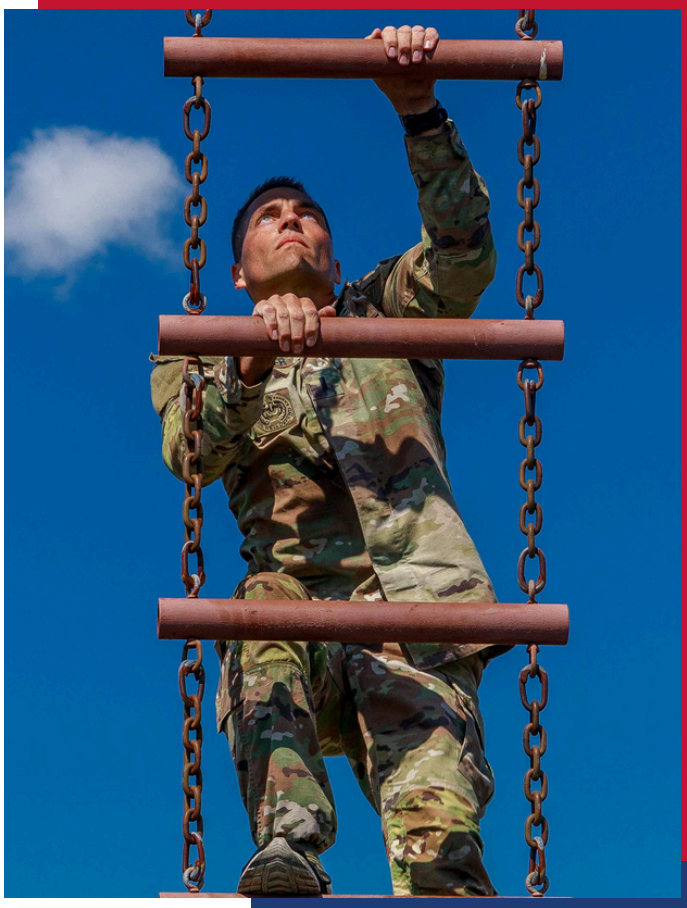
April 2025

Ready the Reserve:

Obesity's Impacts on National Guard and Reserve Readiness

WHITE PAPER



American Security Project

Military Readiness

In This Report

As operational demands on the U.S. Armed Forces' reserve component increase, rising rates of weight-related illnesses in the National Guard and reserves present a growing threat to manpower, mission readiness, and service member well-being. Despite new preparatory courses helping to drive up recruitment numbers, the reserve component disqualifies thousands of applicants for overweight and obesity each year, and weight-related health complications are major drivers of early separation. Injuries, lost productivity, and hospital visits due to obesity and its over 200 associated conditions hamper reserve component readiness to respond to threats both overseas and at home.

In addition to grappling with the same weight-related challenges as the active component, the reserve component faces unique obstacles, such as inconsistent health insurance coverage, reduced access to obesity care providers, and a lack of centralized health data. To ensure that the reserve forces are fully prepared to face an array of evolving security threats, the Department of Defense must improve its understanding of the impact of obesity on reserve recruitment and readiness, increase collection and public reporting of this information, and streamline service members' access to evidence-based obesity care.

IN BRIEF

- Since 1997, reserve component end strength has dropped over 15% and annual enlisted accessions have shrunk by nearly 50%. As in the active component, overweight and obesity are the primary disqualifiers of applicants and key drivers of early separation in the National Guard and reserves.
- As of the latest data published in 2018, about 65% of reserve component personnel are overweight or have obesity. Based on recent data on active component body composition trends, ASP researchers estimate that this number is now nearly 68%.
- The number of young adults interested in military service remains sufficient to maintain current force strength. However, as overweight and obesity disqualify thousands of applicants each year, services are incentivized to violate body composition enlistment standards to meet recruitment goals.
- Obesity and its associated conditions, many of which may prevent or delay deployment, play a major role in limiting reserve component readiness. Obesity is strongly associated with numerous conditions within the top five disease categories driving reserve medical encounters and hospital bed days.
- Medical readiness is a serious issue for the National Guard and reserves due to challenges with health insurance and access to care. Fewer than 3 out of 4 service members in the reserve component report receiving their mandatory annual physical examination and 8% of reserve component personnel lack any form of health insurance, limiting opportunities for life-saving diagnosis and intervention.

About the Author

Katherine Yusko is a research analyst at the American Security Project. She currently leads ASP's research portfolios on military readiness and energy security. Katherine has worked on a wide range of foreign policy issues with institutions such as the Atlantic Council, the U.S. Department of Defense's Center for Excellence in Disaster Management and Humanitarian Affairs, and the Permanent Mission of Afghanistan to the United Nations. She holds a BA in culture and conflict from New York University and a master's degree in international affairs from Columbia University.

Thanks go to Dr. Richele Corrado, DO, MPH, Brigadier General Allyson Solomon, Maryland ANG (Ret.), Matthew Wallin, CEO of the American Security Project, and Courtney Manning, director of ASP's AI Imperative 2030, for their guidance and expertise in preparing this report.

Introduction

Over the past few decades, the United States Armed Forces' reserve component has evolved from a strategic reserve into an integral operational force in overseas military operations and a key safeguard for U.S. national security. As emerging technologies alter the nature of warfare, natural disasters strike more frequently and severely, and geopolitical tensions rise across the globe, the reserve component is grappling with a very different threat: the obesity epidemic.[1] Obesity and its over 200 associated health risks[2] diminish the pool of potential recruits during a period of historically low interest in military service and jeopardize the readiness of reserve component personnel to respond to domestic and international crises. To stand ready for escalating threats at home and abroad, the reserve component must look inward and tackle the obesity crisis within its own ranks.

Originally intended to supplement the active component in times of dire need, the reserve component—comprised of the Army National Guard, Army Reserve, Navy Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve, and Coast Guard Reserve[3]—has played an increasingly integrated and operational role in U.S. military efforts since the 1990s.[4] Members of the reserve component have served in every U.S. war in the last century[5] and continue to deploy in support of combatant commands around the world.[6] Of the National Guard's collective 16 million days of service in 2023, nine million were spent overseas.[7]

The National Guard prepares to respond to Hawaii wildfires. DOD photo by Army National Guard Sgt. Lianne Hirano

In addition to its responsibilities abroad, the reserve component conducts various domestic missions, including crisis response and disaster relief. In 2020, more than 50,000 National Guard and reserve personnel mobilized to support the national COVID-19 response.[8] In 2022, the National Guard deployed over 100,000 service members to respond to wildfires in nineteen states.[9] The National Guard also plays a role in law enforcement and counter-drug operations;[10] as of February 2025, 6,500 Guard personnel were deployed along the United States' southwest border in support of ongoing security operations.[11]

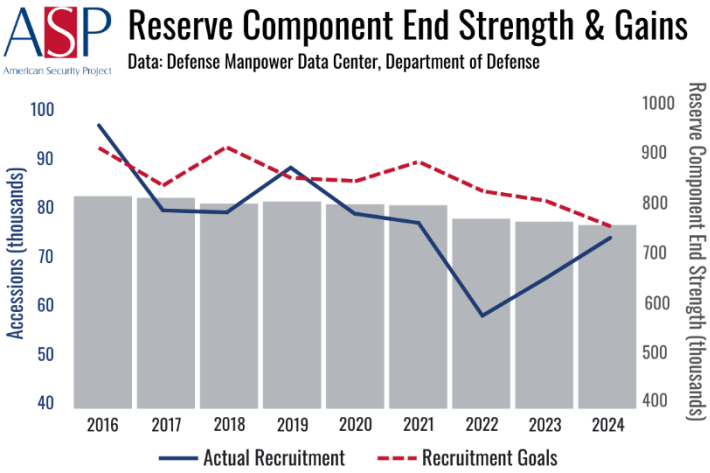
In order to respond quickly, safely, and effectively to a wide array of threats both at home and abroad, the reserve component must ensure that its service members are fit and healthy. As of 2018, however, more than 65% of reserve personnel have either clinical overweight or obesity.[12] If reserve component rates have tracked active component trends in recent years, as they have done in the past, this figure has now climbed to nearly 68%.[13] These service members experience heightened risk for a wide variety of serious health conditions, such as type 2 diabetes, cardiovascular disease, chronic kidney disease, and osteoarthritis, which may lead to life-threatening health events such as stroke and heart failure.[14] Despite concerns that body mass index (BMI) misclassifies highly muscular individuals and thus overstates obesity rates in the military, comprehensive research demonstrates that BMI greatly underestimates rates of obesity across the Armed Forces.[15] Consequently, the reserve component grapples with at least as many of the weight-related challenges facing the active component, with obesity and overweight playing a major role in applicant disqualification, early separation, and lost productivity days due to injury and hospitalizations.

Although the reserve component's obesity-related challenges are similar to those in the active component, commanders and policymakers will not be able to combat these trends with a uniform approach. As most National Guard and reserve personnel serve part-time, there are a number of unique logistical and lifestyle challenges to consider when crafting policy to prevent and treat obesity in the reserve component. This analysis evaluates the consequences of obesity for readiness, recruitment, and retention in the context of the reserve component's evolving operational role and offers several recommendations to counter this chronic disease across the National Guard and the reserves.

Manning the Reserve

Reserve Recruitment

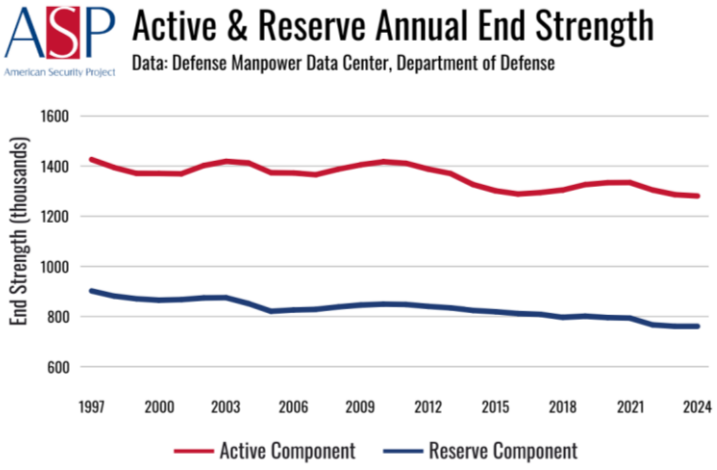
With one in three young adults (aged 17-24) exceeding the military's BMI standards for entry,[16] high rates of overweight and obesity in the U.S. civilian population have placed severe strain on the all-volunteer force. Like the active component, the National Guard and reserves have seen a gradual decline in end strength over the past 30 years, with total manpower dropping over 15% since 1997.[17] Diminishing recruitment is a major contributor to this deficit, as the reserve component's annual enlisted accessions have shrunk by nearly 50% in the same time frame.[18]



According to the latest data published by the Walter Reed Army Institute of Research (WRAIR), the leading disqualifier of applicants for the National Guard and reserves in 2017 was "nutritional, endocrine, and metabolic disorders, a category that is mainly comprised of weight-related conditions (i.e. obesity)."[19] The same year, about 26% and 20% of medically disqualified applicants to the National Guard and reserves, respectively, fell into this category.[20] These nearly 3,500 applicants would have been more than enough to fill the 2,800-person deficit in reserve component end strength between 2016 and 2017.[21]

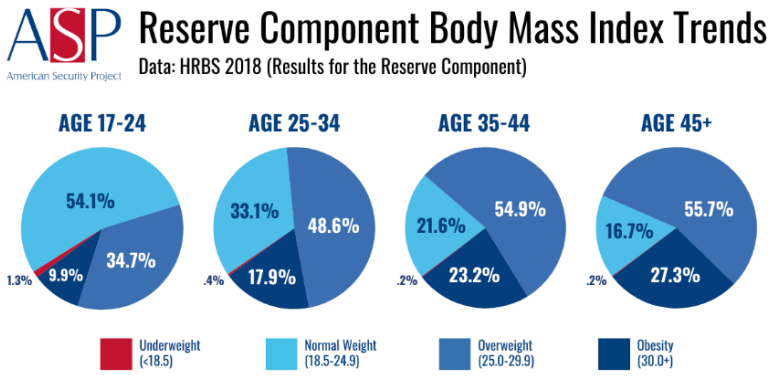
New data on weight-related disqualifications has not been published since 2018, but active-duty obesity trends have only worsened since.[22] In response to this crisis, the Army and Navy have instituted boot camp-style preparatory courses offering applicants who exceed body composition standards a pathway to enlistment. These programs have been successful in expanding annual accessions;[23] in 2024, nearly a quarter of Army recruits went through the Future Soldier Preparatory Course, and the Navy's program, the Future Sailor Preparatory Course, has provided up to 20% of Navy recruits over the last three years.[24]

