Air Force rose by 3.6 percent. Army AC endstrength, however, still is significantly larger than that of the other DOD services; it was about 2.5 times the size of the Marine Corps and about 1.5 times larger than the Navy and the Air Force. Over the past three years, AC enlisted endstrength has risen slightly for the Marine Corps (up .5 percent) and fallen slightly for the Navy (down 1.1 percent).

The DOD RC has two National Guard elements—the Army National Guard (ARNG) and the Air National Guard (ANG)—and four reserve elements—the U.S. Army Reserve (USAR), the U.S. Navy Reserve (USNR), the U.S. Marine Corps Reserve (USMCR), and the U.S. Air Force Reserve (USAFR). In FY17, the RC made up about 38 percent of DOD's

a. The Air Force does not have warrant officers.

<sup>&</sup>lt;sup>b.</sup> The RC consists of the Army National Guard (ARNG), the U.S. Army Reserve (USAR), the U.S. Navy Reserve (USNR), the U.S. Marine Corps Reserve (USMCR), the Air National Guard (ANG), and the U.S. Air Force Reserve (USAFR).

total endstrength (2.1 million). Over the past three years, the DOD RC has decreased by over 10,000 members (just over 1 percent). Similar to the DOD AC, the Army has the largest share of the DOD RC; its guard and reserve forces accounted for 67 percent of DOD RC endstrength in FY17.

Enlisted personnel make up the majority of DOD's total endstrength. In FY17, enlisted personnel constituted 82 percent of DOD AC endstrength and 84 percent of DOD RC endstrength. Among officers, commissioned officers made up about 92 and 90 percent of DOD AC and RC officers, respectively, in FY17; the remaining 8 and 10 percent were warrant officers. Overall, the Army had the largest AC officer corps, both in total size (92,100) and in percentage of the service's total AC endstrength (19.5 percent) in FY17.

The U.S. Coast Guard, which falls under the Department of Homeland Security, is the smallest of the five armed services. For comparison, the U.S. Coast Guard had an AC endstrength of 41,500 in FY17, about 22 percent the size of the Marine Corps' AC. U.S. Coast Guard RC endstrength was over 6,200 in FY17, roughly 16 percent of the USMCR, the smallest DOD RC element. Between FY15 and FY17, the U.S. Coast Guard's total endstrength grew by almost 1,700, or 3.6 percent. Like the DOD services, enlisted personnel represented the majority of the U.S. Coast Guard's FY17 total endstrength (78 percent) followed by commissioned officers (16 percent) and warrant officers (6 percent). Table 2 shows the number of DOD enlisted accessions and officer gains for the past three fiscal years, by component and service. For enlisted personnel, we include non-prior-service (NPS) and prior-service (PS) accessions. The percentages of PS enlisted and warrant officers are shown, respectively, in parentheses below the numerical accessions and officer gains.

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<sup>&</sup>lt;sup>1</sup> Warrant officers are designated by warrants as opposed to commissions and are generally technical specialists. Most warrant officers are prior enlisted members, but some are direct appointments.

<sup>&</sup>lt;sup>2</sup> Prior-service accessions are typically those who have previously served in the any of the DOD services at some point in their pasts. The Marine Corps is an exception to this definition; it defines prior-service accessions as those who have previously served in the Marine Corps.

Table 2. Accessions and officer gains, by service and personnel type, FY15-FY17

Component/	Component/ Enlisted (% Prior-Service in parentheses)			Officers (% Warrants in parentheses)		
service	FY15	FY16	FY17	FY15	FY16	FY17
DOD AC						
Army	59,010	62,362	67,215	6,553	6,619	7,888
Airry	(3.4)	(5.9)	(7.4)	(13.8)	(15.7)	(14.4)
Nova	34,973	30,624	35,099	4,189	4,241	4,193
Navy	(0.3)	(0.5)	(0.4)	(4.3)	(4.8)	(4.7)
Marina Carea	29,483	30,378	31,867	1,775	1,817	1,942
Marine Corps	(0.3)	(0.3)	(0.4)	(10.8)	(10.8)	(12.5)
Λ! Ε 3	24,234	32,279	31,044	4,318	4,188	4,518
Air Force <sup>a</sup>	(0.9)	(1.1)	(1.3)	(0.0)	(0.0)	(0.0)
<b>-</b>	147,700	155,643	165,225	16,835	16,865	18,541
Total	(1.6)	(2.7)	(3.4)	(7.6)	(8.5)	(8.5)
DOD RCb						
	44,995	41,608	41,437	4,018	3,895	4,119
ARNG	(23.4)	(29.4)	(27.0)	(14.4)	(15.9)	(16.6)
LICAD	26,615	26,337	23,276	5,125	4,953	4,665
USAR	(51.0)	(46.6)	(49.2)	(6.3)	(7.2)	(6.6)
USNR	8,325	10,690	10,572	1,985	1,670	1,740
OSIVIC	(85.1)	(89.0)	(79.7)	(8.0)	(0.7)	(8.0)
USMCR	8,411	8,617	8,743	938	997	904
	(36.1)	(37.3)	(36.3)	(2.9)	(3.3)	(5.3)
ANG	8,538 (47.1)	8,268 (43.0)	8,309	1,299 (0.0)	1,308 (0.0)	1,233 (0.0)
	7,131	7,552	(41.4) 7,443	1,770	1,493	1,371
USAFR	(66.5)	(63.1)	(61.8)	(0.0)	(0.0)	(0.0)
	104,015	103,072	99,780	15,135	14,316	14,032
Total	(41.3)	(44.2)	(42.4)	(6.2)	(7.1)	(7.5)
U.S. Coast Guard						
	2,935	3,323	3,660	369	447	455
AC	(4.3)	(3.7)	(3.5)	(58.8)	(42.3)	(44.2)
RC	643	610	782	87	136	135
NO	(71.7)	(74.3)	(52.8)	(23.0)	(3.7)	(4.4)
Total	3, 578	3,933	4,442	456	583	590
	(16.5)	(14.7)	(12.2)	(52.0)	(33.3)	(35.1)

Source: Tables <u>B-14</u>, <u>C-3</u>, <u>C-10</u>, <u>C-18</u>, <u>C-28</u>, <u>D-16</u>, <u>D-38</u>, <u>D-40</u>, <u>E-5</u>, <u>E-10</u>, <u>E-18</u>, <u>E-19</u>, <u>E-20</u>, and <u>E-22</u> for FY15-FY17.

Notes: Enlisted accessions for all components include both non-prior-service (NPS) and prior-service (PS) accessions.

a. The Air Force has no warrant officers.

b. The RC consists of the Army National Guard (ARNG), the U.S. Army Reserve (USAR), the U.S. Navy Reserve (USNR), the U.S. Marine Corps Reserve (USMCR), the Air National Guard (ANG), and the U.S. Air Force Reserve (USAFR).

DOD AC enlisted accessions have grown each year between FY15 and FY17, from roughly 147,700 to 165,200—a 12 percent increase. The Air Force exhibited the largest growth in accessions during this period; its AC enlisted accessions grew by 28 percent over the past three fiscal years. A similar pattern can be seen in AC officer gains. Over the past three fiscal years, AC officer gains have grown by 10 percent. As with enlisted accessions, all of the services experienced increases in AC officer gains between FY15 and FY17. The Army had the largest growth in this period; its AC officer gains grew by 20 percent.

Despite the consistent growth in AC enlisted accessions and gains in recent years, RC accessions and gains both have steadily declined. Between FY15 and FY17, RC enlisted accessions fell by 4 percent; RC officer gains fell by over 7 percent.

U.S. Coast Guard AC and RC enlisted accessions and officer gains increased between FY15 and FY17. Total U.S. Coast Guard enlisted accessions increased by 24 percent, while total officer gains increased by 22.7 percent.

### **Demographic Highlights**

A key mission of the *Population Representation in the Military Services (PopRep)* report is to provide a thorough description of the armed services' demographic composition. This subsection highlights demographic trends that are discussed in more detail throughout the remainder of this report.

In FY17, female representation reached its highest level ever in the history of the U.S. armed services. Across the DOD services, the female percentage reached 16 percent among AC enlisted members and 18 percent among AC commissioned officers. FY17 was the fourth consecutive year that female representation grew among DOD AC enlisted members, and the eighth consecutive year it grew among DOD AC officers. This trend in female representation likely is the result of a number of steps taken by the DOD in recent years to attract more female recruits, such as opening all occupations to women without exceptions,<sup>3</sup> expanding maternity leave policies,<sup>4</sup> and increasing numbers of female recruiters.<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> See <a href="https://www.defense.gov/News/Article/Article/632536/carter-opens-all-military-occupations-positions-to-women/">https://www.defense.gov/News/Article/Article/632536/carter-opens-all-military-occupations-positions-to-women/</a>.

<sup>&</sup>lt;sup>4</sup> See <a href="http://www.defense.gov/News/Article/Article/645958/carter-announces-12-weeks-paid-military-maternity-leave-other-benefits/">http://www.defense.gov/News/Article/Article/645958/carter-announces-12-weeks-paid-military-maternity-leave-other-benefits/</a>.

<sup>&</sup>lt;sup>5</sup> See <a href="http://www.usatoday.com/story/news/nation/2015/10/14/army-recruiting-women-combat/73885956/">http://www.usatoday.com/story/news/nation/2015/10/14/army-recruiting-women-combat/73885956/</a>.

In the AC enlisted force, racial minorities are overrepresented, with the civilian labor market benchmark at 24 percent and DOD representation at 31 percent. This overrepresentation holds for the AC enlisted force in all services other than the Marine Corps. In general, Hispanics are underrepresented in the enlisted force, at fewer than 17 percent, while the civilian benchmark is over 18 percent. The Marine Corps is the only service in which Hispanics are overrepresented relative to their representation in the civilian population. One notable diversity factor in the military that differs from the civilian workforce is the intersection of gender and race/ethnicity. Among AC enlisted and commissioned officers, women are more racially and ethnically diverse than men. The dominance of racial and ethnic minorities among female servicemembers also is found in FY17 female enlisted accessions and officer gains. These gender differences are large, are found in every service, and are the continuation of a gender-racial distribution seen in prior years.

