

**AN ECONOMIC REPORT
TO THE GOVERNOR
OF THE STATE OF **TENNESSEE****

**THE STATE'S
ECONOMIC
OUTLOOK
JANUARY**

2018

AN ECONOMIC REPORT TO THE GOVERNOR OF THE STATE OF **TENNESSEE**

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IN COOPERATION WITH THE

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An Economic Report to the Governor of the State of Tennessee

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PREFACE

This 2018 volume of *An Economic Report to the Governor of the State of Tennessee* is the forty-second in a series of annual reports compiled in response to requests by state government officials for assistance in achieving greater interdepartmental consistency in planning and budgeting efforts sensitive to the overall economic environment. Both short-term, or business cycle-sensitive forecasts, and longer-term, or trend forecasts, are provided in this report.

The quarterly state forecast through the fourth quarter of 2019 and annual forecast through 2027 represent the collective judgment of the staff of the University of Tennessee's Boyd Center for Business and Economic Research in conjunction with the Quarterly and Annual Tennessee Econometric Models. The national forecasts were prepared by IHS Markit. Tennessee forecasts, current as of December 2017, are based on an array of assumptions, particularly at the national level, which are described in Chapter One. Chapter Two details evaluations for major sectors of the Tennessee economy, with an agriculture section provided by the University of Tennessee Institute of Agriculture. Chapter Three presents the long-run outlook and forecast for the state. Chapter Four discusses the opioid epidemic and the implications it has for labor markets across the state of Tennessee.

The primary purpose of this annual volume—published, distributed, and financed through the Tennessee Department of Finance and Administration, Tennessee Department of Economic and Community Development, the Tennessee Department of Revenue, and the Tennessee Department of Labor and Workforce Development — is to provide wide public dissemination of the most-current possible economic analysis to planners and decision-makers in the public and private sectors.



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EXECUTIVE SUMMARY

The U.S. Economy

Early estimates indicate that U.S. gross domestic product (GDP) will grow 2.3 percent in 2017 compared to 1.5 percent in 2016 and 2.9 percent in 2015. The year started off slowly, perhaps due to lingering uncertainty surrounding the presidential election, but the economy gained momentum in the later quarters. GDP grew by a moderate 1.2 percent in the first quarter (on a seasonally-adjusted basis), but picked up to 3.1 percent, 3.3 percent, and an expected 2.7 percent in the second, third, and fourth quarters of 2017, respectively. This makes 2017 the eighth year of recovery since the recession. In even more positive news, the global economy began to gain strength in 2017, which should help support the U.S. economy through stronger export growth.

The labor market tightened further in 2017, consumption spending remained strong and business spending growth was respectable. Perhaps the biggest indicator of the strength of this recovery is the Federal Reserve (Fed) raising the Federal Funds rate to above 1.0 percent for the first time since the Great Recession. The Fed had kept the Federal Funds rate and other interest rates low to encourage demand, but in the current economic environment this is no longer viewed as necessary. Interest rates remain below their historical average. The Fed's confidence is reflected in the rate hike of early December.

Signs of this tightening labor market include increased nonfarm payroll jobs and a falling unemployment rate. Total nonfarm payrolls should increase by 2.1 million for a total of 146.4 million jobs in 2017. The rate of job creation has slowed, however, a sign that the U.S. economy is approaching full employment. The unemployment rate continued falling and is expected to drop to 4.1 percent in the fourth quarter. Continued strength in the labor market has led to rising inflation-adjusted disposable income and rising consumer confidence. These, coupled with the positive labor market factors led to continued healthy consumption growth, with consumption expected to grow 2.7 percent

in 2017. Nonresidential investment also showed a substantial gain, and its 2017 growth is anticipated to be an impressive 4.7 percent, compared to a 0.6 percent drop in 2016. The housing sector did not share in this robust growth, and residential investment should grow only 1.2 percent. Inflation hit the Fed's 2 percent target in 2017, and likely increased 2.1 percent, helped by recovering energy prices.

The federal government deficit will likely be \$665.7 billion for the year, small when compared to the deficits run during the Great Recession. However, 2017 marks the sixth year in a row that total U.S. federal debt has been larger than U.S. GDP. The trade deficit has continued to widen in 2017, but export growth picked up significantly and is estimated to grow 3.1 percent, only slightly behind import growth's estimated 3.4 percent. Strong import and export growth are due to the combination of a strengthening global economy and a strong U.S. dollar. The expanding global economy means foreign consumers can better afford U.S. exports. On the other hand, a relatively strong U.S. dollar keeps imported goods relatively inexpensive for U.S. consumers and exported goods relatively expensive to foreign buyers.

The global economy is expected to continue picking up in 2018, and the dollar is expected to remain relatively strong. Because of this, export growth is predicted to reach 4.3 percent and import growth is expected to reach 4.0 percent. The Consumer Price Index (CPI) is expected to hit 1.8 percent.

Some uncertainty exists both nationally and internationally, but the U.S. and global economies are overall believed to be on a path for sustained growth. In 2018, U.S. GDP is expected to increase 2.6 percent, and the unemployment rate is expected to fall to 3.9 percent. It appears that major tax reform will be implemented, likely increasing output growth by about three tenths of a percentage point above the figures reported here. Calendar year 2018 is expected to have solid gains each quarter, with GDP increases of 2.2

percent, 2.5 percent, 2.4 percent, and 2.5 percent in the first, second, third, and fourth quarters, respectively. A tight labor market coupled with strong consumption and investment spending are expected to be the drivers of these GDP increases.

There are few predicted risks to the current U.S. economy's trajectory. Two things to watch are a possible softening of the commercial real estate

market and the potential for slipping consumer and business confidence. In addition, productivity has remained depressed for the past few years, and if it does not pick up long-term GDP growth will be lower than the modern U.S. economy's historical average. Overall, the next few years are expected to continue the pattern of modest growth for the U.S. economy.

The Tennessee Economy

The Short-Term Economic Outlook

The state economy continues its lengthy expansion, one that could become the longest on record since the end of World War II. Most measures of economic activity continue to show healthy growth. Especially notable is the state unemployment rate which dipped to a record low 3.0 percent in September, followed by a similar showing in October, well below the nation's rate of unemployment. Nonfarm job growth has also performed very well, including a 2.6 percent surge in 2016, compared to growth of only 1.8 percent for the national economy. Manufacturing job gains have also been sustained. Nominal personal income was up a modest 3.7 percent in 2016. Inflation-adjusted state gross domestic product saw a 2.6 percent gain in 2016 compared to growth of just 1.5 percent for the nation. Data for 2017 indicate further improvement in most measures of economic activity.

Economic conditions should continue to improve in 2018 and 2019, building on expectations of healthy national growth. Tennessee's gross domestic product is expected to be up 2.1 percent in each of the next years, compared to growth of 2.5 percent and 2.2 percent for the U.S. Nominal personal income in Tennessee will be up 4.3 percent in 2018 and 2019, while income will grow 3.9 percent and 4.4 percent on a fiscal year basis.

Nonfarm job growth will slow in the quarters ahead as the economy gets closer and closer to full employment. Tennessee will see jobs advance 1.4 percent and 1.2 percent in 2018 and 2019, compared to 1.3 percent and 1.0 percent growth

for the nation. This outlook is consistent with exceptionally low unemployment rates and a pattern of weaker growth in employment in recent quarters. Manufacturing job growth in Tennessee is expected to slow markedly, a reflection of the return to high levels of production in many sectors of the economy, including the transportation equipment sector. The state unemployment rate will average 3.1 percent in 2018 and 2019, well below the 4.0 percent rate of unemployment for the U.S.

The Long-Term Economic Outlook

Tennessee's long-term outlook, which extends out to 2027, is based on a *trend* forecast which relies on key underlying economic forces such as population changes and labor force growth. For comparative purposes, Chapter 3 takes a retrospective look at economic growth between 2007 and the present, as well as provides projections 10 years into the future. One of the underlying assumptions of the *trend* forecast is that no recessions will occur within the next 10 years, but a recession at some point during the long-term forecast horizon is possible if not likely.

Between 2007 and 2017, inflation-adjusted gross domestic product (real GDP) growth was hampered by the Great Recession, but still advanced by 1.5 percent per year (compound annual growth rate, CAGR) in Tennessee, and slightly outpaced national output growth of 1.4 percent per year. Over the next 10 years, real GDP is projected to advance by 2.0 percent per year in both Tennessee and the U.S.

In Tennessee, nonfarm employment grew by 0.8 percent per year over the last 10 years,

representing a net increase of 222,700 workers. Job growth in Tennessee outpaced national employment growth of 0.6 percent per year, which represented an increase of 8.4 million workers. The long-term forecast calls for stronger job growth at both the state and national levels. Tennessee employment will expand by 0.9 percent per year from 2017 to 2027, and add 290,500 new workers over the 10-year period. National employment growth will improve by a slightly slower 0.7 percent per year, representing an increase of 10.4 million workers. In Tennessee, all broad sectors of the economy will see some employment growth over the next 10 years, with the service sectors seeing the largest improvements. Specifically, professional and business services and education and health services will both see job gains in excess of 1.7 percent (CAGR). The natural resources, mining, and construction sector will also see robust job growth of 1.3 percent per year over the next decade.

Tennessee's unemployment rate, which was sitting at 3.2 percent during the third quarter of 2017, is projected to remain below the national rate throughout the long-term forecast horizon. The annual unemployment rate is forecasted to fall to 3.0 by 2020, before slowly trending upwards as it reverts to its trend performance with

unemployment rates that are more closely aligned with historical patterns. Over the next 10 years, Tennessee's population will increase by 0.8 percent per year and keep pace with U.S. population growth.

Between 2007 and 2017, nominal personal income in Tennessee grew by 3.6 percent (CAGR). Over the next 10 years, personal income growth in Tennessee is projected to strengthen, and advance by 4.1 percent per year, but will lag behind national income growth of 4.4 percent per year. As a result, per capita income in Tennessee, which was \$43,326 in 2016, will fall from 88.0 percent of the national average down to 85.9 percent by 2027. State initiatives such as the *Drive to 55*, with its goal of increasing the percentage of Tennesseans with a college degree or certificate to 55 percent of the Tennessee population by 2025, and the *Tennessee Promise*, which offers mentoring and tuition-free community college or technical college to all Tennessee high school graduates, aim to improve the education status of the state. If successful, these initiatives could encourage stronger economic growth in the state. Improved educational attainment would also support stronger income growth which could help narrow the per capita income gap between Tennessee and the U.S.

The Effects of Prescription Opioid Use on County-Level Labor Markets in Tennessee

The opioid crisis has swept across the nation with catastrophic consequences. Most discussions of this epidemic have appropriately focused on adverse health consequences including addiction, overdoses and mortality. However, one facet of the problem that has received relatively scant attention is the potential consequences for the labor market. We know very little today about how opioids affect an individual's engagement in the labor force and whether the opioid problem is of a sufficient order of magnitude to manifest itself in county-level labor market statistics like the unemployment rate. This special chapter of the *Economic Report to the Governor* seeks to address this open question.

Nationwide, the number of opioid prescriptions written has seen dramatic growth, from 76 million in 1991 to 245 million in 2014. Addictions, overdoses and deaths have also risen dramatically. In 2015, opioid-related deaths rivaled the number of deaths from automobiles. The rapid growth in opioids is due to a variety of factors, including marketing efforts and the introduction of purportedly non-addictive extended-release drugs. OxyContin, introduced in 1995, is one of the drugs that was marketed as being non-addictive.

Tennessee has had ample experience in dealing with the opioid crisis. The state ranked second in the nation in 2012 for opioid prescriptions

dispensed per capita. In 2016, a large share of individuals in Tennessee Department of Mental Health and Substance Abuse Services treatment facilities had opioid-related abuse problems. Opioid-related hospitalization costs have been estimated at \$442.6 million per year, and TennCare costs at \$76.9 million annually.

What have we learned about opioids and the labor market? There is clear evidence of a strong *correlation* between opioid prescriptions per capita and measures of labor market health like the labor force participation rate for the Southeastern region as a whole, as well as, within Tennessee at the county level. Simple correlations do not necessarily imply that opioids are the culprit. However, using sophisticated statistical methods, it is possible to show that this relationship is *causal*: higher per capita opioid prescription rates lead to higher county unemployment rates, lower rates of labor force participation and diminished employment-to-population ratios. Together the findings indicate

that prescription opioids are driving people out of the labor market. A back of the envelope calculation indicates that a 10 percent reduction in per capita opioid prescriptions would lead to an additional \$825 million in income for Tennesseans from enhanced labor market participation.

Eliminating opioids entirely is not a realistic option. For one reason, many individuals find therapeutic benefits from the use of opioids. The question is how to find the right balance for a drug that produces benefits for some but high costs for others. A starting point may be to focus on the prescribing behavior of high-prescribing physicians in Tennessee who are a primary source of opioids. To put this issue in perspective, in Oregon, the top 10 percent of providers accounted for a jaw-dropping 81 percent of all opioids prescribed in 2013. A range of other mitigation efforts will be required, from information campaigns to increasing the availability and quality of treatment programs.

CHAPTER 1: THE U.S. ECONOMY

In this chapter—

- 1.1. Introduction**
- 1.2. The U.S. Economy: Year in Review**
Components of GDP
- 1.3. The U.S. Forecast**
- 1.4. Alternative Scenarios**
- 1.5. Forecast Summary and Conclusions**

1.1. Introduction

In 2017, the U.S. entered the third-longest expansion since World War II, and the recovery from the Great Recession continued into its eighth year. Moreover, in 2017 the global economy gained momentum. U.S. inflation-adjusted gross domestic product (GDP) grew 2.3 percent in 2017. For comparison, the economies of Canada, China, and the Eurozone will have expanded 3.1, 6.8, and 2.2 percent, respectively. This is higher growth for each of these important trade partners than recorded in 2016; Canada in particular experienced a significant turnaround.

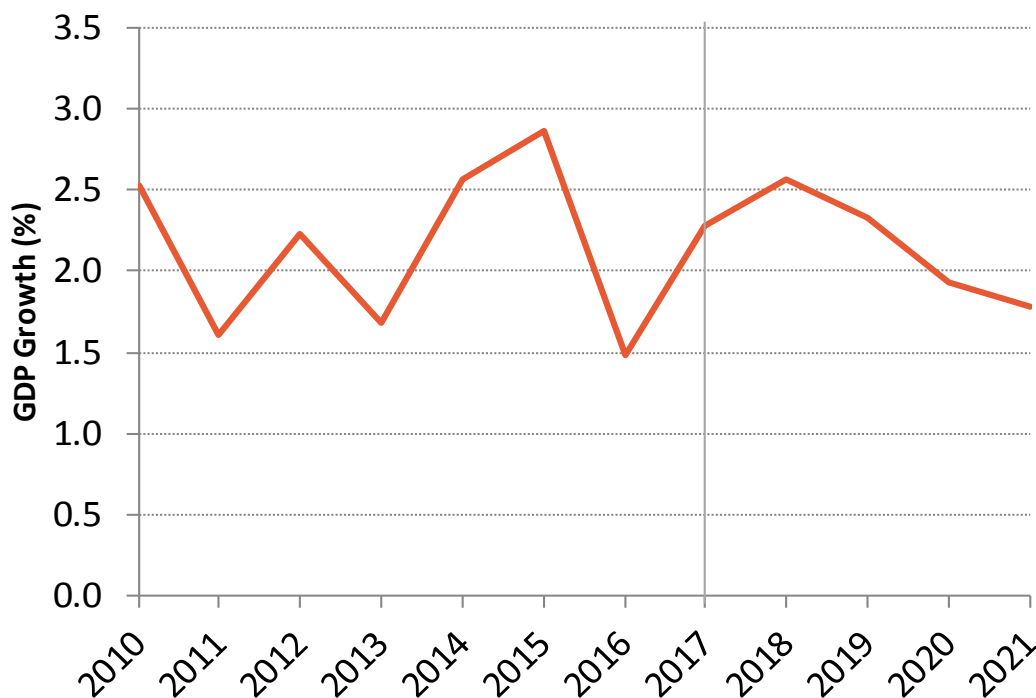
The labor market continued to tighten in 2017, with the national unemployment rate likely falling to an average of 4.4 percent for the year and payroll employment growing 1.5 percent. The economy will have 8.4 million more jobs than before the Great Recession at the end of 2017. Only one major sector is predicted to have lost jobs in 2017: information, with 45,000 lost jobs. Because of the tightening labor market, inflation-

adjusted disposable income grew 1.2 percent. Residential fixed investment experienced slow growth, up just 1.2 percent in 2017 compared to 5.5 percent growth in 2016. Inflation has risen and is now beginning to fall within the Federal Reserve's desired 2.0 percent range, with overall inflation increasing 2.1 percent and inflation excluding food and energy prices growing 1.9 percent. The continued positive economic news culminated in the Federal Reserve (Fed) finally raising the Federal Funds rate to above 1.0 percent, the highest it has been since the Great Recession. The Fed had been depressing the Federal Funds rate to encourage spending, but the strength of the economy suggests this is no longer necessary. Interest rates will likely be pushed up again in December.

A drag on growth for the past few years has been a widening trade deficit caused by the weak global economy. While the U.S. economy has experienced moderate growth each year since the

1.1. Introduction, continued

Figure 1.1: The U.S. is Expected to Continue Experiencing Moderate Economic Growth in the Next Few Years



Source: Bureau of Economic Analysis and IHS Markit™, U.S. Economic Outlook, December 2017 (copyright).

Great Recession, soft spots in the global economy persisted due to various factors, including low energy prices and geopolitical turmoil. This global economic weakness and the U.S. dollar's strength encouraged import growth relative to export growth. However, in 2017, the global economy found its footing, and global growth reached 3.1 percent compared to 2.5 percent in 2016 and 2.7 percent in 2015. This global expansion in turn encouraged higher rates of U.S. export growth. While the trade deficit remained a drag on the economy in 2017, its impact lessened.

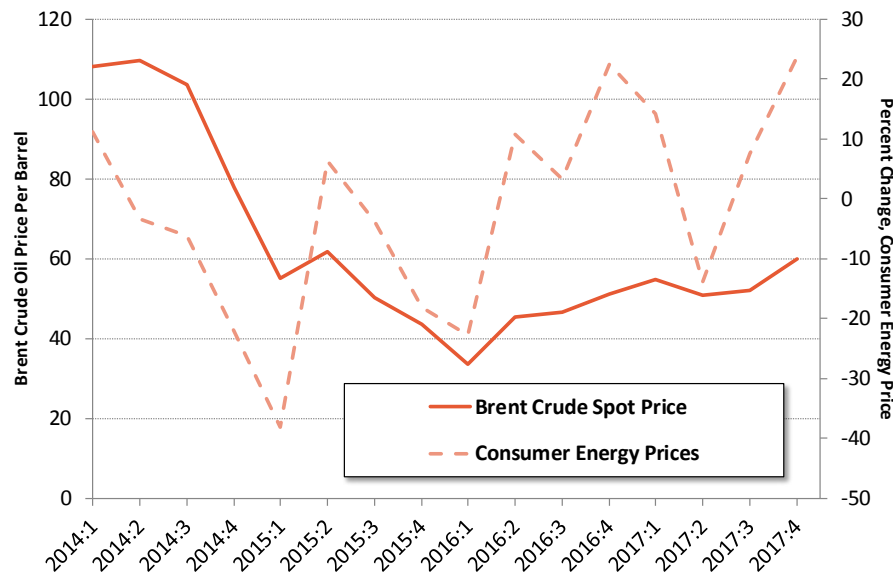
A continuation of growth is expected in 2018 and 2019. U.S. inflation-adjusted GDP is expected to grow 2.6 percent in 2018, the economy is expected to create 2.1 million jobs, the unemployment rate is expected to drop to 3.9 percent, and inflation-adjusted disposable income is expected to grow 2.6 percent. The global economy is expected to continue strengthening,

with world GDP increasing 3.3 percent, as energy and commodity prices rebound and growth is encouraged in countries that primarily export goods.

As this report goes to press, there continue to be discussions of major federal tax reform, with final details between the House and Senate versions of the bill still being worked out. The final form of the bill will determine its impacts on the economy. Expect only a modest boost to GDP in the short run, with more muted effects on the labor market. The economy is currently operating close to full employment and there is little capacity for accelerated growth, particularly in already-tight state and national labor markets. Should tax reform include the termination of tax rates in the mid-term, this will in turn dampen growth. Many details are still required to determine the likely implications for growth.

1.2. Introduction, continued

Figure 1.2: Energy Prices Rebounded in 2017 after Falling Prices the Past Two Years



Source: Bureau of Economic Analysis and IHS Markit™, U.S. Economic Outlook, December 2017 (copyright).

1.2. The U.S. Economy: Year in Review

The U.S. economy grew for the eighth year in a row in 2017. The year once again began slowly, perhaps due to lingering uncertainty after the presidential election: GDP grew at an anemic 1.2 percent seasonally-adjusted rate in the first quarter, followed by solid projected growth of 3.1, 3.3, and 2.7 percent in the second, third, and fourth quarters. It is notable that growth in the third and fourth quarters is expected to have remained strong even in the wake of two major hurricanes that were expected to have larger impacts on growth. Economic expansion throughout the year can be explained by strong economic fundamentals: a tight labor market, strong growth in consumption, respectable growth in business investment and a stronger global economy.

Continued modest and stable growth is expected in 2018 and 2019. The labor market is expected to continue expanding though at a slower pace. Residential fixed investment spending is expected to grow modestly while business investment will show modest improvement. There are no major threats to this growth outlook at this time. There are some risks associated with continued weakness in commercial real estate,

high asset prices, geopolitical uncertainty, and the possibility of falling business and consumer confidence. All of these risks appear manageable at this time.

Components of GDP

GDP is the broadest measure of economic activity for the national economy. It is composed of personal consumption expenditures, investment, government purchases, and the balance of international trade (exports minus imports). Note that when imports exceed exports, this leads to a trade deficit that reduces GDP.

Consumption

Personal consumption expenditures are by far the largest component of U.S. GDP and will account for 69.5 percent of spending in 2017. Consumption should grow 2.7 percent in 2017 compared to 2.7 percent in 2016 and 3.6 percent in 2015. Consumer spending continues to drive the economy: increases in consumer spending are anticipated to account for 1.9 percentage points of the 2.3 percent growth in 2017. The strongest quarter for consumer spending was the second

1.2. The U.S. Economy: Year in Review, continued

quarter, when it grew 3.3 percent compared to growing 1.9 percent in the first quarter, 2.3 percent in the third quarter, and a predicted 2.8 percent in the fourth quarter.

The factors that typically help explain consumer spending include disposable income growth, consumer confidence, and the state of the labor market. All three of these factors were robust in 2017. Inflation-adjusted disposable income is expected to increase 1.2 percent in 2017 compared to 1.4 percent in 2016. The unemployment rate and consumer sentiment index also moved in favorable directions. The unemployment rate should come in at 4.4 percent for the year; the fourth quarter should produce a 4.1 percent rate. The consumer sentiment index experienced a large hike, increasing from 91.8 in 2016 to 97.1 in 2017. Along with these favorable indicators, inflation-adjusted household net worth grew 5.2 percent compared to 4.6 percent in 2016 and 3.3 percent in 2015.

Personal consumption has three subcomponents: services, nondurable goods, and durable goods. Spending on services is the least volatile of the three subcomponents and will account for 64.6 percent of total consumption spending in 2017. Services spending grew 2.2 percent, similar to the category's 2016 increase of 2.3 percent. Recreation services, financial services and insurance, and other miscellaneous services saw the largest growth, with increases of 3.0 percent, 3.1 percent, and 4.0 percent, respectively.

Nondurable goods were the smallest portion of consumer spending in 2017, making up 21.7 percent of consumption spending. Nondurable goods include food, beverages, medical products, gas, and other similar short-lived products. Typically, nondurable goods make up a larger portion of consumption spending than durable goods, but in 2017 durable goods spending was especially strong. Nondurable goods spending increased 2.3 percent in 2017. The category that experienced the largest growth was other miscellaneous nondurable goods, which grew 3.6 percent. The categories that account for the largest portions of nondurable goods spending are food

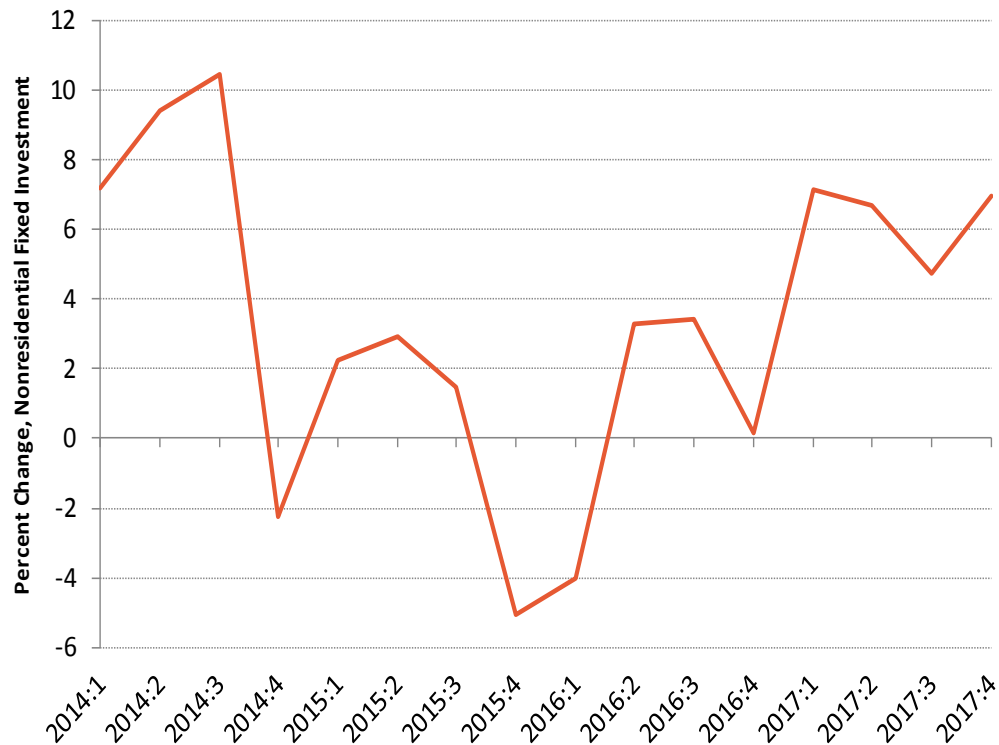
and beverages (33.1 percent of total nondurable goods spending in 2017), clothing and footwear (15.0 percent of nondurable goods spending), and pharmaceutical and medical products (15.7 percent of nondurable goods spending). Food and beverages spending, pharmaceutical goods and other medical products spending, and clothing and footwear spending experienced moderate growth, growing 2.4, 1.9 and 1.7 percent, respectively.

Personal spending on durable goods includes spending on motor vehicles, furnishings, recreational goods, computers, and other household equipment. Spending on durable goods is by far the most volatile category of consumption since many purchases are relatively easy to delay. Spending growth on durables has outpaced spending on nondurables and services during the recovery, and in 2017 this pattern continued. Spending on durables grew 6.3 percent while spending on nondurables and services grew 2.3 percent and 2.2 percent, respectively. Spending on durable goods typically sinks during recessions and increases more than any other category during periods of recovery and expansion to satisfy consumers' pent-up demand. The strong nondurable goods spending seen in 2017 follows a pattern of strong growth since the recession: spending on durable goods increased by 6.2 percent in 2013, 6.9 percent in 2014, 7.7 percent in 2015, and 5.5 percent in 2016.

In 2017, vehicle purchases growth increased 4.5 percent, up from the 2.9 percent increase in 2016, but below the 6.9 percent growth of 2015. It is likely that growth in vehicle purchases will flatten out now that sales have reached their pre-recession level. Used vehicle purchases increased 10.1 percent, while new vehicle purchases increased 2.7 percent. For both categories, growth in sales of light trucks exceeded growth in sales of autos. New light truck sales increased 6.3 percent, while new auto sales fell 6.8 percent; used light truck sales grew 13.6 percent, while used auto sales grew 5.1 percent. The number of domestic new autos fell 9.1 percent to 4.7 million sold and the number of imported new autos fell 17.5 percent to 1.4 million sold. The number of domestic light trucks

1.2. The U.S. Economy: Year in Review, continued

Figure 1.3: Nonresidential Fixed Investment Grew in 2017 due to Rising Business Confidence and Energy Prices



Source: Bureau of Economic Analysis and IHS Markit™, U.S. Economic Outlook, December 2017 (copyright).

grew by 2.6 percent to 8.7 million sold, and the number of imported new light trucks grew 10.3 percent to 2.4 million sold. The total number of new vehicles sold fell 1.9 percent, down to 17.1 million from 17.5 million in 2016.

Investment

Investment will account for 17.3 percent of U.S. inflation-adjusted GDP and contribute 0.6 percentage points toward the total 2.3 percent GDP growth in 2017. Investment includes three subcomponents: nonresidential fixed investment, residential fixed investment (new housing), and the change in business inventories. Nonresidential fixed investment and residential fixed investment are expected to contribute positively to GDP in 2017, but the change in business inventories will be a slight drag. (Note that investment, as included in GDP, does not include financial instruments like stocks and bonds.)

Nonresidential fixed investment, the largest

subcomponent of investment spending, made up 78.3 percent of investment spending in 2017. It includes equipment purchases by firms, acquisitions of non-tangible products such as software and licenses, and spending on structures. Nonresidential fixed investment spending should grow 4.7 percent in 2017, compared to a 0.6 percent drop in 2016 and 2.3 percent growth in 2015. Recovering energy prices are a key driver of this growth. Spending on mining and petroleum structures revived in 2017, with growth expected to come in at 55.8 percent compared to falling 43.2 percent in 2016 and falling 28.5 in 2015. On the other hand, spending on transportation equipment continued to fall, decreasing 0.6 percent.

Changes in business inventory, the highly cyclical component of investment, were a significant drag on GDP in the first quarter but had a modest positive impact the following three quarters. The overall result was a small drag on GDP growth: changes in inventories will likely

1.2. The U.S. Economy: Year in Review, continued

lower GDP in 2017 by 0.1 percentage points. Typically, the change in inventories accounts for less than 3 percent of total investment (it accounted for 0.7 percent in 2017), yet it can have a strong contribution to overall GDP growth in some quarters due to its cyclical nature. Inventory investment is expected to have fallen to \$21.6 billion in inflation-adjusted terms from \$33.4 billion in 2016. Nonfarm inventory investment fell, down to \$18.7 billion in inflation-adjusted terms from \$34.5 billion in 2016, while farm inventory investment rose, from a negative inventory investment of \$600 million in 2016 to a positive inventory investment of \$3.0 billion in inflation-adjusted terms in 2017.

The second largest subcomponent of investment spending is residential fixed investment, which will likely account for 20.1 percent of investment spending in 2017. Residential fixed investment is expected to have contributed less than 0.1 percentage points towards the expected 2.3 percent GDP growth in 2017, compared to contributing 0.2 percentage points in 2016. Residential fixed investment is anticipated to have grown only 1.2 percent compared to its more robust growth in 2016 of 5.5 percent. The cause of this slowed spending is unclear but it may be a result of slow household formation by young adults. The first quarter saw a significant spike in residential investment, with a 11.1 percent increase in annualized terms, but the second and third quarters saw residential investment fall. The fourth quarter will experience a small increase of 3.7 percent. The Fed has hypothesized anticipation of interest rate hikes are to blame for this uneven investment throughout the year, with buyers shifting home purchases to earlier in the year so they would not be impacted by the expected higher interest rate.¹ In 2017, inflation-adjusted residential investment is projected to have increased just \$594.4 billion, compared to the pre-recession peak of \$872.6 billion in 2005. The housing sector is still recovering from the wrenching 24.0 percent and 21.2 percent setbacks recorded in 2008 and 2009.

Levels of activity continue to lag pre-recession levels.

The number of housing starts should flatten out at 1.2 million in 2017, the same number as in 2016, compared to 1.1 million in 2015. In 2005, housing starts numbered 2.1 million. Sales of new homes should increase by 10.6 percent, growing to 620,000 in 2017, the highest number since 2007. Sales of existing houses grew 1.5 percent.

Housing prices continued rising in 2017. Average and median prices of existing houses grew for the sixth year and will reach \$289,000 and \$248,000, respectively. The Federal Housing Finance Agency (FHFA) Housing Price Purchase-Only Index also increased for the sixth consecutive year.

Interest Rates

Interest rates are a key determinant of each subcomponent of investment as well as consumer spending. Interest rates also affect exchange rates, with higher rates leading to an increase in the value of the dollar. The higher value of the dollar in turn increases imports and dampens exports, thus slowing overall growth. Interest rates rose throughout 2017. The Federal Funds rate ticked up from 0.7 percent in the first quarter to an expected 1.2 percent by the fourth quarter. The Federal Reserve is expected to continue to slowly increase the Federal Funds rate each quarter as long as the economy's fundamentals remain strong.

Because of rising interest rates, the 30-Year Fixed Mortgage Rate will rise to 4.0 percent from 3.7 percent in 2016, which remains low by historical standards. The average before the recession was 6.0 percent. The 3-Month Treasury Bill rate and the 10-Year Treasury Note yield are both expected to grow. The 3-Month Treasury Bill rate will grow to 0.9 percent in 2017 from 0.3 percent in 2016. The 10-Year Treasury Note yield will grow to 2.3 percent in 2017 from 1.8 percent in 2016.

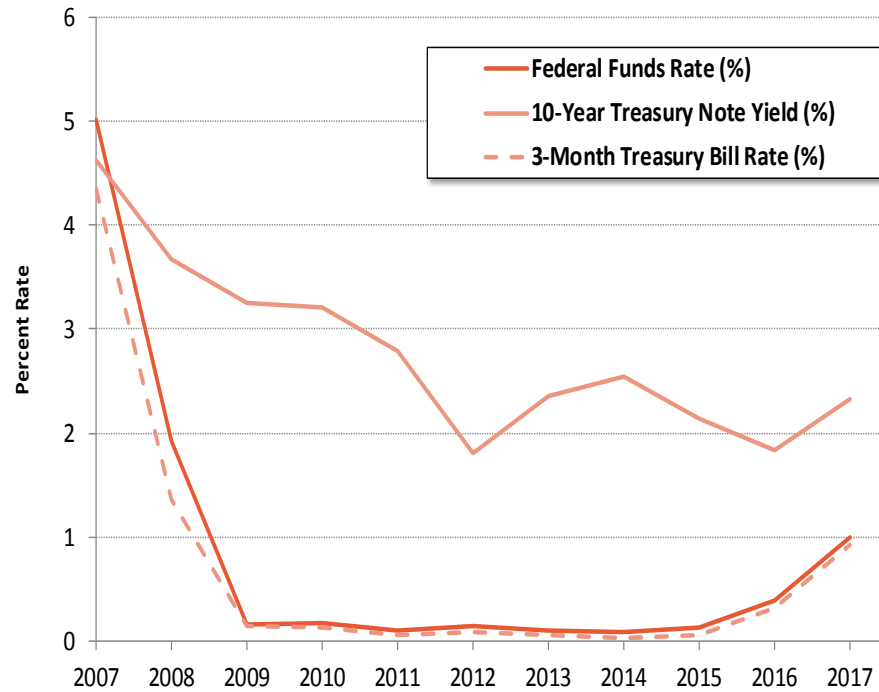
Government Purchases

Government purchases, federal as well as state and local spending, will make up 17 percent

¹ Federal Open Market Committee (2017). Minutes of the Federal Open Market Committee: June 13-14, 2017. Federal Reserve Board. Retrieved from <https://www.federalreserve.gov/monetarypolicy/fomcminutes20170614.htm>.

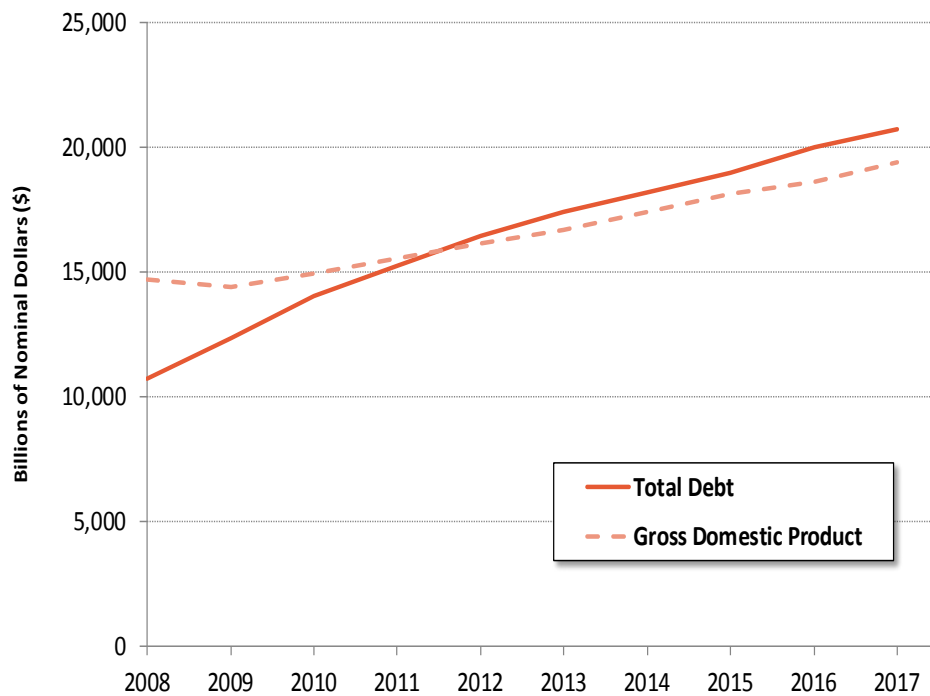
1.2. The U.S. Economy: Year in Review, continued

Figure 1.4: The Fed began Raising Interest Rates in 2015 and Slowly Raised Them through 2016 and 2017



Source: Federal Reserve Board.

Figure 1.5: The Total Federal Debt that has been Larger than GDP for the Past Six Years



Source: U.S. Treasury Department and Bureau of Economic Analysis.

1.2. The U.S. Economy: Year in Review, continued

of GDP in 2017. Federal purchases will likely fall 0.2 percent, making 2017 the seventh-year federal purchases have either plateaued or fallen. The decrease in 2017 should bring federal purchases down to \$1.1 trillion in inflation-adjusted terms, 87.6 percent of inflation-adjusted federal purchases in 2010. Defense spending will continue to fall and is expected to be down 0.3 percent to \$665.2 billion, making 2017 the seventh-year defense spending has fallen. Nondefense spending will likely plateau at \$446.8 billion in inflation-adjusted terms. In 2016 and 2015, federal nondefense spending rose 1.2 percent and 3.2 percent, respectively. State and local purchases will also plateau at \$1.8 trillion in 2017 in inflation-adjusted terms, compared to 1.2 percent and 2.3 percent growth in 2016 and 2015, respectively. This decline was driven by construction investment, which likely dropped 7.3 percent in 2017.

The federal government's deficit will remain high at \$665.7 billion in nominal terms. Although this deficit is large, it is only 47 percent of the deficit incurred in 2009 right after the recession began. Nevertheless, every year's federal deficit contributes to the federal debt, which likely rose to \$20.7 trillion in nominal terms, making 2017 the sixth-year federal debt has been larger than 100 percent of GDP. Tax reform bears the risk of significant increases in debt over the next decade that would contribute to rising interest rates and higher interest rate costs for the federal government.

Trade

In 2017, the U.S. is expected to record an inflation-adjusted trade deficit of \$611.0 billion (or 3.6 percent of GDP). Inflation-adjusted exports should amount to \$2.2 trillion, while imports should amount to \$2.8 trillion. Typically, purchases of foreign goods and services by U.S. consumers (imports) exceed sales of goods and services produced in the U.S. and sold to other countries (exports). After the recession, there was a three-year period from 2011 to 2013 when export growth outpaced import growth. However, in 2017, imports will grow slightly faster than exports,

with exports growing 3.1 percent and imports growing 3.4 percent. This is a much smaller difference than in 2016, when exports fell 0.3 percent and imports grew 1.3 percent.

Part of the explanation for this closing gap is that a stabilized and growing world economy means other countries' citizens are better able to afford U.S. exports. On the other hand, a relatively strong U.S. dollar means U.S. exports become more expensive and imports to the U.S. become less expensive. While the dollar has weakened somewhat and is expected to weaken further, it remains relatively strong. Imports of goods and services both rose, with imports of goods increasing a projected 3.5 percent and imports of services increasing a projected 2.6 percent. Imports of computers, peripherals, and parts should increase 10.4 percent, the largest increase the category has experienced since 2010. Meanwhile, exports of goods and services also grew, with exports of goods increasing an expected 3.9 percent and exports of services increasing an expected 1.7 percent. Growth in both imports and exports aligns with a growing world economy coupled with a strong U.S. dollar – foreign goods and services remain relatively inexpensive for U.S. consumers but foreign consumers are more willing to purchase U.S. goods and services than in prior years because their incomes are rising.

Inflation & Prices

The most popular measure of the aggregate level of prices in the economy is the Consumer Price Index or the CPI. This is the *headline* measure of inflation that is picked up by the media. As measured by the CPI, overall prices will rise 2.1 percent in 2017 compared to rising 1.3 percent and 0.1 percent in 2016 and 2015, respectively.

In the previous two years, low energy prices depressed overall inflation. This trend did not continue into 2017. If food and energy are excluded, inflation will rise by only 1.9 percent rather than 2.1 percent, indicating low food and energy prices are not reducing the overall price level. Inflation of 2.1 percent is within the Fed's target range for inflation, albeit at the lower end.

1.2. The U.S. Economy: Year in Review, continued

Food prices will have risen only 0.9 percent, but energy prices will have risen 7.9 percent. This is the first time in five years that energy prices have risen. However, because of the steep declines in previous years, energy prices are 84.1 percent of their nominal price in 2014 prior to the energy price plunges.

