How Requirements Shape the Demographic Profile of the Eligible Population

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This issue paper aims to aid in the deliberations of the MLDC. It does not contain the recommendations of the MLDC.

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Abstract

All the military Services impose some set of eligibility requirements on the people seeking to join. In general, non-Hispanic blacks and Hispanics meet these requirements at lower rates than whites. As a result, the population that is eligible for military service does not have the same distribution of race/ethnicity as the general U.S. population. This racial/ethnic divergence tends to be more extreme for the officer ranks than for enlisted because officer requirements are more difficult to meet. The individual requirements do not always affect the gender distribution of the eligible population in the same ways, but certain requirements (such as weight/body-fat restrictions) can work against female representation in the eligible population. If the Department of Defense (DoD) desires to be representative of the U.S. population, it can pursue one or more of the following three courses: re-examine the requirements, devote additional effort to outreach to qualified minority and female recruits, or pursue strategies to affect the rates at which members of each group meet the requirements.

The U.S. military is a unique employer with unique requirements for service eligibility. The details of these requirements are different for the enlisted ranks and the officer corps. They also vary by Service, and some can be waived under particular circumstances. In general, however, those who serve in the armed forces must meet standards related to their age, citizenship, number of dependents, financial status, education level, aptitude, moral character, substance use, language skills, homosexual conduct, height and weight, physical fitness, and medical qualifications (Asch et al., 2009).

Combined, these requirements define the eligible population, which will only have the same racial/ethnic and gender distribution as the U.S. population if all requirements are uncorrelated with race/ethnicity and gender. However, research shows that race/ethnicity and gender do correlate with eligibility requirements; thus, the eligible population does not currently resemble the general U.S. population.

This issue paper shows how the requirements shape the eligible population by comparing the racial/ethnic and gender distributions of the total population to estimates of the same distributions for the population that meets the requirements. Additional Military Leadership Diversity Commission (MLDC) issue papers will focus on some of these individual requirements in more detail.

Enlisted Requirements and Their Implications for Racial/Ethnic and Gender Representation in the Enlisted Ranks

A summary of disqualifying factors for enlistment can be found in Table 1. As the table shows, all the Services have requirements that cannot be waived for age, citizenship, dependents, aptitude, moral eligibility, substance abuse, homosexuality, and medical conditions. There is, however, variation by Service within some of these categories—specifically, dependents, moral eligibility, and substance abuse—with the Marine Corps having the most extensive set of requirements among the Services. In addition to the factors shown in the table, all the Services require that recruits have a high-school diploma, although some exceptions exist.[1]

Several of these requirements have been shown to disqualify nonwhites and women at higher rates than whites and men. For example, well-documented racial/ethnic differences in high-school graduation rates mean that nonwhites fail to meet the high-school diploma requirement at higher rates than whites.

Weight and body-fat limits also disqualify members of minority race/ethnicity groups at higher rates than whites and can disqualify women[2] at higher rates than men. And, single parents are not allowed to enlist, which also tends to disqualify women at higher rates than men.

Table 1. Disqualifying and Nonwaiverable Enlistment Standards by Service

Category	Criteria	Army	Air Force	Navy	Marine Corps
Age	Individuals not between 17 and 35 years of age	x	x	x	x
Citizenship	Individuals who are not U.S. citizens or lawful permanent residents of the U.S., or citizens of the Federated States of Micronesia or the Republic of the Marshall Islands	x	x	x	x
Dependents	Single parents	x	x	x	x
	Those with three or more illegitimate children				x
Aptitude	Individuals who do not meet AFQT requirements based on service and education level[a]	x	x	x	x
Moral eligibility	Individuals convicted of drug trafficking, sales, or distribution	x	x	x	x
	Individuals on probation, parole, or civil confinement	x	x	x	x
	Those with pending judicial proceedings or criminal charges against them	x	x	x	x
	Those convicted of serious criminal misconduct while in the Delayed Entry Program (DEP)				x
Substance use	Individuals under the influence during processing or who test positive for drugs or alcohol at MEPS[b]	x	x	x	x
	Individuals with a history of alcohol dependency	x			x
	Individuals with a history of drug dependency	x			x
	Individuals with driving convictions involving drugs other than cannabis, steroids, and prescription drugs				x
	Those with a court conviction for any drug offence (except simple possession of cannabis [30 grams or less] and steroids)				x
	Those who used LSD within two years prior to enlistment			x	
Homosexuality	Homosexual conduct[c]	x	x	x	x
Medical	A variety of medical conditions	x	x	x	x

[a] The only known exception is for the Arabic Language program. For more information see Language Proficiency later in this chapter.
[b] MEPS is the military entrance processing station.
[c] As defined in DoD Directive 1304.26.