In FY17, the U.S. military continued to exceed the DOD recruit quality benchmarks of 90 percent with Tier 1 educational credentials (e.g., high school diplomas) and 60 percent with Armed Forces Qualification Test (AFQT) scores at or above the 50<sup>th</sup> percentile. Overall, 98 percent of AC enlisted accessions held Tier 1 education credentials and 72 percent had AFQT scores at or above the 50<sup>th</sup> percentile. Among RC enlisted accessions, 95 percent held Tier 1 education credentials and 65 percent had AFQT scores at or above the 50<sup>th</sup> percentile. These AFQT scores at or above the 50<sup>th</sup> percentile exceed the civilian population by substantial amounts; only 51 percent of the civilian population scores in the top half of the ability distribution.<sup>6</sup>

Geographically, FY17 NPS AC accessions came predominantly from the South. While the South is home to over 35 percent of the country's population of 18-to-24-year-olds, it provided nearly 45 percent of accessions in FY17. In other words, southern accessions are overrepresented relative to their 18-to-24-year-old population, providing more accessions than their population share would indicate. Accessions from the Midwest are slightly underrepresented; those from the Northeast are even more underrepresented, providing only 72 percent of the numbers that their population share would indicate.

The RC has a larger percentage of women than the AC. RC personnel are older than AC personnel, but servicemembers in both components are considerably younger than the civilian labor force. RC members, both enlisted and officers, are less likely to be Asian or Hispanic relative to both AC members and the civilian population.

Almost 80 percent of U.S. Coast Guard AC NPS accessions were considered high quality, more than both the Army and Marine Corps. The Coast Guard also had the

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<sup>&</sup>lt;sup>6</sup> When the AFQT was normed to the civilian population in 1997, 52 percent of men and 50 percent of women scored in the top half of the ability distribution.

second highest female share of officer gains (26.4 percent), behind only the Air Force (26.8 percent).

# Section II: DOD Active Component (AC) Enlisted Corps

This section gives an overview of the size and demographics of DOD AC enlisted members and accessions. It begins with a historical description of enlisted endstrength by service, followed by discussions of the quality, geographic source, and family income of NPS enlisted accessions, both historically and in FY17.<sup>7</sup> We then discuss age, gender, and racial demographics of enlisted members and accessions, as well as the distribution of these enlisted members across occupations and paygrades.

# Total Enlisted Endstrength, Applicants, and Accessions

### Endstrength

The AC's enlisted endstrength was 1,065,234 in FY17, accounting for 82 percent of total AC endstrength for the year. Figure 2 shows AC enlisted endstrength by service over the past 43 years.

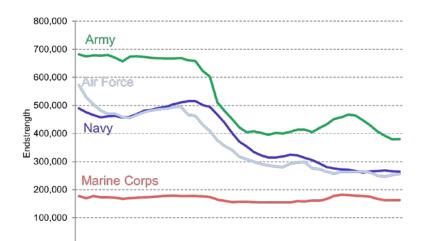


Figure 2. AC enlisted endstrength, by service, FY73-FY17

Source: Table <u>D-11</u>.

At the beginning of the All-Volunteer Force (AVF) in FY73, 1.9 million servicemembers were in the DOD AC enlisted force. The end of the Cold War in the early 1990s led to

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<sup>&</sup>lt;sup>7</sup> NPS accessions are typically those who have no prior experience with a DOD service; however, the Marine Corps considers those with no prior Marine Corps experience as NPS.

a significant drop in force size and, from FY97 to FY17, the enlisted force fluctuated between 1.1 million and 1.2 million servicemembers. The wars in Iraq and Afghanistan increased the size of the Army and the Marine Corps, but this increase was offset, at least partly, by decreases in the Air Force and the Navy. Reflecting reduced operational commitments, the Army and Marine Corps drew down their forces in the early 2010s; their endstrengths have leveled off in recent years.

The Marine Corps has been the smallest of the DOD services for the past 50 years. But, although all the services shrank in the 1990s, the Marine Corps decreased the least and, by FY08, its enlisted force was back to the size it had been at the beginning of the AVF. By FY17, the Marine Corps' enlisted force was 96 percent of its FY74 size. In contrast, the enlisted forces in the Air Force, Navy, and Army were 49, 56, and 56 percent of their respective sizes in FY74.

### Applicants and NPS Accessions

We now turn to enlisted applicants and NPS accessions across all DOD services for FY81 through FY17. Both the number of applicants and the number of accessions have fallen, although, over the past few years, there were small increases in their respective numbers. The percentage of enlisted applicants accessed grew, albeit with much fluctuation, from 38 percent in FY81 to a high of 66 percent in FY13. Figure 3 indicates that this increase was driven largely by a steady decrease in the number of applicants. While total accessions in FY17 were roughly half of those in FY81, the total number of applicants in FY17 was less than a third of those in FY81. In FY17, the Military Entrance Processing Stations processed 245,649 applicants, and 159,583 (65 percent) became NPS accessions into the four services (see Figure 3).

There are a number of reasons why an applicant for enlisted service may not be accessed, including having a low aptitude-test score, a disqualifying medical or physical condition, too many dependents, disqualifying tattoos, a history of criminal activity, or testing positive or having a history of disqualifying drug use. However, the individuals are allowed to serve if they are granted an enlistment waiver. In addition, many applicants simply change their minds and decide not to enter military service.

<sup>&</sup>lt;sup>8</sup> DMDC applicant data come from the Military Entrance Processing Stations (MEPSs). Applicants cannot go directly to a MEPS; they must be sent by recruiters. Given the paperwork associated with sending applicants to the MEPSs, not all those who want to enlist will be sent and counted as applicants.

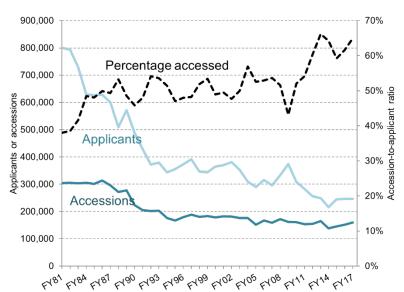


Figure 3. AC enlisted applicants, NPS enlisted accessions, and the percentage of applicants accessed, FY81-FY17

Source: Table <u>D-3</u>.

### Quality, Geographic Source, and Neighborhood Income of NPS Enlisted Accessions

Next, we describe the characteristics of enlisted applicants and NPS accessions in the AC enlisted force. Pecifically, we describe the quality of enlisted applicants and NPS accessions and their geographic backgrounds. We also include a discussion of age and the neighborhood household income distributions for NPS accessions.

### Quality

DOD sets quality benchmarks for the aptitude and educational credentials of enlisted recruits. The Armed Forces Qualification Test (AFQT), a nationally normed aptitude

a. Enlisted accessions include only NPS enlisted personnel.

<sup>&</sup>lt;sup>9</sup> We focus this discussion on AC NPS (vice PS) accessions. In FY17, AC PS accessions represented only 3.4 percent of AC accessions (see tables B-12 through B-14 for information on AC PS accessions).

test of math and verbal skills, is used to predict training success and on-the-job performance. The DOD benchmark is to have 60 percent of accessions score at the 50<sup>th</sup> percentile or higher on the AFQT. In FY17, 72 percent of AC NPS accessions scored well above the DOD 60 percent benchmark and the civilian 51 percent benchmark observed in the population.

In Figure 4, we show the percentage of FY17 applicants and enlisted accessions who scored at or above the 50<sup>th</sup> percentile on the AFQT. In every service, a higher percentage of accessions (dark-colored bars) than applicants (light-colored bars) scored above the 50<sup>th</sup> percentile. Both applicants and accessions scored considerably higher on the AFQT than did the 18-to-23-year-old civilian population (represented by the red dotted line). The Air Force has a high percentage of applicants and accessions scoring at the 50<sup>th</sup> percentile or above (71 and 82 percent, respectively) on the AFQT, as does the Navy (71 and 83 percent), followed by the Marine Corps (65 and 72 percent) and the Army (52 and 61 percent).

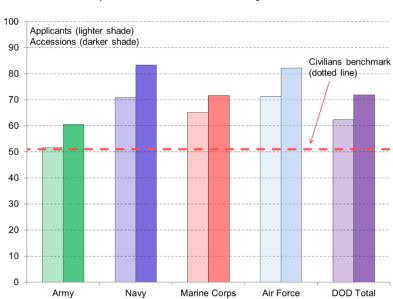


Figure 4. Percentages of AC NPS enlisted applicants and accessions scoring at or above the 50th percentile on the AFQT, by service, FY17

Source: Tables A-4 and B-4.

In addition to AFQT requirements, DOD requires that at least 90 percent of recruits be have Tier 1 education credentials. Tier 1 recruits are primarily high school *diploma* graduates, but they also include people with educational backgrounds beyond high school, as well as those who have earned adult education diplomas, those with one semester of college, homeschoolers, and those who have attended virtual or distance

<sup>&</sup>lt;sup>a.</sup> Civilian benchmark is from 1997 Profile of American Youth Study (see <a href="http://official-asvab.com/PAY97\_res.htm">http://official-asvab.com/PAY97\_res.htm</a>).

learning and adult or alternative schools. Other educational backgrounds include Tier 2 recruits (those with alternative high school credentials and primarily GED certificates) and Tier 3 recruits (no secondary school credentials). Tier 1 recruits are sought after by the services because high school diploma graduates are more likely than recruits with other credentials to complete their first terms of service. <sup>10</sup> In FY17, 98 percent of DOD NPS enlisted accessions held Tier 1 credentials; nearly all of Marine Corps and Air Force accessions were Tier 1, followed by 99 percent of Navy accessions, and 96 percent of Army accessions.

Recruits who have both Tier 1 education credentials and AFQT scores in the top 50<sup>th</sup> percentiles are classified as high quality. All of the services try to access as many high-quality recruits as possible. Because 98 percent of DOD NPS FY17 accessions had Tier 1 educational credentials, the main delineation for becoming a high-quality applicant or accession is AFQT score. When comparing the percentage of high-quality accessions since the beginning of the AVF, we observe some sharp quality changes, as well as an overall trend toward increasing percentages of high-quality recruits (see Figure 5).

