VetPop2023: A Brief Description

The Department of Veterans Affairs (VA) updated the Veteran Population Projection Model (VetPop) with data through 2023 and projections for each year from 2024 to 2053. VetPop2023 is the latest in a series of Veteran Population Projection Models that provide data widely used both inside and outside of VA as the official estimate and projection of the total number of Veterans and their demographic and military characteristics. The new model replaces but maintains the general approach from the prior model, VetPop2020, and incorporates more recent information from VA and U.S. Department of Defense (DoD) as well as other data sources such as the American Community Survey (ACS) (U.S. Census Bureau 2022).[1]

VetPop2023 was developed by the National Center for Veterans Analysis and Statistics (NCVAS) within the Office of Enterprise Integration (OEI), Office of Data Governance and Analytics (DGA). It is used for both internal and external strategic, long-term planning and to understand the demographic characteristics of the Veteran population. This paper summarizes the methodology, data sources and results of the new model. Additional technical information on all aspects of the model is available from NCVAS.

What's New

- The model incorporates updated data on Veterans through 9/30/2023 from the Veteran Object (VO). The VO is a comprehensive data asset integrating VA's authoritative data on Veterans for enterprise analytics.
- Leveraging on enterprise analytics platforms has streamlined some of the modeling processes, resulting in improved efficiency.
- The VetPop2023 estimate of the starting population is about 17 thousand (0.1%) higher than the VetPop2020 projection.

Methodology

VetPop2023 is a deterministic population projection model that estimates and projects the living and deceased Veteran population at the end of each fiscal year (FY) from 2023 to 2053. Using the best available Veteran data at the end of FY2023 as the base population, living and deceased Veteran counts are projected by key demographic characteristics such as age and gender at various geographic levels for the next 30 years.

VetPop2023 estimates the baseline population count as of 9/30/2023 and projects one year at a time by accounting for mortality, inter-state migration, and military separation assumptions. The first task of baseline estimation involves selecting the qualifying individuals from the VO to ensure only those with valid identity and federal active-duty service, other than training, are included. As done in the previous models, the next step is to blend in the latest ACS estimates of Veteran population to account for data limitations in the VA administrative data on the older

[1] See the Major Data Sources section for a description of these and other sources.

Veterans. 2022 ACS estimates were the latest available data during the VetPop model update; VetPop2023 mortality assumptions were applied to the 2022 ACS 1-year estimates to serve as a proxy of the 2023 estimates and blended with the VO data.

The blended data then represent the estimated living Veteran population at the end of FY2023. The Veteran population counts from the blended data are then adjusted by subtracting deaths, applying state level net-migration assumptions, and then adding new military separations. Iteratively, the Veteran population is projected for each subsequent fiscal year to obtain projections for 30 fiscal years. Each year's projections are at the national and state levels by the core demographics of age, gender and race/ethnicity. Additional characteristics including period of service, officer status, and branch of service are projected by allocating the respective national or state projections. Race, ethnicity, and period of service projections are available at national and state levels. Officer status and branch of service projections are available at the national level.

For each projection year, the state level projections by age and gender are allocated to counties using general population trends obtained from Woods & Poole Economics (W&P) (Woods & Poole Economics 2023). In addition, the county allocation model accounts for the impact of military base installations and the foreign-born population in each county.

Key Assumptions

The information on those with valid identity and military service records in the VO is assumed to be fully representative of younger Veterans while the ACS estimates are considered as the benchmark for the number of older aged Veterans.

Mortality assumptions are based on Veteran mortality information from the VO and U.S. general population mortality data from the *2023 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (2023 OASDI Trustees Report) which is produced by the Social Security Administration (SSA) (Board of Trustees 2023). Mortality projections are developed by single year of age and gender by blending the mortality rates between VA and SSA. The blended mortality rates are then smoothed and projected for the next 30 years using implied mortality improvement factors from the 2023 OASDI Trustees Report.

