



Research Report

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A Summary of Veteran-Related Statistics

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About This Report

This report documents analysis conducted across a variety of public nationally representative datasets to generate baseline estimates related to veterans' demographics, mental health, and labor market outcomes. It summarizes relevant estimates and trends to support the work of policymakers and researchers focused on veteran-related issues and to inform public audiences interested in the welfare of the U.S. veteran population.

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Summary

This report documents analysis conducted across a variety of public nationally representative datasets to generate baseline estimates related to veterans' demographics, mental health, and labor market outcomes. It summarizes relevant estimates and trends to support the work of policymakers and researchers focused on veteran-related issues and to inform public audiences interested in the welfare of the U.S. veteran population.

We first explore trends and estimates focused on the demographics of the veteran population, drawing primarily from the American Community Survey. We focus specifically on current and historical estimates of the size, sex, age, race/ethnicity, educational attainment, and geographic distribution of the veteran population as compared with nonveterans.

We then explore trends and statistics focused on the mental health of veterans, drawing primarily from the National Survey on Drug Use and Health. We focus specifically on trends in psychological distress and suicidality, substance use disorders and behaviors, and mental health and alcohol/drug use treatment among veterans and nonveterans.

Finally, we explore trends and statistics focused on veterans' participation in the labor market, drawing primarily from the Current Population Survey. We focus specifically on trends in veteran unemployment, labor force participation, industry and sector of employment, hours worked, family income, and college enrollment among working-age adults.

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Chapter 1. Introduction

This report documents analysis conducted across a variety of public nationally representative datasets to generate baseline estimates related to veterans' demographics, mental health, and labor market outcomes. It summarizes relevant estimates and trends to support the work of policymakers and researchers focused on veteran-related issues and to inform public audiences interested in the welfare of the U.S. veteran population.

This report is broken into three sections. We first explore trends and estimates focused on the demographics of the veteran population, drawing primarily from the American Community Survey (ACS). The ACS was launched by the U.S. Census Bureau in 2000 to allow continuous estimates of demographics in intercensal years. We then present estimates focused on the mental and behavioral health of veterans, drawing primarily from the National Survey on Drug Use and Health (NSDUH). The NSDUH is an annual national survey on drug use and mental health among the civilian, noninstitutionalized U.S. population aged 12 and older. Finally, we explore trends and estimates focused on veterans' participation in the labor market, drawing primarily from the Current Population Survey's (CPS's) Annual Social and Economic Supplement (ASEC). The CPS is a monthly survey administered by the Census Bureau capturing employment and demographic data for the U.S. civilian, noninstitutionalized population.

We begin each section with a brief discussion of the publicly available data used to generate relevant statistics and our methodology in analyzing these data. Then, we present a series of statistics and estimates derived from these data to describe relevant trends in veterans' demographics, mental and behavioral health, and labor market outcomes. When calculating all of the descriptive statistics and prevalence estimates presented in this report, we accounted for each data source's complex survey design. Therefore, estimates reflect the national population of veterans in the United States.¹

In each chapter, we present comparisons between veterans and nonveterans and provide the results of significance testing that we conducted to identify salient differences between veterans and nonveterans in the aggregate.² Additionally, as feasible or most relevant based on each individual data source and the underlying measures analyzed, we explore differences within the

¹ We present longitudinal estimates where relevant, or spot estimates of veterans' statistics in a specific year where cross-sectional comparisons are informative. We rely primarily on 2019 data in these cases, as opposed to data from 2020 (the most-recent data available for many of the data sources analyzed in this report), because of disruptions in sample collection caused by the coronavirus disease 2019 (COVID-19) pandemic. Future research will look to update these estimates with more-recent data or adjust sample weights collected during the COVID-19 pandemic to more accurately correct for sampling bias.

² We do not test pairwise significance testing between specific subcategories of veterans and nonveterans, primarily because of small sample size. However, we are careful to note where such differences are substantively large at face value, without implying statistically significant differences.

veteran population with respect to age, era of service, sex, race and ethnicity, and educational attainment, although not all of these covariates are available for all data sources. Throughout, all significance testing was conducted using survey-weighted (design-based) F-tests. For categorical variables (e.g., race and ethnicity), we used an omnibus test, in which statistical significance indicates that the prevalence distribution differs significantly across groups.

Although countless additional statistics and comparisons could have been generated and incorporated into this report, our goal is to present a set of insightful, salient, and policy-relevant statistics in a concise manner. Future iterations of this research could expand the range of statistics and sources of data presented throughout this report. We conclude each chapter with a brief summary of the broader themes identified in the data analyzed.

Chapter 2. Demographics of the Veteran Population

We first explore trends and statistics focused on the demographics of the veteran population, drawing from the Public Use Microdata Sample (PUMS) of the ACS. We focus specifically on comparing demographic trends between veterans and nonveterans and two subsets of veterans: those who served exclusively prior to the terrorist attacks of September 11, 2001 (9/11), and those who have served in any capacity since that date.³

Data Sources and Methodology

The ACS was created by the Census Bureau in 2000 to replace the supplemental long-form questionnaire that was previously incorporated as part of the decennial census. The full implementation of the ACS began in 2005. Since then, the ACS has become a leading source of social, economic, housing, and demographic data for the U.S. population. In contrast to the decennial census, which covers the entirety of the population, the ACS is based on a sample of households. The ACS uses a “current residence” rule to interview people who are currently living in sampled housing units, including anyone whose stay exceeds two months. The information obtained from these interviews is used to estimate the characteristics of the total U.S. population on an annual basis.

PUMS is a publicly available subsample of the ACS. One-year PUMS estimates are a subsample of data collected over a single calendar year and constitute approximately 1 percent of households. Five-year PUMS estimates are collected over 60 months and constitute 5 percent of all households in the overall ACS. Regardless of the time frame used for analysis, PUMS is designed to enable custom analysis by researchers while protecting the confidentiality of sample participants. Weights, both person-level and household-level, are included in PUMS so that users can generate accurate estimates of the entire U.S. population. The analyses presented in this chapter are based on one-year PUMS data collected between 2007 and 2019 (with a specific emphasis on the last five years of this time frame) and restricted to respondents 18 years and older. Data from 2020 are not included because of concerns over the comparability of samples collected during the COVID-19 pandemic with prior-year estimates.

In terms of person records, the total unweighted sample sizes of the one-year PUMS are summarized in Table 2.1. All estimates presented in this chapter were calculated using survey weights, though unweighted sample sizes are included as well to inform interpretation of

³ These comparisons are offered to explore and quantify various known differences in the populations of post-9/11 and pre-9/11 veterans that could drive differential approaches to policies, outreach, provision of care, and other aspects of veteran-related policymaking. The most-salient differences include differences in age but also differences in the overall size of these populations driven primarily by the post-Vietnam War shift to an all-volunteer military.

significance testing. Significance testing for categorical variables (e.g., race and ethnicity) was conducted using survey-weighted (design-based) omnibus tests, in which statistical significance indicates that the prevalence distribution differs significantly across groups. Continuous variables, specifically age, were tested using weighted t-tests.

Table 2.1. ACS One-Year PUMS Sample Sizes, 2015–2019

Year	Unweighted <i>N</i>
2015	3,147,005
2016	3,156,487
2017	3,190,040
2018	3,214,539
2019	3,239,553

SOURCE: Features information from U.S. Census Bureau, 2016a; U.S. Census Bureau, 2017a; U.S. Census Bureau, 2018a; U.S. Census Bureau, 2019a; U.S. Census Bureau, 2020a.

We present several metrics in this chapter that build from the ACS’s survey instrument. Although many of the variables we used are self-explanatory (e.g., age, sex, geographic distribution), our approach for the remaining metrics is briefly summarized here:

- **Veteran Status:** Respondents were asked, “Has this person ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?” From 2007 to 2012, those respondents aged 18 years or older who selected “Yes, on active duty during the last 12 months, but not now” or “Yes, on active duty in the past, but not during the last 12 months” were categorized as veterans. From 2013 onward, when the variable values changed, only respondents who selected “On active duty in the past, but not now” were categorized accordingly.
- **Nonveteran Status:** Respondents aged 18 years or older who selected “No, never served in the military,” “Never served in the military,” “No, training for Reserves/National Guard only,” or “Only on active duty for training in Reserves/National Guard” were categorized as nonveterans. Those on active duty were excluded from this measure and from total population measures that sum veterans and nonveterans.
- **Era of Service:** Respondents were asked, “When did this person serve on active duty in the U.S. Armed Forces?” and given the option to select multiple periods of service. Respondents aged 18 years or older who selected “Gulf War: 9/2001 or later” were categorized as post-9/11 veterans, even if they had also served previously.
- **Race and Ethnicity:** Respondents were provided with 15 overall options from which to choose their race in the ACS, as well as a write-in option. Respondents were then recoded by the ACS into a combined nine-part measure of race. Additionally, respondent ethnicity is captured in a separate question. For our analyses, these two variables are combined into a four-part measure capturing whether each respondent is (1) non-Hispanic White, (2) non-Hispanic Black, (3) Hispanic or Latino, and (4) non-Hispanic multiracial or other race.

Overview of Relevant Statistics

We report these statistics for six demographic characteristics: (1) population size, (2) sex, (3) age, (4) race and ethnicity, (5) educational attainment, and (6) geographic distribution. We initially compare across two sets of groups (veterans and nonveterans) and then compare internally among veterans (pre- and post-9/11).

Size of the Veteran Population

We begin with relevant statistics related to the sizes of the veteran and nonveteran populations over time. As of 2019, the population of the United States consisted of roughly 251 million adults, and less than 7 percent of that population qualified as a veteran (roughly 17.5 million adults). This proportion has decreased over time, even as the size of the nonveteran adult population has incrementally increased. These estimates are shown in Table 2.2.