Producer prices (finished goods) will be up 3.1 percent in 2017, the first time in three years that producer prices experienced a price increase. This increase is partially explained by rising energy and crude material prices, since these are inputs into finished goods. Crude material prices will rise 11.0 percent. Gas fuels, crude petroleum, and refined petroleum products prices have expected dramatic gains of 26.4 percent, 27.4 percent, and 18.6 percent, respectively.

The Federal Reserve is charged with maintaining both price stability and full employment. These goals can often be at odds: price stability requires some minimal level of inflation and some yield of interest on savings. Conversely, the Fed can stimulate demand (and thus hope to increase employment) by keeping interest rates low. This is what the Fed did in response to the Great Recession. The Federal Reserve kept the Federal Funds rate low (below 0.25 percent) for 28 consecutive quarters from the first quarter of 2009 to the last quarter of 2015 because of slack in the labor market and a high unemployment rate. The Fed slowly raised interest rates in 2016 and 2017, and in 2017 the Federal Funds rate finally reached 1.0 percent. It is assumed that, as long as the economic expansion continues, the Fed will continue raising interest rates.

Although inflation is not an imminent concern for the U.S. economy, these rising interest rates indicate higher prices may be on the horizon. The labor market has significantly tightened in the presence of both a falling unemployment rate and steady job creation, and wages have continued slowly increasing. In addition, energy prices' recovery will doubtless add to inflationary pressures. There have been ongoing concerns since the end of the recession that deflation rather

than inflation was a greater risk to the economy. Sustained economic growth has substantially reduced this likelihood. Major tax reform financed by deficits will put additional upward pressure on inflation.

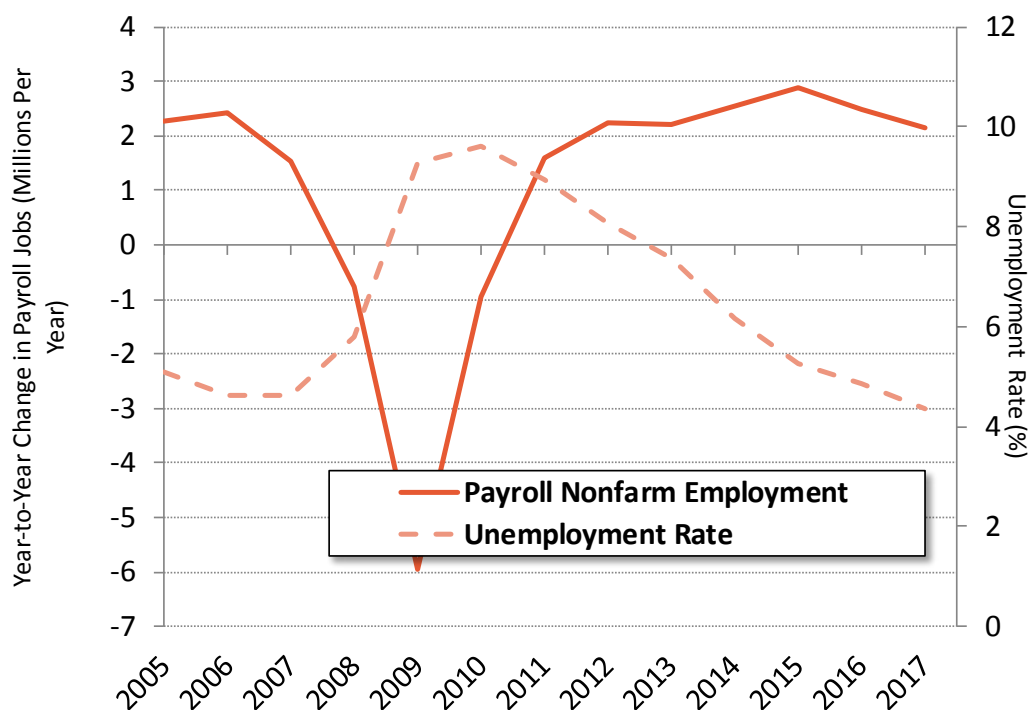
The Labor Market

The national unemployment rate continued its downward trend in 2017, down to a projected 4.4 percent for the year, from 4.9 percent in 2016 and 5.3 percent in 2015. However, the labor force participation rate remains below relatively recent historical levels. The labor force participation rate is expected to tick up marginally to 62.9 percent in 2017 from 62.8 percent in 2016. For comparison, the labor force participation rate in 1996 was 65.0 percent. The labor force participation rate for those under 65 has fallen (down to 71.9 percent from 75.6 percent in 1996) and the labor force participation rate for those over 65 has risen (up to 18.7 percent from 11.5 percent in 1996). Some portion of the falling labor force participation rate for younger people may be explained by (1) fewer people between 16-24 working because they are in school and (2) discouraged workers. A discouraged unemployed worker is one who stops looking for work and thus is not technically considered unemployed. Notably, the labor force participation increase in 2017 was driven entirely by increased labor force participation for those under 65, while the labor force participation for those 65 and older held steady.

On a more encouraging note, the economy steadily created jobs throughout 2017. The economy will have 146.4 million jobs, 8.4 million more jobs than before the recession. In 2017 alone, the economy will have gained 2.1 million jobs. The private sector should create 2.0 million jobs, the bulk of the gain. The public sector should create an estimated 107,000 jobs; 91,000 of these jobs will be at the state and local level. Of the major sectors, professional and business services added the most jobs: 591,000 jobs in 2017. However, education and health services as well as leisure and hospitality also added a large number of jobs, 497,000 and 292,000, respectively. Taken together,

1.2. The U.S. Economy: Year in Review, continued

Figure 1.6: The Labor Market has Tightened Considerably in Recent Years



Source: Federal Housing Finance Agency, National Association of Realtors and the U.S. Census Bureau.

A Great Migration to the City

In the U.S. and across Tennessee, the population is increasingly concentrated in urban centers. In 1960, 70 percent of the U.S. population lived in an urban area. By 2016, 81.8 percent did.¹ In addition to seeing their share of the population rapidly grow, cities have seen their share of payroll employment increase as well. The movement of both people and jobs to the city is the result of both increasing preferences for experiences provided by urban places and increasing benefits accruing to urban places.

Cities have benefits both for businesses and individuals. These benefits may be unique to a specific location itself, like beautiful natural surroundings or a natural connection to trade networks because a city is located on a coast or river.² Other benefits may result from being an urban center with a large concentration of people and businesses. Such benefits from being a city are referred to as “agglomeration economics” by economists. Cities may accrue benefits as a result of the “concentration of people and jobs [leading] to efficiency gains and cost savings for firms, efficiency and savings that [arise] from being close to suppliers, workers, customers, and even competitors.”³ New York City and London are good examples of cities with agglomerations built around the financial sector. Finally, urban areas are attractive to businesses and individuals because they typically have a larger quantity and quality of goods and services available, including publicly-provided benefits like parks.

These benefits to locating in urban areas have always existed, however. So why does the impact of these benefits seem to be increasing? One possibility is that urban areas recovered from the Great Recession much more quickly than rural

¹ United Nations, The United Nations Population Division's World Urbanization Prospects. (2017). Urban population (% of total). [Data file]. Retrieved from <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=US>.

² Carolino, G. A. (2011). “Three Keys to the City: Resources, Agglomeration Economies, and Sorting.” Philadelphia Federal Reserve: Business Review. Retrieved from https://www.philadelphiafed.org/-/media/research-and-data/publications/business-review/2011/q3/brq311_three-keys-to-the-city.pdf?la=en.

³ Carolino, 2011.

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1.2. The U.S. Economy: Year in Review, continued

continued from page 10

areas. In 2009, urban areas and rural areas both had 96.4 percent of the jobs they had prior to the recession. However, urban areas recovered their lost jobs and even experienced job creation as time progressed. In 2016, urban areas had 104 percent of the jobs they had in 2008; rural areas experienced more job destruction and had only 95.7 percent of the jobs they had in 2008.⁴ Perhaps one driver of this inequality is that urban areas are frequently hubs for the types of jobs being created. “New work,” defined as new occupation titles created by the U.S. Census in each census, represents technologically innovative labor.⁵ Occupations classified as “new work” more frequently arise and are concentrated in urban areas, where agglomeration economies encourage their development. These occupations also frequently have higher wages than other occupations. In general, occupations that are concentrated in urban areas have higher education requirements and higher wages than those concentrated in rural areas, outside of any adjustment for higher prices in urban areas.⁶ Finally, outside of occupational considerations, millennials seem to have higher tastes for urban living compared to previous generations.

This combination of factors has led to a flight of young, educated workers to urban areas. In turn, rural populations are increasingly older and less educated. As a byproduct, rural areas are less healthy and more disadvantaged than urban areas. These migration patterns thus have policy implications: fewer jobs located in rural areas mean that these areas have and will continue to see higher uptake of disability and unemployment insurance.⁷ Meanwhile, rent and cost of living in urban areas will rise more rapidly as larger portions of the population locate there.

4 Thiebe, B., Greiman, L., Weiler, S., Beda, S. C., & Conroy, T. (2017). “Six Charts that Illustrate the Divide Between Rural and Urban America.” *The Conversation*. Retrieved from <https://theconversation.com/six-charts-that-illustrate-the-divide-between-rural-and-urban-america-72934>.

5 Lin, J. (2011). Technological Adaptation, Cities, and New Work. *Review of Economics and Statistics*, 93(2), 554-574.

6 Abel, J., Gabe, T., & Stolarick, K. (2014). Skills across the Urban–Rural Hierarchy. *Growth and Change*, 45(4), 499-517.

7 Thiebe et al, 2017.

these three sectors will create 66 percent of the job gains in the economy. The only sector that shed jobs was the information sector, which lost 45,000 jobs. Overall the labor market is very tight, with job openings growing faster than the number of labor market entrants.² This is a recipe for rising wage rates.

Productivity & Wages

Low growth in productivity remains a concern. Productivity increased in the immediate aftermath of the recession: 2009 and 2010 saw productivity gains of 3.2 and 3.3 percent, respectively. However, these productivity gains seem to have been driven by the high level of unemployment during the recession. When firms lower the number of employees, they keep the most productive employees. In 2017, productivity is expected to have increased just 1.3 percent compared to plateauing in 2016 and increasing 1.2 percent in 2015. This is a significant departure from long-

2 Levanon, G. (2017). “A Tight Labor Market is Finally Here.” *The Conference Board*. Retrieved from <https://www.conference-board.org/blog/postdetail.cfm?post=5548>.

term patterns prior to the recession because productivity growth has traditionally been high in the modern U.S. economy. No year between 1998 and 2005 saw productivity growth less than 2.0 percent; earlier periods showed stronger growth. In part because of a combination of this low productivity and low inflation, average inflation-adjusted wage growth has been low since the Great Recession.

Average inflation-adjusted hourly compensation was the same in 2015 and 2016. In 2017, hourly compensation will fall 0.7 percent. In addition to low productivity growth and inflation, workers leaving the labor market on average commanded a higher wage than those entering it. The workers currently leaving are retiring Baby Boomers, who earned high wages and whose large cohort size leads to large impacts on the average wage. In addition, many workers who were previously part-time during the recession are now full-time. These workers are on average paid lower wages than the average worker in the economy. The combination of these entrants and leavers is

1.2. The U.S. Economy: Year in Review, continued

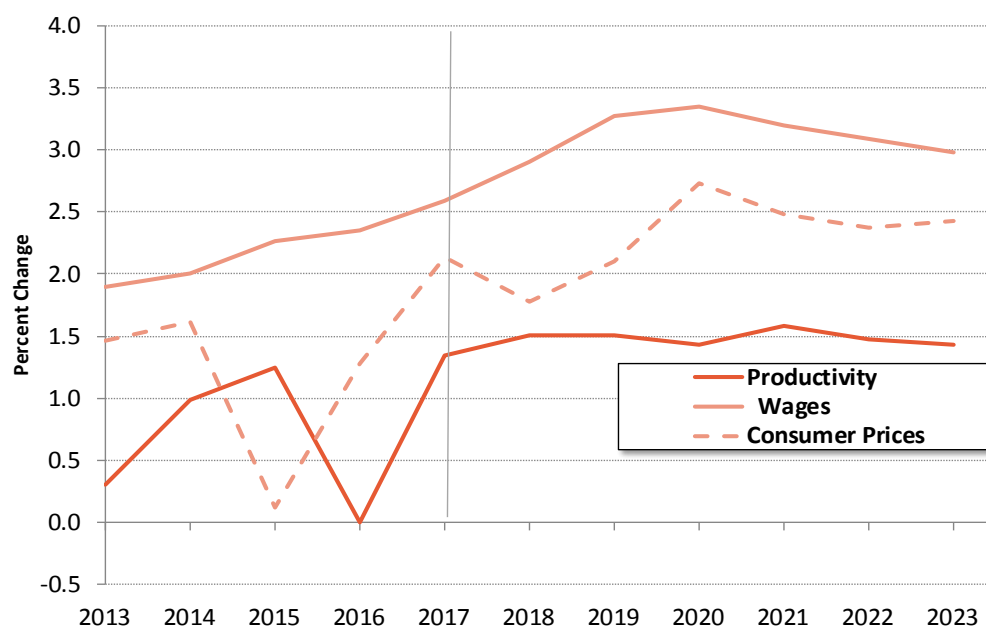
lower average wage growth, even isolated from other factors.³ This labor market composition

3 Daly, M. C., Hobijn, B., & Pyle, B. (2016). What's Up with Wage Growth? FRBSF Economic Letter: Federal Reserve Bank of San Francisco Economic

effect will fade as the expansion continues putting upward pressure on wages and salaries.

Research. Retrieved from <http://www.frbsf.org/economic-research/publications/economic-letter/2016/march/slow-wage-growth-and-the-labor-market/>.

Figure 1.7: Wages have not Experienced Significant Growth Partially because of Low Levels of Inflation and Low Rates of Productivity Growth and this Trend is Expected to Continue



Source: Bureau of Labor Statistics and IHS Markit™, U.S. Economic Outlook, December 2017 (copyright).

1.3. The U.S. Forecast

With strong economic fundamentals and a growing world economy, the U.S. economy is predicted to continue its steady growth in 2018 and 2019. Inflation-adjusted GDP is expected to grow by a solid 2.6 percent in 2018, following 2.3 percent growth in 2017. The last quarter of annualized GDP growth in 2017 is projected to be especially robust, with 2.7 percent growth. Calendar year 2018 is expected to have solid growth each quarter: 2.2 percent, 2.5 percent, 2.4 percent, and 2.5 percent in the first, second, third, and fourth quarters, respectively. The factors contributing to this growth in the next year are continued strong consumer spending, nonresidential fixed investment, and growing exports as the global economy at large recovers.

The federal government is not currently expected to finance an infrastructure package,

but a major tax initiative is moving through both chambers of Congress. The plan would cut the corporate income tax rate to 20 percent, tax pass-through entities at 25 percent, alter rates for the personal income tax and change a significant number of personal and business tax preferences. Unfortunately, the package is projected to increase the federal deficit by more than \$1 trillion in the next decade, even accounting for the effects of enhanced growth on tax revenues. The stimulative effects of tax policy changes will be muted by the current state of the economy hovering in the neighborhood of full employment. In short, there is little capacity for a faster pace of economic growth today.

U.S. monetary policy is oriented toward getting interest rate levels normalized to pre-recession levels. There is a worry among policymakers that

1.3. The U.S. Forecast, continued

if the U.S. remains in its current low interest rate environment, there will be limited monetary policy capacity if the U.S. experiences an unexpected downturn. Thus, returning to higher levels of interest rates and inflation is in the economy's long term interest. The Fed is likely to continue to raise rates through the short-term forecast horizon.

Consumption

Consumer spending is expected to remain strong in 2018 with growth of 2.5 percent, followed by 2.3 percent growth in 2019. These outcomes depend on continuing improvements in the labor market and further gains in consumer confidence. The small slowdown in consumption growth is one more sign of an economy that is slowing in the face of full employment.

Inflation-adjusted disposable income is expected to grow 2.6 percent in 2018 in comparison to 1.2 percent growth in 2017. Inflation-adjusted household net worth is expected to grow 2.3 percent compared to 5.2 percent in 2017. Consumption growth in 2018 is expected to taper down slightly as the year progresses, growing 2.7 percent in the first quarter and trending down to 2.3 percent in the fourth quarter. Spending on durable goods is anticipated to taper down slightly from 2017 but remain a strong driver of economic growth, with spending expected to increase 5.0 percent compared to 6.3 percent in 2017. Nonetheless, durable goods spending growth will continue to exceed spending on nondurables (expected to increase 2.8 percent) and on services (expected to increase 2.1 percent). New auto sales are expected to continue to fall with spending declining 1.4 percent in 2018. At the same time, new light truck sales are expected to continue to grow 5.7 percent in 2018.

The Labor Market

The labor market is predicted to continue tightening, with a falling unemployment rate but a lower rate of job creation. The unemployment rate is expected to fall to 4.0 percent in the first quarter of 2018 and fall to 3.9 percent in the third quarter. A national unemployment rate of 4.0 percent is

above the rate of unemployment expected for the Tennessee economy. This would be the lowest national unemployment rate seen since 2000. In the next few years, the unemployment rate is expected to remain low but tick back up to 4.5 percent by 2022.

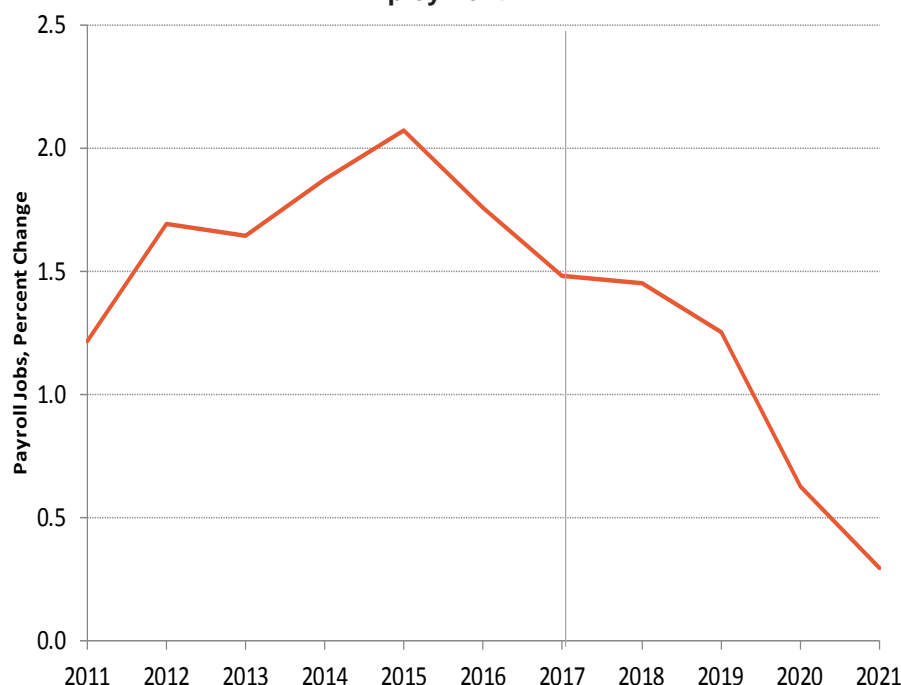
The expected rate of job creation for 2018 is 1.5 percent, the same fairly low rate experienced in 2017. This ramped down rate of job creation is an indicator of an economy reaching full employment. The economy is expected to add 2.1 million jobs in 2018. In the first, second, third, and fourth quarters, 551,000, 530,000, 593,000, and 559,000 jobs are expected to be created, respectively. The sectors with the most job creation are expected to continue to be professional and business services (760,000 jobs) and education and health services (402,000 jobs). The information sector is expected to continue shedding jobs, with a loss of 15,000 jobs following the projected loss of 45,000 jobs in the same sector in 2017. As energy prices rebound, natural resources and mining is expected to create 25,000 jobs. This would leave the sector with 731,000 jobs, 159,000 fewer than in 2014 prior to the plunge in energy prices.

Productivity is expected to see only modest growth in 2018, with a 1.5 percent increase following the 1.3 percent increase in 2017. Productivity gains are a main driver of overall economic growth and the absence of greater gains will constrain near term growth potential.

The low labor force participation rate—the share of the adult population that is either employed or unemployed and seeking a job—has been a major concern throughout the recovery. Since peaking in 2000, the labor force participation rate has fallen 4.2 percentage points (down to 62.9 percent from 67.1 percent). Even more concerning, during this time the labor force participation rate of those 65 and older increased, highlighting that the labor force has lost workers choosing not to work during their prime years rather than workers who are choosing to retire. Labor force participation is expected to plateau in 2018, remaining at 62.9 percent, which remains well below the rate of participation a decade ago.

1.3. The U.S. Forecast, continued

Figure 1.8: Payroll Job Growth is Expected to Decline Now that the Economy is Close to Full Employment



Source: Bureau of Labor Statistics and IHS Markit™, U.S. Economic Outlook, December 2017 (copyright).

Stronger earnings growth could lead to stronger gains in the participation rate.

Investment and Interest Rates

The housing sector's recovery slowed significantly in 2017, with residential fixed investment spending growing only 1.2 percent compared to 5.5 percent in 2016. Residential fixed investment is expected to pick up slightly in 2018 as well, with predicted growth of 2.3 percent, but significantly stronger growth of 6.1 percent is expected in 2019. Housing starts are expected to reach 1.3 million in 2018 compared to 1.2 million in 2017. Sales of existing homes are expected to reach 5.7 million, up from 5.5 million in 2017.

Housing prices are predicted to continue rising, with a 5.1 percent increase in the average price of existing homes expected in 2018, well ahead of the rate of inflation. The average price of new homes is expected to rise more slowly, with a 0.9 percent increase. The FHFA Purchase-Only Index is projected to rise 5.5 percent in 2018.

The Federal Funds rate finally reached 1.0

percent in 2017. By the fourth quarter of 2018, the Federal Funds rate is expected to hit 2.0 percent. The 3-Month Treasury Bill rate is expected to increase to 1.8 percent by the fourth quarter of 2018, and the 30-Year Fixed Mortgage rate is expected to rise to 4.6 percent by the fourth quarter. While there is fear that rising interest rates could discourage economic growth, economic forecasts have incorporated the projected impact of interest rate increases.

Nonresidential fixed investment is expected to grow a solid 4.1 percent in 2018 following a 4.7 percent increase in 2017. Spending on structures is expected to slow, with 2.7 percent growth predicted compared to the 5.1 percent growth in 2017. Spending on equipment is expected to remain respectable, with a 4.7 percent increase predicted in 2018 compared to the 4.8 percent increase in 2017. Business inventory spending is expected to rebound in 2018 and increase from an inflation-adjusted \$21.6 billion in 2017 to \$56.4 billion in 2018. If this proves to be the case, inventory changes will contribute 0.2 percentage

1.3. The U.S. Forecast, continued

The Productivity Slowdown

Economists measure productivity in two main ways: (1) the output the average worker produces per hour, and (2) any increase in economic output that cannot be attributed to increases in the quality or quantity of labor or capital. Whichever definition is used, productivity in the past five years has had disappointing growth, continuing a longer-term trend of slipping rates of productivity growth. From 1995 to 2000, productivity as defined by nonfarm output per hour increased 2.5 percent on average each year. From 2011 to 2016, the same measure of productivity increased only 0.5 percent on average each year. The recent reduction in the pace of growth of productivity is part of a longer-term trend in declining productivity dating back decades. It is an ongoing puzzle that has not been fully solved.

This decline in productivity has important ramifications both for individual workers and the economy. Productivity helps determine wages: as an individual worker is more productive, firms compete to attract the worker by offering higher wages. Workers are made better off and employers are no worse off since they now have a more productive worker on their staff.

Productivity is also one of the drivers of long-run economic growth for an entire economy. The prosperity of nations, states and regional economies depends on the scope of productivity gains. Low productivity translates into low standards of living and poorer quality of life.

Why has productivity, which is such an important factor in the economy, slowed so significantly? An equally important question is whether productivity will return to its previous heights in the near future. Both questions are matters of great concern and debate among economists. Robert Gordon, an economist at Northwestern University, is perhaps the most famous and outspoken member of a camp of economists that believe that in the near-term productivity will continue at its current rate of unimpressive growth. This would translate into muted earnings gains for workers and weakened overall growth for measures like GDP.

Economists do agree that productivity's growth in the near future will be driven by technological change and the ability of that technological change to create gains in the efficiency of goods and services production. Gordon argues there have been three eras of large efficiency gains: (1) the industrial revolution of the 1800s; (2) a second industrial revolution in the mid-1900s as electricity, running water, cars, and the assembly line became widespread; and (3) the information revolution of the 1990s characterized by the rise of various computing and communication technologies which he believes have produced benefits that have largely run their course. Gordon does not believe currently anticipated technological advances—like driverless cars, 3D printing, or nanotechnology—will fundamentally transform the economy like these earlier defined periods of economic revolution.¹

Gordon's predictions do not go unchallenged, however. Joel Mokyr, a colleague of Gordon's at Northwestern, argues that communication technologies enable more people to be exposed to more ideas and knowledge than ever before. Because of this, the probability of profitable and efficiency-increasing recombinations of ideas and technology are more likely. The recombination of nanotechnology and 3D printing, for example, could lead to currently unimagined innovations. The argument thus goes that because these creations are innovative, they would necessarily be unlike technologies we have seen before and therefore comparing their predicted economic impact to that of previous technological advances is fruitless.²

Both of these perspectives have their merit. It is also entirely possible that opportunities exist for the economy to either opt into a low or high innovation environment and therefore a low or high productivity regime, as proposed by a report released by the St. Louis Federal Reserve. This report hypothesizes that what will determine which environment the economy opts into will be policy.³

The most likely outcome, based on long-term trends and recent history, is a continuation of the productivity slowdown. Important implications include weak growth in wages and salaries and relatively slow growth of GDP. Absent improvements in productivity, it is improbable to expect GDP to grow consistently at rates of 3 percent or more as was once common years ago. Coupled with slow growth in the labor force, output growth will likely remain stuck in the neighborhood of 2 percent.

1 Gordon, R. J. (2016). *The Rise and Fall of American Growth*. Princeton, New Jersey: Princeton University Press.

2 Mokyr, J. (2014). "The Next Age of Invention." *City Journal*, 24(1), 12-21.

3 J. Bullard (2016). "The St. Louis Fed's New Characterization of the Outlook for the U.S. Economy," St. Louis Federal Reserve. Retrieved from <https://www.stlouisfed.org/-/media/Files/PDFs/Bullard/papers/Regime-Switching-Forecasts-17June2016.pdf?la=en>.

1.3. The U.S. Forecast, continued

points of the expected 2.6 percent rate of economic growth.

Federal Budget

While there is current uncertainty about the direction that the federal budget will take in 2018, the consensus was that it is expected to continue decreasing and fall 0.3 percent, down to \$11.1 trillion in inflation-adjusted terms. The deficit is expected to be \$548.1 billion, well below the deficits run during the recession. However, it looks increasingly likely that a deficit-financed tax cut is in the making. Any deficit will add to the overall U.S. debt, which is already expected to reach \$21.8 trillion in 2018 and exceed U.S. GDP for the seventh year in a row. In 2018, defense spending is expected to fall 0.1 percent and nondefense spending is expected to fall 0.7 percent. At the state and local level, spending is expected to rise 0.9 percent.

International Trade

The global economy is finally seeing more widespread recovery, although weak spots remain.

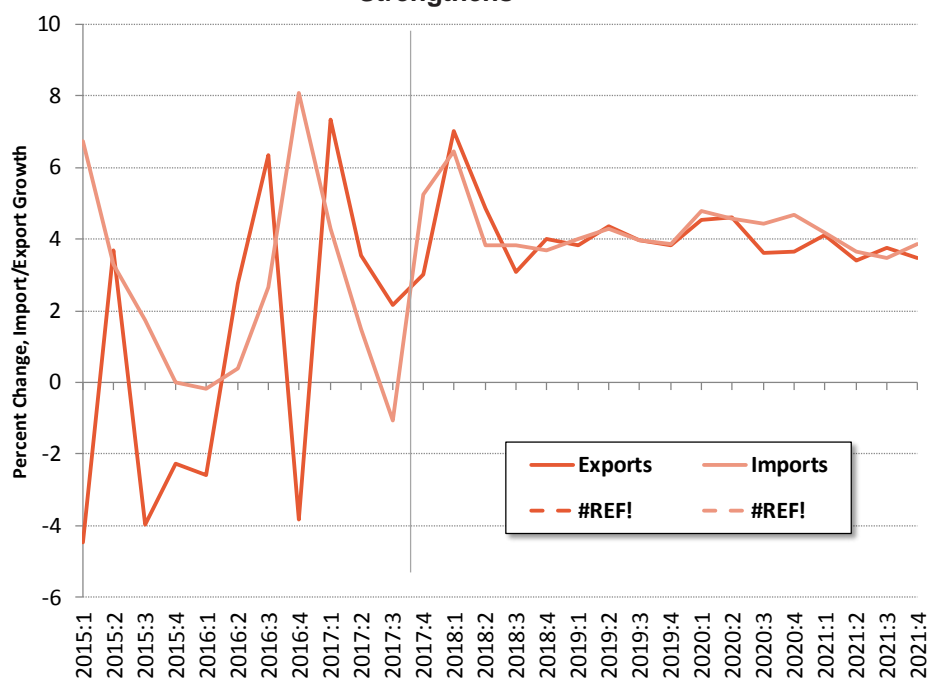
In 2018, the world economy is expected to have solid growth, leading to a slowly depreciating U.S. dollar. In 2017, the dollar had a volatile trajectory, strengthening when President Donald Trump took office, declining when the anticipated pro-business agenda was not immediately forthcoming, and strengthening again when uncertainty in other parts of the world increased.

Inflation-adjusted exports of goods and services are projected to grow 4.3 percent. Exports of services in particular are expected to rise quickly, increasing 4.7 percent in 2018 compared to growing 1.7 percent in 2017 and falling 1.5 percent in 2016. Imports of goods and services are expected to grow a bit more slowly, up 4.0 percent from 2017. Imports of petroleum products are expected to fall, down 6.5 percent, due to rising energy prices.

Inflation

Inflation is expected to remain low in 2018, with an expected increase of 1.8 percent (or 2.0 percent if food and energy is excluded), close to the 2.1 percent growth seen in 2017 and bordering

Figure 1.9: Export and Import Growth are Predicted to Converge as the World Economy Strengthens



Source: Bureau of Economic Analysis and IHS Markit™, U.S. Economic Outlook, December 2017 (copyright).

1.4. Alternative Scenarios

on the Fed's goal for inflation in the economy. Consumer energy prices are expected to continue to rise slightly, up 0.9 percent in 2018, well below the 7.9 percent spike in 2017. Oil prices are expected to fall to \$55.00 in the fourth quarter of 2018, down from an anticipated \$60.08 per barrel in the fourth quarter of 2017, still well above \$33.70 in the first quarter of 2016. Major tax reform would put additional upward pressure on price levels.

A tight labor market, increasing investment, and high rates of consumer and business confidence were the basis for economic growth in the U.S. in 2017. The economy has been helped by a growing global economy that has boosted exports. Continued growth will depend on continued consumer and business spending and confidence, continued global economic recovery, as well as real estate market growth not slowing further.

In the pessimistic scenario (20 percent

probability), two events converge to suppress economic growth: (1) falling consumer and business confidence and (2) a shaken commercial real estate market. This causes consumption and investment spending to slow. The Federal Reserve chooses to avoid further rate increases. The economic expansion slows considerably, with growth of only 0.8 percent in 2018 and 1.0 percent in 2019.

In the optimistic scenario (15 percent probability), the Trump administration encourages spending through tax reform. Consumer and business confidence climbs further as a result. Rising consumer confidence encourages young adult household formation and thus residential investment grows much faster than expected. World economic growth exceeds expectations, increasing the amount of goods and services the U.S. exports. The economy grows 3.7 percent rather than the anticipated 2.5 percent.

1.5. Forecast and Summary Conclusions

- Inflation-adjusted GDP will grow at a healthy 2.6 percent pace in 2018, following 2.3 percent growth in 2017.
- The Fed will continue raising interest rates. The Federal Funds rate is expected to reach 2.0 percent by the fourth quarter of 2018, and the 30-Year Fixed Mortgage rate is expected to reach 4.6 percent.
- Consumer spending will continue being the backbone of the economy and grow 2.5 percent in 2018 in response to a tight labor market.
- Inflation will remain a little below the Fed's target and grow 1.8 percent in 2018.
- The housing market will continue to experience slow growth in 2018, growing only 2.3 percent, but this is expected to change in 2019, when 6.1 percent growth is predicted.
- Export and import growth will continue converging as the global economy gains strength. Exports are expected to increase 4.3 percent in 2018, faster than the 4.0 percent growth expected for imports.

CHAPTER 2: THE TENNESSEE ECONOMY: SHORT-TERM OUTLOOK

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2.2. The Current Economic Environment

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2.1. Introduction

Tennessee and the national economy are enjoying one of the longest economic expansions on record. The economy cratered in the summer of 2009 under the weight of the Great Recession but has since seen significant and ongoing progress. Most measures of economic activity, including employment and the unemployment rate, have fully recovered and engineered additional gains. Employment in manufacturing continues to expand, although at a somewhat slower pace in recent quarters. Especially notable is the state unemployment rate which stood at a remarkably low 3.0 percent in October, the lowest rate on record, tied with the previous month. Housing is one sector that has not fully recovered from the last recession. Permits, starts and the level of investment continue to disappoint. Barring a recession, if growth continues through 2020, this will prove to be the longest economic expansion since the end of World War II.

Nonfarm employment in Tennessee grew 2.6 percent in 2016, compared to 1.8 percent growth for the nation. Employment growth is expected to slow in 2017. Employment in manufacturing has been especially vibrant, including a 2.5 percent gain in 2015 and a 3.1 percent jump in 2016. Nominal personal income saw 3.7 percent growth in 2016, buoyed by strong growth in proprietors' income and other labor income. Inflation-adjusted gross domestic product (GDP) advanced 2.6 percent in 2016 with slightly slower growth of 2.1 percent projected for the state in 2017.

Expect economic growth to continue but moderate in the quarters ahead. Some measures of economic activity, including employment, will see smaller gains as the economy approaches and bumps up against full employment. The federal fiscal policy environment remains somewhat uncertain as this report goes to press. No major tax reform proposal has been built into the

2.1. Introduction, continued

Tennessee economic outlook because of current uncertainties. However, as this report goes to press, it now appears that reform is imminent. Tax reform will confront the reality of a state and national economy that has little capacity for accelerated economic growth, which will dampen expansionary impacts. Major reform should add about three tenths of a percentage point to the overall rate of output growth, above and beyond the figures reported here.

The outlook calls for inflation-adjusted GDP to grow 2.1 percent in 2018 and 2.0 percent in

2019, slightly slower than the pace of output growth for the nation. Tennessee nonfarm employment will be up 1.4 percent and 1.2 percent in 2018 and 2019, compared to 1.5 and 1.3 percent growth for the U.S. The state unemployment rate is expected to average 3.1 percent in each of the next two years. Nominal personal income is expected to rise 3.9 percent in the 2017/18 fiscal year and 4.4 percent in the 2018/19 fiscal year. On a calendar year basis, personal income should grow 4.3 percent in 2018 and 2019.

2.2. The Current Economic Environment

The Labor Market

The Tennessee labor market has demonstrated exceptional strength, with strong employment growth and a new record low unemployment rate. Following nonfarm job growth of 2.5 percent in 2015, growth accelerated slightly to 2.6 percent in 2016. The state's manufacturing sector also saw 2.5 percent growth in 2015, followed by a spike to 3.1 percent growth in 2016. We are now seeing a pattern of slowing rates of growth, consistent with an economy approaching the constraints of full employment. Year-over-year nonfarm job growth has slowed in every quarter dating back to the second quarter of 2016. National employment growth had its strongest post-recession showing in 2015 with a 2.1 percent gain. As with Tennessee, national growth is showing a propensity to slow. Slower growth is not indicative of underlying weakness in the labor market but simply a reflection of a tightening of overall economic conditions and reduced capacity for accelerated growth.

A recent snapshot of regional labor market conditions is shown in Figure 2.1 where nonfarm job growth figures are presented for Tennessee and other southeastern states. Between the third quarter of 2016 and the third quarter of 2017 (the most recent quarter for which data are available), Tennessee had 1.6 percent growth in nonfarm jobs, ahead of the 1.4 percent national average and placing the state fourth in the region behind Arkansas (2.2 percent growth), Georgia (2.2

percent growth) and Florida (2.0 percent growth).

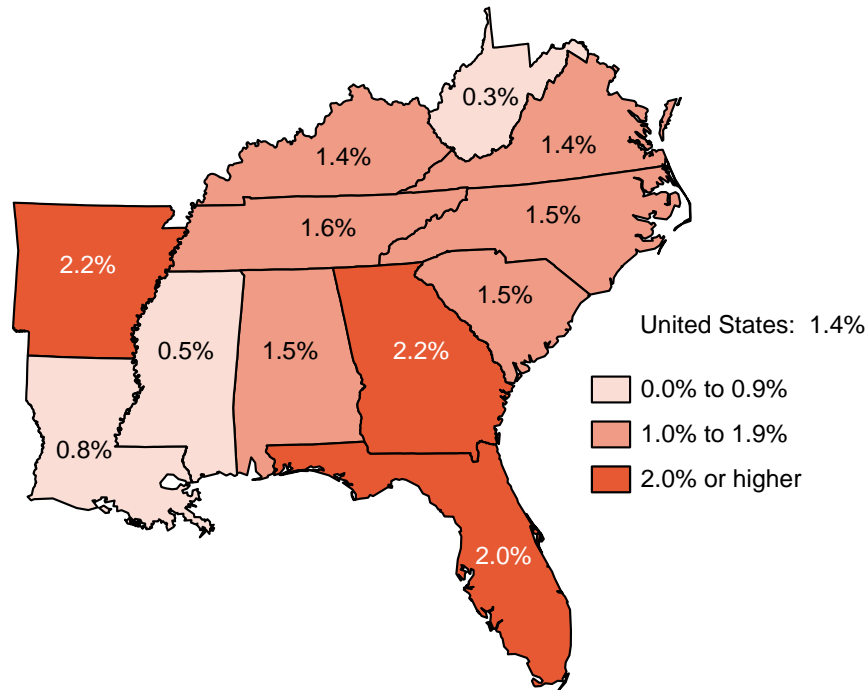
While the Great Recession ended in the summer of 2009, nonfarm jobs did not show a return to the black until 2011. The employment losses in 2008, 2009 and 2010 left gaping holes in employment in most sectors of the state economy. It is remarkable that the level of employment in Tennessee did not return to its pre-recession peak until 2014. This is testimony to the depths of the Great Recession.

Figure 2.2 places these post-recession trends in context showing the extent to which broad sectors of the state economy have recovered compared to the first month of the Great Recession in December, 2007. Total nonfarm employment is up just 7.8 percent compared to the eve of the recession. Despite strong growth in manufacturing, the gains have been insufficient to erase all of the losses endured over the economic downturn and its immediate aftermath. Mining, logging and construction, along with information, also trail pre-recession levels of employment. Professional and business services have had the best showing of any sector, with employment up 26.0 percent. Education and health services—the only broad sector of the economy that did not see employment losses during the recession—enjoyed a 22.2 percent employment gain. Leisure and hospitality services have also seen healthy growth with jobs up 18.1 percent.

The performance of the state's transportation equipment sector is indicative of the underlying

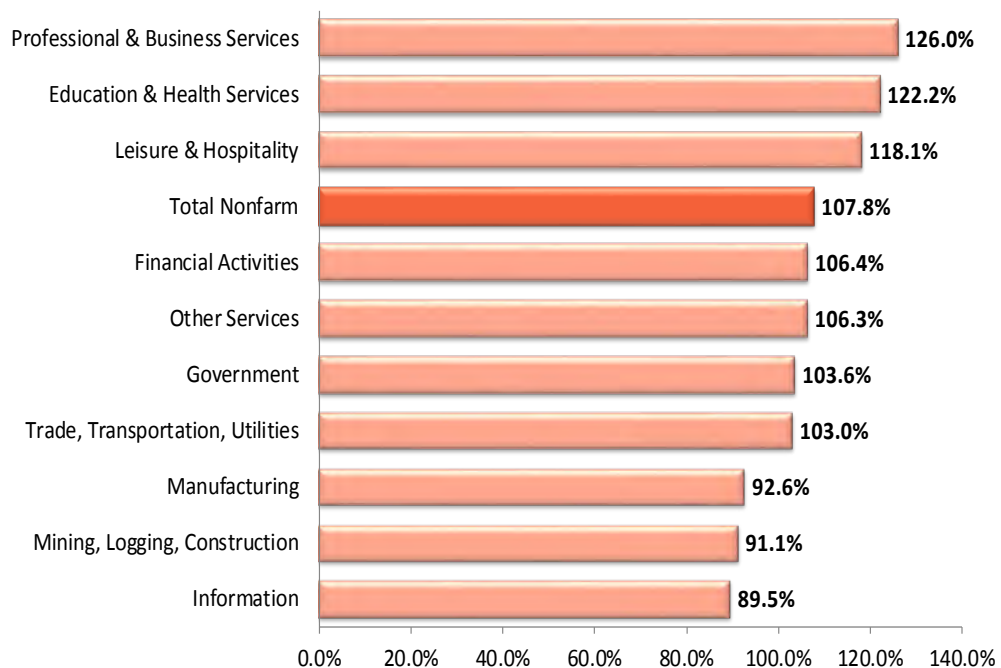
2.2. The Current Economic Environment, continued

Figure 2.1: Despite leading the nation, Tennessee Nonfarm Job Growth Falls in the Middle of the Southeastern States (2016q3 to 2017q3)



Source: U.S. Bureau of Labor Statistics.

Figure 2.2: Full Recovery from the Great Recession has Now Taken Place in Most Sectors (October 2017 Employment as a Share of December 2007 Employment)



Source: U.S. Bureau of Labor Statistics.