There is a difference between actual and contemporaneously reported AFQT scores for the FY77-FY81 period because of a "misnorming" of the AFQT. Figure 5 reflects the actual percentages of high-quality accessions. Because it took several years to realize that the test scores were incorrect, in the late 1970s, the services were reporting higher percentages of high-quality accessions than is shown in Figure 5. The misnorming led to the erroneous enlistment of many low-scoring recruits. After correcting the misnorming and increasing recruiting budgets, the percentage of high-quality recruits increased (by between 20 and 30 percentage points) in all services.

Despite unfortunate fluctuations in recruiting budgets resulting in short-term setbacks in recruit quality (particularly in the Army), the quality of accessions in all services generally increased through the mid-2000s. In recent years, however, recruit quality slightly declined for most services (the Air Force experienced the greatest decline during the 2010s), likely because of improvements in the U.S. civilian labor market. Nonetheless, the majority of NPS accessions are high quality: In FY17, the percentage of high-quality recruits was 82 percent in the Air Force and Navy, 72 percent in the Marine Corps, and 56 percent in the Army.

*Program Recruits*, CNA, D0004598.A2; and Jennie W. Wenger and Hodai, Apriel (2004) *Predictors of Attrition: Attitudes, Behaviors, and Educational Credentials*, CNA, D0010146.A2/Final.

<sup>&</sup>lt;sup>10</sup> See Richard Buddin (1984) *Analysis of Early Military Attrition Behavior*, RAND, R-2069-MIL; Fredrico E. Garcia et al. (2001) *Evaluation of the Pilot Program from Home School and ChalleNGe* 

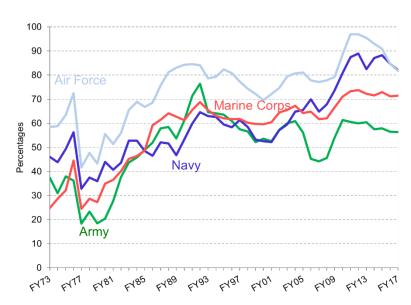


Figure 5. Percentages of high-quality AC NPS enlisted accessions, by service, FY73-FY17

Source: Table D-9

### Geographic source

The Census Bureau divides the country into four regions:11

- Northeast—includes New England and Middle Atlantic division states
- Midwest—includes East North Central and West North Central division states
- South—includes South Atlantic, East South Central, and West South Central division states
- West—includes Mountain and Pacific division states

Figure 6 shows the geographic distribution of AC NPS enlisted accessions across the Census regions since FY73.<sup>12</sup> We observe differences in the regional distribution of AC

<sup>&</sup>lt;sup>11</sup> See <a href="https://www.census.gov/geo/reference/webatlas/divisions.html">https://www.census.gov/geo/reference/webatlas/divisions.html</a>. For completeness, accessions from U.S. territories, possessions, or "unknown" regions are grouped together in the "other" category.

<sup>&</sup>lt;sup>12</sup> We do not include data on the geographic representation of officer gains. Officers are primarily recruited from colleges and universities; geographic location would reflect the location of these universities and not necessarily the region in which the officers grew up.

NPS enlisted accessions before and after FY85. Until about FY85, roughly 35 percent of AC NPS enlisted accessions came from the South and 25 percent from the Midwest, while the remaining 40 percent of accessions came from the West and the Northeast. After FY85, accessions were increasingly drawn more heavily from the South and the West and less so from the Northeast and Midwest. This partly reflects general population trends because states in the South and the West have made up an increasingly larger share of the U.S. population. As recruiting commands determine where to place recruiters across the country, they account for geographic shifts in the population as well as the propensity to serve in each region.

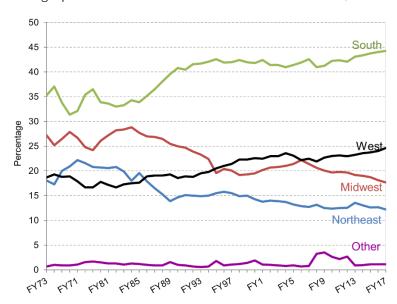


Figure 6. Geographic distribution of NPS enlisted AC accessions, FY73-FY17

Source: Table D-10.

When looking at Figure 6, note that, although the four regions do not contribute equal shares of total accessions, they also do not contribute equal shares of the U.S. 18-to-24-year-old population. Figure 7 shows the accession share of each region for FY17 (darker bars) along with the share of the country's 18-to-24-year-old population that resides in that region (lighter bars). While the South contributed the largest percentage of accessions, it also had over 30 percent of the country's 18-to-24-year-olds. The accession share for the South, however, exceeded the population share, suggesting that relative to its population of 18-to-24-year-olds, the South was overrepresented in NPS accessions. Conversely, the Northeast was underrepresented in NPS accessions, relative to its population of 18-to-24-year-olds. This concept is depicted in the heat map that follows.

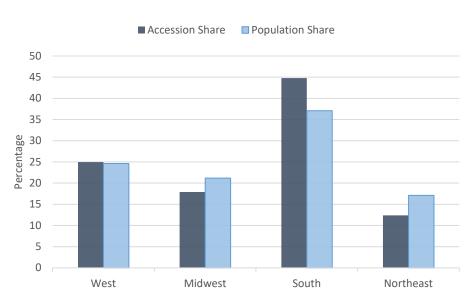


Figure 7. Accession share versus geographic population share of 18-to-24-year-olds, by region, FY17

Source: Table <u>B-46</u>.

Figure 8 shows the integration of the state-level geographic distribution of the U.S. population data with the distribution of DOD NPS recruits. More precisely, it shows the ratio of a state's accession share (the number of accessions from that state divided by the total number of accessions) to the state's share of the U.S. 18-to-24-year-old population (the number of 18-to-24-year-olds from the state divided by the total U.S. 18-to-24-year-old population). This is called the state's representation ratio. When viewing Figure 8, keep in mind the following points:

- A representation ratio of 1 implies that the state's share of DOD accessions was equal to its share of 18-to-24-year-olds.
- A representation ratio greater than 1 implies overrepresentation—the state's share of DOD accessions was larger than its share of the 18-to-24-year-old population.
- A ratio of less than 1 implies underrepresentation—the state's share of DOD accessions was smaller than its share of the 18-to-24-year-old population.

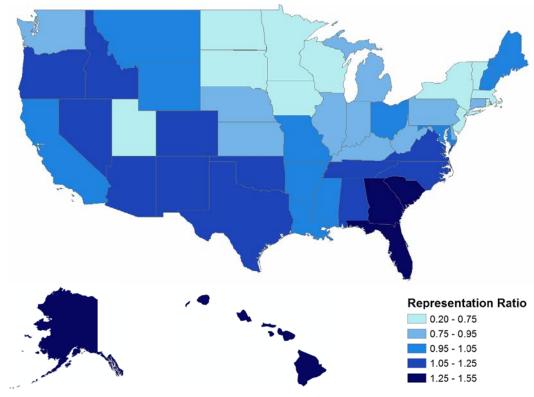


Figure 8. AC NPS enlisted accession representation ratio, by state, FY17

Source: Table **B-46**.

<sup>a.</sup> The representation ratio is calculated by dividing a given state's FY17 NPS accession share (number of accessions from the state divided by total accessions) by the state's 18-to-24-year-old population share (number of 18-to-24-year-olds from the state divided by the total U.S. 18-to-24-year-old population). Representation ratio ranges are left inclusive, meaning the range of 0.75 – 0.95 includes states with a representation ratio of 0.75 and 0.94999, but not 0.95. Ranges in the heat map are chosen to be centered around 1 and contain roughly equivalent numbers of states. All ranges include 11 or 12 states, except the highest range, which includes 5 states.

The FY17 state representation ratios ranged from 0.23 to 1.53. In FY17, New Hampshire, Maine, Louisiana, Mississippi, Montana, and Ohio all had ratios close to 1—meaning their shares of AC NPS enlisted accessions are relatively close to their shares of the 18-to-24-year-old population. Overall, about half of the states can be considered overrepresented among accessions (ratios greater than 1), and about half of the states and the District of Columbia could be considered underrepresented (ratios less than 1). Table 3 shows the top five largest and smallest representation ratios. South Carolina, had the highest ratio (most overrepresented among accessions), and the District of Columbia contributed the lowest ratio (most underrepresented among accessions).

Table 3. Five highest and lowest enlisted NPS representation ratios, by state, FY17

Top 5	Ratio	Bottom 5	Ratio
South Carolina	1.53	District of Columbia	0.23
Hawaii	1.48	North Dakota	0.49
Alaska	1.41	Vermont	0.55
Florida	1.39	Massachusetts	0.59
Georgia	1.31	Rhode Island	0.61

Source: Table <u>B-46</u>.

Note: The representation ratio is calculated by dividing a given state's FY17 NPS accession share (number of accessions from the state divided by total accessions) by the state's 18-to-24-year-old population share (number of 18-to-24-year-olds from the state divided by the total U.S. 18-to-24-year-old population).

Differences in the representation ratios reflect differences in the distribution of enlistment qualification rates and propensities, as well as recruiting resources across the country. To illustrate, Figure 9 shows the percentage of accessions from each state who were high quality, while Table 4 shows the states with the highest and lowest percentages of high-quality accessions. New Hampshire had the highest percentage of high-quality AC enlisted accessions in FY17, and South Carolina had the lowest (after the District of Columbia). It is worth noting that South Carolina had the highest representation ratio in FY17, meaning a lot of people accessed into the services from South Carolina relative to South Carolina's youth population. Conversely, most of the states with fairly high percentages of high-quality accessions had relatively low representation ratios. Notably, North Dakota had both the second lowest percentage of total accessions and the second highest percentage of high-quality accessions.

