**Veteran Population Projection Model 2014**

**Department of Veterans Affairs**

**Office of the Actuary**

The Veteran Population Projection Model 2014 (VetPop2014) provides the latest official Veteran population projection from the Department of Veterans Affairs (VA). VetPop2014 is an actuarial projection model developed by the Office of the Actuary (OACT) for Veteran population projection from Fiscal Year (FY) 2014 to FY2043. Using the best available Veteran data by the end of FY2013, VetPop2014 provides living Veteran counts by key demographic characteristics such as age, gender, period of service, and race/ethnicity at various geographic levels.

VetPop2014 is the 7th generation of the OACT Veteran Population Projection Model with significant improvements in data, methodology, and modeling processes. Similar to the previous Veteran Population Projection Model 2011 (VetPop2011), it is a bottom-up model which projects future Veteran population at the county level as a starting point. The county level projections are then aggregated to provide Veteran information at larger geographic units such as congressional districts, states, and at the national level. The VetPop2014 actuarial model uses both Veteran record-level data and survey data from a wide variety of sources including VA, Department of Defense (DoD), U.S. Census Bureau, Department of Treasury’s Internal Revenue Service (IRS), and the Social Security Administration (SSA). These data sources enabled OACT to develop the VetPop2014 Model using advanced actuarial and predictive modeling methods for three critical modules -- the Separation Module, the Mortality Module, and the Migration Module.

Military separations from the Armed Forces provide new entrants to the Veteran population. Thus, the Separation Module is an essential component of the Veteran Population Projection Model. Based on DoD’s annual military separation data from FY1980 to FY2013, VetPop2014 Separation Module first developed a set of Time Series Models to project annual separations for various age and gender groups. Additionally, due to distinct differences in the characteristics of Active and Reserve Components, Time Series Models were developed for these two components’ separations. The projected separations from Active and Reserve Components by gender and age groups were then aggregated to the national level. VetPop2014 Model then used historical county separation data based on VA administrative records along with migration information from the IRS to project the county level separation from FY2014 to FY2044 using predictive modeling techniques.

The VetPop2011 Mortality Module is based on mortality experience data such as Veteran specific experience from VA administrative data and U.S. population experience data from SSA. Mortality projections are developed for each single year of age and gender using the Lee-Carter
Model combined with credibility weighting and smoothing techniques. VetPop2014 projected lower mortality rates than previous projections for older Veterans due to longevity improvement. As a result of the longevity improvement, VetPop2014 projected a relatively larger Veteran population in the future.

The Migration Module at the county level is a critical component to the bottom-up VetPop2014 model. Like the VetPop2011 Migration Module, VetPop2014 Migration Module developed the county Veteran migration models for various age and gender cohorts using historical longitudinal data from VA, IRS, and ACS. The VetPop2014 Migration Module made adjustment in the migration rates for older veterans in counties due to the availability of more creditable data. Overall, the migration rate changes were minimal.

The 2014 Veteran Population Projection includes not only the living civilian Veterans but also Veterans who are currently serving in the military. Due to the latest data enhancements, the VetPop2014 projected more living Veterans in the future compared to VetPop2011. Overall, while the male Veteran population steadily decreases, woman and minority Veteran population are projected to increase over the next 30 years. Another noticeable trend for the Veteran population is the projected higher growths in the Southern and Western regions.

For questions on VetPop2014 model, please contact the Office of Actuary:

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