

America's Military: A Coat of Many Colors

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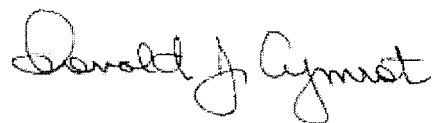


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A handwritten signature in black ink that reads "Donald J. Cymrot". The signature is written in a cursive style with a large initial "D".

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Introduction

Since the onset of the volunteer military almost 30 years ago (1973), the American full-time workforce has become more diverse, and the active-duty military reflects that diversity. Consider the following comparisons of full-time, military-age (18 to 44 years) civilian workers and active-duty military personnel in 1970 and 2000.

In that 30-year period, percentages of *civilian* workers changed from 89 to 70 percent white, from 10 to 12 percent black, and from 1 to 18 percent other racial categories (13 percent Hispanic and 5 percent "other" in 2000). The percentage of women in the civilian workforce rose from 29 to 41 percent.

Percentage differences in the active-duty *military* population between 1970 and 2000 are comparable: from 83 to 65 percent white, from 11 to 20 percent black, and from 6 to 14 percent Hispanic and other racial/ethnic backgrounds. The percentage of women in the military increased from 2 to 15 percent.

We begin our discussion of this increased diversity with the Gates Commission and the beginning of the all-volunteer force.

The Gates Commission and the beginning of the all-volunteer force (AVF)

In the years leading up to the inception of the AVF in 1973, the military force was predominantly male and white. Although the Gates Commission (*The Report of the President's Commission on an All-Volunteer Armed Force*, 1970) had relatively little to say about women in the military,¹ it did address a concern raised in some quarters about a voluntary military becoming too "black."

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1. The President's Commission on the Selective Service, chaired by Burke Marshall, and sometimes referenced in the Gates Commission report, stated in its February 1967 report that "there are undoubtedly military tasks suitable for women which are being filled by men who have to be involuntarily inducted" (Holm, 1992, p. 191).

Those who held this view argued that the higher pay required for a volunteer force would be particularly appealing to blacks who have poor civilian opportunities relative to their white counterparts. Black service members already had higher overall reenlistment rates, and some believed that a volunteer force would lead to a disproportionate number of blacks entering military service. White enlistment and reenlistment rates would decline, leading to a black-dominated enlisted force. Racial tensions would grow, and blacks would resent bearing a disproportionate burden of defense. Also, the military would be seen as "creaming" qualified black youth for service in the military— taking them away from civilian jobs in the community where their talents were needed. Indeed, the Commission noted, "There is strong evidence to suggest that the black community, more than the white, looks at the 'male drain' as extremely costly" (see the Gates Commission, 1970, p. 142).

The Commission recognized these arguments, but predicted that the force would not become predominantly black with the end of conscription. Regardless of what proportion of blacks would ultimately make up the AVF, the Commission believed that policy-makers should not lose sight of the real issue. If higher pay makes opportunities in the military more attractive than those in the civilian sector for a particular segment of society, the Gates Commission argued that the appropriate response is to correct inequities in the civilian sector.

The argument that blacks would bear a disproportionate burden of an all-volunteer military mixes up "service by free choice" with "compulsory service." It is important to note that all first-term members were compelled to serve at wages below what they would earn in the civilian sector. Those blacks who enlist in a volunteer military decide for themselves that military service is preferable to other alternatives. They regard military service as a rewarding opportunity—not a burden—and have revealed their preference for it. To deny "them this opportunity would reflect either bias, or a paternalistic belief that blacks are not capable of making the 'right' decisions concerning their lives" (see the Gates Commission, 1970, p. 16).²

2. Although the Gates Commission focused on blacks, the same argument applies to any disadvantaged group. At the time of the Commission, blacks were the dominant minority and the only minority regularly tabulated in reports by the Bureau of the Census.

In addition to little reference to women in the report, the Gates Commission paid no attention to minority groups other than blacks because their numbers were very small. We were well into a functioning volunteer force before the term *Hispanic* became a common metric for counting populations.³

Then and now: What's happened over time?

Moving from conscription to a volunteer force *explicitly* involved only first-term enlisted personnel because they were the only ones drafted. Many people believed they would be drafted, however, and wanted to select their service, so there were also many *draft-induced volunteers*. Thus, the elimination of the draft affected many other parts of the military, including officers, many of whom were college graduates and also were *induced* to commission status (see Warner and Asch, 2001). We will concentrate on the enlisted force because of its relative size, but we will also examine the officer corps because it too provided opportunities for the advancement of minorities and women in the military.

In the 1960s, blacks accounted for about 9 percent of the military force. At the end of the decade, the proportion of blacks was 9.5 percent—less than their proportion of the relevant age male population. They made up 10.5 percent of the enlisted force and 2 percent of the officer corps. Of course, the first-term enlisted force of this time was a blend of draftees, draft-motivated enlistees, and true volunteers. The enlisted career force was composed of all those who voluntarily reenlisted.⁴

At the end of the draft in June 1972, the proportion of black men in the enlisted force had risen to 12.6 percent and that of black officers to 2.3 percent (table 1). The Commission estimated that by 1980 the male enlisted force would be 14.9 percent black;⁵ the actual percentage in

3. In the 1980s, Census counts refer to people of "Spanish Origin."

4. This was a time without reenlistment bonuses. Those who reenlisted had a "taste for military service," given their civilian alternatives.

5. The Commission predicted that blacks could still account for 14.1 percent of a "mixed" force, should the proposal for an all-volunteer armed force be rejected. See the Gates Commission (1970, p. 149) for Commission predictions and Defense Manpower Data Center for the 1980 data.

1980 was 22.0 percent.⁶ The Commission made further predictions for the 1980 male enlisted force for each of the services. These predictions for 1980, as well as the actual percentages of male black enlisted, were:

- Army: 18.8 percent predicted and 32.9 percent actual
- Navy: 8.2 percent predicted and 11.5 percent actual
- Marine Corps: 16.0 percent predicted and 22.4 percent actual
- Air Force: 14.8 percent predicted and 16.3 percent actual.

The actual percentages are higher than those predicted, especially for the Army. But the Commission argued that, even if its estimates were low, there should never be a policy to cut back on enlisting blacks or to set quotas.