Obesity Trends After Recruitment

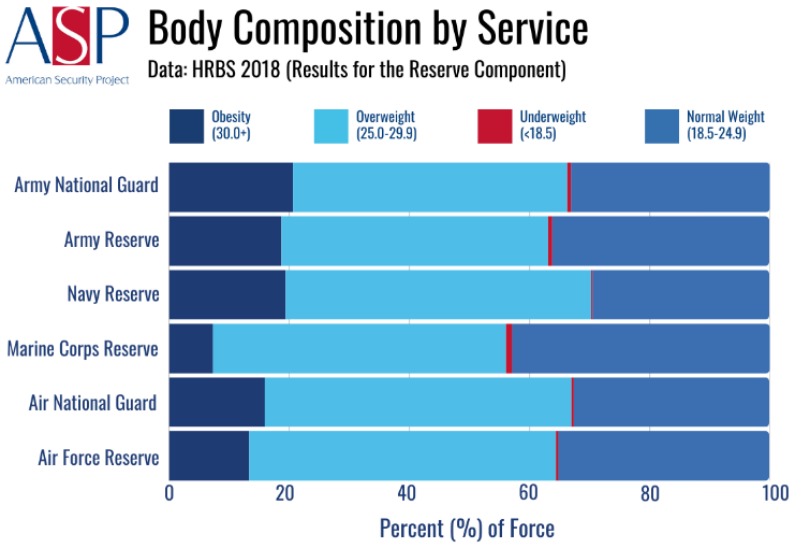


Although these preparatory courses boast high graduation rates (up to 95% for the Army),[25] there is no published evidence to suggest that program graduates maintain the weight loss achieved during the course.[26] Evaluations of similar weight-loss interventions for military personnel already in service reveal that these programs are not proven effective in the long term.[27] This is because these programs rely heavily on intensive diets and exercise regimens,[28] and lifestyle changes alone are rarely sufficient for long-term weight-loss maintenance.[29] Absent consistent, evidence-based fitness, nutritional, and behavioral interventions in the months following military preparatory courses and subsequent basic training, many course graduates will experience varying degrees of weight regain. This may be especially true for reserve component personnel, who are typically required to report for duty only 39 days per year.[30]

Both active and reserve component service members are required to undergo a body composition screening just once or twice annually, depending on the service branch.[31] The infrequency of these examinations—and the potential administrative consequences associated with failing them[32]—encourage dangerous rapid weight-loss efforts ahead of screenings rather than consistent habits to maintain a healthy body composition.[33] These behaviors, including disordered eating, deliberate dehydration, use of diuretics and laxatives, misuse of saunas, and various other practices,[34] can lead to short and long-term health consequences, such as increased risk of depression and suicide, reduced bone density, and cardiovascular complications.[35]



In addition to the known health risks of rapid weight loss,[36] there are numerous safety concerns associated with the Future Soldier Preparatory Course in particular. In February 2025, the Office of the Inspector General of the Department of Defense (DOD) released a management advisory exposing several health and safety violations within the program. Among other concerns, 14% of trainees in early 2024 exceeded the body fat limits for course enrollment by up to 11 percentage points.[37] The program also neglected to provide all trainees with critical medical services, including medical clearances before progression to basic training.[38] This suggests that services may be skirting DOD-mandated body composition requirements to bring in additional manpower despite serious health risks to recruits.[39] It also indicates that the number of young adults interested in service remains sufficient to maintain force strength, but due to the prevalence of overweight and obesity prohibiting them from accession, services are incentivized to cut corners to meet recruitment goals.



Obesity Rates in Service

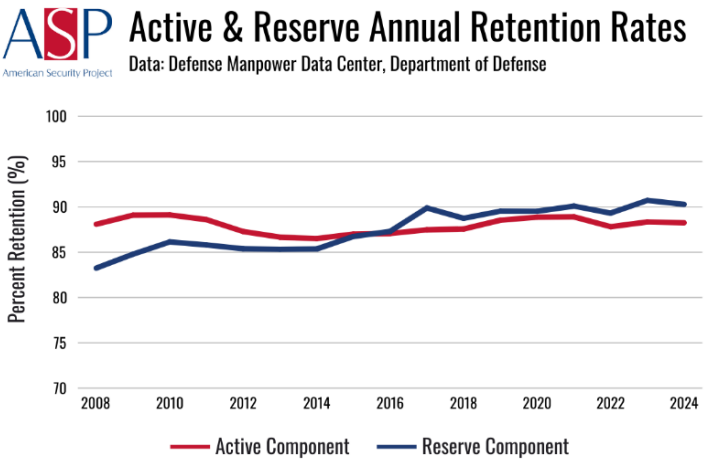
Rates of obesity in the reserve component are lower than that of the general population but higher than that of the active component.[40] According to the latest Health-Related Behaviors Survey (HRBS) data published in 2018, over 18% of National Guard and reserve service members have obesity.[41] As in the active component, but unlike in the general population, obesity is more prevalent among men than women.[42] Within the reserve component, obesity rates are highest in the Army National Guard (20.6%) and lowest in the Marine Corps Reserve (7.3%).[43]

Since the HRBS relies on self-reported data, these numbers are likely underestimated.[44] Individuals frequently underreport their weight and overreport their height in surveys,[45] skewing estimates of obesity's true prevalence. Additionally, as obesity rates have increased in the active component since 2018, it is likely that current obesity rates in the reserve component are higher than these numbers reflect.[46] From 2014-2018, the prevalence of obesity in the reserve component increased at a similar rate to that of the active component;[47] although more recent data for National Guard and reserve body composition is not yet available, if reserve component obesity rates have continued to track active component trends, ASP researchers estimate that reserve component obesity prevalence has risen to over 21%.

Impacts on Retention

As discussed in ASP's 2023 white paper, "Combating Military Obesity," weight-related disqualifications and discharges are no longer published in official DOD medical reports.[48] However, available medical data suggests that overweight and obesity are major contributors to early separation. Obesity is positively associated with many of the most common unfitting conditions leading to disability discharge across components and services branches, such as limitation of motion, spinal disorders, and anxiety and mood disorders.[49] According to recent Army data, about 25% of recruits who attend the Future Soldier course leave service before completing their initial contract, a 5% increase over those who did not participate in a weight-loss course to enter.[50] In 2018, "fully qualified accessions" (i.e., those that did not require a waiver for entry, as those who exceed body fat standards do) had the lowest rates of attrition.[51]

Unlike in the active component, reserve component retention has seen a gradual increase in recent years,[52] suggesting that recruitment is the bigger hurdle for National Guard and reserve force strength. However, even with the implementation of the Future Soldier and Future Sailor Preparatory Courses, the reserve component remains well short of its peak end strength in the late 1980s, when it exceeded 1.1 million personnel (compared with around 760,000 today).[53] With the diminished size of the force and increasing demands on the National Guard and reserves, service members separated due to obesity and its comorbidities are vital personnel the Armed Forces cannot afford to lose.

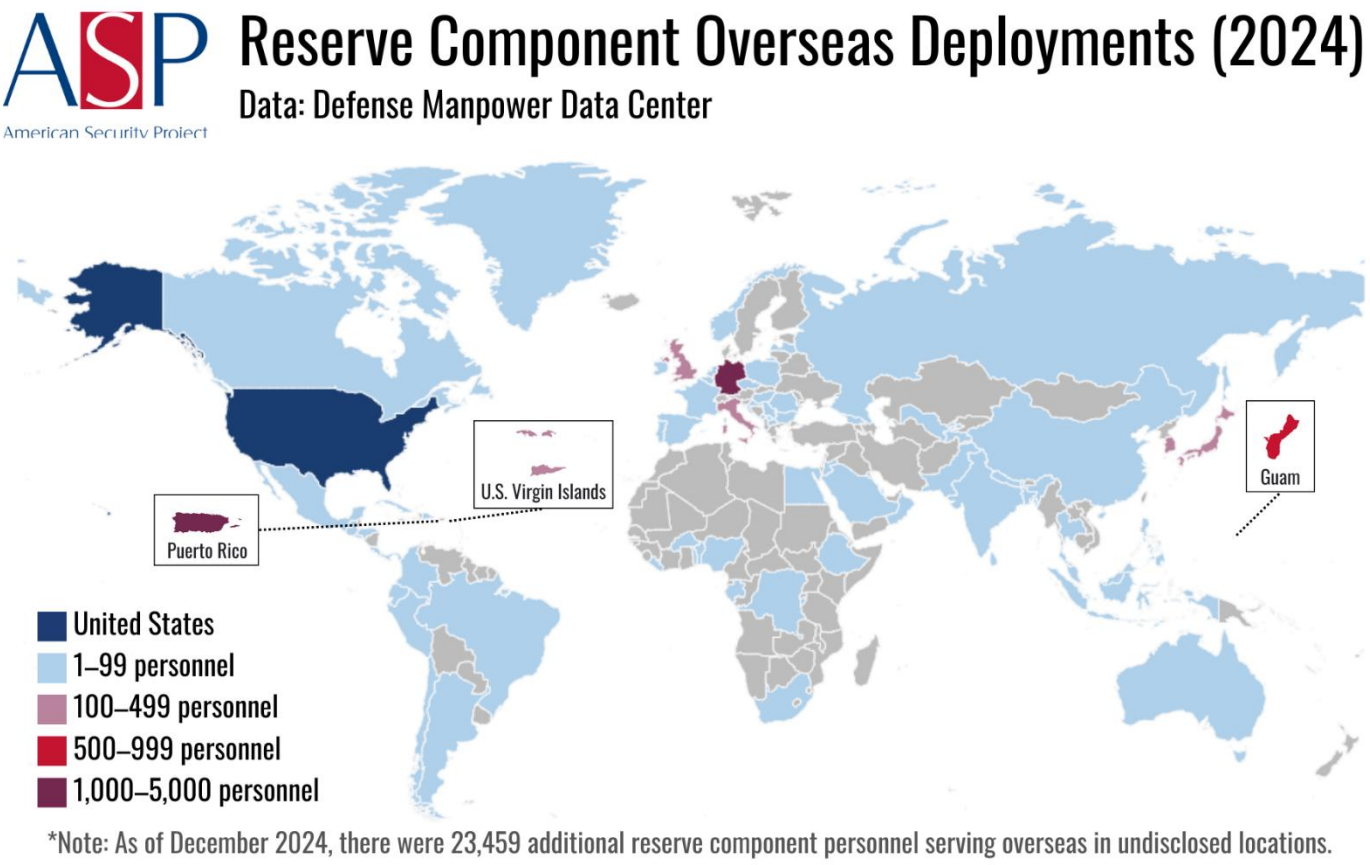


The Unique Role of the Reserve: Impacts on Readiness

The Reserve's Evolving Responsibilities

The reserve component is integral to the United States' ability to meet its national security objectives. The National Guard and reserves, which make up over a third of the total U.S. military force,[54] perform a wide array of mission-critical functions, from supporting overseas combat operations to answering national crises at home.[55] Several reserve component units bring unique capabilities to the Armed Forces, such as the Air Force Reserve's "Hurricane Hunters" weather reconnaissance squadron,[56] as well as important specialized skills; for instance, the National Guard provides 55% of the DOD's response capability for chemical, biological, radiological, and nuclear threats.[57]

The role of the reserve component has evolved significantly since the Cold War.[58] According to the Government Accountability Office, over the past two decades, "the DOD has had to rely heavily upon its reserve components…to meet operational requirements," with reserve forces serving in ongoing deployment rotations.[59] The National Guard and reserves were essential to U.S. operations in the war on terror; in early 2005, the National Guard provided over half of the United States' combat power in Iraq.[60] One government report assessed that without the assistance of the reserve component in Operations Enduring Freedom, Iraqi Freedom, New Dawn, and Noble Eagle, the DOD "would have had no choice but to increase the size of the Active Component by 270,000 or more personnel."[61]



