

2017 ECONOMIC OUTLOOK: GLOBAL, NATIONAL, AND STATE PERSPECTIVES

2016
**ECONOMIC
FORECAST**
L U N C H E O N



What is in store for our economy?

Bill Fox and Matt Murray present a forecast of the global, national, and state economies and revenues for 2017

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The Boyd Center for Business and Economic Research, a department within the Haslam College of Business at the University of Tennessee, Knoxville, conducts research on national and state economic trends for UT, state agencies, and public and private organizations. The center also collects, analyzes and disseminates data on the demography and economy of Tennessee.

The center was established in 1937 as the Bureau of Business and Economic Research and became the Center for Business and Economic Research in 1967. This year, it became the Boyd Center for Business and Economic Research to honor alumni and benefactors Randy and Jenny Boyd.

The center's mission is to produce and disseminate new information in the general area of economic research and in the specific areas of economic development, regional economics, fiscal policy and delivery of key public services.

The Boyd Center has an annual operating budget in excess of \$3 million and is funded through state appropriations and grant/contract research. It has eight research faculty and an extensive research staff.

Boyd Center faculty and staff have an extensive track record in conducting and supervising research projects, both large and small. The faculty engage in important academic research across a wide range of public policy projects, including education, health, taxation, welfare, and labor. The center annually prepares the Economic Report to the Governor and maintains the Tennessee Econometric Model (TEM) of the state economy, which provides quarterly, annual and long-term economic and fiscal forecasts.

In addition to the TEM, recent modeling activities at the Boyd Center include development of the Tennessee Employment Security Insurance Model (to estimate and forecast Employment Security trust fund balances); a forecasting model that projects future Families First caseloads, recipients and grant expenditures for the Tennessee Department of Human Services; and a revenue-estimating model for Tennessee state and local governments.

Other Boyd Center projects include tax analysis assistance to the Tennessee Department of Finance and Administration; economic and fiscal impact studies for the state, local governments and the private sector; analysis of incentives to promote economic development for the Tennessee Department of Economic and Community Development; a survey of state residents for the TennCare program; an exhaustive analysis of Tennessee's welfare program, Families First and numerous projects in the area of taxation on e-commerce and Internet usage.

Also housed in the Boyd Center is the Tennessee State Data Center, which provides access to electronic data from the U.S. Census Bureau and answers questions on these data. The center maintains an online database of demographic and economic time series in order to make Tennessee data available to government agencies, libraries, businesses, news services and the general public.

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2017 Economic Outlook: Global, National, and State Perspectives

**Boyd Center for Business and Economic Research
The University of Tennessee, Knoxville**

September 2016

Since World War II, the United States economy has been hemorrhaged by 11 recessions. Two have hit over the past 15 years alone and nearly eight years after the last one in 2008, the nation and Tennessee are continuing to rebound and see strong growth. Economists William Fox and Matthew Murray, with the University of Tennessee, Knoxville Boyd Center for Business and Economic Research, estimate that trends related to that growth will continue into 2017.

Tennessee's economy is among the fastest growing among the states. One of the biggest factors is that Tennesseans are spending "aggressively" and at a fast rate – strong job growth and lower gas prices are putting more money consumer's pockets. In February of 2008, gas prices soared above \$4 a gallon. The following year, prices dropped under \$2 a gallon, which is where they have hovered in the current year.¹

NATIONAL TRENDS

Income increases are also slowing across all levels. From 2000 to 2015, the income of the top 1 percent in the nation grew 2.3 percent compared to 4.5 percent in the 30 years prior, according to economist Robert Gordon in his book, *The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War*. The average income from 2000 to 2015 grew only 1.3 percent, while the bottom fifth saw less than 1 percent during the same time period. That's compared to 2.2 percent and 1.4 percent, respectively, from 1970 to 2000, according to Gordon.

Other factors affecting the growing economy include an aging population, which is increasingly responsible for much of domestic spending, and the consumer debt balance which is rising again as consumers are buying bigger ticket items such as vehicles.

Nationally, the housing market has recovered but at a modest rate. Ten years ago, 2 million homes were being built but today that number is only about 1.2 million. Beginning in 2007, the number of households among the younger generation declined. That year there were 16.3 million households led by adults under 30. By 2015, that number had fallen to 15.7 million, while nearly 30 million households were led by adults who were 65 years or older, up almost 6 million from 2007. Decline in the number of younger households has been an important factor limiting recovery of the new housing market eight years after the last recession.

Declining business investment, a strong dollar, and weak productivity growth have been key factors in causing Gross Domestic Product (GDP) growth to be modest, though employment continues to increase at a healthy pace.

¹ All supporting charts and tables are at the end of this report.

TENNESSEE'S ECONOMIC MOMENTUM

Tennessee is in the top 10 states in the nation in terms of economic momentum. Other states in the top 10 include Colorado, Georgia, and California. Tennessee has also consistently grown faster than national averages in job growth over the past several years – there are about 150,000 more workers than a decade ago.

The state's unemployment rate also is now below the national rate. In 2009, Tennessee's unemployment rate reached 11.1 percent, well above the nation's average. This year, it is just above 4 percent. The nation's average is just below 5 percent.

Most parts of Tennessee, except some rural counties, are seeing job growth. The Bureau of Labor Statistics (BLS) notes that in the quarter ending from July 2015 to July 2016, the state saw 2.4 percent job growth. Many cities, or Metropolitan Statistical Areas (MSA), saw even more growth.

Cleveland saw the most growth with 3.6 percent followed by the Nashville Metropolitan area with 3 percent. Knoxville tied for fourth with Morristown at 2.5 percent. But even the slowest-growing cities in the state are still doing well. Those cities include Jackson, which saw 1.3 percent, and Memphis and Kingsport, which both saw 1.4 percent growth, according to the BLS.

Most labor sectors have seen a full recovery since the Great Recession. Jobs in Professional and Business Services and Education and Health Services have seen the largest rebounds, 22.4 percent and 21.3 percent, respectively, since the previous peak employment. While jobs in the Information; Mining, Logging and Construction and Manufacturing sectors have seen declines of more than 8 percent from pre-recession levels.

Tennessee, however, needs to work on increasing income levels up to the rest of the country. While the state is continuing to produce a fast growing economy, salaries are lower compared to other states. Only four counties – Davidson, Trousdale, Williamson and Fayette – are at or above national norms. According to the Bureau of Economic Analysis, the national per capita income average is \$47,669. Tennessee's average is \$42,069.

Tennessee is ranked 49th in the nation in terms of taxes, which is not likely to change. The lowest is South Dakota. Nonetheless, Tennessee's tax revenue growth is good. Sales taxes, in particular, are showing strong growth, at nearly unprecedented levels. While most sales categories are seeing strong sales tax increases, some such as general merchandise, food stores and apparel and accessory stores, are showing less growth.

2017

Tennessee is in a very good fiscal position and its economy is expected to continue to grow in 2017.

2017 Economic Outlook: Global, National & State Perspectives

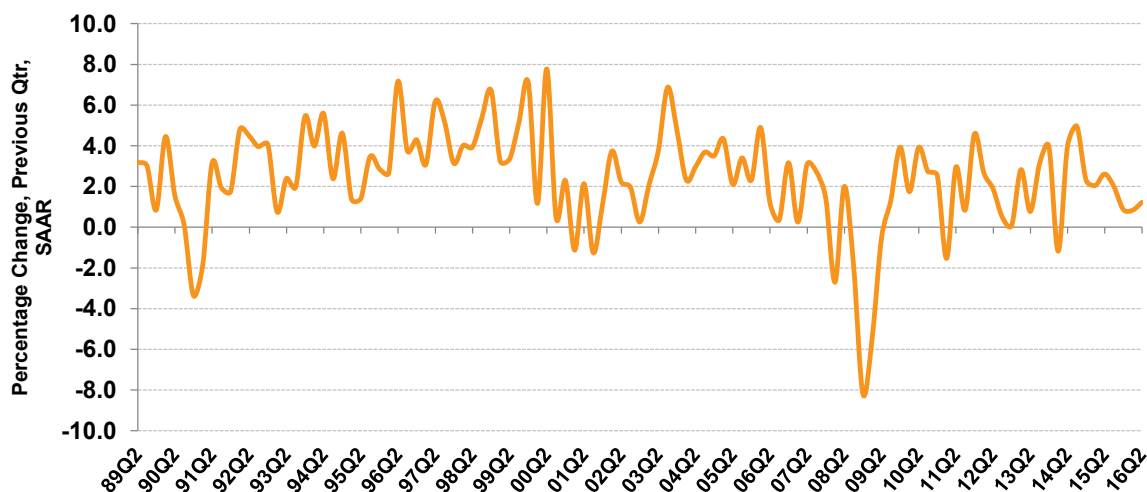
William F. Fox, Director

Matthew N. Murray, Associate Director

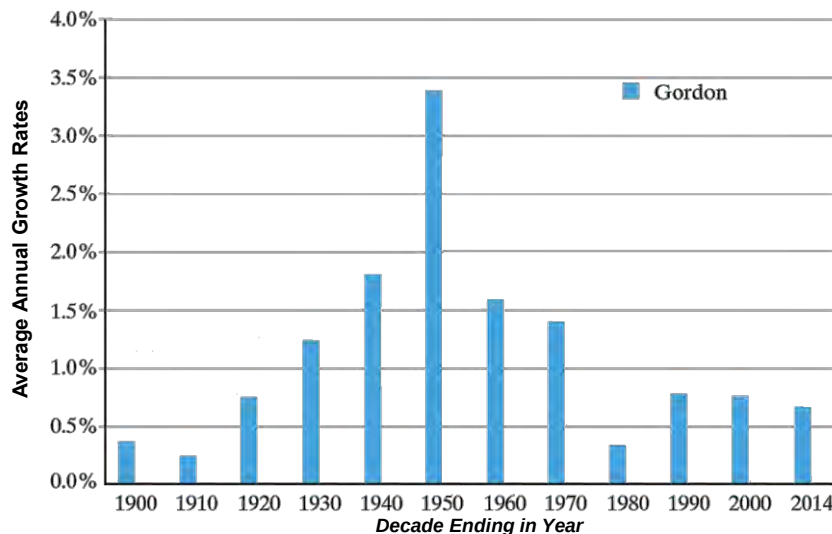
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GDP Grows, Though Slowly