Table 1. Enlisted and officer forces by race and ethnicity, 1972 and 2000^a

	Enlisted		Officer	
	1972	2000	1972	2000
Total	1,975,649	1,153,575	335,651	217,103
Percentage distribution by race/ethnicity				
White	81.2	61.8	95.5	81.2
Black	12.6	22.4	2.3	8.6
Hispanic	4.0	9.0	1.2	4.0
Other	1.9	6.0	0.4	4.3
Unknown	0.2	0.6	0.5	1.9

a. Source: Defense Manpower Data Center (DMDC).

The gain in black representation from 1972 to 1980 was substantial, but by 1980 black representation stabilized at 22 to 23 percent. Other minorities have also made sizable gains in the enlisted force since the inception of the AVF. Hispanics have more than doubled and other

6. The Gates Commission focused its predictions exclusively on men; the actual numbers we report in table 1 are for men and women.

minorities (including Asian and Native Americans) have more than tripled their representation. In the officer corps, minority representation more than tripled, although the percentages are smaller than those in the enlisted force (table 1).

Black casualties in our volunteer force

Critics of a large black representation in the military also asserted that blacks would bear a disproportionate burden of casualties in time of war. In the Vietnam War, however, black fatalities amounted to 12.1 to 13.1 percent of all Americans killed—a figure proportionate to the size of their civilian population and actually lower than their percentage of the Army at the time of the Vietnam War, suggesting that the argument about black casualties in Vietnam was overstated by some commentators.

What about the black casualties in the volunteer force? Analysis of combat deaths in the six military operations since Vietnam shows that blacks accounted for 15 percent of combat fatalities (table 2). Although this figure is somewhat larger than the relevant black civilian population (about 13 percent), Moskos and Butler (1996) argue that it is considerably below the percentage of blacks in the active-duty Army (about 19 percent).⁷

Table 2. Black combat deaths in operations since Vietnam^a

Military operation	Total deaths	Black deaths	Black deaths as percentage of total
Mayaguez (1975)	14	1	7.1
Lebanon (1983)	254	46	18.1
Grenada (1983)	18	0	0.0
Panama (1989)	23	1	4.3
Gulf War (1991)	182	28	15.4
Somalia (1992-93)	29	2	6.9
Total	520	78	15.0

a. Source: Moskos and Butler (1996, p. 8).

7. Moskos and Butler (1996, p. 8) report 12.1 percent, whereas Binkin and Eitelberg (1982, p. 7) report 13.1 percent over the 1961-1972 period.

Finally, the increasing attraction of blacks and other enlisted minorities to non-combat-arms occupations suggests that the issue of black combat deaths that engaged certain commentators at the onset of the AVF will become even less of an issue in the future.

Representation

How representative of society is the AVF today? How representative should the AVF be? In some ways, it is not representative at all. For instance, we do not recruit disabled young people, and the law forbids accessing individuals with low aptitude. Furthermore, women are underrepresented relative to their numbers in the civilian population or labor force and still prohibited by law from participation in ground combat occupations. What about race and ethnicity? How well does the enlisted force represent the male population of high school graduates, and how well does the officer corps represent the male population of college graduates?

Our voluntary system has produced an overrepresentation of blacks in the enlisted force relative to their percentage of the population, and an underrepresentation of Hispanics and Asian Americans, although Hispanics and Asian Americans are an increasing proportion of accessions.⁸ Today's military is younger than the population as a whole and is more physically fit. It is also smarter than the population as measured by the nationally normed Armed Forces Qualification Test (AFQT). In fiscal year 2000, 67 percent of new enlistees scored in the upper half (50th percentile) of the AFQT; by definition, only 50 percent of the general population scored in the upper half. New enlistees are also more educated than their civilian peers because over 90 percent of new recruits have high school diplomas; only 75 percent of American youth, ages 18 to 23, have diplomas.

The officer corps draws from the population of college graduates where minorities are not as well represented as in the overall population. However, the services have had greater recruiting success among blacks than in the college-educated population. For example, blacks

8. Accessions in 2000 were 20.0 percent black, 11.2 percent Hispanic, and 6.3 percent other minorities.

account for about 7.5 percent of young college graduates but make up about 8.5 percent of officer accessions (see Office of the Under Secretary of Defense, Personnel and Readiness, 1999, p. 23).

Most of those who fault the AVF on representative grounds tend to support a return to the draft or a system of national service. A conscripted force might be a more representative force, but the price would be high. There would be fewer blacks. It would be a less educated and less competent force because conscription included about 30 percent of those who are not accepted under today's stricter standards.⁹ Morale and commitment would deteriorate, and overall military readiness would probably suffer.

To quote the late Les Aspin, former Congressman and Secretary of Defense (Aspin, 1991):

Today, we have a race-neutral voluntary system that produces a superb military while offering individuals advancement on the basis of merit. If that makes the military more attractive to minority members than job prospects in the society at large, then it is the society at large that is broken. Let's fix that. Resuming a draft in order to achieve a military that better meets an abstract notion of representativeness would be a grave mistake.

Some background on women in the military

The Navy was the first service to use women in any numbers, recruiting women early in World War I (WWI). The use of women in the military required no legal action; it was such a novel concept that no one thought to ban it. Almost all of the roughly 13,000 women who served in WWI were clerical workers and nurses. Women appeared eager to join and earned the same pay as their male counterparts.

Before WWI (because of tradition) and between World Wars (because of law), women other than nurses were excluded from mil-

9. Current accession standards set by the Department of Defense require that 90 percent of enlisted accessions be high school diploma graduates and that 60 percent of accessions test in the top half of the AFQT. These are higher standards than those under conscription.

itary service. In both major wars, women primarily served in auxiliary roles, mainly as nurses or in clerical/administrative positions, to fill shore positions so that service *men* could go to the front. Notable exceptions included women aviators serving as instructors and as pilots ferrying new aircraft to Britain. At the end of WWII, there were 12 million men and 280,000 women in uniform (Holm, 1992, p. 100). Most went home after the war.