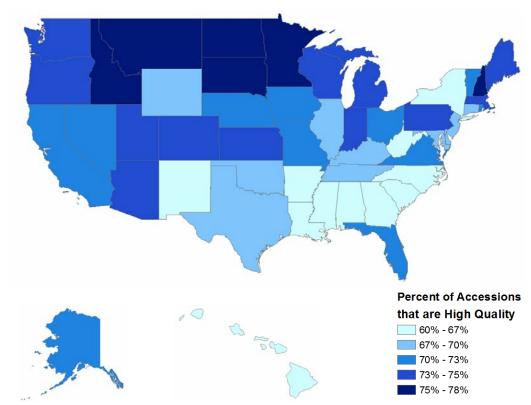


Figure 9. Percentage of high-quality AC NPS enlisted accessions, by state, FY17

Source: Table <u>B-46</u>. Accession percentage ranges are left inclusive, meaning the range of 67% - 70% includes states with a high quality percentage of 67 percent and 69.999 percent, but not 70 percent. Accession percent ranges in the heat map are chosen to contain roughly equivalent numbers of states. All ranges include 11 or 12 states, except the highest range, which includes 6 states.

Table 4. States with highest and lowest percentages of high-quality accessions, FY17

Top 5	% High Quality	Bottom 5	% High Quality
New Hampshire	77.83	District of Columbia	60.00
North Dakota	77.78	South Carolina	62.49
South Dakota	77.74	Hawaii	62.82
Minnesota	77.39	Mississippi	63.22
Idaho	76.34	Alabama	64.06

Source: Table <u>B-46</u>.

### Neighborhood income

At the beginning of the AVF, there was concern about socioeconomic representation in the force. Researchers found that, for the most part, accessions in the AVF's early years were representative of the U.S. population in terms of their socioeconomic backgrounds. More recent studies report similar findings on socioeconomic characteristics, such as neighborhood income, for the 1990s and early years of this century. Because information on household or family income is not collected from recruits, these studies used proxies for recruits' household income. For example, in a 2012 study, Lien et al. used the median income for recruits' census tracts as a proxy for recruit household income. In short, they measured "neighborhood affluence" or how well-off recruits' neighborhoods were. Each neighborhood is synonymous with a census tract.

Following the Lien et al. approach, Figure 10 shows FY17 AC NPS enlisted accessions by the median income quintile of their home-of-record census tracts. <sup>17</sup> The 20 percent line defines each income quintile based on civilian census-tract-level median household income data. Relative to all households, FY17 NPS accessions were underrepresented in census tracts with the lowest and the highest median incomes, while those in the middle three quintiles were overrepresented. Lower income neighborhoods tend to have fewer people qualified to serve. In FY17, for example, virtually all NPS accessions were high school diploma graduates, and high school dropout rates are higher in low-income neighborhoods. For the highest neighborhood median-income quintile, the lower representation probably is due to higher college attendance rates among youth in these census tracts. <sup>18</sup>

<sup>&</sup>lt;sup>13</sup> See, for example, Richard N. Cooper (1997) *Military Manpower and the All-Volunteer Force*, RAND R-1450-ARPA.

<sup>&</sup>lt;sup>14</sup> See, for example, Shanea J. Watkins and James Sherk (2008) *Who Serves in the U.S. Military? Demographic Characteristics of Enlisted Troops and Officers*, Heritage Foundation CDA 08-05.

<sup>&</sup>lt;sup>15</sup> Diana S. Lien et al. (2012) *An Investigation of FY10 and FY11 Enlisted Accessions' Socioeconomic Characteristics*, CNA DRM-2012-U-001362-Final.

<sup>&</sup>lt;sup>16</sup> In comparison to quintiles constructed from household income, quintiles constructed from median census tract income will be biased toward the mean of household income.

<sup>&</sup>lt;sup>17</sup> The quintile ranges are based on all households in census tracts with non-missing median household incomes. FY17 AC NPS enlisted accession data were provided by DMDC and linked by census tract to median household income data from the Census Bureau's 2013–2017 American Community Survey.

<sup>&</sup>lt;sup>18</sup> See <a href="http://www.huffingtonpost.com/2011/10/04/children-low-income-neighborhoods-high-school\_n\_994580.html">http://www.huffingtonpost.com/2011/10/04/children-low-income-neighborhoods-high-school\_n\_994580.html</a> and <a href="http://nces.ed.gov/fastfacts/display.asp?id=51">http://nces.ed.gov/fastfacts/display.asp?id=51</a>.

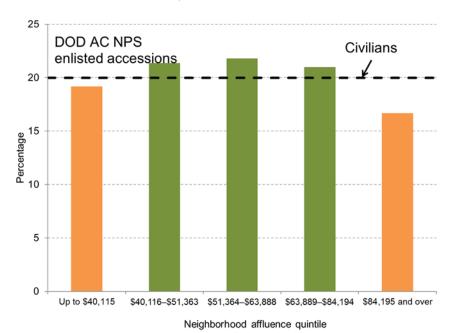


Figure 10. Neighborhood affluence (median census tract household income) for AC NPS enlisted accessions, FY17

Source: Table <u>B-41</u>.

<sup>a.</sup> These quintiles were constructed using 2013–2017 American Community Survey (ACS) data at the census tract level. FY17 NPS home-of-record accession data from DMDC were used to link NPS accessions with the census tract data.

### Age, Gender, Race, and Ethnicity of Enlisted Personnel

This subsection begins by identifying the age distribution of DOD NPS AC accessions across the four services. It then details the current demographics and demographic trends among active component enlisted personnel with respect to gender and racial composition. This is followed by a discussion of occupation and paygrade patterns across gender and racial and ethnic minorities.

### Age

Similar to previous years, there were significant differences across the services in the age distributions of AC NPS enlisted accessions across the DOD services in FY17 (see Figure 11). Marine Corps accessions were much younger than those in the other services: Almost half of Marine Corps accessions were in the 17-to-18-year-old age

group, and virtually all of them were age 18. <sup>19</sup> Those who are age 20 and younger made up 84 percent of NPS accessions in the Marine Corps, 65 percent in the Air Force and the Army, and 67 percent in the Navy.

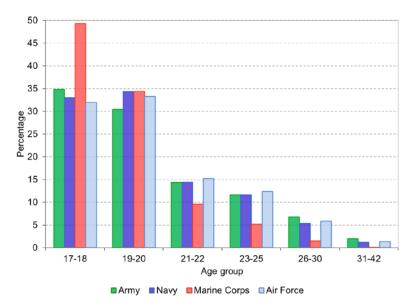


Figure 11. AC NPS enlisted accessions, by age group, FY17

Source: Table B-1.

#### Gender

The female share rose in FY17 for both accessions and enlisted members for nearly every service. Figure 12 shows the changes in the percentage of female AC enlisted members by service and across DOD. At the start of the AVF, women represented roughly 3 percent of AC enlisted members, and female representation steadily grew until FY03. Between FY03 and FY10, female representation in the AC enlisted force declined to 14 percent. Since FY10, however, female representation steadily increased in the AC enlisted force, reaching its highest point in history—16 percent—in FY17. The Marine Corps and Navy also set historic highs with 8.5 and 19.4 percent, respectively.

<sup>&</sup>lt;sup>19</sup> Accessions cannot be younger than 17 and a 17-year-old accession must have parental consent to enter military service. In Table B-1, we see that 3.0 percent of accessions were age 17. DOD sets the maximum age for NPS accessions at 42. The Army briefly raised it maximum age limit to 42 but reverted to age 35 in 2011. In 2014, the Air Force raised its maximum age from 27 to 39. The Navy and Marine Corps have NPS accession maximum age limits of 34 and 28, respectively.

Female representation among enlisted accessions followed a similar trend to that of AC NPS enlisted members. Figure 13 shows the changes in the percentage of female enlisted AC NPS accessions for each service and across DOD. At the beginning of the AVF, women represented less than 10 percent of DOD NPS enlisted accessions; female representation increased among DOD AC NPS enlisted accessions through FY00, peaking at 18.8 percent, before steadily declining to 15.5 percent in FY05. Since the mid-2000s, the female representation steadily increased, reaching 18.6 percent in FY17.

Historically, the Air Force has had the highest enlisted female representation rates of the services, but the Air Force and the Army experienced periods of decreasing female representation in NPS accessions from the early 2000s through FY12. During this same period, the Navy experienced continued growth in female representation among its NPS accessions and, in turn, its enlisted members. By FY16, female representation in the Navy was only 0.2 percentage point under that of the Air Force. In FY17, this gap shrank to 0.1 percentage point. Since FY93, the female representation among Marine Corps AC NPS enlisted accessions has also steadily increased, mirroring the increase in female representation among enlisted Marines. In FY17, female representation among AC NPS enlisted accessions was highest in the Air Force (19.5 percent), followed by the Navy (19.4 percent), the Army (14.3 percent), and the Marine Corps (8.5 percent).

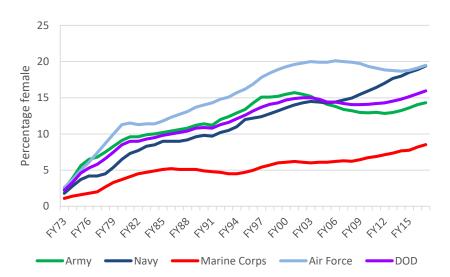


Figure 12. Female percentage, AC enlisted members, FY73-FY17

Source: Table D-13.

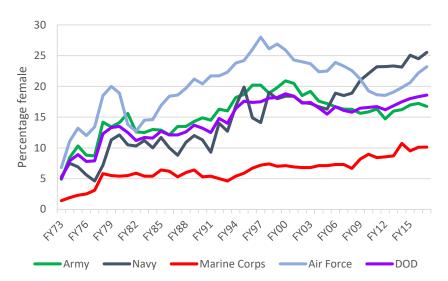


Figure 13. Female percentage, AC NPS enlisted accessions, FY73-FY17

Source: Table <u>D-5</u>.

### Racial and Ethnicity

The next subsections present the racial and ethnic diversity of AC enlisted personnel and accessions. Before FY03, self-identified race and ethnicity were reported in combined categories (e.g., non-Hispanic white or non-Hispanic black). Since FY03, race and ethnicity have been reported separately. Because race and ethnicity are separate fields, a single person can be defined as a minority in both fields.