The National Guard and reserves continue to provide essential support to overseas operations. In 2018, 53% of surveyed reserve component personnel reported having deployed at least once, and among those, over 80% reported experiencing at least one combat deployment.[62] Outside of combat missions, reserve component personnel play a significant role building U.S. international relationships and partner capacity; for instance, the National Guard's State Partnership Program helps facilitate security cooperation with over 100 nations.[63]

In addition to its responsibilities abroad, the reserve component also responds to the full spectrum of domestic crises. The National Guard and reserves have assisted in preparations for and responses to some of the United States' most catastrophic severe weather events,[64] including hurricanes, earthquakes, wildfires, and winter storms. Following major hurricanes in late 2024, over 11,000 National Guard personnel[65] and multiple reserve units[66] conducted search and rescue operations, delivered resources and aid, and assisted in recovery efforts.[67]

Outside of disaster relief and emergency response, the National Guard supports law enforcement efforts through crowd and traffic control, infrastructure security, and patrolling.[68] Guard members also conduct counter-drug operations, with one National Guard task force seizing a record 62,200 pounds of fentanyl at California ports of entry in 2023.[69]

The National Guard and reserves conduct various unique and ad hoc missions, from facilitating election integrity[70] to supporting Antarctic scientific research,[71] which evolve in response to changing national security objectives. The global COVID-19 pandemic, for instance, prompted one of the largest activations of the reserve component in U.S. history.[72] In 2020, 45,000 members of the National Guard and nearly 6,000 reservists administered vaccinations, collected test samples, provided medical support to overwhelmed hospitals, and more.[73] The National Guard alone dedicated 7.7 million personnel days to pandemic operations in 2021—three-quarters of the Guard's time spent on domestic missions that year.[74]

Costs to Readiness

The varied and unpredictable nature of the reserve component's responsibilities makes the impacts of obesity on reserve readiness particularly problematic. Studies of active-duty service members show that conditions associated with obesity, including musculoskeletal diseases and injuries, sleep apnea,[75] hypertension,[76] and mood disorders such as anxiety and depression, are leading causes of lost duty time and health care costs.[77] Although similar data for the reserve component is not available to the public, obesity is strongly associated with numerous conditions within the top five disease categories driving reserve component medical encounters and hospital bed days.[78] This suggests that obesity plays a significant role in reducing health and productivity in the reserve component.

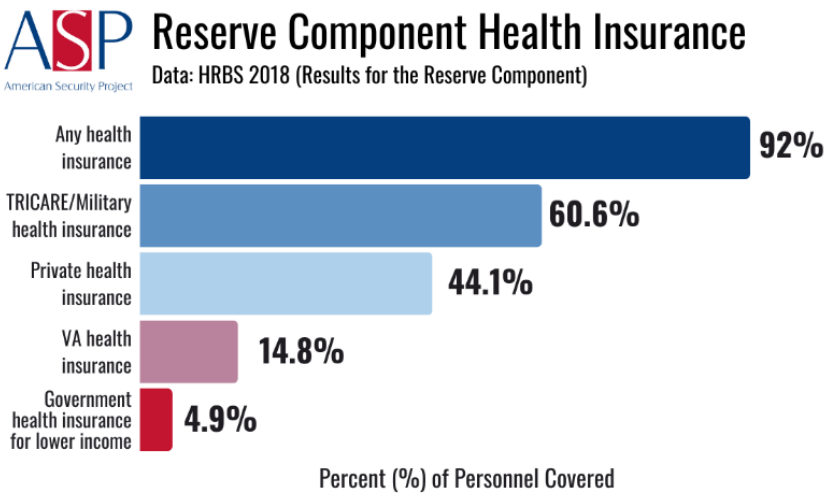
Military studies have shown mixed results regarding the relationship between elevated BMI and physical performance indicators, such as speed, agility, and muscular strength, endurance, and power.[79] However, even high-performing service members with a BMI associated with obesity are at increased risk for severe health complications.[80] Many of these comorbid conditions, as well as elevated BMI itself, preclude reservists and National Guard members from deploying or lead to delays due to waiver requests.[81] Obesity also raises the risks of medical complications during deployment. Musculoskeletal disorders, musculoskeletal injuries, and psychiatric disorders accounted for over 40% of medical evacuations from Central Command during Operations Enduring Freedom, Iraqi Freedom, and New Dawn from 2001-2010;[82] these three categories are each strongly associated with and negatively impacted by obesity.[83]

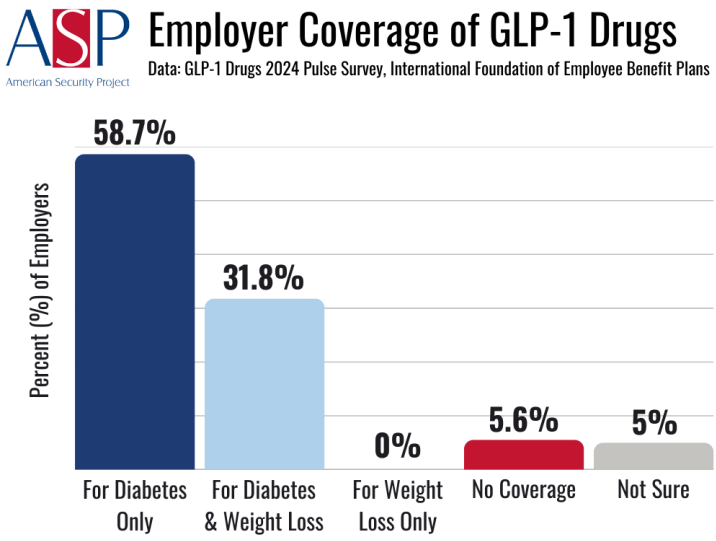
Challenges to Improving Reserve Health

Reduced Access to Reliable Health Insurance

According to a recent National Guard statement, "many Guardsmen are [historically] not medically ready for activation due to challenges like insurance coverage and long wait times for health care access when not in a duty status."[84] Members of the National Guard and reserves are typically ineligible for the full range of health benefits afforded to active-duty service members, who can access TRICARE Prime without fees or deductibles.[85] Instead, most reserve component personnel qualify to purchase TRICARE Reserve Select, which requires annual deductibles, copayments, and other fees,[86] and some seek coverage from private or government providers.

As of 2018, about 60% of reserve component personnel reported that they were enrolled under TRICARE or other military health insurance.[87] 44% of reserve personnel had private health insurance, either in addition to or instead of military coverage, and 15% were covered by insurance obtained through the Department of Veteran Affairs (VA).[88] 8% of reserve component respondents reported having "no health insurance of any kind."[89] As a result of this variation, reserve component service members have differing access to and payment solutions for obesity care providers and treatment options, such as nutrition therapy, bariatric surgery, and obesity medications.





TRICARE and other government-sponsored healthcare plans may cover obesity medications if patients meet a set of authorization requirements,[90] but only 0.56% of eligible Military Health System (MHS) beneficiaries were able to access these medications from 2018-2022.[91] Coverage remains variable among private and employer-sponsored insurance plans.[92] 2024 survey data from the International Foundation of Employee Benefit Plans suggests that less than a third of U.S. employers cover GLP-1 drugs for the treatment of obesity,[93] and the vast majority of those that do impose restrictions such as BMI cutoffs that may prevent continuous treatment as patients lose weight.[94]

Junior enlisted personnel disproportionately lack access to any form of health insurance,[95] which means that the reserve component's youngest and most physically tasked[96] service members are the least likely to be able to access obesity care—a concerning implication given the importance of early intervention in reducing the risks of serious medical complications and injuries.[97] A lack of health insurance for any service member is a critical issue on both an ethical and practical level; total mission readiness relies on the health of each individual warfighter, and the military should ensure that all its service members are able to access health care.

Reduced Access to Experienced Healthcare Providers

Even for those with some form of health insurance, reserve component service members with obesity may find it difficult to secure consistent access to health care providers, reducing vital opportunities for diagnosis, treatment, and follow-up.[98] A Congressional Research Service report highlights "difficulty in finding health care providers and facilities that accept TRICARE" as one of the top challenges reported by beneficiaries of TRICARE Reserve Select.[99] Reserve component service members seeking care through military treatment facilities may experience long wait times to see a provider, as priority is given to the active component and activated reserve personnel.[100] These challenges present significant barriers to initiating treatment as diagnosis, a key motivator for medical intervention and lifestyle change in patients with obesity,[101] requires consultation with a provider. Research has shown that obesity is underdiagnosed in both military and civilian healthcare settings,[102] making each medical encounter a critical opportunity for service members with obesity to receive a diagnosis and seek specialized treatment.

Once a service member has been diagnosed, accessing specialized obesity care may be more difficult for many reserve component personnel—with or without TRICARE coverage—than their active component counterparts. According to RAND, members of the National Guard and reserves are more likely than active component personnel to live in rural areas,[103] making them less likely to receive certain specialized forms of health care.[104] Additionally, because reserve component eligibility for various DOD health benefits shifts depending on active or inactive duty status, unpredictable activation cycles may force service members to find new providers as insurance coverage changes.[105] Even without these added challenges, specialized obesity care is limited, as only around 9,400[106] (less than 1%) of the estimated one million physicians in the United States[107] are certified by the American Board of Obesity Medicine. Although access to obesity care is expanding nationwide,[108] primary care providers remain the most accessible option for many service members seeking treatment for overweight and obesity.[109]

The Effects of Part-Time Status on Health and Fitness

Augmenting the problems introduced by reduced access to the MHS, the reserve forces' part-time status results in reduced levels of military oversight and less frequent medical and physical assessments for National Guard and reserve personnel. While active-duty personnel serve full-time, reserve component service members are generally required to train with their units one weekend per month plus an additional two weeks per year.[110] As a result, reserve component personnel complete fewer physical training sessions overseen by commanders and/or military fitness professionals. Additionally, most National Guard and reserve service members hold full-time civilian jobs and are more likely to live far from military facilities, reducing their access to service-provided gyms and fitness centers.[111] The majority of reserve component service members' regular physical training must therefore be completed at their own initiative—on their own time and using their own resources (e.g. gym memberships, exercise equipment).

Soldiers undergo the Army Combat Fitness Test.
Army Reserve photo by Osvaldo Equite

These factors have measurable implications for reserve component health and fitness. Survey data suggests that members of the National Guard and reserves conduct lower levels of moderate-to-vigorous physical activity than their active component counterparts.[112] In addition, a 2019 study found that reserve component personnel were about 1.3 times as likely as active component personnel to fail the Army Body Composition Test and nearly three times as likely to fail the Army Physical Fitness Test.[113]

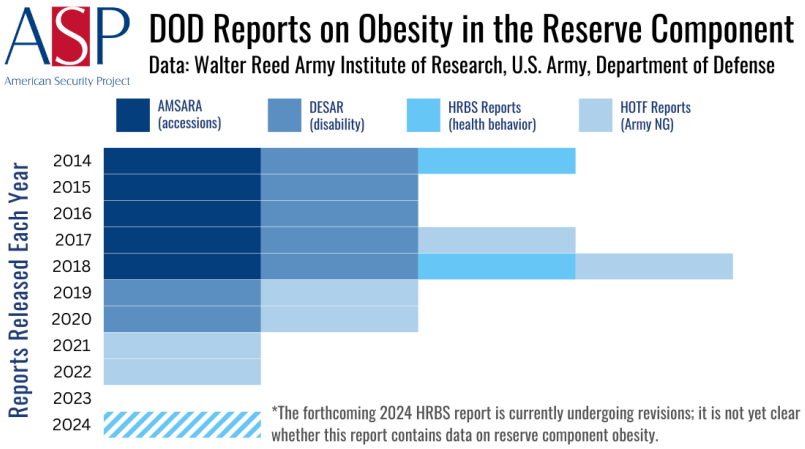
In some service branches, National Guard and reserve personnel are required to conduct fewer annual body composition screenings[114] and physical fitness tests[115] than active-duty service members. As a result, there are fewer interactions through which reserve component service members with obesity may be referred for medical intervention. According to the Army National Guard's most recent Health of the Force report, 23% of Army National Guard soldiers recorded a BMI associated with obesity in 2021, but only 2.8% were flagged for exceeding weight standards.[116] The report attributes this differential to the ultimate authority of commanders to flag soldiers for weight, leading to inconsistent medical attention for service members with obesity.[117]

Army Reserve personnel during a practice combat fitness test.
DOD photo by Army Reserve Master Sgt. Michel Sauret

Reserve component service members' only reliable avenue for medical evaluation within the military system is the annual physical health assessment required of all active and reserve personnel.[118] However, in 2018, only about 70% of reserve component service members reported receiving this examination, indicating that up to 30% of reserve personnel are seeing a military physician less than once per year. This means that National Guard and reserve service members with obesity are less likely to receive a diagnosis and treatment from the MHS, directly affecting the readiness of the reserve units to deploy. In 2018, almost 100,000 Army reservists were not deployable for "administrative reasons, including failure to have a documented medical exam."[119]

Lack of Data

Unique health insurance challenges, reduced access to the MHS, and the part-time nature of service in the reserve component coalesce to produce perhaps the greatest challenge to improving health and obesity care in the National Guard and reserves: an enormous gap in data and research covering the reserve component. Publicly available, reserve-specific health data is extremely limited, making it difficult for researchers, commanders, and policymakers to parse the precise toll of obesity and other medical issues on reserve readiness.