2.2. The Current Economic Environment, continued

improvement that has taken place in the labor market; it also offers a caution regarding the potential pace of future growth for the economy. In 2006, this sector accounted for 63,700 jobs in Tennessee. Following losses in 2006 through 2009, employment fell to 40,500 in 2010. In 2011, 2012 and 2013, employment in transportation equipment advanced at double-digit rates, then growth slowed to single digits the following years. The level of employment is expected to be 73,800 in 2017, marked improvement from the recessionary low. Future growth, on the other hand, is likely to be muted. As shown in Figure 2.3, U.S. light vehicle sales have recovered to pre-recession levels and are expected to trend down in the quarters ahead. The steep job losses in the transportation equipment sector at the end of the 2000s mirrors the decline in light vehicle sales shown in the figure; similarly, the rapid pick up in sales corresponds to more recent years of exceptional and then steady transport-related job growth. The projected slower pace of light vehicle sales will mean slower rates of job growth for the transportation equipment sector in the quarters ahead. The same patterns described here are consistent with production and employment patterns elsewhere in the state and national economies and suggest slower growth on the horizon as the economy moves closer and closer to full employment.

Perhaps the most remarkable feature of the current economic expansion is Tennessee's unemployment rate which has been at a record-low 3.0 percent for two months running. Contributing to the falling unemployment rate has been steep declines in the number of people unemployed dating back to 2012. (To put these figures in perspective, the number of unemployed people jumped 42.7 percent and 56.1 percent in 2008 and 2009, respectively.) In 2012, there were 242,000 Tennesseans formally among the ranks of the unemployed (a figure that does not account for underemployment or discouraged workers who have withdrawn from the labor force). By the third quarter of 2017, the number of unemployed people had fallen to 102,000. Strong growth in the number of employed people in 2015 and 2016, as

well as calendar year 2017 to date, has also helped push the unemployment rate down.

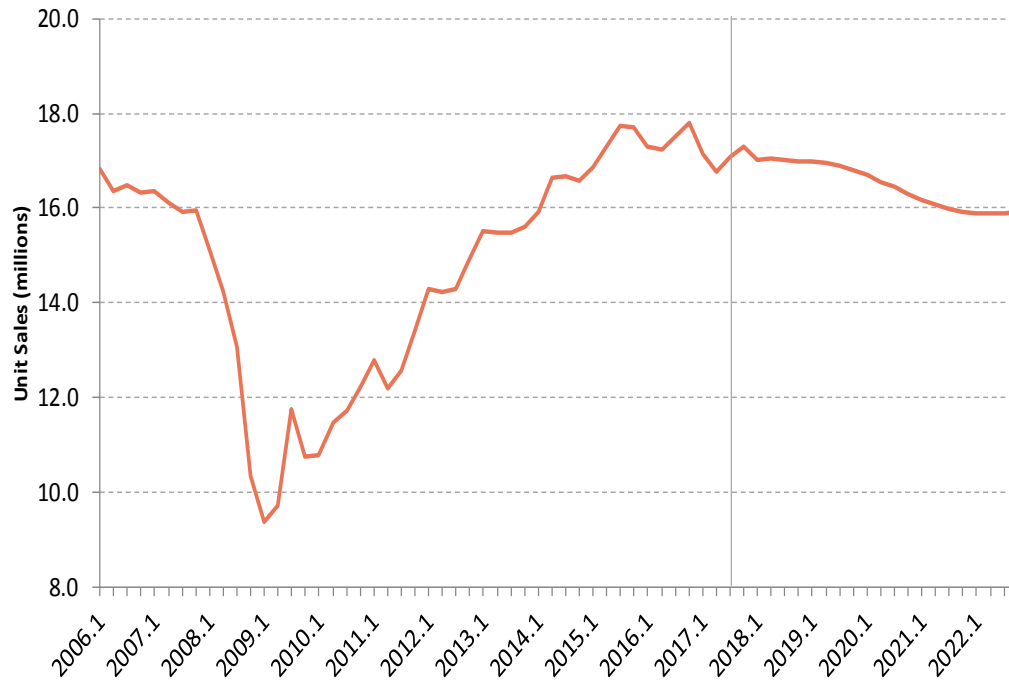
Figure 2.4 shows the wide gulf that exists in unemployment rates across the southeast region, with Tennessee in the lead at 3.0 percent. Tennessee's closest competitors are Alabama, Arkansas, Florida, Georgia and Virginia, all tied with 3.6 percent seasonally-adjusted unemployment rates. West Virginia and Kentucky have the highest rates in the region at 5.1 percent and 5.0 percent, respectively.

Metropolitan regions of the state have demonstrated much stronger economic performance than their rural counterparts across a variety of metrics, including employment, population and unemployment rates. Figure 2.5 displays county non-seasonally adjusted (NSA) unemployment rates for September, 2017. The state's NSA rate was 2.9 percent for the month compared to 4.1 percent for the U.S. Middle Tennessee, along with the Knoxville and Chattanooga metropolitan regions, have the lowest rates. Rhea County had the highest NSA rate (4.9 percent), while Williamson County enjoyed the lowest NSA rate (2.1 percent).

The labor force participation rate—the share of the adult population that is either employed or unemployed and actively seeking a job—tends to be high when unemployment rates are low and vice versa. This is what we should expect: strong labor market conditions draw people to the labor market in search of a job, while a high unemployment rate means bleak job prospects, so discouraged individuals withdraw from the job search process and exit the labor market. However, as illustrated in Figure 2.6, Tennessee's labor force participation rate continued to trend down in the aftermath of the recession even as the unemployment rate trended down. This was *not* expected and was inconsistent with longer historical trends. The labor force participation rate ultimately showed improvement in 2015 and 2016, as the unemployment rate dipped lower. Prevailing low unemployment rates should continue to put upward pressure on participation rates through the remainder of the current economic expansion.

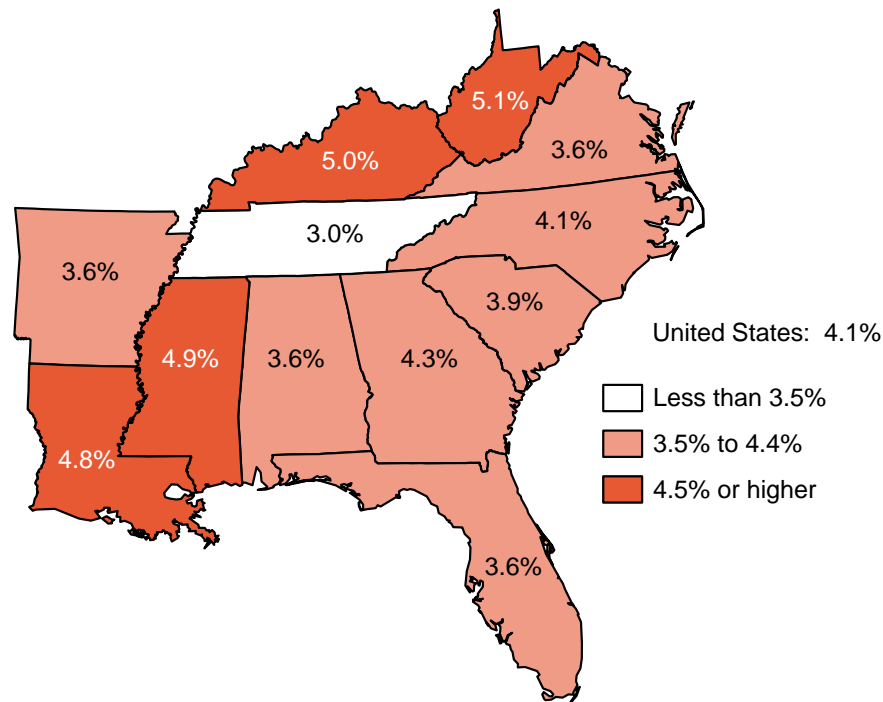
2.2. The Current Economic Environment, continued

Figure 2.3: Light Vehicle Sales have been Restored Offering Little Capacity for Further Growth



Source: IHS Markit™, U.S. Economic Outlook, November 2017 (copyright).

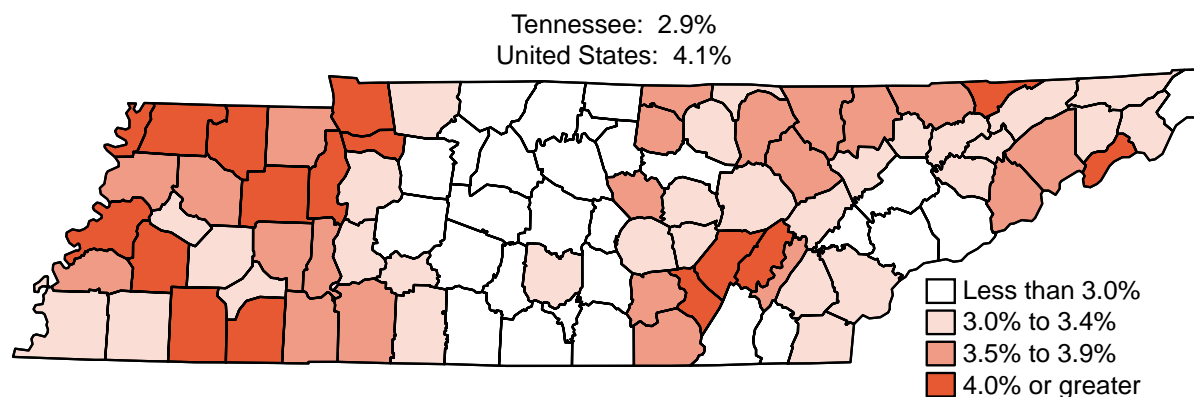
Figure 2.4: Tennessee has a Record Low Unemployment Rate: October 2017



Note: Data are seasonally adjusted.
Source: Bureau of Labor Statistics.

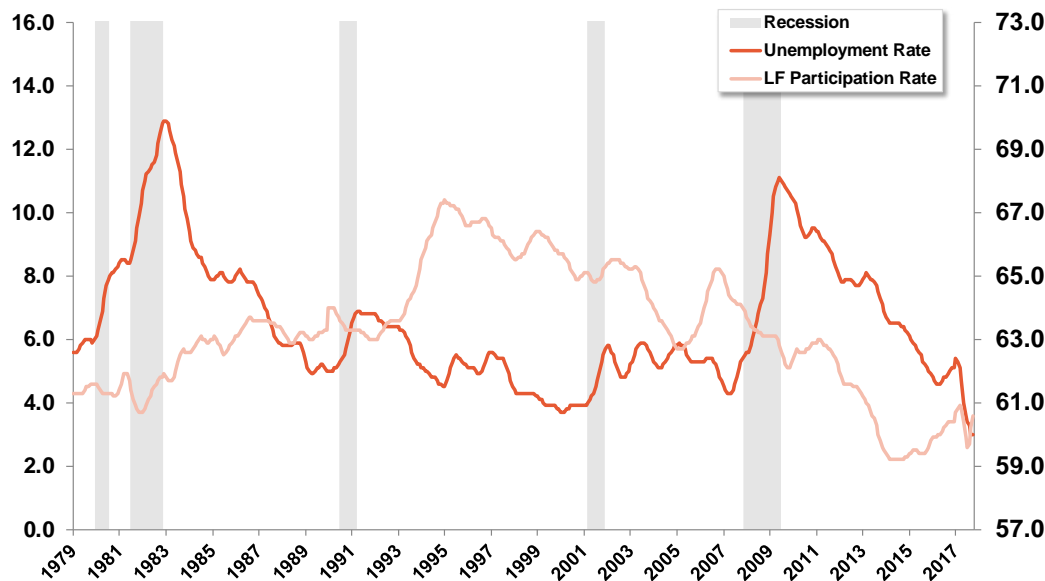
2.2. The Current Economic Environment, continued

Figure 2.5: Unemployment Rates Show Wide Variation across the State: September 2017



Note: Data are not seasonally adjusted.
Source: U.S. Bureau of Labor Statistics.

Figure 2.6: Looking for a Pattern: Tennessee Unemployment Rate and Labor Force Participation Rate



Note: Data are seasonally adjusted.
Source: U.S. Bureau of Labor Statistics.

2.2. The Current Economic Environment, continued

Full Employment — Are We There Yet?

Students always seem a bit befuddled when you explain the concept of full employment in an introductory economics course. The primary reason for confusion is that when the economy is fully employed, unemployment continues to persist. Phrases like the “full employment rate of unemployment” and the “non-accelerating inflation rate of unemployment” often lead to rolling eyes. How can you have unemployment if the economy is fully employed?

The rough rule of thumb is that the economy is at full employment when the unemployment rate is in the neighborhood of 5 percent. In this context, unemployment isn't necessarily a bad thing. In particular, some individuals are subject to frictional unemployment, which means that they are simply between jobs trying to further advance themselves. This is one form of unemployment that persists even in a healthy economy and is generally viewed as a good thing since it is voluntary—people are pursuing alternative jobs in order to advance themselves. Cyclical unemployment, on the other hand, arises over the business cycle when the economy cannot absorb all workers who want a job. It is generally attributable to inadequate spending and consumer demand. The high unemployment rates that prevailed during the Great Recession and its aftermath were largely a reflection of cyclical unemployment.

The economy is certainly flirting with full employment by virtue of the extraordinarily low headline (U-3) unemployment rates that prevail today for the state and national economies. Broader unemployment measures (U-6) that account for discouraged workers who withdraw from job search because of bleak hiring prospects and underemployed workers who would like more hours than their employers can offer, were especially elevated as a result of the last recession. Like the headline rate, these broader measures of unemployment have fallen substantially in recent years.

One implication of moving closer and closer to full employment is that the economy has reduced capacity for accelerated growth—growth becomes constrained by the lack of available workers. The economy can and will still expand, but employment growth will be limited to the natural increase in the labor force from young people and other new entrants to the labor market. This will in turn temper economy-wide growth. Another implication of a tight labor market is the increased likelihood of inflation. With the economy operating on its capacity frontier, businesses may simply bid up wage rates and the cost of other inputs to production, translating into higher consumer prices. To date, there has been little sign of rising wage rates, despite low unemployment rates. This is rather unprecedented and inconsistent with other periods of economic expansion.

It is important to recognize that Tennessee's labor force participation rate has been drifting downward since 1995, so any improvements like that noted immediately above over the current business cycle are likely to be short-lived. The nation's labor force participation rate peaked in 2000 and has also drifted down since then, though the last couple of years have shown a modest uptick like Tennessee.¹ One persistent pattern

is that the state's share of the adult population engaged in the labor force has lagged the nation. While the margin has narrowed a bit, it still amounted to a 1.9 percentage point differential in October 2017.

What explains this differential in labor force participation rates? Two possible explanations are trailing levels of educational attainment and poorer adult health status in Tennessee. In general, those with lower levels of educational attainment are less attached to the labor force. Similarly, those who are in poor health status find labor market engagement more challenging.

Tennessee's adult population has generally shown lower levels of educational attainment

1 For additional background and detail, see “Labor Force Participation: What Has Happened Since the Peak?” Monthly Labor Review, September 2016. Available at <https://www.bls.gov/opub/mlr/2016/article/labor-force-participation-what-has-happened-since-the-peak.htm> Also see Eleanor Krause and Isabell Sawhill, “What We Know and Don't Know About Declining Labor Force Participation: A Review,” The Brookings Institute, May 2017. Available at https://www.brookings.edu/wp-content/uploads/2017/05/cf_20170517_declining_labor_force_participation_sawhill1.pdf

2.2. The Current Economic Environment, continued

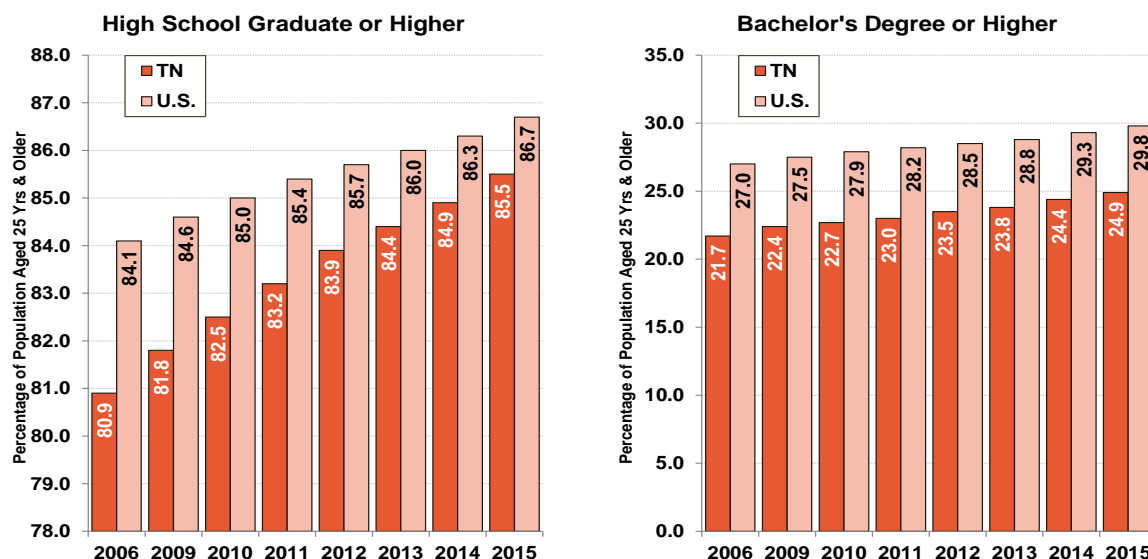
compared to their counterparts across the country. However, there are signs of improvement, particularly for high school attainment. Figure 2.7 presents data on the relative educational attainment of Tennesseans from 2006 to 2015 for two important measures, high school attainment and above and bachelor's degree or higher. Especially encouraging is Tennessee's high school attainment rate which is converging closer and closer to the national average, even as the national rate has been improving over time. In 2006, the gap between Tennessee and the U.S. was 3.2 percentage points. But by 2015, the gap had narrowed to just 1.2 percentage points. Moreover, the state's absolute performance jumped from an 80.9 percent rate to an 85.5 percent rate.

The state's share of adults with a bachelor's degree or higher degree has seen more modest gains. In 2006, the differential between Tennessee and the U.S. was 5.3 percentage points; in 2015, the gap was 4.9 percentage points. While the improvement is small, it still represents an important trend of convergence with a rising

national average. Together, these improving educational attainment patterns will make Tennesseans better off and make the state a more attractive place to live and create jobs.

Another important factor affecting labor force participation rates is health status. In 2015, Tennesseans reported to their physicians a higher incidence of heart attack, coronary heart disease, stroke, diabetes, skin cancer, other forms of cancer, kidney disease and depression than their counterparts did across the country. Figure 2.8 illustrates the civilian population disability rate by county for the working age population in Tennessee. The statewide disability rate was 13.7 percent, well above the 10.3 percent disability rate recorded for the working age population of the nation. Disability rates have some propensity to be lower in metropolitan areas and higher in rural communities. Twenty-four counties have disability rates of 20 percent or higher; another 46 counties have disability rates between 15 and 20 percent. The high disability rates narrow the labor force and diminish regional and individual prosperity.

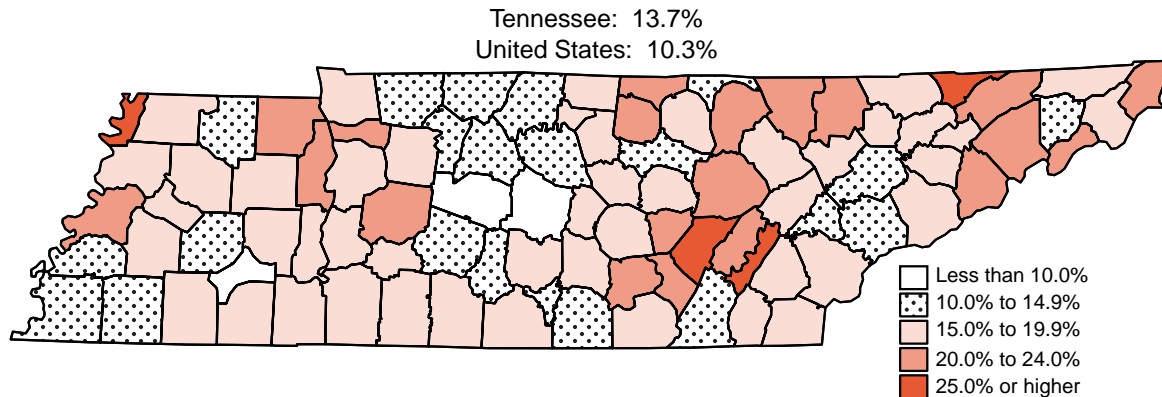
Figure 2.7: Trailing Levels of Educational Attainment Contribute to Lower Labor Force Participation Rates



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, (various years).

2.2. The Current Economic Environment, continued

Figure 2.8: A Surprising Number of Tennessee Counties have High Civilian Population Disability Rates (Ages 18-64): 2011-2015



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates 2011-2015.

Income and Earnings

Nominal personal income in Tennessee has generally demonstrated decent growth in the last several years. Income was up 3.7 percent in 2016 and roughly similar growth of 3.6 percent is expected this year. Proprietors' income has experienced relatively stronger growth while rent, interest and dividend income grew slowly in 2016, with only slight improvement expected in 2017. While wage and salary income growth has been respectable, slow hourly earnings growth has held back overall wage and salary growth.

Per capita income in Tennessee was \$43,326 in 2016, or about 88 percent of the national average. The keys to improving per capita income include investments in education and training and the ongoing recruitment and retention of firms that have high levels of capital investment that enable them to compete in the global market. Per capita personal income (as measured by the Bureau of Economic Analysis or BEA) continues to show wide variation across the state as illustrated in Figure 2.9. Just three counties had per capita income above the national average in 2016; only nine counties had per capita income above the BEA state average. Like many other measures of regional economic performance, per capita income has some tendency to be higher in and around the state's metropolitan areas. Job prospects are typically brighter in metropolitan areas and levels

of educational attainment are higher as well, in turn supporting higher earnings.

The average wage and salary rate in Tennessee stood at \$47,823 in 2016. Some noteworthy patterns are embedded beneath the surface of this figure. Despite what many would think, the average wage in durable goods manufacturing (\$57,411) lags the average wage in nondurable goods manufacturing (\$59,671). Market forces have compelled producers in both sectors to invest more in physical capital, as well as hire workers with more advanced human capital, in order to compete. Wholesale trade is another sector that has been impacted significantly by technological change, as well as new business models. In 2016, the average wage in wholesale trade was \$70,419. The old-fashioned view of a warehouse with workers moving boxes by hand has been replaced by modern images of robots and drones automatically retrieving products from tall shelving to prepare for shipment to consumers. Human hands typically do not touch the product or the delivery box prior to leaving the warehouse for final delivery to the customer.

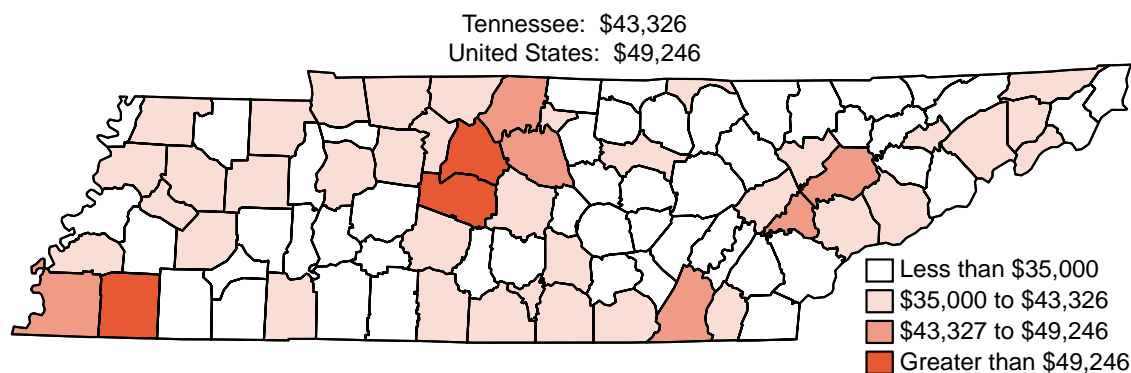
International Trade and the Tennessee Economy

Free Trade, Fair Trade or Protectionism?

The Tennessee economy is inextricably linked to the global economy through foreign direct

2.2. The Current Economic Environment, continued

Figure 2.9: Tennessee's 2016 per Capita Personal Income Tends to be Higher when Educational Attainment is Higher



Source: Bureau of Economic Analysis.

investment (FDI) and the multilateral flow of goods and services across international borders. Nissan, Denso and Volkswagen, for example, are three visible foreign-owned companies that have planted deep roots in Tennessee, boosting employment directly in their facilities and through the automotive parts supply chain. The state's automotive industry has very close ties to counterpart sectors in Canada and Mexico, with parts flowing back and forth across borders. The state's agriculture sector is another beneficiary of international trade through its exported commodities and processed products. These exports help support economic development in struggling rural communities where there are few alternative job opportunities. The most important beneficiaries of international trade in Tennessee are arguably consumers who enjoy lower prices and greater product diversity than would otherwise be possible and the significant number of Tennesseans who work for firms that are owned by non-residents of the U.S.

The Case for Free Trade

For literally hundreds of years, economists have been making the case in support of free trade.² With each country pursuing its self-interest

by producing goods and services in the lowest cost fashion, gains from trade with other countries are enabled. Saudi Arabia has an advantage in oil extraction by virtue of the vast petroleum reserves which reside on the peninsula. Should Saudi Arabia produce wheat to support farmers and domestic production? Probably not, though they have done so in the past. (Wheat production in Saudi Arabia was eliminated in 2016.) It would be more efficient for Saudi Arabia to specialize by extracting and selling petroleum products and then use the proceeds to purchase wheat from the lowest-cost international producer. Wheat production would require costly subsidies that the Saudis would have to pay for; wheat farmers might be better off, but the rest of society would end up paying for these subsidies, making them worse off.

In principle, free trade will maximize the size of the economic pie between trading partners. In other words, *overall* GDP, income and employment will be the greatest when there are no barriers to trade. Formal trade barriers, including tariffs, quotas and regulations reduce the size of the overall economic pie because they interfere with the market forces of supply and demand. The same is true of informal barriers to trade that are related to things like culture and language. These barriers reduce the size of the overall economic pie but may increase slices of the pie for some groups like protected industries or workers.

Bilateral trade accords (between two trading

² For a contemporary introduction, see William Poole, "Why Are Economists and Noneconomists So Far Apart? Federal Reserve Bank of St. Louis Review 86, 2004. Available at <https://files.stlouisfed.org/files/htdocs/publications/review/04/09/Poole.pdf> And Douglas A. Irwin, "The Truth About Trade: What Critics Get Wrong About the Global Economy, Foreign Affairs, July/August, 2016, 84-95.

2.2. The Current Economic Environment, continued

Basic Income

Basic income has emerged as a hot topic in some policy and technology circles, with experiments underway or being planned for the future in a number of countries around the world. At its idealized core, basic income is an unconditional payment from the government to individuals with the absence of any means testing or linkages to other forms of income. It is an entitlement that accrues to everyone. Basic income could be financed in a number of ways; pure forms of basic income would be funded by the elimination of transfer and benefit programs that accrue to individuals and families through direct government spending programs as well as the end of preferences that exist under the personal income tax. Not all models take this form. For example, a recent basic income experiment in Ontario, Canada, maintains most of these elements of the fiscal system other than direct financial transfers to households which are denied to families in receipt of basic income.¹

The motivations for basic income are varied. For example, a basic philosophical argument is that it provides the freedom for recipients to invest and spend their resources from the government any way they see fit. This independence is viewed as a stepping stone to self-sufficiency. Society has typically frowned on large scale cash transfers, instead preferring to play a more paternalistic role that guides spending through specific programs or types of spending, as with means-tested transfers and in-kind transfers like food stamps. A practical fiscal argument in favor of basic income is the cost involved in managing and providing the full set of tax-transfer programs that are embedded in the federal fiscal system; substantial administrative cost savings would come from the elimination of the programs that assist people and their families. Another argument is the concern about the future—that automation and robotics may produce mass unemployment in the decades ahead. Basic income would provide an alternative to traditional labor market engagement in the face of rising ranks of unemployed people. The fact that governments around the world are tinkering with basic income experiments suggests real interest in the concept.

A recent paper by Ensor et al. (2017) seeks to put figures to the universal basic income (UBI) concept in the U.S.² Their analysis considers the elimination of 20 large federal benefit programs, including Medicare and Medicaid, Social Security and the Supplemental Nutrition Assistance (SNAP) program, as well as a number of smaller programs that together entailed just over \$2.5 trillion in federal spending in 2014. A variety of tax provisions under the federal personal income tax are also eliminated in the simulation, including personal and dependent exemptions, the standard deduction and a number of other deductions and credits. The elimination of these tax preferences increases taxable income and produces an increase in income tax revenue to the tune of \$649 billion. In combination with reduced expenditures, this yields \$3.2 billion to support the financing of the UBI program. It is further assumed that UBI would be subject to the federal personal income tax, but based on a tax code stripped of provisions that would provide personal or family relief. This additional tax revenue would also be used to support the UBI transfer.

The punchline of the simulation is that each individual over the age of 18 would receive a \$13,788 UBI transfer. Individuals under 18, on the other hand, are assumed to receive one-half of this amount, or \$6,894. A family of four—two adults and two minor children—would thus receive \$42,742 in total UBI. It is important to recognize that the social safety net (including Social Security) would no longer exist and preferences under the personal income would be gone. Households would have to fund their own health insurance, retirement benefits, and so on. As Ensor et al. demonstrate, the distributional consequences vary significantly across income classes and age groups of the population.

Such a transformation of the role of government would be nothing less than dramatic and the scope of the changes would likely encounter unprecedented political opposition. While it is unlikely that we will see widespread implementation of the basic income concept anytime in the foreseeable future, it will be a sustained point of discussion as conversations continue regarding the role of government and consequences of automation for the labor force.

¹ See <https://www.ontario.ca/page/ontario-basic-income-pilot>.

² For more information, see Will Ensor, Anderson Fraily, Matt Jensen, and Amy Xu, "A Budget-Neutral Universal Basic Income," AEI Economics Working Paper 2017-03, May 2017. Available at <https://www.aei.org/wp-content/uploads/2017/05/UBI-Jensen-et-al-working-paper.pdf>.

2.2. The Current Economic Environment, continued

partners) and multilateral trade accords (between many trading partners) are intended to reduce formal and informal trade barriers to facilitate the free flow of goods and services across borders. This allows each country to specialize and produce based on its own unique advantages.

Why is There Opposition to Free Trade?

It is striking that a 2016 Gallup poll found that respondents viewed trade as an opportunity (58 percent) rather than a threat (34 percent).³ Americans have held mixed views over a longer time horizon and the 2016 president election ignited a furor over international trade. Candidate Donald Trump threatened to impose stiff tariffs on China and Mexico; candidate Hillary Clinton, who initially embraced the Trans-Pacific Partnership (TPP), decided not to support the trade initiative. The opposition that came from both candidates indicated a souring of the public's attitude despite the Gallup poll of the same year.

So why did attitudes sour? There are several possibilities. Some see the gains from trade accruing primarily to businesses, “elites” and the wealthiest segments of the population. This populist view is held by many. Another argument is that trade is not viewed as fair. For example, some trading partners may exploit low-wage workers who are subject to poor working conditions and little workplace safety. The same countries may have lax environmental standards that allow them to produce at lower cost than domestic producers in the U.S. These are just examples of the broader dimension of free versus fair trade.

Perhaps the most important reason for this opposition to trade is the long-term decline in manufacturing employment (aggravated by the Great Recession) and the growing recognition that trade has significant distributional consequences. Note that the argument set out above still applies: free trade maximizes the *size* of the economic pie between trading partners. But free trade *also creates winners and losers*, something that free trade advocates have often failed to highlight.

For perspective, Tennessee was home to

more than 67,000 jobs in the textile and apparel industry as recently as 1996. However, by 2016, the number of jobs had shrunk to just more than 10,000. While tens of thousands of workers bore the brunt of this shift, Tennesseans and Americans alike have benefited substantially from lower-cost clothing. The lower cost of clothing means more spending on other goods and services and the creation of jobs in other regions and sectors of the economy. This highlights the underlying trade-off that exists when free trade is pursued. Additional jobs could be created in the textile and apparel industry through the implementation of tariffs imposed on imports. However, this would raise consumer prices, divert spending away from other sectors and regions, and end up costing consumers more for their clothing—the reversal of the forces that were released through free trade accords.

The reality is that the U.S. has done little to assist those individuals who have been adversely affected by trade. If society makes the choice to promote free trade, then perhaps more should be done to mitigate the consequences for those who find themselves dislocated from employment and holding a smaller piece of the pie.

Protectionism?

Since protectionism is an intervention against market forces, it will have efficiency consequences that will tend to shrink the total economic pie for trading partners. Protected workers and industries may be better off because of the concentrated benefits they receive from protectionist policies. However, these benefits will come at a cost to consumers as well as workers and businesses elsewhere in the economy.

Consider President Barack Obama's tariffs on imported tires from China. The tariffs were implemented as punishment because of concerns over currency manipulation and the dumping of tires into the U.S. market—i.e., trade was not perceived to be fair. The first-round effect of the tariffs raised prices, curtailing some of the demand for Chinese tires. But American consumers paid higher prices for the Chinese tires they bought. This meant less spending elsewhere in the

³ Irwin (2016).

2.2. The Current Economic Environment, continued

economy. Other global producers entered the U.S. market in response to the higher prices, which didn't benefit the domestic economy. In the end, domestic tire producers and their employees did benefit from the tariff.⁴ However, estimates suggest that the tariffs cost consumers \$1.1 billion in order to save 1,200 industry jobs. That works out to about \$917,000 per job saved.

Good Trade Deals: The Devil is in the Detail

The lesson here is that free trade does offer the promise of improved economic wellbeing for international trading partners. It can open up domestic markets for the production of goods and services that can be exported, thus creating jobs, while enabling imports that can lower prices and offer consumers greater product diversity. The parallel message is that free trade undeniably creates collateral damage. This is where policymakers should consider an expanded role for trade adjustment assistance to help affected workers transition to new employment

opportunities. Finally, each trade accord must be evaluated on its own merits. The devil is in the details.

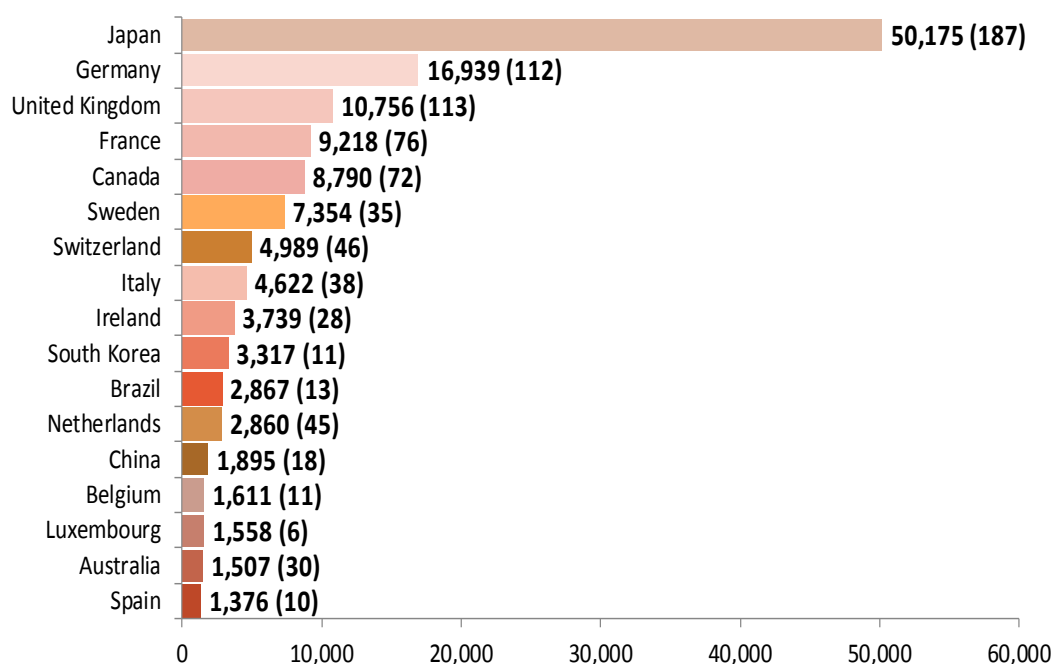
Foreign Direct Investment in Tennessee

In 2015, Tennessee ranked first in the nation for job creation tied to FDI.⁵ The state reported that 41.1 percent of all capital investment in the year and 30 percent of all announced jobs were attributed to FDI. As shown in Figure 2.10, Japan dominates overall FDI in Tennessee, with 50,175 workers employed across 187 firms. In second place is Germany, with 16,939 jobs and 112 plants, followed by the United Kingdom with 10,756 workers and 113 firms. Together, the 17 countries represented in Figure 2.10 accounted for 943 foreign-based establishments and employment of 139,944. This is about 4.6 percent of total nonfarm payroll in Tennessee in 2017. The automotive sector dominates the FDI landscape with well over 50,000 jobs. "Other" manufacturing, chemicals/plastics and transportation each accounted for over

⁴ Irwin (2016).

⁵ <https://www.tn.gov/ecd/news/44751>

**Figure 2.10: Tennessee Employment in Foreign-Owned Companies:
Number of Employees by Country of UBO and Number of Establishments**



Notes: Countries with employment of 1,000 or more. Number of establishments for each country shown in parentheses.

Source: State of Tennessee, <<http://tn.gov/transparenttn/article/openecd-business-development-foreign-owned-establishments>>, accessed November 6, 2017.

2.2. The Current Economic Environment, continued

10,000 jobs.

The state's largest export product is transportation equipment, accounting for \$7.3 billion in sales abroad in 2016. Tennessee's transportation equipment sector has strong ties across North America, including Canada and Mexico. Computer and electronic export products are ranked second at \$5.3 billion, followed by chemicals (\$4.2 billion), miscellaneous manufactures (\$3.8 billion) and machinery (\$2.7 billion). (See Figure 2.11.) Agricultural products, livestock and livestock products, forestry products and fish and other marine products together accounted for 2.5 percent of all exports from the state. This latter figure does not account for exports associated with value added in processing/manufacturing for sectors like food and kindred products and beverages and tobacco products.

Figure 2.12 reports Tennessee's top five export markets. Leading the list is Canada which absorbs more than \$8.6 billion of products from Tennessee, followed by Mexico at \$4.5 billion of products. A large share of this value is related to

transportation equipment. Ranking third on the list is China (\$2.2 billion), followed by Japan (\$1.7 billion) and Belgium (\$1.3 billion).

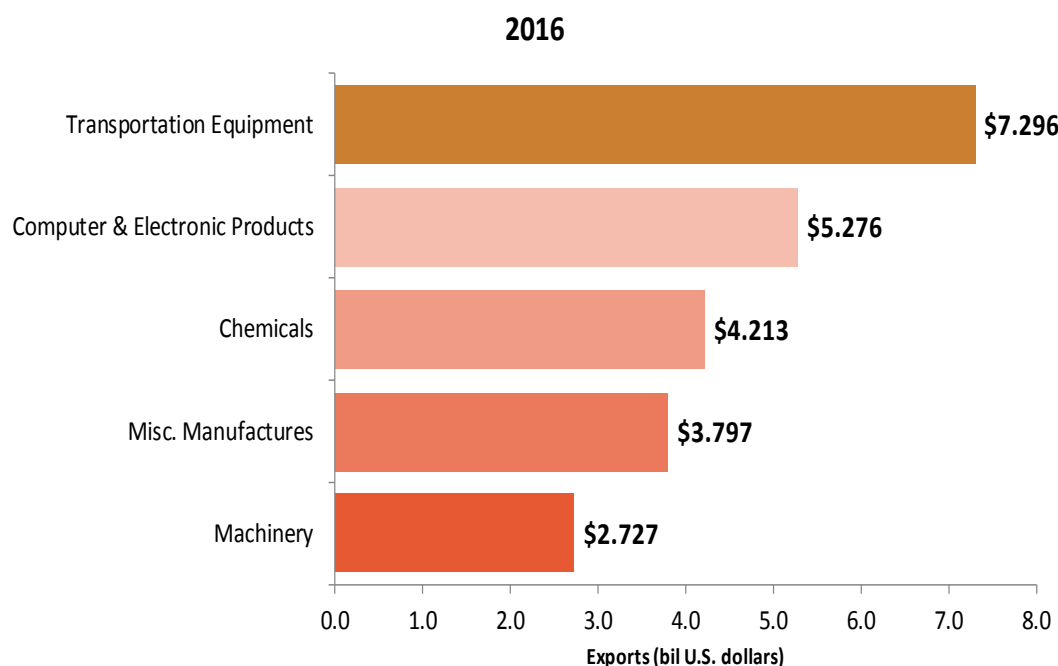
These data paint a picture of a state economy that has strong economic ties to other countries around the world. While consumers and businesses in the state consume goods and services that are produced by workers around the globe, workers in Tennessee also benefit from foreign-direct investment in the state and jobs that are tied to exports to consumers and businesses elsewhere.

Tax Revenues and Taxable Sales

Estimates from the National Association of State Budget Officers indicate that Tennessee general fund revenue grew just 1.7 percent in fiscal year 2017 compared to the previous fiscal year.⁶ Average state general fund revenue growth was 2.2 percent and median growth was 2.4 percent. Sales

⁶ National Association of State Budget Officers, State Expenditure Report: Examining Fiscal 2015-2017 State Spending, 2017. https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/SER%20Archive/State_Expenditure_Report_Fiscal_2015-2017_-_S.pdf

Figure 2.11: Tennessee's Top 5 Export Categories



Source: U.S. Department of Commerce, International Trade Administration.

