



# Estimating the Lifetime Prevalence of Incarceration in the U.S. Veteran Population

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## Abstract

This brief report estimates the lifetime prevalence of incarceration among U.S. military veterans using data from three nationally representative U.S. samples: the National Health and Resilience in Veterans Study (NHRVS;  $n=4069$ ), the National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III;  $n=3119$  veterans, and the National Veteran Homeless and Other Poverty Experiences (NV-HOPE;  $n=1004$ ). Across the three surveys, 3.5–10.6% (weighted mean=9.8%) of U.S. veterans reported they had been incarcerated some time in their lives for an average of 16.7 to 45.6 months (weighted mean=42.4). Among black veterans, the lifetime prevalence of incarceration ranged from 2.9 to 10.6% (weighted mean=13.4%) and among white veterans, the lifetime prevalence of incarceration ranged from 3.5 to 14.6% (weighted mean=9.7%). These contemporary estimates of incarceration among U.S. veterans highlight racial disparities and the extent of incarceration in this population, which may influence access to employment, housing, and healthcare.

**Keywords** Incarceration · Veterans · Race

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## Introduction

Despite public health concern about the risk of incarceration among U.S. veterans (Tsai et al., 2023), there is no national administrative database that exists on incarcerated veterans. The Departments of Justice (DOJ) and Veterans Affairs (VA) are separate federal agencies with no direct data-sharing to identify incarcerated veterans. The most common reported incarceration rates of veterans are from the U.S. Bureau of Justice Statistics, which conducts the Survey of Prison Inmates. The latest survey was conducted in 2016 (Maruschak et al., 2021), and to our knowledge, there are not more contemporary data. More importantly, this survey is only distributed to veterans who are already incarcerated, so the results can only report the prevalence of veterans among the carceral population. Consequently, there are no data on the prevalence of history of incarceration in the general veteran population. Unlike many psychosocial problems, a history of incarceration is of legal record, and can hinder access to housing, credit, employment, healthcare, and other resources (Blonigen et al., 2019; Tsai & Rosenheck, 2016). Thus, data on the lifetime prevalence of incarceration in veterans is important for policymakers, researchers, and healthcare and service providers to understand the magnitude and scope of the problem and associated challenges in this population.

Several nationally representative surveys have assessed for history of incarceration among U.S. veterans, but they have not been reported or synthesized together. In this brief report, we address this knowledge gap by analyzing data from 3 nationally representative surveys to estimate the lifetime prevalence of incarceration in the U.S. veteran population.

## Methods

The National Health and Resilience in Veterans Study (NHRVS) is a series of nationally representative surveys of U.S. veterans (Fogle et al., 2020). This study used data from a survey of 4069 U.S. veterans collected November 2019–March 2020. The NHRVS sample was drawn from KnowledgePanel®, a probability-based, online non-volunteer access survey panel of a nationally representative sample of U.S. adults that covers approximately 98% of U.S. households and is maintained by the research firm, Ipsos. Panel members are recruited through national random samples, originally by telephone, and now almost entirely by postal mail. Households are provided with access to the Internet and computer hardware if needed. Other details of the 2019 NHRVS methodology have been described elsewhere (Tsai et al., 2020). In the NHRVS, veterans were asked, “In your lifetime, were you ever arrested?” and respondents who responded affirmative were asked, “Did you serve any prison time?” Veterans who responded affirmative were asked, “For how long did you serve prison time?” and could respond in months and/or years.

The National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III) is a cross-sectional survey of a nationally representative sample

of 36,309 U.S. non-institutionalized adults aged 18 years or older (including 3119 veterans). Data were collected April 2012–June 2013. Multi-stage probability sampling was employed to select respondents randomly at the county, census and household levels. Interviewers conducted in-person structured interviews with respondents. Methodological details of the NESARC-III are described elsewhere (Grant et al., 2014). Regarding incarceration history, the NESARC-III included a question that asked “Since you were 18, were you ever in jail, prison, or a correctional facility?” This question was followed up with the question, “About how long altogether were you in jail or a correctional facility since you were 18?” and respondents could specify days, weeks, months, and/or years.

The National Veteran Homeless and Other Poverty Experiences (NV-HOPE) study surveyed a nationally representative sample of low-income U.S. veterans using the KnowledgePanel®. Low-income was defined as living in a household under 300% of the U.S. federal poverty level. The baseline survey for NV-HOPE was collected October 2021–December 2021 and included 1,004 veterans. Other details of NV-HOPE methodology have been described elsewhere (Tsai & Hooshyar, 2022). In NV-HOPE, veterans were asked the same series of questions as in the NHRVS.

All participants across the three data sources provided informed consent. Study protocols for NHRVS and NV-HOPE were reviewed by the institutional review board at the VA Connecticut Health Care System and determined to not constitute human participant research so formal ethical review was waived. The study protocol for NESARC-III was reviewed and approved by the institutional review board at Yale University (#IRB 1601017097). Analyses in this study incorporated the surveys’ respective complex design features including poststratification weights that accounted for non-response and population counts to be nationally representative.

## Results

As shown in Table 1, across the three nationally representative surveys, the overall lifetime prevalence of incarceration among U.S. veterans ranged from 3.5 to 10.6% (mean=9.8, 95% CI 9.7–9.9). Among veterans with any incarceration history, the total average number of months incarcerated ranged from 16.7 to 32.9 months (mean=42.4; SD=24.8).