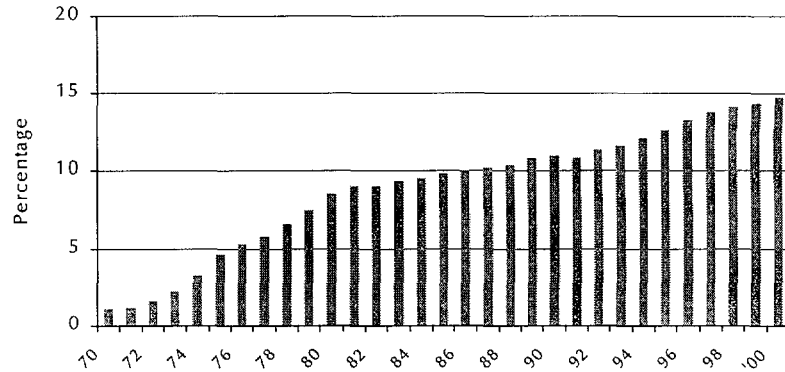
Women were not banned from military service after WWII as they had been after WWI, but federal legislation passed in 1948 limited women's terms of enlistment, ranks, and benefits, and explicitly excluded them from service in combat positions in the Navy and Air Force.¹⁰ In 1967, the rank restrictions were relaxed and the female end strength cap was removed. But the percentage of women in the military still remained below 2 percent until the onset of the volunteer force. However, that percentage has risen steadily to where women now account for 15 percent of the enlisted force (figure 1) and 19 percent of 2000's enlisted accessions.

Operation Just Cause (Panama) and Operation Desert Shield/Desert Storm (Persian Gulf), where women represented about 7 percent of the total U.S. force in the Persian Gulf, opened a new era for military women.¹¹

10. Public Law 625 forbade Navy and Air Force women from combat aviation and Navy women from ships other than hospital ships and naval transports. Restrictions on women in ground combat occupations were not codified into law, but were understood to be binding. The law also put a ceiling of 2 percent on female regular military strength, forbade women with dependent children from service, and allocated only one female O-6 (Navy Captain or Colonel in the other services) position in each service. In 1967, Public Law 90-30 opened the O-6 rank to women, but there were still restrictions for general or flag officers. For a reason no one has explained very well, the act did not ban women from combat positions in the Army (Holm, 1992, pp. 119-120).

11. We have found estimates ranging from 31,000 to more than 40,000 for the number of U.S. military women in the Persian Gulf conflict; see Becraft (1991, p. 1), Presidential Commission on the Assignment of Women in the Armed Forces (1992, p. iii), Aspin and Dickinson (1992, p. 48), and Ebbert and Hall (1993, p. 267).

Figure 1. Percentage of the enlisted force that is female: 1970–2000^a



a. Source: Defense Manpower Data Center.

Looking deeper

When we chronicle the success of our volunteer military, we often gloss over the branches that compose it. The Army, Navy, Air Force, and Marine Corps have their own histories, cultures, and traditions. Each is an internal labor market. Just as General Motors executives and their customers are more likely to identify themselves by Cadillac, Buick, or Chevrolet, service members are most likely to identify themselves as soldiers, sailors, airmen, or Marines. Fairly broad congressional mandates set each service's missions, while more specific legislation sets yearly budgets and end strengths.¹² Within this codified framework of law, however, each service maintains considerable flexibility to manage its force and to plan and propose to Congress future force configurations.

The overall size of the active-duty military has changed considerably since the inception of the AVF: about 2.2 million in 1973, declining

12. Each service has budgetary and manpower constraints. The manpower limits are in the form of "end strength," the number of enlisted and officer personnel each service can have on board as of 30 September.

through the late 1970s to just over 2 million, rising again to almost 2.2 million in 1986 with the Defense buildup, and then falling to the current level of 1.4 million as a result of the recent drawdown. The relative sizes of the individual services, however, have stayed remarkably constant. According to Williams (2001):

From the end of the Vietnam War until the fall of the Berlin Wall, the Army claimed 29 percent of spending, the Department of the Navy (including the Navy and the Marine Corps) 37 percent, and the Air Force 34 percent. Those shares remain essentially unchanged today; at most 1 percent of the defense budget has migrated from one service to another since 1990.

It is interesting to speculate on how the fairly decentralized four-service structure of our military contributed to, or detracted from, the success of voluntarism—and how, if at all, the decentralized structure affected the utilization of women and minorities in the military.

Personnel: Age, grade, and experience mix

A fact well known to military personnel planners, but perhaps not always appreciated by the larger community, is the high level of attrition during the first term of enlistment. The average first-term contract is about 4 years, and throughout the years of the AVF only about 65 percent of accessions complete their initial enlistment. It is not clear that the Gates Commission fully anticipated this.

Although this turnover behavior is not so different from that of young adults in the civilian sector (e.g., college completion rates or job changes), there are some important differences related to who pays for training. Unlike the civilian sector, the military provides considerable up-front training and pays full wages during the training period. Doing all the training in a military environment has been considered critically important to military trainers, who see the whole process as one of making soldiers, sailors, airmen, and Marines. However, it is expensive. If a recruit leaves before becoming productive (or before a payback period for the training), training dollars are wasted. Because attrition is so costly, researchers have focused on the recruit characteristics that are associated with successful adaptation to military life. While under conscription, of course, the military could not

attrite poor job-matches for fear everyone would claim to be a poor job-match.¹³ Under a voluntary system, one does not want to continue to employ obvious misfits.

Quality of the force

High-quality enlisted personnel—those with a high school diploma who score in the top half of the AFQT—are sought after by the military, first, because they are most likely to complete their enlistment tour. Army data show that about 80 percent of high school graduates will complete their initial 3-year obligation, compared with only half of nongraduates. Results are similar in the other services. Second, high-quality personnel have significantly fewer disciplinary problems than their lower quality counterparts. Third, high-aptitude personnel are easier to train and perform better on the job than their lower quality peers. There is a body of empirical literature that supports the positive relationship between aptitude and performance (see Gilroy and Sellman, 1995, pp. 53-4, or Cooke and Quester, 1992).

In the late 1970s, demographers documented the shrinking size of male youth cohorts. Predictions of continued declines in the number of young males through the 1990s fueled fears about the future cost of recruiting enough able young men to meet military needs. (For a discussion of the youth dearth, see Lockman and Quester, 1985.) However, a combination of the declining availability of good blue-collar jobs in the civilian sector and attractive entry-level pay in the military meant that the predicted crisis in recruitment failed to materialize. In fact, all four major services continued to recruit increasing proportions of both male and female high school diploma graduates throughout the 1980s.

13. Under conscription, it was much more common to confine troublemakers; in the AVF, it is more common to attrite them. The military spent \$1.3 billion, or about \$18,000 per recruit, on the 73,000 recruits that entered the services in FY93 and left prematurely (see General Accounting Office, 1998).