Productivity Growth Has Been Much Lower for Four Decades



Gordon, Robert J. *The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War.*

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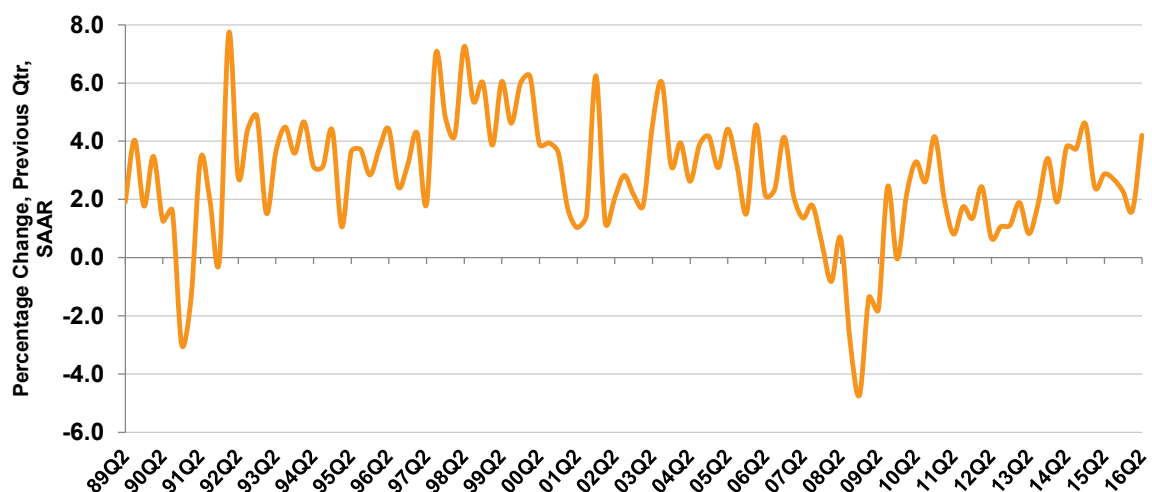
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Consumption Leads Economic Growth



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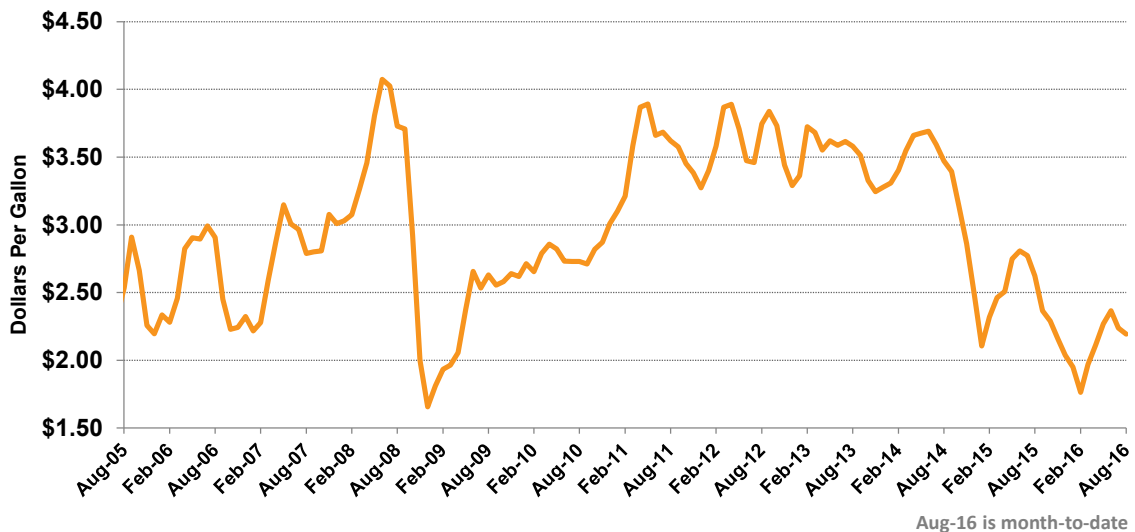
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Gasoline Prices Near Recession Lows



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Income Growth Slowing at All Levels

Period	Average	Bottom Fifth	Middle Fifth	Top 1%
1947–1970	2.7%	3.0%	2.8%	1.4%
1970–2000	2.2%	1.4%	1.7%	4.5%
2000–2015	1.3%	0.1%	1.1%	2.3%

Note: Growth rates are average annual incomes corrected for changes in the CPI.

Sources: U.S. Bureau of Economic Analysis; U.S. Bureau of the Census; Immanuel Saez.

Gordon, Robert J. *The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War.*

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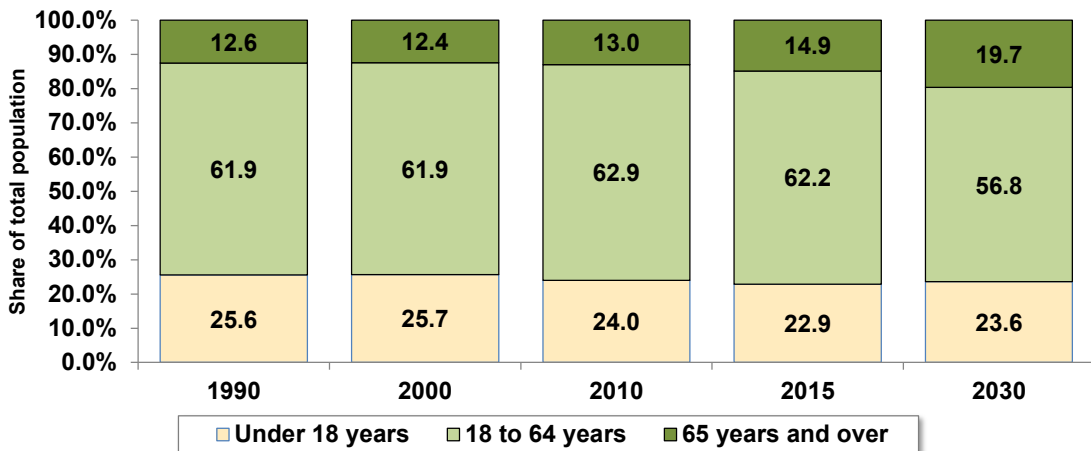
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We are at the Front End of Population Aging



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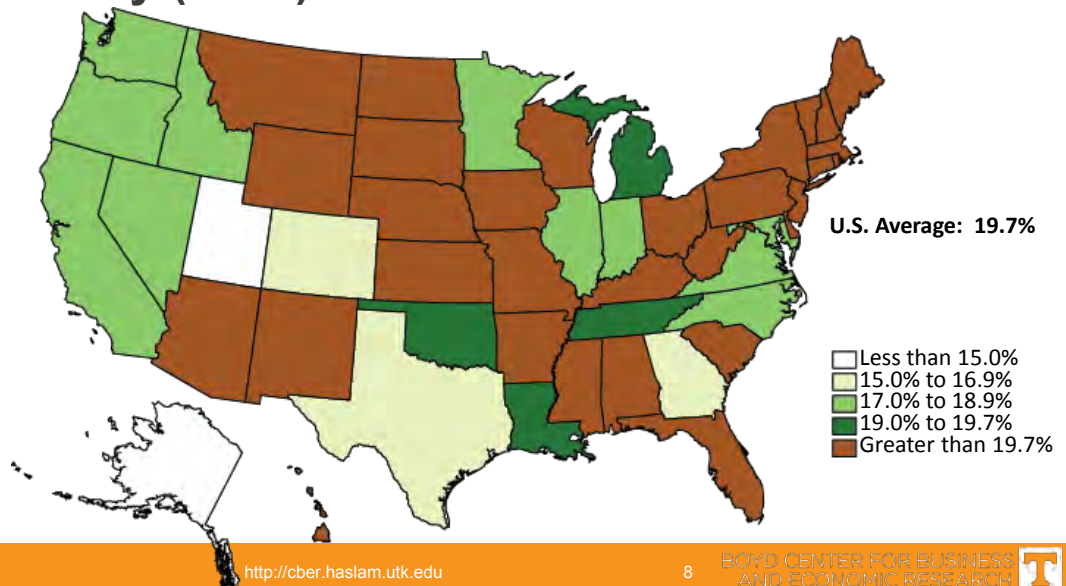
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Population 65 Years and Older Increasing Across the Country (2030)