#### Black accessions over time

Until the first Gulf War, the percentage of non-Hispanic blacks was considerably larger among DOD accessions than in the comparably aged civilian population. There was a decline in non-Hispanic black accessions after the first Gulf War in 1990 and again in the mid-2000s, but the percentage of black accessions has increased since. Blacks now account for 17.8 percent of AC NPS enlisted accessions—a greater percentage than in the 18-to-24-year-old civilian population (15.1 percent).

There are service differences in the percentage of non-Hispanic black enlisted accessions, particularly in the early years of the AVF (see Figure 14). At the start of the AVF, percentages in the Army and the Marine Corps exceeded civilian percentages. In the mid-1980s, however, percentages in the Navy rose, while they fell in the Marine Corps and the Air Force. In FY17, in all services except the Marine Corps, the percentage of black enlisted accessions exceeded comparable civilian percentages.

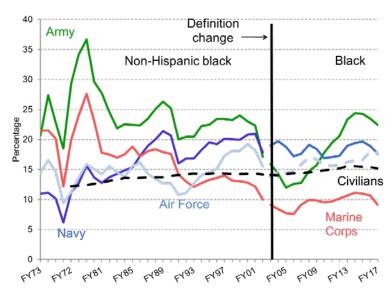


Figure 14. Percentages of black AC NPS enlisted accessions, by service, FY73-FY17

Source: Tables D-23 and D-26.

#### Racial diversity in FY17

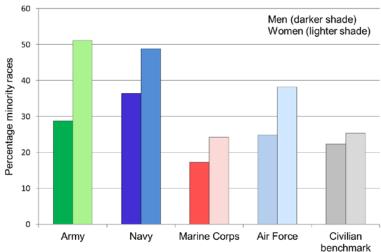
Since 1997, the Office of Management and Budget (OMB) has required that federal agencies use a minimum of five racial categories (white, black or African-American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) when categorizing a person's race. DOD uses these five self-identified racial categories—separately and in combination—as codes to characterize recruits' racial backgrounds. Asians are the fastest growing racial group in the U.S., but they remain a relatively small percentage in the military. Figure 15 shows the percentage of enlisted members who were racial minorities (not white) in each service by gender. Racial minorities make up 23.7 percent of the civilian benchmark population but 33 percent of DOD's FY17 enlisted forces.

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<sup>&</sup>lt;sup>20</sup> We assume that the distribution of servicemembers whose race is unknown follows their service's racial distribution, and we assign those selecting two or more racial groups to the minority category. Servicemembers with unknown race represent 3 to 4 percent of enlisted endstrength in each service. Servicemembers selecting two or more races represent substantial percentages in the Navy (9 percent) and the Air Force (4 percent) and a smaller percentage in the Marine Corps (1 percent). The Army does not report data on the number of active duty enlisted personnel in the "two or more" category.



Percentages of AC enlisted members who were minority races, by gender



Source: Table <u>B-17</u>.

Note: The civilian benchmark is the 18-to-44-year-old civilian labor force. Those of unknown race are proportionally distributed as those with known races.

There are gender differences in the racial representation in the civilian labor force, with 22.3 percent of men and 25.4 percent of women categorized as racial minorities. We see similar, but larger, differences in the DOD services. Women in the AC enlisted force are more racially diverse than their male counterparts. This is distinctly observed in the Army, where the percentage of enlisted racial minority women is almost double the percentage of enlisted racial minority men. The overrepresentation of racial minority women in the enlisted force is related to their higher representation in AC NPS accessions, as well as higher minority female retention rates.

Recruits from racially diverse backgrounds constituted 27.7 percent of DOD AC NPS accessions in FY17.<sup>21</sup> In comparison, racially diverse people represented 26.5 percent of the civilian benchmark population, the 18-to-24-year-old civilian noninstitutional population. Thus, AC NPS accessions were slightly more racially diverse than the benchmark population. DOD's overall statistic, however, hides interesting differences

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<sup>&</sup>lt;sup>21</sup> To explore diversity in the enlisted force, we adjusted for the small number of those of unknown race. We assume that the distribution of recruits with unknown race followed their service's racial distribution. In the Army, Marine Corps, and Air Force, less than 1 percent of AC NPS accessions have an unknown racial background (5.3 percent in the Navy). The percentage of enlisted recruits selecting two or more races is highest in the Navy (5.1 percent), followed by the Air Force (3.4 percent), the Marine Corps (2.5 percent), and the Army (0.2 percent).

by service and gender. The Army and the Navy are the most racially diverse, while the Marine Corps is the least racially diverse. As shown in Figure 16, in every service, male accessions (represented by the darkly shaded left bar for each service) are less racially diverse than female accessions (represented by the lightly shaded right bar for each service). For example, racially diverse women represented 41.4 percent of female Army accessions in FY17, while racially diverse men represented 26 percent of male Army accessions. These service findings are in contrast to the civilian benchmark, which shows only small gender differences (27 percent female and 26.2 percent male).

45 Men (darker shade) Women (lighter shade) 40 35 Percentage minority races 30 25 20 15 10 5 0 Army Marine Corps Civilian Navy Air Force

Figure 16. Percentage of minority races among AC NPS enlisted accessions, by gender, service, and civilian benchmark, FY17

Source: Table B-10.

Note: The civilian benchmark is the 18-to-24-year-old population. Those of unknown race are proportionally distributed as those with known races.

benchmark

#### Ethnic diversity in FY17

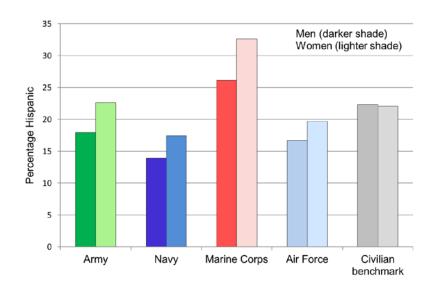
OMB requires federal agencies to use two ethnic categories: (1) Hispanic or Latino and (2) not Hispanic or Latino. Because ethnicity and race are separate fields, a single person can be defined as a minority in both fields. Although there is some overlap, it is still interesting to examine gender differences in the ethnic identifications for AC enlisted personnel in each service. Figure 17 shows the percentage of men and women who identified as Hispanic by service and the civilian benchmark population (18-to-44-year-olds) in FY17.

Servicewomen were considerably more likely to be racial minorities than servicemen, and the same pattern holds for Hispanic representation, though gender differences are

smaller than those for racial minorities. However, the civilian benchmark shows the opposite pattern: Hispanic men are a slightly larger proportion of the male civilian population than Hispanic women are of the female civilian population. Assuming that any missing ethnic observations follow each service's overall distribution, Hispanics made up the following percentages of the FY17 DOD enlisted and civilian labor forces:

- 16.8 percent of male enlisted force versus 20.6 percent of civilian labor force
- 19.6 percent of female enlisted force versus 17.2 percent of civilian labor force

Figure 17. AC NPS accessions: Percentages of Hispanics by gender, service, and civilian benchmark, FY17



Source: Table <u>B-10</u>.

Note: The civilian benchmark is the 18-to-24-year-old population. Those of unknown ethnicity are distributed as knowns.

The Marine Corps has the highest Hispanic representation; Hispanics constituted 22.1 percent of the male enlisted force and 29.8 percent of the female enlisted force in FY17. Thus, relative to the civilian benchmark, Hispanic men and women are overrepresented in the Marine Corps' enlisted force. Overall, however, Hispanics are underrepresented in the AC enlisted force.

### **Occupations of Enlisted Personnel**

### By gender

Figure 18 shows the enlisted force occupational distribution by gender in FY17. The three most common occupational groups for women were administrators (25.0 percent), medical (14.5 percent), and supply (14.1 percent). The top three occupational groups for men were electrical (21.9 percent), infantry/gun crews/seamanship (18.0 percent), and supply (11.1 percent). These occupational differences between men and women are similar to those in previous years, and gender differences in the occupational distribution of the enlisted force are well known. The lack of women in warfighting occupations is the result of both people's preferences and prior restrictions on women's service in some of these occupations.

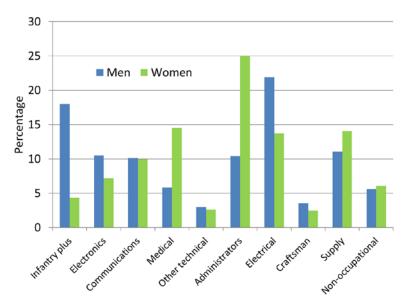


Figure 18. Occupational distribution of the AC enlisted force, by gender, FY17

Source: Table B-20.

Note: Infantry plus includes infantry, gun crews, and seamanship occupations. Although women were not in the infantry prior to the lifting of restrictions, they did serve in gun, air crew, and seamanship occupations.

### By race

Although most occupational analyses of the enlisted force have focused on gender differences, there also are large racial differences. To further explore these differences,

we divided the enlisted force into two categories (white and racial minorities), both because some racial groups are very small and because we wanted to illustrate broad differences.<sup>22</sup> In Table 5, we highlight the largest differences in gray.

Almost one-third of racially diverse women in the enlisted force are in administrative occupations compared with less than 20 percent of white women. The next largest difference is in communications (13.8 percent of white women versus 7.7 percent of racially diverse women), and the next is in medical (15.9 percent of white women versus 13.7 percent of racially diverse women). The representation of white and racially diverse women is more similar for the remaining occupational areas.

Table 5. Occupational distribution of the enlisted force, by gender and race, FY17

	White	Racially	White	Racially diverse
Occupational group	men	diverse men	women	women
Electronics	10.5%	10.5%	7.8%	6.9%
Medical	4.8%	7.1%	15.9%	13.7%
Electrical	22.1%	21.7%	14.1%	13.6%
Craftsmen	3.4%	3.7%	2.4%	2.5%
Supply	9.8%	12.6%	13.7%	14.3%
Communications	11.6%	8.4%	13.8%	7.7%
Other technical	3.5%	2.3%	3.6%	2.3%
Administrative	7.1%	14.5%	17.0%	29.7%
Infantry, Gun Crews, and Seamanship <sup>a.</sup>	21.4%	13.9%	4.7%	4.2%
Nonoccupational b.	5.8%	5.4%	7.1%	5.5%

Source: Table B-20.

Notes: The largest differences are highlighted in gray in the table.