2.2. The Current Economic Environment, continued

tax revenue was up 3.3 percent in Tennessee, well above the 2.5 percent national average. Corporate tax revenues are estimated to have grown 6.3 percent (versus a 5.8 percent national average) while personal income tax revenues (Hall income tax) were down sharply due to policy changes.

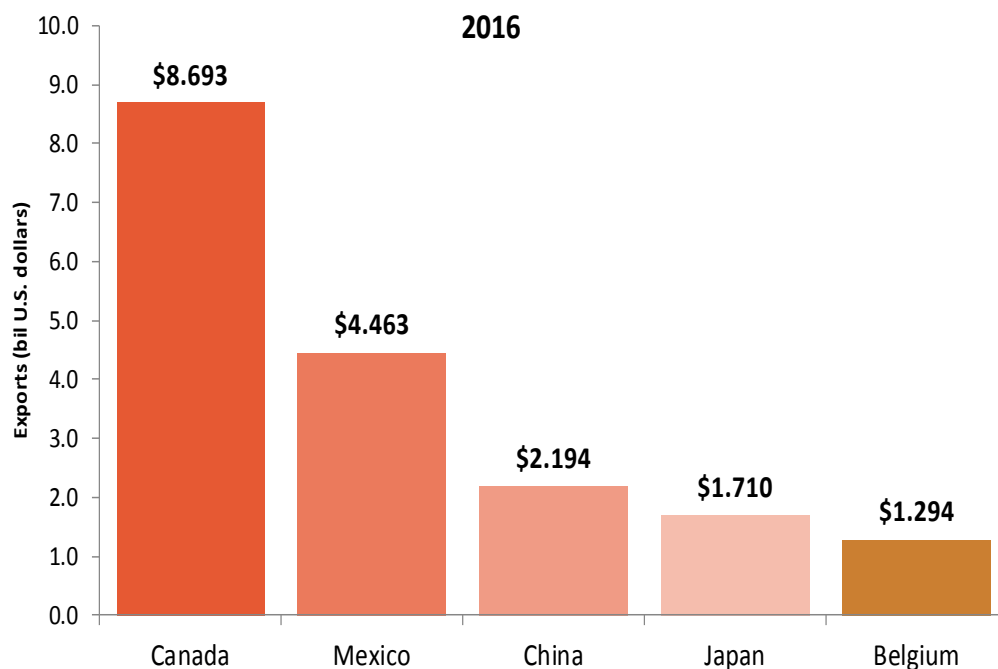
The state's general fund revenue portfolio continues to show imbalance, with heavy reliance on the sales tax as well as other transaction-based taxes. The sales tax accounted for 59.8 percent of collections while the average across all states was 31.5 percent in fiscal year 2016. Tennessee's corporate income tax comprises a relatively large share of general fund revenues (9.7 percent) compared to the nation (5.9 percent). On the other hand, Tennessee's income tax accounted for just 1.3 percent of general fund revenue while the national average was 45.0 percent.

The state's revenue portfolio will see changes

in fiscal year 2018 as a result of policy changes implemented in last year's budget through the Improve Act. Among the changes are a lower sales tax rate on food, higher gasoline and diesel taxes, continued reductions in the Hall income tax and increased sales-weighting of the apportionment formula for corporate income for firms who elect to take advantage of the new system.

Taxable sales have shown relatively robust growth dating back to 2014. Growth in 2015 came in at 6.6 percent followed by 5.3 percent growth in 2016. Most sectors have performed well, other than food stores and transportation and communications. Growth has eased a bit in 2017, with a very poor showing in the first quarter of the year due to setbacks in automobile dealer sales and miscellaneous nondurable goods sales. Subsequent quarters have shown improvement.

Figure 2.12: Tennessee's Top 5 Export Markets



Source: U.S. Department of Commerce, International Trade Administration.

2.3. Short-Term Outlook

The Tennessee economy is expected to continue to expand through the short-term forecast horizon extending through the fourth quarter of 2020. Barring an unforeseen economic downturn for the national economy, this would mark the longest economic expansion on record in the post-World War II era. The economy's fundamentals are strong, and there are no broad-based weaknesses that would precipitate a recession. However, unanticipated shocks are always possible that could derail the ongoing expansion. A summary of the short-term outlook is provided in Table 2.1.

Tennessee's inflation-adjusted GDP is projected to advance at a 2.1 percent rate in 2018 and see 2.0 percent growth in the following year. U.S. GDP is expected to see slightly higher growth of 2.6 percent and 2.3 percent in the same years. The slower performance of the state economy is due to the fact that many sectors, like transportation equipment, have limited capacity for growth especially in the face of a weakened sales outlook.

Tennessee nonfarm employment is expected to be up 1.4 percent and 1.2 percent in 2018 and 2019, respectively, in the ballpark of growth for national nonfarm employment. As shown in Figure 2.13, this reflects a declining trend in overall employment growth as discussed above. Manufacturing job growth will ease from the heated 3.1 percent rate of 2016 to 1.0 percent in 2017. (State quarterly data for the third quarter of 2017 shows manufacturing employment up only 0.3 percent on a year-over-year basis.) Growth in manufacturing jobs in 2018 and 2019 should come in at 0.3 percent in each year. Especially strong job growth will continue in the professional and business services sector. Leisure and hospitality will also continue to see healthy gains.

The state unemployment rate should remain at historically low levels through the current economic expansion, despite slower employment growth. The number of unemployed people will continue to fall sharply in 2018 and then slow. The fourth quarter of 2017 should produce a 3.0 percent unemployment rate, followed by annual rates of 3.1 percent in each of the next two years. Forecasting is always a challenge when observed data are not in the long-term historical record. Accordingly, do not be surprised if we see the state unemployment rate dip below 3 percent in the months ahead.

Tennessee's nominal personal income should be up 4.3 percent in 2018 and 4.3 percent in 2019. Sustained strength in proprietors' income and an improved outlook for rent, interest and dividend income will help drive personal income. On a fiscal year basis, nominal personal income is projected to grow 3.9 percent in the 2017/18 fiscal year and 4.4 percent in 2018/19.

Taxable sales will see modest growth in reflection of the maturation of the current business cycle. Taxable sales are projected to grow 4.6 percent in 2017, 4.5 percent in 2018 and 3.3 percent in 2019. Automobile dealer sales are expected to be sluggish compared to earlier years of the expansion as consumers have satisfied their pent up demand for new vehicles. Growth in automobile dealer sales in 2017 will be only 1.0 percent, due largely to a large 6.2 percent seasonally-adjusted contraction in the third quarter of the year; sales will improve to 3.0 percent in 2018 and 2019. Hotels and motels sales will experience healthy rates of sales growth in 2018 and 2019 as the state continues to benefit from a strong tourism sector. On a fiscal year basis, expect taxable sales to be up 3.2 percent in fiscal year 2018/19.

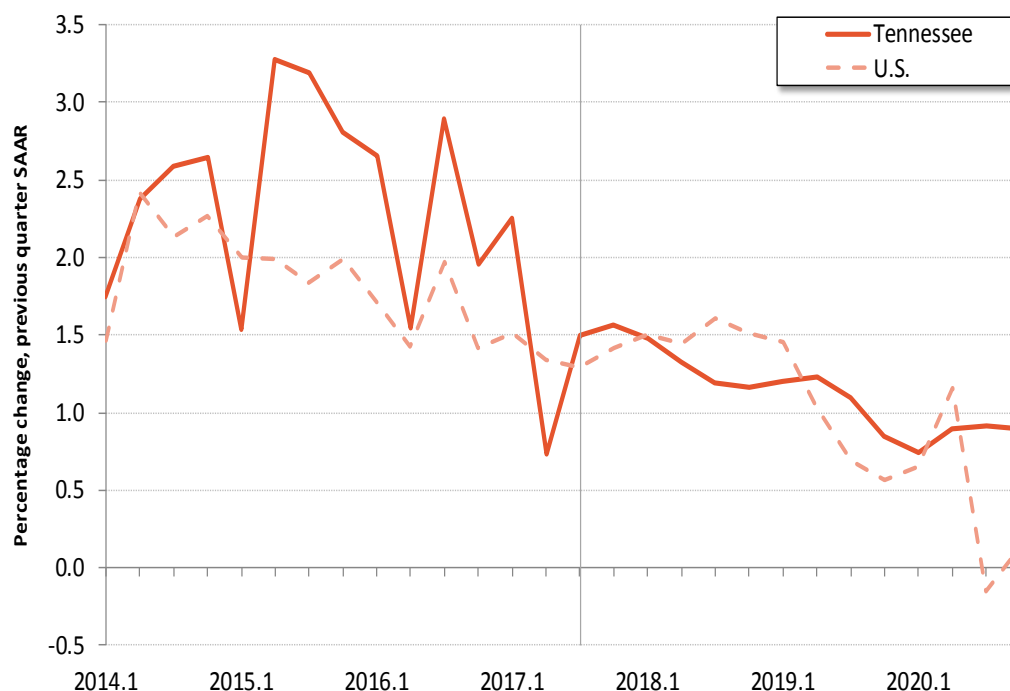
2.3. Short-Term Outlook, continued

Table 2.1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	History		Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
US GDP (Bil2005\$) SAAR.....	17031.1	17169.7	17282.4	17376.7	17483.4	17587.4	17695.6	17797.5	17894.7	17997.8	18089.3	18173.4	16716.2	17096.6	17535.8	17944.8
% Chg Prev Qtr SAAR.....	3.06	3.30	2.65	2.20	2.48	2.40	2.48	2.32	2.20	2.32	2.05	1.87	1.49	2.28	2.57	2.33
% Chg Same Qtr Last Yr.....	2.21	2.33	2.56	2.80	2.66	2.43	2.39	2.42	2.35	2.33	2.22	2.11	1.49	2.28	2.57	2.33
US GDP (Bil\$) SAAR.....	19250.0	19509.0	19749.9	19962.6	20180.3	20423.9	20661.2	20899.1	21128.2	21361.0	21601.3	21840.7	18624.5	19391.6	20307.0	21247.4
% Chg Prev Qtr SAAR.....	4.10	5.49	5.03	4.38	4.43	4.92	4.73	4.69	4.46	4.48	4.58	4.51	2.78	4.12	4.72	4.63
% Chg Same Qtr Last Yr.....	3.84	4.16	4.47	4.75	4.83	4.69	4.61	4.69	4.70	4.59	4.55	4.51	2.78	4.12	4.72	4.63
TN PERSONAL INCOME (MIL2005\$) SAAR.....	264452	266289	267907	269789	271782	273688	275525	277203	278808	280479	281653	282678	260100	265255	272696	279536
% Chg Prev Qtr SAAR.....	3.21	2.81	2.45	2.84	2.99	2.83	2.71	2.46	2.34	2.42	1.68	1.46	2.50	1.98	2.81	2.51
% Chg Same Qtr Last Yr.....	1.94	1.64	2.69	2.83	2.77	2.78	2.84	2.75	2.59	2.48	2.22	1.98	2.50	1.98	2.81	2.51
US PERSONAL INCOME (BIL2005\$) SAAR.....	14553	14597	14664	14787	14914	15012	15113	15259	15371	15489	15581	15706	14377	14573	14957	15425
% Chg Prev Qtr SAAR.....	2.07	1.19	1.86	3.39	3.49	2.66	2.69	3.94	2.95	3.12	2.41	3.23	1.21	1.36	2.63	3.13
% Chg Same Qtr Last Yr.....	1.13	1.12	2.10	2.13	2.48	2.85	3.06	3.19	3.06	3.17	3.10	2.93	1.21	1.36	2.63	3.13
TN PERSONAL INCOME (MIL\$) SAAR.....	296908	300089	303212	306386	309755	313174	316659	319792	323181	326542	329796	332838	288170	298646	311494	324828
% Chg Prev Qtr SAAR.....	3.48	4.35	4.23	4.25	4.47	4.49	4.53	4.02	4.31	4.22	4.05	3.74	3.72	3.64	4.30	4.28
% Chg Same Qtr Last Yr.....	3.52	3.16	4.15	4.08	4.33	4.36	4.43	4.38	4.33	4.27	4.15	4.08	3.72	3.64	4.30	4.28
US PERSONAL INCOME (BIL\$) SAAR.....	16340	16451	16637	16831	17016	17209	17394	17636	17852	18071	18287	18537	15929	16418	17113	17961
% Chg Prev Qtr SAAR.....	2.34	2.76	4.60	4.75	4.46	4.62	4.38	5.67	4.99	5.00	4.88	5.57	2.42	3.07	4.23	4.96
% Chg Same Qtr Last Yr.....	2.70	2.64	3.82	3.61	4.14	4.61	4.55	4.78	4.91	5.01	5.13	5.11	2.42	3.07	4.23	4.96
TN NONFARM JOBS (THOUS).....	3013.2	3024.5	3036.3	3047.5	3057.5	3066.6	3075.4	3084.6	3094.1	3102.5	3109.1	3114.8	2966.8	3020.4	3061.7	3097.6
% Chg Prev Qtr SAAR.....	0.73	1.50	1.57	1.48	1.32	1.19	1.16	1.20	1.23	1.10	0.84	0.74	2.56	1.81	1.37	1.17
% Chg Same Qtr Last Yr.....	1.95	1.61	1.51	1.32	1.47	1.39	1.29	1.22	1.20	1.17	1.09	0.98	2.56	1.81	1.37	1.17
US NONFARM JOBS (MIL).....	146.2	146.7	147.2	147.7	148.3	148.9	149.4	150.0	150.3	150.6	150.8	151.1	144.3	146.4	148.6	150.4
% Chg Prev Qtr SAAR.....	1.34	1.29	1.42	1.51	1.44	1.61	1.51	1.45	1.03	0.69	0.57	0.65	1.76	1.48	1.45	1.25
% Chg Same Qtr Last Yr.....	1.56	1.39	1.39	1.39	1.42	1.49	1.52	1.50	1.40	1.17	0.93	0.73	1.76	1.48	1.45	1.25
TN MFG JOBS (THOUS).....	347.6	346.4	346.8	347.1	347.7	348.0	348.2	348.6	348.9	349.1	349.3	349.5	343.3	346.8	347.8	348.9
% Chg Prev Qtr SAAR.....	1.08	-1.37	0.49	0.38	0.63	0.38	0.27	0.40	0.34	0.23	0.24	0.27	3.08	1.04	0.26	0.34
% Chg Same Qtr Last Yr.....	1.25	0.33	0.74	0.14	0.03	0.47	0.41	0.42	0.34	0.31	0.30	0.27	3.08	1.04	0.26	0.34
US MFG JOBS (MIL).....	12.4	12.4	12.5	12.5	12.7	12.8	12.7	12.8	12.9	12.9	13.0	13.0	12.3	12.4	12.7	12.9
% Chg Prev Qtr SAAR.....	1.00	1.11	1.89	1.58	4.45	2.56	-0.56	2.95	1.45	0.97	1.10	0.54	0.11	0.65	2.06	1.68
% Chg Same Qtr Last Yr.....	0.47	0.77	1.34	1.39	2.25	2.61	1.99	2.33	1.59	1.19	1.62	1.02	0.11	0.65	2.06	1.68
TN UNEMPLOYMENT RATE (%).....	4.1	3.2	3.0	3.1	3.2	3.2	3.1	3.2	3.1	3.0	3.0	3.0	4.8	3.9	3.1	3.1
US UNEMPLOYMENT RATE (%).....	4.4	4.3	4.1	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.9	3.9	4.9	4.4	3.9	3.8
CHAINED PRICE INDEX, GDP (2005=100.0).....	113.0	113.6	114.3	114.9	115.4	116.1	116.8	117.4	118.1	118.7	119.4	120.2	111.4	113.4	115.8	118.4
% Chg Prev Qtr SAAR.....	1.01	2.14	2.27	2.13	1.91	2.46	2.19	2.31	2.20	2.11	2.48	2.59	1.28	1.80	2.09	2.25
% Chg Same Qtr Last Yr.....	1.60	1.79	1.86	1.89	2.11	2.19	2.17	2.22	2.29	2.20	2.27	2.34	1.28	1.80	2.09	2.25
US PERS CONSUMP DEFL (2005=100.0)...	112.3	112.7	113.5	113.8	114.1	114.6	115.1	115.6	116.1	116.7	117.4	118.0	110.8	112.7	114.4	116.4
% Chg Prev Qtr SAAR.....	0.27	1.55	2.68	1.31	0.94	1.91	1.64	1.66	1.98	1.82	2.41	2.27	1.19	1.69	1.56	1.77
% Chg Same Qtr Last Yr.....	1.55	1.50	1.68	1.45	1.62	1.71	1.45	1.54	1.80	1.78	1.97	2.12	1.19	1.69	1.56	1.77
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1.000).....	2.439	2.452	2.473	2.483	2.486	2.499	2.511	2.523	2.539	2.553	2.573	2.591	2.400	2.451	2.495	2.547
% Chg Prev Qtr SAAR.....	-0.31	2.01	3.60	1.61	0.43	2.18	1.89	1.98	2.58	2.22	3.14	2.81	1.28	2.13	1.77	2.11
% Chg Same Qtr Last Yr.....	1.91	1.96	2.10	1.72	1.91	1.95	1.52	1.62	2.16	2.17	2.48	2.69	1.28	2.13	1.77	2.11
BANK PRIME INTEREST RATE (%).....	4.0	4.3	4.3	4.5	4.8	5.0	5.0	5.3	5.3	5.5	5.5	5.8	3.5	4.1	4.8	5.4
FEDERAL FUNDS RATE (% per annum).....	0.950	1.153	1.209	1.444	1.717	1.920	1.953	2.177	2.229	2.430	2.465	2.687	0.395	1.003	1.758	2.325
30-YEAR FIXED MORTGAGE RATE (%).....	4.0	3.9	4.0	4.1	4.3	4.5	4.6	4.7	4.9	5.0	5.0	5.1	3.6	4.0	4.4	4.9
TN TAXABLE SALES (MIL2005\$).....	27632	28170	28349	28403	28509	28637	28769	28887	28969	29078	29123	29179	107859	110958	114316	116056
% Chg Prev Qtr SAAR.....	12.90	8.01	2.57	0.75	1.50	1.81	1.85	1.65	1.14	1.51	0.63	0.77	4.04	2.87	3.03	1.52
% Chg Same Qtr Last Yr.....	2.92	4.78	4.32	5.95	3.17	1.66	1.48	1.70	1.61	1.54	1.23	1.01	4.04	2.87	3.03	1.52
TN TAXABLE SALES (MIL\$).....	31024	31746	32085	32255	32492	32768	33064	33325	33579	33853	34101	34357	119498	124931	130579	134858
% Chg Prev Qtr SAAR.....	13.20	9.64	4.35	2.14	2.96	3.45	3.65	3.20	3.09	3.30	2.97	3.03	5.28	4.55	4.52	3.28
% Chg Same Qtr Last Yr.....	4.52	6.35	5.81	7.24	4.73	3.22	3.05	3.31	3.35	3.31	3.14	3.10	5.28	4.55	4.52	3.28
TN AVG ANNUAL WAGE, NONFARM (2005\$).....	43213	43364	43463	43560	43677	43760	43826	43912	43948	43996	43983	43974	43166	43221	43706	43960
% Chg Prev Qtr SAAR.....	3.50	1.40	0.92	0.90	1.08	0.75	0.61	0.78	0.33	0.44	-0.11	-0.08	0.04	0.13	1.12	0.58
% Chg Same Qtr Last Yr.....	0.09	-0.56	1.33	1.67	1.07	0.91	0.84	0.81	0.62	0.54	0.36	0.14	0.04	0.13	1.12	0.58
TN AVG ANNUAL WAGE, NONFARM (\$).....	48517	48868	49190	49469	49780	50073	50369	50658	50942	51221	51502	51777	47823	48661	49923	51081
% Chg Prev Qtr SAAR.....	3.78	2.93	2.66	2.29	2.54	2.37	2.39	2.32	2.26	2.21	2.21	2.16	1.24	1.75	2.59	2.32
% Chg Same Qtr Last Yr.....	1.65	0.92	2.78	2.91	2.60	2.47	2.40	2.40	2.33	2.29	2.25	2.21	1.24	1.75	2.59	2.32

2.3. Short-Term Outlook, continued

Figure 2.13: Nonfarm Job Growth in Tennessee and the U.S. is Expected to Slow



Source: ERS/USDA. 2017c.

2.4. Tennessee Forecast at a Glance

- Tennessee's inflation-adjusted GDP will see 2.1 percent growth next year followed by 2.0 percent growth in 2019.
- Nonfarm jobs in Tennessee will advance 1.4 percent and 1.2 percent in 2018 and 2019. Manufacturing job gains will slow appreciably from the pace of the last two years.
- The state unemployment rate will remain at historic lows and average 3.1 percent in 2018 and 2019, respectively.
- Tennessee personal income will be up 4.3 percent in 2018 and 2019.

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy

Introduction

Tennessee's agri-forestry industrial complex includes the supply chain from farm and forest to consumers of the end products, such as retail foods, clothing, paper, and furniture. The agri-forestry industrial complex includes suppliers of primary goods - food and fiber crops and livestock farming, first-stage forestry (e.g., timber removal and sawmills), and the production of agricultural inputs (i.e., agricultural machinery, fertilizers, soil

amendments, and herbicides) that support farming and first-stage forestry. The complex also includes downstream manufacturers of food and fiber products (i.e., food and beverage products, textiles and textile products, wood, paper, and furniture products) that demand goods from farming and first-stage forestry operations.

This section of the report focuses on economic indicators for three main areas related

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

to the agri-forestry industrial complex:⁷ a) primary agriculture and forestry, which includes farming and first-stage forestry; b) secondary agriculture and forestry, which includes manufacturing and processing facilities; and c) well-being indicators for rural communities, which provide important infrastructural, resource, and labor support for the agri-forestry industrial complex. Indicators of progress toward recommendations made in the *Governor's Rural Challenge: A 10-Year Strategic Plan: Increasing Rural Tennessee's Capacity to Produce* are also discussed (TDA 2013).

Agriculture and Primary Forestry

Agricultural Land Use and Farm Size

In 2016, farming operations utilized 10.8 million acres in Tennessee, around 40 percent of the state's nearly 27 million acres of land area

⁷ Defined as the primary industries typically associated with agricultural and forestry operations such as growing crops, the breeding and feeding of livestock, and the management and logging of trees. Also included in the industrial complex are input-supplying industries and value-added subsectors, which include food and beverage manufacturing, apparel and textiles, and forestry products manufacturing.

(USDA/NASS 2017j). Approximately 49 percent of the farmland in Tennessee was operated as cropland in 2012 (USDA/NASS 2012). Tennessee's farming industry is characterized by two types of farming operations: larger farms that rely primarily on farm income, and small farms, many of which are operated by part-time farmers. Of Tennessee's 66,900 farming operations, average farm size in 2016 was just over 162 acres, smaller than the U.S. average of 442 acres (USDA/NASS 2017j). Tennessee ranks 11th nationally in the number of farming operations (USDA/NASS 2017j).

Tennessee's Crops and Livestock

The 2016 value of cash farm receipts from crops and livestock in Tennessee was just over \$3.3 billion, with \$1.3 billion from animals and \$2.0 billion from crops (Table 2.2). Overall, Tennessee ranks 32nd in the U.S. in cash farm receipts – a rank held since 2011 (USDA/ERS 2017b). The top 10 Tennessee agricultural products in value of cash farm receipts are listed in Table 2.2, along with the state's ranking for each product. In 2016,

Table 2.2: Tennessee Cash Farm Receipts and Share of Commodity Exports, 2011-2016

	Value of Cash Receipts (million \$)						Avg. Annual Growth (2011-2016)	Ranking in US 2016	Share of Commodity Exports 2016
	2011	2012	2013	2014	2015	2016			
All Commodities	3,290	3,743	4,092	4,255	3,675	3,304	0.67%	32	
Crops	1,881	2,225	2,542	2,449	2,109	1,987	1.84%	27	86.80%
Animals & Animal Products	1,409	1,518	1,550	1,806	1,566	1,316	-0.58%	32	13.20%
Tennessee's Top 10 in 2016									
Soybeans	471	575	815	835	745	702	9.94%	16	29.50%
Cattle & Calves	588	746	626	813	693	537	0.68%	25	3.70%
Broilers	454	436	576	598	528	444	0.87%	17	3.40%
Corn	418	532	573	487	397	404	0.65%	18	6.10%
Cotton	311	357	284	236	139	144	-12.01%	11	6.70%
Dairy Prod, Milk	175	157	163	191	139	119	-6.18%	31	1.10%
Hay	91	102	119	126	128	130	7.56%	15	n/a
Wheat	104	147	227	215	138	121	8.47%	18	5.10%
Tobacco	96	111	111	115	117	97	0.77%	4	5.50%
Vegetables & Melons ^a	48	41	54	76	77	32	0.15%	30	0.30%
Exports of All Commodities	1,478	1,482	1,713	1,749	1,466	1,432	<1%	29	

^a Ranking and shares of exports are for vegetables only.

Sources: (USDA/ERS 2017b) (USDA/ERS 2017f).

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

the largest value of cash farm receipts was derived from soybeans, followed by cattle and calves. These were followed in magnitude by broilers, corn, cotton, dairy products, hay, wheat, tobacco, and vegetables and melons. The top 10 commodities in the state accounted for nearly 83 percent of 2016 cash farm receipts. Tennessee ranks in the top 10 states in value of cash farm receipts from tobacco.

Table 2.2 shows cash farm receipts over the past six years. Cash farm receipts from soybeans exhibited 10 percent average annual growth from 2011 to 2016. This can be compared with the U.S. average of 0.5 percent. Others including hay and wheat experienced greater than 5 percent average annual growth. Of the top 10, only cotton and dairy products experienced an overall decline in cash farm receipts from 2011 to 2016. Over this time period, the value of cash farm receipts from all commodities in Tennessee grew by an annual average of 0.67 percent. Average change in cash receipts from the livestock sector were lower for Tennessee at -0.58 percent. Nearly all crops experienced a decline in cash receipts from 2015 to 2016 with the exceptions of corn, cotton, and hay which experienced small increases.

Livestock, Poultry, and Dairy Industries

Based on cash receipts, cattle and calves remain the leading livestock industry in Tennessee followed by broilers, dairy products and milk, eggs, and hogs (USDA/ERS 2017b). Market prices received by producers of livestock and livestock products in the state of Tennessee are greatly influenced by national and international market forces, which influence production of commodities in the state, and thus, cash receipts by commodity.

The dominating forces in the 2017 national livestock, poultry and dairy markets have been production, prices, and international trade. From a production standpoint, federally-inspected beef production through the first three quarters of 2017 totaled 19.2 billion pounds, which is an increase of 4.5 percent compared to the same time period in 2016, while pork production over the same time period totaled 18.7 billion pounds, an increase of 2.9 percent compared to a year ago (USDA/

AMS 2017b). Broiler production totaled 38.6 billion pounds through the first nine months of 2017 representing a 1.2 percent increase compared to 2016 (USDA/AMS 2017d). Similar to meat industries, U.S. milk production the first eight months of 2017 increased 1.6 percent compared to 2016, totaling 145.2 billion pounds (USDA/NASS 2017e).

Increased production in 2017 has led to increased opportunities in the international market. U.S. beef and veal exports from January through August increased 14.5 percent compared to 2016 and totaled 1.84 billion pounds. Pork exports increased 8.9 percent and totaled 3.67 billion pounds through the first eight months of the year. Broiler exports also had year over year increases through August (+3.1 percent) with total exports of 4.47 billion pounds (USDA/ERS 2017d). For dairy, exports of milk and cream, whey and natural milk, cheese and curds, and butter and oil all exceed year-ago levels (US Dairy Export Council 2017).

National production levels and exports influence prices experienced in Tennessee. Calf and feeder cattle prices started 2017 well below year-earlier prices before starting to exceed year-ago prices in May. The relatively weak cattle market the first part of the year and a stronger market the latter parts of the year will result in slightly higher to no change in prices compared to a year ago (USDA/AMS 2017e). Tennessee milk prices through the first eight months of 2017 are 15 percent and 13 percent higher than 2016 for the Appalachian and Southeast Federal Milk Marketing Orders, respectively (USDA/AMS 2017a).

Tennessee ranked 15th nationally in terms of total cattle and calf inventory as of January 1, 2017 (1.83 million head including 909,000 beef cows and 41,000 milk cows), which is unchanged from a year ago. Tennessee continues to rank 12th in total beef cow numbers (USDA/NASS 2017b). The state is ranked 2nd nationally in meat goat numbers at 110,000 head (USDA/NASS 2017c).

The beef, pork, and poultry sectors continue to expand as demand for meat protein remains strong. Cattle herd expansion has slowed relative

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

to the previous three years, but further expansion is expected, as prices remain profitable for cow-calf producers across the country (USDA/NASS 2017b). The pork industry also continues to expand with a significant increase in slaughter capacity during 2017 with another facility scheduled to begin production in the first quarter of 2018.

Row Crop Production

In terms of harvested acreage, Tennessee's four largest row crops are corn, cotton, soybeans and wheat. Based on 2016 national cash receipts by commodity, Tennessee ranks 18th in corn production (0.9 percent of U.S. total—down from 17th the previous year); 11th in cotton production (2.4 percent of U.S. total—down from 10th the previous year); 16th in soybean production (1.9 percent of U.S. total—down from 15th the previous year); and 18th in wheat production (1.4 percent of U.S. total—the same rank as the previous year) (USDA/ERS 2017b).

Harvested acreage, production and yield from 2012 to 2017 for the four, principal row crops are shown in Table 2.3. In 2017, harvested acreage for Tennessee row crops were estimated to be 1.66 million acres of soybeans, 705,000 acres of corn, 275,000 acres of wheat, and 340,000 acres of cotton. Soybean acreage was up 2 percent from

2016 but was 7 percent above the previous five-year average; corn acreage was down 15 percent compared to 2016 and the five-year average; cotton acreage was up 36 percent from 2016 but 34 percent above the five-year average; and wheat acreage was down 18 percent from 2016 and was 35 percent lower than the five-year average (USDA/NASS 2017f). State average wheat and cotton yields for 2017 were estimated to be down slightly from last year's all-time records at 70 bu/acre and 1,045 lbs/acre, respectively. Corn (170 bu/acre) and soybean (50 bu/acre) yields are estimated at all-time records for Tennessee. Excellent growing conditions and timely rains aided farms after last year's drought. Compared to 2016, 2017 total production levels of soybeans and cotton in Tennessee increased an estimated 13 percent and 29 percent, respectively, due to greater harvested area and above-average yields. Reduced corn acreage was partially offset by higher yields, resulting in a net decrease in production of 4 percent. Total wheat production decreased 21 percent due to reduced harvested acreage and lower yields (Table 2.3; (USDA/NASS 2017f).

Prices received by Tennessee producers are influenced by local, national and global market forces. Nationally, U.S. producers experienced five consecutive, above-trend-line national average yields. Record crop production has been achieved

Table 2.3: Tennessee Harvested Acres, Production, and Yield for Corn, Cotton, Soybeans, and Wheat, 2012-2017

Year	Corn			Cotton			Soybeans			Wheat		
	Harvested Acres (million)	Production (million bu)	Yield (bu/acre)	Harvested Acres (million)	Production (480 lb bales)	Yield (lbs/acre)	Harvested Acres (million)	Production (million bu)	Yield (bu/acre)	Harvested Acres (million)	Production (million bu)	Yield (bu/acre)
2012	0.96	81.6	85	0.377	743,000	946	1.23	46.7	38	330,000	20.8	63
2013	0.81	126.4	156	0.233	414,000	853	1.55	72.1	46.5	575,000	40.8	71
2014	0.84	141.1	168	0.27	494,000	878	1.61	74.1	46	475,000	31.4	66
2015	0.73	116.8	160	0.14	305,000	1,046	1.72	79.1	46	395,000	26.9	68
2016	0.83	125.3	151	0.25	575,000	1,075	1.63	73.4	45	335,000	24.4	73
2017*	0.705	120	170	0.34	740,000	1,045	1.66	83	50	275,000	19.3	70
5-Year Avg.	0.834	118.2	144	0.254	506,200	965	1.55	69.1	44	422,000	28.9	68
Change 5-Year Avg. to 2017	-15%	1%	18%	34%	46%	8%	7%	20%	13%	-35%	-33%	3%
Change 2016 to 2017	-15%	-4%	13%	36%	29%	-5%	2%	13%	11%	-18%	-21%	-4%

*Estimated.

Source: (USDA/NASS 2017f).

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

through higher yields, as a result of improved production technologies and farm management, and beneficial growing conditions for most of the nation's primary row crop production regions. In the summer of 2017, the Northern Plains experienced severe drought, although the impact on national corn and soybean production was limited. Although spring wheat production was most affected by the drought, record global wheat production and large U.S. stocks have resulted in a negligible price response. In recent years, global production of corn, cotton, soybeans, and wheat have outpaced demand. As a result, substantial global reserves have been built, depressing global prices. In spite of large global supplies, U.S. exports continue to be a major factor in determining farm gate prices for U.S. row crop producers. For the 2017-2018 marketing year, exports are projected to be 13 percent, 69 percent, 51 percent, and 56 percent of total U.S. corn, cotton, soybean and wheat production, respectively (USDA/OCE 2017). Compared to peak prices in 2012, Tennessee's 2016 marketing year-average farm gate prices for corn, cotton, soybean and wheat are down 50 percent, 5 percent, 33 percent and 33 percent, respectively (USDA/NASS 2017h). Tennessee price decreases are indicative of national and global price trends. Since 2014 row crop profit margins have tightened substantially with many producers suffering from low or negative net returns. Record corn and soybean yields in 2017 will assist farm's bottom lines but low prices will eliminate the possibility of a financial windfall.

Safety Net Payments

The Agricultural Act of 2014 provided dramatic changes to the three key components of the federal government's safety net for row crop farmers – 1) commodity programs, 2) conservation programs, and 3) crop insurance. Commodity program payments to Tennessee producers for the 2016 crop year (payments received by producers in the 2017 calendar year) were \$59.8 million from Agriculture Risk Coverage (ARC) and \$7.5 million from Price Loss Coverage (PLC), up substantially from 2015 (\$40.3 million for ARC and \$3.6 million

for PLC). The increase in payments to producers is indicative of the dramatic decreases in commodity prices and producer profitability compared to the previous five years (USDA/FSA 2016a). Payments under the ARC program are likely to decrease for the 2017 crop year and substantially for the 2018 crop year due to sustained low prices reducing the five-year Olympic average and reducing the ARC revenue benchmark.

Conservation programs provide producers with options on how to manage land and environmental resources on their farms. The two most utilized conservation programs in Tennessee are the Conservation Reserve Program (CRP) and the Environmental Quality Incentives Program (EQIP). For 2016 through 2030, Tennessee has 140,355 acres enrolled in the CRP program. The counties with the most acres enrolled are Fayette (13,337), Haywood (10,649), and Carroll (9,649) (USDA/FSA 2016b). In 2016, the EQIP program had total obligations (payments and cost share) to Tennessee producers of \$35.5 million, up 32 percent from 2015 (USDA/NRCS 2017). Federal crop insurance continues to be an important risk management tool for Tennessee producers to protect against price, revenue, and production risk during the growing season. For the 2017 crop year, 24,489 policies were sold covering liabilities of \$990.2 million. Total crop insurance premiums were \$107.7 million (\$72.7 million paid by the federal government and \$35 million paid by producers) (USDA Risk Management Agency 2017).

Looking forward to 2018, substantial changes in domestic farm policy could occur as the next Farm Bill is developed in Congress. Contentious issues that could directly affect Tennessee producers that are likely to emerge in the forthcoming negotiations are: 1) separating nutrition from other Farm Bill titles; 2) interactions between the commodity program, crop insurance, and conservation titles; 3) means testing for crop insurance premium subsidies and/or commodity program payments; and 4) inclusion of cotton in commodity programs.

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

Exports

Exports of agricultural products from Tennessee were valued at just over \$1.5 billion in 2016, with the majority of this coming from crops (86.8 percent). More than 29 percent of the 2016 export value came from soybeans, followed by cotton at 6.7 percent, corn at 6.1 percent, tobacco at 5.7 percent, and wheat at 5.1 percent (Table 2.2). In 2016, major U.S. export destinations by product included China, Mexico, Japan, Indonesia and the Netherlands for soybeans; Vietnam, China, Turkey, Indonesia and Mexico for cotton; Mexico, The Philippines, Canada, Columbia, and Dominican Republic for soybean meal; Switzerland, China, Indonesia, Dominican Republic and Mexico for tobacco; Mexico, Japan, Philippines, Brazil and Nigeria for wheat; and Mexico, Japan, Columbia, South Korea and Taiwan for corn (USDA/FAS 2017).

Commodity Market Trends and Outlook

Livestock, Poultry, and Dairy Outlook

U.S. beef, pork, and poultry protein production will continue to increase in 2018. Increased domestic production will result in an increased reliance on the export market to support prices as the domestic market will be saturated with meat protein. It will be important in coming years for the U.S. to establish more favorable trade agreements with major export partners such as Japan and China. Additionally, it will be important for North American Free Trade Agreement (NAFTA) renegotiations to progress successfully to avoid interruptions in trade with our two largest trade partners. Regardless, the export market will be integral to growth or contraction in meat protein and dairy product industries.

Prices are expected to be lower across the meat and dairy complex in 2018 due to increased production. Increased exports could alleviate some of the price decline, but failure to negotiate more favorable trade agreements could increase the downward pressure on prices. There are likely to be more dairy producers that exit the market due to reduced margins. Most of these producers

will be small producers that have poor economies of scale relative to larger dairies. Poultry is likely to continue expanding in 2018 as profit margins continue to be positive. Poultry production may slow if beef and pork prices soften significantly. In order to maintain positive profits, producers in the state will have to increase marketing flexibility, perform value added production practices, and manage production and overhead costs.

Row Crops Outlook

State record average yields for corn and soybeans in Tennessee in 2017 will aid farmer profitability, however low national prices and a weaker basis (driven by increased supply in Tennessee) will limit producer profitability in 2017 and 2018 as producers market the 2017 crop. Prices and producer profitability are unlikely to improve substantially without a major production disruption at home or abroad. For the 2017 crop, Tennessee farm-gate prices are projected to be: \$3.50-\$4.75 for wheat; \$3.00-\$4.00 for corn; \$8.50-\$10.50 for soybeans; and \$0.60-\$0.75 for cotton. Key factors for producer profitability in 2018 include: herbicide resistant weeds, adverse weather events, access to financing, interest rates, exchange rates, regulations and policies, trade agreements, and national and global economic growth. Given multiple years of low to negative margins, it is likely that some producers will exit the agricultural industry in the upcoming year. Consolidation in the row crop industry and associated agricultural service sectors remains likely as high cost producers exit the industry.

Agricultural Trade Policy Outlook

According to USDA-Foreign Agricultural Service (FAS), in 2016, the U.S. exported \$27.7 billion of soybeans and soybean products globally (\$14.3 billion were exported to China). The U.S., as the world's largest cotton exporter, currently ships \$3.9 billion of cotton to global markets. Of that, \$1.36 billion was shipped to Southeast Asia (Vietnam, Indonesia, Thailand, Malaysia, Philippines, and Singapore) and \$553 million to China. U.S. wheat exports totaled \$5.35 billion,

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

down 5 percent from the previous year. Mexico and Japan were the largest market for U.S. wheat exports, estimated at \$611 and \$610 million, respectively, in 2016. U.S. corn exports totaled \$9.89 billion in 2016, up 19.6 percent from 2015.

U.S. agricultural exports would likely have benefited from a reduction in trade barriers and preferential tariff treatment if the current administration would have signed the Trans Pacific Partnership (TPP). New bi-lateral or multi-lateral trade agreements have the potential to provide the U.S. with improved market access and lower tariffs, thus increasing the competitiveness of U.S. agricultural exports to the world and specifically Southeast Asia. Many exporting countries (Brazil, Argentina, Australia, Canada, and Russia) that compete with U.S. agricultural exports have trade agreements or are in the process of negotiating trade agreements with countries in Southeast Asia to improve market access and/or lower tariffs on agricultural exports. Notably, China, Japan, and India have already ratified preferential trade agreements with several countries. Should the U.S. not pursue similar trade agreements, U.S. producers and agricultural exporters could have a substantial competitive disadvantage.

Any changes to existing trade agreements and/or new trade agreements negotiated by the current administration could have important implications for Tennessee's agricultural exports. Currently, there is a great deal of uncertainty about the administration's trade agenda and its potential impacts on agriculture, particularly NAFTA negotiations. Overall, U.S. agriculture relies heavily on export markets as a demand draw for raw and processed agricultural products. As such, reduced tariffs on agricultural products make U.S. commodities and products more competitive in foreign markets. Particularly important to U.S. agricultural exports are neighboring countries (Canada and Mexico) and countries with large populations and an emerging middle class, i.e., China, India, Indonesia, and potentially several countries in Sub-Saharan Africa

Infrastructure

On-farm capacity has continued to increase over the past five years. Tennessee's on-farm grain storage capacity in 2016 was 95.0 million bushels, a 5 percent increase from the previous year and more than 26 percent growth compared to the level in 2011 (USDA/NASS 2017a). In addition, off-farm storage facilities including all elevators, warehouses, terminals, merchant mills, other storage, and oilseed crushers provided 70 million bushels of storage capacity in 2016, a 6 percent increase from 2015. Cumulatively from 2011 to 2015, the Tennessee Agricultural Enhancement Program (TAEP) invested more than \$75.6 million in 25,905 farm projects, ranging from genetics and livestock equipment to commodity storage and specialty crops (TDA 2017). These investments were matched with farmer investments to total nearly \$203 million over this time frame. Two TAEP focus areas aimed at helping build hay and grain storage have invested \$25.9 million in hay storage and \$8.4 million in grain storage cumulatively from 2012 to 2016. Coupled with matching farmer investment in projects for hay and grain storage through TAEP, investment totaled \$66.8 million for hay storage and \$33.6 million for grain storage.