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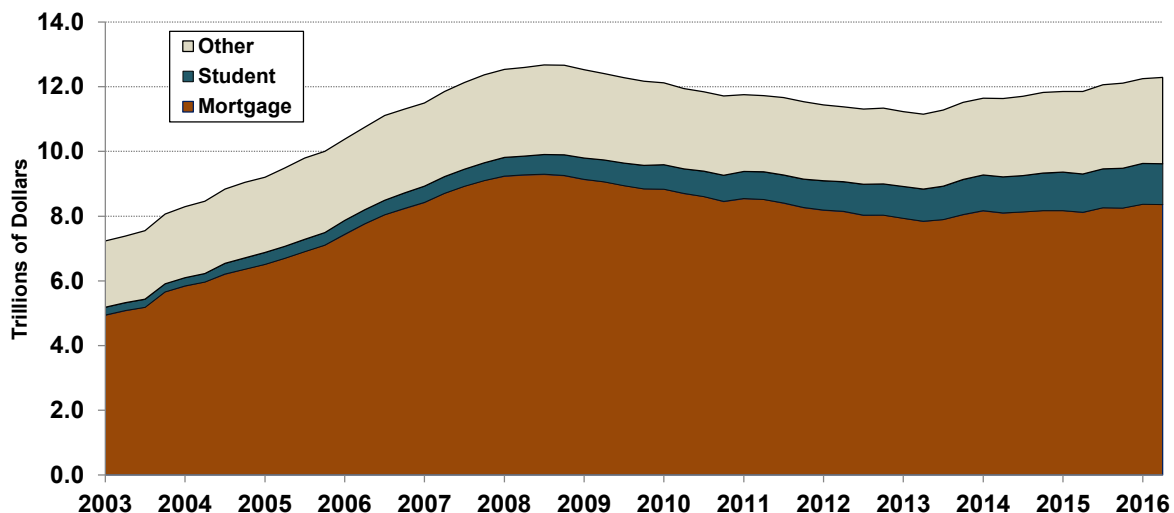
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Consumer Debt Balance Rising Again



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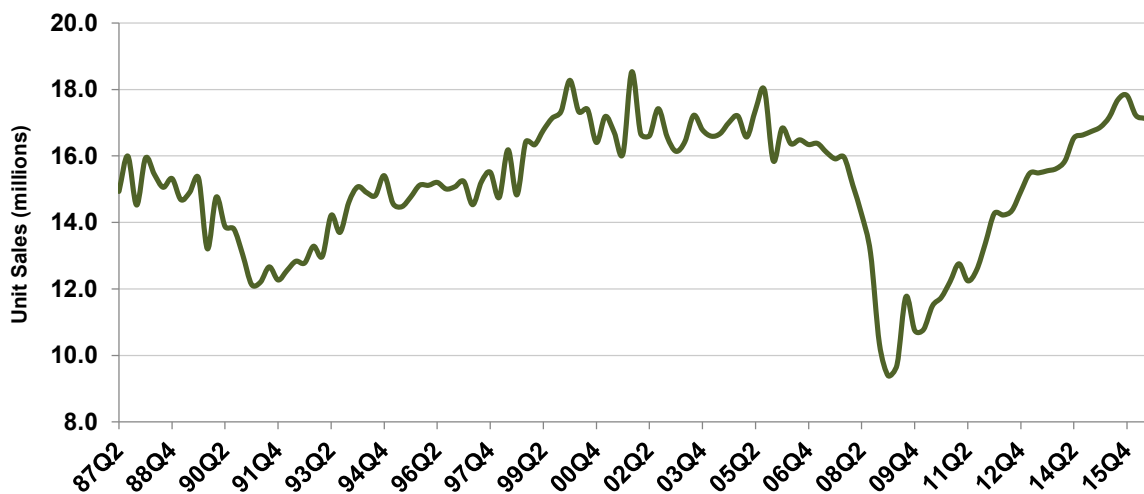
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Light Vehicles Sales at Expansion Level



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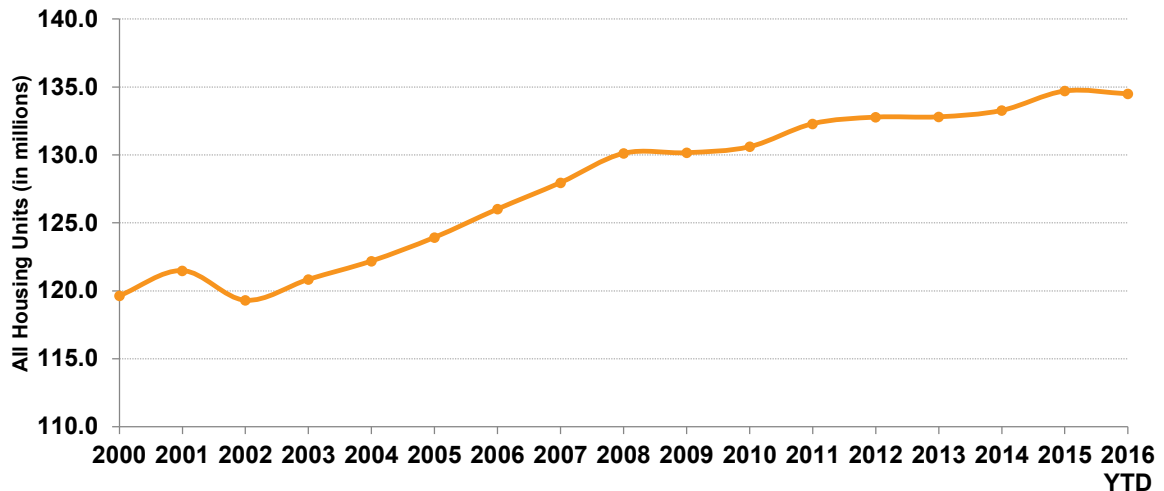
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Creation of Housing Units has Slowed Dramatically



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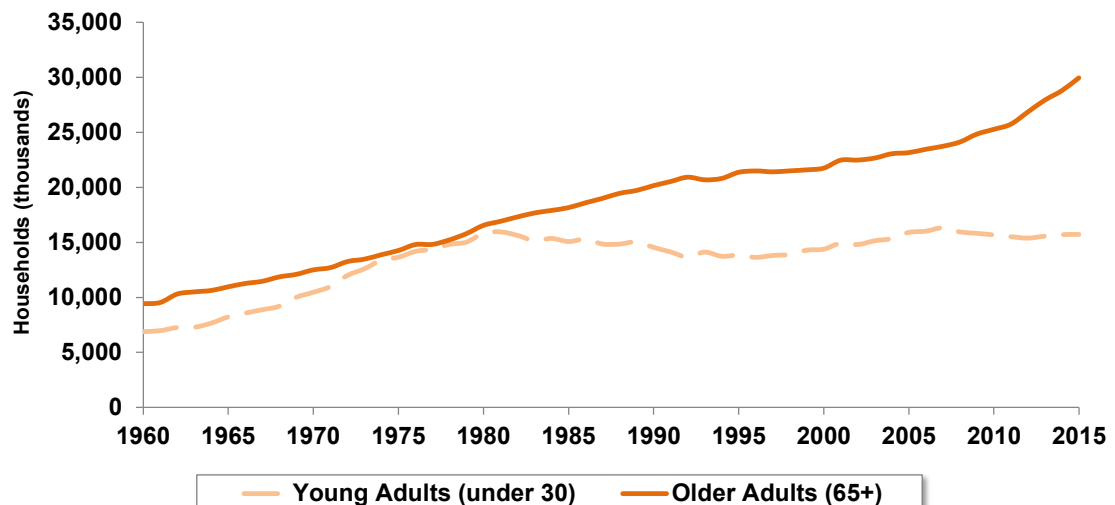
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Household Formation Slowing Among the Young