Table 2.2. Sizes of the Veteran and Nonveteran Adult Populations, 2007–2019

Year	<i>n</i>	Population Size	Percentage of Adult Population
Veterans			
2007	259,102	22,916,819	10.1
2008	254,513	22,414,156	9.8
2009	248,921	21,846,704	9.4
2010	244,765	21,773,671	9.3
2011	243,549	21,489,275	9.1
2012	239,072	21,232,917	8.9
2013	221,516	19,583,993	8.1
2014	218,637	19,294,022	7.9
2015	213,148	18,841,296	7.6
2016	209,694	18,516,709	7.4
2017	205,093	18,189,257	7.2
2018	203,605	17,921,162	7.1
2019	204,190	17,411,251	6.9
Nonveterans			
2007	2,024,140	203,834,065	89.9
2008	2,041,284	206,577,820	90.2
2009	2,078,410	209,451,560	90.6
2010	2,115,028	212,399,046	90.7
2011	2,182,207	215,249,640	90.9
2012	2,191,511	218,025,528	91.1
2013	2,227,321	222,078,201	91.9
2014	2,240,765	225,097,858	92.1

Year	<i>n</i>	Population Size	Percentage of Adult Population
2015	2,267,146	228,036,592	92.4
2016	2,283,936	230,096,124	92.6
2017	2,315,549	232,985,145	92.8
2018	2,348,675	235,007,690	92.9
2019	2,383,885	236,751,566	93.1

SOURCE: Features information from U.S. Census Bureau, 2008; U.S. Census Bureau, 2009; U.S. Census Bureau, 2010; U.S. Census Bureau, 2011; U.S. Census Bureau, 2012; U.S. Census Bureau, 2013; U.S. Census Bureau, 2014; U.S. Census Bureau, 2015; U.S. Census Bureau, 2016a; U.S. Census Bureau, 2017a; U.S. Census Bureau, 2018a; U.S. Census Bureau, 2019a; U.S. Census Bureau, 2020a.

NOTE: The *n* values represent unweighted sample sizes. The population sizes and percentages represent the population distribution after weighting. Adult population includes all respondents 18 years and older who are not on active duty.

Breaking the data down further, by era of service, shows that the population of veterans in the United States is predominantly from older generations (see Table 2.3), although this balance is shifting. In 2007, only 8 percent of the veteran population had served following the September 11 attacks. By 2019, post-9/11 veterans still represented only 22 percent of the veteran population. Despite the cultural and political importance of the United States' post-9/11 conflicts, the fact remains that most current veterans did not participate in them, having served instead in the Gulf and Vietnam wars. Nevertheless, the relative size of the pre-9/11 cohort of veterans is declining over time. Between 2007 and 2019, there was a 35-percent decline in the pre-9/11 veteran population. The post-9/11 generation, meanwhile, has more than doubled in size in the same period, peaking in 2019 at an estimated 3,769,932 veterans.

Table 2.3. Size of the Veteran Population, by Era of Service, 2007–2019

Year	<i>n</i>	Population Size	Percentage of Veteran Population
Pre-9/11 veterans			
2007	243,430	21,135,284	92.2
2008	238,152	20,607,933	91.9
2009	231,609	19,940,635	91.3
2010	224,369	19,496,042	89.5
2011	222,033	18,979,319	88.3
2012	215,465	18,472,537	87.0
2013	196,637	16,832,269	85.9
2014	191,988	16,309,921	84.5
2015	184,742	15,678,215	83.2
2016	179,408	15,166,892	81.9
2017	172,934	14,684,329	80.7
2018	169,195	14,179,599	79.1

Year	<i>n</i>	Population Size	Percentage of Veteran Population
2019	168,355	13,641,319	78.3
Post-9/11 veterans			
2007	15,672	1,781,535	7.8
2008	16,361	1,806,223	8.1
2009	17,312	1,906,069	8.7
2010	20,396	2,277,629	10.5
2011	21,516	2,509,956	11.7
2012	23,607	2,760,380	13.0
2013	24,879	2,751,724	14.1
2014	26,649	2,984,101	15.5
2015	28,406	3,163,081	16.8
2016	30,286	3,349,817	18.1
2017	32,159	3,504,928	19.3
2018	34,410	3,741,563	20.9
2019	35,835	3,769,932	21.7

SOURCE: Features information from U.S. Census Bureau, 2008; U.S. Census Bureau, 2009; U.S. Census Bureau, 2010; U.S. Census Bureau, 2011; U.S. Census Bureau, 2012; U.S. Census Bureau, 2013; U.S. Census Bureau, 2014; U.S. Census Bureau, 2015; U.S. Census Bureau, 2016a; U.S. Census Bureau, 2017a; U.S. Census Bureau, 2018a; U.S. Census Bureau, 2019a; U.S. Census Bureau, 2020a.

NOTE: The *n* values represent unweighted sample sizes. The population sizes and percentages represent the population distribution after weighting.

Sex

The veteran population remains predominantly male compared with the nonveteran population. Overall in 2019, only 9 percent of the veteran population was female, compared with 55 percent of the nonveteran population (Table 2.4).

Table 2.4. Sex of the Veteran and Nonveteran Populations, 2019

	<i>n</i>	Percentage of Population
Veterans		^a
Male	186,672	91.0
Female	17,518	9.0
Nonveterans		^a
Male	1,063,363	45.4
Female	1,320,522	54.6

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting. The nonveteran population includes all respondents 18 years and older who are not on active duty.

^a denotes a statistically significant difference in the population distribution by sex between veterans and nonveterans.

However, the male-female balance within the veteran population has shifted significantly over time. Whereas only 7 percent of the pre-9/11 veteran population is female, 17 percent of all post-9/11 veterans are female (Table 2.5). These differences are statistically significant.

Table 2.5. Sex of the Veteran Population, by Era of Service, 2019

	<i>n</i>	Percentage of Population
Pre-9/11 veterans		^a
Male	156,626	93.0
Female	11,729	7.0
Post-9/11 veterans		^a
Male	30,046	83.0
Female	5,789	17.0

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting.

^a denotes a statistically significant difference in the population distribution by sex between pre- and post-9/11 veterans.

Age

Veterans in the United States (with an average age of 62 years old) tend to be older than the average adult nonveteran (with an average age of only 47 years old) (Table 2.6). These differences are statistically significant, if biased by the fact that the veteran population is by definition already retired from prior military service.

Table 2.6. Average Age of the Veteran and Nonveteran Populations, 2019

	<i>n</i>	Average Age
Veterans	204,190	62 years old
Nonveterans	2,383,885	47 years old

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The averages represent the population mean after weighting. Nonveteran population includes all respondents 18 years and older who are not on active duty.

^a denotes a statistically significant difference in mean age between veterans and nonveterans.

Within the veteran population, the average age of post-9/11 veterans was markedly younger (39 years old) than that of pre-9/11 veterans (68 years old) as of 2019 (Table 2.7).

Table 2.7. Average Age of the Veteran Population, by Era of Service, 2019

	<i>n</i>	Average Age
Pre-9/11 veterans	168,355	68 years old
Post-9/11 veterans	35,835	39 years old

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The averages represent the population mean after weighting.

^a denotes a statistically significant difference in mean age between pre-9/11 veterans and post-9/11 veterans.

Race and Ethnicity

The racial and ethnic composition of veterans is different from that of the nonveteran population in several key ways, summarized in Table 2.8. The proportion of veterans of Hispanic or Latino descent is much lower (7 percent) than their comparable share in the nonveteran population (17 percent), as is the proportion of veterans of other or multiple races (5 percent) compared with their nonveteran peers (9 percent). However, the proportion of Black veterans within the overall veteran population (12 percent) is comparable with the proportion of Black nonveterans in the rest of the U.S. population (12 percent). Accordingly, the proportion of White veterans within the overall veteran population is higher (76 percent) than the proportion of White nonveterans in the rest of the adult population (62 percent). In the aggregate, these differences are statistically significant.

Table 2.8. Race and Ethnicity of the Veteran and Nonveteran Populations, 2019

	<i>n</i>	Percentage of Population
Veterans		^a
Hispanic/Latino	11,973	7.2
Non-Hispanic Black	18,693	12.0
Non-Hispanic multiracial/other race	8,171	4.5
Non-Hispanic White	165,353	76.2
Nonveterans		^a
Hispanic/Latino	315,648	17.1
Non-Hispanic Black	214,746	12.1
Non-Hispanic multiracial/other race	206,508	9.0
Non-Hispanic White	1,646,983	61.8

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting. The nonveteran population includes all respondents 18 years and older who are not on active duty. Totals may not sum to 100 because of rounding.

^a denotes a statistically significant difference in the population distribution by race and ethnicity between veterans and nonveterans.

The racial and ethnic breakdown of the pre-9/11 cohort of veterans is also statistically significantly different from their post-9/11 peers, as shown in Table 2.9. The pre-9/11 population is more heavily weighted toward White veterans, with a reduced proportion of Hispanic/Latino and other/multiracial veterans. The post-9/11 population of veterans arguably more closely resembles the overall nonveteran U.S. population in 2019, with a lower proportion of White veterans (65 percent) and higher proportions of Black veterans (15 percent), Hispanic/Latino veterans (13 percent), and other/multiracial veterans (7 percent).

Table 2.9. Race and Ethnicity of the Veteran Population, by Era of Service, 2019

	<i>n</i>	Percentage of Population
Pre-9/11 veterans		^a
Hispanic/Latino	7,978	5.7
Non-Hispanic Black	14,682	11.2
Non-Hispanic multiracial/other race	5,629	3.7
Non-Hispanic White	140,066	79.4
Post-9/11 veterans		^a
Hispanic/Latino	3,995	13.0
Non-Hispanic Black	4,011	15.1
Non-Hispanic multiracial/other race	2,542	7.2
Non-Hispanic White	25,287	64.7

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting.

^a denotes a statistically significant difference in the population distribution by race and ethnicity between pre-9/11 veterans and post-9/11 veterans.

Educational Attainment

In terms of educational attainment (Table 2.10), veterans possessed bachelor's degrees or higher at only marginally lower proportions (29 percent) compared with nonveterans (31 percent) as of 2019. They more frequently had some college education and less frequently had less than a high school education than the nonveteran population. Although statistically significant in the aggregate, these differences are small in magnitude.

Table 2.10. Educational Attainment of the Veteran and Nonveteran Populations, 2019

	<i>n</i>	Percentage of Population
Veterans		^a
Less than high school	11,359	5.3
High school or equivalent	58,424	28.0
Some college	74,599	37.5
Bachelor's degree or higher	59,808	29.2
Nonveterans		^a
Less than high school	263,010	11.9
High school or equivalent	647,943	27.6
Some college	707,837	29.8
Bachelor's degree or higher	765,095	30.8

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting. The nonveteran population includes all respondents 18 years and older who are not on active duty. Totals may not sum to 100 because of rounding.