Among black veterans, the lifetime prevalence of incarceration across the three surveys ranged from 3.5 to 10.6% (mean=13.4, 95% CI 13.1–13.7) and a total average number of months incarcerated ranged from 13.0 to 81.1 months (mean=54.9; SD=28.6). Among white veterans, the lifetime prevalence of incarceration ranged from 2.9 to 10.6% (mean=9.7, 95% CI 9.6–9.8) with a total average of 15.5–37.1 months incarcerated (mean=34.8; SD=23.5). In the NV-HOPE and NESARC-III surveys, black veterans had notably higher lifetime prevalence of incarceration ( $\Delta 4.7\%$  in NV-HOPE;  $\Delta 4.0\%$  in NESARC-III) and lifetime duration of incarceration (Cohen’s  $d=1.02$  in NV-HOPE and  $d=0.11$  in NESARC-III).

**Table 1** Estimates of lifetime prevalence of any incarceration among U.S. veterans from three nationally representative surveys

|   | National Health and Resilience in Veterans Study (2019) |                 |                 | National Epidemiological Survey on Alcohol and Related Conditions- III (2013) |                    |                    | National Veteran Homeless and Other Poverty Experiences Study (2021) |                 |                  |
|---|---|-----------------|-----------------|---|--------------------|--------------------|--|-----------------|------------------|
|   | Total   | White           | Black           | Total   | White              | Black              | Total  | White           | Black            |
| Sample size of veterans                                       | 4069  | 3176            | 296             | 36,309  | 19,194             | 7766               | 1004   | 787             | 96               |
| Lifetime prevalence of any incarceration history (95% CI)     | 3.5% (2.9–4.1%)   | 2.9% (2.4–3.6%) | 3.5% (2.0–5.6%) | 10.6% (10.6–10.6%)  | 10.6% (10.6–10.6%) | 14.6% (14.6–14.6%) | 5.5% (4.2–7.0%)  | 4.5% (3.2–6.1%) | 9.2% (5.1–15.0%) |
| Mean total lifetime months of incarceration (SD) <sup>a</sup> | 16.7 (31.3)   | 15.5 (27.0)     | 13.0 (38.9)     | 45.6 (347.1)  | 37.1 (311.9)       | 81.1 (462.0)       | 29.9 (42.4)  | 18.1 (31.3)     | 53.1 (37.3)      |

Total column includes veterans who are neither black nor white. *CI* confidence interval, *SD* standard deviation

<sup>a</sup>Lifetime months of incarceration are calculated only among veterans with any incarceration histories

## Discussion

Using data from three nationally representative surveys collected in the past decade, we found that an average of 9.8% (range 3.5–10.6%) of U.S. veterans report they have been incarcerated sometime in their lives. While these surveys asked veterans similar questions about experiences with incarceration, the surveys were conducted in different years, used different definitions of “incarceration,” and the NV-HOPE survey only surveyed low-income U.S. veterans, which may partly explain the variability in prevalence estimates. Nonetheless, these findings are some of the first to provide contemporary estimates of the lifetime prevalence of any incarceration history among veterans. The results can be contrasted with a general U.S. population estimate from 2016 of an estimated 5.7% lifetime prevalence of incarceration among U.S. adults (Roehrkasse & Wildeman, 2022).

In two of the three surveys, we found that black veterans were more likely than white veterans to have any incarceration history (> 5% prevalence). Black veterans also reported having been incarcerated for a longer period of time than white veterans, especially among low-income veterans (by one standard deviation, or nearly 6 years). This difference in incarceration rates between black and white veterans were less than that observed in the U.S. population where black men are more than twice as likely as white men to have been incarcerated (16.2% vs. 5.9%;  $\Delta$ 10.3%) (Roehrkasse & Wildeman, 2022). This finding is also consistent with a previous study that found racial differences in incarceration rates may be attenuated in the veteran population (Tsai et al., 2013), possibly due to benefits from military service, and access to healthcare and social benefits afforded to veterans.

## Program and Policy Implications

In conclusion, an estimated 1-of-10 to 1-of-25 U.S. veterans have experienced incarceration and on average, these veterans have experienced over a year of incarceration. These data may help inform public health services and policy efforts, as it is well-documented that incarceration can negatively affect health, including chronic medical conditions and mental health disorders (Massoglia & Pridemore, 2015). These impacts can exist long after release from incarceration (Latham-Mintus et al., 2023). Importantly, veterans with criminal records may experience more limited access to housing, credit, employment, healthcare, and other resources (Blonigen et al., 2019; Tsai & Rosenheck, 2016). These experiences may vary greatly between veterans of different military service eras (Bouffard, 2005; MacLean & Elder Jr, 2007). Nonetheless, given the racial differences we found in the prevalence and duration of incarceration, these challenges may be particularly salient for black veterans. Given that prior criminal history elevates the categorization of risk, justice-involved black veterans may be more likely to be characterized as dangerous and criminally oriented than their white counterparts and thereby experience additional obstacles in obtaining employment, housing, and healthcare access (Sreenivasan et al., 2022). Collectively, these findings inform the field about the scope, magnitude, and racial differences in incarceration among U.S. veterans.

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## Declarations

**Competing interests** The authors report there are no competing interests to declare.

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