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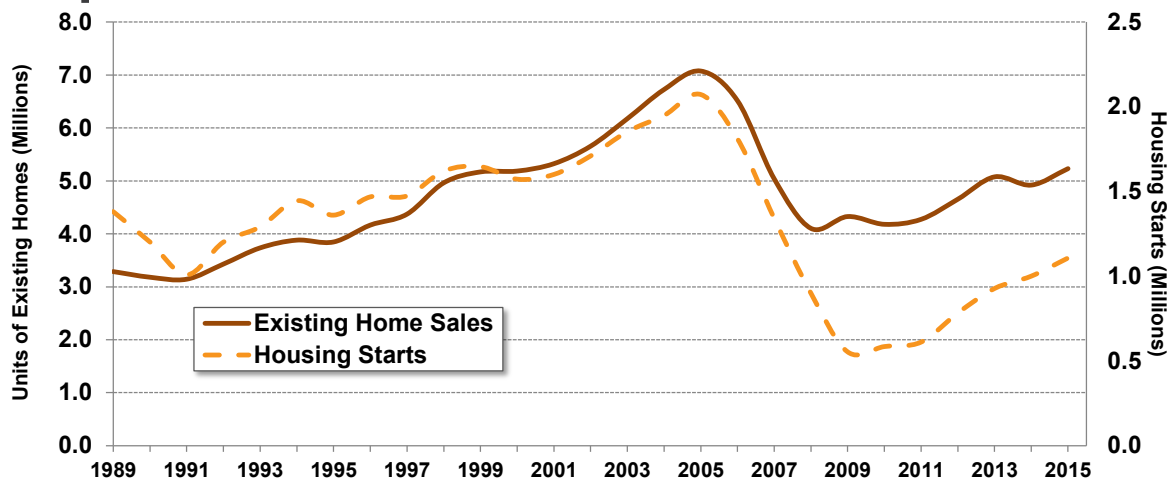
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Housing Sales Rising but Low for an Expansion



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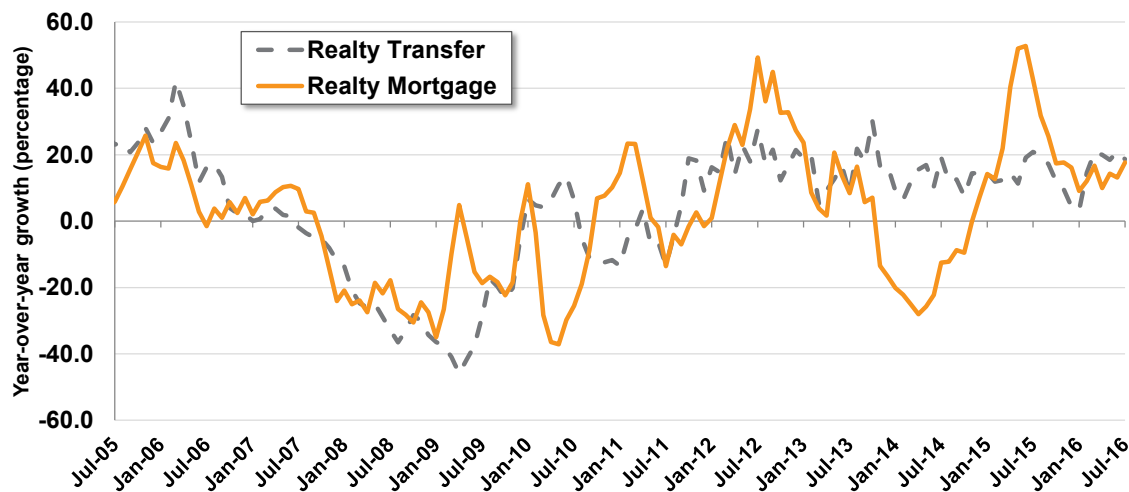
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Housing Sales Also Rising in Tennessee



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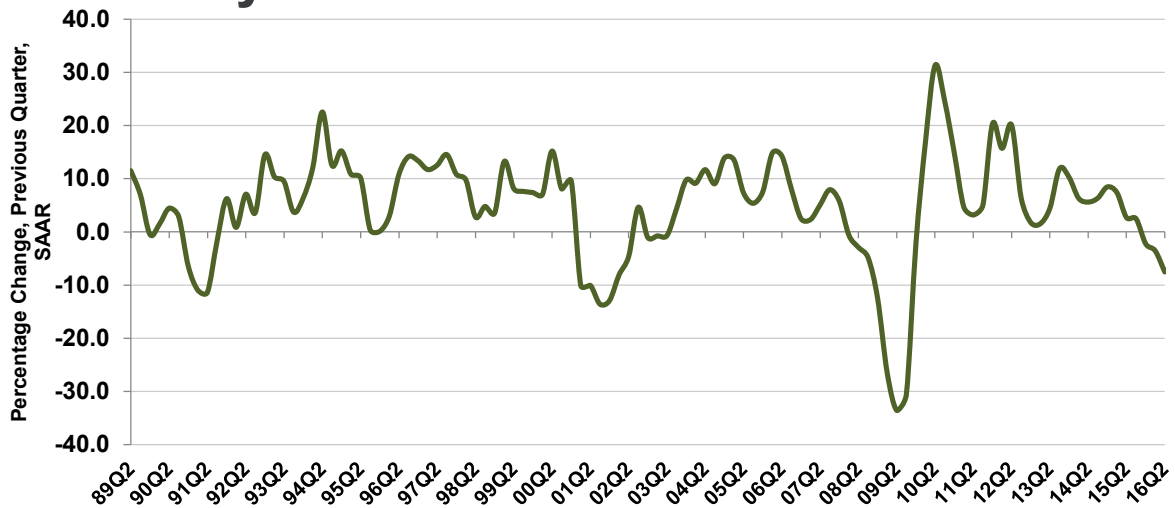
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Business Investment is a Drag on the Economy



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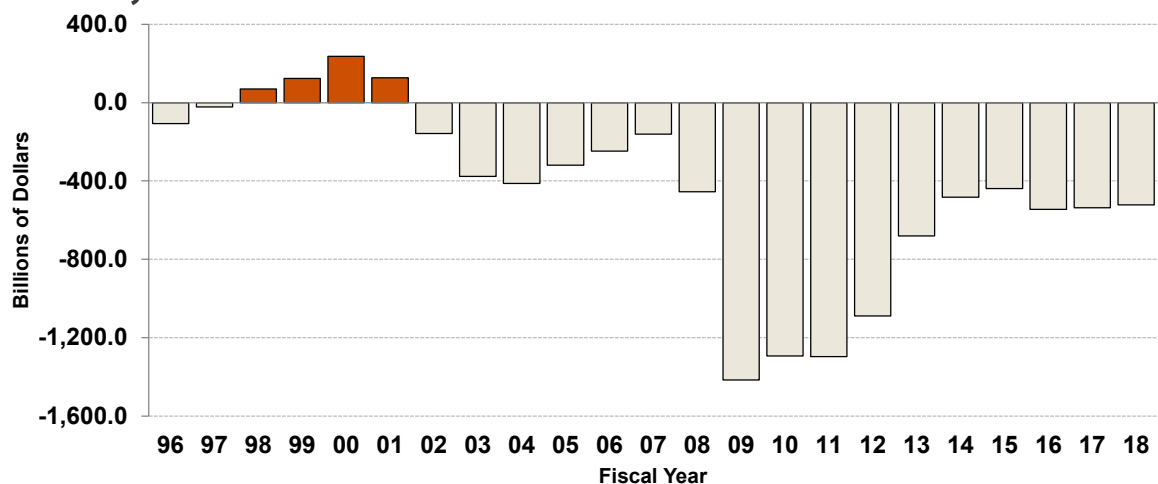
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Federal Deficits are a Low Share of GDP, but ...



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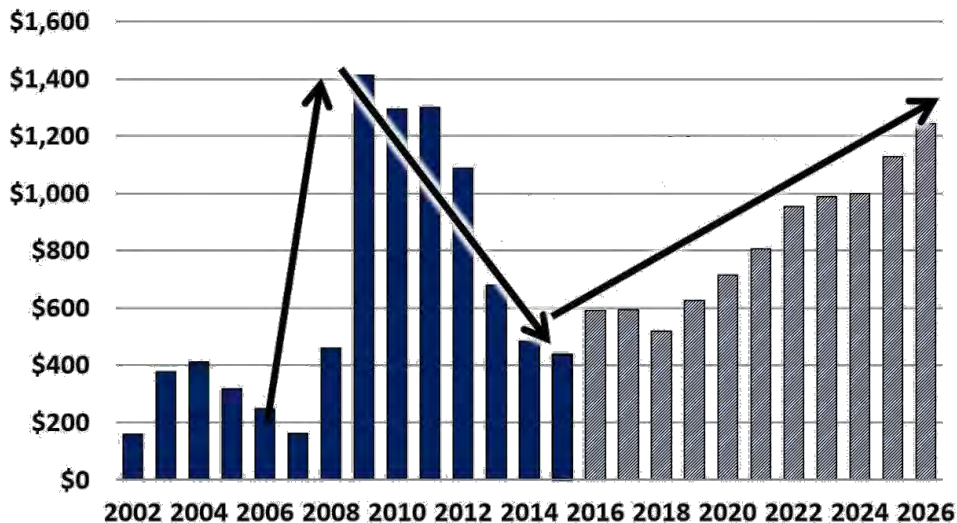
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Deficits Rise Rapidly in the Future (billions)