Compensation

All military services share the same basic pay table, described by rank and years of service in the military. Congressionally mandated changes in the pay table, often described as cost-of-living increases, usually occur yearly and are a constant percentage of a member's basic pay. In addition to basic pay, service members are provided either housing or a housing allowance, an allowance for food, and medical care. They also receive numerous special and incentive pays, usually defined by occupation but sometimes by the position that is occupied.¹⁴ Pensions (defined benefit and inflation protected) are provided to all who complete 20 years of service; there is no vesting for members serving less than 20 years.

Internal labor markets

All military services are somewhat peculiar labor markets. First, they are defined by their youthfulness. Less than 10 percent of our military are over 39 years of age, and only 3 percent are over age 44. For the enlisted force, less than 7 percent are older than 39. Second, for both the enlisted and officer corps, there are distinct entry points, defined quite strictly by education and somewhat less strictly by age. There is virtually no lateral entry, except for some specialties, such as doctors, dentists, lawyers, chaplains, and musicians. Enlisted personnel are usually high school graduates, entering around 18 years of age. Officers are college graduates, entering at about age 22. The senior officer and the senior enlisted in each service will be selected from those who entered some 20 years earlier. There are no corporate raids across the services or with the civilian sector; leaders are drawn exclusively from within.

The military relies on a hierarchical, pyramidal structure, with formal promotion processes and an "up or out" system. Those who fail to receive promotions are discharged. Even in wartime when requirements for personnel have been greatly expanded, the "requirement" that one begin as a private or a second lieutenant has been widely

14. The position may be in an unpopular geographic location or it may involve particularly arduous or hazardous work.

upheld. Rather than directly appoint civilians to senior enlisted or officer grades, the normal process has been to accelerate promotions to fill mid-level and senior ranks.

Progress of women and minorities: Reaching the top ranks

A labor market with little lateral entry does not, on the surface at least, appear to be one that would provide increasing opportunities for women and minorities. This feature of military labor markets may, in fact, have *helped* the integration and advancement of women and minorities in the services.¹⁵ There are two main reasons. First, in an internal labor market where everyone starts at the bottom, those who stay will have been through the same vetting process. In the military, this process of promotion is both well defined and widely believed to be one that advances the most qualified to the higher ranks. Here, women and minorities gain credibility as they go through the process. Second, and perhaps even more important, is the fact that the promotion process looks at “everyone.” No one enters the military in a job track without advancement opportunities.¹⁶ Thus, we would argue that, even though women and minorities had to start at the bottom and wait over 20 years to reach the top ranks, once they reached the top, they were competitive with their male peers. They had been screened, vetted, and promoted by the same process. So what do the numbers look like?

It takes a long time to reach the top ranks. Average years of service for O-7 (Rear Admiral in the Navy and Brigadier General in the other services) is 28 years. Thus, to figure out how well the military has integrated women and minorities into its top leadership positions, we need to look back to accessions some 28 years ago. What proportion

15. Many women who entered or re-entered the labor market in the 1970s and early 1980s ended up in dead-end jobs with low pay and few advancement prospects. Women who expected to work longer, took different jobs and earned more (Economic Report of the President, 1987).

16. After the first promotion that occurs routinely, promotions become competitive and not everyone will be promoted. High-year tenure rules mean that service members will be discharged if they reach tenure limits for their rank.

of those accessions were women and minorities? What proportion of leadership positions do they now account for? In most cases, they make up a larger proportion of the senior positions than they did of accessions.¹⁷

For the top officer positions, O-7 rank (Rear Admirals or Brigadier Generals):

- Blacks were 3.1 percent of officer accessions in the years that today's O-7s entered the military and they represent 6.7 percent of O-7s.
- Women were 8.6 percent of officer accessions in the years that today's O-7s entered and they represent 8.6 percent of O-7s.
- Hispanics were 0.2 percent of officer accessions in the years that today's O-7s entered and they represent 2.0 percent of O-7s.

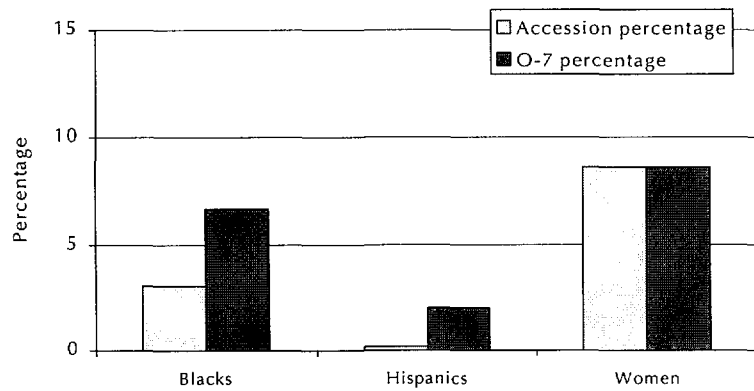
The military's internal labor markets have worked exceedingly well to provide top leadership positions for minority and women officers (see also figure 2).

For the enlisted force, the proportion of accessions that make it to the top rank, E-9, is constrained by law to be no more than 1 percent of the force. Thus, achieving the E-9 rank is an extremely competitive process. E-9s in 2001 averaged 25 years of service, but as with officers we took the entire years-of-service distribution to create a weighted synthetic cohort of the accessions. Figure 3 shows that, for the top enlisted positions, E-9 rank (name of grade varies by service):

- Blacks were 18.9 percent of enlisted accessions in the years that the current E-9s entered the military and are now 28.1 percent of E-9s.
- Women were 8.3 percent of enlisted accessions in the years that the current E-9s entered and are now 13.4 percent of E-9s.
- Hispanics were 5.5 percent of enlisted accessions in the years that the current E-9s entered and are now 5.9 percent of E-9s.