According to the Army National Guard, "data sources used to describe Active Component soldiers' health and readiness status are not generally available for [Army National Guard] soldiers, as no unified collection system of individual medical data currently exists."[120] Since almost half of the reserve component is covered by private health insurance[121] and many seek care through private providers,[122] reserve personnel medical records within DOD health databases are often incomplete. Without comprehensive access to medical data stored by private health care providers, reports and research produced by WRAIR and the DOD's *Medical Surveillance Monthly Report* rely on these incomplete records within the MHS,[123] limiting the utility of these reports in shaping reserve-specific analyses.

As a result of this structural data barrier, the Defense Health Agency's Health-Related Behaviors Survey is a critical source of publicly available information on reserve component health. However, this survey relies on self-reported data, which is subject to bias and low response rates.[124] The most recent iteration of this survey recorded an 8.2% response rate among reserve component personnel and returned 94% missing data (e.g. incomplete or ambiguous responses).[125]

Furthermore, the limited reserve-specific health data that exists is increasingly outdated. WRAIR stopped publishing critical information on overweight and obesity in 2020,[126] and the HRBS has not been published since 2018.[127] Analyses may make inferences on how trends have changed based on data from the active component and the general population, but it is impossible to determine the true prevalence and precise consequences of obesity in the reserve component without up-to-date statistics. Branch-specific sources, such as the Army National Guard's Health of the Force report, provide more recent data, but these publications are not consistent across the reserve component, making it difficult to draw conclusions and comparisons between services.

These challenges are compounded by a mismanagement of body composition data within and across the military services. A 2022 RAND study found a lack of consistency in data collection and metrics across services' body composition programs, limiting the potential for comparison and analysis between service branches.[128] Additionally, the Army Body Composition Program removes participant data from its internal records after 36 months, making long-term data analysis impossible on both the individual and service-wide levels.[129]

Insufficient and incomplete data on the reserve component forces military and political leaders to make critical national security decisions based on fragmented records and self-reported statistics. Because data on obesity in the National Guard and reserves is especially hard to come by, any missing or mismanaged information within existing data sources has outsized consequences for this process. However, where data exists, it describes challenges consistent with that of the active component: that rates of overweight and obesity in the National Guard and reserves are dangerously high, and recruitment, retention, and readiness are suffering as a result.

Recommendations

In previous analyses, ASP put forth several recommendations to counter obesity in the active-duty military. These include removing non-evidence-based body composition standards, improving obesity identification and diagnosis, implementing evidence-based obesity interventions, and enhancing data tracking and reporting.[130] Although these analyses were primarily focused on active-duty populations, their recommendations should be modified as appropriate and applied to the reserve component.

Ensure Consistent Physical Health Assessments

Given the limited training days for most reserve component personnel, it is critical that services increase compliance with mandatory body composition screenings[131] and physical health assessments[132] to identify service members with obesity and initiate intervention. Any service member recording a BMI above 30 kg/m² in any of these incidences should be automatically referred to a physician to receive additional screenings for common obesity-related health risks.[133]

Service members may receive exemptions of varying degrees from military body composition requirements if they score high enough on physical fitness tests.[134] However, even if these exemptions are granted and no administrative penalties are imposed, all reserve component personnel should undergo routine body composition assessments at least as often as each service requires and be referred to a physician according to the process outlined above. Regardless of physical fitness scores, medical interventions are critical to improving the overall health of service members with obesity and increasing force readiness; even small amounts of weight loss have been found to lead to favorable health outcomes and reduced incidence of comorbid conditions.[135] Additionally, absent uniform insurance access for all reserve component service members, routine, documented physical assessments are central to the DOD's ability to maintain an accurate, up-to-date record of reserve component body composition data.

Improve Reserve-Focused Data Collection, Tracking, and Publication

Comprehensive, organized, and accurate data is a vital component of efforts to develop evidence-based policy countering obesity in the reserve component. There are several areas in which the DOD can improve its tracking and reporting of this critical data. First, the DOD publishes very limited reserve-specific statistics on medical encounters, hospital visits, and specific diagnoses.[136] Even if the DOD is unable to report on medical encounters outside of the MHS, detailed reporting on reserve component health data within the MHS is valuable to researchers, commanders, and policymakers seeking to understand the magnitude of obesity's toll on reserve recruitment and readiness.

As stated in previous ASP analyses,[137] annual DOD medical reports should resume the inclusion of data on the impacts of overweight and obesity on military accession and separation. These reports should also isolate active and reserve component data to allow for component-specific analysis. Additionally, to enable improved analyses across services and components, the DOD should develop and enforce a standardized set of key body composition and fitness variables—and consistent procedures to measure them—to be recorded for each service member during physical examinations.[138]

MHS Genesis, the military's newly implemented electronic health record, allows for more comprehensive screening of recruits' medical histories through access to privately held medical records.[139] Having only been fully implemented in 2024, this system is not yet optimized for data analysis,[140] but it may offer a framework for MHS data repositories to assemble reserve component health records from inside and outside the MHS in the future. Until such systems are developed—or until it is economically feasible to offer full TRICARE benefits to all reserve component personnel—the DOD must capitalize on existing opportunities for collection and tracking of reserve component health data.

Fund Reserve-Specific Obesity Studies

Access to major repositories of military health data is restricted to DOD-affiliated researchers or civilian collaborators working with a DOD agency.[141] In order to fully leverage existing data, the DOD should either fund studies examining the specific impacts of obesity and its associated health complications on reserve component recruitment, readiness, and retention, or allow a broader pool of researchers to access and report on this data. Many studies of this nature already exist for the active component, and the continued production of this research should remain a priority.[142] However, an expanded volume of studies with a specific focus on the reserve component would empower policymakers to make more informed decisions on combating obesity within each unique facet of the military community, enabling more targeted and effective policy change.

One significant application of reserve-specific health studies could be to better understand the obesogenic risk factors most prevalent in the reserve component. Enhanced knowledge of these risk factors would enable military weight interventions to prioritize and adjust specific aspects of prevention and treatment. For example, high rates of food insecurity in the Armed Forces restrict affected service members' access to healthy food[143] and thus limit the effectiveness of nutrition-focused obesity treatments that do not address or circumvent these barriers. An Army National Guard report found that less than half of its soldiers met nutrition targets in 2021,[144] identifying a clear priority area for improvement and a potential consideration for obesity treatment within the MHS.

Improve Access to Evidence-Based Treatment

The DOD should take steps to reduce known barriers to health care access in the reserve component, such as insurance challenges and geographic distance from providers.[145] To help facilitate obesity-specific care for all reserve component service members, the DOD should consider implementing a program connecting service members with recommended obesity care providers across insurance networks, such as an automated system listing providers based on geographic location and accepted insurance plans.

It is imperative that each service member has access to some form of health insurance. Service branches should require all personnel to report on the status of their insurance coverage at least annually; any service member reporting that they do not have insurance should be given a personal consultation with a beneficiary education representative, civilian career counselor, or other appropriate advisor.

Conclusion

Over the past few decades, the reserve component has evolved significantly from the strategic reserve force it was originally intended to be. As the National Guard and reserves shoulder increasing operational responsibilities and growing centrality to national security objectives at home and abroad, they are dealing with many of the same weight-related obstacles to readiness as the active component. However, given the unique challenges facing the reserve component, a one-size-fits-all approach will not be effective in the military's fight against obesity.

Armed with far less data and public attention, the reserve component faces an uphill battle reconciling complex systems of duty status-dependent health care benefits, a force spread all over the world and across 54 states and territories, and critical medical records siloed between DOD and private providers. However, the implementation of reserve-specific strategies to combat obesity and its various health risks is both a worthy investment in national security and a responsibility owed to the United States' service members. By confronting obesity in the National Guard and reserves now, the DOD can better ensure that the reserve component is prepared in the future to meet evolving security threats from adversary states, natural disasters, and domestic emergencies alike.