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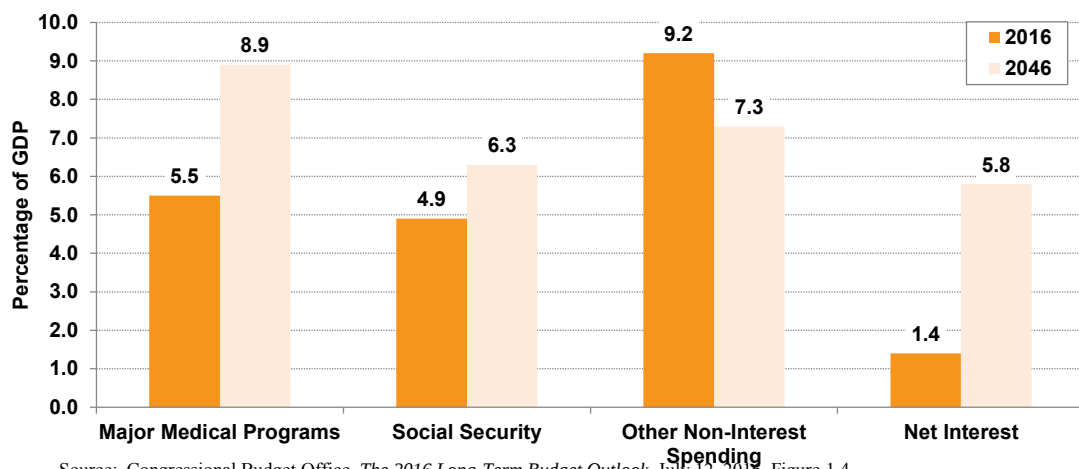
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Aging Society and Interest Costs Raise Federal Spending from 21% to 28% of GDP in 2046



Source: Congressional Budget Office, *The 2016 Long-Term Budget Outlook*, July 12, 2016, Figure 1.4.

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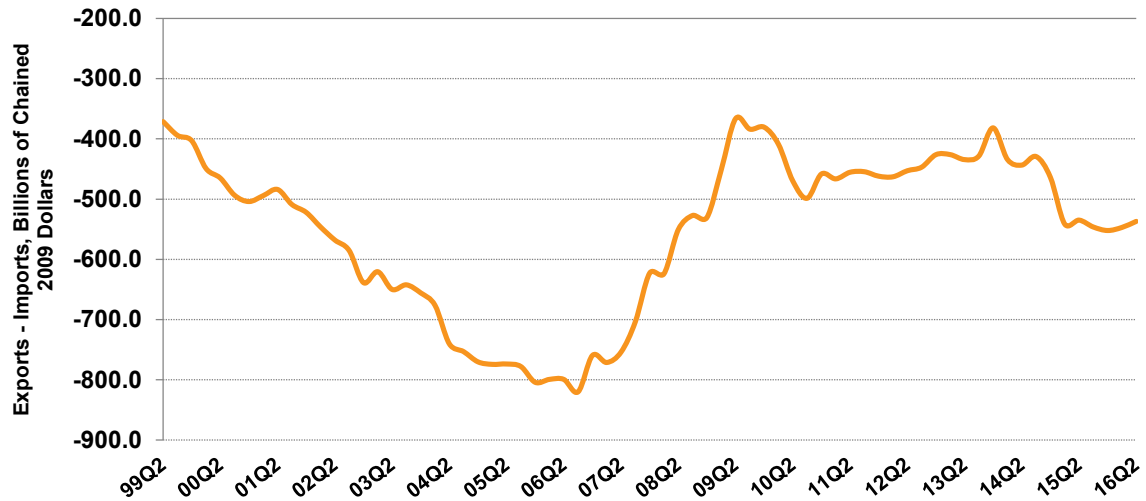
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The Strong Dollar is Raising the Trade Deficit



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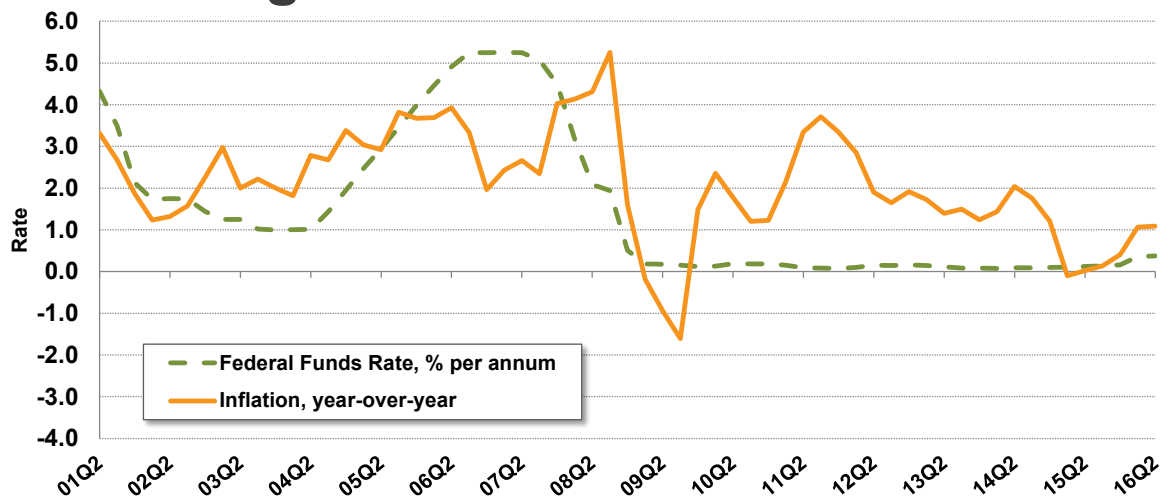
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Interest Rates and Inflation Rates Low, but Rising



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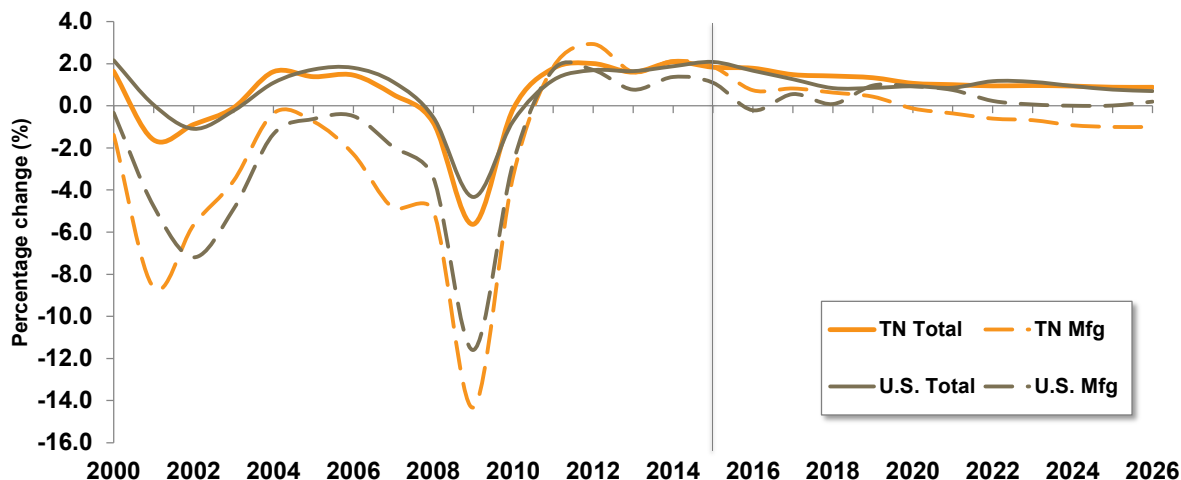
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Nonfarm Job Growth Will Continue While Manufacturing Jobs Will Revert to Contraction



Source: Bureau of Labor Statistics; IHS, Inc.; and UT-BCBER.

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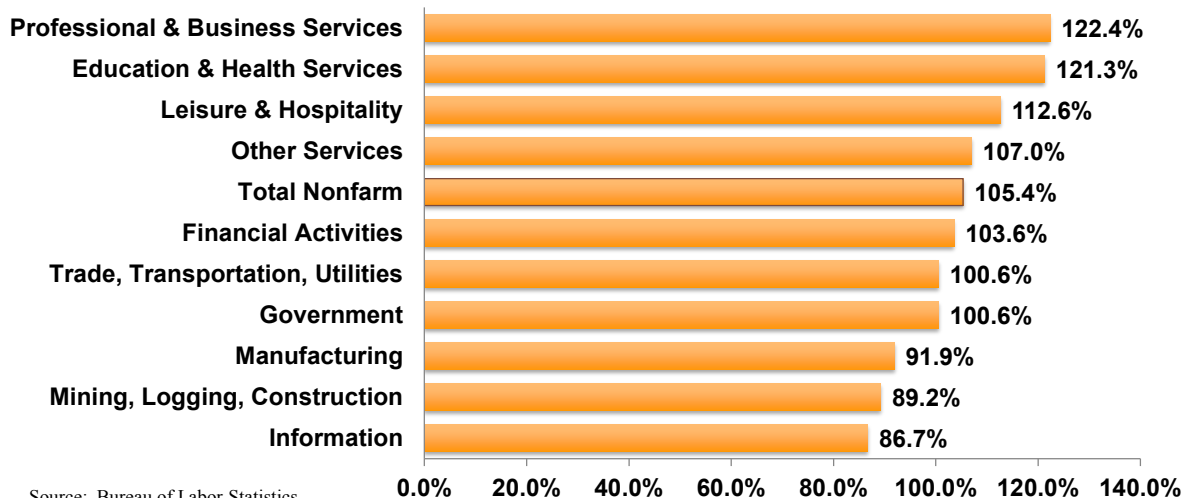
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Full Recovery from the Great Recession in Most Sectors

(July 2016 Employment as a Share of December 2007 Employment)



Source: Bureau of Labor Statistics.