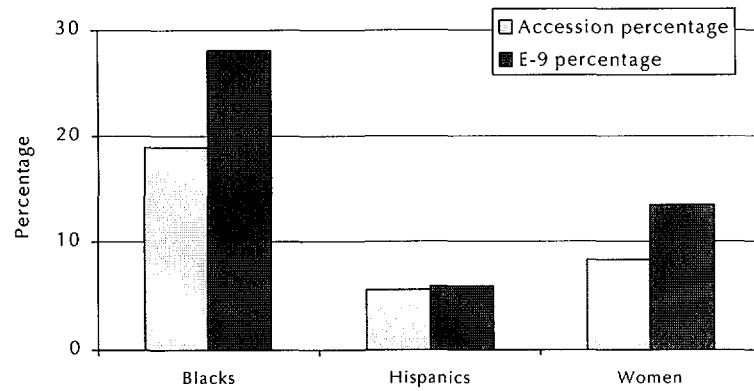
17. This advancement analysis—from new entrants to the top-level jobs—was done by taking the years-of-service distribution for all current O-7s and then forming a weighted average of the implied accession cohorts.

Figure 2. Accession representation and representation as generals or admirals today^a



a. Data are from Defense Manpower Data Center and are for February 2001.

Figure 3. Accession representation and representation in the top enlisted rank today^a



a. Data are from Defense Manpower Data Center and are for February 2001.

Initial enlistment contracts

Initial active-duty “employment contracts” for the enlisted force are quite unusual and tend to differ from private-sector arrangements:

- They are fixed in length, from 2 to 6 years.
- Contract termination rights are asymmetric; the employer has the right to fire, but the service member has no right to quit.¹⁸
- After the entry wage, there is no specified future pay stream associated with the contract.¹⁹
- They generally have a fairly clear guarantee of the type of basic occupational training that will be provided.

Except for the provision for human capital accumulation (some specific and some more general), the employer bears none of the risk of a bad job match. It is not clear that a private-sector firm would be able to convince employees to sign on for such an arrangement.

As the AVF matured, the services moved to longer first-term contracts. Longer enlistment contracts provide the services more time to recoup their initial investments in training, but they are generally less attractive to recruits. During the last decade, only the Army and the Navy have offered 2- or 3-year contracts. The majority of enlistments are now for 4 years; only the Army is currently offering initial enlistment contracts of 3 years or less (table 3).

Before assignment to a unit, all new enlistees undertake basic training, which provides an overall introduction to the military and a specific introduction to the service. It varies from 6 weeks in the Air

18. Although it is virtually costless for the employer to fire personnel, it is relatively costly for employees to terminate because they need to make the employer want to fire them. Misbehavior, drug use, and acknowledged homosexual activity are examples of activities that can instigate firing.

19. Most private-sector fixed-length employment contracts with asymmetric (employer-only) termination rights specify the earnings stream in considerable detail. Athletes and entertainers come to mind.

Force to 13 weeks in the Marine Corps, with the Army and the Navy in between. After completion of basic training, the member undergoes the initial occupational training for his or her specialty. This initial occupational training period varies considerably. Some training tracks take several years. On average, however, the occupational training is about 5 months.

Table 3. Initial enlistment lengths by service: FY 2000 accessions^a

	Army	Navy	Marine Corps	Air Force
Number of accessions	74,190	52,340	31,695	34,369
Percentage 2-year	2.6	0.4	0.0	0.0
Percentage 3-year	33.0	0.6	0.0	0.0
Percentage 4-year	48.9	55.7	82.4	51.8
Percentage 5-year	6.9	27.0	17.5	0.0
Percentage 6-year	8.6	16.4	0.1	48.2

a. Source: Data from Department of Defense, Under Secretary for Personnel and Readiness, Accession Policy Division.

Some examples from the services

We now turn to some examples within particular services. Because each service individually recruits, promotes, and retains its personnel, it is appropriate to drill down to the service level for our look at women and minorities. We'll start with a look at black representation in infantry occupations because this was the focus of those worried about a voluntary military. (Recall that women cannot serve in infantry occupations.) Then we'll turn to the Marine Corps, examining gender, race, and ethnicity differences in early separation behavior and long-term retention. Next, we'll look at the Navy, focusing on women in non-traditional occupations. Finally, we'll look more closely at the Army, examining the progress of blacks.

Early separations versus long-term retention of male and female Marines

Each year 5 to 6 percent of Marine Corps accessions are women. The 3-month basic training or bootcamp is tough and generally understood to be the most physically stressful of all the services. Partly because women tend to be less prepared for this arduous training, or because women are less committed to “sticking it out” to become Marines, female bootcamp attrition is substantially higher than that for men. Such a high, initial quit rate for women is not surprising since the Marine Corps is a very non-traditional job choice for them.

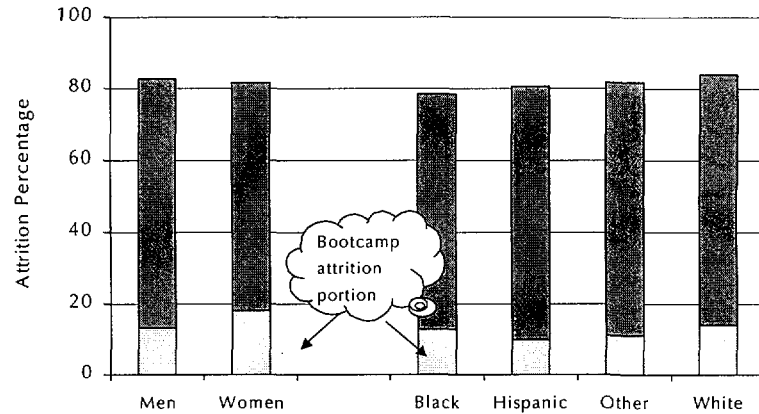
Despite the fact that female Marine Corps accessions have substantially higher bootcamp attrition than their male counterparts, the long-term retention of female Marines has usually been as high as (and sometimes higher than) that of males. For this to be so, the post-bootcamp attrition for female Marines must be substantially lower than that of males.

We examined male and female accessions in fiscal years 1979 through 1994, and followed them through the first reenlistment point, to 73 months of service.²⁰ Even though bootcamp attrition averaged 18.3 percent for women (13.3 percent for men), by 73 months of service the overall loss rates were roughly the same (figure 4).

What does it mean that, after bootcamp, female Marines stay in the Corps at even greater rates than males? Because retention is an overall benchmark of employee satisfaction, women appear to be very satisfied with their career opportunities and chances to excel in the Marine Corps. In other words, female Marines who complete bootcamp and successfully adapt to the Marine Corps—a decidedly non-traditional job for females—have extremely high “stay” rates. We wonder if this pattern of early quits, and then high retention, is also true for non-traditional jobs in the civilian sector?

