



December 22, 2020

Obesity in the United States and Effects on Military Recruiting

Background

Congress has a sustained interest in maintaining capable military forces. To this end, a population of healthy and eligible recruits is important to sustain the military services and meet the annual requirements established by Congress. Though many aspects of health are important, a 2016 Department of Defense (DOD) report found that obesity was one of the main disqualifiers from joining U.S. military service.

Obesity in the United States is not a new issue. A report published in *Health Economics* in 2012 estimated that the percentage of military-age adults ineligible for enlistment because of excessive body fat more than doubled for men and tripled for women during 1959-2008. Since 2008, the percentage of obese youth has continued to increase. The increasing proportion of obese American youth reduces the pool of eligible military recruits. This trend may pose particular challenges with recruiting highly-qualified individuals to service in the U.S. Armed Forces.

Obesity in the United States

The U.S. Centers for Disease Control and Prevention (CDC) defines obesity in children (2 to 19 years of age) as those with a body mass index (BMI) at or above the 95th percentile for BMI based on the child’s age and sex. For adults, CDC classifies obesity as those with a BMI of 30 or greater. Though BMI—the ratio of weight in kilograms divided by height in meters squared—does not measure body fat directly, it is strongly associated with direct measurements of body fat and adverse health outcomes.

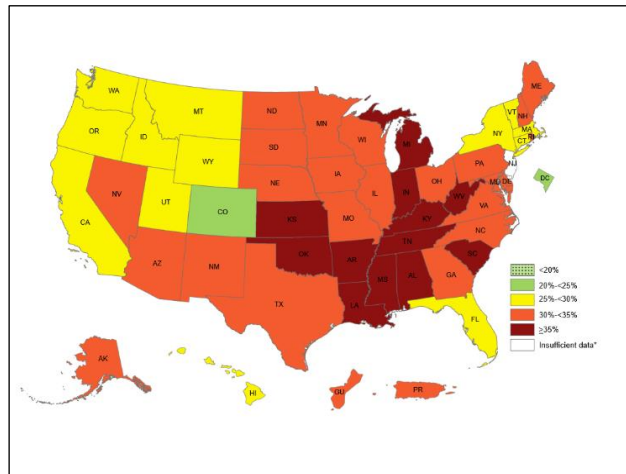
In 2017-2018, the most recent years for which CDC adult data are available, obesity prevalence—the proportion of the population who have obesity in a given time period—was 42% in adults (age 20 years or older). Among adolescents (age 12 to 19 years old), obesity prevalence was 21% in 2015-2016, the most recent years for which CDC childhood obesity data are available. These CDC estimates are from National Health and Nutrition Examination Survey (NHANES) data. NHANES consists of participant interviews and physical examinations.

Obesity affects some populations more than others. For example, in 2015-2016, obesity prevalence was 26% among Hispanic children and 22% among non-Hispanic Black children, compared to 14% in non-Hispanic White children. In adults, in 2017-2018, non-Hispanic Black adults had the highest prevalence of obesity (50%), followed by Hispanic adults (45%), and non-Hispanic White adults (42%).

Based on geographic location, adult obesity prevalence was highest (greater than 35% of the overall U.S. population) in Alabama, Arkansas, Indiana, Kansas, Kentucky, Louisiana,

Michigan, Mississippi, Oklahoma, South Carolina, Tennessee, and West Virginia (see **Figure 1**). The Midwest (34%) and the South (33%) were the two regions that represented the highest prevalence of obesity.

Figure 1. Prevalence of Self-Reported Obesity among U.S. Adults by State and Territory, 2019



Source: CDC, “Adult Obesity Prevalence Maps,” found at <https://www.cdc.gov/obesity/data/prevalence-maps.html>.

Note: Data based on the Behavioral Risk Factor Surveillance System (BRFSS), the world’s largest, on-going telephone health survey system.

Military Recruiting Efforts

DOD Instruction 1304.26 establishes minimum physical standards for recruitment and retention; the military services can also include additional requirements. Military physical standards began in 1775. The military services issued the first weight standards in 1887 for men and in 1942 for women. The original function of these standards was to exclude underweight individuals. In recent decades, however, far more applicants for military service have been found to be unfit for duty for being overweight.

