Calcula+ing the effect

The aging U.S. population's influence on state tax revenues

In 2011, the first members of the baby boom generation started reaching the traditional retirement age of 65. By 2030, almost 19 percent of the U.S. population is projected to be 65 or older. Alison Felix, Denver Branch executive and assistant vice president with the Kansas City Fed, says this population shift may lead to a loss of participants in the workforce, lower consumer spending and a corresponding reduction in government revenue.

Aging population

Projections by the U.S. Census Bureau show the segment of the U.S. population 65 and older will grow from 13.3 percent to 18.6 percent from 2011 to 2030.

"This trend will be reflected in each state in the nation, though the shift is expected to be more dramatic in some states than in others," Felix and Assistant Economist Kate Watkins wrote in their latest research, "The Impact of an Aging U.S. Population on State Tax Revenues."

Evidence of that shift is revealed in population projections from the 35 states that release their projections. By 2030, the share of the total population older than 65 is expected to increase by more than 5 percent in these states, Felix said. For states such as Maine and North Carolina, the projected increases are more than 10 percent.

And states that already have the largest shares of their populations 65 and older, including Florida, Maine, West Virginia, Pennsylvania and North Carolina, will continue to have the largest shares through 2030, at which time about one in four residents is likely to be a retiree.

Total populations are expected to continue increasing, but annual population growth in the United States is expected to slow from about 1 percent in the 1980s and 1990s to a little more than 0.6 percent from 2011 to 2030. This slowdown will stem primarily from the combination of a decreasing birth rate and an increasing death rate, the latter a result of the aging population, Felix said.

Decline in state tax revenue

Sales taxes and individual income taxes account for more than 80 percent of a state's tax collections. The effect on tax collections of a declining workforce and lower consumer spending will vary by state. Most states rely heavily on sales and income taxes while a few don't collect income taxes. Also, tax structures, current population demographics, projected population shifts and other variables differ by state.

Felix's research shows that despite these differences, the aging U.S. population will have a similar effect on tax revenues in most states.

"Isolating the effect of demographic change on tax revenue—by holding constant all other factors (such as likely income growth and other variables)—the results suggest that the aging of the population alone from 2011 to 2030 will reduce both income tax and sales tax revenue per capita in nearly every state," she wrote.

And even though tax revenue per capita is likely to fall, total tax revenues will likely rise with increasing populations.

Income tax revenue projections

Earning patterns vary across age groups, and therefore, changes in age demographics affect state tax collections. Many workers ages 15 to 24 pay fewer taxes because they work at part-time jobs and earn entry-level salaries. In contrast, workers at the peak of their careers, those ages 45 to 55, typically earn higher wages and pay more in taxes. Workers' wages and tax obligations decrease when they retire.

"Most states that assess individual income taxes have collections that follow this pattern of rising and then falling across age cohorts," Felix wrote. "However, different tax structures and distributions of taxpayer earnings produce variation across states."

Differences in labor force participation rates across age groups also can affect income tax collections. According to Felix's research, only 55 percent of the 16-to-24 population participated in the labor force in 2011. Participation rates were highest for those 35 to 44 at almost 83 percent. Participation rates fall sharply at retirement, with only 26.4 percent of those ages 65 to 74 and 7.5 percent of those 75 and older remaining in the labor force.