20. Although most Marines had 4-year initial enlistment contracts, a few had 6-year enlistment contracts. We chose 73 months in order to follow all of them into the second term of service.

Figure 4. Percentage of Marines separated by 73 months of service^a



a. Marine Corps accessions in fiscal years 1979 through 1994. There were 524,400 men and 31,505 women. By race/ethnic background the number of accessions were 97,490 blacks, 34,430 Hispanics, 17,240 of other race/ethnic backgrounds, and 406,755 whites. Data from Center for Naval Analyses Marine Corps personnel files.

Examining bootcamp attrition data by race and ethnic background, we find only small differences in attrition across these groups, with Hispanics having the lowest bootcamp attrition rate and whites the highest.²¹ Overall separation rates at 73 months of service are 84 percent for whites, 82 percent for those of other races/ethnic backgrounds, 81 percent for Hispanics, and 78 percent for blacks (see figure 4).

Table 4 focuses on retention rather than separation and provides data on accessions in three time periods. For those female Marines who accessed in fiscal years 1979 through 1983, their long-term retention substantially exceeded that of male Marines. In fact, female retention rates exceeded those of males in every race-ethnic group. The 33 percent 73-month retention rate for black female Marines is particularly striking.

21. Ninety-five percent of Marine Corps accessions are male, so these patterns primarily represent male behavior.

Table 4. 73-month retention (percentages)^a

Accession fiscal year	Total		White		Black		Hispanic		Other	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1979-1983	16.1	20.9	14.6	17.1	20.9	33.3	18.1	23.8	16.9	27.7
1984-1989	18.6	17.6	17.9	14.1	22.0	30.0	19.0	24.5	17.8	22.3
1990-1994	17.1	16.5	15.9	12.9	21.2	24.4	19.9	24.8	18.7	19.0

a. Source: Center for Naval Analyses Marine Corps personnel files.

Minorities and women have stay rates that exceed those of white men partly because of relative compensation differences between the military and the civilian sector. Virtually all compensation in the military is based on rank and years of service, so gender, race, or ethnicity differences in compensation are minimal.²² This contrasts with the civilian sector.

In 1979, the ratio of female to male earnings for full-time civilian workers aged 20 to 24 was just over 75 percent. By 1983, the ratio was slightly over 85 percent.²³ While the relative increase in young women's wages was extremely large in this period, civilian women's wages still lagged men's wages. Marines who entered the Corps in the 1979-1983 period and who stayed at least 6 years were in the service from 1979 through 1989. It isn't until 1988 that civilian women's wages reached 90 percent of those for men. Thus, particularly in this earlier period, the greater civilian wage differentials are certainly consistent with higher retention for women than for men.

22. In the other services, there are probably small gender differences in compensation because men are more likely to be found in occupations with special pays and bonuses.

23. These data are from the Department of Labor, Bureau of Labor Statistics. We use the usual weekly earnings of 20- to 24-year-old full-time workers.

The latter two periods in table 4, accessions in the late 1980s and in the early 1990s, show fairly similar, but higher male, long-term retention rates. Within the race/ethnic categories, however, it is clear that only white female Marines have lower retention rates than their male counterparts. Women who are black, Hispanic, or of other race/ethnic categories still have higher long-term retention rates than their male counterparts. In these time periods, wages for 20- to 24-year-old women averaged about 95 percent of male wages, with white women enjoying the largest wage advantages. Again, these female/male Marine Corps retention patterns are consistent with the relative wage opportunities in the military and the civilian work world. In short, among black, Hispanic, and other minority women, the Marine Corps offers a greater earnings differential relative to the civilian sector than it does for white women.

Before leaving table 4, it is worth noting the pattern in male long-term retention. White males have consistently had the lowest long-term retention rates, and black males have consistently had the highest. This is again consistent with relative wages in the civilian sector.

Nontraditional or traditional occupations: A look at the Navy enlisted

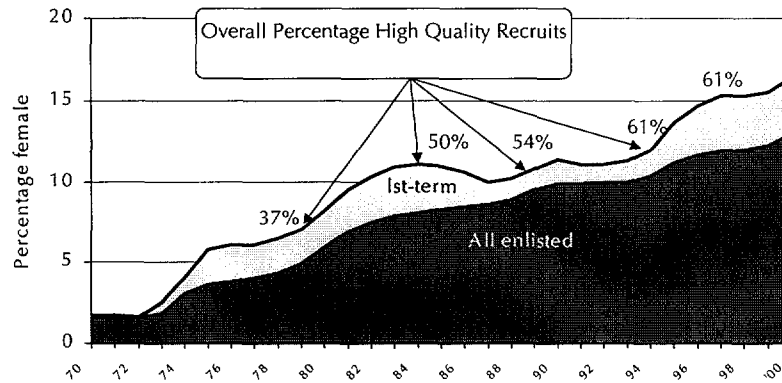
The percentage of women in the enlisted Navy has grown over the years of the volunteer force in an environment in which the military was becoming increasingly selective (figure 5). In the late 1970s, less than 40 percent of Navy recruits were high quality; by the mid 1990s, it was over 60 percent. In short, the proportion of high-quality recruits increased for both men and women at the same time the Navy was increasing the proportion of female accessions.

As women have increased their representation in the Navy, they have also increased their representation somewhat in nontraditional occupations, and there have been success stories. To examine the progress across all Navy occupations, we constructed an occupational representation index.

$$\text{Index}_i = \frac{\% \text{ Navy 1st-term females}_i}{\% \text{ Navy 1st-term males}_i},$$

where i = Navy occupation.

Figure 5. Percentage of enlisted Navy women and overall recruit quality^a



a. High-quality recruits are those with regular high school diplomas who score in the top half of the nationally normed Armed Forces Qualification Test. Data from Center for Naval Analyses Navy personnel files.

This index will have the value of 1.0 if female representation in the occupation is the same as that for males in a particular occupation. If the index is greater than 1.0, women are disproportionately represented in the occupation; if the index is less than 1.0, women are underrepresented, relative to their numbers in the force. Table 5 displays this index over time.