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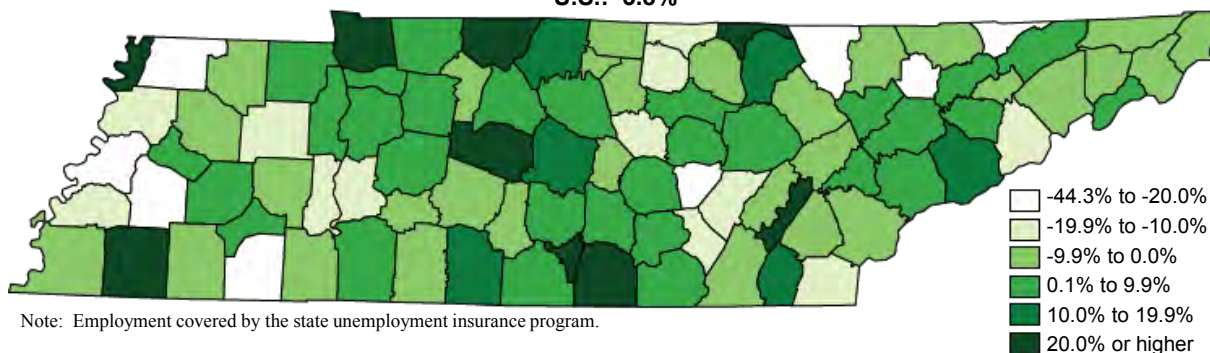
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Dramatic Differences in Post-Recession Private Employment Growth Across Tennessee (2007 to 2015)

Tennessee: 3.4%
U.S.: 3.8%



Source: Bureau of Labor Statistics.

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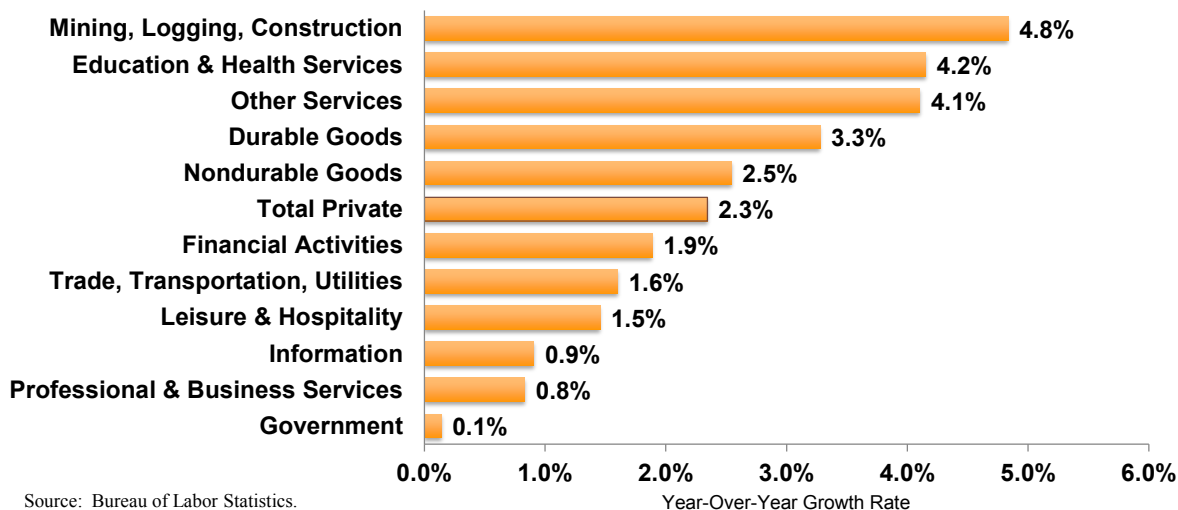
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Tennessee Enjoys Broad-Based Job Gains (July 2015 to July 2016)



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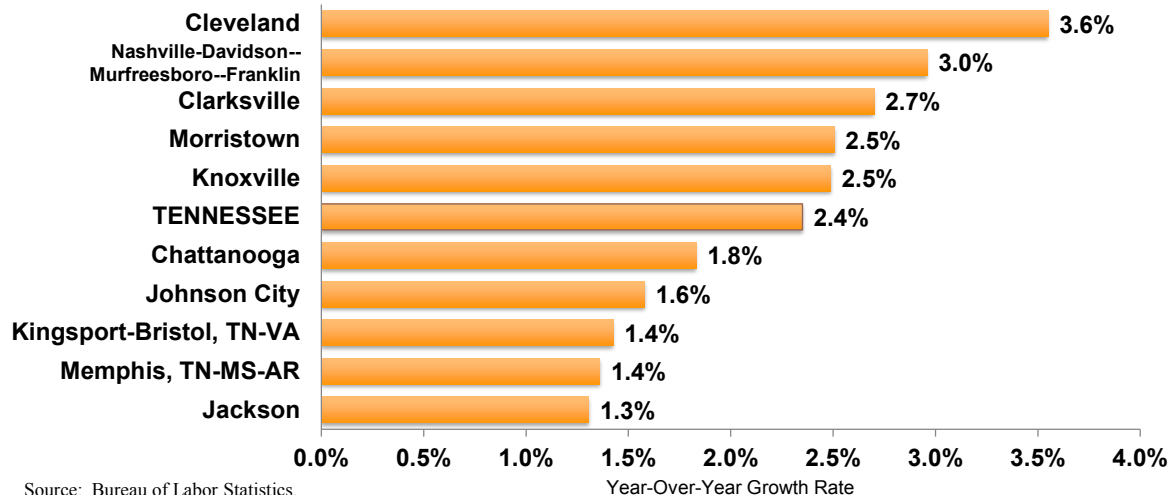
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MSA Employment Growth – Positive but Mixed (Quarter Ending July 2015 to July 2016)



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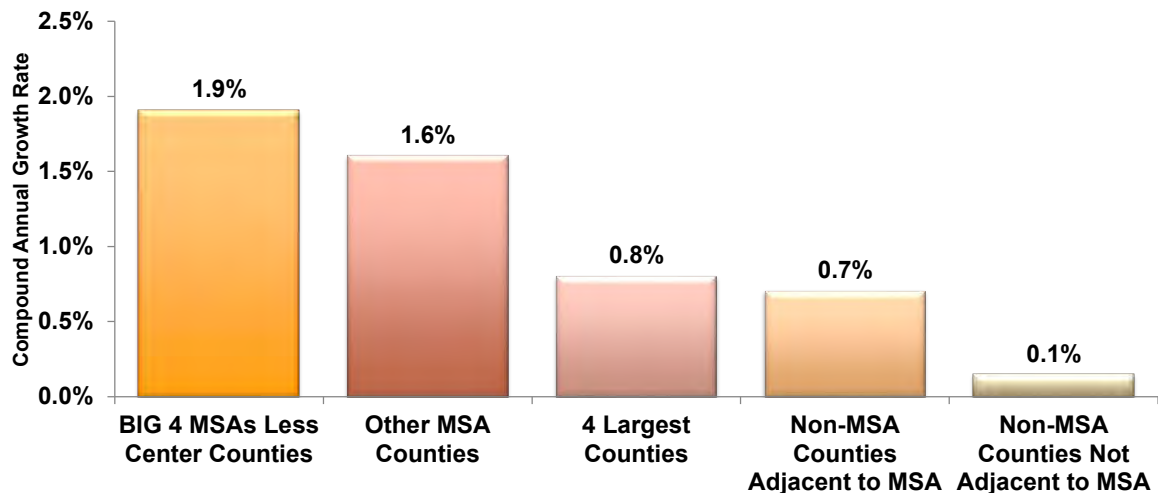
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Metro Areas See Strongest Employment Growth (1990 to 2016*)



*2016 is year-to-date (June 2016)

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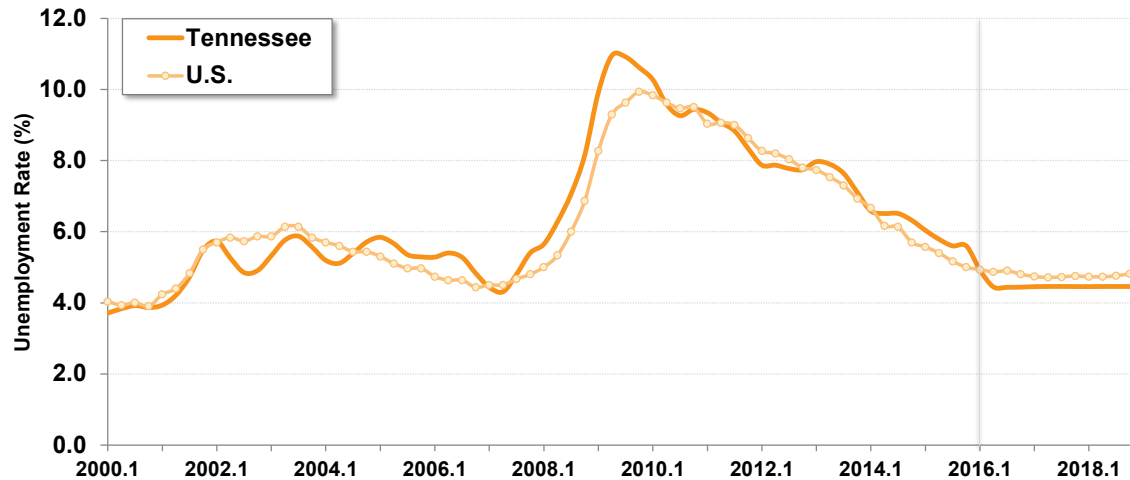
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Tennessee's Unemployment Now Rests Below the National Rate



Source: Bureau of Labor Statistics; IHS. Inc.; UT-BCBER.