Endnotes

[1] Overweight and obesity are defined by the World Health Organization as "abnormal or excessive fat accumulation that presents a risk to health." Overweight is associated with a body mass index over 25 kg/m^2, and obesity is associated with a body mass index over 30 kg/m^2. See "Obesity," World Health Organization, accessed April 22, 2025, https://www.who.int/health-topics/obesity#tab=tab_1.
[2] Michele M.A. Yuen, "Health Complications of Obesity: 224 Obesity-Associated Comorbidities from a Mechanistic Perspective," *Gastroenterology Clinics of North America* 52, No. 2 (June 2023): 363-380, https://doi.org/10.1016/j.gtc.2023.03.006.
[3] The reserve component is comprised of three categories: the Ready Reserve, Standby Reserve, and Retired Reserve. This report focuses primarily on the Selected Reserve, a category within the Ready Reserve. For more information on each category, see Office of the Vice Chairman of the Joint Chiefs of Staff and Office of the Assistant Secretary of Defense for Reserve Affairs, "Comprehensive Review of the Future Role of the Reserve Component," Department of Defense, April 5, 2011, pp. 17-19, https://apps.dtic.mil/sti/pdfs/ADA545972.pdf. Additionally, since the Coast Guard falls under the authority of the Department of Homeland Security, not the Department of Defense, during times of peace, this report will center on the other six elements of the reserve component.
[4] Office of the Vice Chairman of the Joint Chiefs of Staff and Office of Assistant Secretary of Defense for Reserve Affairs, "Comprehensive Review of the Future Role of the Reserve Component," Department of Defense, April 5, 2011, pp. 15-16, https://apps.dtic.mil/sti/pdfs/ADA545972.pdf.
[5] Id., pp. 15.
[6] Jon Soucy, "The Guard in 2024: Deployments, hurricanes, wildfires and new leadership," Air National Guard, December 27, 2024, https://www.ang.af.mil/Media/Article-Display/Article/4017195/the-guard-in-2024-deployments-hurricanes-wildfires-and-new-leadership/.
[7] *A Review of the President's FY2025 Funding Request and Budget Justification for the National Guard and Reserve, second session, before the House Appropriations Committee Subcommittee on Defense,* 118th Congress (April 30, 2024) (written statement by General Daniel R. Hokanson, Chief, U.S. National Guard Bureau), pp. 2, https://docs.house.gov/meetings/AP/AP02/20240430/117224/HHRG-118-AP02-Wstate-HokansonD-20240430.pdf.
[8] "Department of Defense COVID-19 Response: Providing Emergency Staff, Sites, Supplies, and Science," Department of Defense, last updated May 27, 2020, https://media.defense.gov/2020/Apr/28/2002290387/-1/-1/1/DEPARTMENT-OF-DEFENSE-COVID-19-RESPONSE-INFOGRAPHIC.pdf.
[9] Anshu Siripurapu and Noah Berman, "What Does the U.S. National Guard Do?" Council on Foreign Relations, last updated April 3, 2024, https://www.cfr.org/backgrounder/what-does-us-national-guard-do.
[10] The Posse Comitatus Act prohibits National Guard personnel from acting in a law enforcement capacity when they are called into federal service. This law does not apply to National Guard personnel reporting to state authorities. See Joseph Nunn, "The Posse Comitatus Act Explained," Brennan Center for Justice, October 14, 2021, https://www.brennancenter.org/our-work/research-reports/posse-comitatus-act-explained.
[11] Jon Soucy, "Texas National Guard Operation Lone Star Helps Secure Border," U.S. National Guard, February 11, 2025, https://www.nationalguard.mil/News/Article-View/Article/4062794/texas-national-guard-operation-lone-star-helps-secure-border/.
[12] Sarah O. Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," RAND Corporation, April 28, 2021, pp. 47, https://www.rand.org/pubs/research_reports/RR4228.html.
[13] Active and reserve components experienced an increase in obesity prevalence of roughly 20% between 2014 and 2018, as well as a 7% and 10% decrease in overweight prevalence, respectively. The estimated current reserve component overweight and obesity rate of 68% was determined by applying the calculated rates of change of overweight and obesity prevalence in the active-duty population from 2018 to 2021 (-1.82% and 16.77%, respectively) to 2018 reserve component overweight and obesity rates. For 2014 military obesity rates, see "2014 Health Related Behaviors Survey of Active Duty Personnel," Defense Health Agency, Fall 2015, pp. 14, https://www.health.mil/Reference-Center/Reports/2016/05/08/2014-Active-Duty-All-Services-Report. For active component obesity rates in 2018 and 2021, see Regan A. Stiegmann et al., "Increased Prevalence of Overweight and Obesity and Incidence of Prediabetes and Type 2 Diabetes During the COVID-19 Pandemic, Active Component Service Members, U.S. Armed Forces, 2018 to 2021," *Medical Surveillance Monthly Report* 30, No. 1 (January 2023): 11-18, https://www.health.mil/Reference-Center/Reports/2023/01/01/Medical-Surveillance-Monthly-Report-Volume-30-Number-1. For reserve component overweight and obesity rates for 2018, see Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 47. Both components' overweight rates in 2014 were calculated using male and female overweight rates provided in "2014 Health Related Behaviors Survey of Active Duty Personnel," Defense Health Agency, pp. 12, and "2014 Health Related Behaviors Survey of Reserve Component Personnel," Defense Health Agency, Fall 2015, pp. 12, https://www.health.mil/Reference-Center/Reports/2016/05/08/2014-Total-Reserve-Component-Report. Overall rates of overweight in both components were determined using demographic data from Appendices B and C (Tables B-15, B-23, B-34, C-11, C-18, and C-28) in Office of the Under Secretary of Defense for Personnel and Readiness, "Population Representation in the Military Services: Fiscal Year 2014," Department of Defense, 2014, https://www.cna.org/pop-rep/2014/index.html.
[14] Joseph J. Knapik et al., "The Medical Burden of Obesity and Overweight in the US Military: Association of BMI with Clinically Diagnosed Medical Conditions in United States Military Service Members," *The Journal of Nutrition* 153, No. 10 (October 2023): 2951-2967, https://doi.org/10.1016/j.tjnut.2023.08.023; Arshiya Mariam et al., "Associations of weight loss with obesity-related comorbidities in a large integrated health system," *Diabetes, Obesity, and Metabolism* 23, No. 12 (September 2021): 2804-2813, https://doi.org/10.1111/dom.14538; Hyun-Jung Lee et al., "Risk of ischemic stroke in metabolically healthy obesity: A nationwide

population-based study," *PLOS One* 13, No. 3 (March 30, 2018): e0195210, https://doi.org/10.1371/journal.pone.0195210; Imo A. Ebong et al., "Mechanisms of heart failure in obesity," *Obesity Research & Clinical Practice* 8, No. 6 (November-December 2014): e540–e548, https://doi.org/10.1016/j.orcp.2013.12.005.

[15] Philip G. Clerc, Stéphanie B Mayer, and Sky Graybill, "Overweight BMI (25–29) in Active Duty Military: Excess Fat or More Lean Mass? A Look at the Evidence," *Military Medicine* 187, No. 7-8 (July-August 2022): 201-203, https://doi.org/10.1093/milmed/usab447; Orison Woolcott and Till Seuring, "Temporal trends in obesity defined by the relative fat mass (RFM) index among adults in the United States from 1999 to 2020: a population-based study," *BMJ Open* 13, No. 8 (August 2023): e071295, https://doi.org/10.1136/bmjopen-2022-071295; Katie M. Heinrich, "Obesity classification in military personnel: a comparison of body fat, waist circumference, and body mass index measurements," *Military Medicine* 173, No. 1 (January 2008): 67-73, https://doi.org/10.7205/MILMED.173.1.67; Brittany S. Hollerbach, "Comparisons of Baseline Obesity Prevalence and Its Association with Perceived Health and Physical Performance in Military Officers," *Biology* 11, No. 12 (December 9, 2022): Article 1789, https://doi.org/10.3390/biology11121789.

[16] "Unfit to Serve," Center for Disease Control, February 9, 2024, https://www.cdc.gov/physical-activity/php/military-readiness/unfit-to-serve.html.

[17] Past manpower data sourced from Appendix D, "Table D-39. Active and Reserve Components End Strength by Service, FYs 1973-2022," in Office of People Analytics, "Population Representation in the Military Services: Fiscal Year 2022 Summary Report," Department of Defense, October 29, 2024, pp. 528-529, https://prhome.defense.gov/Portals/52/Documents/MRA_Docs/MPP/AP/poprep/2022/Appendix_D_Historical.pdf?ver=fGRPR1N_TC56B0YCumF4rg%3d%3d#page=94. See https://prhome.defense.gov/M-RA/Inside-M-RA/MPP/Reports/ for past "Population Representation in the Military Services" reports. See "Department of Defense Selected Reserves by Rank/Grade," Defense Manpower Data Center, Department of Defense, January 31, 2025, https://dwp.dmdc.osd.mil/dwp/api/downloadZ?fileId=134644&groupName=resRankGrade, for recent manpower data.

[18] This calculation is based on data from the DOD's "Population Representation in the Military Services" reports. For 2022 accessions, see Appendix C, "Table C-1. Non-Prior Service (NPS) Selected Reserve Enlisted Gains, FY22: By Age Group, Component, and Gender with Civilian Comparison Group" (pp. 333) and "Table C-8: Prior Service (PS) Selected Reserve Enlisted Gains, FY22: By Age Group, Component, and Gender with Civilian Comparison Group" (pp. 362), in Office of People Analytics, "Population Representation in the Military Services: Fiscal Year 2022 Summary Report," https://prhome.defense.gov/Portals/52/Documents/MRA_Docs/MPP/AP/poprep/2022/Appendix_C_Selected_Reserve_Gains_and_Force_%203.pdf?ver=Q4rNkSH58IVXdHyGDb8RxQ%3d%3d. For 1997 accessions, see Appendix C, "Table C-1. FY 1997 NPS Selected Reserve Enlisted Accessions by Age Group, Component, and Gender with Civilian Comparison Group" (pp. 87) and "Table C-9. FY 1997 Prior Service Selected Reserve Enlisted Accessions by Age Group, Component, and Gender with Civilian Comparison Group" (pp. 99), in "Population Representation in the Military Services: Fiscal Year 1997," Department of Defense, November 1998, https://prhome.defense.gov/Portals/52/Documents/MRA_Docs/MPP/AP/poprep/1997/appendixa.pdf.

[19] Walter Reed Army Institute of Research, "Annual Report 2018: Attrition & Morbidity Data for 2017 Accessions," *Medical Standards Analysis & Research Activity*, Department of Defense, 2018, pp. 8, https://wrair.health.mil/Portals/87/Documents/AMSARA_AR_2018_1.pdf. The DOD has not published data on weight-related disqualifications for the reserve component in this annual report since 2018.

[20] "Annual Report 2018: Attrition & Morbidity Data for 2017 Accessions," *Accession Medical Standards Analysis & Research Activity*, pp. 30-31.

[21] Appendix D, "Table D-39. Active and Reserve Components End Strength by Service, FYs 1973–2022" (pp. 529) in "Population Representation in the Military Services: Fiscal Year 2022 Summary Report," Department of Defense.

[22] Mitchell Legg et al., "Obesity prevalence among active component service members prior to and during the COVID-19 pandemic, January 2018–July 2021," *Medical Surveillance Monthly Report* 29, No. 3 (March 2022): 8-15, https://www.health.mil/Reference-Center/Reports/2022/03/01/Medical-Surveillance-Monthly-Report-Volume-29-Number-03.

[23] For DOD recruitment and retention data, see "Press Releases," Military Personnel Policy, Office of the Under Secretary for Personnel and Readiness, Department of Defense, accessed April 7, 2025, https://prhome.defense.gov/M-RA/Inside-M-RA/MPP/PR/.

[24] Dexter Filkins, "The U.S. Military's Recruiting Crisis," *The New Yorker,* February 3, 2025, https://www.newyorker.com/magazine/2025/02/10/the-us-militarys-recruiting-crisis.

[25] Jonathan Dahms, "Army expands Future Soldier Preparatory Course at Fort Moore," U.S. Army, April 4, 2024, https://www.army.mil/article/275110/army_expands_future_soldier_preparatory_course_at_fort_moore; Lolita C. Baldor, "Navy recruiting rebounds, but it will miss its target to get sailors through boot camp," *AP News,* August 28, 2024, https://apnews.com/article/navy-recruiting-shortfall-boot-camp-1582bba4ea6699a37d4b4b612efa58da.

[26] "Fiscal Year 2024-2025 Recruiting Media Roundtable With Service Leaders," Department of Defense, October 30, 2024, https://www.defense.gov/News/Transcripts/Transcript/Article/3952493/fiscal-year-2024-2025-recruiting-media-roundtable-with-service-leaders/.

[27] Davide Gravina et al., "Randomized Controlled Trials to Treat Obesity in Military Populations: A Systematic Review and Meta-Analysis," *Nutrients* 15, No. 22 (November 14, 2023): Article 4778, https://doi.org/10.3390/nu15224778.

[28] Filkins, "The U.S. Military's Recruiting Crisis;" "Army Body Composition Program," U.S. Army, accessed April 16, 2025, https://www.armyresilience.army.mil/abcp/index.html.

[29] Kevin D Hall and Scott Kahan, "Maintenance of lost weight and long-term management of obesity," *Medical Clinics of North America* 102, No. 1 (January 2018): 183–197, https://doi.org/10.1016/j.mcna.2017.08.012; Priya Sumithran et al., "Long-Term Persistence of Hormonal Adaptations to Weight Loss," *New England Journal of Medicine* 365, No. 17 (October 2011): 1597-1604, https://doi.org/10.1056/nejmoa1105816; Herman Pontzer et al., "Constrained Total Energy Expenditure and Metabolic Adaptation to Physical Activity in Adult Humans," *Current Biology* 26, No. 3 (February 8 2016): 410-417, https://doi.org/10.1016/j.cub.2015.12.046; Michael Rosenbaum et al., "Long-term persistence of adaptive thermogenesis in subjects who have maintained a reduced body weight," *American Journal of Clinical Nutrition* 88, No. 4 (October 2008): 906-912, https://doi.org/10.1093/ajcn/88.4.906.

[30] Exceptions include a limited number of full-time reserve component personnel, those seeking certification or specialized training, units preparing for mobilization, etc. See Benjamin Fernandes, "Multicomponent Units and the Future of the Army," *War on the Rocks,* February 15, 2016, https://warontherocks.com/2016/02/multicomponent-units-and-the-future-of-the-army/.

[31] The Army and Navy mandate body composition assessments for all service members twice per year, while the Marine Corps and Air Force require reserve component personnel to be measured just once per year (active-duty Marines must be screened twice per year). See "Army Regulation 600-9: The Army Body Composition Program," Department of the Army, July 16, 2019, pp. 4, https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN43120-AR_600-9-001-WEB-3.pdf; Stew Smith, "Here Are the Guidelines for the Navy Body Composition Assessment," Military.com, July 2, 2014, https://www.military.com/military-fitness/navy-fitness-requirements/navy-body-composition-assessment; Stew Smith, "Marine Corps Body Composition Program," Military.com, July 2, 2014, https://www.military.com/military-fitness/marine-corps-fitness-requirements/usmc-body-composition-program; "Body Composition Program Policy Memo," Department of the Air Force, Jan 5, 2023, https://www.af.mil/Portals/1/documents/2023SAF/Tab_1._Air_Force_Body_Composition_Policy_Memo.pdf.