SOURCE: Asch et al., 2009.

In addition, a key requirement for military service is the minimum Armed Forces Qualifying Test (AFQT) score. The AFQT is a component of the Armed Forces Vocational Aptitude Battery, an entrance exam administered to all who enlist in any of the five Services. By law, those who score in the bottom 10 percent of the national distribution are ineligible for military service, and only 4 percent of all recruits in a given fiscal year can come from the bottom 10–30 percent. Average AFQT scores differ by race/ethnicity. Asch et al., (2009) estimate that 80 percent of white youths would score above the 30th percentile (which is the eligibility cutoff for service in the Army; the Navy, Marine Corps, and Air Force have slightly higher eligibility cutoffs), while only 49 percent of black youths and 53 percent of Hispanic youths would score above the 30th percentile. As a result, the population that meets the minimum AFQT requirements for any of the Services contains a higher fraction of whites than does the general U.S. population.

Although the requirements can be examined individually, men and women seeking to enlist must meet all requirements; thus, from a policy standpoint, it is most informative to estimate the requirements' joint impact. It is easiest to illustrate this impact with an example: a comparison of the total relevant-age population in the United States[3] to an estimate of the eligible population.

Figure 1 shows this comparison for some basic enlistment requirements for the Marine Corps. The first set of bars shows the fractions of non-Hispanic blacks, Hispanics, others,[4] and women in the U.S. population ages 17–29 (the age range to be eligible for enlistment in the Marine Corps). The second set of bars shows the estimated fractions of relevant-age members of each minority race/ethnicity group and of women in the "eligible" population, which, in this case, means the population of high-school graduates[5] and above who are not single parents, have no more than one dependent, score at or above the 32nd AFQT percentile, have not committed felonies, meet Marine Corps height/weight standards for enlistment, and have no disqualifying medical condition (e.g., asthma, hypertension, diabetes, a physical disability). The figure shows that racial/ethnic minorities (except for others) and women make up a smaller fraction of the eligible population than they do of the total 17-to-29-year-old U.S. population because they are, on average, less likely to meet the requirements.

Figure 1. U.S. Youth Population Versus Estimated Population Eligible to Enlist: Race/Ethnicity and Gender Comparison
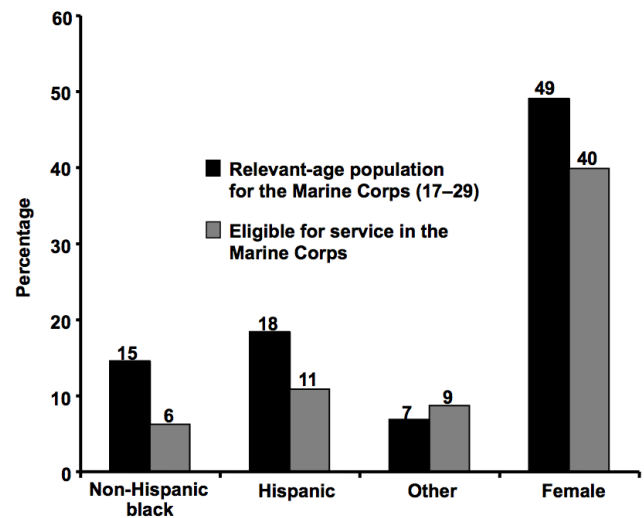

Figure 1 shows only the combined effects of the eligibility requirements. For the incremental effects of key requirements, see Figure 2, which shows how minorities' and women's shares of the population change with the successive addition of each Marine Corp requirement

(shown along the bottom of the figure). In each case, the line plots the movement from the starting point of the relevant-age population through each requirement screen (reflected in the vertical dotted line) and down to the final fraction eligible for service after passing through all the requirements.[6] For example, for the non-Hispanic black group, the line starts at 15 percent and decreases to 6 percent (as seen in the first two bars in Figure 1). Presenting the data in this way shows that the education and AFQT requirements decrease the fractions of both non-Hispanic blacks and Hispanics in the eligible population and that the Marine Corps weight/body-fat standards sharply decrease the fraction of women in the eligible population.