^a denotes a statistically significant difference in the population distribution by educational attainment between veterans and nonveterans.

Within the veteran population (as shown in Table 2.11), post-9/11 veterans more frequently possess bachelor's or higher degrees of education (at 35 percent) than their pre-9/11 counterparts (at 28 percent) and less frequently possess only a high school education. These differences are statistically significant in the aggregate and are at least in some part because of the fact that younger generations of Americans are more likely to have a bachelor's degree than older generations.

Table 2.11. Educational Attainment of the Veteran Population, by Era of Service, 2019

	<i>n</i>	Percentage of Population
Pre-9/11 veterans		^a
Less than high school	10,543	6.2
High school or equivalent	51,382	30.1
Some college	59,821	36.0
Bachelor's degree or higher	46,609	27.7
Post-9/11 veterans		^a
Less than high school	816	2.2
High school or equivalent	7,042	20.4
Some college	14,778	42.9
Bachelor's degree or higher	13,199	34.5

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting.

^adenotes a statistically significant difference in the population distribution by educational attainment between pre-9/11 veterans and post-9/11 veterans.

Geographic Distribution of the Veteran Population

Finally, we examined the geographic distribution of the veteran population relative to nonveterans across all 50 states and Washington, D.C. In Table 2.12, we present the top ten states in which veterans and nonveterans reside. One-quarter of all veterans live in three states: California, Texas, and Florida. The same is true for nonveterans, largely because these are the three most populous states in the country. And yet, veterans appear to be underrepresented in California relative to the general population and overrepresented in Florida. Although the aggregate difference in the distribution of veteran and nonveteran populations by state is statistically significant, the substantive differences are few, with one notable exception: Virginia. This is likely explained by the sheer concentration of military bases and governmental facilities near Washington, D.C.

Table 2.12. Geographic Distribution of the Veteran and Nonveteran Populations, 2019

Top Ten States by Veteran and Nonveteran Population Size	<i>n</i>	Percentage of Population
Veterans		a
California	17,085	8.5
Texas	16,903	8.1
Florida	16,390	8.0
Pennsylvania	8,568	4.1
Ohio	7,647	3.8
Virginia	7,218	3.8
New York	8,596	3.8
North Carolina	7,357	3.7
Georgia	6,954	3.5
Illinois	6,592	3.0
Nonveterans		a
California	285,423	12.3
Texas	194,180	8.5
Florida	154,522	6.7
New York	153,004	6.2
Pennsylvania	97,194	4.0
Illinois	93,560	3.9
Ohio	88,231	3.6
North Carolina	75,270	3.2
Georgia	73,114	3.1
Michigan	74,375	3.1

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting. The nonveteran population includes all respondents 18 years and older who are not on active duty.

^a denotes a statistically significant difference in the population distribution by all states between veterans and nonveterans.

Extending this analysis further in Table 2.13, we find that post-9/11 veterans are more heavily concentrated in Texas, Virginia, and Georgia relative to their pre-9/11 counterparts. Pre-9/11 veterans are slightly more heavily concentrated in Pennsylvania, Ohio, and New York. These differences in the geographic distribution of veteran cohorts are statistically significant in the aggregate across all 50 states.

Table 2.13. Geographic Distribution of the Veteran Population, by Era of Service, 2019

Top Ten States by Veteran Population Size	<i>n</i>	Percentage of Population
Pre-9/11 veterans		^a
California	14,078	8.4
Florida	13,780	8.2
Texas	13,116	7.4
Pennsylvania	7,438	4.4
Ohio	6,603	4.0
New York	7,387	4.0
North Carolina	5,918	3.6
Georgia	5,535	3.4
Michigan	5,758	3.3
Virginia	5,102	3.2
Post-9/11 veterans		^a
Texas	3,787	10.5
California	3,007	8.6
Florida	2,610	7.3
Virginia	2,116	5.7
Georgia	1,419	4.1
North Carolina	1,439	3.9
Washington	1,208	3.3
Pennsylvania	1,130	3.2
Ohio	1,044	3.0
New York	1,209	2.9

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting.

^a denotes a statistically significant difference in the population distribution by all states between pre-9/11 veterans and post-9/11 veterans.

Table 2.14 presents the proportion of veterans as a share of the overall adult populations of states, specifically highlighting those states where veterans represent the highest and lowest proportions. Accounting for the adult population size of each state in this way, we find that veterans are heavily concentrated in the mountain and western states and in the mid-Atlantic. In Alaska, Montana, and Virginia specifically, we find that one in ten adults in the state are veterans. At the other end of the spectrum, we find that New York, New Jersey, and Washington, D.C., have the lowest proportion of veterans relative to overall adult populations—with veterans representing roughly one in 20 adults in each state.

Table 2.14. Proportion of Veterans as a Share of Statewide Adult Populations, 2019

States by Veteran Share of Overall Population	<i>n</i>	Percentage of Adult Population
Top ten		
Alaska	484	10.9
Montana	917	10.1
Virginia	7,218	10.0
Wyoming	465	9.5
Idaho	1,364	9.2
Delaware	772	9.2
Maine	1,213	9.0
South Dakota	651	9.0
Nevada	2,351	8.8
Oklahoma	2,806	8.8
Bottom ten		
Minnesota	3,526	6.3
Rhode Island	623	5.8
Illinois	6,592	5.4
Connecticut	1,820	5.3
Massachusetts	3,309	5.0
Utah	1,317	5.0
California	17,085	4.8
Washington, D.C.	268	4.4
New Jersey	3,537	4.4
New York	8,596	4.3

SOURCE: Features information from U.S. Census Bureau, 2019a.

NOTE: The *n* values represent unweighted sample sizes. The percentages represent the population distribution after weighting. The total adult population consists of veteran respondents and nonveteran respondents 18 years and older who are not on active duty. Statistical significance was not tested.

Broad Themes

These statistics reveal several broad themes about the demographics of the veteran population in the United States:

- Veterans are declining as a percentage of the overall population, largely because of overall aging among pre-9/11 veterans and the declining size of the all-volunteer U.S. military.
- Veterans on average are older, more likely to be male, and less racially or ethnically diverse than the overall nonveteran population.

- However, the population of post-9/11 veterans is younger, more diverse (in terms of sex and race and ethnicity), and more educated than earlier cohorts of veterans.
- Post-9/11 veterans are growing in absolute size, although they remain less than one-quarter of the overall veteran population.
- The geographic distribution of veterans across the United States is roughly similar to the distribution of nonveterans, with slightly higher proportions of veterans living in some states with a significant military presence—such as Virginia and Florida.
- There are some differences in the geographic distribution of veterans based on era of service. Specifically, higher proportions of post-9/11 veterans live in Texas, Virginia, and Georgia, and higher proportions of pre-9/11 veterans live in Florida, Pennsylvania, Ohio, and New York. When we account for population size, we find that Alaska, Montana, and Virginia have the highest proportions of veterans (one in ten adults), and New York, New Jersey, and Washington, D.C., have the lowest (one in 20).

Chapter 3. Mental Health of the Veteran Population

In this chapter, we present estimates focused on the mental health of veterans using data from NSDUH. This chapter begins with a discussion of our data and analytic methodology, proceeds to summarize a set of relevant statistics derived from these data, and concludes with a brief summary of the themes revealed in these statistics. We focus specifically on measures of mental health (serious psychological distress and suicidality), substance use and disorders (binge drinking, marijuana use, opioid misuse, illicit drug use, alcohol use disorder, and drug use disorder), and mental health or substance use treatment utilization.

Data Sources and Methodology

NSDUH is an annual nationally representative survey on drug use among the civilian, noninstitutionalized U.S. population aged 12 and older. NSDUH data were collected via in-person interviews, which included computer-assisted self-interviewing (to increase accuracy of reporting regarding sensitive topics, including drug use). Survey respondents gave written informed consent and were compensated with \$30. Additional details regarding survey sampling and methodology can be found via NSDUH's publicly available website.⁴

Data for the estimates presented in this chapter are pooled from each of the 2015–2019 iterations of NSDUH.⁵ Of the total pooled 2015–2019 sample of 282,768 respondents, 214,505 respondents were adults aged 18 and older. Among adult respondents, 11,876 (5.5 percent) were classified as veterans. See Table 3.1 for sample size and response rates for each NSDUH survey year.

⁴ See NSDUH, “About the Survey,” webpage, undated.

⁵ We pooled NSDUH data across 2015–2019 to increase statistical power to examine differences across groups, particularly sexual identity groups. (Sexual identity was first assessed on NSDUH in 2015.) NSDUH 2020 data were not used, as guidance from the Substance Abuse and Mental Health Services Administration (SAMHSA) indicates that these data are not directly comparable with data from previous years, because of COVID-19–related changes to survey administration.

Table 3.1. NSDUH Sample Size and Survey Response Rates, 2015–2019

Year	Unweighted <i>N</i>	Response Rate Percentage
2015	57,146	70
2016	56,897	68
2017	56,276	67
2018	56,313	67
2019	56,136	65
Pooled 2015–2019	282,768 overall respondents 214,505 adult respondents	

SOURCE: Features information from SAMHSA, Center for Behavioral Health Statistics and Quality (CBHSQ), 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

In this chapter, we present comparisons of veteran and nonveteran respondents, both overall and stratified by age. We conducted significance testing between the overall veteran and nonveteran populations. Additionally, we present age-stratified results, testing for differences across age groups separately for veterans and nonveterans.

Importantly, we did not conduct significance testing comparing veterans and nonveterans within the same age group. We note that for multiple outcomes (particularly substance use) considered in this chapter, overall significance testing comparing veteran and nonveteran populations in the aggregate might indicate that prevalence of certain outcomes is significantly lower in the veteran population than in the nonveteran population. Yet examination of our age-stratified tables will often indicate that, for nearly all age groups, rates of specific outcomes might be higher for veterans than for nonveterans. This seemingly contradictory phenomenon is known as Simpson’s paradox, which can arise when comparing two populations with pronounced compositional differences. In this case, most outcomes examined in this chapter are more common among younger adults, and the nonveteran population skews much younger than the veteran population. Because of this, even if rates are truly higher among veterans than among nonveterans in every age group, the overall rate among nonveterans might be higher than among veterans because of the higher proportion of younger adults in the nonveteran population.