[32] "National Guard Regulation 600-200: Enlisted Personnel Management," Army National Guard, March 25, 2021, pp. 26, 48, 54, 64, https://www.ngbpmc.ng.mil/Portals/27/Publications/NGR/NGR%20600-200_20210325_v2.pdf?ver=nnmLHJUHNXKptjlTAJv5-g%3D%3D.

[33] Jeanette Gaudry Haney et al., "Impacts of Marine Corps Body Composition and Military Appearance Program (BCMAP) Standards on Individual Outcomes and Talent Management," RAND Corporation, March 28, 2022, https://www.rand.org/pubs/research_reports/RRA1189-1.html.

[34] Lindsay Bodell et al., "Consequences of Making Weight: A Review of Eating Disorder Symptoms and Diagnoses in the United States Military," *Clinical Psychology: Science and Practice* 21, No. 4 (2014): 398-409, https://doi.org/10.1111/cpsp.12082; Anne Fisher McNulty, "Prevalence and Contributing Factors of Eating Disorder Behaviors in Active Duty Service Women in the Army, Navy, Air Force, and Marines," *Military Medicine* 166, No. 1 (January 2001): 53-58, https://doi.org/10.1093/milmed/166.1.53; Haney et al., "Impacts of Marine Corps Body Composition and Military Appearance Program (BCMAP) Standards on Individual Outcomes and Talent Management," pp. 34.

[35] Leslie A. Sim et al., "Identification and Treatment of Eating Disorders in the Primary Care Setting," *Mayo Clinic Proceedings* 85, No. 8 (August 2010): 746-751, https://doi.org/10.4065/mcp.2010.0070; Hubertus Himmerich et al., "Pharmacological treatment of eating disorders, comorbid mental health problems, malnutrition and physical health consequences," *Pharmacology & Therapeutics* 217 (January 2021): Article 107667, https://doi.org/10.1016/j.pharmthera.2020.107667.

[36] Damoon Ashtary-Larky et al., "Effects of gradual weight loss v. rapid weight loss on body composition and RMR: a systematic review and meta-analysis," *British Journal of Nutrition* 124, No. 11 (December 2020): 1121-1132, https://doi.org/10.1017/s000711452000224x.

[37] "Management Advisory: Army's Future Soldier Preparatory Course Places Trainees at Increased Risk of Adverse Health Effects," Office of Inspector General, Department of Defense, February 18, 2025, pp. 2, https://media.defense.gov/2025/Mar/10/2003663438/-1/-1/1/DODIG-2025-069_REDACTED%20SECURE.PDF.

[38] Ibid.

[39] Ibid. According to the Management Advisory, "in internal communication addressing the ARMS 2.0 pilot program allowable body fat percentages, the TRADOC Command Surgeon and ATC&FJ Division Medical Director identified and acknowledged increased risks to trainees' health, including the risk of death, while trying to lose weight quickly to meet the body fat percentage standards."

[40] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 85. For obesity rates in U.S. adult and youth civilian populations, see Samuel D. Emmerich et al., "Obesity and Severe Obesity Prevalence in Adults: United States, August 2021–August 2023," National Center for Health Statistics, Center for Disease Control, September 2024, https://www.cdc.gov/nchs/data/databriefs/db508.pdf, and Cheryl D. Fryar et al., "Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Aged 2–19 Years: United States, 1963–1965 Through 2017–2018," National Center for Health Statistics, Center for Disease Control, December 2020, https://www.cdc.gov/nchs/data/hestat/obesity-child-17-18/overweight-obesity-child-H.pdf.

[41] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 47; Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Active Component," RAND Corporation, April 28, 2021, pp. 43, https://www.rand.org/pubs/research_reports/RR4222.html. This data includes the Coast Guard and Coast Guard Reserve.

[42] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 49; Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Active Component," pp. 45.

[43] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 47.

[44] Id., pp. xxi.

[45] Aiko Hattori and Roland Sturm, "The Obesity Epidemic and Changes in Self-Report Biases in BMI," *Obesity* 21, No. 4 (April 2013): 856-860, https://doi.org/10.1002/oby.20313.
[46] Stiegmann et al., "Increased Prevalence of Overweight and Obesity and Incidence of Prediabetes and Type 2 Diabetes During the COVID-19 Pandemic, Active Component Service Members, U.S. Armed Forces, 2018 to 2021."
[47] See endnote 12.
[48] Courtney Manning, "Combating Obesity Obesity: Stigma's Persistent Impact on Operational Readiness," American Security Project, October 11, 2023, pp. 5-6, https://www.americansecurityproject.org/white-paper-combating-military-obesity/;
[49] Yihun Jeong et al., "Pre-obesity and obesity impacts on passive joint range of motion," *Ergonomics* 61, No. 9 (June 2018): 1223-1231, https://doi.org/10.1080/00140139.2018.1478455; Binwu Sheng et al., "Associations between Obesity and Spinal Diseases: A Medical Expenditure Panel Study Analysis," *International Journal of Environmental Research and Public Health* 14, No. 2 (February 2017): 183, https://doi.org/10.3390/ijerph14020183; Lizeth Cifuentes et al., "Association between anxiety and eating behaviors in patients with obesity," *Obesity Pillars* 3 (May 2022): 100021, https://doi.org/10.1016/j.obpill.2022.100021; Stephanie Fulton et al., "The menace of obesity to depression and anxiety prevalence," *Trends in Endocrinology & Metabolism* 33, No. 1 (January 2022): 18-35, https://doi.org/10.1016/j.tem.2021.10.005.
[50] Steve Beynon, "The Army Is Losing Nearly One-Quarter of Soldiers in the First 2 Years of Enlistment," Military.com, March 7, 2025, https://www-military-com.cdn.ampproject.org/c/s/www.military.com/daily-news/2025/03/07/army-losing-nearly-one-quarter-of-soldiers-first-2-years-of-enlistment.html?amp.
[51] "Annual Report 2018: Attrition & Morbidity Data for 2017 Accessions," *Accession Medical Standards Analysis & Research Activity*, pp. 8.
[52] Official retention numbers for the reserve component are not published by the Department of Defense, but retention can be determined by comparing annual reserve component end strength year-over-year, minus annual recruiting gains. See endnotes 16-17.
[53] According to the Defense Manpower Data Center, as of January 2025, there are 756,639 individuals serving in the Selected Reserves: "Department of Defense Selected Reserves by Rank/Grade," Department of Defense, January 31, 2025, https://dwp.dmdc.osd.mil/dwp/api/downloadZ?fileId=134644&groupName=resRankGrade. For past end strength data, see Appendix D, "Table D-20. Reserve Component Enlisted Strength, FYs 1974-2004," https://www.cna.org/pop-rep/2004/appendixd/d_20.html, and "Table D-21. Reserve Component Officer* Strength, FYs 1974-2004," https://www.cna.org/pop-rep/2004/appendixd/d_21.html, in Office of People Analytics, "Population Representation in the Military Services: Fiscal Year 2004 Summary Report," Department of Defense, 2004, https://www.cna.org/pop-rep/2004/summary/summary.html.
[54] "2023 Demographics Profile of the Military Community," Department of Defense, 2023, pp. 3, https://download.militaryonesource.mil/12038/MOS/Reports/2023-demographics-report.pdf. This statistic refers to the military forces as composed of active-duty service members and Selected Reserve personnel.
[55] Office of the Vice Chairman of the Joint Chiefs of Staff and Office of Assistant Secretary of Defense for Reserve Affairs, "Comprehensive Review of the Future Role of the Reserve Component," pp. 4.
[56] "53rd Weather Reconnaissance Squadron "Hurricane Hunters,"" 403rd Wing, U.S. Air Force, accessed April 17, 2025, https://www.403wg.afrc.af.mil/About/Fact-Sheets/Display/Article/192529/53rd-weather-reconnaissance-squadron-hurricane-hunters/; "NHC Aircraft Reconnaissance," National Hurricane Center and Central Pacific Hurricane Center, National Oceanic and Atmospheric Administration, accessed April 17, 2025, https://www.nhc.noaa.gov/recon.php.
[57] *Department of Defense Appropriations for Fiscal Year 2022: Hearings on H.R. 4432, first session, before a U.S. Senate Subcommittee of the Committee on Appropriations,* 117th Congress (May 18, 2021) (prepared statement of General Daniel Hokanson, Chief, U.S. National Guard Bureau), pp. 124, https://www.govinfo.gov/content/pkg/CHRG-117shrg44165/pdf/CHRG-117shrg44165.pdf.
[58] Richard J. Dunn III, "America's Reserve and National Guard Components: Key Contributors to U.S. Military Strength," Heritage Foundation, October 5, 2015, https://www.heritage.org/military-strength-topical-essays/2016-essays/americas-reserve-and-national-guard-components-key.
[59] "Active and Reserve Unit Costs: DOD Report to Congress Generally Addressed the Statutory Requirements but Lacks Detail," U.S. Government Accountability Office, July 21, 2014, pp. 9, https://www.gao.gov/assets/gao-14-711r.pdf.
[60] Jim Greenhill, ""Surge" extends Minnesota Guard unit's Iraq tour up to 125 days," U.S. National Guard, January 11, 2007, https://www.nationalguard.mil/News/Article-View/Article/572868/surge-extends-minnesota-guard-units-iraq-tour-up-to-125-days/.
[61] Office of the Vice Chairman of the Joint Chiefs of Staff and Office of Assistant Secretary of Defense for Reserve Affairs, "Comprehensive Review of the Future Role of the Reserve Component," pp. 24.
[62] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 238, 241.
[63] "State Partnership Program," U.S. National Guard, accessed April 17, 2025, https://www.nationalguard.mil/Leadership/Joint-Staff/J-5/International-Affairs-Division/State-Partnership-Program/; "Statement of General Eric M. Smith Commandant of the Marine Corps on the Posture of the United States Marine Corps Before the Senate Appropriations Committee," U.S. Marine Corps, April 16, 2024, https://www.cmc.marines.mil/Speeches-and-Transcripts/Transcripts/Article/3759255/statement-of-general-eric-m-smith-commandant-of-the-marine-corps-on-the-posture/.
[64] "Reserve Marines Poised to Support Hurricane Irma Relief Operations, " U.S. Marine Corps, September 8, 2017, https://www.marines.mil/News/Press-Releases/Press-Release-Display/Article/1303235/reserve-marines-poised-to-support-hurricane-irma-relief-operations/.