Transportation networks play an important role in moving agricultural products from producers to markets in Tennessee. Truck transportation continuously dominates grain and oilseed transportation among all modes in the nation, accounting for about 62 percent of total grain and oilseed shipment in 2014 (Gastelle 2017). Barge transportation remained the most utilized mode for grain exports, composing 48 percent of total shipment of grain exports. In general, 76 percent of all goods delivered from and to Tennessee are carried by trucks annually. The state's roadways were exclusively funded by the "pay-as-you-go" strategies, which is not keeping up with the expected demand. The road systems were graded as "C+" in the American Society of Civil Engineering 2017 Infrastructure Report Card (ASCE 2017), same as last year. Nearly one-quarter of Tennessee's major

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

locally- and state-maintained urban roads and highways have pavements rated in poor or mediocre condition (TRIP 2017). It is estimated that the deteriorated road system cost Tennessee drivers an additional \$1.3 billion annually, including accelerated vehicle depreciation, additional repair costs, and increased fuel consumption and tire wear (TRIP 2017). Budget cuts and depleted funds in the federal Inland Waterway Trust Fund continued to adversely affect Tennessee's water transportation infrastructure, which received a grade of "C-" in the 2017 Report Card (ASEC 2017). In April 2017, Governor Bill Haslam signed the IMPROVE Act, which aims to address the backlog of 962 projects across the entire state (Sher 2017). The bill raises gas and diesel taxes by 6 cents and 10 cents, respectively, for three years and increases several user fees to provide about \$350 million for the state's dedicated highway fund and local roads and bridge maintenances.

Farmers Markets, CSA's, Wineries, and the Green Industry

Farmers Markets, Food Hubs, and CSA's

Direct marketing by farmers has been on the rise in Tennessee, spurred in part by the "local foods" movement. As of 2017, Tennessee has 129 farmers markets, compared with only 99 in 2013 (USDA/AMS 2016). Farmers markets have become diversified in their offerings (numbers in parentheses indicate the numbers of markets offering each product) to include products such as meat (71), eggs (41), poultry (36), dairy products (43), baked goods (68), honey (83), crafts (61), cut flowers (66), container plants (61) and other food products. Community supported agriculture (CSA) and food hubs are other expanding components of local foods markets, both nationally and in Tennessee. Tennessee currently has two food hubs, one in Memphis and one in Nashville. According to USDA's National Community Supported Agriculture directory, in 2017, the state has 21 CSAs, primarily in the Nashville area and to a lesser extent in the Knoxville and Memphis areas (USDA/AMS 2017c). As of the last Census of

Agriculture, Tennessee has 616 agritourism venues. These venues range in variety and include corn and hay mazes, cut-your-own Christmas trees, farm tours, pick-your-own fruit and vegetables, pumpkin patches, weddings, festivals, fairs and museums.

According to the Census of Agriculture, grape acreage in Tennessee increased from 580 to 905 acres (56.0 percent increase) between 2007 and 2012. Percentagewise, this increase in acreage compares favorably to national and neighboring states. Georgia had the largest percentage of grape acreage that was bearing age at 90.5 percent, with Tennessee being the smallest at 71.3 percent. For all states, the average percentage of grape acreage that was bearing age was 79.4 percent. Excluding the top three states having the largest percentage of bearing-age acreage (Georgia, Virginia and Alabama), the average is 76.1 percent (Hughes 2016)(USDA/NASS 2012)).

For 2015, Tennessee's wine industry was valued at \$124.4 million and was ranked fourth in economic activity in the Southern Region. The states of Virginia, North Carolina and Missouri had larger economic activity for their wineries at \$630.8 million, \$364.8 million, and \$251.3 million, respectively. Wineries for Georgia, Kentucky, South Carolina, Arkansas, Alabama and Mississippi had smaller economic activity than Tennessee.

Out of the 95 counties in Tennessee, 43 have at least one winery, with a major concentration found in Sevier County, which, as of 2015, hosts eight (12.8 percent of the listed total) of the reported wineries. There is a concentration (geographical clustering) of the industry centering on Sevier County and nearby counties and, in a more general manner, in central Tennessee. The clustering of wineries has possible benefits for future growth of the industry at the state and regional (sub-state) levels (Hughes et al., 2016). A wine trail is a group of connected wineries and other businesses on a roadway that market jointly, and an American Viticulture Area (AVA) is a region officially designated as having a distinctive terroir (such as Napa Valley). The number of wine trails in the state continues to grow. Tennessee also has a

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

recently designated AVA, and plans are being made for developing at least two more.

In 2014, Tennessee had 331 nursery operations, with a total of \$128.7 million in nursery stock sold. The majority of the sold nursery stock was container grown at \$66.4 million, followed by balled and burlapped (\$43.6 million), bareroot (\$18.3 million), and other (\$0.4 million) nursery products. Compared to other states in the U.S., Tennessee was ranked seventh in total sales of nursery stock, preceded by the states of California, Florida, Oregon, North Carolina, Texas and Ohio. The state was ranked sixth in numbers of nursery operations, preceded by the states of Florida, California, Oregon, North Carolina and Pennsylvania. Major nursery categories include broadleaf and coniferous evergreens, deciduous shade and flowering trees, deciduous shrubs, fruit and nut plants, and ornamental grasses. For 2014, the largest number of nursery producers grew deciduous flowering trees (227 producers), deciduous shade trees (192 producers), and broadleaf evergreens (187 producers) (See Table 2.4). Deciduous flowering and shade trees also had the largest total sale values for this time frame, \$35.9 million and \$32.8 million, respectively. For numbers sold in 2014, fruit and nut plants had the largest number sold (3.6 million), followed by deciduous flowering trees (3.0 million), broadleaf evergreens (1.9 million), deciduous shrubs (1.4 million), deciduous shade trees (1.3 million), and

coniferous evergreens (0.9 million). Comparing gross sales for 2009 and 2014, fruit and nut plants had the largest increase at 31.1 percent, followed by deciduous flowering trees at 3.6 percent. The rest of the nursery categories experienced declines in total sales, with coniferous evergreens having the largest decline at 45.1 percent, followed by deciduous shrubs at 44.1 percent (USDA/NASS 2017i).

Financial Indicators for Tennessee Farming Industries

During the 2011-2016 time period, Tennessee farmers' gross income peaked in 2013 at an estimated \$5.1 billion (Figure 2.14). Of that value, \$2.7 billion and \$1.5 billion were from crop and livestock production, respectively. The balance was derived from other farm activities and government payments. Likewise, net farm income of \$1.4 billion was also the largest in 2013. In 2016, net farm income for Tennessee was estimated at \$0.2 billion, the smallest value for the six-year time frame evaluated (2011-2016).

Several measures can be used to indicate the financial well-being of farms and farm operators in Tennessee. Table 2.5 presents financial data from 2011-2016 for the Tennessee farming sector. In 2016, the value of farm production declined to just below \$4.0 billion in 2016 from nearly \$4.6 billion in 2015 (USDA/ERS 2017c). Net cash farm income was \$194 million in 2016, a sharp decline

Table 2.4: Comparison of Tennessee Nursery Statistics, 2009 and 2014

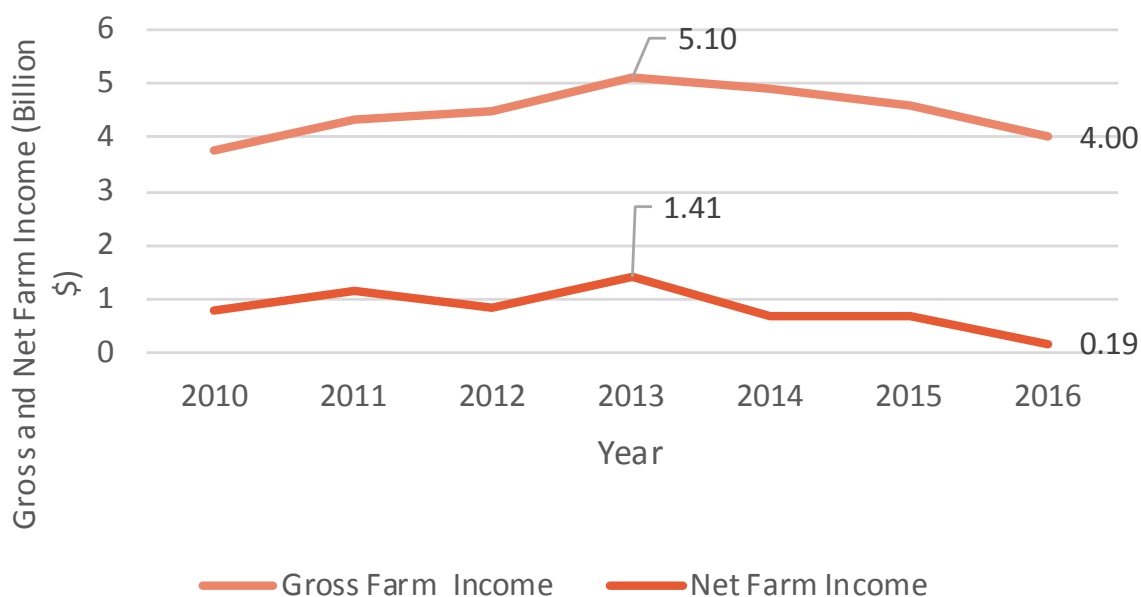
Category	Producers		Sold		Total Sales		Change
	2009	2014	2009	2014	2009	2014	
	Number	Number	Number (1,000)	Number (1,000)	\$1,000	\$1,000	
Broadleaf evergreens	200	187	2,575	1,914	21,125	17,676	-16.3
Coniferous evergreens	188	162	1,584	957	21,855	12,001	-45.1
Deciduous shade trees	199	192	1,813	1,326	38,882	32,877	-15.4
Deciduous flowering trees	223	227	2,375	3,025	34,679	35,922	3.6
Deciduous shrubs	189	175	2,386	1,395	19,041	10,635	-44.1
Fruit & nut plants	69	68	2,648	3,646	11,368	14,902	31.1
Ornamental grasses	68	67	-- ^a	-- ^a	-- ^a	2,336	

^aData not disclosed.

Source: (USDA/NASS 2017i).

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

Figure 2.14: Tennessee Gross and Net Farm Income: 2010-2016



Source: ERS/USDA. 2017c.

Table 2.5: Indicators of Financial Well-Being of the Tennessee Farm Sector, 2011-2015

	2011	2012	2013	2014	2015	2016
Value of Production (mill \$)	\$4,343	\$4,485	\$5,101	\$4,885	\$4,567	\$3,997
Net Farm Income (mill \$)	\$1,175	\$866	\$1,414	\$688	\$711	\$194
Interest Expense (mill \$)	\$214	\$200	\$179	\$146	\$196	\$208
Market Value of Farmland, Buildings, and	\$37,908	\$38,368	38,913	\$39,240	\$39,785	\$40,330
Capital Consumption (mill \$)	\$412	\$603	\$656	\$867	\$742	\$791
Total Expenses (mill \$)	\$3,180	\$3,672	\$3,743	\$4,204	\$3,824	\$3,825
Ratios						
Net Farm Income Ratio	0.27	0.19	0.28	0.14	0.16	0.05
Capital Consumption Ratio	0.1	0.14	0.14	0.19	0.17	0.21
Operating Expense Ratio	0.58	0.62	0.56	0.63	0.62	0.69
Interest Expense Ratio	0.06	0.05	0.04	0.04	0.05	0.06
Times Interest Earned	5.7	4.61	8.4	4.41	4.39	1.87

Sources: (USDA/ERS 2017c). (USDA/NASS 2017d).

*Excludes operator dwellings.

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

from more than \$700 million in 2015. For 2016, this averaged \$2,916 per operation and \$17.98 per acre. The *net farm income ratio* (net farm income/value of production) during 2011 to 2016 ranged from 5 to 28 percent efficiency in converting production to net farm income, with a decline from 16 percent in 2015 to 5 percent in 2016.⁸ The *interest expense ratios* for the farming sector reflect a low debt burden and interest payment level relative to production (4 to 6 percent). *Times interest earned* reflects interest payments. For all years, the values are greater than one, implying sufficient cash to meet interest payments, and in 2016 the value was 1.87. The state's *capital consumption ratio*, or the percent of production needed to cover the sector's capital consumption, was relatively low for the 2011 to 2016 period, ranging between 10 to 21 percent. In 2016, the state's farming sector had an *operating expense ratio* of 0.69, suggesting 69 percent of the value of production was used to cover operating expenses. The 2016 estimated market value of land and buildings on farms was \$40.3 billion or around \$605,555 per farm in Tennessee. The 2016 overall value is up from the 2015 value of \$39.8 billion.

While Tennessee has 66,600 farms, which, on average, are relatively small at around 162 acres, a relatively few larger farms comprise the majority of farm sales (USDA/NASS 2017k). According to the 2012 Census of Agriculture, less than half of Tennessee farmers indicate farming as their principal occupation. This reflects the critical importance of other sources of rural income to economic sustainability of Tennessee's agricultural sector. More than 30 percent of Tennessee farmers are age 65 and older, while less than 8 percent of principal operators are beginning farmers, with less than five years of farming experience.

Primary Forestry in Tennessee

In 2015, the state's 136 sawmill establishments employed 2,040 workers with a total payroll of \$69.8 million, while the state's

141 logging establishments employed 829 workers with a total payroll of \$26.8 million (US Census Bureau 2016). From 2011 through 2015, average annual growth rates in employees, payroll, and establishments for sawmills (NAICS 321113) were 1.4 percent, 6.2 percent, and -4.8 percent, respectively. For logging (NAICS 1133), the average annual growth rates over the same period were 3.7 percent, 6.2 percent, and -0.02 percent, respectively, for employees, payroll, and establishments. According to the U.S. Forest Service's Forest Inventory and Analysis Program, an estimated 1.4 billion board feet of sawtimber trees were removed from Tennessee (international 1/4 inch rule) in 2014 (USFS 2016). Between 2009 and 2014, the average annual change in sawtimber removals was -2.8 percent. Roughly 88.1 percent of the removals were from privately-owned lands, followed by state (20.8 million board feet) and other federal entities (15.3 million board feet). For privately-owned lands, white and red oaks, yellow poplar, loblolly/shortleaf pines, and hickory were the predominant species removed (USFS 2016).

Food, Fiber, and Forestry Manufacturing in Tennessee

Value of Shipments, Number of Establishments, and Employees

The state's 1,651 food and fiber processing and manufacturing facilities employed 78,001 workers, with a payroll of \$3.5 billion in 2015 (Table 2.6). The value of shipments originating from these industries was \$37.7 billion (U.S. Census Bureau, 2015). By comparison, the state's overall manufacturing employment was 302,727 workers in 2015 and the value of shipments was \$144.7 billion. Thus, food- and fiber-related manufacturing in Tennessee employed close to one in four manufacturing workers and generated nearly \$1 out of every \$4 in manufacturing shipments. Food processing accounted for 53.2 percent of the values of food- and fiber-related manufacturing shipments, followed by beverage and tobacco products at 15.0 percent and paper products at 14.8 percent.

⁸ USDA's Economic Research definitions of farm sector financial ratios were used. A description of these can be found at <http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/documentation-for-the-farm-sector-financial-ratios/>

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

Table 2.6: Tennessee Food, Fiber and Forestry Manufacturing, 2015^a

Manufacturing Industry (NAICS)	Employees	Payroll	Establishments	Value of Shipments
	(number)	(mill \$)	(number)	(mill \$)
Food (311)	35,581	\$1,624	335	\$20,090
Animal Slaughtering/ Processing (3116)	10,727	\$365	63	\$3,484
Beverage & Tobacco Products	3,303	\$202	122	\$5,660
Textile Mills (313)	2,433	\$107	47	\$899
Textile Product Mills (314)	1,893	\$68	133	\$525
Apparel (315)	2,774	\$81	91	\$302
Leather & Allied Products (31)	509	\$14	28	\$48
Wood Products (321)	10,745	\$399	455	\$2,615
Paper (322)	10,471	\$632	132	\$5,595
Furniture & Related Products	10,292	\$396	308	\$2,012
Total	78,001	\$3,523	1,651	\$37,745

^a Values for animal slaughtering and processing are imbedded in food manufacturing (311) values.

Source: U.S. Census Bureau 2015.

Figure 2.15 displays the growth in value of shipments from 2011 through 2015 for Tennessee's food, beverage and tobacco products manufacturing (NAICS 311 and 312 combined); and wood, paper and furniture products (NAICS 321, 322, and 337 combined). Food, beverage and tobacco products experienced growth until 2014, when the value of shipments declined by 3.9 percent. From 2011 to 2015, this industry grouping realized 4.1 percent average annual growth. During this same time frame, forest products manufacturing experienced a similar average annual growth of 4.1 percent.

The location quotients (LQ) displayed in Figure 2.16 reflect the concentration of Tennessee's agri-forestry manufacturing compared with the U.S., based upon 2015 value of shipments and labor.⁹ An LQ greater than one indicates Tennessee's manufacturing is more concentrated in that particular manufacturing industry than

the national average. For value of shipments, the state's manufacturing is more concentrated in beverages and tobacco (1.39), paper (1.16), textile mills (1.13), furniture (1.05) and wood products (1.03) compared to the national average. However, for food manufacturing, the LQ is less than one (0.99). For labor, only the paper, furniture and wood product industries have LQs greater than one, suggesting that Tennessee's manufacturing industries' labor is more concentrated in these industries than the national average.

Economic Impacts from the Agri-forestry Industrial Complex

In 2015, the agri-forestry industrial complex directly contributed (without multiplier effects) \$52.4 billion in economic activity to the state's economy, adding 173.6 thousand jobs (Menard, English and Jensen 2016). The agri-forestry industrial complex contributed \$14.1 billion in value-added. When accounting for multiplier effects, the agri-forestry industrial complex added \$81.8 billion to Tennessee's economy or 12.8 percent of the state's economic activity, accounting

⁹ LQs measure a region's industrial specialization relative to a larger geographic unit (usually the nation). An LQ is computed as an industry's share of a regional total for some economic statistic (in this case, value of shipments) divided by the industry's share of the national total for the same statistic (Bureau of Economic Analysis (BEA) 2016).

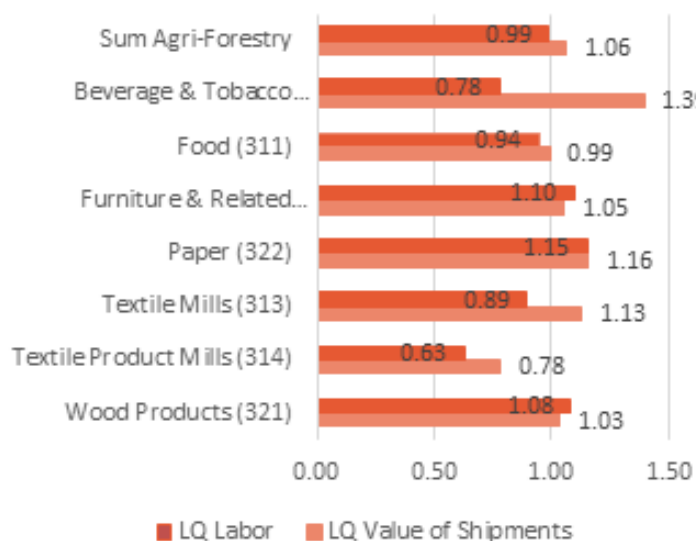
2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

Figure 2.15: Value of Shipments from Tennessee Agri-Forestry, 2011-2015



Source: Annual Survey of Manufacturers.

Figure 2.16: Tennessee Agri-Forestry Manufacturing Location Quotients (LQ), 2015



Source: Annual Survey of Manufacturers.

for 351.2 thousand jobs or 9.2 percent of all jobs. Agriculture, with multiplier effects, accounted for 9.0 percent of the state's economy and generated \$57.6 billion in output, adding close to 250,000 jobs, with more than 96,000 employed (both full- and part-time) directly in agricultural production.

Rural Economies and Well-Being

The health of rural communities and viability of their resources are important to the agri-

forestry complex. In 2016, about 14.4 percent of Tennessee's population lived in counties classified as rural.^[10] Rural counties had 2016 average populations of 21,189, while counties not classified as rural had average populations of 111,591 (Table 2.7). Comparing 2016 with 2010, rural

10 The above analysis defines rural using the ERS/USDA Rural/Urban Continuum categories of Non-metro - Urban population of 2,500 to 19,999, adjacent to a metro area; Non-metro - Urban population of 2,500 to 19,999, not adjacent to a metro area; Non-metro - Completely rural or less than 2,500 urban population, adjacent to a metro area; and Non-metro - Completely rural or less than 2,500 urban population, not adjacent to a metro area (USDA/ERS 2017e).

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

Table 2.7: Population, Household Income, Education Level, Unemployment, Poverty and Food Stamp/SNAP Across Rural County Status, Tennessee

Measure	Rural	Not Rural
Average Population, 2016	21,819	111,591
Population Change, 2010-2016	-0.33	3.53
Median Household Income, 2011-2015 (2016\$)	\$34,157	\$44,232
Persons 25 and Over Completing College, 2011-2015 (Percent)	12.5	19.9
Unemployment Rates Among Population 16 Years and Over, 2015 (Percent)	8.6	10.5
Poverty Rate, 2016 (Percent)	21.2	16.7
Percent Households Receiving Food Stamps/SNAP, 2011-2015	22.4	17.9

Sources: (USDA/ERS 2017a, e); (US Census Bureau 2017a,b).

counties experienced a slight population decline, while counties not classified as rural averaged 3.53 percent growth. As seen in Table 6, rural counties experience lower household incomes, lower percentages of college graduates, higher unemployment, poverty, and rates of households receiving Food Stamps/SNAP.

Governor's Rural Challenge

Four recommendations were made as part of *The Governor's Rural Challenge* for Tennessee agriculture (TDA 2013). These recommendations were:

1. Advance agriculture, natural resources, and rural infrastructure as Tennessee business priorities;
2. Ensure a positive and predictable policy and regulatory environment;
3. Expand market opportunities for Tennessee producers and encourage new production; and
4. Increase the scope and depth of a skilled and educated workforce through career, technical, and higher education.

Several indicators of progress toward meeting these recommendations are listed in Table 2.8. For *Recommendation 1*, indicators exhibiting positive movement included reduction in the percentage of cropland that is idled (comparing 2012 to 2007 Census of Agriculture), nearly

20 percent growth in an index of major crop yields from 2011 to 2016, and a 27 percent increase in grain storage capacity. Compared with 2011, investment in the TAEP to assist with technological and infrastructural improvements in the state's agriculture is 6.71 percent higher (see *Recommendation 2*).

Positive indicators toward *Recommendation 3* include growth in economic activity from the food and beverage processing industries, growing by nearly 5 percent in real terms between 2013 and 2015. While economic activity from food and processing increased, economic activity from farming and associated activities declined. The share of agricultural commodities exported out of state declined by 3.44 percent between 2013 and 2015; however, the percentage of imported inputs used in food and beverage processing increased by 3.56 percent. Under *Recommendation 4*, two indicators reflect positive progress toward building a skilled and educated agricultural workforce. The Master Producer programs have certified, in total, more than 18,000 producers since 1993. Four-year agricultural degrees awarded increased from 670 per year in 2013/2014 to 819 in 2015/2016, a 22.24 percent increase.

Summary

In 2015, the agri-forestry industrial complex directly and indirectly contributed \$81.8 billion to

2.5. Tennessee's Agricultural and Forest Industries and Rural Economy, continued

Table 2.8: Scorecard of Progress toward Governor's Rural Challenge Recommendations for Tennessee Agriculture

Indicator	Comparison		Percent Change	Goal	Strategic Plan Recommendation
	Year	Base Year			
	2012	2007			
Percent of Cropland that is Idled (%)	6.06%	6.88%	-0.83%	Decrease	1
	2016	2011			
Index of Crop Yield Per Acre (6 major crops) ^a	119.47	100	19.47%	Increase	1
	2016	2011			
Storage Capacity (mill bu)	95	75	26.67%	Increase	1
Tennessee Ag Enhancement Program Expenditures (TAEP) (mill \$)	\$15.09	\$14.14	6.71%	Increase	2
Inflation Adjusted Values by CPI (1982-1984=100)	\$14.18	\$14.14	0.26%	Increase	
	2015	2013			
Economic Activity from Farming and Associated Activities (Million \$)	\$4,423	\$4,694	-5.77%	Increase	3
Inflation Adjusted Values ^b	\$4,357	\$4,694	-7.18%	Increase	
Economic Activity from Food and Beverage Processing (Million \$)	\$26,011	\$24,410	6.56%	Increase	3
Inflation Adjusted Values	\$25,624	\$24,410	4.97%	Increase	
	2015	2013			
Percent of Agricultural Commodity Exports to Out-of-State (%)	49.99%	53.24%	-3.44%	Decrease	3
Percent of Food and Beverage Processing Inputs Imported from Out of State (%)	77.05%	73.49%	3.56%	Decrease	3
	2013				
Graduates of Master Producer Programs (Cumulative total since 1993)	18,067			Increase	4
	2015-2016	2013-2014			
Four Year Agricultural Degrees Awarded (No./Yr.) ^c	819	670	22.24%	Increase	4

^a Corn, Cotton, Hay, Soybeans, Tobacco, and Wheat (USDA/NASS 2017g). Yield ratios of 2016 to 2011 for each crop were share weighted by 2016 acres harvested of each crop.

^b The Southern Region CPI values for second year value (Year2 \$Value) were adjusted to the dollars of 2011 by the following formula- Adjusted Year2 \$Value=Year2 \$Value/CPI Ratio. CPI Ratio=CPI (1982-84=100) Year2/CPI (1982-84=100) Year1. The CPI values for 2015 and 2013 were 230.147 for 2015 and 226.721 for 2013, respectively for the Southeast Region using 1982-1984 as the base value. They were 232.692 for 2016 and 218.618 for 2011.

The values for the CPI were obtained from The Bureau of Labor Statistics (US Bureau of Labor Statistics (BLS) 2017).

^c Source: Tennessee Department of Higher Education 2016 (Tennessee Dept. of Higher Education 2016).

the Tennessee economy, accounting for multiplier effects, which was 12.8 percent of the economic activity conducted in the state. The industry employed an estimated 351,164 individuals or 9.2 percent of the total number of workers. Agriculture accounted for 9.0 percent of the state's economy, generated \$57.6 billion in output, and employed close to 250,000 Tennesseans, with more than 96,000 (both full- and part-time) in agricultural production.

In 2016, the commodities drawing the highest cash receipts were soybeans, followed by cattle and calves, broilers, then corn and cotton. In 2016, while the value of commodity production declined, total expenses did not, hence net farm income experienced a sharp decline.

While the shipment value of food, beverage and tobacco products declined in 2014, it increased sharply in 2015. Wood, paper and furniture products continued to increase

through 2015. Location quotients suggest that the state's manufacturing is more concentrated toward beverages and tobacco, paper, textile mills, furniture and wood products compared to the national average. Labor LQs are greater than one for paper, furniture and wood product industries, suggesting that labor in Tennessee's aforementioned manufacturing industries is more concentrated than national averages.

Rural counties and their communities provide important resources including land, labor and infrastructure that help sustain the state's agri-forestry industrial complex. However, rural counties experience lower incomes and educational attainment, and higher unemployment and poverty rates than counties not located in rural areas.

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CHAPTER 3: THE TENNESSEE ECONOMY: LONG-TERM OUTLOOK

In this chapter—

- 3.1. Introduction
- 3.2. Job Growth
- 3.3. Unemployment and Population
- 3.4. Income, Earnings and Output
- 3.5. Workforce Quality
- 3.6. Forecast at a Glance

3.1. Introduction

The previous chapters examined the short-term economic outlooks for the U.S. and Tennessee. The short-term outlooks were based on *cyclical* forecasts, with a focus on the ups and downs of a business cycle such as expansions and recessions. In contrast, this chapter provides a more long term view (10 years ahead) of economic growth in Tennessee. The long-term forecast is based on a *trend* forecast, which relies more heavily on major underlying forces such as population changes and labor force growth. Recessions are not built into the long-term outlook as they are unpredictable by nature. But since the Great Depression the longest gap between two recessions has been 10 years (a recession ended in March 1991 and the next one began in March 2001), it is likely that another recession will occur at some point during the long-term forecast horizon. In addition to the long-term outlook, this chapter provides a retrospective look at economic growth in Tennessee over the last 10 years as well as examines some county and regional differences across the state.

Between 2007 and 2017, inflation-adjusted

gross domestic product (real GDP) grew at a 1.5 percent compound annual growth rate (CAGR) and slightly outpaced national output growth of 1.4 percent per year. Growth over this period was depressed by the Great Recession. Looking ahead 10 years, real GDP is projected to increase by 2.0 percent per year at both the state and national level. This moderate growth forecast assumes only modest gains in productivity. Over the last 10 years, inflation-adjusted personal income grew by 2.0 percent per year in Tennessee and outperformed the nation, which saw income growth of 1.7 percent (CAGR). From 2017 to 2027, inflation-adjusted personal income growth is projected to gain some momentum in Tennessee, growing at a slightly faster 2.1 percent (CAGR) pace. However, national income growth will strengthen even faster, expanding by 2.4 percent per year. As a result, nominal per capita income in Tennessee, which was \$44,504 in 2017, will fall from 88.3 percent of the national average down to only 85.4 percent by 2027.

Employment growth over the last 10 years was slowed due to the Great Recession, but jobs still

3.1. Introduction, continued

grew by 0.8 percent (CAGR) per year in Tennessee, representing an increase of 222,700 workers over the last decade. Between 2007 and 2017, nonfarm employment in the nation grew at a slower pace of 0.6 percent (CAGR) per year, representing an increase of 8.4 million workers. Over the next 10 years, stronger employment growth is projected at both the state and national level. The long-term forecast calls for a 0.9 percent (CAGR) annual

increase in Tennessee employment, and a more sluggish 0.6 percent increase in employment for the nation, representing labor force expansions of 290,500 and 9.7 million respectively. In Tennessee, manufacturing employment will remain relatively flat over the next decade, increasing by 0.01 percent (CAGR) per year, while U.S. manufacturing employment will expand by 0.6 percent (CAGR) per year between 2017 and 2027.

3.2. Job Growth

From 2007 to 2017, nonfarm employment in Tennessee grew by 8.0 percent. This is equivalent to a meager 0.8 percent compound annual growth rate (CAGR), but was still faster than the 0.6 percent compound annual growth rate recorded for the nation over the same time frame. Slow growth during this period was largely due to the Great Recession which started during the fourth quarter of 2007 and continued until the second quarter of 2009. During the Great Recession, the state faced three years of job losses as Tennessee's labor market shed nearly 180,000 jobs from 2007 to 2010. However, starting in 2011 Tennessee has consistently seen labor market gains, and by 2014 nonfarm jobs surpassed their pre-recession peak level from 2007.

Table 3.1 provides a historical view of Tennessee's labor market as well as a forecast of the state's employment outlook 10 years from now. Despite the Great Recession, Tennessee's service sectors saw healthy job growth over the last decade. In fact, in the last ten years nearly all of the state's job growth came from the service sectors. Most notably, from 2007 to 2017 the professional and business services sector grew by 2.6 percent per year and added 92,800 jobs, the education and health services sector expanded by 2.0 percent per year and gained 76,600 employees, and the leisure and hospitality sector grew by 1.8 percent per year, netting 52,900 new jobs. Conversely, Tennessee faced jobs losses in the natural resources, mining, and construction sector, where employment fell by 0.9 percent per year, representing a loss of 12,200 jobs, and the information sector saw job losses of 1.0 percent per year or 4,600 jobs.

Over the last 10 years, employment in Tennessee's manufacturing sector took the biggest hit, as its labor force contracted by an average of 0.9 percent per year, representing a loss of 33,100 jobs. Manufacturing job losses were even worse for the nation as a whole, where employment fell by 1.1 percent per year, representing a loss of 1.5 million manufacturing jobs. Manufacturing employment, both nationally and in Tennessee, has not recovered from the Great Recession, as current manufacturing employment levels are still well below their pre-recession levels from 2007. But at least there has been some growth in the manufacturing sector, with job gains in every year since 2011. At the same time, manufacturing productivity, as measured by output per worker, has steadily risen (Figure 3.1). This trend has largely been driven by technological progress, as manufacturing plants become more automated and rely less heavily on labor-intensive means of production, suggesting a bleak outlook for the manufacturing labor force.

From 2011 to 2016, the sale of industrial robots¹ has increased dramatically, growing by 12 percent per year (CAGR), representing average annual sales of over 200,000 units.² Interestingly, however, the take-up rate of advanced technologies and robotics has not been uniformly distributed across the country. Table 3.2 presents state-level data on industrial robots from Moody Analytics and Brookings, and shows that industrial robots

¹ Industrial robots are defined by the International Federation of Robotics as "automatically controlled, reprogrammable machines," and are only one type of automated technology with the ability to replace labor.

² International Federation of Robotics. Executive Summary World Robotics 2017 Industrial Robots.

3.2. Job Growth, continued

are most heavily concentrated in the Midwestern and Southeastern states. In 2015, Tennessee had the sixth highest robot-to-worker ratio with 4.3 robots per thousand workers, and was only behind Michigan, Indiana, Kentucky, Alabama, and Ohio.

According to the International Federation of Robotics, the automotive manufacturing industry, which has a strong presence in Tennessee, is the largest consumer of industrial robots with a 35 percent share of all (industrial) robot sales in 2016.

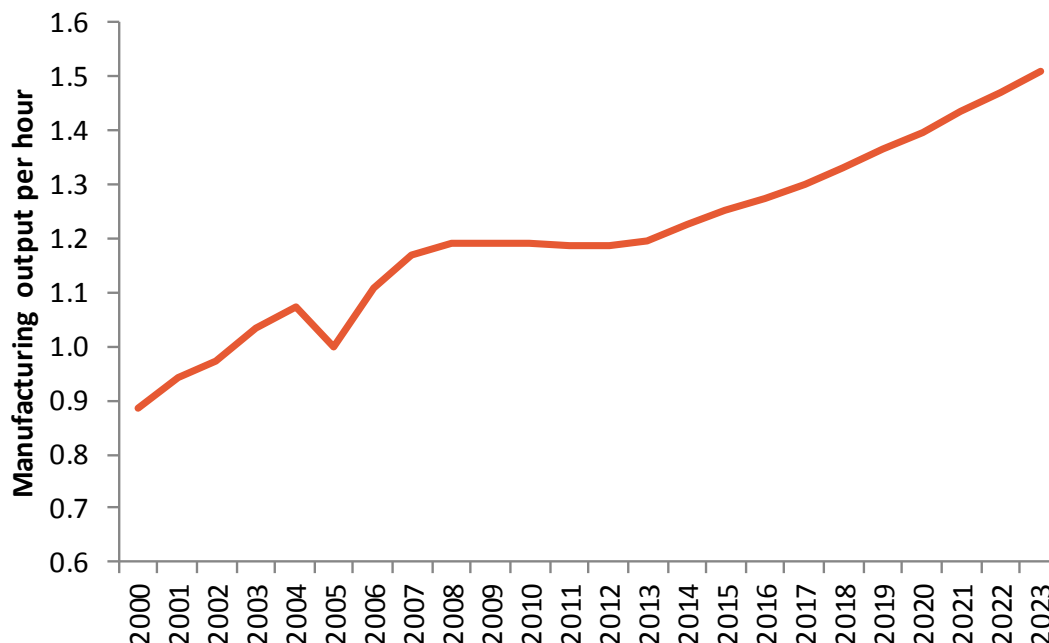
Table 3.1: Nonfarm Employment in Tennessee by Broad Sector (Thousands of Jobs): Shifting Fortunes Since 2007

	Employment			Growth Rate*	
	2007	2017	2027	2007 to 2017	2017 to 2027
Total Nonfarm	2797.7	3020.4	3310.9	0.77%	0.92%
Natural Resources, Mining & Construction	137.7	125.5	143.3	-0.92%	1.33%
Manufacturing	379.9	346.8	347.1	-0.91%	0.01%
Trade, Transportation, Utilities	610.7	627.8	636.5	0.28%	0.14%
Information	50.3	45.6	46.2	-0.97%	0.12%
Financial Activities	144.8	155.6	157.5	0.72%	0.12%
Professional & Business Services	322.8	415.6	541.9	2.56%	2.69%
Education & Health Services	352.7	429.3	512.2	1.99%	1.78%
Leisure & Hospitality	276.2	329.1	357.9	1.77%	0.84%
Other Services	104.0	111.9	116.6	0.74%	0.41%
Government	418.6	433.1	451.9	0.34%	0.43%
US nonfarm (in millions)	138.0	146.4	156.1	0.60%	0.64%
US manufacturing (in millions)	13.9	12.4	13.2	-1.10%	0.61%

*Compound Annual Growth Rate.

Sources: Bureau of Labor Statistics, Boyd CBER-UT, and IHS Markit™.

Figure 3.1: Manufacturing Productivity Continue to Rise



*Compound Annual Growth Rate.

Source: Bureau of Labor Statistics; IHS Markit™; and Boyd CBER-UT.

3.2. Job Growth, continued

Table 3.2: The Use of Industrial Robots is Heavily Concentrated within the Midwestern and Southeastern States, 2015

State	Industrial robots per thousand workers	State	Industrial robots per thousand workers
Michigan	7.4	Connecticut	1.4
Indiana	7.2	Pennsylvania	1.4
Kentucky	5.6	Texas	1.3
Alabama	4.7	California	1.2
Ohio	4.3	West Virginia	1.2
Tennessee	4.3	Virginia	1.1
South Carolina	3.2	North Dakota	1.0
Mississippi	2.7	Massachusetts	1.0
Iowa	2.6	Arizona	0.9
Wisconsin	2.5	Washington	0.9
Missouri	2.1	Rhode Island	0.9
Arkansas	2.0	New York	0.8
North Carolina	2.0	Colorado	0.7
Illinois	2.0	New Jersey	0.7
South Dakota	1.8	Maine	0.7
New Hampshire	1.8	Delaware	0.7
Oregon	1.8	Louisiana	0.6
Nebraska	1.8	Maryland	0.5
Kansas	1.7	Florida	0.5
Utah	1.7	New Mexico	0.5
Idaho	1.6	Montana	0.4
Minnesota	1.6	Nevada	0.4
Vermont	1.5	Wyoming	0.3
Georgia	1.5	Alaska	0.3
Oklahoma	1.5	Hawaii	0.1

Source: Brookings analysis of Moody's Analytics data and International Federation of Robotics.

Table 3.3: Manufacturing Employment by Sector (Thousands of Jobs): Winners and Losers

	Employment			Growth Rate *	
	2007	2017	2027	2007 to 2017	2017 to 2027
Manufacturing	379.9	346.8	347.1	-0.91%	0.01%
Total Durable Goods	237.1	221.0	226.0	-0.70%	0.22%
Wood Products	16.1	12.0	12.9	-2.87%	0.67%
Nonmetallic Minerals	15.5	13.9	14.4	-1.11%	0.37%
Primary Metals	11.7	10.6	10.6	-1.02%	-0.01%
Fabricated Metals	41.5	35.2	34.7	-1.63%	-0.16%
Machinery	32.0	25.6	26.5	-2.21%	0.35%
Computers & Electronics	8.1	4.4	2.7	-5.90%	-4.89%
Electrical Equipment, Appliances & Components	22.1	20.2	20.9	-0.91%	0.37%
Transportation Equipment	58.6	73.8	78.9	2.33%	0.66%
Furniture	16.0	9.5	9.4	-5.04%	-0.16%
Miscellaneous Durables	15.4	15.7	15.1	0.21%	-0.37%
Total Nondurable Goods	142.8	125.9	121.1	-1.26%	-0.39%
Food	32.7	34.7	35.6	0.61%	0.25%
Beverage & Tobacco	5.1	7.0	7.2	3.30%	0.27%
Paper	17.4	14.3	14.0	-1.95%	-0.22%
Printing & Related Support	17.0	9.0	8.7	-6.13%	-0.33%
Chemicals	26.9	25.3	22.5	-0.60%	-1.20%
Plastics & Rubber	26.6	24.2	24.1	-0.93%	-0.07%
Miscellaneous Nondurable Goods	17.2	11.3	9.1	-4.15%	-2.13%

*Compound Annual Growth Rate.

Sources: Bureau of Labor Statistics, Boyd CBER-UT, and IHS Markit™.

3.2. Job Growth, continued

Despite this fact, Tennessee has actually seen some employment gains in transportation equipment manufacturing.

Table 3.3 presents a snapshot of the employment profile in the state's manufacturing sector. Most subsectors within the manufacturing sector saw labor force contractions over the last decade, but transportation equipment manufacturing was one of the few bright spots, with job gains of 2.3 percent (CAGR) or 15,200 new jobs. However, employment growth in this subsector is projected to slow considerably over the next ten years, growing by 0.7 percent per year (CAGR) from 2017 to 2027 and only adding 5,000 new jobs. The relatively weak outlook is in part a reflection of the maturation of the current expansion and the expectation of declining light vehicle sales over the near-to-mid-term outlook.

The electrical and electronics industry has also seen robust growth in robotic sales, up 41 percent from 2015 to 2016, and holding a 31 percent share in the total supply of robot sales in 2016.³ Most of these industrial robots are being sold overseas in the Asian market, but job growth in these manufacturing sectors have still turned negative in Tennessee. Between 2007 and 2017, employment in the computers and electronics manufacturing sector fell by 5.9 percent (CAGR) representing a loss of 3,700 jobs and employment in the electrical equipment, appliances, and components sector contracted by 0.9 percent (CAGR) or 1,900 jobs. Perhaps these job losses, which are seen in the majority of manufacturing sectors, are due to automation and robotics, but globalization and firm consolidation are two other possible culprits. Of course, these explanations are not mutually exclusive; it is likely a mixture of all three along with other possible factors as well.

