



Veteran Population Model

VetPop 2004 Version 1.0

OFFICE OF THE ASSISTANT SECRETARY
FOR POLICY AND PLANNING
Office of Policy (008A2)

Executive Summary

Introduction

The Department of Veterans Affairs (VA) uses the Veteran Population Model (VetPop 2004 Ver 1.0) to provide official estimates and projections of the veteran population. For each year from April 1, 2000 to September 30, 2033, the model generates the number of veterans by selected characteristics: at the state and/or national levels — by Age, Gender, Period of Service, Race/Ethnicity, Rank (Officer/Enlisted), and Branch of Service; at the county level — by Age and Gender.

History

The earliest efforts at projecting the veteran population, based primarily on military records from the Spanish-American War and World War I, date back to the 1920s. In 1947, the Veterans Administration began making routine projections of veterans, but only for wartime veterans.

During each subsequent decade, enhancements in the estimates and projections were made by improvements in the scope and quality of input data, and the technology and methods used to analyze the data.

- In the 1960s, decennial Census data were first used to estimate wartime veterans by state and gender. At that time, VA began using Census data on residency to measure state-to-state migration.
- In the 1970s, VA began projecting the number of peacetime veterans and estimating the veteran population by county.
- During the 1980s, the role of the decennial Census was expanded to form the baseline for projections.
- The 1990s saw the incorporation of administrative data from DoD's Defense Manpower Data Center (DMDC). At that time, the original VetPop model ran on a mainframe computer at VA's Austin Automation Center.

In July 1999, following a recommendation by the Veteran's Claim Adjudication Commission, VA created the Office of the Actuary (OACT) to establish a capacity for actuarial analysis at the Department level. The Commission noted that such analysis would help the Department meet its long-term financial commitment to veterans and their beneficiaries.

Since its inception, OACT has played an important role in the planning of VA programs by providing demographic characteristics of the veteran population, using a succession of VetPop models. Future VetPop models may project eligibility, utilization, workload, and cost for major VA business lines and services.

The VetPop2004 Model

Highlights

VetPop2004 incorporates more detailed Census 2000 data than the previous model.

- VetPop2001Adj relied on publicly available Summary File 3 (SF3) data, while VetPop2004 includes Census 2000 custom tabulations. For example, although SF3 provides counts of veterans in only two age groups (18-64 and 65+), the custom tables provide counts of veterans by single year of age (from 17 to 90).
- To match the Census numbers exactly as of April 1, 2000, VetPop2004 relies entirely on Census 2000 data.
- VetPop2004 estimates and projects race distribution at the state level.

Estimates also benefit from improved Reserve and Guard data, post-9/11 separations through September 30, 2003, and several methodological enhancements.

Results

You can find the VetPop2004 results at <http://www1.va.gov/vetdata/docs/VP2004B.htm>. Reports 1, 2, and 4 are state level; reports 5, 8, and 9 are national level. Separate reports are provided for living (L), deaths (D), separations (S), and net-migration (M).

TABLE 1. VETPOP2004 VERSION 1.0 STATE AND NATIONAL TABLES

Row	Column	Pages	Living	Deaths	Separations	Net Migration
State	Age (5-yr)	Year, Gender, Period of Service	1L	1D	1S	1M
State	Period of Service*	Year, Gender, Age (5-yr)	2L	2D	2S	2M
State	Race/Ethnicity	Year, Gender, Age (5-yr)	4L			
Year	Race/Ethnicity	Age (1-yr), Gender, Period of Service	5L			
Year	Branch of Service	Age (1-yr), Gender, Period of Service	8L	8D	8S	
Year	Officer/Enlisted	Age (1-yr), Gender, Period of Service	9L	9D	9S	

* Differs from the "Period of Service" variable appearing in all other reports, in that it contains subtotals of certain periods.

Processing

The VetPop2004 processing occurs in three steps:

Step 1: The April 2000 baseline estimate is established from Census 2000 data.