Figure 2. The Cumulative Effect of Individual Requirements on the Demographic Composition of the Eligible Enlisted Population
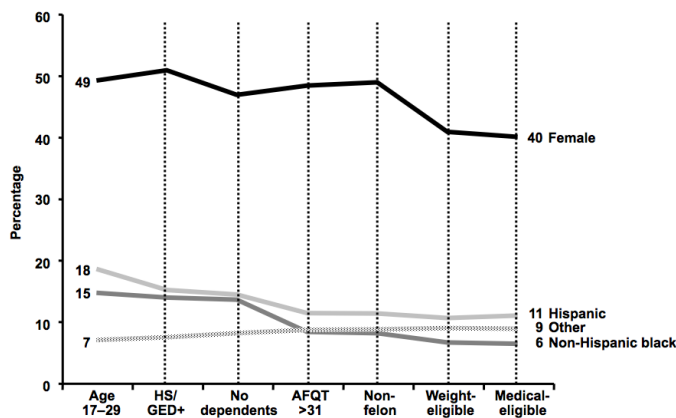
Figures 1 and 2 show how the Marine Corps requirements shape the profile of the population that is eligible to enlist in that Service. Although there will be some differences in how the other Services' requirements shape the profiles of their eligible populations, the overall patterns and effects are the same. (For an example of how Service-specific differences in height/weight standards affect eligibility by race/ethnicity and gender, see the appendix.)

Officer Requirements and Their Implications for Racial/Ethnic and Gender Representation in the Officer Corps

It is less straightforward to define officer "requirements" because an officer candidate must complete one of three commissioning programs to become a commissioned officer (i.e., he or she cannot simply "sign up" to officially join the military).[7] Still, there is a set of basic attributes that apply across the board and can be used to show how requirements affect the eligible population.

First, most commissioning programs involve completing a college degree. Thus, racial/ethnic or gender differences in college-graduation rates shape the eligible population, much like racial/ethnic differences in high-school completion

affect the enlisted eligible population. Also, unlike those seeking to enlist, officers must be U.S. citizens. Finally, as in the enlisted case, officers must meet height/weight standards and have no disqualifying medical condition.

Thus, we can again illustrate the potential effects of these requirements on the eligible population with an example. Figure 3 (the counterpart of Figure 1) compares the fractions of minority race/ethnicity groups and the fraction of women in the U.S. population ages 18–28 (the age range to be eligible for a commission as a Marine Corps officer) to an estimate of the eligible population. This time, the eligible population is the population of college graduates who are U.S. citizens and who meet Marine Corps height/weight standards and have no disqualifying medical conditions. Once again, racial/ethnic minorities make up a smaller fraction of the eligible population than of the total U.S. population. These differences are more extreme for officers than for enlisted. In contrast, the fraction of women does not change very much.

Figure 3. U.S. Youth Population Versus Estimated Population Eligible to be Officers: Race/Ethnicity and Gender Comparison
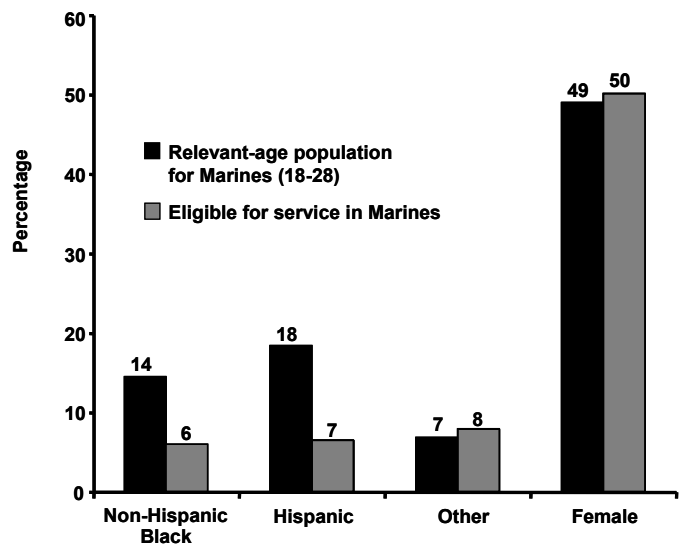

Figure 4 (the counterpart of Figure 2) shows how the group composition changes with the addition of each requirement.[8] The college-degree requirement decreases black and Hispanic representation and increases female and other representation; the citizenship requirement decreases the representation of other race/ethnicity groups.[9] The weight/body-fat requirement decreases female representation in the eligible population, as it did for the enlisted eligible population, but this effect is offset by the higher fraction of women who have college degrees.