Migration assumptions were not updated in VetPop2023, and assumptions from the previous model VetPop2020 were used due to a delay in data processing. This approach maintains consistency in the model's projections while efforts to secure updated data for future revisions continue. The VetPop2020 migration assumptions were based on the linkage of IRS and VA administrative data through the data sharing agreement between IRS, the Census Bureau, and VA. Based on the analysis of yearly migration patterns for fiscal years 2008 through 2020 (migration years 2008-2009 through 2019-2020), the net-migration rate was projected via a 5-year weighted moving average method starting with migration year 2015-2016. Given the relatively small amount of migration, net-migration at the state level by age group and gender is modeled for VetPop2020.

Separation assumptions account for future military separations from the U.S. Armed Forces. Projected separations by the DoD Office of the Actuary for the active component military services (Army, Air Force, Navy, and Marine Corps) and Coast Guard are used as the main driver of future separations and are assumed to reflect projected changes in future military strength by fiscal year. For separations from non-DoD agencies (National Oceanic and Atmospheric Administration and U.S. Public Health Service) and federally activated National Guard and Reserves, historical information in the VO was used in estimation.

As in the prior VetPop models, we assume that the change in ratio of Veterans to the general population in the projection years relative to the ratio at baseline date is the same for both the county level and the state level. Also, we adjusted estimates to account for the assumption that counties with higher percentages of Armed Forces personnel or lower percentages of foreign-born have more Veterans than other counties.

Major Data Sources

The VO data asset, also produced by NCVAS, is a collection of datasets which integrates Veteran information from the benefits and services administered by VA and military separations data from the DoD to support department-wide analyses on the Veteran population. Although much of the Veteran population is represented by the two data sources, information on some Veterans who have not had a relationship with VA and who served only before 1970, is not complete.[2] This limitation may explain the higher estimates by the ACS of Veterans at older ages. Another limitation is related to geography. For Veterans included in the integrated data, information on their residence may not be available or current as not all Veterans are required to report or update such information with VA.

DoD's separation projection is part of their annual valuation of the military retirement system and includes projected separations by age, officer status, length of service, and type of separation from Active and Reserve components for each projection year (U.S. Department of Defense, Office of the Actuary 2022).

ACS is an ongoing annual survey by the Census Bureau conducted in every county across the nation, including every municipality in Puerto Rico. As the largest nationally representative survey in the U.S. with a sample of about 3 million households each year, the ACS collects detailed demographic, social, economic, and housing information. In VetPop models, ACS has been used as a benchmark and incorporated into baseline estimations in a way that recognizes differences between survey data and administrative records. In ACS, Veteran status is self-, or proxy-reported while administrative records contain empirical indicators of Veteran status. Also, due to a 2-month residence rule in ACS, the survey universe is different than administrative records, with an undercount of people who are highly mobile. Finally, the ACS is based on a sample and thus ACS estimates can have high variability, particularly for less populated areas. Despite these differences, the ACS is a high-quality benchmark for Veteran data.

[2] In 1973, historic information was destroyed in a fire at the National Personnel Records Center. https://www.archives.gov/personnel-records-center/fire-1973

Selected Results

VetPop2023 estimates 18,267,000 living Veterans at the baseline date of 9/30/2023, which is consistent with the VetPop2020 projection of 18,250,000 (a difference of only 17,000 or 0.1%). The women Veteran estimate is 2.1 million in FY2023 in both VetPop models.

Over the next 30 years, the total Veteran population is projected to steadily decrease by an average annual rate of 1.6%. This is consistent with the VetPop2020 model which also projected a decline of -1.6%. The women Veteran population is projected to remain at 2.1 million by FY2053.

The “White, non-Hispanic” and “Hispanic or Latino (of any race)” groups comprise 72.9% and 8.7%, respectively, of the total Veteran population in FY2023. By FY2053, the percentage of non-Hispanic White and Hispanic Veterans are projected to change to 60.9% and 14.7% respectively.

Conclusion

VetPop2023 is the 11th generation of the Veteran Population Projection Model with updated information on Veterans and provides similar projection results as in VetPop2020. Leveraging the authoritative data sources within VA, the main data source of the VO, VetPop2023 provides consistent Veteran information and continues to improve in terms of data quality and increased coverage of the Veteran population.

VetPop results can be accessed by visiting VA’s OPEN Data site, Veteran Population Projection Model Landing Page. For questions on the VetPop2023 model, please contact the National Center for Veterans Analysis and Statistics via e-mail at VANCVAS@VA.GOV.

References

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