Over the next decade, nonfarm employment in Tennessee is projected to grow by 9.6 percent, representing a CAGR of 0.9 percent or 290,500 new jobs. This is above the projected 0.6 percent (CAGR) employment growth projected for the nation as a whole. Employment in the professional and business services sector will see the strongest

growth, expanding by 2.7 percent (CAGR) or 126,300 new jobs. The education and health services sector will also see robust job growth of 1.8 percent (CAGR) representing an increase of 82,900 jobs and employment in the natural resources, mining, and construction sector will advance by 1.3 percent (CAGR) or 17,700 new jobs. Conversely, employment will remain relatively flat in the state's manufacturing sector, with only 0.01 percent growth per year representing an increase of only 200 new jobs over the next ten years. As a result, the state will have 32,800 fewer manufacturing jobs in 2027 than there were in 2007.

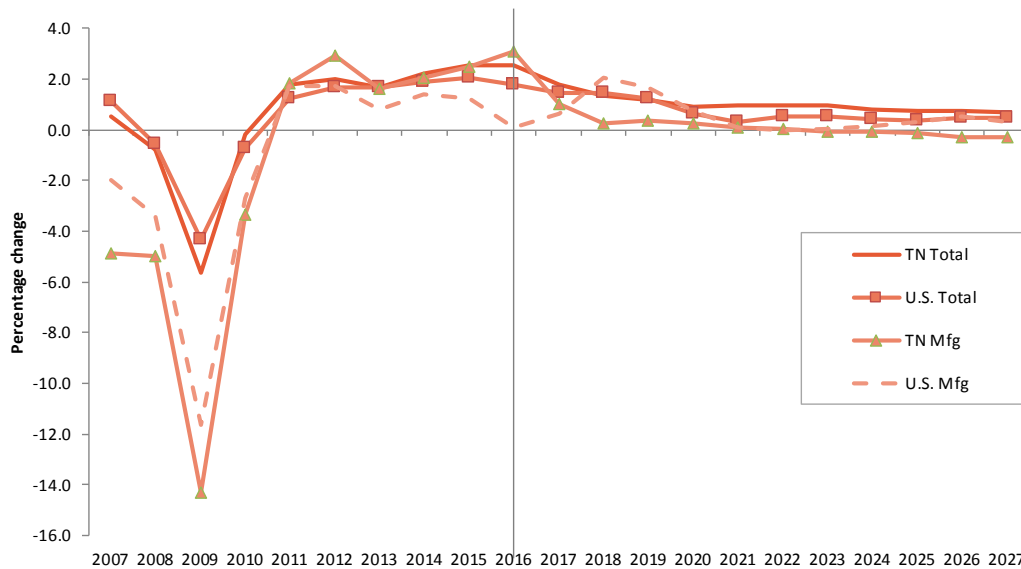
Figure 3.2 presents the projected state and national employment growth patterns over the long-term forecast horizon. Nonfarm employment growth in Tennessee will generally outpace national employment growth over the next 10 years. Manufacturing employment growth in Tennessee is projected to slow through 2021 and then see small contractions in the later years of the forecast, while national manufacturing employment will see healthy growth in 2018, 2019, and 2020, and modest gains thereafter.

Over the last 10 years, the state has seen some decent gains in overall employment, but as one would expect these gains have not been uniformly distributed across the state. Figure 3.3 shows long-run employment growth patterns across all Tennessee counties between March 2007 and March 2017. Lake County, which has one of the smallest workforces in the state (just 1,800 workers), also saw the strongest growth rate over the last 10 years, expanding its workforce by 72.1 percent. However, this only represented a net gain of 757 workers. Williamson County also saw robust employment growth of 51.5 percent, representing a more substantial addition of 43,200 new workers. In total, there were 57 Tennessee counties to see some positive employment growth over the last 10 years. Conversely, there were 37 counties faced with labor force contractions over this same period. Obion County incurred the sharpest employment cuts, as the county workforce fell by 27.5 percent or 3,700 jobs. Shelby

³ Ibid

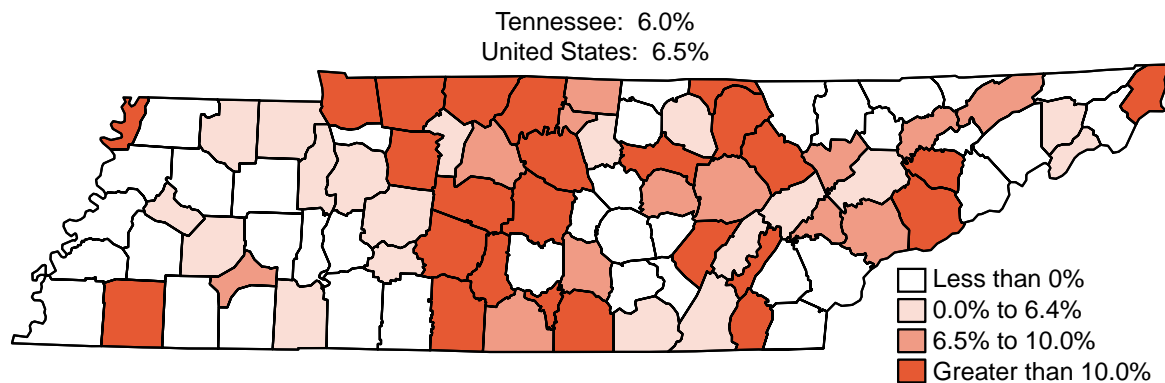
3.2. Job Growth, continued

Figure 3.2: Nonfarm Employment will Continue to Grow in Tennessee, while Manufacturing Employment will Eventually Contract



Source: Boyd CBER-UT, Bureau of Labor Statistics, IHS Markit™.

Figure 3.3: Total Covered Employment Growth, March 2007 to March 2017



Note: Data are not seasonally adjusted.

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

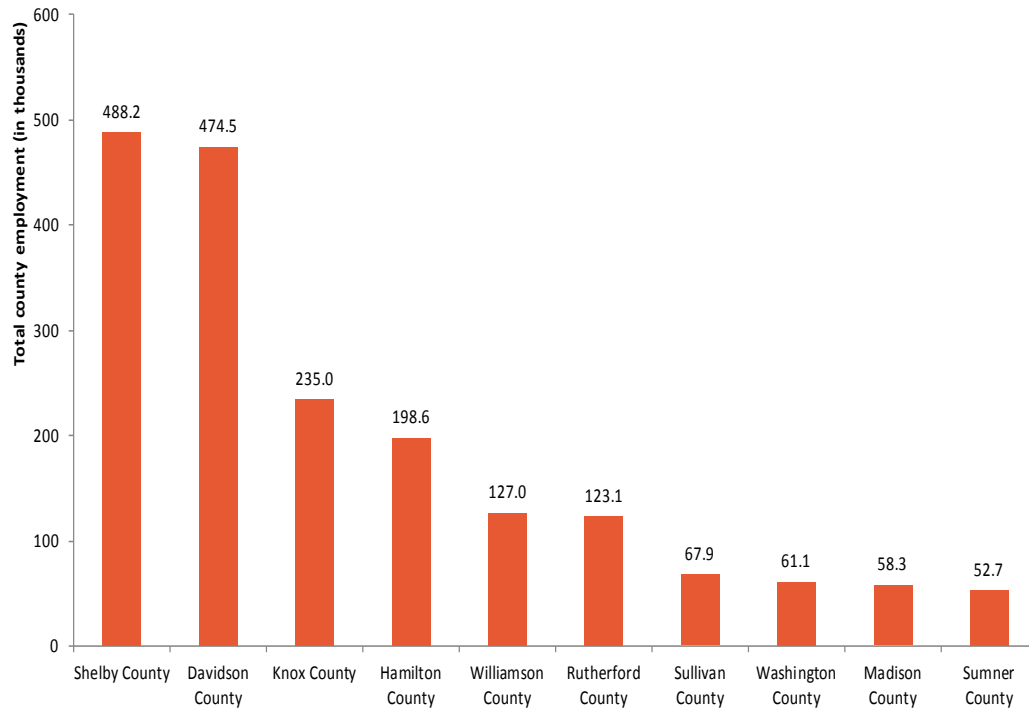
County also saw a large drop in their workforce, as employment fell by 3.2 percent over the last 10 years, representing a net loss of 16,000 workers.

Figure 3.4 reports the 10 counties with the largest workforces in Tennessee. Shelby and Davidson have the two largest county labor forces in the state, by a wide margin, with 488,200 workers and 474,500 workers respectively. In a distant third is Knox County with 235,000 workers, followed by Hamilton with 198,600. All four

of these counties contain a large Tennessee city (Memphis, Nashville, Knoxville, and Chattanooga respectively). In contrast, Figure 3.5 displays the 10 counties with the smallest labor forces in Tennessee. Van Buren County in Middle Tennessee has the fewest workers with only 818 workers, followed by Hancock County of East Tennessee with 854 workers.

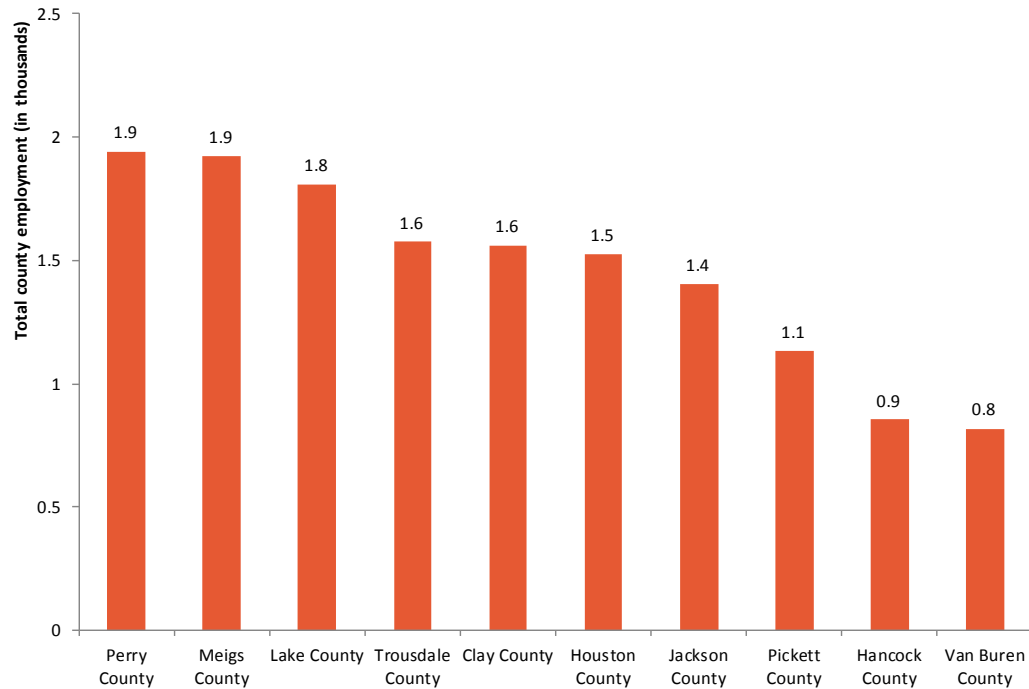
3.2. Job Growth, continued

Figure 3.4: Largest County Workforces in Tennessee, March 2017



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Figure 3.5: Smallest County Workforces in Tennessee, March 2017



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

3.3. Unemployment and Population

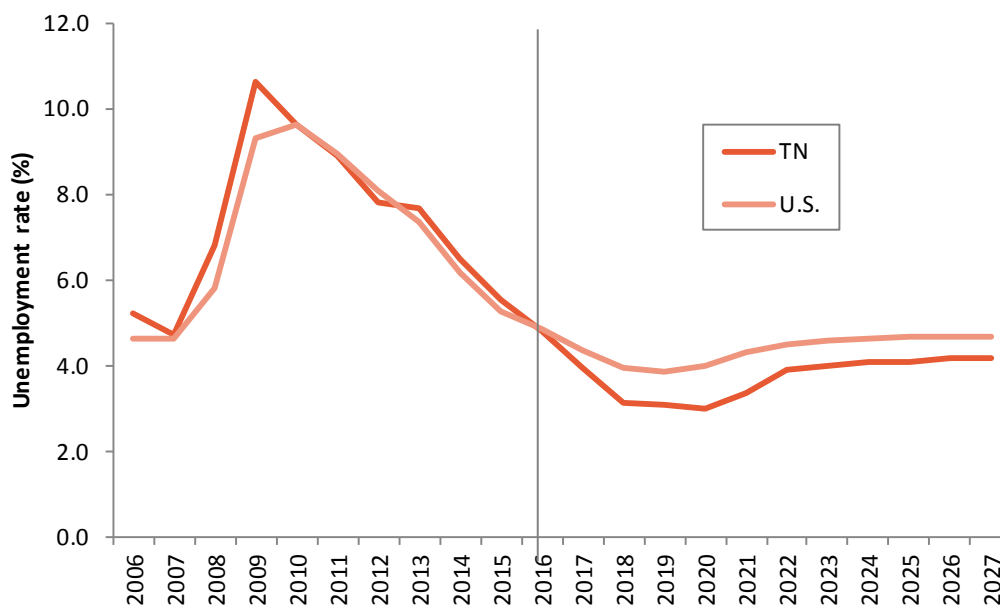
Over the last 10 years the unemployment rate in Tennessee has generally sat above the national rate. This changed in 2016 when the state's annualized unemployment rate fell to 4.8 percent, which was slightly below the nation's 4.9 percent unemployment rate. Tennessee's unemployment rate began to fall rapidly in 2017, dropping to 4.0 percent in May and falling further to 3.0 percent in September. This was the lowest monthly unemployment rate that Tennessee has ever recorded in the Bureau of Labor Statistics (BLS) database, which dates back to 1976. As a result, the state's annual unemployment rate for 2017 is projected to fall to 3.9 percent, down from 4.8 percent in 2016.

The unemployment rate is measured as the number of people unemployed as a percentage of the labor force, while the labor force is measured as the number of workers (the employed) plus the number of people not working but actively seeking employment (the unemployed). The unemployment rate will fall when unemployed people find work (shifting their status from

unemployed to employed), or if unemployed people stop looking for work and exit the labor force entirely. In 2015 and 2016, the labor force expanded. However, in recent quarters, the unemployment rate and labor force participation rate have both trended downwards in Tennessee, suggesting that the declining unemployment rate is due, in part, to people exiting the labor force. Many are leaving the labor force naturally, as more workers from the Baby Boom generation retire, and more young people go to college. However, there is also a portion of the unemployed that become discouraged and stop looking for work, which is also putting downward pressure on the unemployment rate.

Tennessee's unemployment rate is projected to remain below the national rate throughout the long-term forecast horizon (see Figure 3.6). The annual unemployment rate is forecasted to fall to 3.1 percent in 2018 and down to 3.0 by 2020. Throughout this period, the labor force participation rate will also trend downwards, falling below 60 percent in 2018 as more workers

Figure 3.6: Tennessee's Unemployment Rate will Sit Below the National Rate Throughout the Long Term Forecast Horizon



Source: Boyd CBER-UT, Bureau of Labor Statistics, IHS Markit™.

3.3. Unemployment and Population, continued

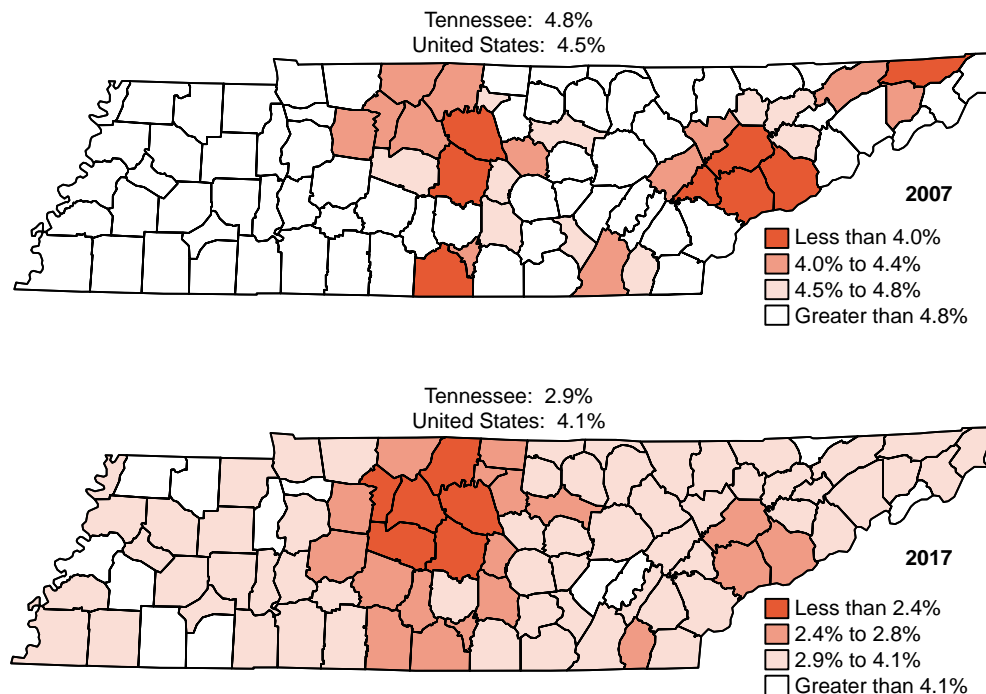
from the Baby Boom generation retire and exit the labor force. As the new decade unfolds, the unemployment rate will slowly begin to climb as it reverts to its trend performance with unemployment rates that are more closely aligned with historical patterns.

Figure 3.7 presents non-seasonally adjusted unemployment rates across all Tennessee counties for September 2007 and September 2017. In September 2007, Lincoln County had the lowest unemployment rate at 3.4 percent, followed by Knox County with a 3.5 percent rate. There were 30 counties to register unemployment rates that were equal to or below the state rate of 4.8 percent, all 30 of which were located in either East or Middle Tennessee. At 4.9 percent, Madison County had the lowest non-seasonally-adjusted unemployment rate in the West Tennessee region. In contrast, there were four counties with unemployment rates above 8 percent—Maury County (10.1 percent), Marshall County (9.1 percent), Perry County (8.7 percent) and Lawrence County (8.1 percent).

By comparison, the state's unemployment rate fell to 2.9 percent in September 2017 (non-seasonally adjusted). There were 28 counties with unemployment rates at or below the historically-low state rate; the lowest was recorded in Williamson County (2.1 percent) followed by Davidson County (2.2 percent). In September 2017, no Tennessee county had an unemployment rate above 5 percent. At 4.9 percent, Rhea County had the highest unemployment rate, followed by Weakley County at 4.8 percent.

Between 2007 and 2017, all 95 Tennessee counties saw reductions in their unemployment rates. Maury County, which had the highest 2007 unemployment rate, saw the biggest drop, falling 7.5 percentage points from 10.1 percent in 2007 to 2.6 percent in 2017. As of March 2017, Maury County also had the 18th largest workforce in the state, with 34,700 workers, so the declining unemployment rate represents a substantial labor market change. In addition to Maury County, there were seven other Tennessee counties to see their unemployment rates fall by 4 percentage

Figure 3.7: Unemployment Rates in Tennessee Fall Across the State, September 2007 to September 2017



Note: Data are not seasonally adjusted.
Source: Bureau of Labor Statistics.

3.3. Unemployment and Population, continued

points or more, all of which were located in Middle Tennessee (Clay, Lawrence, Lewis, Marshall, Overton, Perry, and Pickett). Conversely, there were six Tennessee counties where the unemployment rate fell by less than 1 percentage point – Dekalb, Lincoln, Rhea, Sequatchie, Sullivan, and Unicoi.

Over the long term, population changes have a strong impact on the labor market. From 2006 to 2016, Tennessee's population grew by 9.2 percent which is equivalent to 0.9 percent per year (CAGR). This was faster than the 7.9 percent growth rate (0.8 percent CAGR) seen for the nation as a whole. However, population growth is projected to slow in Tennessee and will only advance by 8.1 percent from 2016 to 2026 (or a 0.8 percent CAGR) versus a slightly faster 8.3 percent (or a 0.8 percent CAGR) for the nation. The projected population slowdown is driven by the recent deceleration in actual state population growth. From 2010 to 2015, all three components of population change (births, deaths, and net migration) have put downward pressure on population growth in Tennessee. First, the number of births in Tennessee has not rebounded to pre-recession levels. In 2007, there were 86,661 live births in Tennessee, while in 2015 there were only 81,000. This decrease in births is partially due to changes in the number of women of child-bearing age, but also due to a dramatic reduction in birth rates among young women (under 25 years of age) that is only slightly offset by a minor increase in birthrates among women aged 35-44 (see Table 3.4). Second, increases in deaths have contributed to the decrease in population growth,

as deaths per year increased from 56,800 in 2007 to 66,329 in 2015. This increase is likely due to an aging population. Finally, net migration is down considerably compared to the previous decade. From 2000 to 2010, an average of 41,500 people migrated to Tennessee each year. In contrast, only 31,800 people per year have moved to Tennessee from 2010 to 2016. Further, net migration is not distributed evenly across the state, but is increasingly concentrated in the Nashville area. During the 2000s, the five most populated counties in the Nashville MSA (Davidson, Rutherford, Williamson, Wilson, and Sumner) accounted for 38 percent of all net migration in Tennessee. In the current decade, those same five counties have absorbed 62 percent of all net migration in Tennessee. Net migration to the other 90 counties in the state has fallen by over 50 percent.

Figure 3.8 presents (projected) population growth rates for all Tennessee counties from 2016 to 2026. The county population projections show very different outlooks for three distinct county groups. The strongest growth will take place in the counties containing or surrounding the Nashville area where natural increases are positive (i.e. births exceed deaths), net migration is strong, and the population is relatively young. Relatively slower, but steady growth will take place in the metropolitan counties in the Knoxville, Chattanooga, and to a lesser extent Memphis metropolitan statistical areas (MSAs). Conversely, in many of the smaller and/or rural counties, projections point towards decreasing populations due to low and decreasing net migration, increased deaths, and decreased births.

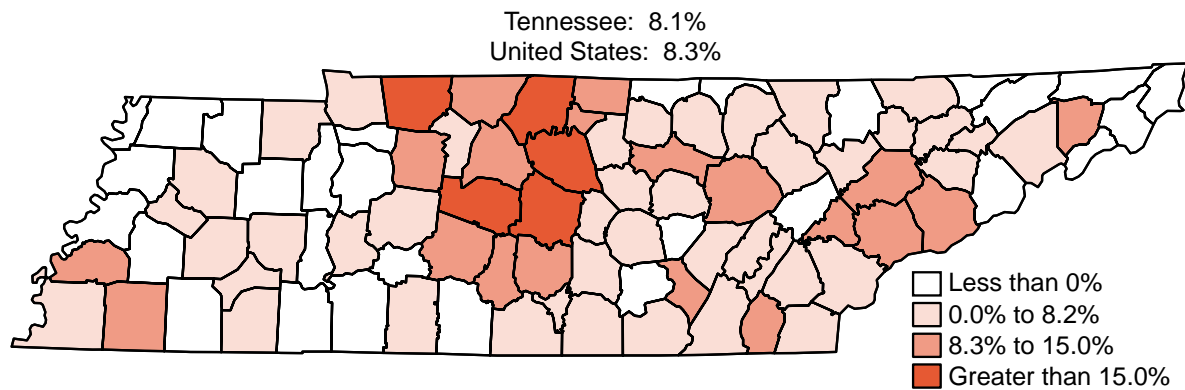
Table 3.4: Across Tennessee, Birth Rates Have Fallen Dramatically for Women Under 25 Years of Age)

Age of Mother	2007 Birth Rate Per Thousand	2015 Birth Rate Per Thousand
35-44	19.8	22.5
25-34	99.7	99
20-24	128.1	95.1
18-19	93.4	55.7
All Ages	14.2	12.3

Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

3.3. Unemployment and Population, continued

Figure 3.8: In Tennessee, Population Growth over the Next Decade will be Concentrated around the Larger Metropolitan Areas. Population Changes, 2016 vs 2026



Source: U.S. Census Bureau and Boyd CBER-UT.

3.4. Income, Earnings and Output

Over the next 10 years nominal personal income will grow at a compound annual growth rate of 4.1 percent in Tennessee. This is slightly slower than the 4.5 percent growth rate (CAGR) projected for the nation but much stronger than the 3.6 percent compound annual growth that Tennessee saw over the last 10 years.

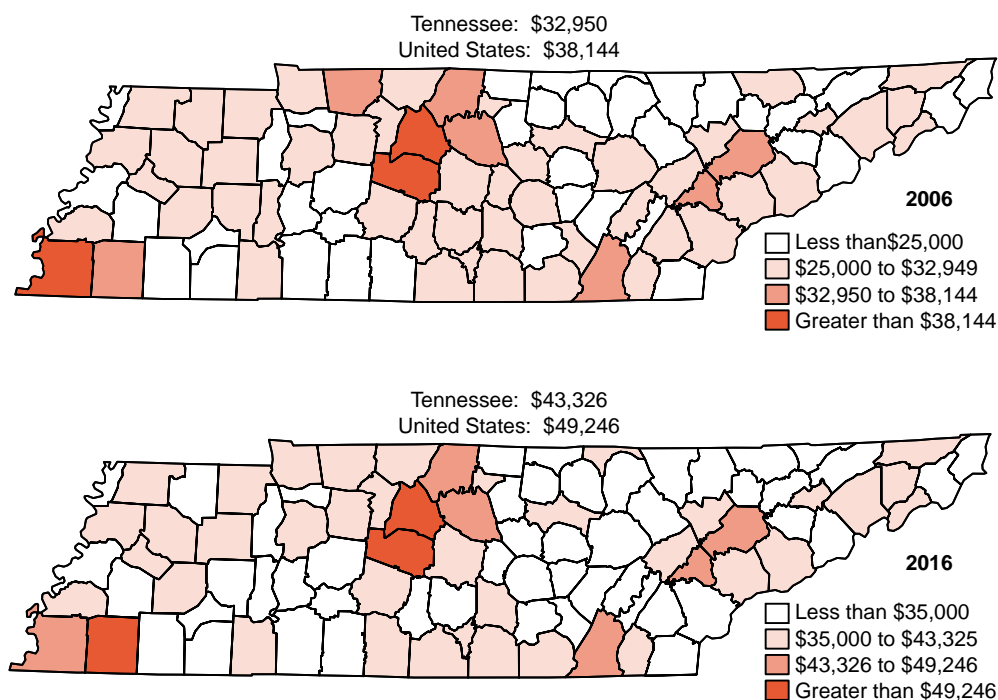
Among the components of nominal personal income, transfer payments will see the strongest growth, advancing by 5.1 percent per year (CAGR) over the next 10 years as Baby Boomers continue to retire and collect social security payments. Proprietors' income and rent, interest, and dividend income will both increase by 4.9 percent (CAGR) between 2017 and 2027. Wages and salary income, which is the largest component of personal income, will grow by 3.1 percent (CAGR) over the next 10 years.

Nominal per capita income in Tennessee sat at \$43,326 in 2016, while national per capita income was \$49,246. Currently, per capita income in Tennessee is only 88.0 percent of the national average, however this share is projected to fall over the next ten years as national income is projected to advance faster than state income. By 2027, per capita income in Tennessee will reach \$61,802 or 85.4 percent of the national average (\$72,397).

Figure 3.9 reports nominal per capita income across all Tennessee counties in 2006 and 2016. In 2006, Williamson County reported the highest per capita income at \$57,692, followed by Davidson County (\$42,682), and Shelby County (\$38,710). These were the only Tennessee counties with per capita income levels above the national average of \$38,144. There were six additional counties with per capita income levels above the 2006 state average – Fayette, Hamilton, Knox, Montgomery, Sumner, and Wilson. From 2006 to 2016, Pickett County saw the largest growth in per capita income, increasing by 74.3 percent from \$21,555 in 2006 to \$37,567 in 2016. This moved Pickett up from the 15th lowest per capita income county in the state in 2006 to the 27th lowest in 2016. More notably, in 2016 Williamson remained the county with the highest per capita income level, seeing income growth of 57.7 percent over the last 10 years and recording per capita income of \$90,979 for the year. Conversely, Shelby County saw one of the slowest income growth rates, as per capita income only grew by 19.4 percent over the 10-year period. As a result, Shelby County moved from the 3rd highest per capita income level to number six and in 2016 is no longer above the national average. Similar to 2006, in 2016 there were only

3.4. Income, Earnings and Output, continued

Figure 3.9: Per Capita Income Remains Low Throughout Tennessee. Except Near the Larger Metropolitan Areas



Source: U.S. Bureau of Economic Analysis.

three counties with per capita income levels above the national average: Williamson (\$90,979), Davidson (\$58,283), and Fayette (\$50,209), and there were once again six additional counties with per capita income levels above the state average - Hamilton, Knox, Loudon, Shelby, Sumner, and Wilson. The remaining 86 counties saw per capita incomes below the state average, indicating that in Tennessee “high” average incomes are only found in the handful of counties near the larger metro areas of Chattanooga, Knoxville, Nashville, and Memphis. Moreover, the exceedingly high average income in Williamson County is inflating the state average. Conversely, in both 2006 and 2016 per capita income levels were lowest in Bledsoe (\$17,334 in 2006 and \$20,353 in 2016), Hancock (\$17,455 in 2006 and \$23,894 in 2016), and Lake County (\$18,064 in 2006 and \$24,256 in 2016).

Tennessee inflation-adjusted gross domestic product (real GDP) grew by 1.5 percent (CAGR) from 2007 to 2017, a period encompassing the Great Recession, while real GDP for the nation advanced 1.4 percent (CAGR). Looking ahead

10 years, real GDP in Tennessee will expand by 2.0 percent per year, and keep pace with national GDP growth. Table 3.5 reports real GDP for Tennessee in 2007, 2017, and 2027. Over the last 10 years, service sectors saw the strongest output growth. Production in the professional and business services sector expanded by 3.8 percent (CAGR), output in the education and health services sector increased by 3.1 percent (CAGR), and financial activities output grew by 2.4 percent. As a result, these three sectors went from producing 33 percent of all Tennessee output in 2007 to 39 percent in 2017. This upward trend will continue throughout the long-term forecast horizon and by 2027 these three service sectors will be responsible for 41 percent of all Tennessee output. Despite seeing job losses over the last 10 years, manufacturing output still expanded by 1.1 percent from 2007 to 2017. As a result, manufacturing productivity (output per worker) has been on the rise (see Figure 3.1 from earlier in the chapter). Manufacturing output is projected to continue rising over the next 10 years, expanding

3.4. Income, Earnings and Output, continued

by a compound annual growth rate of 2.2 percent between 2017 and 2027. Conversely, the natural resources and mining sector was hit hard during the recession and again more recently when the prices of natural resources such as oil and steel fell. As a result, output contracted by 2.6 percent per year from 2007 to 2017. The construction sector also saw a swath of contractions during the recession, but has since rebounded and

experienced four consecutive years of positive output growth. Despite this recent trend, output in the construction sector still contracted by 0.5 percent (CAGR) over the last 10 years. The weak residential housing sector is one of the culprits. Modest growth in both the natural resources and mining sector and the construction sector are projected for the next 10 years.

Table 3.5: Tennessee Inflation-Adjusted Gross Domestic Product by Sector

	Level			Growth Rate*	
	2007	2017	2027	2007 to 2017	2017 to 2027
Real Gross State Product	256,408	297,486	363,738	1.50%	2.03%
Natural Resources & Mining	2,950	2,261	2,323	-2.63%	0.27%
Construction	11,112	10,521	11,001	-0.54%	0.45%
Manufacturing	43,780	48,672	60,298	1.06%	2.17%
Durable Goods	24,486	29,188	37,534	1.77%	2.55%
Nondurable Goods	19,294	19,484	22,764	0.10%	1.57%
Trade, Transportation, Utilities	53,375	56,441	69,045	0.56%	2.04%
Wholesale Trade	19,406	21,202	28,394	0.89%	2.96%
Retail Trade	19,865	21,268	25,818	0.68%	1.96%
Transportation & Utilities	14,104	13,971	14,834	-0.09%	0.60%
Information	8,597	9,312	12,089	0.80%	2.64%
Financial Activities	37,007	46,707	57,159	2.36%	2.04%
Professional & Business Services	24,847	36,233	53,092	3.84%	3.89%
Education & Health Services	23,500	31,783	39,425	3.07%	2.18%
Leisure & Hospitality	12,712	14,507	16,956	1.33%	1.57%
Agriculture, Forestry, Fishing & Hunting	1,636	1,515	1,249	-0.76%	-1.92%
Other Services	7,097	6,743	6,294	-0.51%	-0.69%
Government	29,795	32,790	34,807	0.96%	0.60%
Federal	8,600	8,539	8,212	-0.07%	-0.39%
State & Local	21,195	24,251	26,595	1.36%	0.93%

*Compound Annual Growth Rate.

Source: Bureau of Economic Analysis and Boyd CBER-UT.

3.5. Workforce Quality

Long-term economic growth within a region hinges on a number of factors, but at the center of the puzzle is the region's ability to produce goods and services. Inputs into the production process include the labor force, capital, and public infrastructure. Earlier in this report we focused on the size of the labor force and employment growth, while in this section we will concentrate more heavily on the quality of the workforce (i.e. education, skill level, and health status). All else equal, healthier individuals will be more attached to the labor market and have the ability to work more expeditiously when needed, while a more educated or more skilled workforce force can produce goods and services more efficiently and of a higher quality. Additionally, more educated workers, on average, earn higher wages and have the ability to purchase more goods and services, which further stimulates economic growth. Over the last decade, economic growth in Tennessee has lagged behind the nation on a number of fronts. Perhaps the most important trailing measure is per capita personal income. A key reason is likely workforce quality, as Tennessee lags behind the national average in both educational attainment and health status. This issue is not unique to Tennessee, as most southeastern states have lower educational attainment rates and poorer health status than the nation.

According to the 2016 annual report of American Health Rankings, Tennessee currently ranks 44th in overall health status, marking a slight decline compared to their 43rd ranking in 2015.⁴ Currently, only Alabama, Arkansas, Kentucky, Louisiana, Mississippi, and Oklahoma rank moor poorly, while West Virginia has overtaken Tennessee for the 43rd spot. But these are dismal rankings for all involved. Tennessee continues to show up near the bottom of the rankings due to a number of poor healthy behaviors including a high prevalence of smoking, obesity, drug deaths, physical inactivity, and violent crime, as well as high cancer and cardiovascular deaths rates and high rates of diabetes.

Figure 3.10 shows adult smoking rates from

2011 to 2016 in both the U.S. and Tennessee.⁵ While smoking rates across the nation have seen a downward trend in recent years, they have remained relatively stable in Tennessee. As a result, Tennessee currently has the seventh-highest adult smoking rate in the country, at 22.1 percent. This compares very poorly to the 17.1 percent rate registered for the nation. Obesity rates, as measured by a body mass index (BMI) above 30, have been rising in both the U.S. and at an even faster rate in Tennessee (see Figure 3.11). In 2011, obesity rates were 27.8 percent for the nation and 29.2 percent for Tennessee; in 2016, the U.S. rate has increased to 29.9 percent, and the Tennessee rate moved up to 34.8 percent. As a result, Tennessee now has the sixth-highest obesity rate in the country, only lower than a handful of its southeastern neighbors: Alabama, Arkansas, Louisiana, Mississippi, and West Virginia. In addition to unhealthy behaviors, health data also suggest that Tennesseans suffer from more serious health ailments than the average U.S. citizen. Figure 3.12 presents prevalence data from 2016 on various health issues for both Tennessee and the nation.

Another important fact in workforce quality is education. A more educated workforce is more productive and workers can then command a higher salary (see Figure 3.13). Figure 3.14 presents educational attainment rates across the southeastern region, as well as the national average in 2016. The top panel displays the percentage of the population 16 years and older with a high school degree or higher and shows that Virginia, at 89.3 percent, is the only southeastern state with a high school attainment rate above the national average (87.5 percent). Encouragingly, Tennessee, at 87.0 percent, is not far behind. The problem is more glaring when we look at the percentage of the population with a bachelor's degree or higher (bottom panel of Figure 3.14). In 2016, only 26.1 percent of Tennesseans held a bachelor's degree or higher. This was below the southeast average of 26.5 percent, and well below the national

4 Retrieved from <https://www.americahealthrankings.org/>

5 The most recent tobacco use data (2011 to 2015) from the Behavioral Risk Factor Surveillance Survey (BRFSS) is not directly comparable to BRFSS data from previous years because of changes in weighting and sampling methodology. As a result, we are unable to examine more long term trends in adult tobacco use.

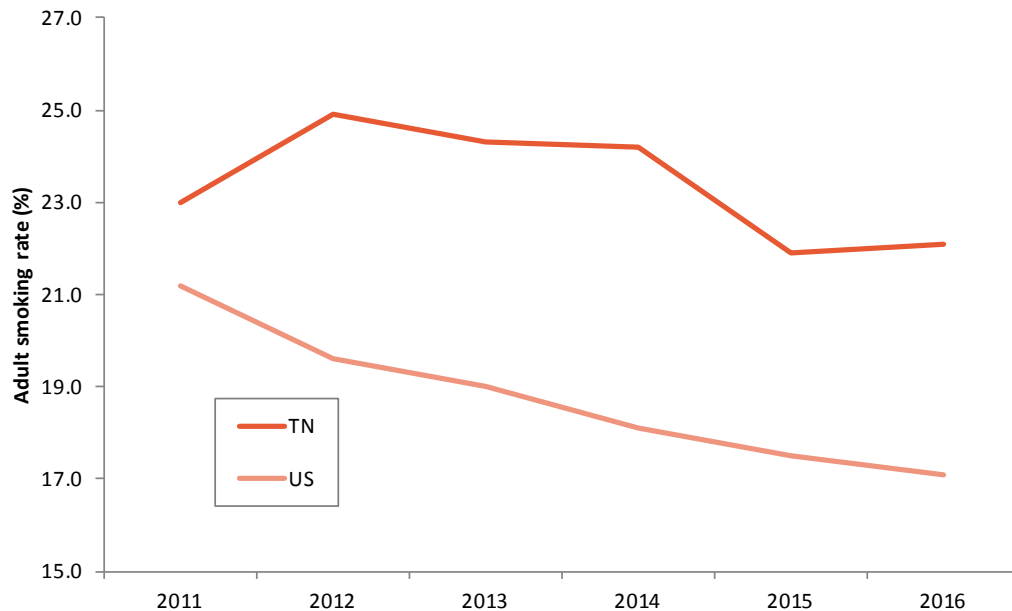
3.5. Workforce Quality, continued

average of 31.3 percent. In Chapter 2, we showed that Tennessee has made some gains in college attainment rates over the last decade. However, further improvements are needed if the state wants to attract employers and more high paying jobs into the region. Policymakers in Tennessee are keenly aware of this issue, and recent initiatives such as the *Drive to 55* with its goal of having 55 percent of the Tennessee population holding a college credential (including a certificate or associate's degree) by the year 2025, and the *Tennessee Promise* which offers mentorship and tuition-free community or technical college to all Tennessee high school graduates, are key steps in the right direction for improving educational attainment in the state.

Finally, Figure 3.15 reports the percentage

of adults (16 years and older) with a bachelor's degree or higher – hereafter college attainment rate -- across all Tennessee counties. In 2015, there were only six Tennessee counties with a college attainment rate above the U.S. average of 29.8 percent – Williamson, Davidson, Knox, Washington, Shelby, and Rutherford. Five of these counties contained or surrounded one of Tennessee's large metro areas, while the sixth (Washington County) is home to East Tennessee State University. In contrast, there were 11 counties with college attainment rates below 10 percent (Jackson, Johnson, Lake, Lauderdale, Macon, Meigs, Morgan, Polk, Scott, Union, and Wayne), all of which were either small or rural; Lauderdale was the largest county in this group, with a population of 26,700 residents in 2016.

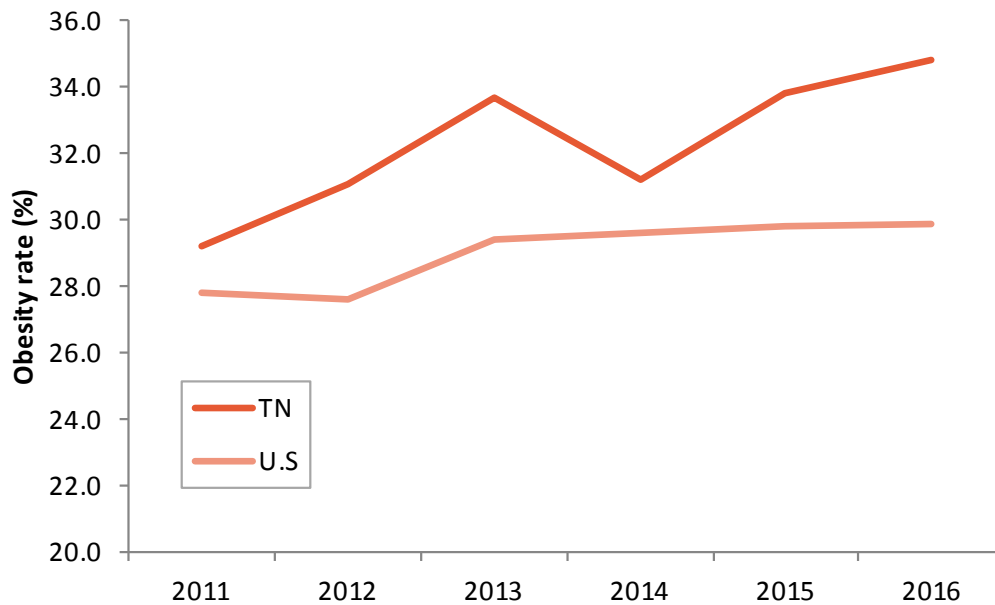
Figure 3.10: Tennessee's Adult Smoking Rate is Well Above the National Average



Source: Center for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, 2016.