Figure 4. The Cumulative Effect of Individual Requirements on the Demographic Composition of the Eligible Officer Population
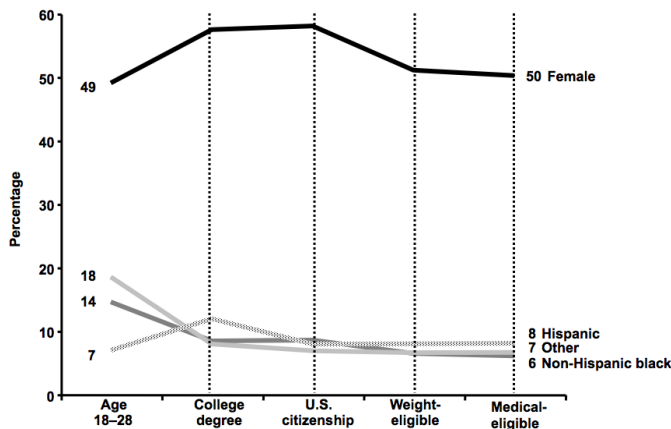
Implications

The main point of this analysis is that the population of relevant-age people who are eligible to serve, which is defined by DoD eligibility requirements, is not currently racially/ethnically representative of the general U.S. population. And, in the enlisted case, the population eligible to serve does not have the same gender mix as the U.S. population. Thus, if DoD desires to be representative of the U.S. population, it can pursue one or more the following three courses:

- reexamine the requirements
- devote additional outreach effort to eligible minority and female recruits
- pursue strategies to affect the rates at which members of each group meet the requirements.

Recognizing this reality, the Services and DoD have, in varying degrees, taken steps down all three paths. Other MLDC issue papers will describe these initiatives.

Notes

[1]Each year, the Services access a small number of recruits who do not have a high-school diploma. According to DoD guidelines, this group may constitute no more than 10 percent of total enlisted accessions; in most years, the Services impose their own lower caps.

[2]Whether women are disqualified at higher rates depends on which Service's body-fat requirements are applied. The Army and Marine Corps tend to disqualify women at higher rates than men, while the Air Force and Navy standards tend to disqualify both genders at equal rates.

[3]Although we begin with the relevant-age population, it should be noted that age itself is also a requirement for enlistment that affects the demographic mix of the eligible population.

[4]The *other* category includes Asians, American Indians/Alaska Natives, Pacific Islanders, and unknown/missing race/ethnicity. In survey data, the fraction of unknown/missing values is typically small, so this category is mostly Asians. Anyone who entered a Hispanic ethnicity in addition to their race is coded as "Hispanic," and the "white" and "Non-Hispanic black" categories contain no one who is also Hispanic.

[5]These calculations include people with General Educational Development certificates (GEDs) because many survey data sets do not differentiate between traditional high-school diplomas and GEDs.

[6]Another way of saying this is that the points that Figure 2 displays are cumulative: They reflect the fraction of the respective group in the population that meets the given requirement and all others to the left of it.

[7]The three programs are the Reserve Officer Training Corps, the Service academies, and Officer Candidate School/Officer Training School.

[8]The order of the requirements is arbitrary. We could have applied the citizenship requirement before the college-attainment requirement, and it would have shown a "bigger" effect among Hispanics.

[9]Citizenship also tends to affect Hispanics, but the chart shows only a small decrease in representation because, at this point, it is only showing Hispanics *who are college graduates* (see endnote 8).

Appendix: Height/Weight and Body-Fat Eligibility

Figure A.1 shows the height/weight and body-fat eligibility rates, by Service, for each racial/ethnic and gender group. As the figure shows, across all racial/ethnic groups, the Marine Corps has the toughest weight requirements for women and the Army has the most lenient. For men, across all race/ethnicity groups, the Air Force has the toughest weight requirements and, again, the Army has the most lenient.

Figure A.1. Race/Ethnicity and Gender Specific Height/Weight and Body-Fat Eligibility Rates: U.S. Population, Ages 18–34, with High-School (or Equivalent) Education
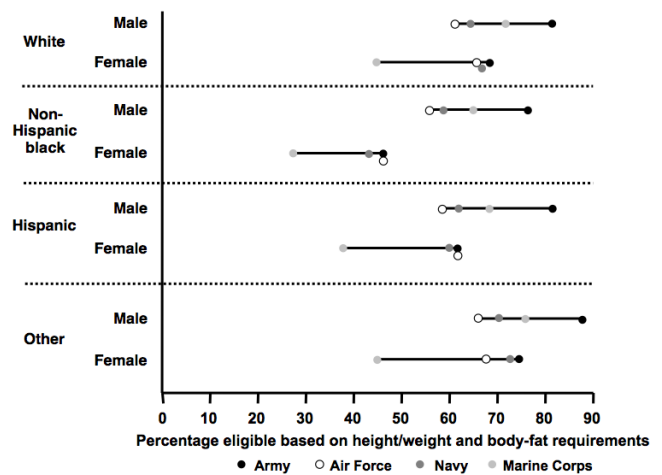
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