This phenomenon underscores the challenge in making head-to-head comparisons between the veteran and nonveteran populations throughout this chapter and this broader report, as there are key compositional differences across these populations (of which age is only one example). Significant overall differences reported in this chapter therefore indicate whether veterans, as a population subgroup, are more or less likely to experience a given outcome relative to nonveterans in the aggregate. Future analyses could attempt to control for these compositional differences, seeking to answer the question, “Holding demographics constant, is veteran status associated with a given outcome?”

Additionally, we examine differences among veterans with respect to age, service era, sex, race and ethnicity, and sexual identity. All prevalence estimates presented are weighted to

account for NSDUH’s survey design. Significance testing was conducted using survey-weighted (design-based) F-tests. For categorical variables (e.g., race and ethnicity), this is an omnibus test, in which statistical significance indicates that the prevalence distribution differs significantly across groups. Throughout this report, we consider a result to be statistically significant for $p < 0.05$.

We present several metrics in this chapter that build from the NSDUH’s survey instrument. Our approach for these metrics is briefly summarized here:

- **Veteran Status:** Respondents were classified as veterans based on two NSDUH items, the first assessing whether the respondent had ever served on active duty in the U.S. armed forces. Individuals who responded affirmatively were then asked their current military status, and those who responded “Now separated/retired from military” were classified as veterans.
- **Era of Service:** Respondents were asked, “When did you serve on active duty in the United States Armed Forces or Reserve components?” Respondents were categorized as those who served during the “September 2001 or later” era or the “pre-September 2001” era.
- **Sex:** NSDUH classifies respondent sex (male or female) based on interviewer observation or inquiry during the screening and selection phase of the survey.
- **Race and Ethnicity:** Respondents were classified into four categories: non-Hispanic White, non-Hispanic Black, Hispanic/Latino, and non-Hispanic multiracial/other race (includes Asian, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander).
- **Sexual Identity:** Respondents were asked, “Which one of the following do you consider yourself to be?” Responses included “heterosexual, that is, straight,” “lesbian or gay,” “bisexual,” and “don’t know.” Comparisons are restricted to respondents who identified as heterosexual, lesbian/gay, and bisexual.
- **Serious Psychological Distress:** This measure was assessed with the K6 screening instrument for nonspecific psychological distress. Respondents with a score of 13 or greater (out of 24) were classified as having serious psychological distress.
- **Alcohol Use Disorder:** A respondent was classified as having a past-year alcohol use disorder if they met the alcohol abuse or dependence criteria in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV), in the past 12 months.
- **Drug Use Disorder:** A respondent was classified as having a past-year drug use disorder if they met DSM-IV abuse or dependence criteria for marijuana or any illicit drug (including prescription pain relievers, sedatives, stimulants, or tranquilizers) in the past 12 months.
- **Suicidality:** NSDUH assesses three measures of suicidality: suicidal thoughts, suicide plans, and suicide attempts. Suicidal thoughts were measured by asking, “At any time in the past 12 months did you seriously think about trying to kill yourself?” Those who answered yes were asked about plans and attempts. Suicide plans were assessed by asking, “During the past 12 months, did you make any plans to kill yourself?” Suicide attempts were assessed by asking, “During the past 12 months, did you try to kill yourself?”

- **Binge Drinking:** This measure was defined as at least one occurrence of binge drinking (four or more drinks in a day for women and five or more drinks in a day for men) in the past 30 days.
- **Marijuana Use:** This measure was defined as at least one episode of marijuana use in the past 12 months.
- **Opioid Misuse:** Respondents were categorized as having past-year opioid misuse if they endorsed either past-year heroin use or prescription pain reliever misuse (i.e., use in “any way a doctor did not direct you to use them”).
- **Illicit Drug Use:** Illicit drug use was defined as any past-year use of hallucinogens, inhalants, methamphetamine, cocaine/crack, or heroin or nonmedical misuse of prescription pain relievers, sedatives, stimulants, or tranquilizers.
- **Mental Health Treatment:** This measure was assessed based on a NSDUH-derived variable that indicates whether an individual received treatment or counseling for “any problems . . . [related to] emotions, nerves, or mental health.” This measure encompasses counseling, treatment, or pharmacotherapy received at such settings as outpatient mental health clinics or medical clinics, day treatment programs, or the office of a private therapist, clinician, social worker, or counselor; use of support or self-help groups; counseling from a spiritual or religious adviser; and use of telephone hotlines and excludes treatment for alcohol or drug use.
- **Alcohol/Drug Treatment:** This measure was assessed based on a NSDUH-derived variable that indicates whether an individual received treatment or counseling for the use of alcohol or any drug (not counting cigarettes) in the past year. This measure includes treatment or counseling at specialty facilities (inpatient or outpatient), rehabilitation facilities (inpatient or outpatient), medical clinics, and mental health centers; use of support or self-help groups; and counseling from a spiritual or religious adviser.

Overview of Relevant Statistics

Using each of these metrics, we next present three overall sets of statistics related to veterans’ mental health—including psychological distress and suicidality, substance use behaviors and disorders, and mental health and alcohol/drug treatment service utilization.

Psychological Distress and Suicidality

We begin with relevant statistics related to veterans’ serious psychological distress and suicidality—measured across age groups, era of service, sex, race and ethnicity, and sexual identity.

First, we examine differences by age group for both veterans and nonveterans (Table 3.2). Among veterans, prevalence of serious psychological distress significantly differed by age, declining in prevalence from 18.7 percent among the 18–34 age group to 2.9 percent among the 65+ age group. Overall, prevalence of serious psychological distress was significantly higher among nonveterans (11.6 percent) compared with veterans (6.9 percent). Within a given age group, prevalence estimates were relatively similar for veterans and nonveterans; in aggregate,

however, the overall prevalence was statistically significantly lower for veterans compared with nonveterans.

In terms of suicidality, 3.8 percent of veterans reported past-year suicidal ideation, 1.0 percent reported making a suicide plan in the past year, and 0.3 percent reported attempting suicide in the past year. For both veterans and nonveterans, prevalence of these three indicators of suicidality decreased across age groups. Among veterans, prevalence of suicidal ideation was 8.2 percent for those aged 18–34, 6.2 percent for those aged 35–49, 4.1 percent among those aged 50–64, and 2.3 percent among those aged 65 or above. Among veterans, prevalence of suicide attempts was 1.0 percent for those aged 18–34, 0.6 percent for those aged 35–49, 0.3 percent among those aged 50–64, and 0.0 percent among those aged 65 or above.

The prevalence of suicidal ideation and suicide plans was numerically higher for veterans than for nonveterans in many age groups (although we did not conduct significance testing of these differences). When we tested overall prevalence rates, we found that the prevalence of suicide attempts was statistically significantly lower for veterans relative to nonveterans; no differences were observed for suicidal ideation or suicide plans.

Table 3.2. Prevalence of Past-Year Serious Psychological Distress and Suicidality Among Veterans and Nonveterans, by Age Group

	<i>n</i>	Serious Psychological Distress Percentage	Suicidal Ideation Percentage	Suicide Plan Percentage	Suicide Attempt Percentage
All veterans	9,298	6.9 ^a	3.8	1.0	0.3 ^a
<i>Age group</i>		<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>
18–34	1,728	18.7	8.2	2.8	1.0
35–49	2,461	13.8	6.2	2.3	0.6
50–64	1,747	7.2	4.1	1.2	0.3
65+	3,362	2.9	2.3	0.3	0.0
All nonveterans	205,207	11.6 ^a	4.4	1.3	0.6 ^a
<i>Age group</i>		<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>
18–34	112,204	19.5	7.7	2.4	1.2
35–49	54,105	10.9	3.6	1.0	0.4
50–64	23,466	7.8	2.8	0.7	0.3
65+	15,432	4.0	1.7	0.4	0.2

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

^a denotes a statistically significant difference between veterans and nonveterans in the aggregate.

^b denotes a statistically significant omnibus test across age groups.

Next, we examine differences within the veteran population by era of service (Table 3.3), where we see significant differences between pre-9/11 and post-9/11 veterans. Prevalence of serious psychological distress was significantly higher among post-9/11 veterans (15.3 percent)

compared with pre-9/11 veterans (5.1 percent). In terms of suicidality, relative to pre-9/11 veterans, post-9/11 veterans had significantly elevated rates of suicidal ideation (7.0 percent versus 3.2 percent), suicide plans (2.1 percent versus 0.8 percent), and suicide attempts (0.6 percent versus 0.2 percent).

Although the goal of this report is not to examine potential factors that are driving the observed service-era differences, we note that age is likely to be one such factor; as highlighted in Chapter 2, pre-9/11 veterans are older than post-9/11 veterans. Numerous other factors—including service-era-specific exposures and risk factors—might also be contributors.

Table 3.3. Prevalence of Past-Year Serious Psychological Distress and Suicidality Among Veterans, by Era of Service

<i>Era of service</i>	<i>n</i>	Serious Psychological Distress Percentage	Suicidal Ideation Percentage	Suicide Plan Percentage	Suicide Attempt Percentage
		^a	^a	^a	^a
Pre-9/11	6,303	5.1	3.2	0.8	0.2
Post-9/11	2,995	15.3	7.0	2.1	0.6

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to era of service.

Table 3.4 presents differences within the veteran population by sex. Prevalence of serious psychological distress was significantly higher among female veterans (18.0 percent) compared with male veterans (6.1 percent). Similarly, prevalence of all three indicators of suicidality was significantly higher among female veterans compared with male veterans. Prevalence of suicidal ideation was 7.2 percent among female veterans and 3.6 percent among male veterans, prevalence of suicide plans was 2.7 percent among female veterans and 0.9 percent among male veterans, and prevalence of suicide attempts was 1.0 percent among female veterans and 0.2 percent among male veterans.

Although our goal in reporting these statistics is not to identify the main factors that are driving these gender differences, we note that age is likely to be a key contributor once again. Male and female veterans exhibit significantly different age distributions: More than 50 percent of male veterans were 65 or older and approximately 21 percent were under 50, whereas only 16 percent of female veterans were 65 or older and nearly 50 percent were under 50. Additional factors—such as discrimination based on sex (both within and outside the military environment); lifetime experiences of sexual harassment or assault; differential stressors related to family formation and caregiving; and hormonal influences—might also be contributors.