Female sailors are still disproportionately found in the clerical (administration and supply) and medical specialties,²⁴ but there has been some progress. At the beginning of the volunteer force, female sailors were over 3 times as likely to be found in medical fields as male sailors; this has fallen to less than 2 times as likely. Also, the deck and

24. Because this is the enlisted force, medical specialties consist primarily of support personnel for the professional health care staff.

ordnance fields²⁵ have shown fairly steady progress with female sailors, who are now about 80 percent as likely as male sailors to be found in these occupations. In the mid-1970s, less than 1 percent of enlisted women were in engineering occupations;²⁶ this percentage grew to over 13 percent in 1993. Since 1993, the occupational mix has shifted away from engineering occupations and the percentage of both men and women in these occupations has fallen.

Table 5. Navy women's occupational representation index: first-term force^a

	Occupational group						
	Administration and supply	Aviation	Construction and miscellaneous	Deck and ordnance	Electronics	Engineering	Medical
1975	2.28	0.51	0.18	0.22	0.29	0.04	3.08
1977	2.48	0.62	0.20	0.18	0.27	0.04	3.29
1979	2.52	0.70	0.36	0.18	0.29	0.08	2.92
1981	2.42	0.70	0.39	0.27	0.40	0.16	2.48
1983	2.33	0.62	0.42	0.36	0.47	0.21	2.39
1985	2.19	0.60	0.53	0.37	0.54	0.37	2.09
1987	2.08	0.68	0.65	0.43	0.70	0.46	2.11
1989	1.95	0.76	0.58	0.50	0.74	0.44	2.00
1991	1.76	0.83	0.58	0.53	0.72	0.49	2.08
1993	1.41	0.90	0.76	0.59	0.73	0.57	2.20
1995	1.49	0.75	0.76	0.55	0.55	0.51	2.09
1997	1.65	0.69	0.64	0.60	0.36	0.46	2.18
1999	1.81	0.66	0.60	0.70	0.52	0.46	1.92
2001	1.91	0.66	0.55	0.78	0.57	0.41	1.69

a. Source: Center for Naval Analyses Navy personnel files.

In aviation, construction, electronics, and engineering occupations, progress seems to have slowed somewhat since the early 1990s when there was a concerted effort to interest young women more in the

25. Ship deck occupations involve such jobs as anchoring and cargo handling.

26. Because the enlisted force is composed almost entirely of high school graduates, enlisted engineering occupations are more in the category of engineering technicians than engineers.

nontraditional fields, but the indices are still significantly above those found in the 1970s and early 1980s. Although recruiters and Navy counselors try to convince young recruits to enter these more nontraditional occupations, the majority of young, female, high school graduates still seem to want the more traditional female clerical and medical occupations despite their slower promotion rates.²⁷

The advantages of an early start: The progress of blacks in the Army

The Army stands out as the military service with the earliest start²⁸ on black representation, with blacks accounting for 11.1 percent of enlisted and 1.9 percent of officers in 1949. By 2000, 29 percent of Army enlisted personnel were black, 12 percent of the officers, and almost 9 percent of generals were black (table 6).

Table 6. Blacks as a percentage of active-duty enlisted force: enlisted and officers, by service in 2000^a

	Enlisted	Officers ^b	General or admirals ^c
All services	22.4	8.6	6.1
Army	29.1	12.1	8.9
Navy	18.9	6.9	4.2
Air Force	18.4	6.4	4.7
Marine Corps	16.2	7.5	4.9

a. Source: DMDC

b. Includes warrant officers

c. DMDC, Feb 2001 data for ranks O-7 to O-10.

27. Officer candidates, perhaps because they have been exposed to more ideas in college or because they are older and think more about building a career, have been more adventurous in their job selection.

28. Integration of the forces began in 1948 with the signing of a Presidential Executive Order and was finally achieved in 1954—a decade ahead of the omnibus Civil Rights Act of 1964. See Eitelberg, 1993, p. 147; Dorn, 1991, p. 28; and Dorn, 1992, p. 5.

The 127,000 blacks in the Army today account for 45 percent of all blacks in the active-duty military (277,500). Of all the services, the Army has the largest number and proportion of blacks at all pay-grades, especially at the senior enlisted and officer levels (table 7).

Table 7. Blacks as percentage of active-duty enlisted force and officers, by service and grade, 2000^a

Grade	Service			
	Army	Navy	Air Force	Marine Corps
Officers				
O-7 and above	7.1	2.7	3.3	3.7
O-4 to O-6	11.0	4.6	5.9	4.7
O-1 to O-3	11.7	7.8	6.8	7.5
Enlisted				
E-8 to E-9	37.4	10.3	18.7	30.6
E-5 to E-7	33.9	19.6	18.5	21.0
E-1 to E-4	25.2	22.2	18.2	13.6

a. Source: DMDC

Data in table 8 show growth in the proportions of blacks in all services since the beginning of the AVF. Among enlisted men in the Army, 26 percent are black, up from 17 percent in 1973.

Table 8. Percentages of black enlisted and officer active-duty forces, by gender and service^a

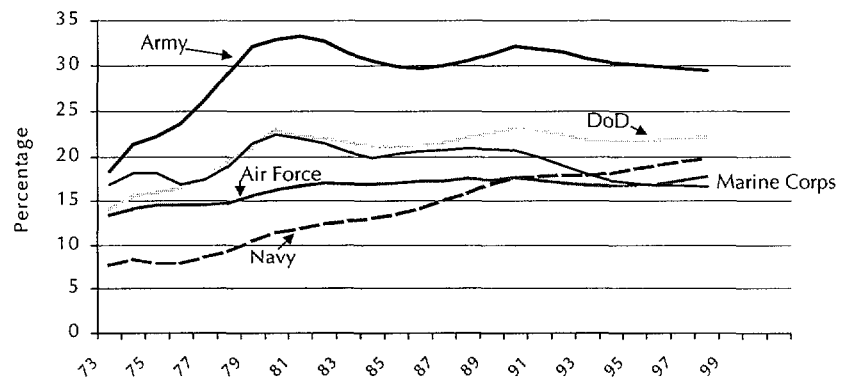
	Enlisted		Officer	
	1973	2000	1973	2000
Males				
Army	17.0	25.9	4.0	10.4
Navy	6.4	18.9	.9	6.2
Air Force	12.6	16.2	1.6	5.2
Marine Corps	13.7	15.7	1.43	7.1
Females				
Army	19.4	46.4	3.8	22.2
Navy	6.6	31.5	0.2	6.2
Air Force	14.3	27.5	4.1	12.2
Marine Corps	16.9	23.2	2.3	11.0

a. Source: DMDC

Among male officers, the proportion rose from 4 percent in 1973 to 10.4 percent in 2000. Black women also have made great strides; their proportion of all women in both the enlisted ranks and the officer corps rose considerably in all services. But the Army stands out again with the largest proportions. Today blacks make up about half of all Army enlisted women; they are now a plurality as whites account for 38 percent of all women in the enlisted force.