### **Paygrades of Enlisted Personnel**

We use two methods to evaluate representation: by comparison with the civilian workforce and by grade representation relative to overall military representation. Table 6 illustrates the FY17 paygrade distribution for women, racial minorities, and Hispanics. For comparison, Table 6 also shows the representation of these groups for DOD overall and the civilian benchmark (the U.S. 18-to-44-year-old population). Because there is very little lateral entry into military service, these paygrade

a. Although women were not in the infantry prior to the lifting the restrictions, they did serve in gun, air crew, and seamanship occupations.

b. Nonoccupational includes students, patients, those with unassigned duties, and unknowns.

 $<sup>^{22}</sup>$  The racially diverse category is predominantly composed of servicemembers who identify as black.

distributions reflect both current and past accession and retention patterns. Relative to the civilian workforce benchmark of 47 percent female, female servicemembers are underrepresented in all military paygrades. Relative to the overall DOD percentage of 15.9 for women in the enlisted force, however, women are underrepresented in senior paygrades (E7+), slightly underrepresented in the mid-level paygrades (E5-E6), and slightly overrepresented in the junior paygrades (E1-E4).

Table 6. Percentage of AC NPS enlisted personnel by paygrade, gender, race, and ethnicity and civilian benchmark, FY17

				Overall	Civilian
Demographic group	E1-E4	E5-E6	E7+	(E1-E9)	benchmark
Women	17.1	15.2	13.2	15.9	47.0
Racial minorities	29.0	32.5	30.7	30.4	23.8
Hispanics	19.5	16.7	14.4	17.9	19.0

Source: Tables B-17 and B-37.

Note: The civilian benchmark is the 18-to-44-year-old civilian labor force. To calculate minority percentages, we assume that those of unknown race and Hispanic background are distributed the same way as those of known backgrounds.

For racial minorities, the picture is reversed. Relative to the civilian labor market benchmark of 23.8 percent, racial minorities are overrepresented in all military paygrades. However, relative to their overall military representation at 30.4 percent, racial minorities are underrepresented in the junior paygrades and overrepresented in the mid-level and senior paygrades. These minority paygrade distributions reflect the fact that recent racial minority accession percentages, particularly for black accessions, have been lower than those historically, and some minority groups (such as blacks) have higher retention.

For Hispanics, junior paygrades are overrepresented while mid-level and senior paygrades are underrepresented relative to their overall military representation of just over 17 percent. At all paygrades, however, enlisted Hispanics are underrepresented in the military relative to their civilian labor market percentage of 19 percent.

# Section III: DOD Active Component Commissioned Officer Corps

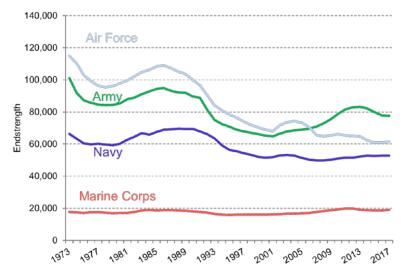
This section gives an overview of the size and demographics of DOD AC officers and officer gains. It begins with a historical description of officer endstrength by service. This is followed by discussions of the distribution of gender, racial, and ethnic traits of AC officers and officer gains.

### **Total Commissioned Officer Endstrength**

Figure 19 shows AC commissioned officer endstrength by service over the past 43 years. Starting from a high of 300,000 at the start of the AVF, the commissioned officer corps fell to 260,000 by FY80, grew to 292,000 by FY86, fell to 201,000 by FY01, and grew to 219,000 by FY12. In FY17, the commissioned officer corps was just over 211,000 officers, similar in size to the corps of FY09, FY03, and FY97 (see appendix Table D-16). Commissioned officer gains followed similar patterns. In percentage terms, officer gains have fallen more than officer corps endstrength since the start of the AVF, resulting in a more experienced commissioned officer corps.

We saw earlier that, since the AVF began in 1973, the Army has had the highest number of AC enlisted personnel. For commissioned officers, however, the Air Force had the highest number until FY07, when the Army overtook it. In FY17, AC Army commissioned officer endstrength was 16,000 larger than AC Air Force commissioned officer endstrength.

Figure 19. AC commissioned officer endstrength, by service, FY73-FY17



Source: Table D-16.

### Gender, Race, and Ethnicity of Commissioned Officers

The next subsections present the gender, racial, and ethnic diversity of AC commissioned officers. Since 1997, the Office of Management and Budget (OMB) has required that federal agencies use a minimum of five racial categories (white, black or African-American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) when categorizing a person's race. DOD uses these five self-identified racial categories as codes to characterize officers' racial backgrounds. In addition, OMB requires federal agencies to use two ethnic categories: (1) Hispanic or Latino and (2) not Hispanic or Latino. Because ethnicity and race are separate Census fields, a single person can be defined as a minority in both fields.

### Gender

Figure 20 shows changes in female representation among AC commissioned officers for each of the services and for DOD overall. Female representation among the AC officer corps has steadily increased since the beginning of the AVF from 4.2 percent in FY73 to 18.4 percent in FY17. Each of the services generally follow this same trend, with the exception of the Marine Corps, which had a low and relatively steady female representation among AC officers from FY74 to FY92 and increasing female representation after FY92. In FY17, the Air Force had the highest female representation among AC officers at 21 percent, followed by the Navy and Army (around 17.8 percent) and the Marine Corps (7.7 percent).

Female representation in the services' AC officer gains follows patterns similar to those among the AC officer corps: female representation has been increasing over time, the Air Force has the highest female representation, and the Marine Corps has the lowest (see Figure 21). This suggests that changes in female representation are driven primarily by changes in the representation among officer gains as opposed to changes in female retention rates. In FY17, female representation in officer gains was highest for the Air Force at 26.8 percent, followed by the Navy (25.2 percent), the Army (21.8), and the Marine Corps (9.5 percent).

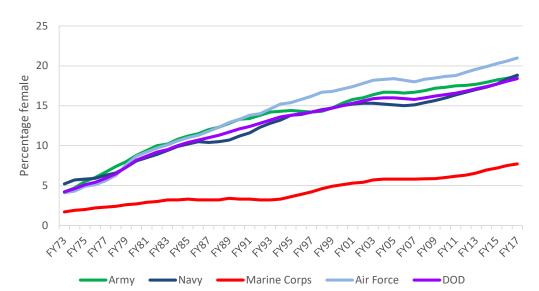


Figure 20. Female percentage, DOD AC officer corps, by service, FY73-FY17

Source: Table D-19.

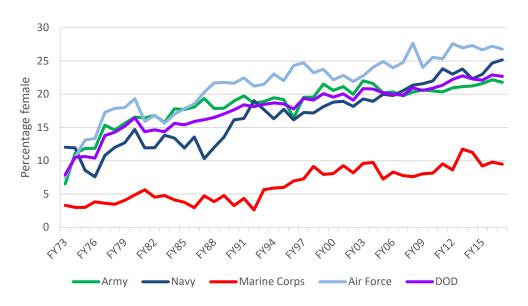


Figure 21. Female percentage among DOD AC officer gains, by service, FY73-FY17

Source: Table <u>D-19</u>.

#### Race

As mentioned previously, data on race come from enlisted and commissioned personnel self-identifying as one or more of five racial categories (white, black or African-American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander). Race is recorded separately from ethnicity (Hispanic/non-Hispanic), which is discussed in the following subsection. When reviewing the following figure, note that racial identification does not determine ethnic identification and that any race can fall into either ethnic category. In addition, personnel who are ethnically Hispanic but do not identify as black or American Indian often identify as white. For the remainder of this subsection, we consider a recruit a racial minority only if he or she identifies with a race other than white.

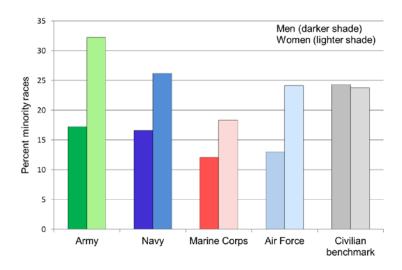
Figure 22 shows the racial minority percentages for AC commissioned officers in each of the services. The civilian benchmark, the 21-to-49-year-old college graduate civilian labor force, has a slightly larger proportion of racially diverse men than women. These differences in the civilian labor force, however, are minimal relative to the racial minority gender differences for commissioned officers in each of the four services. In the Army, male racially diverse commissioned officers represent 17.2 percent of the men in the officer corps, whereas female racially diverse commissioned officers represent 32.2 percent of the women in the officer corps. <sup>23</sup> This pattern of female officers being more racially diverse than male officers is found in each of the services.

Although women in the civilian population are slightly more likely than men to be racial minorities, female commissioned officer gains in each of the services are much more likely to be racial minorities, which is counter to the civilian benchmark (the U.S. 18-to-49-year-old college graduate population<sup>24</sup>) where there was a small difference between male and female racial diversity (see Figure 23). The current distribution of racial minorities in the officer corps is reflected in that of the FY17 officer gains. The only two groups overrepresented in the officer corps—minority women in the Army and Navy—are also the only two overrepresented in officer gains. The remaining groups all exhibit underrepresentation in both the officer corps overall and gains relative to the civilian benchmark.

<sup>&</sup>lt;sup>23</sup> We use the same methodology for commissioned officers that we used for enlisted personnel. We assume that any missing information for a service is distributed in the same way as the nonmissing information, and we treat those who selected two or more racial categories as racial minorities. For both men and women, the largest racial minority in the college-educated benchmark population is Asians.

<sup>&</sup>lt;sup>24</sup> Women in these age groups are slightly more likely than men to be college graduates.

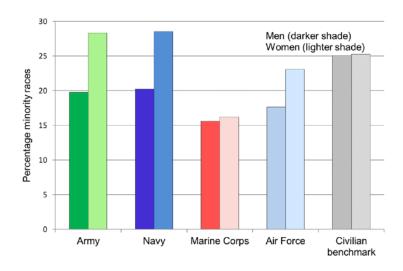
Figure 22. Percentages of minority races among AC commissioned officers, by gender, service, and civilian benchmark, FY17



Source: Table B-25.

Note: The civilian benchmark is the 21-to-49-year-old college graduate labor force. Those of unknown race are distributed as knowns.