Table 3.4. Prevalence of Past-Year Serious Psychological Distress and Suicidality Among Veterans, by Sex

	<i>n</i>	Serious Psychological Distress Percentage	Suicidal Ideation Percentage	Suicide Plan Percentage	Suicide Attempt Percentage
Sex		a	a	a	a
Male	8,295	6.1	3.6	0.9	0.2
Female	1,003	18.0	7.2	2.7	1.0

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to sex.

Table 3.5 presents differences within the veteran population by race and ethnicity. White veterans had the lowest rate of serious psychological distress (6.6 percent), compared with Black veterans (7.7 percent), Hispanic/Latino veterans (8.5 percent), and veterans who are multiracial or of another race (8.4 percent). Similarly, White veterans had the lowest rate of suicidal ideation (3.7 percent), compared with Black veterans (3.9 percent), Hispanic/Latino veterans (4.5 percent), and multiracial/other race veterans (4.6 percent). Prevalence of suicide plans ranged from 0.6 percent among multiracial/other race veterans to 1.3 percent among Hispanic/Latino veterans. Rates of suicide attempts ranged from 0.1 percent among both Hispanic/Latino and multiracial/other race veterans to 0.6 percent among Black veterans. However, none of these differences in serious psychological distress or suicidality among racial/ethnic groups were statistically significant.

Table 3.5. Prevalence of Past-Year Serious Psychological Distress and Suicidality Among Veterans, by Race and Ethnicity

	<i>n</i>	Serious Psychological Distress Percentage	Suicidal Ideation Percentage	Suicide Plan Percentage	Suicide Attempt Percentage
Race/ethnicity					
White	6,920	6.6	3.7	1.0	0.2
Black	1,101	7.7	3.9	1.2	0.6
Hispanic/Latino	683	8.5	4.5	1.3	0.1
Multiracial/other race	594	8.4	4.6	0.6	0.1

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to race and ethnicity.

Finally, we examine differences within the veteran population in terms of sexual identity (Table 3.6). Prevalence of serious psychological distress was more than three times higher among bisexual veterans (22.8 percent) and more than two times higher among gay/lesbian

veterans (14.6 percent), compared with heterosexual veterans (6.6 percent). Similarly, prevalence of suicidal ideation was more than four times higher among bisexual veterans (15.4 percent) and more than two times higher among gay/lesbian veterans (8.3 percent), compared with heterosexual veterans (3.6 percent). Rates of suicide plans were significantly elevated among bisexual veterans (6.5 percent) and gay/lesbian veterans (3.5 percent) compared with heterosexual veterans (0.9 percent). Bisexual veterans also had a markedly higher rate of suicide attempts (1.3 percent) relative to gay/lesbian veterans (0.3 percent) and heterosexual veterans (0.2 percent).

Again, a multitude of underlying factors might be driving these differences by sexual identity. Demographic differences might play a role, as age distribution varies significantly across sexual identity, with gay/lesbian and bisexual veterans being younger, on average, than heterosexual veterans. Specifically, although 23 percent of heterosexual veterans are under age 50, 34 percent of gay/lesbian veterans and 49 percent of bisexual veterans are under age 50. Gender distribution also varies across sexual identity, as a higher proportion of bisexual and gay/lesbian veterans are female relative to heterosexual veterans. Additional contributing factors might include experiences of discrimination and harassment on the basis of sexual identity, lower social and economic support among gay/lesbian or bisexual veterans, and higher prevalence of sexual assault among gay/lesbian or bisexual veterans, among others.

Table 3.6. Prevalence of Past-Year Serious Psychological Distress and Suicidality Among Veterans, by Sexual Identity

	<i>n</i>	Serious Psychological Distress Percentage	Suicidal Ideation Percentage	Suicide Plan Percentage	Suicide Attempt Percentage
<i>Sexual identity</i>		^a	^a	^a	^a
Heterosexual	8,904	6.6	3.6	0.9	0.2
Gay/lesbian	121	14.6	8.3	3.5	0.3
Bisexual	201	22.8	15.4	6.5	1.3

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to sexual identity.

Substance Use Behaviors and Disorders

We next turn to relevant statistics related to veterans’ substance use disorders and behaviors—measured across age groups, era of service, sex, race and ethnicity, and sexual identity.

First, we focus on differences across age groups for both veterans and nonveterans (Table 3.7). Among veterans, prevalence of all substance use outcomes—binge drinking, marijuana use, opioid misuse, illicit drug use (excluding marijuana use), alcohol use disorder, and drug use disorder—significantly differed by age, consistently declining in prevalence from the 18–34 age

group to the 65+ age group. For example, prevalence of alcohol use disorder among veterans ranged from 10.3 percent among those aged 18–34 to 2.7 percent among those aged 65 and older, and prevalence of drug use disorder ranged from 3.5 percent among those aged 18–34 to 0.4 percent among those aged 65 and older.

When we compared veterans and nonveterans within a given age group, we found that the prevalence of binge drinking was numerically higher for veterans than for nonveterans (note that we did not conduct statistical testing for these comparisons), especially for the youngest (age 18–34) and oldest (age 65+) groups. Similarly, veterans consistently exhibited higher rates of alcohol use disorder than nonveterans in every age group; for example, veterans' rate of alcohol use disorder was nearly double that of nonveterans in the 65+ age group (2.7 percent versus 1.5 percent). Within age groups, rates of marijuana use were generally similar for veterans and nonveterans but were elevated for veterans aged 50–64 relative to nonveterans (13.3 percent versus 10.3 percent). Estimates of opioid misuse and illicit drug use were generally similar for veterans and nonveterans for all age groups.

Despite many of the age-specific rates being higher for veterans, the overall prevalence of every substance use behavior was significantly higher in the nonveteran population relative to the veteran population. This seemingly paradoxical finding (an example of Simpson's paradox) reflects the clear compositional differences in these populations (e.g., the nonveteran sample skews much younger than the veteran sample).

Table 3.7. Prevalence of Serious Substance Use Behaviors and Disorders Among Veterans and Nonveterans, by Age Group

	<i>n</i>	Past-Month Binge Drinking (%)	Past-Year Marijuana Use (%)	Past-Year Opioid Misuse (%)	Past-Year Illicit Drug Use (Not Marijuana) (%)	Past-Year Alcohol Use Disorder (%)	Past-Year Drug Use Disorder (%)	Past-Year Alcohol or Drug Use Disorder (%)
Veterans	9,298	22.9 ^a	10.2 ^a	2.9 ^a	5.5 ^a	4.9 ^a	1.6 ^a	6.0 ^a
<i>Age group</i>		b	b	b	b	b	b	b
18–34	1,728	45.3	28.3	6.6	15.0	10.3	3.5	12.3
35–49	2,461	34.7	14.8	4.7	8.7	7.2	2.9	9.4
50–64	1,747	26.7	13.3	4.0	7.2	6.1	2.6	7.9
65+	3,362	13.9	4.5	1.3	2.2	2.7	0.4	3.1
Nonveterans	205,207	26.7 ^a	15.9 ^a	4.3 ^a	9.2 ^a	6.0 ^a	2.9 ^a	8.0 ^a
<i>Age group</i>		b	b	b	b	b	b	b
18–34	112,204	36.8	28.9	6.7	16.5	9.4	5.9	13.4
35–49	54,105	29.7	13.9	4.5	8.2	6.2	2.5	7.9
50–64	23,466	22.7	10.3	3.2	5.9	4.6	1.5	5.7
65+	15,432	10.0	3.6	1.4	2.4	1.5	0.3	1.8

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant difference between veterans and nonveterans in the aggregate.

^b denotes a statistically significant omnibus test across age groups.

Next, we examine differences within the veteran population by era of service (Table 3.8). Pre-9/11 and post-9/11 veterans differed significantly with respect to substance use behaviors, with post-9/11 veterans consistently exhibiting higher substance use. Specifically, post-9/11 veterans had significantly higher rates, relative to pre-9/11 veterans, of binge drinking (36.5 percent versus 19.9 percent), marijuana use (18.7 percent versus 8.4 percent), opioid misuse (4.7 percent versus 2.6 percent), and illicit drug use (10.1 percent versus 4.5 percent). In terms of substance use disorders, post-9/11 veterans also had significantly elevated rates of alcohol use disorder (8.0 percent versus 4.2 percent), drug use disorder (2.9 percent versus 1.3 percent), and alcohol or drug use disorder (9.8 percent versus 5.2 percent) compared with pre-9/11 veterans.

Table 3.8. Prevalence of Serious Substance Use Behaviors and Disorders Among Veterans, by Era of Service

	<i>n</i>	Past-Month Binge Drinking (%)	Past-Year Marijuana Use (%)	Past-Year Opioid Misuse (%)	Past-Year Illicit Drug Use (Not Marijuana) (%)	Past-Year Alcohol Use Disorder (%)	Past-Year Drug Use Disorder (%)	Past-Year Alcohol or Drug Use Disorder (%)
<i>Era of service</i>		a	a	a	a	a	a	a
Pre-9/11	6,303	19.9	8.4	2.6	4.5	4.2	1.3	5.2
Post-9/11	2,995	36.5	18.7	4.7	10.1	8.0	2.9	9.8

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to era of service.

Table 3.9 presents differences within the veteran population by sex. Prevalence of binge drinking and marijuana use did not significantly differ by sex. Likewise, no significant differences were observed for alcohol use disorder, drug use disorder, and alcohol or drug use disorder between male and female veterans. Female veterans did, however, have significantly elevated rates of opioid misuse (5.9 percent versus 2.7 percent) and illicit drug use (9.4 percent versus 5.2 percent) compared with male veterans.

Table 3.9. Prevalence of Serious Substance Use Behaviors and Disorders Among Veterans, by Sex

	<i>n</i>	Past-Month Binge Drinking (%)	Past-Year Marijuana Use (%)	Past-Year Opioid Misuse (%)	Past-Year Illicit Drug Use (Not Marijuana) (%)	Past-Year Alcohol Use Disorder (%)	Past-Year Drug Use Disorder (%)	Past-Year Alcohol or Drug Use Disorder (%)
<i>Sex</i>				a	a			
Male	8,295	22.7	10.0	2.7	5.2	4.8	1.6	6.0
Female	1,003	24.5	13.1	5.9	9.4	4.9	2.0	5.9

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to sex.