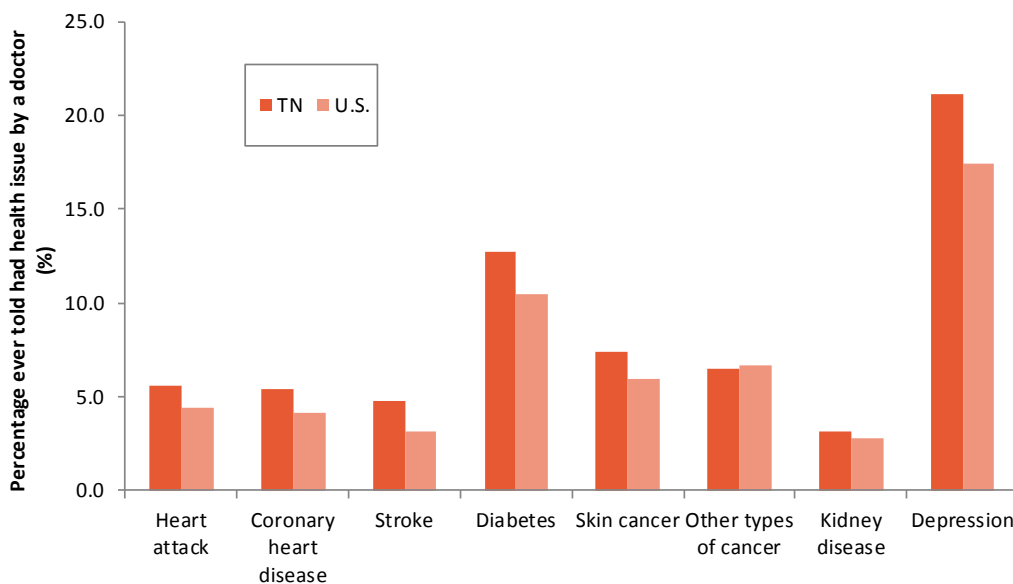
3.5. Workforce Quality, continued

Figure 3.11: Tennessee's Obesity Rate is also above the National Average and Trending in the Wrong Direction



Source: Center for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, 2016.

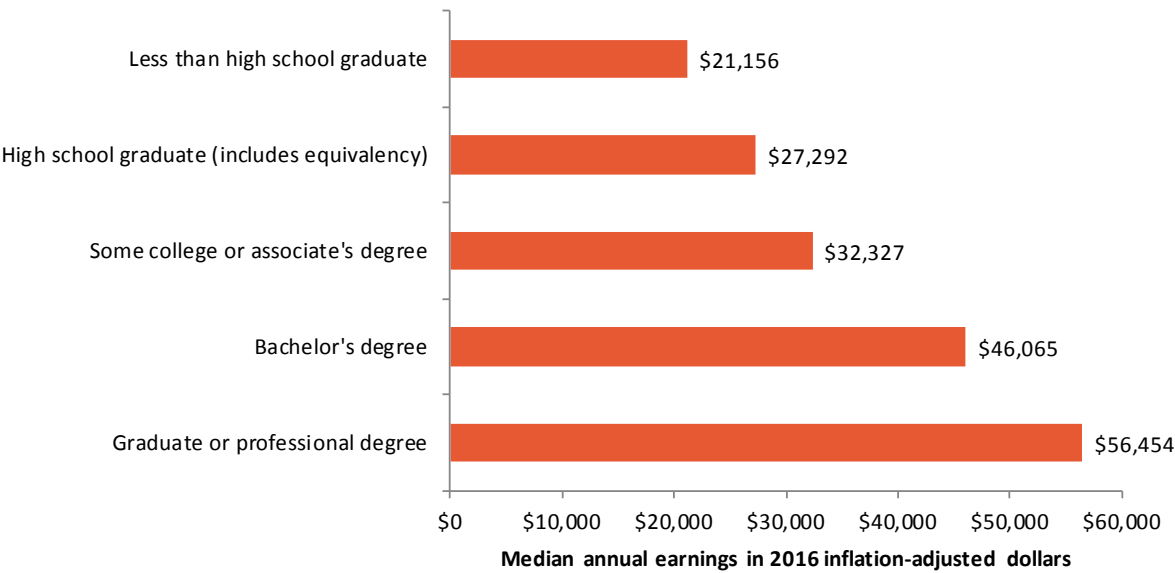
Figure 3.12: More Tennesseans Report Serious Health Ailments than their National Counterparts



Source: Center for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, 2016.

3.5. Workforce Quality, continued

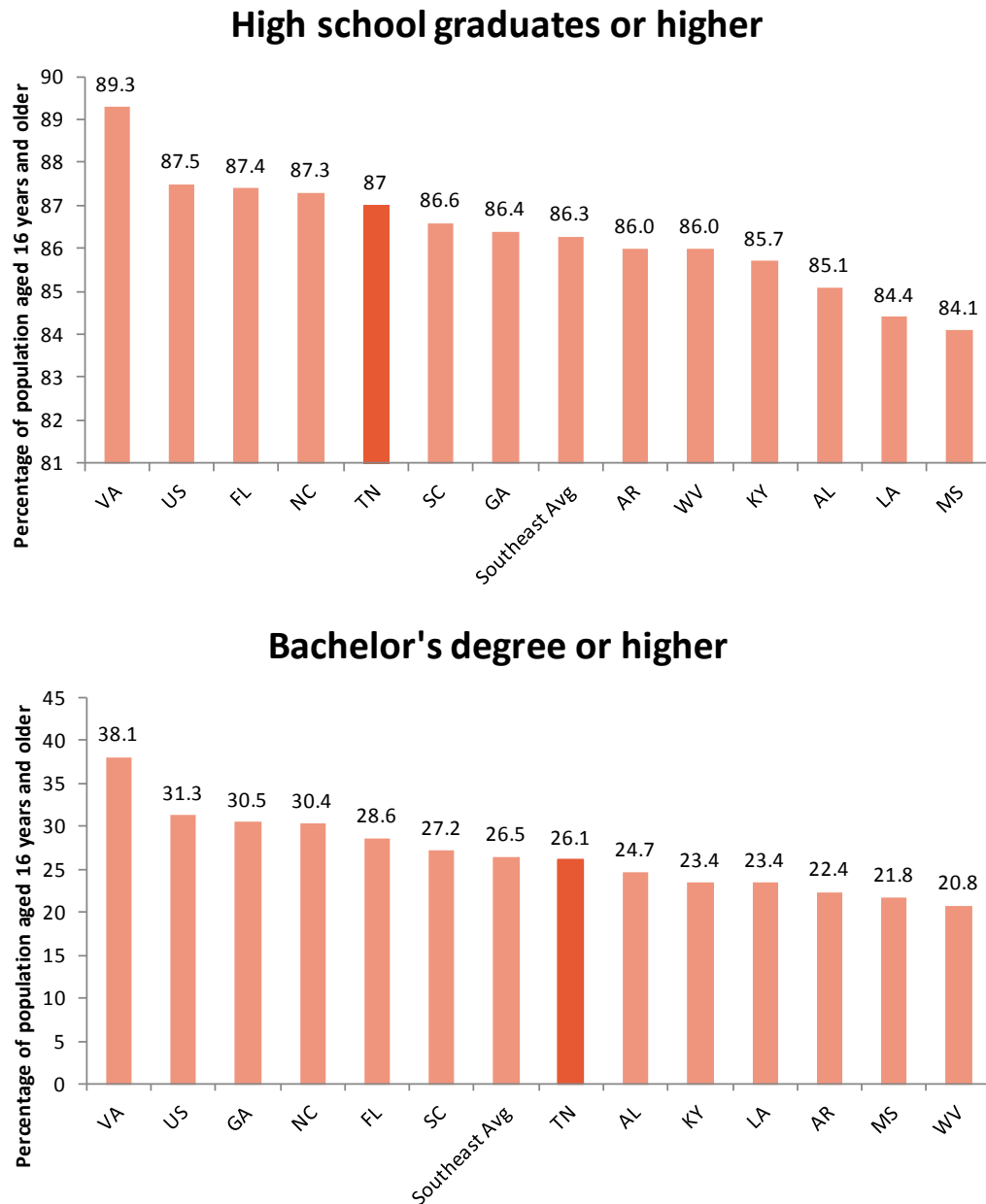
Figure 3.13: Median Annual Earnings in Tennessee Grow with Educational Attainment



Source: U.S. Census Bureau, 2016 1-Year American Community Survey.

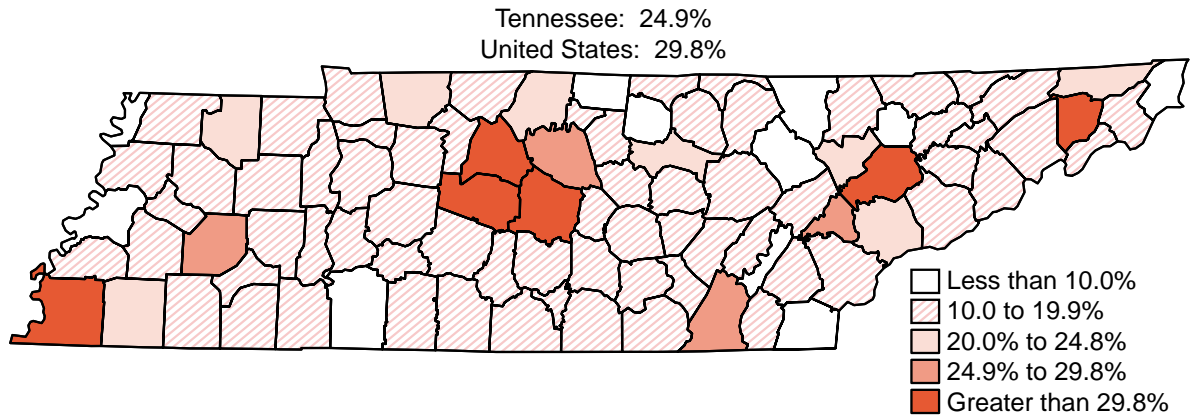
3.5. Workforce Quality, continued

Figure 3.14: Educational Attainment Rates Across Most of the Southeast Region Lag Behind the National Average, 2016



Source: U.S. Census Bureau, 2016 1-Year American Community Survey.

Figure 3.15: Only Six Tennessee Counties Have College Attainment Rates above the National Average



Source: U.S. Census Bureau, 2015 5-Year American Community Survey.

3.6. Forecast at a Glance

- Between 2017 and 2027, inflation-adjusted gross domestic product will increase by 2.0 percent per year in Tennessee and keep pace with national output growth.
- Nonfarm employment will expand by 0.9 percent per year over the next decade, as employment in the professional and business services, education and health services, and natural resources, mining, and construction sectors will see healthy employment gains.
- The state's annualized unemployment rate is projected to fall to 3.0 percent by 2020 before slowly trending upwards as it reverts back to historical patterns.
- Nominal personal income will grow at a compound annual growth rate of 4.1 percent over the next 10 years, and per capita income in Tennessee will reach \$61,802 by 2027.

CHAPTER 4: THE EFFECTS OF PRESCRIPTION OPIOID USE ON COUNTY-LEVEL LABOR MARKETS IN TENNESSEE

In this chapter—

4.1. Introduction

4.2. From Remedy to Tragedy

4.3. Opioids and the Labor Market: Possible Connections

4.4. Descriptive Evidence: Southeastern States

4.5. Descriptive Evidence: Tennessee

4.6. Causal Impacts and Implications for Tennessee Labor Markets

4.7. Policy Implications

4.8. References

4.1. Introduction

The opioid crisis has had crippling effects on many users and their families. Some have simply followed physician instructions and found themselves addicted and debilitated. Others have wantonly abused opioids with devastating, life-threatening consequences. This is not a crisis confined to narrow segments of society or to unique places on the map—it is ubiquitous. The problem is especially challenging in Tennessee which had the second-highest opioid prescription rate in the nation in 2012, second only to Alabama (Paulozzi et al., 2014).

While the conversation about the effects of prescription opioid use has centered primarily on health outcomes such as overdoses and mortality, focusing on health issues alone understates the comprehensive impact of prescription opioid use.

It is also possible and likely that the pervasive use and abuse of opioids has negative implications for labor market engagement. If this is the case, there are important consequences for the financial wellbeing of households and the economic welfare of entire regional economies.

Harris et al. (2017) conduct the first investigation of the causal effects of per-capita prescription opioid use on county labor market outcomes, including unemployment rates, labor force participation rates and employment-to-population ratios, using data from 10 U.S. states, including Tennessee. This chapter summarizes the findings from that study and further extrapolates what these findings imply for Tennessee, where the opioid epidemic is particularly pronounced.

4.2. From Remedy to Tragedy

In the U.S., the annual volume of opioid prescriptions dispensed more than tripled from approximately 76 million in 1991 to 245 million in 2014 (Volkow, 2014; Volkow and McLellan, 2016). Consequently, the number of opioid-related overdoses has also sharply increased. In 1999, prescription opioids were involved in 30

percent of all drug overdoses in the U.S. By 2015, this figure more than doubled to 63.1 percent. In 2015, prescription opioids were involved in more than 33,000 drug overdose deaths in the U.S. (Department of Health and Human Services, 2013; Rudd et al., 2016), making opioids nearly as fatal as car accidents. Overdoses are simply one dimension

4.2. From Remedy to Tragedy, continued

of the abuse problem. Even the legitimate use of opioids can lead to addiction and dire impacts on individual physical and mental health.

Prescription opioids reached their current level of use for several reasons, including marketing efforts from the American Pain Society, regulations favoring pain management, reduced oversight into prescriber behavior, and the development and marketing of new (purportedly non-addictive) extended-release drugs. In 1999 the American Pain Society introduced a new campaign, “Pain the Fifth Vital Sign,” to bring more awareness to the health community about pain assessment and management. Prior to this campaign, prescription opioids were primarily used to manage pain among terminal patients; however, this new initiative advocated the use of prescription opioids to more generally help manage chronic pain. Around the same time, the Joint Commission on the Accreditation of Healthcare Organizations set a mandate that all accredited health care facilities were required to offer pain assessments and treatments to all patients by 2001 in order to receive federal funding, and the Drug Enforcement Agency (DEA) announced that they would reduce oversight into practitioners with high opioid-prescribing rates (Tompkins et al., 2017). The mid 1990s and 2000s also saw the swift development and Federal Drug Administration (FDA) approval of a number of new prescription opioids. Most notably, in 1995 a new extended-release opioid—OxyContin—was approved by the FDA and aggressively marketed as a non-addictive analgesic to physicians by its parent company Purdue Pharmaceuticals. This, in combination with the American Pain Society’s 1999 marketing campaign, appears to be a major turning point which led to an explosion of new opioid prescriptions. From 1997 to 2002 the number of annual OxyContin prescriptions grew from 670,000 to 6.2 million in the U.S. alone (Tompkins, 2017). Extended-release opioids, such as OxyContin, are associated with a higher risk of addiction and overdose (FDA, 2017).

Initially, the expanded use of prescription opioids was considered a public health issue. However, the use and abuse of prescription opioids has come to affect all corners of our society making it a very personal story for large numbers of people, families and communities. Recently, the Trump administration declared the opioid epidemic a national emergency. Unfortunately, there have been no concrete steps taken to address the emergency. States and communities across the country are struggling to find the resources and treatment mechanisms to address the crisis.

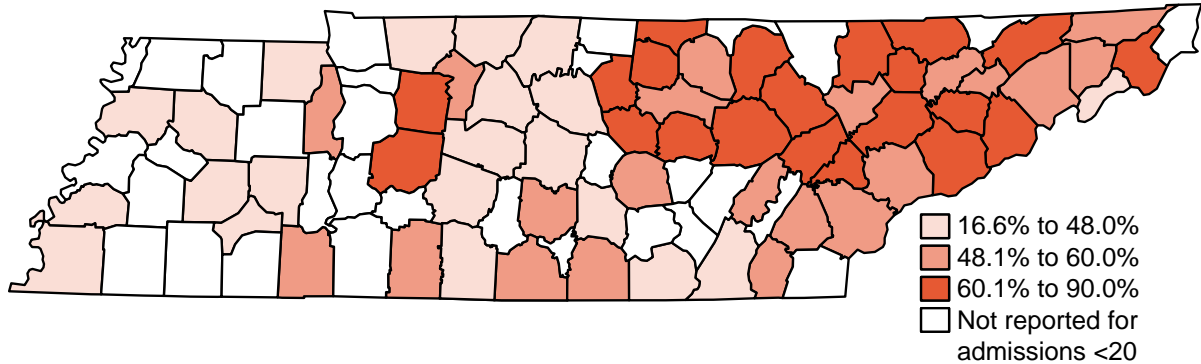
Tennessee is one of these states. There are abundant anecdotes and growing volumes of data and information that point to a serious problem of opioid abuse. One piece of evidence is Figure 4.1 which shows admissions to Tennessee Department of Mental Health and Substance Abuse Services treatment facilities in fiscal year 2016. In a significant number of middle and especially east Tennessee counties, opioids are associated with between 60 and 90 percent of all admissions. As is clear from this map, opioid abuse is a pervasive issue throughout the state.

Other pieces of evidence come from a recent report that addresses the broader question of substance abuse in Tennessee.¹ Hospitalization costs associated with opioids alone are estimated to be \$422.6 million per year in Tennessee. In addition, TennCare inpatient hospitalization costs amounted to \$76.9 million in 2015. The same report concludes that substance abuse generally leads to a one percent reduction in the number of individuals in the labor market resulting in a loss of over \$1.3 billion in private sector income which in turn leads to the loss of \$239.5 million in foregone sales tax revenue. As the evidence mounts, the case for a more concerted effort to attack the epidemic becomes stronger.

¹ See <http://www.tennessean.com/story/money/industries/health-care/2017/12/04/drug-alcohol-abuse-saps-2-billion-tennessee-annually-under-the-radar-impact-opioid-epidemic/909253001/>

4.2. From Remedy to Tragedy, continued

Figure 4.1: Admissions with Prescription Opioids Identified as a Substance of Abuse by County: FY2016



Note: Tennessee Department of Mental Health and Substance Abuse Services' funded admissions to substance abuse treatment services. Rates for counties not reported for events <20. Significance calculated by using Z-score test for two population proportions.
Source: Tennessee Web Interface Technology System (TN-WITS).

4.3. Opioids and the Labor Market: Possible Connections

At the national level, there is a correlation between increased prescription opioid use and decreased labor force participation since 2000. This broad pattern of association alone does not imply causality. The labor force participation rate has been declining for a variety of reasons, and opioid use has been on the ascent since the 1990s. However, two important considerations make prescription opioids a unique case in terms of their potential effects on individuals, as well as entire regional labor markets. First, the pharmacological properties of prescription opioids are such that opioids may have both positive and negative effects on individual labor force participation and labor productivity. On the positive side, opioids have some therapeutic properties that may enable individuals with injuries or chronic pain to continue or resume gainful employment. This is consistent with evidence that some pain management drugs can increase individual labor supply and reduce absenteeism on the job (Butikofer & Skira 2017; Garthwaite, 2012). On the other hand, the narcotic effects of opioids and the potential for addiction and abuse may cause labor market engagement to weaken or cease entirely. An important implication from the perspective of individual labor force participation and the labor market is that the optimal number

of opioid prescriptions is not zero. While there are adverse and undesirable consequences for some, others find therapeutic benefits that are of significant value. Even some of those who exit the labor market from legitimate opioid use may find themselves better off than being on the job.

Second, opioids may also affect labor market outcomes differently than other intoxicants because the social context of prescription drug use differs fundamentally from the context of alcohol and illicit substance use. This in turn implies that individuals who use prescription opioids may differ from users of other illicit substances in aspects that are germane to labor market outcomes. Because none of these substances are used uniformly across the population, each substance may have very different effects on aggregate labor market outcomes simply by virtue of who is using them. Why is the social context of prescription opioids unique? Unlike illicit narcotics, prescription opioids are initially dispensed by a health care provider, are legal, and are sanctioned by the health community for private use. Unlike alcohol, the use of prescription opioids is arguably less acceptable in traditional social settings. These contextual differences likely imply that individuals who choose to use prescription opioids will differ in both observable and unobservable characteristics from

4.3. Opioids and the Labor Market: Possible Connections, continued

those who choose to engage in heavy alcohol and/or illicit drug use.

Who abuses opioids? As shown in Table 4.1, the National Survey on Drug Use and Health demonstrates that there are considerable demographic differences between individuals who have misused prescription opioids and individuals who have misused alcohol or illicit substances. Compared to users of other substances, users of prescription opioids are more likely to have not graduated from high school or college and are relatively young (under 50 years of age). Individuals with low levels of educational attainment tend to be loosely affiliated with the labor market; young people under 25 years of age are often engaged in schooling which limits their

labor force participation. On the other hand, there is another segment of the population—those in the 25 to 50 age group—where health status is on average high, and labor market attachment is especially strong. These are commonly-referred to as *prime-aged adults* because of the high rates of labor force participation exhibited by this cohort. It is unclear how opioid use and abuse might differentially affect these large segments of the population and influence county labor market statistics. Prior evidence on drug and excessive alcohol use is not encouraging as it tends to point to negative effects on individual labor market outcomes. Moreover, the sheer volume of opioid distribution is suggestive of a major problem manifesting itself in the labor market.

Table 4.1: Demographic Comparison of Misusers of Prescription Drugs to Users of Other Substances

	Percent of Responders Who Have Ever Used a Specific Substance			
	Prescription Opioids	Alcohol	Marijuana	Cocaine
No high school degree	13.34	10.86	9.61	11.94
No college degree	71.64	65.38	65.64	71.52
White	71.77	67.97	71.62	75.53
Black	9.96	11.02	11.47	7.58
Male	56.66	49.91	54.23	61.44
Female	43.34	50.09	45.77	38.56
Younger than 25	24.23	16.8	19.34	15.36
Between 25 and 50	48.62	40.74	43.76	46.48
Income <\$50,000	52.48	46.71	46.27	49.3

Source: National Survey on Drug Use and Health.

4.4. Descriptive Evidence: Southeastern States

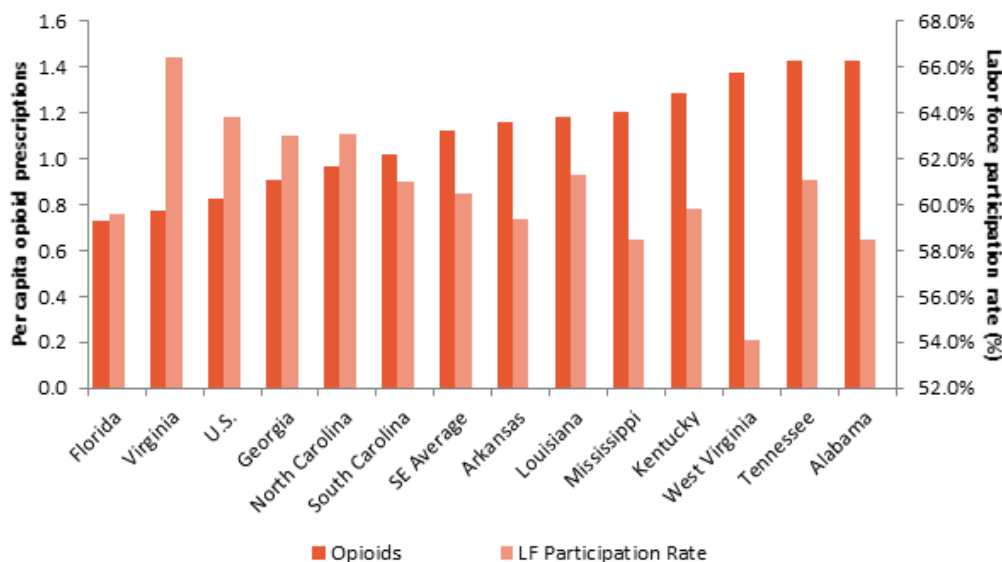
Figure 4.2 depicts state-level data from 2012 on labor force participation rates and per capita prescription opioid rates among the 12 southeastern states. The prescription data were gathered by IMS Health and are based on a sample of 57,000 pharmacies across the nation “which dispense nearly 80 percent of the retail prescriptions in the United States” (Paulozzi et al.,

p. 563). Most states in the Southeast have higher opioid prescription rates and lower labor force participation rates than the U.S. average. Further, within the cross section of the southeast, it is clear from Figure 4.2 that there is a strong negative correlation between prescription opioid use and labor force participation.

As noted above, Alabama and Tennessee had

4.4. Descriptive Evidence: Southeastern States, continued

Figure 4.2: There is a Strong Negative Correlation Between Prescription Opioid Use and Labor Force Participation Rates across the Southeastern States



Source: Paulozzi et al. (2014); IMS Health; and U.S. Census Bureau, 2012 American Community Survey 1-Year Estimates.

the highest opioid prescription rates among all U.S. states in 2012, at approximately 1.43 prescriptions per person. If an average opioid prescription contains 60 doses, this is equivalent to more than 85 prescription opioid doses for every man, woman, and child in both Alabama and Tennessee.

Among all 12 southeastern states, eight had opioid prescription rates above 1.0 (i.e., more than one opioid prescription per person)—Alabama, Arkansas, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, and West Virginia. These eight states also have some of the lowest labor force participation rates among the southeastern states and all are below the national average.

By comparison, the U.S. average was only 0.83 prescriptions per person. Florida had the lowest opioid prescription rate among the southeastern states, at 0.73, but Florida also had a below average labor force participation rate of 59.6 percent, likely a reflection of the large elderly population in the state. This suggests that while prescription opioids may be related to lower labor force engagement it is certainly not the only driver. Virginia recorded an opioid prescription rate of 0.78 and was one of only two southeastern states with an opioid rate below the national average. Virginia was also the only state in the region with a labor force participation rate above the national average.

4.5. Descriptive Evidence: Tennessee

In this section we examine descriptive data provided by the Tennessee Department of Health's Controlled Substance Monitoring Database (CSMD) on Schedule II opioid prescriptions *per county* in Tennessee.² This regional focus allows us to consider the way in which county opioid

² Tennessee's CSMD became operational in 2006, but it was not until mid-2013 that practitioners were required to check the CSMD before prescribing a controlled substance.

prescriptions ripple across and affect county labor markets. The analysis does not distinguish between legitimate versus illegitimate opioid use, nor does it identify the channels whereby legal prescriptions get into the hands of illicit users. It is well established that members of one's family are a primary source of opioid acquisition. To the extent that families live in close proximity to one another,

4.5. Descriptive Evidence: Tennessee

this reinforces the appropriateness of the county-level analysis undertaken here.

The DEA classifies drugs into five categories depending on the drug's acceptable medical use and its potential for abuse or dependency. Schedule I contains drugs "with no acceptable medical use and a high potential for abuse." Schedules II through V are comprised of drugs with accepted medical uses and decreasing potential for abuse as the classification number increases. The majority of opioid prescriptions (e.g., hydrocodone, OxyContin, oxycodone, and fentanyl), are classified as Schedule II, indicating that these compounds have some therapeutic purpose but still present high abuse potential.³ Because we focus solely on Schedule II opioids in this section, the prescription rates reported here should be slightly lower than those presented in the previous section.

Figure 4.3 displays per capita prescription opioid rates for each county in Tennessee. In 2015, the most recent year for which we have data, Tennessee counties averaged 1.03 opioid prescriptions per capita or about 62 doses per resident of the state. However, there were four counties with opioid prescriptions rates above 2.0 per capita: Fentress, Grundy, Meigs, and Sequatchie. In these counties, there were more than 120 opioid doses distributed for each resident in 2015. Conversely, the counties containing or surrounded by the larger metro areas (Nashville, Knoxville, Chattanooga, and Memphis) all had opioid prescription rates below the state average.

³ Some cough syrups and opioid-acetaminophen combinations are classified into the less restrictive Schedule III category.

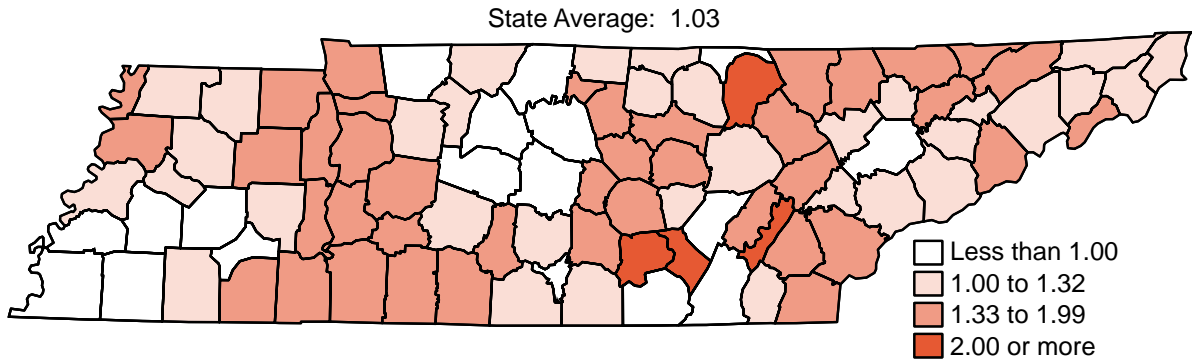
Per capita opioid prescription rates were lowest in Williamson County (0.51) followed by Shelby County (0.61).

Figures 4.4 and 4.5 show the unemployment rate and labor force participation rate for each county in Tennessee. A careful comparison of Figure 4.3 with these two figures reveals a correlation pattern that is similar to that identified in the context of the Southeastern states (presented in Figure 4.2) and discussed above—counties with higher opioid prescription rates have weaker labor market outcomes as measured by higher unemployment rates and lower labor force participation rates.

Drilling down beneath the surface, all four Tennessee counties with per capita opioid prescription rates above 2.0 also had labor force participation rates below the state rate of 59.7 percent and unemployment rates equal to or above the average annual unemployment rate of 5.6 percent. Only 17 of Tennessee's 95 counties had per capita opioid prescription rates below 1.0. Most of these counties had labor force participation rates above the state average and unemployment rates below the state average. Williamson County had both the lowest opioid prescription rate (0.51) and lowest unemployment rate as well as the third-highest labor force participation rate in the state. Only four of the 17 counties had unemployment rates above 7 percent (Bledsoe, Haywood, Pickett, and Tipton counties), and two had labor force participation rates below 50 percent (Bledsoe and Marion counties).

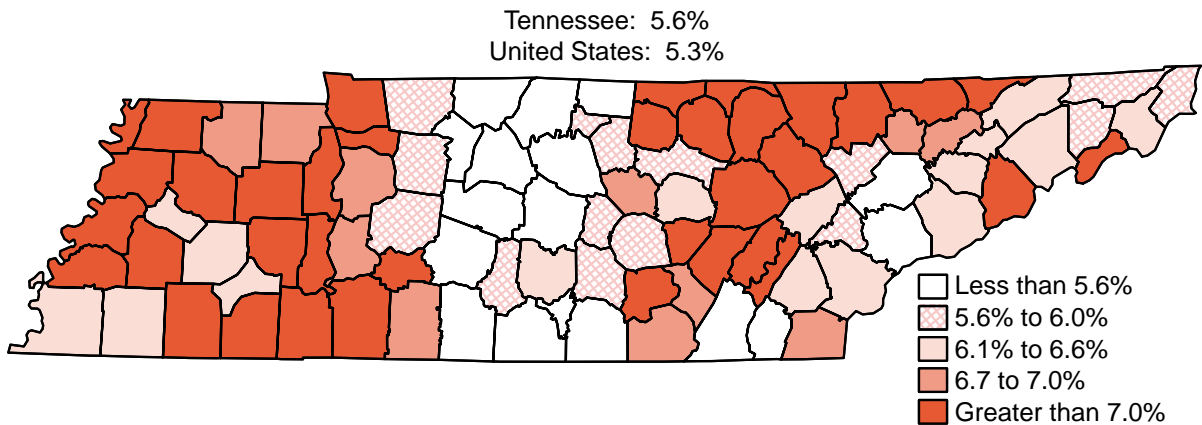
4.5. Descriptive Evidence: Tennessee, continued

Figure 4.3: County-level Schedule II Opioid Prescriptions per Capita Showed Wide Variation across Tennessee in 2015



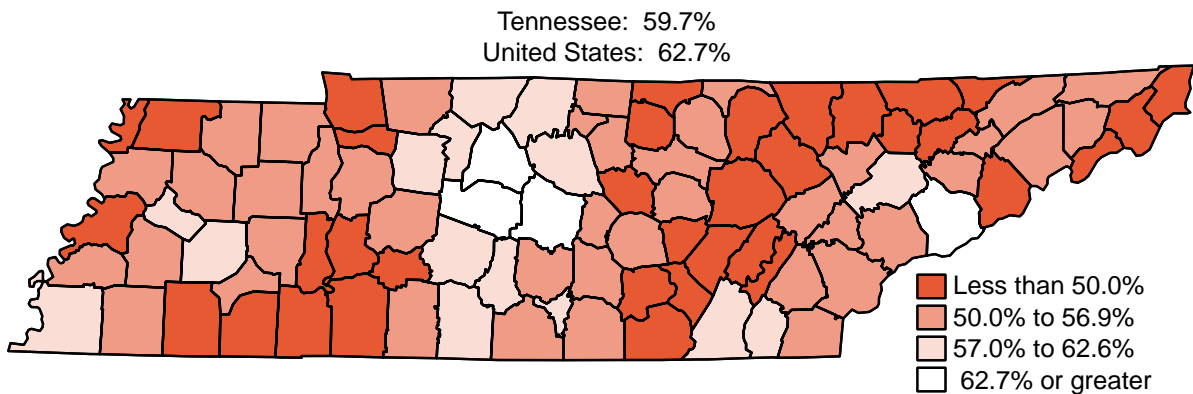
Source: Tennessee Department of Health, Controlled Substance Monitoring Database.

Figure 4.4: 2015 County Unemployment Rates Are Positively Linked to County Opioid Prescriptions



Source: Bureau of Labor Statistics.

Figure 4.5: 2015 County Labor Force Participation Rates Are Negatively Correlated with County Opioid Prescriptions



Source: Bureau of Labor Statistics.

4.6. Causal Impacts and Implications for Tennessee Labor Markets

The descriptive data presented here are only visual correlations between opioid prescriptions and key labor market outcomes. As noted above, correlations do not necessarily imply causation. Of ultimate interest is the extent to which opioid prescriptions have a *causal* impact on labor market outcomes. Such evidence should help motivate a stronger commitment to address the ongoing opioid crisis.

To address this very question, Harris et al. (2017) examined county-level prescription opioids data from 10 U.S. states: Arkansas, California, Colorado, Florida, Massachusetts, Michigan, Ohio, Oregon, Tennessee, and Texas. These data were then linked to county unemployment and labor force participation rates, and to employment-to-population ratios. Advanced statistical methods were then employed to determine the scope of any causal linkages. The punchline: per capita opioid prescriptions have large adverse impacts on labor market outcomes. Specifically, a 10-percentage point increase in per capita opioid prescriptions led to a 0.7 percentage point drop in the employment-to-population ratio, a 0.65 percentage point drop in the labor force participation rate, and a 0.12 percentage point increase in the unemployment rate. Those findings indicate that prescription opioids have a large negative impact on the employment-to-population ratio and labor force participation rate but only a negligibly statistically-significant impact on the unemployment rate, which suggests that prescription opioids are mainly driving people to exit the labor force entirely. Therefore, a significant share of the reduction in labor force participation rates since 2000 can be attributed to opioid use.

These results should be interpreted (and used) with considerable caution as the outcomes likely reflect a mix of legitimate and illegitimate uses of opioids. Some who receive opioid prescriptions as part of a legitimate pain-management strategy may be able to have sustained engagement with the labor market, while others are compelled to withdraw from the labor market due to their

health status (e.g., aggressive cancer) or because of the side effects of opioids. Opioids are also widely diverted to illegitimate uses, with the most prominent mechanism being family and social networks. Some of these individuals may work or pursue work; others will do neither. The primary challenge is to find mechanisms to address pain without creating negative spillovers and large economic losses. Widespread opioid use can send negative signals regarding a region's capacity to grow and can adversely affect the path of economic development.

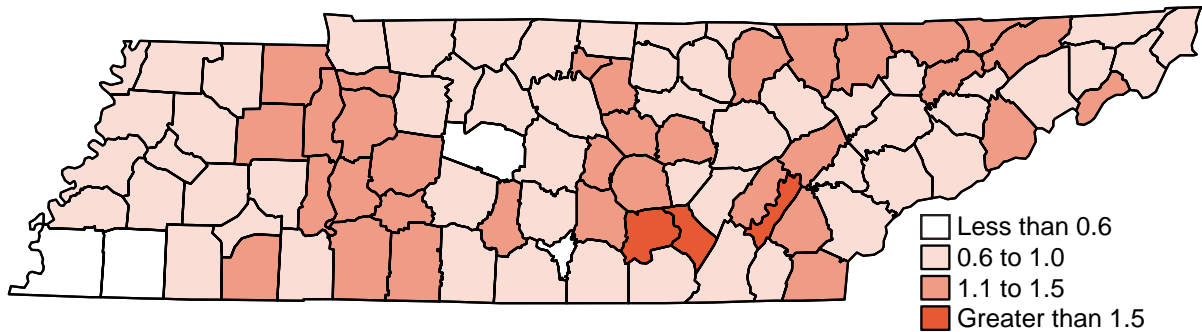
In Tennessee, the effect of opioids on labor market outcomes varies considerably between counties, depending on the prevalence of opioids per capita. Figure 4.6 depicts the expected percentage point change in the labor force participation rate for each county if opioid prescriptions were reduced by 10 percent. In over a third of the counties in Tennessee, a 10 percent reduction in opioids per capita would increase labor force participation by more than 1 percentage point. The largest effects would be seen in Grundy, Sequatchie, and Meigs County, while the most modest changes would occur in Williamson, Shelby, and Moore County.

These results imply that modest reductions in prescription opioids (i.e., 10 percent) may have very large effects on labor markets and therefore personal income and the tax base in Tennessee. A back of the envelope calculation suggests that if the causal effects of prescription opioid use are accurate, a 10 percent decrease in prescription opioid use would lead to an additional \$825 million in personal income (or \$124 per person) across the state.

Figure 4.7 depicts the expected increase in per capita personal income resulting from a 10 percent reduction in prescription opioids for each county. More than 30 counties would be expected to see an increase of at least \$150 in per capita personal income, with the largest improvements occurring in Sequatchie, Meigs, and Roane County, and the smallest—albeit still impactful—gains occurring

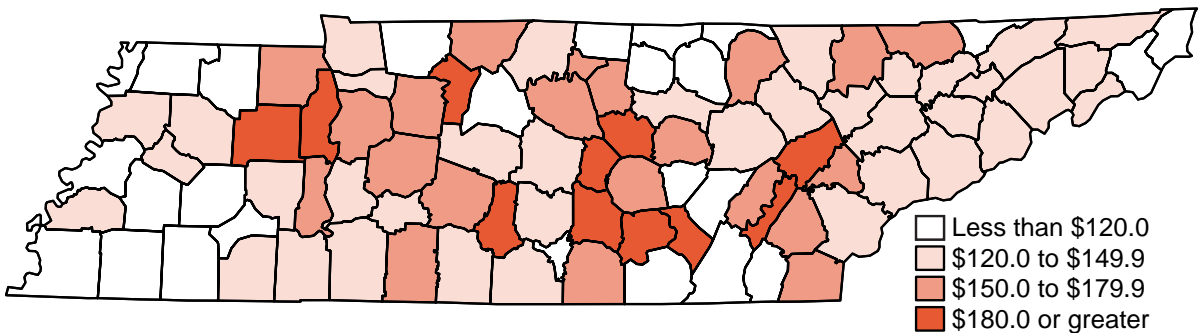
4.6. Causal Impacts and Implications for Tennessee Labor Markets, continued

Figure 4.6: Estimated Percentage Point Change in Labor Force Participation Rates Resulting from a 10 Percent Decrease in Per Capita Opioid Prescriptions



Note: Expected changes are based on estimates from Harris et al. (2017)
 Source: Bureau of Labor Statistics, Tennessee Department of Health, Boyd CBER-UT estimates.

Figure 4.7: Estimated Change in Per Capita Personal Income Resulting from a 10 Percent Decrease in Prescription Opioids by County



Note: Expected changes are based on estimates from Harris et al. (2017)
 Source: U.S. Census Bureau, American Community Survey, 2012-2015 1-Year Estimates, Boyd-CBER-UT estimates.

in Haywood, Shelby, and Carter County. With an average per capita income of \$25,227 in Tennessee, this change implies that a 10 percent reduction in prescription opioids would lead to a 0.6 percent

increase in per capita personal income. This in turn implies that the income elasticity of successful opioid reduction interventions is approximately 6 percent.

4.7. Policy Implications

These results imply that there are considerable economic gains to be garnered from *judicious* reductions in prescription opioids. Any such reductions must be undertaken with great care, as prescription opioids offer meaningful benefits to some, and for these individuals, lower labor force engagement and lower income is simply one of the costs associated with treatment. Poorly designed interventions may make it difficult for individuals with a legitimate therapeutic need to get access to effective medications. To the extent that individuals with therapeutic needs cannot get their necessary medications, these interventions can have negative effects on the affected individual, their families, and the labor market.

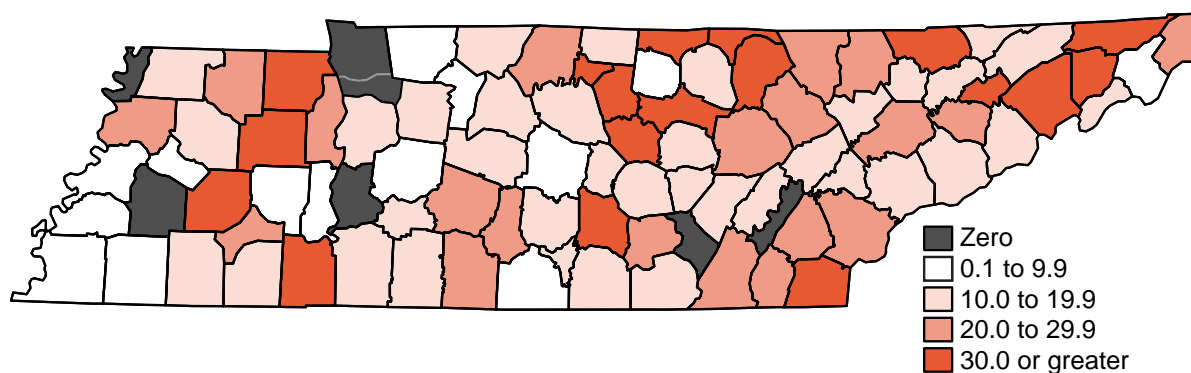
At this moment, there is no ‘silver bullet’ intervention that appears capable of fully resolving the opioid epidemic. However, one important step is further exploration into the prescribing behavior of high-volume prescribers. In many states, a relatively small number of prescribers account for the vast majority of prescriptions filled. In Oregon, for example, the top 10 percent of providers accounted for a jaw-dropping 81 percent of all opioids prescribed in 2013 (Kim et al., 2016).