[65] National Guard Bureau, "National Guard Helps Hurricane Milton, Helene Victims," U.S. National Guard, October 9, 2024, https://www.nationalguard.mil/News/Article-View/Article/3931559/national-guard-helps-hurricane-milton-helene-victims/.
[66] William Wratee, "Army Reserve engineers support Hurricane Helene's emergency efforts," U.S. Army, October 7, 2024, https://www.army.mil/article/280327/army_reserve_engineers_support_hurricane_helenes_emergency_efforts; "After Hurricane Milton, Service Members Answer the Call," Department of Defense, October 9, 2024, https://www.defense.gov/News/Feature-Stories/Story/Article/3931542/after-hurricane-milton-service-members-answer-the-call/; Marine Forces Reserve, "Marines Assist with Hurricane Milton Search and Rescue," Facebook, October 15, 2024, https://www.facebook.com/story.php?story_fbid=960908542730677&id=100064346217263&__rdr.
[67] National Guard Bureau, "National Guard Rescues Hundreds of People in Wake of Hurricane," U.S. National Guard, October 3, 2024, https://www.nationalguard.mil/News/Article-View/Article/3919179/national-guard-rescues-hundreds-of-people-in-wake-of-hurricane/; *A Review of the President's FY2025 Funding Request and Budget Justification for the National Guard and Reserve, second session, before the House Appropriations Committee Subcommittee on Defense,* written statement by General Daniel R. Hokanson, pp. 3.
[68] *Department of Defense Appropriations for Fiscal Year 2022: Hearings on H.R. 4432, first session, before a U.S. Senate Subcommittee of the Committee on Appropriations,* prepared statement of General Daniel Hokanson, pp. 124.
[69] "Cal Guard Counterdrug Task Force seizes more than 9.5 million pills with fentanyl," California Governor Gavin Newsom, October 1, 2024, https://www.gov.ca.gov/2024/10/01/cal-guard-counterdrug-task-force-seizes-more-than-9-5-million-pills-with-fentanyl/.
[70] *A Review of the President's FY2025 Funding Request and Budget Justification for the National Guard and Reserve, second session, before the House Appropriations Committee Subcommittee on Defense,* written statement by General Daniel R. Hokanson, pp. 2.
[71] Jaclyn Lyons, "New York Air Wing Concludes Antarctic Science Support Season," U.S. National Guard, March 18, 2025, https://www.nationalguard.mil/News/Article-View/Article/4123186/new-york-air-wing-concludes-antarctic-science-support-season/.
[72] Lawrence Kapp and Barabara Salazar Torreon, "Reserve Component Personnel Issues: Questions and Answers," Congressional Research Service, November 2, 2021, https://www.congress.gov/crs-product/RL30802.
[73] "Department of Defense COVID-19 Response," Department of Defense, May 27, 2020, https://media.defense.gov/2020/Apr/28/2002290387/-1/-1/1/DEPARTMENT-OF-DEFENSE-COVID-19-RESPONSE-INFOGRAPHIC.pdf; Elliott Ramos, "MAP: Here's where the National Guard is deployed for Covid response," NBC News, February 3, 2022, https://www.nbcnews.com/news/us-news/map-here-s-where-national-guard-deployed-covid-response-n1288544.
[74] "2022 Health of the ARNG Force," U.S. Army, 2022, pp. 9, https://ph.health.mil/Periodical%20Library/2022-arng-hof-report.pdf.
[75] Abel Romero-Corral et al., "Interactions Between Obesity and Obstructive Sleep Apnea," *CHEST Journal* 137, No. 3 (March 2010): 711-719, https://doi.org/10.1378/chest.09-0360.
[76] Omair A Shariq and Travis J McKenzie, "Obesity-related hypertension: a review of pathophysiology, management, and the role of metabolic surgery," *Gland Surgery* 9, No. 1 (February 2020): 80-93, https://doi.org/10.21037/gs.2019.12.03.
[77] "Diagnoses of Overweight/Obesity, Active Component, U.S. Armed Forces, 1998-2008," *Medical Surveillance Monthly Report* 16, No. 1 (January 2009): 2-7, https://www.health.mil/Reference-Center/Reports/2009/01/01/Medical-Surveillance-Monthly-Report-Volume-16-Number-1; "Absolute and Relative Morbidity Burdens Attributable to Various Illnesses and Injuries Among Active Component Members of the U.S. Armed Forces, 2023," *Medical Surveillance Monthly Report* 31, No. 6 (June 2024): 2-10, https://www.health.mil/News/Articles/2024/06/01/MSMR-Health-Care-Burden-Active-Component; Courtney Manning, "Costs and Consequences: Obesity's Compounding Impact on the Military Health System," American Security Project, September 4, 2024, pp. 9-11, https://www.americansecurityproject.org/costs-and-consequences-of-military-obesity/.
[78] For hospital bed days, this excludes the comprehensive "all others" category. "Surveillance Snapshot: Illness and Injury Burdens Among Reserve Component Members, U.S. Armed Forces, 2022," *Medical Surveillance Monthly Report* 30, No. 7 (July 2023): 21, https://www.health.mil/Reference-Center/Reports/2023/07/01/MSMR-July-2023-volume-30-issue-7.
[79] In 2022, Brittany Hollerbach et al. found that "participants who were classified as obese were significantly more likely to fail the [Army Physical Fitness Test] than those who were not obese across all obesity measurements;" 18% of participants were classified as having obesity (Hollerbach et al., "Comparisons of Baseline Obesity Prevalence and Its Association with Perceived Health and Physical Performance in Military Officers"). Joseph Pierce et al. found that higher BMI "was associated with significant improvements in muscular strength and power, but also with decrements in speed/agility in male and female soldiers," but only 9% of participants in this study were classified as having obesity, and all of these participants were men (Joseph R. Pierce et al., "Body mass index predicts selected physical fitness attributes but is not associated with performance on military relevant tasks in U.S. Army Soldiers," *Journal of Science and Medicine in Sport* 20, No. 4 (November 2017): S79-S94, https://doi.org/10.1016/j.jsams.2017.08.021). A 2023 study of Reserve Officer Training Corps (ROTC) cadets found no relationship between BMI and performance on the Army Physical Fitness Test or Army Combat Fitness Test, but this study included no participants with obesity (Brandon M. Roberts, Kelsey A. Rushing, and Eric P. Plaisance, "Sex Differences in Body Composition and Fitness Scores in Military Reserve Officers' Training Corps Cadets," *Military Medicine* 188, No. 1-2 (January-February 2023): e152–e157, https://doi.org/10.1093/milmed/usaa496). A 2016 study of ROTC cadets found that increased body fat percentages may be associated with reduced cardiovascular and muscular endurance, but identified no relationship between body composition and performance on the APFT. This study had only 13 participants, and none had obesity (Carly L. Steed et al., "Relationship Between Body Fat and Physical Fitness in Army ROTC Cadets," *Military Medicine* 181, No. 9 (September 2016): 1007-1012, https://doi.org/10.7205/MILMED-D-15-00425).
[80] Knapik et al., "The Medical Burden of Obesity and Overweight in the US Military: Association of BMI with Clinically Diagnosed Medical Conditions in United States Military Service Members."

[81] According to Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," "all service members, including those in the reserve component, must meet the DoDI 1308.3 standards to deploy" or obtain a waiver (pp. 46). For more information on medical readiness and unfitting conditions, see "DOD Instruction 1308.03: DOD Physical Fitness/Body Composition Program," Office of the Under Secretary of Defense for Personnel and Readiness, March 10, 2022, https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodi/130803p.pdf; "DOD Instruction 6490.07: Deployment-Limiting Medical Conditions for Service Members and DoD Civilian Employees," Office of the Under Secretary of Defense for Personnel and Readiness, Department of Defense, February 5, 2010, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/649007p.pdf; "DOD Instruction 6130.03, Volume 2: Medical Standards For Military Service: Retention," Office of the Under Secretary of Defense for Personnel and Readiness, Department of Defense, June 6, 2022, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/613003_vol02.PDF.
[82] "Causes of Medical Evacuations from Operations Iraqi Freedom (OIF), New Dawn (OND) and Enduring Freedom (OEF), Active and Reserve Components, U.S. Armed Forces, October 2001- September 2010," *Medical Surveillance Monthly Report* 18, No. 22 (February 2011): 2-7, https://www.health.mil/Reference-Center/Reports/2011/01/01/Medical-Surveillance-Monthly-Report-Volume-18-Number-2.
[83] Id., pp. 3; S.C. Wearing et al., "Musculoskeletal disorders associated with obesity: a biomechanical perspective," *Obesity Reviews* 7, No. 3 (July 2006): 239-250, https://doi.org/10.1111/j.1467-789x.2006.00251.x; Cifuentes et al., "Association between anxiety and eating behaviors in patients with obesity;" Fulton et al., "The menace of obesity to depression and anxiety prevalence."
[84] *A Review of the President's FY2025 Funding Request and Budget Justification for the National Guard and Reserve, second session, before the House Appropriations Committee Subcommittee on Defense,* written statement by General Daniel R. Hokanson, pp. 5.
[85] Bryce H.P. Mendez, Nicholas M. Munves, and Barbara Salazar Torreon, "Limits on TRICARE for Reservists: Frequently Asked Questions," Congressional Research Service, January 28, 2025, https://www.congress.gov/crs-product/R45968; Justin Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System," RAND Corporation, September 7, 2021, pp. 4, https://www.rand.org/pubs/research_reports/RRA421-1.html.
[86] Ibid.; Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 62.
[87] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 62.
[88] Ibid.
[89] Id., pp. 62, 260.
[90] "Does TRICARE cover Wegovy, Ozempic, and Mounjaro?" Frequently Asked Questions, TRICARE, last updated October 10, 2024, https://tricare.mil/FAQs/Pharmacy/PharmProg_Wegovy; Chad Terhune, "Medicaid fuels US coverage of Novo, Lilly weight-loss drugs," *Reuters,* November 18, 2024, https://www.reuters.com/business/healthcare-pharmaceuticals/medicaid-fuels-us-coverage-novo-lilly-weight-loss-drugs-2024-11-18/; "TRICARE Prior Authorization Request Form for semaglutide injection (Wegovy), tirzepatide injection (Zepbound Pen Injector)," TRICARE, February 19, 2025, https://www.express-scripts.com/interaction/member-proxinator/1/member/v1/drugpricing/prelogin/fst/drug/forms/content?repository=EIS_P8_DC%3AesiCPS&documentId=%7B30E31A95-0000-C312-BCB5-57C6E8282077%7D.
[91] Taylor Neuman et al., "Utilization of antiobesity medications within the Military Health System," *Obesity* 32, No. 10 (October 2024): 1825-2832, https://doi.org/10.1002/oby.24097.
[92] Margot Sanger-Katz and Rebecca Robbins, "Trump Rejects Biden Plan to Expand Medicare Coverage for Obesity Drugs," *New York Times,* April 4, 2025, https://www.nytimes.com/2025/04/04/health/trump-wegovy-obesity-drugs-medicare.html.
[93] "GLP-1 Drugs: 2024 Pulse Survey Report (U.S. data)," International Foundation of Employee Benefit Plans, 2024, https://www.ifebp.org/resources---news/survey-reports/glp-1-drugs--2024-pulse-survey-report-(u.s.-corporate-data). This estimate combines data from corporate responses (available at https://resources.ifebp.org/Presto/home/Uploads/S204163.pdf) and multiemployer/public plan responses (available at https://resources.ifebp.org/Presto/home/Uploads/S204168.pdf).
[94] Brenda Goodman, "Insurance denials for popular new weight loss medications leave patients with risky choices ," CNN, January 8, 2024, https://www.cnn.com/2024/01/08/health/weight-loss-drug-insurance-denials/index.html; "National Survey of Employer-Sponsored Health Plans," Mercer, 2024, https://www.mercer.com/en-us/solutions/health-and-benefits/research/national-survey-of-employer-sponsored-health-plans/; Daniel Enright, Molly T. Beinfeld, and James D. Chambers, "How US commercial health plans are covering semaglutide (Wegovy®) for obesity management," Center for the Evaluation of Value and Risk in Health, Tufts Medical Center, August 17, 2023, https://cevr.tuftsmedicalcenter.org/news/how-us-commercial-health-plans-are-covering-semaglutide-wegovy-for-obesity-management-2.
[95] Junior enlisted personnel (E1-E4) are 10-13% less likely to have any form of health insurance than any other enlisted or officer pay grouping. See Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 63.
[96] Todd C. Helmus et al., "Life as a Private: A Study of the Motivations and Experiences of Junior Enlisted Personnel in the U.S. Army," RAND Corporation, 2018, https://www.rand.org/content/dam/rand/pubs/research_reports/RR2200/RR2252/RAND_RR2252.pdf.
[97] Debbie A Lawlor and Nish Chaturvedi, "Treatment and prevention of obesity—are there critical periods for intervention?" *International Journal of Epidemiology* 35, No. 1 (February 2006): 3-9, https://doi.org/10.1093/ije/dyi309; Sandra Christensen and Christina Nelson, "Chronicity of obesity and the importance of early treatment to reduce cardiometabolic risk and improve body composition," *Obesity Pillars* (April 2025): 100175, https://doi.org/10.1016/j.obpill.2025.100175 (in press).