Table 3.10 presents differences within the veteran population by race and ethnicity. In terms of substance use, significant differences across racial/ethnic groups were observed for both binge drinking and marijuana use. Binge drinking ranged from 21.7 percent among White veterans to 32.7 percent among Hispanic/Latino veterans. Marijuana use ranged from 9.1 percent among White veterans to 14.7 percent among Black veterans. For opioid misuse and illicit drug use, differences across racial/ethnic groups were not statistically significant. Opioid misuse was lowest among Hispanic/Latino veterans (2.7 percent) and highest among Black veterans (3.4

percent). Prevalence of illicit drug use ranged from 5.2 percent of White veterans to 7.9 percent of Hispanic/Latino veterans. In terms of substance use disorders, differences across racial/ethnic groups were not statistically significant. Prevalence of alcohol use disorder was lowest for multiracial/other race veterans (3.4 percent) and highest for Hispanic/Latino veterans (6.7 percent). Prevalence of drug use disorder ranged from 1.4 percent among White veterans to 2.6 percent among multiracial/other race veterans.

Table 3.10. Prevalence of Serious Substance Use Behaviors and Disorders Among Veterans, by Race and Ethnicity

<i>Race and ethnicity</i>	<i>n</i>	Past-Month Binge Drinking (%)	Past-Year Marijuana Use (%)	Past-Year Opioid Misuse (%)	Past-Year Illicit Drug Use (Not Marijuana) (%)	Past-Year Alcohol Use Disorder (%)	Past-Year Drug Use Disorder (%)	Past-Year Alcohol or Drug Use Disorder (%)
White	6,920	21.7	9.1	2.9	5.2	4.7	1.4	5.8
Black	1,101	24.7	14.7	3.4	5.7	5.5	2.4	6.7
Hispanic/Latino	683	32.7	13.6	2.7	7.9	6.7	1.6	7.6
Multiracial/other race	594	23.1	13.3	2.8	6.4	3.4	2.6	5.5

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to race and ethnicity.

Finally, we examine differences within the veteran population in terms of sexual identity (Table 3.11). Prevalence of all four substance use behaviors was significantly elevated among gay/lesbian and bisexual veterans relative to heterosexual veterans. Prevalence of marijuana use was similar between gay/lesbian and bisexual veterans (28.7 percent and 26.9 percent, respectively), but prevalence was elevated for bisexual veterans compared with gay/lesbian veterans for binge drinking (42.8 percent versus 33.1 percent), illicit drug use (26.8 percent versus 10.3 percent), and opioid misuse (10.9 percent versus 5.1 percent). Alcohol use disorder was also significantly elevated among bisexual veterans (22.2 percent, nearly five-fold higher) and gay/lesbian veterans (7.4 percent) compared with heterosexual veterans (4.6 percent). Prevalence of drug use disorder was 6.0 percent among bisexual veterans, 3.8 percent among gay/lesbian veterans, and 1.5 percent among heterosexual veterans.

Table 3.11. Prevalence of Serious Substance Use Behaviors and Disorders Among Veterans, by Sexual Identity

	<i>n</i>	Past-Month Binge Drinking (%)	Past-Year Marijuana Use (%)	Past-Year Opioid Misuse (%)	Past-Year Illicit Drug Use (Not Marijuana) (%)	Past-Year Alcohol Use Disorder (%)	Past-Year Drug Use Disorder (%)	Past-Year Alcohol or Drug Use Disorder (%)
<i>Sexual identity</i>		a	a	a	a	a	a	a
Heterosexual	8,904	22.5	9.8	2.8	5.1	4.6	1.5	5.7
Gay/lesbian	121	33.1	28.7	5.1	10.3	7.4	3.8	10.1
Bisexual	201	42.8	26.9	10.9	26.8	22.2	6.0	24.6

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to sexual identity.

Mental Health and Alcohol/Drug Treatment Service Utilization

We finally turn to relevant statistics related to veterans’ mental health and alcohol/drug treatment service utilization—measured across age groups, era of service, sex, race and ethnicity, and sexual identity.

First, we focus on differences across age groups for both veterans and nonveterans (Table 3.12). Among veterans, rates of mental health treatment significantly differed across age groups, ranging from 20.6 percent among those aged 35–49 to 9.0 percent among those aged 65 or older. Overall, nonveterans were significantly more likely than veterans to have received any mental health treatment in the past year (15.0 percent versus 13.7 percent). However, veterans under age 65 were more likely than same-age nonveteran peers to get mental health treatment, whereas older veterans (age 65 or older) were less likely than nonveteran peers.

Among veterans, rates of alcohol/drug treatment significantly differed by age, decreasing from 3.1 percent of those aged 18–34 to 0.7 percent of those aged 65 or older. For every age group, veterans were more likely than nonveteran peers to have received alcohol/drug treatment. The overall prevalence of past-year alcohol/drug treatment did not significantly differ between veterans (1.4 percent) and nonveterans (1.5 percent).

Table 3.12. Prevalence of Past-Year Mental Health Treatment and Alcohol/Drug Treatment Among Veterans, by Age Group

	<i>n</i>	Any Past-Year Mental Health Treatment Percentage	Any Past-Year Alcohol/Drug Treatment Percentage
Veterans	9,298	13.7 ^a	1.4
<i>Age group</i>		b	b
18–34	1,728	19.1	3.1
35–49	2,461	20.6	2.1
50–64	1,747	17.3	1.6
65+	3,362	9.0	0.7
Nonveterans	205,207	15.0 ^a	1.5
<i>Age group</i>		b	b
18–34	112,204	14.9	2.1
35–49	54,105	16.2	1.8
50–64	23,466	16.2	1.2
65+	15,432	11.6	0.4

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant difference between veterans and nonveterans in the aggregate.

^b denotes a statistically significant omnibus test across age groups.

Next, we focus on differences within the veteran population by era of service (Table 3.13), where significant differences were observed. Relative to pre-9/11 veterans, post-9/11 veterans were significantly more likely to have received any mental health treatment (21.3 percent versus 12.0 percent) or any alcohol/drug treatment (2.3 percent versus 1.2 percent).

Table 3.13. Prevalence of Past-Year Mental Health Treatment and Alcohol/Drug Treatment Among Veterans, by Era of Service

	<i>n</i>	Any Past-Year Mental Health Treatment Percentage	Any Past-Year Alcohol/Drug Treatment Percentage
<i>Era of service</i>		a	a
Pre-9/11	6,303	12.0	1.2
Post-9/11	2,995	21.3	2.3

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to era of service.

Next, we examine differences within the veteran population by sex (Table 3.14). Female veterans were significantly more likely to have received mental health treatment than male veterans (31.3 percent versus 12.3 percent). Alcohol/drug treatment was also higher among

female veterans than among male veterans (2.3 percent versus 1.3 percent), but this difference was not statistically significant.

Table 3.14. Prevalence of Past-Year Mental Health Treatment and Alcohol/Drug Treatment Among Veterans, by Sex

	<i>n</i>	Any Past-Year Mental Health Treatment Percentage	Any Past-Year Alcohol/Drug Treatment Percentage
Sex		^a	
Male	8,295	12.3	1.3
Female	1,003	31.3	2.3

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to sex.

Table 3.15 presents differences within the veteran population by race and ethnicity. Rates of mental health treatment ranged from 13.2 percent among White veterans to 17.5 percent among Hispanic/Latino veterans. Utilization of alcohol/drug treatment was lowest among White and Hispanic/Latino veterans (1.2 percent) and highest among multiracial/other race veterans (2.5 percent). For both outcomes, differences across racial/ethnic groups were not statistically significant.

Table 3.15. Prevalence of Past-Year Mental Health Treatment and Alcohol/Drug Treatment Among Veterans, by Race and Ethnicity

	<i>n</i>	Any Past-Year Mental Health Treatment Percentage	Any Past-Year Alcohol/Drug Treatment Percentage
Race and ethnicity			
White	6,920	13.2	1.2
Black	1,101	13.8	2.1
Hispanic/Latino	683	17.5	1.2
Multiracial/other race	594	15.9	2.5

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to race and ethnicity.

Table 3.16 presents differences within the veteran population in terms of sexual identity. Gay/lesbian and bisexual veterans were significantly more likely than heterosexual veterans to have received either mental health treatment or alcohol/drug treatment in the past year. Specifically, 33.8 percent of gay/lesbian veterans and 37.1 percent of bisexual veterans received any mental health treatment, compared with 13.1 percent of heterosexual veterans. Additionally,

5.1 percent of bisexual veterans and 2.1 percent of gay/lesbian veterans received any alcohol/drug treatment, compared with 1.3 percent of heterosexual veterans.

Table 3.16. Prevalence of Past-Year Mental Health Treatment and Alcohol/Drug Treatment Among Veterans, by Sexual Identity

<i>Sexual identity</i>	<i>n</i>	Any Past-Year Mental Health Treatment Percentage	Any Past-Year Alcohol/Drug Treatment Percentage
		a	a
Heterosexual	8,904	13.1	1.3
Gay/lesbian	121	33.8	2.1
Bisexual	201	37.1	5.1

SOURCE: Features information from SAMHSA, CBHSQ, 2016; SAMHSA, CBHSQ, 2017; SAMHSA, CBHSQ, 2018; SAMHSA, CBHSQ, 2019; SAMHSA, CBHSQ, 2020.

NOTE: 2015–2019 NSDUH data are pooled.

^a denotes a statistically significant omnibus test across the veteran population with respect to sexual identity.

Broad Themes

Broadly speaking, these statistics reveal several broad themes about the mental health of the U.S. veteran population. In terms of the prevalence of serious psychological distress and suicidality among the U.S. veteran population, we found:

- Overall, 6.9 percent of veterans met criteria for past-year serious psychological distress. Age-group specific prevalence was numerically similar for veterans and nonveterans. Approximately 4 percent of veterans reported past-year suicidal ideation, 1 percent reported past-year suicide plans, and 0.3 percent reported past-year suicide attempts. The prevalence of suicidal ideation and suicide plans was numerically higher for veterans than for nonveterans in nearly every age group.
- Prevalence of serious psychological distress and suicidality did not significantly differ by race and ethnicity. Serious psychological distress and measures of suicidality were significantly higher among female veterans, gay/lesbian and bisexual veterans, and post-9/11 veterans.