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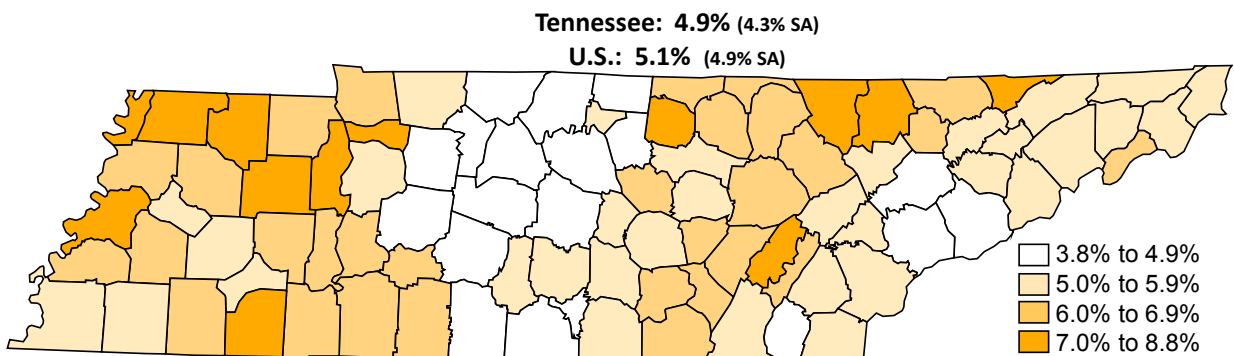
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Rural Counties in Tennessee Experience Highest Unemployment Rates (July 2016)



Note: Data are not seasonally adjusted.

Source: Bureau of Labor Statistics.

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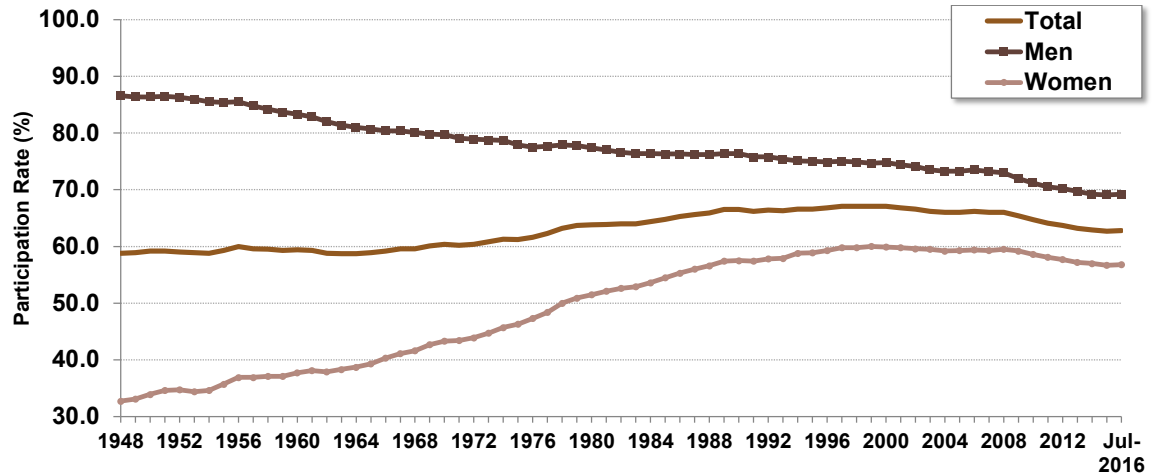
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U.S. Labor Force Participation Rate Peaked in 2000



Source: Bureau of Labor Statistics.

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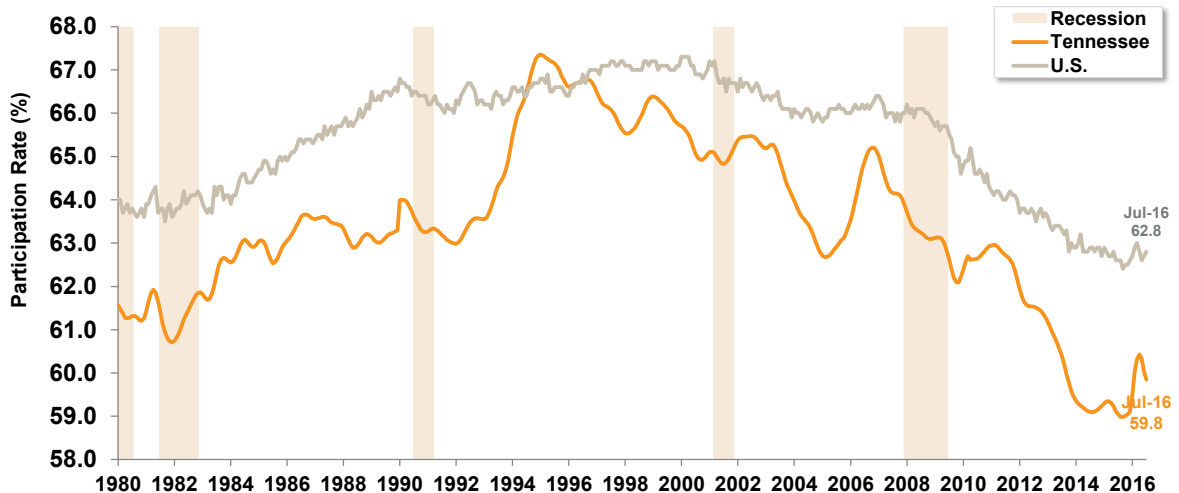
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Labor Force Participation Rates Points to Near-Term Turnaround



Source: Bureau of Labor Statistics.

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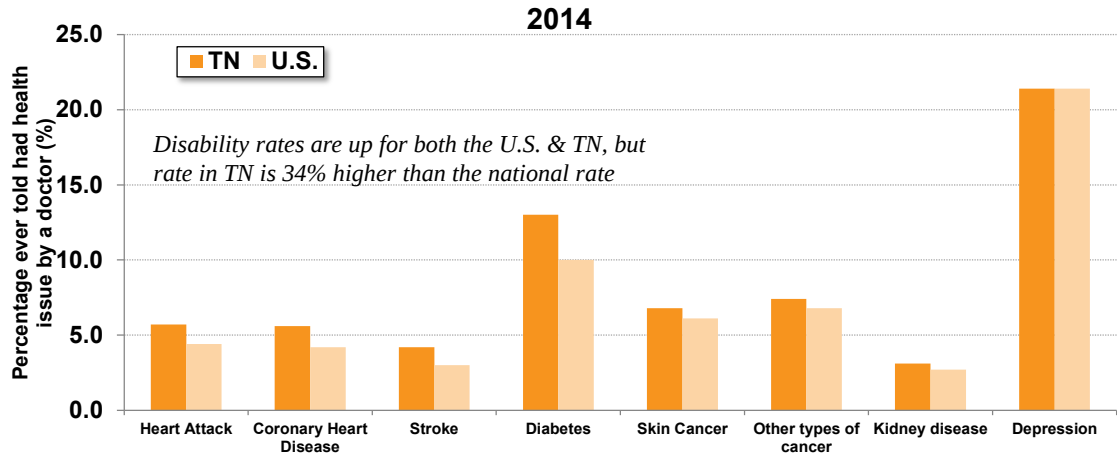
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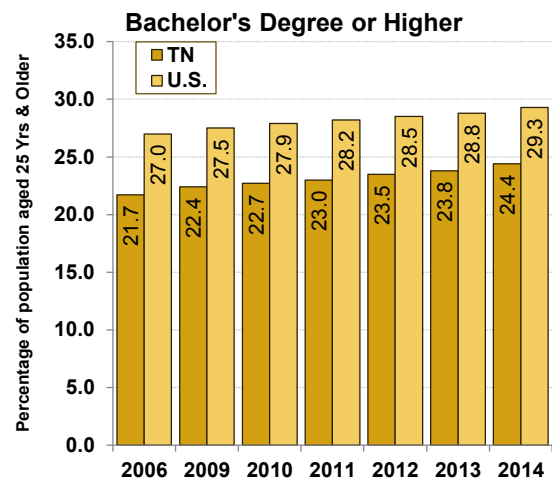
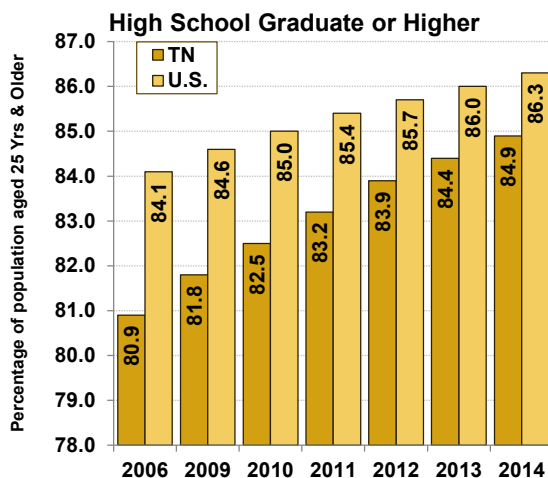
Tennesseans Have Poor Health Status Which Affects Labor Force Outcomes