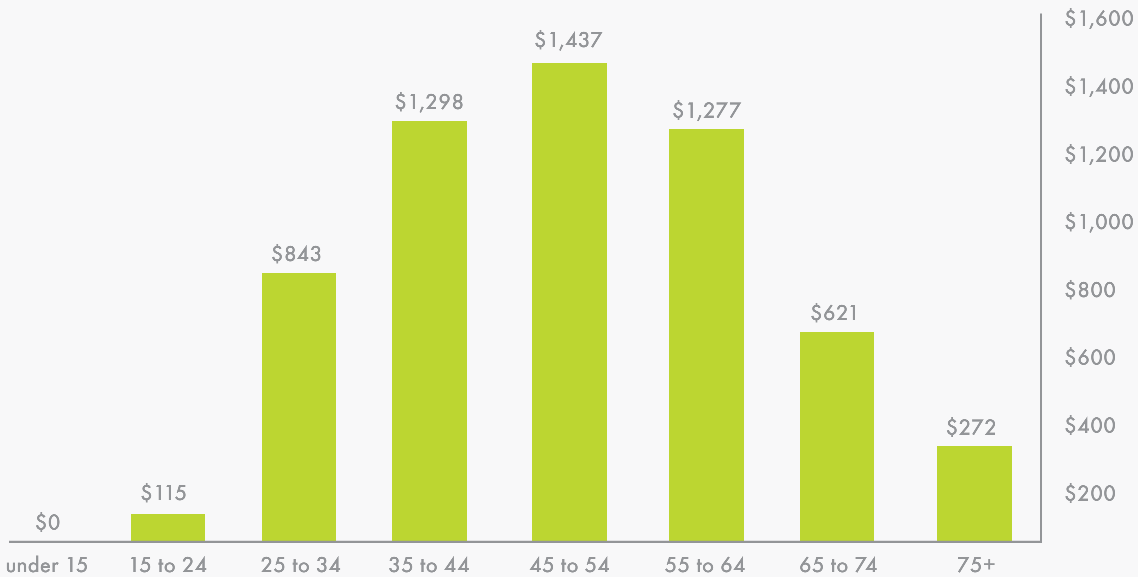
Sales tax revenue projections

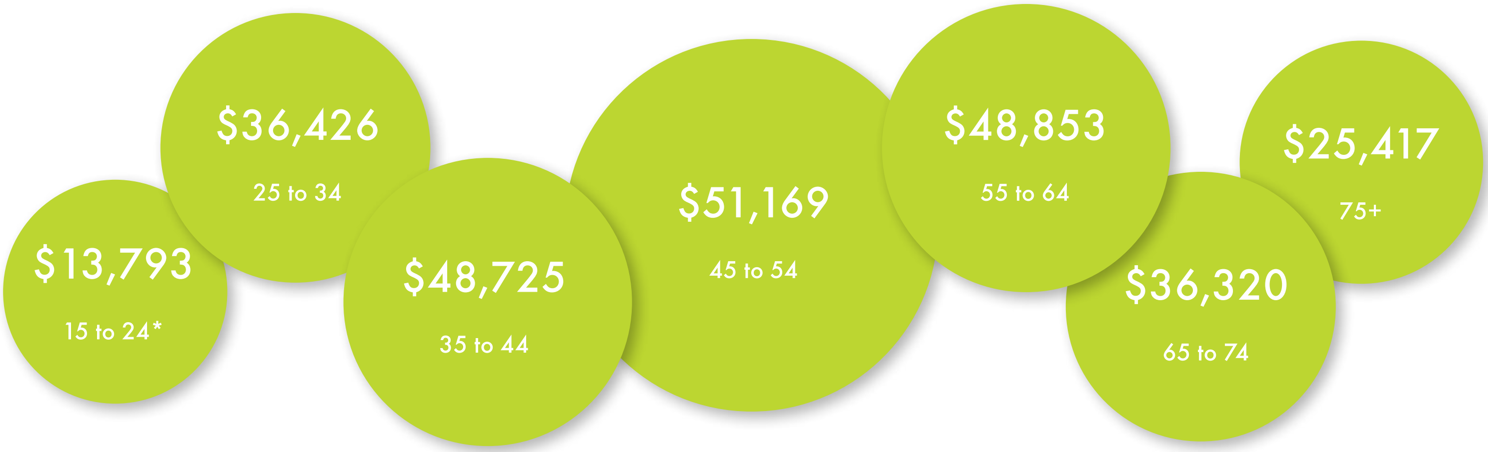
Much like the pattern of income, consumer spending follows a lifetime pattern: spending increases as workers progress in their careers and spend less as they head into retirement. Consumers reach peak income levels by middle age, while those older and younger earn less.

As the population ages consumer expenditures may fall leading to a decline in

AVERAGE STATE INCOME TAX LIABILITY

BY AGE COHORT, 2011 AND 2012





AVERAGE INCOME RATES
BY AGE COHORT, 2011 AND 2012

state sales tax revenues. Of the states imposing a sales tax, the effect of an aging population alone on per capita taxable expenditures is projected to range from a decline of 3.3 percent for Hawaii to a 0.2-percent increase for Idaho, the only state with a projected increase, Felix said.

States in 2011 with the largest per capita decreases—Hawaii, Colorado, North Carolina, and Maine—had large populations in the 45 to 54 and 55 to 64 age groups. Population growth among younger age groups in these states is not projected to offset expected lower levels of consumption as these large, older age groups enter retirement.

Sales tax revenue projections vary across states due in part to differences in each state's sales tax structure. Felix says tax exemptions for services, prescription drugs, food and services in many states has important implications for sales tax collections as the population ages.

"As people age and spend less, a greater share of their spending tends to go to services and prescription drugs, which are often tax-exempt. Thus sales tax collections from the elderly may fall faster than their total spending," she wrote.

According to Felix's research, 45 states currently assess sales taxes on general retail transactions, with rates ranging from 2.9 percent in Colorado to 7.5 percent in California.

State exemptions to sales taxes vary across the country. Prescription medicines are exempt in nearly all states while groceries are exempt in 31 states and the District of Columbia, but not in 19 other states. Sales taxes have traditionally been assessed primarily on goods, but some services also are taxed.

Future considerations

Felix's research concludes that regional differences in state population compositions, income and consumption patterns and tax structure could affect the degree to which demographic change affects tax revenue in each state. Another consideration is the affect an aging population will have on government spending and services.

Overall, the analysis "shows that demographic change alone will likely reduce individual income taxes and sales taxes in nearly every state in the nation on a per capita basis in the coming years, holding all other factors constant. At the same time, total revenues will likely increase with total population growth in most states."

FURTHER RESOURCES

"The Impact of an Aging U.S. Population on State Tax Revenues" by Alison Felix, Senior Economist and Denver Branch Executive and Kate Watkins
www.kc.frb.org/publicat/econrev/pdf/13q4Felix-Watkins.pdf