[98] Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System," pp. 20; Mendez, Munves, and Torreon, "Limits on TRICARE for Reservists: Frequently Asked Questions."
[99] Mendez, Munves, and Torreon, "Limits on TRICARE for Reservists: Frequently Asked Questions;" "Operation Enduring Freedom and Operation Iraqi Freedom: Demographics and Impact" in Institute of Medicine (US) Committee on the Initial Assessment of Readjustment Needs of Military Personnel, Veterans, and Their Families, *Returning Home from Iraq and Afghanistan: Preliminary Assessment of Readjustment Needs of Veterans, Service Members, and Their Families* (National Academies Press, 2010), https://www.ncbi.nlm.nih.gov/books/NBK220068/.
[100] Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System," pp. 3.
[101] Daren Yang et al., "Relationship Between Body Mass Index and Diagnosis of Obesity in the Military Health System Active Duty Population," *Military Medicine* 187, No. 7-8 (July-August 2022): e948–e954, https://doi.org/10.1093/milmed/usab292.
[102] Yang et al., "Relationship Between Body Mass Index and Diagnosis of Obesity in the Military Health System Active Duty Population;" Akshat Kapoor et al., "Weighing the odds: Assessing underdiagnosis of adult obesity via electronic medical record problem list omissions," *Digital Health* (April 10, 2020), https://doi.org/10.1177/205520762091871; Ahmed Mattar et al., "The prevalence of obesity documentation in Primary Care Electronic Medical Records," *Applied Clinical Informatics* 8, No. 1 (January 25, 2017): 67-79, https://doi.org/10.4338/ACI-2016-07-RA-0115.
[103] Ryan Andrew Brown et al., "Access to Behavioral Health Care for Geographically Remote Service Members and Dependents in the U.S.," RAND Corporation, January 5, 2015, pp. 18, https://www.rand.org/pubs/research_reports/RR578.html.
[104] Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System," pp. 1. Studies of the general population show that those living in rural areas experience decreased access to obesity care, particularly from providers who specialize in obesity medicine. See Tiffani Bell Washington, et al. "Disparities in Access and Quality of Obesity Care," *Gastroenterology Clinics of North America* 52, No. 2 (June 2023): 429-441, https://doi.org/10.1016/j.gtc.2023.02.003, and Okelue E Okobi et al., "The Burden of Obesity in the Rural Adult Population of America," *Cureus* 13, No. 6 (June 20, 2021): e15770, https://doi.org/10.7759/cureus.15770.
[105] Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System," pp. 4.
[106] "Diplomate Search and Certification Verification," American Board of Obesity Medicine, accessed April 23, 2025, https://abom.learningbuilder.com/Search/Public/MemberRole/CertificationVerification.
[107] "U.S. Physician Workforce Data Dashboard: 2024 Key Findings and Definitions," Association of American Medical Colleges, 2024, https://www.aamc.org/data-reports/data/2024-key-findings-and-definitions.
[108] "Number of ABOM Diplomates continues to grow rapidly," American Board of Obesity Medicine, December 16, 2024, https://www.abom.org/abom-announces-october-24-test-results/.
[109] Richele Corrado (internist and obesity medicine specialist, Revolution Medicine, Health & Fitness), in discussion with the author, April 2025.
[110] Kristy N. Kamarck and Carly A. Miller, "Defense Primer: Reserve Forces," Congressional Research Service, November 22, 2024, https://crsreports.congress.gov/product/pdf/IF/IF10540. This training requirement applies primarily to members of the Selected Reserve; members of the Individual Ready Reserve, Inactive National Guard, Standby Reserve, and Retired Reserve are not required to conduct regular training. Some reserve component personnel serve full-time and thus have more requirements and responsibilities than traditional Selected Reserve members.
[111] "Military 101: Understanding the Differences between Active Duty, National Guard and Reserves," Council of State Governments, December 19, 2023, https://csg.org/2023/12/19/military-101-understanding-the-differences-between-active-duty-national-guard-and-reserves/; Brown et al,, "Access to Behavioral Health Care for Geographically Remote Service Members and Dependents in the U.S.," pp. 18.
[112] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 80.
[113] Dale W Russell, Joshua Kazman, and Cristel Antonia Russell, "Body Composition and Physical Fitness Tests Among US Army Soldiers: A Comparison of the Active and Reserve Components," *Public Health Reports* 134, No. 5 (August 8, 2019): 502-513, https://doi.org/10.1177/0033354919867069. This study also identified higher rates of unhealthy behaviors such as tobacco use and binge drinking, as well as conditions such as insomnia and mild depression, among active-duty soldiers than reserve component soldiers. More research is warranted on best practices to improve service members' quality of life and promote healthy habits while mitigating stress factors that might lead to unhealthy behaviors and negative health outcomes. Additionally, since the study was conducted, the Army has implemented the new Army Combat Fitness Test to replace the Army Physical Fitness Test.
[114] The Marine Corps requires active-duty service members to undergo more frequent body composition screenings than Marine Corps reservists; see endnote 30 for more information.
[115] The Army alone requires that active component personnel complete the Army Combat Fitness Test more frequently than reserve component personnel; active-duty soldiers are required to complete the test twice annually, while members of the Army National Guard and Army Reserve must complete it once annually. For more information on each service's fitness test requirements, see "Army Combat Fitness Test: Frequently Asked Questions," U.S. Army, accessed April 22, 2025, https://www.army.mil/acft/#faq; "COMNAVRESFORCOM Instruction 6100.1C: Physical Readiness and Weight Control," Department of the Navy, November 1, 2021, https://www.navyreserve.navy.mil/Portals/35/6100.1C.pdf; "MCO 6100.13A W/CH 1-4," Department of the Navy, March 23, 2022, pp. 2-1, https://www.marines.mil/Portals/1/Publications/MCO%206100.13A%20(SECURED).pdf?ver=I_kjkB2Fp4Q7G3Q-yDwCsQ%3d%3d; "Department of the Air Force Physical Fitness Program," Department of the Air Force, April 21, 2022, pp. 26, https://www.afpc.af.mil/portals/70/documents/FITNESS/dafman36-2905.pdf.

[116] "2022 Health of the ARNG Force," U.S. Army, pp. 7, 26.
[117] Id., pp. 26.
[118] "DOD Instruction 6200.06: Periodic Health Assessment (PHA) Program," Office of the Under Secretary of Defense for Personnel and Readiness, Department of Defense, April 18, 2025, pp. 7, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/620006p.pdf. In the active component, service members with overweight and obesity commonly receive clinical diagnoses during routine medical examinations. See "Diagnoses of Overweight/Obesity, Active Component, U.S. Armed Forces, 1998-2008," *Medical Surveillance Monthly Report* (January 2009), pp. 2.
[119] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 59; Tara Copp, "Deploy or get out: New Pentagon plan could boot thousands of non-deployable troops," *Military Times*, February 5, 2018, https://www.militarytimes.com/news/your-military/2018/02/05/deploy-or-get-out-new-pentagon-plan-could-boot-thousands-of-non-deployable-troops/.
[120] "2022 Health of the ARNG Force," U.S. Army, pp. 3.
[121] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 62.
[122] According to Hummer et al., "more than 60 percent of all MHS care is delivered by private-sector providers who treat military family members, retirees, and retirees' family members in addition to [reserve component] and [active component] service members." See Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System," pp. 4, and Terry Adirim, "A Military Health System for the Twenty-First Century," *Health Affairs* 38, No. 8 (August 2019): 1268-1273, https://doi.org/10.1377/hlthaff.2019.00302.
[123] Walter Reed Army Institute of Research, "Annual Report 2018," *Disability Evaluation Systems Analysis and Research*, Department of Defense, 2018, pp. 13, https://wrair.health.mil/Portals/87/DES_AR_2018.pdf.
[124] Hattori and Sturm, "The Obesity Epidemic and Changes in Self-Report Biases in BMI;" Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. 29.
[125] Meadows et al., "2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Reserve Component," pp. xix-xx.
[126] Manning, "Combating Obesity: Stigma's Persistent Impact on Operational Readiness," pp. 5-6.
[127] At the time of writing, the 2024 Health-Related Behaviors Survey has been completed and is undergoing review.
[128] Haney et al., "Impacts of Marine Corps Body Composition and Military Appearance Program (BCMAP) Standards on Individual Outcomes and Talent Management," pp. 67.
[129] "Army Regulation 600-9: The Army Body Composition Program," Department of the Army, pp. 19.
[130] See Manning, "Combating Obesity: Stigma's Persistent Impact on Operational Readiness," and Manning, "Costs and Consequences: Obesity's Compounding Impact on the Military Health System."
[131] See endnote 30.
[132] See "DOD Instruction 6200.06: Periodic Health Assessment (PHA) Program," Office of the Under Secretary of Defense for Personnel and Readiness, Department of Defense.
[133] As recommended by Manning in "Costs and Consequences: Obesity's Compounding Impact on the Military Health System," pp. 7.
[134] U.S. Army Public Affairs, "New directive exempts Soldiers who score 540+ on the ACFT from body fat assessment," U.S. Army, March 16, 2023, https://www.army.mil/article/264933; "Physical Readiness Program Update for PFA BCA Exemption Fact Sheet," Physical Readiness Program Office, U.S. Navy, November 2024, https://www.mynavyhr.navy.mil/Portals/55/Messages/NAVADMIN/FACT_SHEETS/Fact_Sheet_NAV_242_24.pdf?ver=2tFdEg0UlyxmSdKQ4TdQXg%3D%3D; "Forthcoming Changes to the Body Composition Program," U.S. Marine Corps, August 8, 2022, https://www.marines.mil/News/Messages/Messages-Display/Article/3135873/forthcoming-changes-to-the-body-composition-program/.
[135] Donna H. Ryan and Sarah Ryan Yockey, "Weight Loss and Improvement in Comorbidity: Differences at 5%, 10%, 15%, and Over," *Current Obesity Reports* 6, No. 2 (April 18, 2017): 187–194, https://doi.org/10.1007/s13679-017-0262-y.
[136] See "Surveillance Snapshot: Illness and Injury Burdens Among Reserve Component Members, U.S. Armed Forces, 2022," *Medical Surveillance Monthly Report* (July 2023), and "Absolute and Relative Morbidity Burdens Attributable to Various Illnesses and Injuries Among Active Component Members of the U.S. Armed Forces, 2023," *Medical Surveillance Monthly Report* (June 2024).
[137] Manning, "Combating Obesity Obesity: Stigma's Persistent Impact on Operational Readiness," pp. 13.
[138] "Data collection related to body composition and attrition varies by service and is not always accurate. Tracking data related to physical fitness, weight for height, and body fat percentage is done at the service level and is not consistent across DoD." See Haney et al., "Impacts of Marine Corps Body Composition and Military Appearance Program (BCMAP) Standards on Individual Outcomes and Talent Management," pp. 67.
[139] "DOD Healthcare Management System Modernization: MHS Genesis," Military Health System, Department of Defense, November 2024, https://www.health.mil/Reference-Center/Fact-Sheets/2024/11/14/MHS-GENESIS-Fact-Sheet.
[140] Richele Corrado (internist and obesity medicine specialist, Revolution Medicine, Health & Fitness), in discussion with the author, April 2025.
[141] "Defense Medical Epidemiology Database," Military Health System, Department of Defense, last updated March 25, 2024, https://www.health.mil/Military-Health-Topics/Health-Readiness/AFHSD/Functional-Information-Technology-Support/Defense-Medical-Epidemiology-Database.

[142] Congressman Vern Buchanan recently introduced legislation "[directing] the Secretary of Defense to conduct several studies relating to obesity in the military. One required study will report on the contribution of obesity to in-service injuries and medical discharges, as well as the associated annual costs. Another study will report on access to healthy foods for service members and their families." See "Buchanan, Moore Relaunch Congressional Preventive Health and Wellness Caucus, Introduce New Legislation," Press Releases, Congressman Vern Buchanan, March 10, 2025, https://buchanan.house.gov/press-releases?id=8C7CE577-0891-49BB-A86C-7C505DCA1D48.
[143] Beth J. Asch et al., "Food Insecurity Among Members of the Armed Forces and Their Dependents," RAND Corporation, January 3, 2023, https://www.rand.org/pubs/research_reports/RRA1230-1.html.
[144] "2022 Health of the ARNG Force," U.S. Army, pp. 35.
[145] Although increased distance from providers has been associated with reduced behavioral health care access in reserve populations (see Hummer et al., "Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System"), more research is necessary to determine the relationship between the geographic distribution of reserve component personnel's residential locations and access to obesity care.