In terms of the prevalence of substance use behaviors and disorders among the U.S. veteran population, we found:

- Overall, nearly one-quarter of veterans reported past-month binge drinking, and approximately 5 percent of veterans met criteria for an alcohol use disorder. Approximately 10 percent of veterans reported past-year marijuana use, 5 percent reported past-year illicit drug use (excluding marijuana use), 3 percent reported past-year opioid misuse, and nearly 2 percent met criteria for a drug use disorder. Within every age group, the prevalence of binge drinking and alcohol use disorder was numerically higher for veterans than for nonveterans.
- Sexual-minority veterans and post-9/11 veterans had significantly elevated rates of alcohol use disorder, drug use disorder, binge drinking, marijuana use, opioid misuse, and

illicit drug use (excluding marijuana use). Compared with male veterans, female veterans had higher rates of binge drinking, marijuana use, opioid misuse, and illicit drug use (excluding marijuana use), but no differences were observed for alcohol use disorder or drug use disorder. Differences across racial/ethnic groups were observed only for binge drinking and marijuana use.

In terms of the utilization of mental health and alcohol/drug treatment among the U.S. veteran population, we found:

- Overall, in the past year, 13.7 percent of veterans received any mental health treatment and 1.4 percent received any alcohol/drug treatment. Younger veterans (under age 65) were more likely than nonveteran peers to get mental health treatment, whereas older veterans (age 65 or older) were less likely than nonveteran peers to get treatment. For every age group, veterans were more likely than nonveteran peers to get alcohol/drug treatment.
- Post-9/11 veterans and sexual-minority veterans were significantly more likely than pre-9/11 veterans and heterosexual veterans to have received any mental health or alcohol/drug treatment in the past year. Female veterans were more likely than male veterans to have received mental health treatment but not alcohol/drug treatment. No differences were observed by race and ethnicity.

Chapter 4. Labor Market Trends of the Veteran Population

This final chapter explores trends and statistics focused on veterans’ participation in the labor market, drawing primarily from the CPS. It begins with a discussion of our data and analytic methodology, proceeds to summarize a set of relevant statistics derived from these data, and concludes with a brief summary of the themes revealed in these statistics. We focus specifically on trends in veteran unemployment, labor force participation, industry and sector of employment, hours worked, family income, and college enrollment among working-age adults.

Data Sources and Methodology

The CPS is a monthly survey administered by the Census Bureau that captures employment and demographic data for the U.S. noninstitutionalized population. Households are selected by area of residence to represent the country, states, and other geographical areas and are sampled for eight months spread across two consecutive years.

Data for the estimates presented in this chapter are drawn from each of the 2015–2019 iterations of the March CPS, also known as the ASEC. In addition to the basic monthly CPS labor items, the March ASEC asks respondents questions about work experience, compensation, and migration, but our analyses only pull from the basic monthly items. Data from the 2020 CPS are excluded because of the impact of the COVID-19 pandemic. We also exclude from our analysis any respondents actively serving in the U.S. military and focus solely on the civilian veteran and nonveteran populations. The civilian sample sizes for the CPS ASEC from 2015 to 2019 are summarized in Table 4.1.

Table 4.1. CPS ASEC Civilian Sample Sizes, 2015–2019

Year	Unweighted <i>N</i>
2015	198,320
2016	184,842
2017	185,301
2018	179,453
2019	179,508

SOURCE: Features information from U.S. Census Bureau, 2016b; U.S. Census Bureau, 2017b; U.S. Census Bureau, 2018b; U.S. Census Bureau, 2019b; U.S. Census Bureau, 2020b.

In this chapter, we present comparisons of veteran and nonveteran respondents. Additionally, we examine differences among veterans with respect to race and ethnicity and sector of employment. All estimates are weighted using the basic monthly CPS final weight, and

significance tests incorporate survey design factors through use of the replicate weights. The CPS final weight is based on the probability of a person's selection to participate in the survey and is adjusted for the sampling methods and survey nonresponse.

We present several metrics in this chapter that build from the CPS's survey instrument. Our approach for these metrics is briefly summarized here:

- **Veteran:** Veterans are defined as ever having served on active duty in the U.S. armed forces. Those respondents who reported that they were serving in the armed forces at the time of the survey are excluded from all analyses in this section.
- **Labor Force Participation Rate:** This measure is calculated as the percentage of those employed or unemployed out of the total working-age population (aged 18–64). The *employed* category includes both those who are actively at work and those who are absent from work.
- **Unemployment Rate:** This measure is calculated as the percentage of respondents who are not employed out of the total number of working-age respondents in the labor force.
- **Highest Educational Attainment:** This measure is aggregated from the variable for highest level of school completed or degree received. High school graduation and GED are considered equivalent.
- **Industry of Employment:** This measure is determined using the North American Industry Classification System variable.
- **Sector of Employment:** The CPS gathers data for whether a worker's primary job is in the private sector, in the government, self-employment, or without pay. The CPS considers someone self-employed if they work for profit in their own business, profession, trade, or farm. We used these data to assign sector of employment as either public or private, treating self-employment and employment without pay as private sector.
- **Average Weekly Hours Worked:** This measure uses the CPS item that sums the reported usual hours worked per week at each employed person's primary job and any other jobs (if applicable).
- **Family Income:** This measure is recategorized from the CPS's family income item, which combines the annual income of all family members aged 15 and older. This measure includes salaries, farm and rental income, pensions, dividends, interest, and any other money income.
- **College or University Enrollment:** This measure is based on those respondents who reported enrollment in a college or university in the previous week. This survey item was asked only of respondents aged 16–54; hence, our estimates of university enrollment apply only to adults under age 55 rather than all working-age adults.

Overview of Relevant Statistics

Using each of these metrics, we next present four sets of statistics related to veterans' labor market outcomes: labor force participation and unemployment, industry and sectors of employment, family income, and college enrollment.

Labor Force Participation and Unemployment

We begin with relevant statistics related to veterans' labor force participation and unemployment rates, summarized in Table 4.2. Since 2015, the labor force participation rate for veterans has hovered around 76 percent, although comparable rates for nonveterans averaged closer to 75 percent. In 2015 and 2019 only, veterans' labor force participation was statistically significantly higher than that of nonveterans, and veterans' participation in the labor force was roughly 1.5 percentage points higher than nonveterans, in both years. There were no major differences in labor force participation between veterans and nonveterans between 2016 and 2018.

Beyond their somewhat higher labor force participation, veterans also experience somewhat lower unemployment rates on average than nonveterans, according to these estimates. We found that the unemployment rate for veterans was statistically significantly lower than comparable estimates for nonveteran unemployment in each year except for 2018. Veterans' unemployment rates reached their lowest in 2019, at 2.9 percent, compared with 3.9 percent for nonveterans.

Table 4.2. Labor Force Participation and Unemployment Rates Among Working-Age Veterans and Nonveterans, 2015–2019

	<i>n</i>	Labor Force Participation Rate Percentage	Unemployment Rate Percentage
<i>Veterans</i>			
2015	6,048	76.3 ^a	5.0 ^a
2016	5,460	75.3	4.1 ^a
2017	5,243	75.6	3.6 ^a
2018	4,979	76.6	4.3
2019	4,936	77.1 ^a	2.9 ^a
<i>Nonveterans</i>			
2015	112,702	74.7 ^a	5.6 ^a
2016	104,760	75.4	5.1 ^a
2017	104,966	75.5	4.4 ^a
2018	101,075	75.8	4.1
2019	101,048	76.3 ^a	3.9 ^a

SOURCE: Features information from U.S. Census Bureau, 2016b; U.S. Census Bureau, 2017b; U.S. Census Bureau, 2018b; U.S. Census Bureau, 2019b; U.S. Census Bureau, 2020b.

NOTE: ^a denotes a statistically significant difference between veterans and nonveterans within a given year.

Table 4.3 displays the labor force participation and unemployment rates for veterans and nonveterans in 2019 specifically, broken down by race and ethnicity. Labor force participation was highest among White adults for both veterans (78.6 percent) and nonveterans (77.6 percent), although the rate for Hispanic and Latino veterans was comparable in magnitude. Labor force participation rates were lowest for Black veterans (71.1 percent) and nonveterans (73.3 percent). An omnibus test comparing the distributions of these rates between veterans and nonveterans

across all races and ethnicities was statistically significant, indicating that the relationship between race and ethnicity and labor force participation is different across these two populations.

In terms of unemployment rates, Black veterans had a higher unemployment rate (6.2 percent) than their White veteran counterparts (2.5 percent), although Hispanic/Latino veterans had the lowest unemployment rate (1.3 percent). Similar differences existed between Black and White nonveteran populations, but not for the nonveteran Hispanic/Latino population—which had a higher unemployment rate than White nonveterans. Aggregate differences in the distribution of unemployment rates by race and ethnicity between veteran and nonveteran populations were also found to be statistically significant, meaning that the relationship between race and ethnicity and unemployment is different across these two populations as well.

Table 4.3. Labor Force Participation and Unemployment Rates Among Working-Age Veterans and Nonveterans, by Race and Ethnicity, 2019

	<i>n</i>	Labor Force Participation Rate Percentage	Unemployment Rate Percentage
<i>Veterans</i>		^a	^a
White non-Hispanic	3,378	78.6	2.5
Black non-Hispanic	721	71.1	6.2
Hispanic/Latino	507	78.5	1.3
Other/multiple races non-Hispanic	330	73.2	1.8
<i>Nonveterans</i>		^a	^a
White non-Hispanic	58,264	77.6	3.1
Black non-Hispanic	11,215	73.3	6.7
Hispanic/Latino	21,170	75.8	4.8
Other/multiple races non-Hispanic	10,399	73.6	4.2

SOURCE: Features information from U.S. Census Bureau, 2020b.

^a denotes a statistically significant omnibus test within each population (of veterans and nonveterans) with respect to race and ethnicity.

Table 4.4 displays labor force participation and unemployment rates in 2019 for both veterans and nonveterans, broken down by levels of educational attainment. Veterans with college and advanced degrees participate in the labor force at marginally lower rates than their nonveteran peers but experience slightly lower unemployment rates. Veterans with less than a high school degree show greater labor force participation rates and higher unemployment rates than their nonveteran peers, although small sample sizes in the veteran population could be affecting these results. We see similar labor force participation, and slightly lower unemployment, for veterans with only a high school degree. Overall, the aggregate differences in the distribution of both unemployment and labor force participation rates are statistically significant when we compare veterans with nonveterans—although we did not test the pairwise

significance of differences in labor force participation or unemployment rates at specific levels of education.