Source: Centers for Disease Control and Prevention, Behavior Risk Factor Surveillance System.



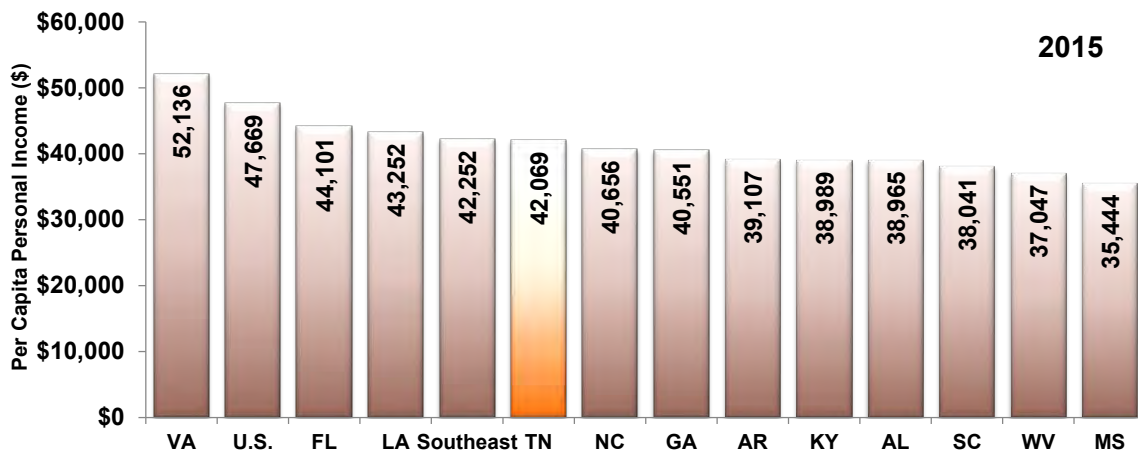
Trailing Levels of Educational Attainment Contribute to Trailing Levels of Income and Lower Participation Rates



Source: U.S. Census Bureau.



Per Capita Personal Income in Tennessee Falls Below the National and Regional Averages



Source: Bureau of Economic Analysis.

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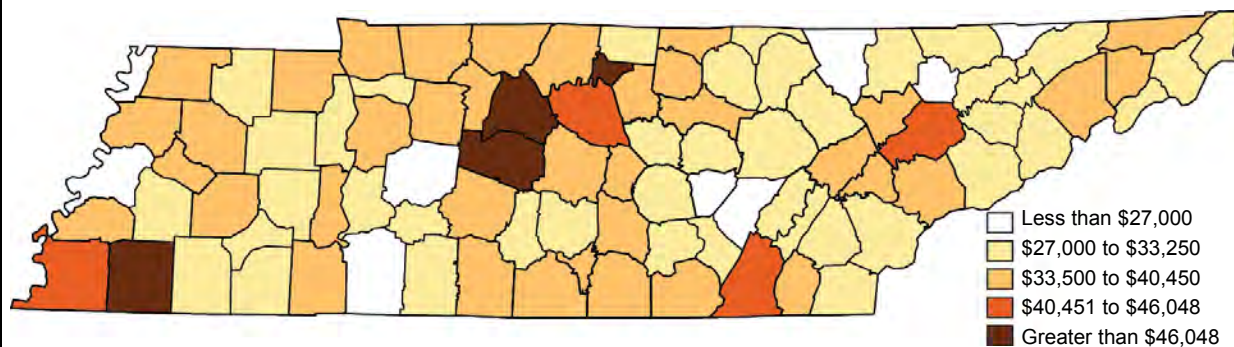
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Per Capita Income is Lower than the U.S. Average in All But Four TN Counties



Source: Bureau of Economic Analysis.

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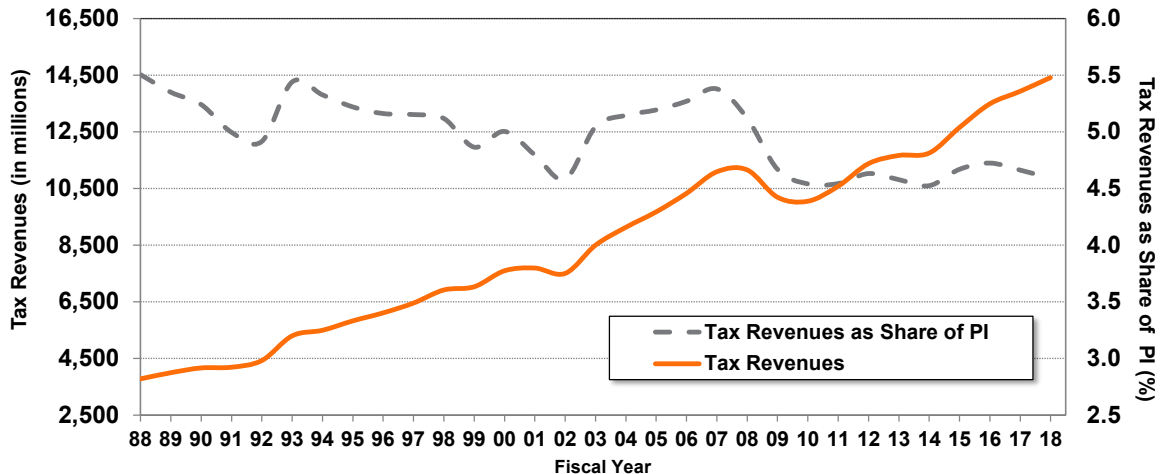
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Tennessee Tax Revenues: Revenues Rise but Burden Falls



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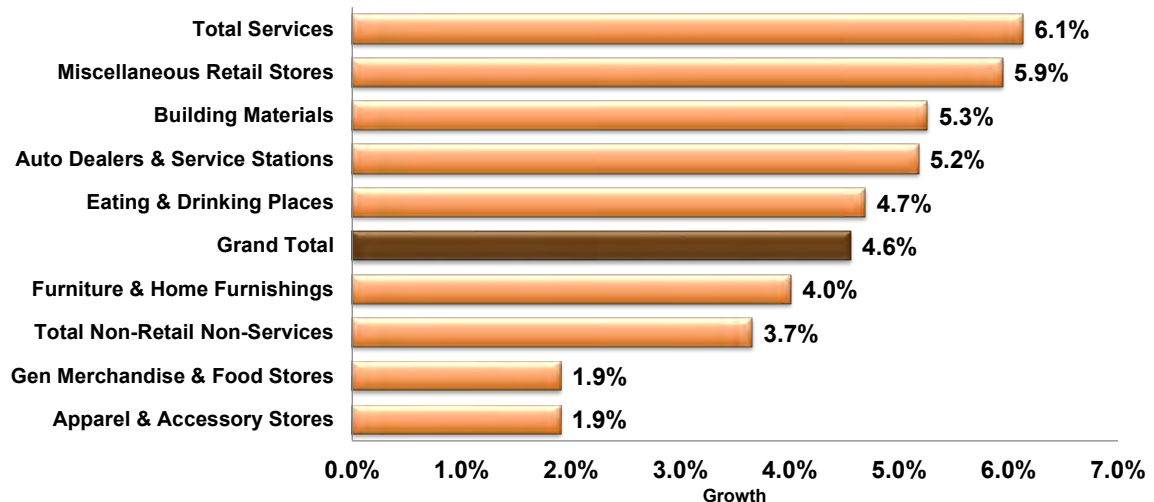
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Sales Tax Collections Show Strong Growth (Quarter Ending July 2015 to July 2016)



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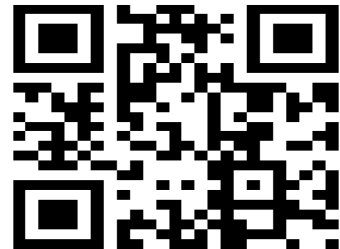


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