Figure 23. AC commissioned officer gains: Percentages of minority races, by gender, service, and civilian benchmark, FY17



Source: Table <u>B-25</u>.

Note: The civilian benchmark is the 21-to-49-year-old college graduate population. Those of unknown race are distributed as knowns.

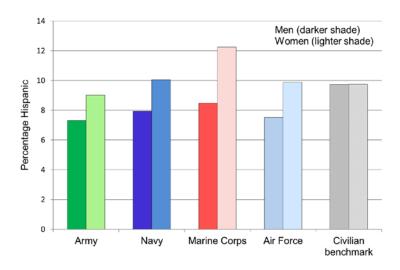
### Ethnicity

Figure 24 shows Hispanic representation in the commissioned officer corps for each service. Similar to racial minority representation, Hispanic representation is generally greater among female officers than male officers, and Hispanic representation among male officers is lower than that found among the male civilian benchmark population (21-to-49-year-old college graduates). However, there also were differences from the racial minority trends. Hispanic women in the Marine Corps are overrepresented (as opposed to underrepresented racial minorities) relative to the civilian benchmark.

Figure 25 shows the percentages of officer gains by service that identify as Hispanic. The patterns in gains closely follow those seen in the officer corps. Marine Corps female gains are the most likely to be Hispanic (17.4 percent) and this percentage is greater than the civilian benchmark. Similarly, male officer gains were below the civilian benchmark for all services other than the Marine Corps.

Following the patterns that we found in the officer corps, female commissioned officer gains are more likely to be Hispanic than are male commissioned officer gains, though the gender differences usually are smaller than those for racial minorities. In fact, throughout DOD, female commissioned officer gains were slightly more likely to be Hispanic than the civilian benchmark (10.8 percent versus 10.5 percent). Conversely, male commissioned officer gains were less likely to be Hispanic (9.0 percent versus 10.2 percent).

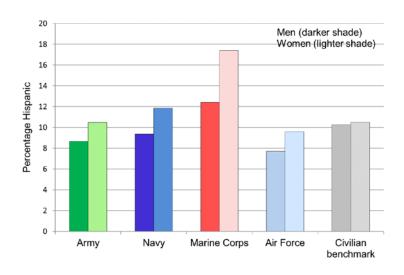
Figure 24. Percentages of Hispanics among the AC commissioned officer corps, by gender, service, and civilian benchmark, FY17



Source: Table B-25.

Note: The civilian benchmark is the 21-to-49-year-old college graduate labor force. Those of unknown race are distributed as knowns.

Figure 25. AC commissioned officer gains: Percentages of Hispanics, by gender, service, and civilian benchmark, FY17



Source: Table <u>B-25</u>.

Note: The civilian benchmark is the 21-to-49-year-old college graduate labor force. Those of unknown race are distributed as knowns.

### **Paygrades of Commissioned Officers**

This subsection breaks down the percentages of women, racial minorities, and ethnic minorities that fall into each officer paygrade. In general, the percentage of women, the percentage of racial minorities, and the percentage of Hispanics fall as paygrade increases. All three groups shown in Table 7 and are overrepresented in the junior paygrades (O1-O3) but underrepresented in the mid-level (O4-O6) and senior (O7+) paygrades relative to their overall percentage of commissioned officers. Relative to their civilian labor force benchmark (college graduates ages 21 to 49), however, all three groups are underrepresented in the commissioned officer corps. This is particularly true for women, who make up just over half of the comparable civilian labor force, but only about 18 percent of the AC officer corps.

Table 7. Percentage of AC commissioned officers by paygrade, gender, race, and ethnicity and civilian benchmark, FY17

Demographic group	01-03	04-06	O7+	01-010	Civilian benchmark
Women	20.3	15.5	6.7	18.4	51.0
Racial minorities	18.7	15.8	11.0	17.6	22.6
Hispanics	9.0	6.6	1.9	8.0	9.1

Source: Tables B-25 and B-39.

Note: The civilian benchmark is the 21-to-49-year-old college graduate labor force. To calculate minority percentages, we assume that those of unknown race and ethnicity are distributed the same way as those of known backgrounds.

### Section IV: DOD Reserve Component

### **Total RC Endstrength**

The DOD reserve component (RC) consists of six elements: the Army National Guard (ARNG), the U.S. Army Reserve (USAR), the U.S. Navy Reserve (USNR), the U.S. Marine Corps Reserve (USMCR), the Air National Guard (ANG), and the U.S. Air Force Reserve (USAFR). In FY17, the RC was 62 percent the size of the AC. Total endstrength was 808,895, which breaks into the following categories:

- 677,892 enlisted (83.8 percent of RC endstrength)
- 118,584 commissioned officers (14.7 percent of RC endstrength)
- 12,419 warrant officers (1.5 percent of RC endstrength)

Virtually all RC warrant officers are in the Army's guard and reserve components. There are none in the Air Force's guard or reserve components and few in either the Navy or Marine Corps Reserve.

Figure 26 shows total RC endstrength by service from FY97 through FY17. Total RC endstrength has steadily declined over the past twenty years, falling for a seventh consecutive year in FY17 to 808,895. The decline has been present in all four services and led total RC endstrength to its lowest level since FY79. RC accession data from DMDC are available only as gains—that is, the addition of a record that was not in the previous FY file. Although the AC has few prior-service (PS) enlisted accessions, many RC enlisted gains are PS personnel. In FY17, over 42 percent of RC enlisted gains were PS personnel (refer back to Table 2).

In terms of relative size, about two-thirds of RC endstrength resides in the Army's reserve components (ARNG and USAR). The Air Force, Navy, and Marine Corps make up the remaining one-third. More than half—about 55 percent—of RC endstrength is in Guard units. The ARNG is by far the largest component, with 42 percent of RC personnel. The smallest component is the USMCR, with less than 5 percent of all RC personnel.<sup>25</sup> Figure 27 shows the historical distribution of RC endstrength (enlisted personnel plus commissioned officers) across the six service elements.

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 $<sup>^{25}</sup>$  If one broadens the definition of RC to include the Coast Guard, the Coast Guard's RC of 6,573 is the smallest component.

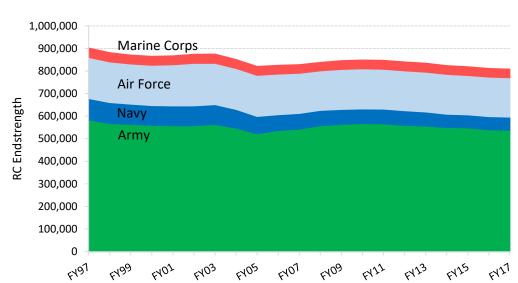
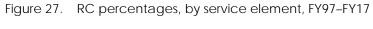
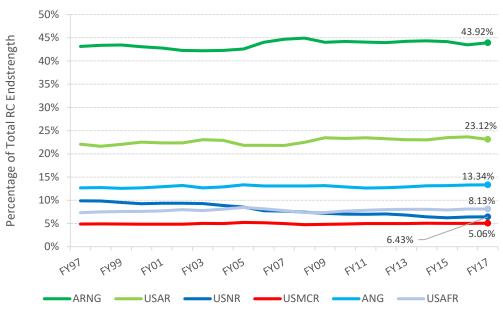


Figure 26. RC endstrength, by service, FY97-FY17

Source: Table <u>D-39</u>.





Source: Tables <u>D-20</u> and <u>D-21</u>.

Note: These data omit warrant officers. Percentages for FY17 listed next to each endpoint.

### Comparisons of RC and AC Demographic Characteristics

### Members' age

There are fairly large differences in the age distribution of AC and RC enlisted members (see Figure 28). As in the previous figure, the left panel shows enlisted personnel, and the right shows commissioned officers. The bars extending to the left side of each panel illustrates the AC age distribution, while the right side shows the RC distribution. Looking first at enlisted personnel, it is clear that the AC enlisted force is younger than the RC enlisted: almost 11 percent of enlisted reservists are 45 years old or older, while the percentage for the AC enlisted force is under 2 percent. The differences for officers are equally dramatic; while 29 percent of RC officers are age 45 or older, the comparable percentage in the AC is only 13 percent.

50-55 Enlisted Comissioned Officers 45-49 45-49 40-44 40-44 ਹੈ 35-39 ਹੁੰ 35-39 ਉ § 30-34 த் 30-34 25-29 25-29 20-24 20-24 17-19 17-19 40 20 20 40 30

Percentage

■AC ■RC

Figure 28. DOD AC and RC age distributions, enlisted and officers, FY17

Source: Tables <u>B-15</u>, <u>C-11</u>, <u>B-22</u>, and <u>C-17</u>.

### Quality of NPS enlisted gains

Percentage

■RC

As in the AC, RC gains are mostly those with Tier 1 education credentials and AFQT scores at or above the 50<sup>th</sup> percentile. In FY17, the RC had a smaller proportion of Tier 1 enlisted gains than the AC; 95.4 percent of RC enlisted gains were Tier 1 compared with 98.0 percent of NPS AC enlisted accessions. Overall, 64.7 percent of all NPS RC enlisted gains had AFQT scores at or above the 50<sup>th</sup> percentile in FY17, compared with 71.8 percent of NPS AC accessions.

Table 8 shows the percentage of RC NPS gains who held Tier 1 education credentials and had AFQT scores of 50 or higher in FY17. All of the reserve and guard components, over 90 percent of NPS enlisted gains were Tier 1, and, with the exception of the Navy Reserve, over 60 percent scored at or above the 50<sup>th</sup> percentile on the AFQT. The Air Force's reserve and guard components had the highest percentages of Tier 1 and high AFQT-scoring NPS enlisted gains; the Navy had the lowest.

Table 8. Quality of RC NPS enlisted gains, FY17

Quality measure	ARNG	USAR	USNR	USMCR	ANG	USAFR	DOD
Tier 1	95.0	94.1	91.1	96.3	99.4	99.7	95.4
AFQT 50+	61.5	61.1	52.0	76.1	78.0	77.5	64.7

Source: Tables C-4 and C-6.