Figure 6 shows the changing composition of blacks in the Armed Forces. The number of black soldiers in the Army increased markedly at the beginning of the AVF and then began to decline, largely because of an increase in entrance standards and the Army's decision not to renew enlistment contracts of low-scoring members who entered between 1976 and 1980 when the enlistment test was misnormed.²⁹ The proportion of blacks in the Army has remained stable since 1993 at about 30 percent.

Figure 6. Blacks as a percentage of active-duty enlisted, by service^a



a. Source: DMDC

29. Enlistment standards were inadvertently lowered between 1 January 1976 and 1 October 1980 by the introduction of ASVAB forms 5, 6, and 7. The score scale for these test forms was inflated compared with the traditional meaning of ASVAB scores. During this time, about 25 percent of accessions would not have qualified for enlistment if the reported scores had accurately reflected mental aptitudes.

Black representation in Army occupations has changed over time. As Tom Ricks, the Pentagon reporter for the *Wall Street Journal*, observed:

So much for the old stereotype about the Army's front-line units being cannon fodder laden with minorities. Twenty-five years ago, as the volunteer military took shape, it was a common concern that America would field an "Army of the poor" in which blacks would suffer most in wartime. Even as late as the Gulf War in 1991, Jesse Jackson protested to a largely black audience that "when that war breaks out, our youth will burn first." His concern arose from the fact that 30% of the Army is black, compared with about 11% of the American population.

Ricks' data are for 1995, when he reports that only 9 percent of the Army infantry were black. Ricks reported that black soldiers were found disproportionately in administrative and support jobs, arguing that those jobs were more likely to be compatible with the Army career intentions of black soldiers. Ricks argues that it is the young white enlisted males who do not anticipate military careers who are drawn most forcefully to ground combat occupations. And, that is, after all, what a volunteer military means—volunteers making choices.

Thus, black enlistees are more likely to be found in "support" occupations in the Army—supply, clerical, transportation, and food service—and less likely to be in combat units. They are also less likely to be in technical occupations.

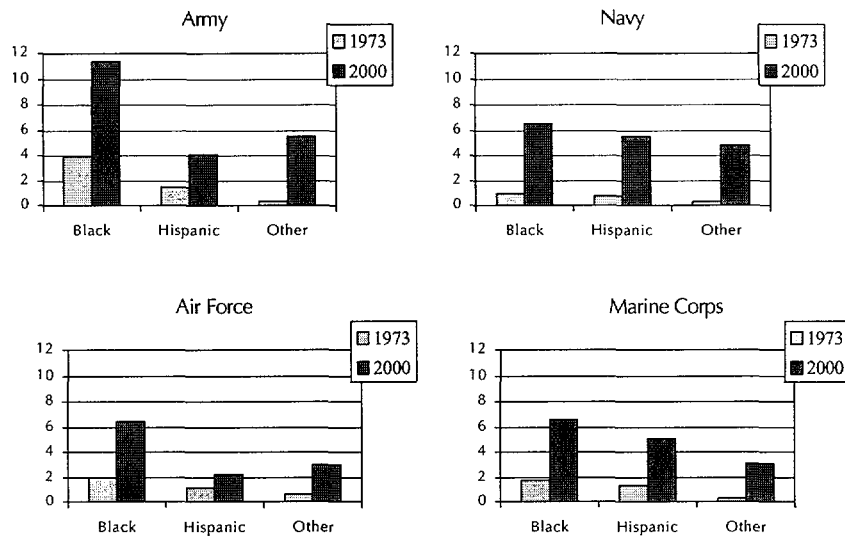
But regardless of their job assignment, black soldiers are less likely to leave early (attrite) than their white counterparts. In fact, blacks are more than one and a half times more likely than whites to complete their initial Army enlistment obligation. The 12-month attrition rate among white men in fiscal year 1999 was 14.6 percent compared with only a 10.3-percent rate for black men; 26.7 percent of white women left the Army during their first 12 months, whereas the rate for black women was about half that—only 14.6 percent. Blacks also reenlist at higher rates than whites.

The attractiveness of military service to blacks is "simply that for them the grass is not greener in civilian life" (see Moskos and Butler, 1996,

p. 42). Black soldiers see job stability and security, distinct pathways to advancement through promotion (Daula, Smith, and Nord, 1990, p. 718), and an in-service earnings advantage (Phillips et al., 1992, pp. 352-5) to the Army as a long- or short-term career choice.

The Army's 7,500 officers represent the largest number of black executives in any organization in the country. They are trained at the United States Military Academy at West Point, but most come from the ROTC programs housed at universities. The growth in the number of black Army officers has been due primarily to the expansion of ROTC at Historically Black Colleges and Universities. The growth in the Army's black officer corps over the last two decades is evident from figure 7, which shows progress of other minority groups, as well as expanding opportunities in the Navy, Air Force, and Marine Corps.

Figure 7. Minority active-duty commissioned officers, by service: 1973 and 2000



Concluding comments

During the recent drawdown of military forces between 1987 and 1997, there was considerable concern that minorities would be disproportionately affected by the reduction in force end strength. However, the "last-hired, first-fired" phenomenon did not prevail in the military, and the percentage of black officers actually rose during this period—from 6.5 to 7.5 percent—as the proportion of white officers fell. Within the enlisted force, the proportion of blacks rose as well, even as the enlisted ranks fell 35 percent.

The number of Hispanics actually rose during the drawdown in the enlisted and officer ranks. As a result, their proportions increased substantially. Women, too, benefited in relative terms during the military downsizing as their proportion of the enlisted force and officer corps rose from 11 to 14 percent and 10 to 14 percent, respectively.

In summary, in the years since the advent of the volunteer force, our military has increasingly become more racially and ethnically diverse. It also appears to have successfully integrated women. Moreover, even though the process from entry-level to top-leadership positions has taken a long time, both the current top enlisted and officer ranks have richer minority and female representation than the accession cohorts from which they were drawn.

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