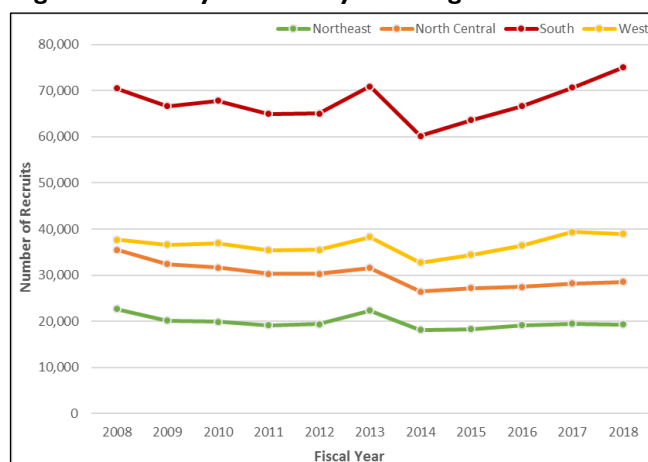
Since the 1970s, disqualification from joining the military based on inability to meet established weight standards has risen. A RAND Corporation analysis of the evolution of the all-volunteer force discusses increasing physical disqualification rates as the draft was being phased out in 1972. The Services currently use a body composition test based on height and weight to determine body fat percentages. Alternatively, measurements at the waist and neck are also used to calculate body fat percentages in the military.

To meet annual personnel goals and fill entry-level positions, the military services recruit approximately 175,000 new active duty enlisted servicemembers every

year. Military officers are recruited from and commissioned while in the 18-24 age group; 11% are in this demographic, while 47% of enlisted recruits come from this age group. Most military recruits self-identify as White (72%). The next largest group identifies as Black (18%) followed closely by Hispanic (17%) identification.

The majority of military recruits are from the South, followed by the West, North Central and Northeast regions (see **Figure 2**). As noted above, the Midwest and the South are currently the areas of the United States with the highest prevalence of obesity (See **Figure 1**). Currently, 19% of U.S. adults ages 18-24 would not meet standards for accession to the U.S. military due to obesity. Those who do not meet body fat standards can join the armed forces if they reduce their body fat through diet and exercise.

Figure 2. Military Recruits by U.S. Region



Source: DOD, "Population Representation in the Military Services, Fiscal Year 2018" at https://www.cna.org/pop-rep/2018/appendix/d_10.html

Issues for Congress

The high and rising prevalence of obesity in the United States represents a substantial obstacle for military recruitment. Obesity is one of the leading medical reasons that young adults are disqualified from joining the military, and has been an issue for military recruitment for over 30 years. The impact of rising obesity rates on military recruitment may depend on the number of military members needed in the future. Two potential mitigating factors in the future include a possible reduction in the target number of qualified recruits and more formalized pre-recruitment programs that would help more people meet military requirements. With a downsized military, the impact of rising obesity would likely diminish demand for qualified recruits, as compared to conditions that would require many additional recruits.

Why Obesity Matters to the Military

A study by the Institute of Medicine (IOM, now the National Academies of Medicine) describes a link between those with high weight and body fat and lower job performance in some military occupations at cost to the military of over \$1.2 billion annually in higher health care

spending and lower productivity. Lower levels of physical fitness have also been associated with increased risk of injury during basic training. Historically, the IOM found that of the recruits who exceeded the weight-for-height standards but subsequently entered the military because they passed the standards later or received a waiver, 80% left the military before completing their first term of enlistment but after the expenditure of training costs. An updated analysis of the habits of recruits who were obese, but subsequently lost sufficient weight to meet standards, could further understanding of successful fitness programs.

Reducing Risk of Obesity in the Recruitment Population

Obesity is seen as a preventable disease; it could be a topic for legislative consideration. Published recommendations to address U.S. obesity include improved quality of and access to food in schools, programs that address exercise and eating habits of parents and children, school-based intensive physical education classes, social support, and space for physical activity in community settings. Some measures, such as the Department of Defense Fresh Fruit and Vegetable Program, a partnership with the U.S. Department of Agriculture, are already in place to bring fresh foods to U.S. schools. Interventions to improve nutrition and fitness in youth may increase fitness to serve in the military.

Relevant Statutes and Policies

Chapters 31 and 33, Title 10, U.S. Code
DOD Instruction 1304.26, *Qualification Standards for Enlistment, Appointment, and Induction*, October 26, 2018

CRS Products

CRS In Focus IF11147, *Defense Primer: Active Duty Enlisted Recruiting*, by Lawrence Kapp
CRS Report RL31297, *Recruiting and Retention in the Active Component Military: Are There Problems?*, by Lawrence Kapp

Other Resources

Cawley J & Maclean JC. *Unfit for service: The implications of rising obesity for US Military Recruitment*. *Health Econ*. 2012. Nov; 21(11):1348-66.
Koehlmoos TP, Banaag A, Madsen CK and Adirim T. *Child Health as a National Security Issue: Obesity and Behavioral Health Conditions Among Military Children*. *Health Aff*. 2020 Oct; 39(10):1719-27.
Mission: Readiness. *Unhealthy and Unprepared*. 2018. Found at <http://www.strongnation.org>
Yamane GK. *Obesity in civilian adults: Potential impact on eligibility for U.S. military enlistment*. *Mil Med*. 2007 Nov; 172(11):1160-5.

Bryce H. P. Mendez, Specialist in Defense Health Care Policy

IF11708

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.