Table 4.4. Labor Force Participation and Unemployment Rates Among Working-Age Veterans and Nonveterans, by Educational Attainment, 2019

	<i>n</i>	Labor Force Participation Rate Percentage	Unemployment Rate Percentage
<i>Veterans</i>		^a	^a
Less than high school	93	61.6	8.8
High school degree or equivalent	3,316	74.1	3.6
Bachelor's degree	928	82.8	1.8
Advanced degree	599	87.3	0.8
<i>Nonveterans</i>		^a	^a
Less than high school	11,402	57.0	8.1
High school degree or equivalent	56,249	74.1	4.6
Bachelor's degree	21,706	84.5	2.3
Advanced degree	11,691	88.5	1.7

SOURCE: Features information from U.S. Census Bureau, 2020b.

^a denotes a statistically significant omnibus test within each population (of veterans and nonveterans) with respect to education.

Industry and Sector of Employment

The CPS also includes detailed information about industry of employment. Table 4.5 compares the percentages of working-age, employed veterans and nonveterans in 20 major industries. The industries with the largest overrepresentation of veterans employed compared with nonveterans are public administration (+9.3 percent), transportation and warehousing (+4.3 percent), and manufacturing (+3.5 percent). The industries with the largest underrepresentation of veterans employed compared with nonveterans are educational services (−5.7 percent), health care and social assistance (−5.2 percent), and accommodation and food services (−3.6 percent). The overall industry breakdown of veteran employment is statistically significantly different from that of nonveteran employment in the aggregate, meaning that veterans and nonveterans are employed in statistically significantly different sets of industries. However, we did not test the pairwise significance of veteran and nonveteran employment in any one industry.

Table 4.5. Employment Among Working-Age Veterans and Nonveterans, by Industry, 2019

<i>Industry</i>	<i>n</i>	Veteran Employment Percentage	Nonveteran Employment Percentage	Difference Percentage^a
Accommodation and food services	5,646	3.8	7.4	-3.6
Administrative and support and waste management and remediation services	3,216	3.5	4.2	-0.7
Agriculture, forestry, fishing, and hunting	1,215	1.1	1.3	-0.2
Arts, entertainment, and recreation	1,548	1.8	2.0	-0.2
Construction	5,691	8.0	7.2	0.8
Educational services	7,604	4.2	9.9	-5.7
Finance and insurance	3,631	2.8	4.8	-2.0
Health care and social assistance	10,965	8.8	14.0	-5.2
Information	1,745	3.0	2.3	0.7
Management of companies and enterprises	98	0.1	0.1	0.0
Manufacturing	7,272	13.1	9.6	3.5
Mining, quarrying, and oil and gas extraction	554	0.8	0.5	0.3
Other services (except public administration)	3,731	3.1	4.7	-1.6
Professional, scientific, and technical services	5,919	9.6	8.1	1.5
Public administration	3,988	13.4	4.1	9.3
Real estate and rental and leasing	1,462	2.0	2.0	0.0
Retail trade	7,794	7.2	10.2	-3.0
Transportation and warehousing	3,594	9.0	4.7	4.3
Utilities	676	2.2	0.8	1.4
Wholesale trade	1,690	2.7	2.2	0.5

SOURCE: Features information from U.S. Census Bureau, 2020b.

NOTE: Public administration includes job codes for “Executive offices and legislative bodies,” “Public finance activities,” “Other general government and support,” “Justice, public order, and safety activities,” “Administration of human resource programs,” “Administration of environmental quality and housing programs,” “Administration of economic programs and space research,” and “National security and international affairs.”

^a denotes a statistically significant difference between veterans and nonveterans in the aggregate.

We also examined employment percentages and average weekly hours worked between working-age adults employed in the public sector compared with the private sector in Table 4.6. Beyond the public administration industry, captured in the preceding table, this public sector measure includes additional workers in other government-run industries, such as public education, public transportation, and government-run health care facilities.

In 2019, veterans were more heavily employed in the public sector (21.8 percent) than nonveterans (13.5 percent), likely because of veteran hiring preferences for many federal public sector jobs, as well as the transferability of some military skills into civilian governmental roles. Veterans also reported working slightly higher average weekly hours (42.9 in the public sector and 42.8 in the private sector) compared with their nonveteran counterparts (40.0 in the public sector and 39.9 in the private sector). The differences between veterans and nonveterans are

statistically significant in the aggregate for both sector of employment and average weekly hours worked.

Table 4.6. Employment and Average Weekly Hours Worked Among Working-Age Employed Veterans and Nonveterans, by Sector of Employment, 2019

	<i>n</i>	Percentage Employed in Sector ^a	Average Weekly Hours ^a
<i>Veterans</i>			
Public sector	867	21.8	42.9
Private sector	2,639	78.2	42.8
<i>Nonveterans</i>			
Public sector	10,075	13.5	40.0
Private sector	59,675	86.5	39.9

SOURCE: Features information from U.S. Census Bureau, 2020b.

^a denotes a statistically significant difference between veterans and nonveterans in the aggregate.

Family Income

The CPS also includes information on family income, reported in Table 4.7. In 2019, the distribution of family incomes for working veterans was skewed higher than family incomes for working nonveterans, with more veterans falling into all income ranges above \$50,000 than their nonveteran counterparts, by a difference of about 1 to 3 percentage points. Nonveterans were slightly more prevalent in lower income brackets compared with veterans—with the percentage of working nonveterans in the \$0–\$24,999 and \$25,000–\$49,999 brackets exceeding that of working veterans by about 4 percentage points for each bracket. In the aggregate, the differences between the family income distributions of veterans and nonveterans were statistically significant. Effectively, this suggests that the family income profile of the average working veteran is simply different from that of the average working nonveteran. We do not test the pairwise significance between veterans and nonveterans in each income bracket.

Table 4.7. Family Income Among Working-Age Employed Veterans and Nonveterans, 2019

	<i>n</i>	Percentage of Working Nonveterans ^a	Percentage of Working Veterans ^a
<i>Income</i>			
\$150,000+	13,392	17.5	19.1
\$100,000–\$149,999	14,486	18.1	21.1
\$75,000–\$99,999	12,046	15.5	18.3
\$50,000–\$74,999	15,299	19.4	20.3
\$25,000–\$49,999	15,337	19.8	15.3
\$0–\$24,999	7,479	9.8	5.9

SOURCE: Features information from U.S. Census Bureau, 2020b.

^a denotes a statistically significant difference between working-age veterans and working-age nonveterans in the aggregate.

College Enrollment

We also examined the prevalence of college or university enrollment among working-age adults between the ages of 18 and 54, including those veterans and nonveterans who were enrolled in higher education while actively employed (Table 4.8). Working-age adults aged 55–64 are excluded from this analysis (unlike in the prior tables), as they were not asked questions about college enrollment as part of the CPS.

Over the 2015–2019 period, the rate of enrollment in colleges or universities for veterans began at its lowest point of 6.6 percent in 2015, then rose to 9.0 percent in 2016 and remained above 8.0 percent thereafter. For nonveterans, this rate stood constant at 11.3 percent for 2015–2017 before dropping slightly the next two years. We found the differences in enrollment rate when comparing veterans and nonveterans to be statistically significant in every year, suggesting that veterans were significantly less likely to be enrolled in a college or university than nonveterans.

We also found that roughly 60.0 percent of veterans who were enrolled in a college or university in each year were simultaneously employed while pursuing higher education. For nonveterans, this rate was consistently lower each year, between 51 and 54 percent. These differences are statistically significant, suggesting that veterans are significantly more likely than nonveterans to work while enrolled in higher education.

Table 4.8. College Enrollment and Concurrent Employment Among Working-Age Nondisabled Veterans and Nonveterans Aged 18–54, 2015–2019

	<i>n</i>	Percentage Enrolled in College or University	Percentage Enrolled in College or University While Working
<i>Veterans</i>			
2015	3,978	6.6 ^a	62.1 ^a
2016	3,593	9.0 ^a	58.6 ^a
2017	3,459	8.8 ^a	57.0 ^a
2018	3,285	8.3 ^a	60.5 ^a
2019	3,160	8.7 ^a	61.9 ^a
<i>Nonveterans</i>			
2015	92,040	11.3 ^a	51.0 ^a
2016	85,381	11.3 ^a	52.8 ^a
2017	85,238	11.3 ^a	52.5 ^a
2018	81,788	11.1 ^a	54.0 ^a
2019	81,281	10.8 ^a	53.5 ^a

SOURCE: Features information from U.S. Census Bureau, 2016b; U.S. Census Bureau, 2017b; U.S. Census Bureau, 2018b; U.S. Census Bureau, 2019b; U.S. Census Bureau, 2020b.

^a denotes a statistically significant difference between veterans and nonveterans within a given year.

Broad Themes

- Veterans exhibited slightly higher labor force participation compared with nonveterans between 2015 and 2019, but experienced similar unemployment rates.
- Veterans and nonveterans experienced significantly different unemployment rates and labor force participation rates based on their race and ethnicity. Black adults—both veterans and nonveterans—experienced lower labor force participation and higher unemployment than other races or ethnicities. Hispanic veterans experienced comparable levels of labor force participation to their White veteran counterparts, but lower unemployment rates. Hispanic nonveterans showed the opposite pattern, with lower labor force participation and higher rates of unemployment than White nonveterans.
- Levels of educational attainment varied significantly between veterans and nonveterans, with nonveterans more frequently possessing college and advanced degrees.
- Veterans were overrepresented in public administration, transportation and warehousing, and manufacturing industries compared with nonveterans and underrepresented in educational services, health care and social assistance, and accommodation and food service industries compared with nonveterans.
- Veterans were more frequently employed in public sector jobs (including nonadministration roles) than were nonveterans and reported working higher hours than nonveterans regardless of sector.
- Working-age veterans were more heavily concentrated in mid- to upper-family income brackets compared with nonveterans.

- Veterans exhibited lower college enrollment rates than nonveterans, but higher rates of working while enrolled in college or university compared with nonveterans.

Abbreviations

9/11	terrorist attacks of September 11, 2001
ACS	American Community Survey
ASEC	Annual Social and Economic Supplement
COVID-19	coronavirus disease 2019
CPS	Current Population Survey
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, fourth edition
NSDUH	National Survey on Drug Use and Health
PUMS	Public Use Microdata Sample
SAMHSA	Substance Abuse and Mental Health Services Administration

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