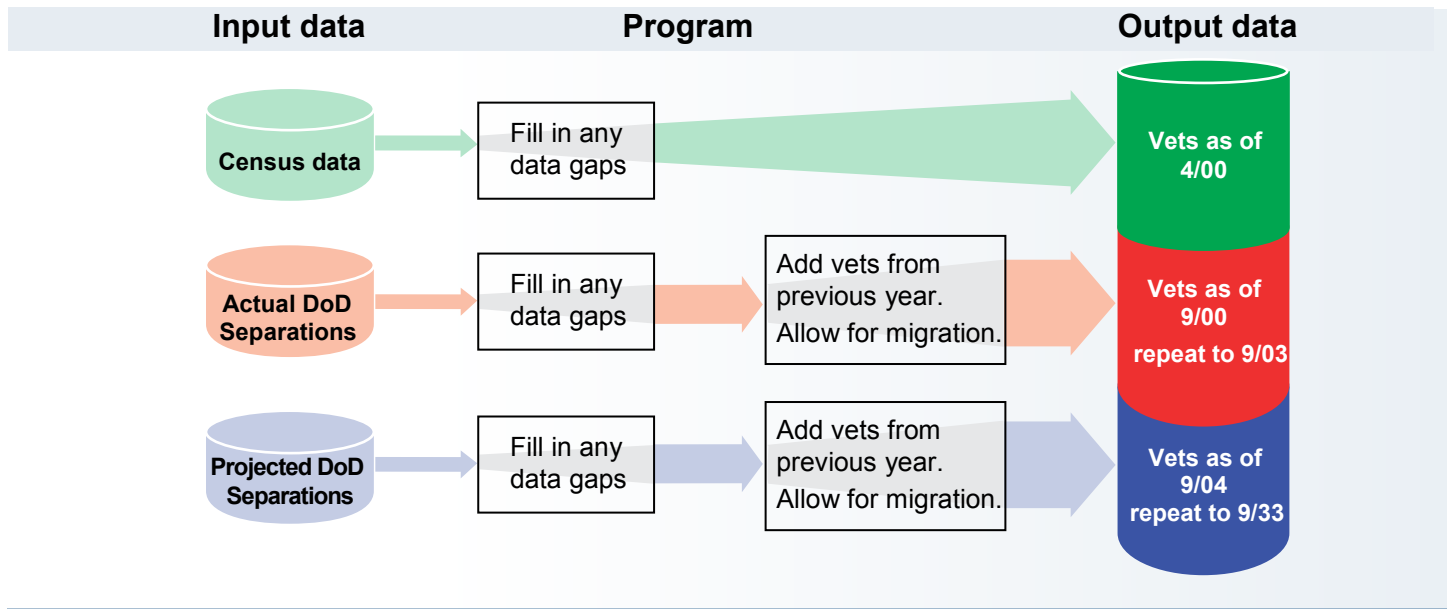
Step 2: For each successive time period, we incorporate DoD data to add new separations, referred to as "births." (Actual data are used through September 30, 2003; projected separations are used thereafter.) At the same time, existing veterans (separated in a prior year) are "aged" one year, and deceased veterans ("deaths") are taken out.

Step 3: At the state level, annual migration is taken into account. County estimates are allocated down from state estimates.

Note: At each step, gaps in the data are “filled in” with auxiliary information.

The graphic below illustrates the processing procedure.

FIGURE 1. PROCESSING PROCEDURE



Data Quality

Although the data are given as point values rather than as a range of values, users must understand that uncertainty exists in these data. As such, OACT recommends that point values be rounded to the nearest 1,000.

Keep in mind that, in general, the reliability of the estimates and projections will vary directly by geographic size and inversely by time. For example:

- National estimates are more reliable than state estimates.
- State estimates are more reliable than county estimates.
- Estimates for large states are more reliable than for small states.
- Estimates of recent years are more reliable than projections of future years.

As mentioned above, the model determines subsequent years' estimates by adding separations (“births”), subtracting deaths, and taking migration (address changes) into account. Ultimately, we would like to be able to account for each of these steps at the county level. Because information about the veteran population after Census 2000 is not available at that level, we rely on an allocation from the state level, while maintaining characteristics and projections of the general population at the county level.

Organization of Report

The VetPop2004 Technical Documentation is laid out in modules to allow maximum flexibility, depending on whether you are looking for:

- a general overview;
- a sense of the data used; or
- a detailed, step-by-step understanding.

Each major section will include an introductory summary and visual, if possible, followed by more detailed explanations.

Executive Summary	Simple introduction to the VetPop2004 model.
Overview	More detailed description of the VetPop2004 model.
Data Sources	Description of input data used in determining the number and characteristics of veterans.
Parameters	Specific probabilities needed by the model — such as mortality and migration; parameters are the “vehicle” used to fill in the gaps in the input data.
Programs	Description of the actual methods employed to come up with the final estimates and projections.
Appendix	Additional detail.

Contact

You can contact the Office of the Actuary via e-mail at VetPop@VA.GOV.



OFFICE OF THE ASSISTANT SECRETARY
FOR POLICY AND PLANNING
OFFICE OF POLICY (008A2)

VETERAN POPULATION MODEL
VetPop 2004 Version 1.0

Document released in January 2007

Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20420