### Married Rates, Gender, Race, and Ethnicity

### Marriage rates

There are some notable differences in married rates between AC personnel and reservists. Overall, even though RC personnel are generally older than their AC counterparts, RC personnel are less likely to be married than AC personnel, and their age-specific married rates are closer to those of civilians than to AC personnel (within age and gender groups in Table 9, we bold categories with the highest married rates).

Table 9. Percentage of married AC and RC enlisted personnel, with civilian comparisons by single years of age, FY17

	Enlisted men			<u>Enl</u>	isted w	/omen
Age	AC	RC	Civilian	AC	RC	Civilian
20	14.1	1.9	3.2	23.3	4.2	4.9
25	49.4	22.8	20.1	46.9	24.6	22.9
30	72.6	51.9	46.1	57.2	43.2	47.1
35	83.5	68.5	61.3	61.4	52.7	58.1
40	87.3	75.1	69.4	59.7	56.7	62.1

Source: Tables <u>B-16</u> and <u>C-12</u>.

Note: The civilian data are for the civilian labor force age 17 to 55 and are from the Bureau of Labor Statistics' Current Population Survey, September 2015.

The most striking differences are at younger ages: for example, at age 20, both AC men and AC women were 3 to 7 times more likely than reservists or civilians to be married. Even at older ages, AC enlisted men are more likely than RC enlisted men to be married, and RC enlisted men are more likely than comparable civilians to be married. The ordering of age-specific married rates from highest to lowest depends on age. At age

20, the order is AC, civilians, and RC for both men and women. For men ages 25 and older, the AC has higher marriage rates than the RC, which has higher rates than civilians. The RC marriage rates are lower than civilian rates for women age 30 and older.

#### Gender

Like the AC, the RC strives for a diverse force. For enlisted personnel and officers, the RC has a higher percentage of female personnel than the AC. In FY17, the RC enlisted force was 19.7 percent female, while the AC enlisted force was 15.9 percent female. Within the RC's enlisted forces, the percentage of women varied from a high of 26.9 percent for the USAFR to a low 3.5 percent for the USMCR. For commissioned officers, the AC was 18.4 percent female, whereas the RC was 20.1 percent female, and the percentages varied from a high of 27.1 percent in the USAFR to a low of 7.3 percent in the USMCR.<sup>26</sup>

#### Race and ethnicity

In FY17, the AC enlisted force was more racially diverse than the RC enlisted force, but AC and RC commissioned officer comparisons show fairly equal racial and ethnic diversity if the unknown racial and ethnic backgrounds are distributed the same way as the known racial and ethnic backgrounds (see Table 10). The civilian comparison group for commissioned officers includes only college graduates. Both RC and AC commissioned officer percentages for blacks are close to the civilian benchmark, but Asians and Hispanics are underrepresented in the RC. Thus, in both the RC and the AC, Asians and Hispanics are underrepresented in the officer and enlisted ranks.

Table 10. AC and RC race and ethnicity percentage distributions for enlisted personnel and commissioned officers, FY17

	Enlisted personnel			Comr	nission	ed officers
Race/Ethnicity	AC	RC	Civilians	AC	RC	Civilians
Race						
White	69.6	74.3	76.6	82.4	82.7	77.4

<sup>&</sup>lt;sup>26</sup> See Tables B-16 and C-11 for enlisted personnel and B-23 and C-18 for commissioned officers.

Black	19.8	18.2	13.3	8.7	10.1	9.5
Asian	4.5	4.3	6.4	5.6	4.6	10.7
Other	6.1	3.2	3.7	3.2	2.6	2.4
Ethnicity						
Hispanic	17.9	12.6	18.9	8.0	6.5	9.1

Source: Tables <u>C-13</u>, <u>C-20</u>, <u>B-17</u>, and <u>B-25</u>. We used the portion of the source tables that distributed unknown race and ethnicities as known race and ethnicities.

Note: The racial category "other" includes American Indian/Alaska Native (AIAN), Native Hawaiian/ Pacific Islander, and two or more races. The civilian data include the 18-to-55-year-old civilian labor force for enlisted personnel and 21-to-59-year-old civilian college graduates for commissioned officers.

## Section V: U.S. Coast Guard

Table 11 shows the breakdown of the Coast Guard's AC and RC endstrength in FY17. Overall, the Coast Guard is between one-fifth and one-fourth the size of the Marine Corps, making it the smallest of the five armed services. Part of the Department of Homeland Security (DHS) in peacetime, the Coast Guard may be called in wartime to join the Navy and, therefore, would fall under DOD jurisdiction.<sup>27</sup>

Table 11. Coast Guard endstrength, FY17

Personnel category	AC	RC
Enlisted personnel	32,324	5,171
Commissioned officers	5,592	938
Warrant officers	2,684	130
Total	40,600	6,239

Source: Tables <u>E-12</u>, <u>E-15</u>, <u>E-19</u>, <u>E-24</u>, <u>E-26</u>, and <u>E-29</u>.

### Number and Quality of AC NPS Enlisted Accessions

The number of U.S. Coast Guard accessions had experienced greater year-to-year fluctuations than the DOD services (see Figure 29). U.S. Coast Guard PS accessions make up a small fraction of total accessions, and NPS accessions were around 3,500 yearly from FY05 to FY09. Since FY10, NPS accessions have decreased (FY10), increased (FY11), and decreased again (FY12 and FY13), before increasing to their pre-FY10 levels, reaching 3,532 in FY17.

Like the DOD services, the U.S. Coast Guard seeks high-quality recruits—those with AFQT scores at or above the 50th percentile and Tier 1 educational credentials. And, like the other services, the Coast Guard had a successful recruiting year in FY17. Figure 30 illustrates this, comparing U.S. Coast Guard recruiting achievement with the DOD AC services. Over 80 percent of U.S. Coast Guard enlisted recruits scored in the top half of the AFQT distribution and 98 percent had Tier 1 educational credentials. The U.S. Coast Guard, Navy, and the Air Force had the highest percentages of high-quality recruits in FY17.

 $^{27}$  Title 14 of the United States Code governs the process by which authority over the Coast Guard may be transferred to DOD in wartime.

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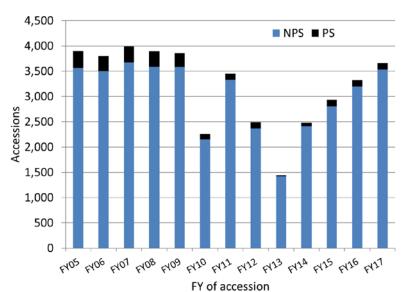


Figure 29. Coast Guard AC NPS and PS accessions, FY05-FY17

Source: Table  $\underline{\text{E-7}}$  and  $\underline{\text{E-11}}$ .

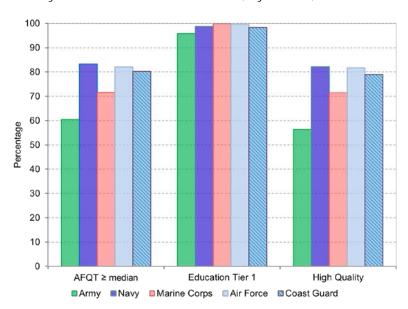


Figure 30. Quality of AC NPS enlisted accessions, by service, FY17

Source: Tables  $\underline{\text{B-4}}$ ,  $\underline{\text{B-6}}$ ,  $\underline{\text{B-8}}$ ,  $\underline{\text{E-7}}$ ,  $\underline{\text{E-8}}$ , and  $\underline{\text{E-9}}$ .

### Gender, Race, and Ethnicity in the U.S. Coast Guard

In FY17, the Coast Guard's percentage of female officer gains (26.4 percent) led DOD's (22.7 percent), but its percentage of NPS female enlisted accessions (12.9 percent) was less than DOD's (18.6 percent). In the U.S. Coast Guard, there is a larger percentage of women in the officer corps (23.5 percent) than in the enlisted force (13.8 percent). This difference is similar to those found in the AC Army and Air Force, but it differs from the Navy and Marine Corps in which the percentages of women in the AC enlisted force and the AC officer corps were similar.

The DOD RC has a higher percentage of women in both the enlisted force and the officer corps than does the DOD AC. That pattern continues in the U.S. Coast Guard, with women constituting 15.9 percent of RC enlisted members (compared to 13.8 percent in the AC) and 23.9 percent of RC commissioned officers (compared to 23.5 percent in the AC).

White non-Hispanics are overrepresented in the U.S. Coast Guard's AC NPS enlisted accessions and commissioned officer gains, as well as in the enlisted and commissioned officer corps, if those who did not affiliate with a particular race or ethnicity are distributed in a similar way to those with known racial and ethnic backgrounds.

### Section VI: Conclusion

As mandated by Congress, the Department of Defense has provided the *Population Representation in the Military Services (PopRep)* datasets on the demographic and service-related characteristics of U.S. military personnel every year since 1974. In recent years, the military's size has been relatively stable after years of drawing down since FY10. In FY17, there were almost 1.3 million military personnel in DOD's AC and close to 809,000 in its RC. The Army is the largest of the DOD's military services, with a total endstrength of over 1 million. The Marine Corps is the smallest DOD service, with a total endstrength of over 223,000. The U.S. Coast Guard is the smallest of the U.S.'s military services with an FY17 total endstrength of over 47,000.

In FY17, female representation reached its highest level ever in the history of the U.S. armed services. Across the DOD services, the female percentage reached 16 percent among enlisted members and 21 percent among officers. FY17 was the fourth consecutive year that female representation grew among DOD enlisted members, and the eighth consecutive year that it grew among DOD officers. This trend in female representation likely is the result of a number of steps taken by the DOD in recent years to attract more female recruits.

In FY17, the U.S. military continued to exceed the DOD recruit quality benchmarks of 90 percent Tier 1 educational credentials and 60 percent with AFQT scores at or above the 50<sup>th</sup> percentile. Overall, 98 percent of AC enlisted accessions held Tier 1 education credentials and 72 percent had AFQT scores at or above the 50<sup>th</sup> percentile. Geographically, FY17 DOD NPS AC accessions came predominantly from the South. Accessions from the Midwest are slightly underrepresented, and those from the Northeast are even more underrepresented, providing a smaller percentage of accessions than their general population shares would indicate.