Figure 4.8 presents the number of these high-volume prescribers, measured as the number of practitioners in the nation’s top 5 percent of opioid prescribers per 100,000 people, in each Tennessee county. Fentress, Carroll, and Claiborne County had the most high-volume prescribers per 100,000 people while Haywood, Houston, Lake, Meigs, Perry, Sequatchie, and Stewart had the fewest (all seven counties had zero high-volume prescribers).

It is worth noting that for many of these practitioners, their presence in the top 5 percent may be due to the needs of their patients and the size of their practice. However, if the goal is to reduce the overall volume of opioids available for diversion and misuse, a closer examination of the relatively small number of practitioners responsible for dispensing a large share of the opioids may yield low-hanging fruit.

Other steps will also need to be taken, ranging from information campaigns to improved inpatient and outpatient treatment programs. The growing experience of states and communities from around the country in combating opioid abuse should offer lessons on best practice strategies that might be adopted in Tennessee.

Figure 4.8: Number of High-Volume Prescribers in the National Top 5 Percent of Medicare Part D Providers, 2014



Source: Center for Medicare and Medicaid Services.

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APPENDIX A: FORECAST DATA

In this section—

Appendix A: Forecast Data

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Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	History			Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	
US GDP (BIL2009\$) SAAR.....	17031.1	17169.7	17282.4	17376.7	17483.4	17587.4	17695.6	17797.5	17894.7	17997.8	18089.3	18173.4	16716.2	17096.6	17535.8	17944.8	
% Chg Prev Qtr SAAR.....	3.06	3.30	2.65	2.20	2.48	2.40	2.48	2.32	2.20	2.32	2.05	1.87	1.49	2.28	2.57	2.33	
% Chg Same Qtr Last Yr.....	2.21	2.33	2.56	2.80	2.66	2.43	2.39	2.42	2.35	2.33	2.22	2.11	1.49	2.28	2.57	2.33	
US GDP (BIL\$) SAAR.....	19250.0	19509.0	19749.9	19962.6	20180.3	20423.9	20661.2	20899.1	21128.2	21361.0	21601.3	21840.7	18624.5	19391.6	20307.0	21247.4	
% Chg Prev Qtr SAAR.....	4.10	5.49	5.03	4.38	4.43	4.92	4.73	4.69	4.46	4.48	4.58	4.51	2.78	4.12	4.72	4.63	
% Chg Same Qtr Last Yr.....	3.84	4.16	4.47	4.75	4.83	4.69	4.61	4.69	4.70	4.59	4.55	4.51	2.78	4.12	4.72	4.63	
TN PERSONAL INCOME (MIL2009\$) SAAR.....	264452	266289	267907	269789	271782	273688	275525	277203	278808	280479	281653	282678	260100	265255	272696	279536	
% Chg Prev Qtr SAAR.....	3.21	2.81	2.45	2.84	2.99	2.83	2.71	2.46	2.34	2.42	1.68	1.46	2.50	1.98	2.81	2.51	
% Chg Same Qtr Last Yr.....	1.94	1.64	2.69	2.83	2.77	2.78	2.84	2.75	2.59	2.48	2.22	1.98	2.50	1.98	2.81	2.51	
US PERSONAL INCOME (BIL2009\$) SAAR.....	14553	14597	14664	14787	14914	15012	15113	15259	15371	15489	15581	15706	14377	14573	14957	15425	
% Chg Prev Qtr SAAR.....	2.07	1.19	1.86	3.39	3.49	2.66	2.69	3.94	2.95	3.12	2.41	3.23	1.21	1.36	2.63	3.13	
% Chg Same Qtr Last Yr.....	1.13	1.12	2.10	2.13	2.48	2.85	3.06	3.19	3.06	3.17	3.10	2.93	1.21	1.36	2.63	3.13	
TN PERSONAL INCOME (MIL\$) SAAR.....	296908	300089	303212	306386	309755	313174	316659	319792	323181	326542	329796	332838	288170	298646	311494	324828	
% Chg Prev Qtr SAAR.....	3.48	4.35	4.23	4.25	4.47	4.49	4.53	4.02	4.31	4.22	4.05	3.74	3.72	3.64	4.30	4.28	
% Chg Same Qtr Last Yr.....	3.52	3.16	4.15	4.08	4.33	4.36	4.43	4.38	4.33	4.27	4.15	4.08	3.72	3.64	4.30	4.28	
US PERSONAL INCOME (BIL\$) SAAR.....	16340	16451	16637	16831	17016	17209	17394	17636	17852	18071	18287	18537	15929	16418	17113	17961	
% Chg Prev Qtr SAAR.....	2.34	2.76	4.60	4.75	4.46	4.62	4.38	5.67	4.99	5.00	4.88	5.57	2.42	3.07	4.23	4.96	
% Chg Same Qtr Last Yr.....	2.70	2.64	3.82	3.61	4.14	4.61	4.55	4.78	4.91	5.01	5.13	5.11	2.42	3.07	4.23	4.96	
TN NONFARM JOBS (THOUS).....	3013.2	3024.5	3036.3	3047.5	3057.5	3066.6	3075.4	3084.6	3094.1	3102.5	3109.1	3114.8	2966.8	3020.4	3061.7	3097.6	
% Chg Prev Qtr SAAR.....	0.73	1.50	1.57	1.48	1.32	1.19	1.16	1.20	1.23	1.10	0.84	0.74	2.56	1.81	1.37	1.17	
% Chg Same Qtr Last Yr.....	1.95	1.61	1.51	1.32	1.47	1.39	1.29	1.22	1.20	1.17	1.09	0.98	2.56	1.81	1.37	1.17	
US NONFARM JOBS (MIL).....	146.2	146.7	147.2	147.7	148.3	148.9	149.4	150.0	150.3	150.6	150.8	151.1	144.3	146.4	148.6	150.4	
% Chg Prev Qtr SAAR.....	1.34	1.29	1.42	1.51	1.44	1.61	1.51	1.45	1.03	0.69	0.57	0.65	1.76	1.48	1.45	1.25	
% Chg Same Qtr Last Yr.....	1.56	1.39	1.39	1.39	1.42	1.49	1.52	1.50	1.40	1.17	0.93	0.73	1.76	1.48	1.45	1.25	
TN MFG JOBS (THOUS).....	347.6	346.4	346.8	347.1	347.7	348.0	348.2	348.6	348.9	349.1	349.3	349.5	343.3	346.8	347.8	348.9	
% Chg Prev Qtr SAAR.....	1.08	-1.37	0.49	0.38	0.63	0.38	0.27	0.40	0.34	0.23	0.24	0.27	3.08	1.04	0.26	0.34	
% Chg Same Qtr Last Yr.....	1.25	0.33	0.74	0.14	0.03	0.47	0.41	0.42	0.34	0.31	0.30	0.27	3.08	1.04	0.26	0.34	
US MFG JOBS (MIL).....	12.4	12.4	12.5	12.5	12.7	12.8	12.7	12.8	12.9	12.9	13.0	13.0	12.3	12.4	12.7	12.9	
% Chg Prev Qtr SAAR.....	1.00	1.11	1.89	1.58	4.45	2.56	-0.56	2.95	1.45	0.97	1.10	0.54	0.11	0.65	2.06	1.68	
% Chg Same Qtr Last Yr.....	0.47	0.77	1.34	1.39	2.25	2.61	1.99	2.33	1.59	1.19	1.62	1.02	0.11	0.65	2.06	1.68	
TN UNEMPLOYMENT RATE (%).....	4.1	3.2	3.0	3.1	3.2	3.2	3.1	3.2	3.1	3.0	3.0	3.0	4.8	3.9	3.1	3.1	
US UNEMPLOYMENT RATE (%).....	4.4	4.3	4.1	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.9	3.9	4.9	4.4	3.9	3.8	
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Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	History		Forecast Data										January 2018			
													Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
CHAINED PRICE INDEX, GDP (2009=100.0).....	113.0	113.6	114.3	114.9	115.4	116.1	116.8	117.4	118.1	118.7	119.4	120.2	111.4	113.4	115.8	118.4
% Chg Prev Qtr SAAR.....	1.01	2.14	2.27	2.13	1.91	2.46	2.19	2.31	2.20	2.11	2.48	2.59	1.28	1.80	2.09	2.25
% Chg Same Qtr Last Yr.....	1.60	1.79	1.86	1.89	2.11	2.19	2.17	2.22	2.29	2.20	2.27	2.34	1.28	1.80	2.09	2.25
US PERS CONSUMP DEFL (2009=100.0)....	112.3	112.7	113.5	113.8	114.1	114.6	115.1	115.6	116.1	116.7	117.4	118.0	110.8	112.7	114.4	116.4
% Chg Prev Qtr SAAR.....	0.27	1.55	2.68	1.31	0.94	1.91	1.64	1.66	1.98	1.82	2.41	2.27	1.19	1.69	1.56	1.77
% Chg Same Qtr Last Yr.....	1.55	1.50	1.68	1.45	1.62	1.71	1.45	1.54	1.80	1.78	1.97	2.12	1.19	1.69	1.56	1.77
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1.000).....	2.439	2.452	2.473	2.483	2.486	2.499	2.511	2.523	2.539	2.553	2.573	2.591	2.400	2.451	2.495	2.547
% Chg Prev Qtr SAAR.....	-0.31	2.01	3.60	1.61	0.43	2.18	1.89	1.98	2.58	2.22	3.14	2.81	1.28	2.13	1.77	2.11
% Chg Same Qtr Last Yr.....	1.91	1.96	2.10	1.72	1.91	1.95	1.52	1.62	2.16	2.17	2.48	2.69	1.28	2.13	1.77	2.11
BANK PRIME INTEREST RATE (%).....	4.0	4.3	4.3	4.5	4.8	5.0	5.0	5.3	5.3	5.5	5.5	5.8	3.5	4.1	4.8	5.4
FEDERAL FUNDS RATE (% per annum).....	0.950	1.153	1.209	1.444	1.717	1.920	1.953	2.177	2.229	2.430	2.465	2.687	0.395	1.003	1.758	2.325
30-YEAR FIXED MORTGAGE RATE (%).....	4.0	3.9	4.0	4.1	4.3	4.5	4.6	4.7	4.9	5.0	5.0	5.1	3.6	4.0	4.4	4.9
TN TAXABLE SALES (MIL2009\$).....	27632	28170	28349	28403	28509	28637	28769	28887	28969	29078	29123	29179	107859	110958	114316	116056
% Chg Prev Qtr SAAR.....	12.90	8.01	2.57	0.75	1.50	1.81	1.85	1.65	1.14	1.51	0.63	0.77	4.04	2.87	3.03	1.52
% Chg Same Qtr Last Yr.....	2.92	4.78	4.32	5.95	3.17	1.66	1.48	1.70	1.61	1.54	1.23	1.01	4.04	2.87	3.03	1.52
TN TAXABLE SALES (MIL\$).....	31024	31746	32085	32255	32492	32768	33064	33325	33579	33853	34101	34357	119498	124931	130579	134858
% Chg Prev Qtr SAAR.....	13.20	9.64	4.35	2.14	2.96	3.45	3.65	3.20	3.09	3.30	2.97	3.03	5.28	4.55	4.52	3.28
% Chg Same Qtr Last Yr.....	4.52	6.35	5.81	7.24	4.73	3.22	3.05	3.31	3.35	3.31	3.14	3.10	5.28	4.55	4.52	3.28
TN AVG ANNUAL WAGE, NONFARM (2009\$).....	43213	43364	43463	43560	43677	43760	43826	43912	43948	43996	43983	43974	43166	43221	43706	43960
% Chg Prev Qtr SAAR.....	3.50	1.40	0.92	0.90	1.08	0.75	0.61	0.78	0.33	0.44	-0.11	-0.08	0.04	0.13	1.12	0.58
% Chg Same Qtr Last Yr.....	0.09	-0.56	1.33	1.67	1.07	0.91	0.84	0.81	0.62	0.54	0.36	0.14	0.04	0.13	1.12	0.58
TN AVG ANNUAL WAGE, NONFARM (\$).....	48517	48868	49190	49469	49780	50073	50369	50658	50942	51221	51502	51777	47823	48661	49923	51081
% Chg Prev Qtr SAAR.....	3.78	2.93	2.66	2.29	2.54	2.37	2.39	2.32	2.26	2.21	2.21	2.16	1.24	1.75	2.59	2.32
% Chg Same Qtr Last Yr.....	1.65	0.92	2.78	2.91	2.60	2.47	2.40	2.40	2.33	2.29	2.25	2.21	1.24	1.75	2.59	2.32

Boyd Center for Business and Economic Research, University of Tennessee

Tennessee Econometric Model

Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	History		Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
US GDP (2009\$) SAAR.....	52312	52633	52872	53054	53272	53482	53704	53906	54093	54296	54465	54610	51646	52457	53379	54190
	% Chg Prev Qtr SAAR.....	2.36	2.47	1.83	1.66	1.59	1.67	1.51	1.40	1.52	1.25	1.07	0.79	1.57	1.76	1.52
	% Chg Same Qtr Last Yr.....	1.51	1.64	1.82	2.01	1.83	1.61	1.57	1.61	1.54	1.52	1.42	1.31	0.79	1.57	1.76
US GDP (\$) SAAR.....	59128	59804	60420	60949	61490	62108	62704	63300	63867	64443	65039	65631	57542	59499	61814	64164
	% Chg Prev Qtr SAAR.....	3.39	4.65	4.19	3.54	3.60	3.90	3.86	3.63	3.66	3.75	3.69	2.08	3.40	3.89	3.80
	% Chg Same Qtr Last Yr.....	3.13	3.46	3.72	3.94	3.99	3.85	3.78	3.86	3.87	3.76	3.72	2.08	3.40	3.89	3.80
TN PERSONAL INCOME (2009\$) SAAR.....	39409	39682	39924	39854	40149	40430	40702	40604	40839	41084	41256	41067	39106	39528	40284	40946
	% Chg Prev Qtr SAAR.....	3.21	2.81	2.45	-0.69	2.99	2.83	2.71	-0.96	2.34	2.42	1.68	-1.82	1.63	1.08	1.91
	% Chg Same Qtr Last Yr.....	1.03	0.75	1.78	1.93	1.88	1.88	1.95	1.88	1.72	1.62	1.36	1.14	1.63	1.08	1.91
US PERSONAL INCOME (2009\$) SAAR.....	44702	44746	44862	45147	45444	45652	45864	46218	46462	46728	46914	47196	44420	44715	45527	46581
	% Chg Prev Qtr SAAR.....	1.37	0.39	1.05	2.56	2.66	1.84	1.88	3.12	2.13	2.30	1.60	2.42	0.52	0.66	1.82
	% Chg Same Qtr Last Yr.....	0.44	0.43	1.37	1.34	1.66	2.03	2.23	2.37	2.24	2.36	2.29	2.12	0.52	0.66	1.82
TN PERSONAL INCOME (\$) SAAR.....	44245	44719	45185	45261	45758	46263	46778	46842	47339	47831	48308	48354	43326	44504	46015	47580
	% Chg Prev Qtr SAAR.....	3.48	4.35	4.23	0.67	4.47	4.49	4.53	0.55	4.31	4.22	4.05	0.38	2.84	2.72	3.39
	% Chg Same Qtr Last Yr.....	2.60	2.25	3.23	3.17	3.42	3.45	3.53	3.49	3.45	3.39	3.27	3.23	2.84	2.72	3.39
US PERSONAL INCOME (\$) SAAR.....	50188	50430	50898	51388	51847	52331	52790	53416	53963	54517	55061	55703	49213	50376	52090	54240
	% Chg Prev Qtr SAAR.....	1.64	1.94	3.76	3.91	3.62	3.79	3.55	4.83	4.16	4.17	4.05	4.74	1.71	2.36	3.40
	% Chg Same Qtr Last Yr.....	2.00	1.94	3.07	2.81	3.31	3.77	3.72	3.95	4.08	4.18	4.30	4.28	1.71	2.36	3.40
TN TAXABLE SALES (2009\$).....	4118	4198	4225	4196	4211	4230	4250	4231	4243	4259	4266	4239	16216	16535	16887	17000
	% Chg Prev Qtr SAAR.....	12.90	8.01	2.57	-2.71	1.50	1.81	1.85	-1.74	1.14	1.51	0.63	-2.49	3.17	1.96	2.13
	% Chg Same Qtr Last Yr.....	2.01	3.85	3.40	5.03	2.27	0.77	0.60	0.85	0.76	0.68	0.38	0.19	3.17	1.96	2.13
TN TAXABLE SALES (\$).....	4623	4731	4781	4765	4800	4841	4884	4881	4919	4959	4995	4991	17966	18617	19290	19754
	% Chg Prev Qtr SAAR.....	13.20	9.64	4.35	-1.37	2.96	3.45	3.65	-0.24	3.09	3.30	2.97	-0.30	4.39	3.62	3.61
	% Chg Same Qtr Last Yr.....	3.60	5.41	4.88	6.31	3.82	2.32	2.15	2.44	2.48	2.44	2.27	2.25	4.39	3.62	3.61

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Table 3: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of 2009 dollars)

	History		Forecast Data											Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
TN PERSONAL INCOME.....	262372	264452	266289	267907	269789	271782	273688	275525	277203	278808	280479	281653	282678	260100	265255	272696	279536
% Chg Prev Qtr SAAR.....	2.28	3.21	2.81	2.45	2.84	2.99	2.83	2.71	2.46	2.34	2.42	1.68	1.46	2.50	1.98	2.81	2.51
% Chg Same Qtr Last Yr.....	1.66	1.94	1.64	2.69	2.83	2.77	2.78	2.84	2.75	2.59	2.48	2.22	1.98	2.50	1.98	2.81	2.51
WAGES AND SALARIES.....	129689	131037	131976	132786	133574	134370	135018	135608	136279	136807	137327	137574	137800	128888	131372	134643	136997
% Chg Prev Qtr SAAR.....	1.80	4.22	2.90	2.48	2.40	2.40	1.94	1.76	1.99	1.56	1.53	0.72	0.66	2.61	1.93	2.49	1.75
% Chg Same Qtr Last Yr.....	1.80	2.04	1.03	2.85	3.00	2.54	2.31	2.13	2.03	1.81	1.71	1.45	1.12	2.61	1.93	2.49	1.75
OTHER LABOR INCOME.....	30346	30564	30652	30712	30803	30890	30958	30985	31046	31151	31247	31281	31364	29788	30568	30909	31181
% Chg Prev Qtr SAAR.....	0.51	2.90	1.16	0.79	1.19	1.13	0.89	0.34	0.78	1.37	1.24	0.43	1.06	6.28	2.62	1.11	0.88
% Chg Same Qtr Last Yr.....	4.17	3.42	1.62	1.34	1.51	1.07	1.00	0.89	0.79	0.85	0.93	0.96	1.03	6.28	2.62	1.11	0.88
PROPRIETORS INCOME.....	35280	35246	35486	35724	36095	36440	36731	37031	37384	37617	37846	38011	38175	34006	35434	36574	37715
% Chg Prev Qtr SAAR.....	8.35	-0.38	2.74	2.71	4.22	3.87	3.24	3.30	3.87	2.51	2.46	1.76	1.73	4.15	4.20	3.22	3.12
% Chg Same Qtr Last Yr.....	5.16	4.33	4.03	3.31	2.31	3.39	3.51	3.66	3.57	3.23	3.03	2.65	2.12	4.15	4.20	3.22	3.12
RENT, INTEREST, DIVIDENDS.....	37192	37418	37704	37978	38298	38537	38878	39262	39577	39813	40108	40340	40543	36938	37573	38744	39960
% Chg Prev Qtr SAAR.....	2.25	2.45	3.10	2.94	3.41	2.52	3.59	4.01	3.25	2.40	3.00	2.33	2.03	1.09	1.72	3.12	3.14
% Chg Same Qtr Last Yr.....	0.55	1.35	2.30	2.69	2.97	2.99	3.11	3.38	3.34	3.31	3.16	2.74	2.44	1.09	1.72	3.12	3.14
TRANSFER PAYMENTS.....	52556	53089	53438	53716	54065	54615	55193	55746	56094	56609	57163	57645	58028	52729	53200	54905	56878
% Chg Prev Qtr SAAR.....	2.15	4.11	2.66	2.09	2.63	4.13	4.30	4.07	2.52	3.72	3.97	3.42	2.69	0.93	0.89	3.21	3.59
% Chg Same Qtr Last Yr.....	-0.79	0.39	1.25	2.75	2.87	2.88	3.28	3.78	3.75	3.65	3.57	3.41	3.45	0.93	0.89	3.21	3.59
LESS: PERS CONT FOR SOC INS....	20896	21093	21158	21202	21238	21263	21287	21305	21376	21389	21410	21401	21438	20497	21087	21273	21394
% Chg Prev Qtr SAAR.....	6.66	3.82	1.24	0.84	0.67	0.47	0.45	0.34	1.35	0.24	0.39	-0.17	0.70	3.01	2.88	0.88	0.57
% Chg Same Qtr Last Yr.....	3.12	3.33	1.97	3.11	1.63	0.81	0.61	0.48	0.65	0.59	0.58	0.45	0.29	3.01	2.88	0.88	0.57
RESIDENCE ADJUSTMENT.....	-1794	-1809	-1809	-1806	-1808	-1807	-1804	-1803	-1801	-1801	-1802	-1798	-1792	-1751	-1804	-1806	-1800
% Chg Prev Qtr SAAR.....	-0.74	3.33	-0.05	-0.62	0.53	-0.29	-0.55	-0.42	-0.34	-0.03	0.23	-0.88	-1.22	24.59	3.03	0.06	-0.28
% Chg Same Qtr Last Yr.....	6.46	5.38	0.16	0.46	0.78	-0.11	-0.23	-0.18	-0.40	-0.33	-0.14	-0.26	-0.47	24.59	3.03	0.06	-0.28
PER CAPITA PERSONAL INCOME (\$)	39099	39409	39682	39924	39854	40149	40430	40702	40604	40839	41084	41256	41067	39106	39528	40284	40946
% Chg Prev Qtr SAAR.....	-1.29	3.21	2.81	2.45	-0.69	2.99	2.83	2.71	-0.96	2.34	2.42	1.68	-1.82	1.63	1.08	1.91	1.64
% Chg Same Qtr Last Yr.....	0.76	1.03	0.75	1.78	1.93	1.88	1.88	1.95	1.88	1.72	1.62	1.36	1.14	1.63	1.08	1.91	1.64

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Table 4: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of current dollars)

	History										Forecast Data										Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2020:1	2020:1	2020:1	2020:1	2020:1	2020:1	2020:1	2016	2017	2018	2019
TN PERSONAL INCOME.....	294376	296908	300089	303212	306386	309755	313174	316659	319792	323181	326542	329796	332838	288170	298646	311494	324828				372	364	372	364
% Chg Prev Qtr SAAR.....	4.55	3.48	4.35	4.23	4.25	4.47	4.49	4.53	4.02	4.31	4.22	4.05	3.74	3.72	3.64	4.30	4.28				3.72	3.64	4.30	4.28
% Chg Same Qtr Last Yr.....	3.70	3.52	3.16	4.15	4.08	4.33	4.36	4.43	4.38	4.33	4.27	4.15	4.08	3.72	3.64	4.30	4.28				3.72	3.64	4.30	4.28
WAGES AND SALARIES.....	145508	147119	148727	150284	151694	153144	154497	155854	157217	158581	159880	161090	162251	142799	147910	153797	159192				383	358	383	351
% Chg Prev Qtr SAAR.....	4.07	4.50	4.44	4.25	3.81	3.88	3.58	3.56	3.54	3.52	3.32	3.06	2.91	3.83	3.58	3.98	3.51				3.83	3.58	3.98	3.51
% Chg Same Qtr Last Yr.....	3.85	3.62	2.54	4.32	4.25	4.10	3.88	3.71	3.64	3.55	3.48	3.36	3.20	3.83	3.58	3.98	3.51				3.83	3.58	3.98	3.51
OTHER LABOR INCOME.....	34048	34315	34542	34760	34982	35206	35425	35611	35815	36109	36379	36628	36929	33005	34416	35306	36233				755	428	755	259
% Chg Prev Qtr SAAR.....	2.74	3.18	2.68	2.54	2.58	2.59	2.51	2.12	2.31	3.33	3.02	2.77	3.33	7.55	4.28	2.59	2.63				7.55	4.28	2.59	2.63
% Chg Same Qtr Last Yr.....	6.27	5.03	3.14	2.78	2.74	2.60	2.56	2.45	2.38	2.57	2.69	2.86	3.11	7.55	4.28	2.59	2.63				7.55	4.28	2.59	2.63
PROPRIETORS INCOME.....	39583	39572	39990	40431	40991	41531	42031	42559	43127	43604	44062	44509	44948	37677	39894	41778	43825				540	588	540	490
% Chg Prev Qtr SAAR.....	10.76	-0.11	4.29	4.49	5.65	5.37	4.90	5.12	5.45	4.49	4.27	4.12	4.01	5.40	5.88	4.72	4.90				5.40	5.88	4.72	4.90
% Chg Same Qtr Last Yr.....	7.27	5.95	5.59	4.79	3.56	4.95	5.10	5.26	5.21	4.99	4.83	4.58	4.22	5.40	5.88	4.72	4.90				5.40	5.88	4.72	4.90
RENT, INTEREST, DIVIDENDS.....	41728	42010	42490	42983	43493	43921	44487	45124	45658	46149	46695	47235	47737	40923	42303	44256	46434				229	337	229	492
% Chg Prev Qtr SAAR.....	4.53	2.73	4.65	4.72	4.83	4.00	5.26	5.85	4.82	4.38	4.81	4.71	4.32	2.29	3.37	4.62	4.92				2.29	3.37	4.62	4.92
% Chg Same Qtr Last Yr.....	2.57	2.92	3.83	4.15	4.23	4.55	4.70	4.98	4.98	5.07	4.96	4.68	4.55	2.29	3.37	4.62	4.92				2.29	3.37	4.62	4.92
TRANSFER PAYMENTS.....	58967	59604	60221	60794	61399	62246	63156	64068	64712	65619	66550	67498	68325	58416	59897	62717	66095				58416	59897	62717	66095
% Chg Prev Qtr SAAR.....	4.42	4.39	4.20	3.86	4.04	5.63	5.97	5.91	4.08	5.72	5.80	5.82	4.99	2.13	2.53	4.71	5.39				2.13	2.53	4.71	5.39
% Chg Same Qtr Last Yr.....	1.20	1.95	2.76	4.22	4.12	4.43	4.87	5.39	5.40	5.42	5.38	5.35	5.58	2.13	2.53	4.71	5.39				2.13	2.53	4.71	5.39
LESS: PERS CONT FOR SOC INS....	23445	23681	23844	23996	24119	24233	24358	24485	24660	24793	24926	25059	25242	22710	23742	24299	24859				22710	23742	24299	24859
% Chg Prev Qtr SAAR.....	9.03	4.09	2.77	2.58	2.06	1.92	2.07	2.11	2.89	2.17	2.16	2.15	2.96	4.24	4.54	2.35	2.31				4.24	4.54	2.35	2.31
% Chg Same Qtr Last Yr.....	5.19	4.94	3.49	4.59	2.87	2.33	2.16	2.04	2.25	2.31	2.33	2.34	2.36	4.24	4.54	2.35	2.31				4.24	4.54	2.35	2.31
RESIDENCE ADJUSTMENT.....	-2013	-2031	-2038	-2044	-2054	-2059	-2065	-2072	-2078	-2088	-2098	-2105	-2111	-1941	-2032	-2062	-2092				-1941	-2032	-2062	-2092
% Chg Prev Qtr SAAR.....	1.47	3.61	1.45	1.10	1.91	1.15	1.05	1.34	1.17	1.90	2.00	1.42	1.00	26.08	4.69	1.52	1.44				26.08	4.69	1.52	1.44
% Chg Same Qtr Last Yr.....	8.60	7.02	1.66	1.90	2.01	1.40	1.30	1.36	1.18	1.36	1.60	1.62	1.58	26.08	4.69	1.52	1.44				26.08	4.69	1.52	1.44
PER CAPITA PERSONAL INCOME (\$)...	43868	44245	44719	45185	45261	45758	46263	46778	46842	47339	47831	48308	48354	43326	44504	46015	47580				43326	44504	46015	47580
% Chg Prev Qtr SAAR.....	0.90	3.48	4.35	4.23	0.67	4.47	4.49	4.53	0.55	4.31	4.22	4.05	0.38	2.84	2.72	3.39	3.40				2.84	2.72	3.39	3.40
% Chg Same Qtr Last Yr.....	2.79	2.60	2.25	3.23	3.17	3.42	3.45	3.53	3.49	3.45	3.39	3.27	3.23	2.84	2.72	3.39	3.40				2.84	2.72	3.39	3.40

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Table 5: Tennessee Nonfarm Employment by Sector, Not Seasonally Adjusted (thousands of jobs)

	History		Forecast Data										January 2018			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
TOTAL NONFARM.....	3015.7	3016.5	3067.6	3018.6	3060.0	3058.1	3107.3	3055.3	3096.7	3094.0	3141.3	3085.0	2965.8	3019.8	3061.0	3096.8
% Chg Same Qtr Last Yr.....	2.01	1.63	1.51	1.32	1.47	1.38	1.29	1.21	1.20	1.18	1.10	0.97	2.48	1.82	1.36	1.17
NATURAL RESOURCES, MINING, CONSTRUCTION...	125.6	127.1	126.8	121.8	126.0	128.0	128.0	122.8	127.8	129.9	129.9	124.6	119.3	125.2	125.9	127.6
% Chg Same Qtr Last Yr.....	5.93	4.78	3.60	0.30	0.30	0.73	0.93	0.84	1.47	1.52	1.49	1.43	1.79	5.01	0.57	1.34
MANUFACTURING.....	347.9	346.5	347.1	346.3	348.0	348.2	348.6	347.8	349.2	349.2	349.6	348.7	343.3	346.8	347.8	349.0
% Chg Same Qtr Last Yr.....	1.26	0.32	0.74	0.14	0.03	0.48	0.41	0.42	0.34	0.31	0.30	0.27	3.09	1.04	0.27	0.34
DURABLE GOODS.....	221.5	220.8	221.3	221.2	222.3	222.4	222.9	222.6	223.5	223.3	223.7	223.4	218.9	221.0	222.2	223.3
% Chg Same Qtr Last Yr.....	1.06	0.20	0.61	0.39	0.37	0.73	0.69	0.62	0.52	0.42	0.36	0.35	3.82	0.97	0.55	0.48
NONDURABLE GOODS.....	126.4	125.7	125.8	125.1	125.7	125.8	125.7	125.2	125.7	125.9	126.0	125.3	124.4	125.9	125.6	125.7
% Chg Same Qtr Last Yr.....	1.61	0.53	0.97	-0.29	-0.58	0.03	-0.08	0.06	0.03	0.11	0.20	0.14	1.83	1.17	-0.23	0.10
TRADE, TRANSPORTATION, UTILITIES.....	624.6	627.9	639.6	626.3	632.8	632.7	643.5	629.5	635.4	635.1	644.8	629.8	617.0	627.8	633.8	636.2
% Chg Same Qtr Last Yr.....	1.64	1.58	1.76	1.17	1.32	0.77	0.62	0.50	0.41	0.38	0.20	0.05	2.45	1.74	0.97	0.37
WHOLESALE TRADE.....	121.4	123.5	124.4	123.5	124.3	124.5	124.8	123.9	124.8	125.0	125.2	124.2	119.9	122.5	124.3	124.8
% Chg Same Qtr Last Yr.....	1.73	2.49	3.01	2.37	2.37	0.78	0.32	0.37	0.41	0.47	0.35	0.26	-0.10	2.17	1.45	0.40
RETAIL TRADE.....	339.1	338.7	345.4	336.6	341.1	340.0	346.6	337.7	342.3	341.0	346.8	337.1	333.8	339.9	341.1	341.9
% Chg Same Qtr Last Yr.....	1.83	1.60	1.26	0.09	0.61	0.37	0.35	0.34	0.33	0.29	0.04	-0.20	2.55	1.83	0.36	0.25
TRANSPORTATION & UTILITIES.....	164.1	165.6	169.7	166.3	167.4	168.2	172.1	167.8	168.3	169.1	172.8	168.5	163.4	165.4	168.5	169.5
% Chg Same Qtr Last Yr.....	1.17	0.87	1.89	2.53	2.01	1.57	1.39	0.94	0.57	0.49	0.41	0.37	4.20	1.24	1.87	0.60
INFORMATION.....	45.8	45.4	45.7	45.6	45.9	45.8	45.6	45.6	45.8	45.8	45.8	45.7	45.5	45.6	45.7	45.8
% Chg Same Qtr Last Yr.....	0.07	-0.22	-0.43	-0.14	0.12	0.87	-0.06	-0.04	-0.05	0.14	0.34	0.32	2.55	0.24	0.20	0.10
FINANCIAL ACTIVITIES.....	155.6	156.1	157.1	156.0	156.8	157.7	158.4	157.2	157.7	158.2	158.5	157.1	152.8	155.7	157.2	157.9
% Chg Same Qtr Last Yr.....	2.28	1.45	1.11	1.42	0.76	1.07	0.83	0.75	0.53	0.29	0.06	-0.02	3.21	1.88	1.02	0.41
PROFESSIONAL & BUSINESS SERVICES.....	412.9	413.9	428.3	417.9	427.1	430.5	445.2	433.7	443.0	446.6	460.9	447.0	405.6	415.3	430.2	446.1
% Chg Same Qtr Last Yr.....	2.78	1.97	1.94	2.87	3.45	4.02	3.94	3.78	3.73	3.74	3.53	3.06	3.20	2.40	3.58	3.69
EDUCATION & HEALTH SERVICES.....	428.2	427.2	435.9	434.9	436.0	436.2	444.3	443.0	444.0	444.2	452.2	450.9	424.3	429.3	437.8	445.8
% Chg Same Qtr Last Yr.....	1.68	0.86	0.82	2.13	1.82	2.12	1.92	1.87	1.85	1.83	1.78	1.80	2.24	1.16	1.99	1.83
LEISURE & HOSPITALITY.....	333.5	339.4	329.6	317.8	341.5	343.1	334.3	322.2	346.2	347.5	338.6	326.1	320.3	329.0	334.1	338.6
% Chg Same Qtr Last Yr.....	2.24	3.28	2.31	1.36	2.38	1.07	1.42	1.38	1.37	1.30	1.30	1.22	3.99	2.73	1.56	1.34
OTHER SERVICES.....	113.0	112.8	111.9	111.6	114.4	113.6	112.6	112.3	115.2	114.4	113.4	113.1	110.3	111.9	113.1	113.8
% Chg Same Qtr Last Yr.....	1.56	1.35	2.05	1.45	1.27	0.71	0.60	0.63	0.65	0.67	0.70	0.72	2.13	1.50	1.01	0.66
GOVERNMENT.....	428.6	420.4	445.6	440.4	431.5	422.3	446.8	441.3	432.3	423.1	447.6	442.0	427.5	433.2	435.3	436.1
% Chg Same Qtr Last Yr.....	1.74	1.37	1.06	0.54	0.68	0.46	0.26	0.20	0.18	0.17	0.18	0.15	0.57	1.33	0.49	0.18
FEDERAL, CIVILIAN.....	48.6	48.3	48.4	48.4	49.8	48.7	48.4	48.3	49.6	48.6	48.3	48.0	49.2	48.5	48.8	48.7
% Chg Same Qtr Last Yr.....	-1.02	-2.03	-1.61	-0.67	2.30	0.75	-0.11	-0.18	-0.21	-0.25	-0.26	-0.55	0.14	-1.32	0.57	-0.22
STATE & LOCAL.....	380.0	372.1	397.2	392.0	381.8	373.6	398.4	393.0	382.7	374.4	399.4	394.0	378.3	384.6	386.5	387.4
% Chg Same Qtr Last Yr.....	2.10	1.82	1.41	0.70	0.48	0.41	0.31	0.25	0.23	0.23	0.24	0.24	0.63	1.68	0.47	0.24

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Table 6: Tennessee Durable Goods Manufacturing Employment, Not Seasonally Adjusted (thousands of jobs)

	History			Forecast Data												Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019			
TOTAL DURABLE GOODS.....	221.5	220.8	221.3	221.2	222.3	222.4	222.9	222.6	223.5	223.3	223.7	223.4	218.9	221.0	222.2	223.3			
% Chg Same Qtr Last Yr.....	1.06	0.20	0.61	0.39	0.37	0.73	0.69	0.62	0.52	0.42	0.36	0.35	3.82	0.97	0.55	0.48			
WOOD PRODUCTS.....	12.1	12.0	12.0	12.0	12.1	12.3	12.2	12.1	12.2	12.4	12.4	12.2	12.0	12.0	12.1	12.3			
% Chg Same Qtr Last Yr.....	0.56	-1.10	-0.55	-0.35	0.38	1.87	1.63	1.38	1.11	1.03	0.99	1.00	3.96	0.00	0.88	1.13			
NONMETALLIC MINERAL PRODUCTS.....	13.9	14.1	14.0	13.9	14.1	14.2	14.2	14.1	14.2	14.3	14.3	14.2	13.5	13.9	14.1	14.2			
% Chg Same Qtr Last Yr.....	3.99	2.68	2.45	1.91	1.60	0.92	1.27	1.10	0.90	0.73	0.64	0.63	6.45	3.22	1.42	0.84			
PRIMARY METALS.....	10.5	10.6	10.7	10.8	10.8	10.8	10.9	10.9	11.0	10.9	11.0	11.0	10.5	10.6	10.8	10.9			
% Chg Same Qtr Last Yr.....	-0.63	2.58	2.71	2.54	2.87	1.92	2.20	1.51	1.23	0.88	0.55	0.53	1.29	0.91	2.38	1.04			
FABRICATED METAL PRODUCTS.....	35.4	35.2	35.2	35.1	35.4	35.3	35.3	35.2	35.5	35.4	35.4	35.4	35.6	35.2	35.3	35.4			
% Chg Same Qtr Last Yr.....	-1.12	-1.68	-0.32	0.07	-0.20	0.47	0.35	0.32	0.30	0.28	0.22	0.33	1.35	-1.11	0.17	0.28			
MACHINERY.....	25.9	25.5	25.5	25.5	25.9	25.7	25.6	25.7	26.1	25.8	25.7	25.8	25.5	25.6	25.7	25.8			
% Chg Same Qtr Last Yr.....	0.00	-0.78	0.20	0.35	-0.03	0.47	0.52	0.59	0.58	0.55	0.42	0.33	0.92	0.31	0.33	0.54			
COMPUTER & ELECTRONIC PRODUCTS.....	4.4	4.4	4.3	4.3	4.3	4.2	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.4	4.2	4.1			
% Chg Same Qtr Last Yr.....	-6.34	-6.38	-4.97	-3.76	-4.01	-3.78	-3.91	-3.58	-3.92	-4.36	-4.70	-4.71	-5.21	-6.17	-3.86	-4.13			
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	20.1	20.1	20.1	20.1	20.1	20.3	20.2	20.2	20.2	20.4	20.3	20.4	20.1	20.1	20.2	20.3			
% Chg Same Qtr Last Yr.....	1.34	-0.66	-0.83	-0.55	-0.18	0.77	0.71	0.62	0.49	0.37	0.41	0.52	1.82	0.45	0.19	0.47			
TRANSPORTATION EQUIPMENT.....	73.8	73.5	74.2	74.2	74.1	74.0	74.8	74.7	74.6	74.5	75.2	75.2	72.1	73.9	74.3	74.8			
% Chg Same Qtr Last Yr.....	2.64	1.10	1.23	0.31	0.39	0.77	0.71	0.75	0.74	0.67	0.65	0.65	7.98	2.46	0.54	0.70			
FURNITURE.....	9.6	9.6	9.5	9.7	9.7	9.8	9.7	9.8	9.9	9.9	9.9	9.9	9.4	9.5	9.7	9.9			
% Chg Same Qtr Last Yr.....	1.77	1.77	2.04	1.75	1.76	1.77	1.90	1.77	1.95	1.75	1.55	0.98	3.50	1.84	1.79	1.76			
MISCELLANEOUS DURABLE GOODS.....	15.7	15.8	15.7	15.7	15.8	15.8	15.7	15.6	15.7	15.6	15.5	15.4	15.5	15.7	15.8	15.6			
% Chg Same Qtr Last Yr.....	1.07	1.28	1.01	0.92	0.63	0.35	-0.07	-0.44	-1.05	-1.26	-1.13	-1.23	1.25	1.06	0.46	-0.97			

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Table 7: Tennessee Nondurable Goods Manufacturing Employment, Not Seasonally Adjusted (thousands of jobs)

	History			Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	
TOTAL NONDURABLE GOODS.....	126.4	125.7	125.8	125.1	125.7	125.8	125.7	125.2	125.7	125.9	126.0	125.3	124.4	125.9	125.6	125.7	
% Chg Same Qtr Last Yr.....	1.61	0.53	0.97	-0.29	-0.58	0.03	-0.08	0.06	0.03	0.11	0.20	0.14	1.83	1.17	-0.23	0.10	
FOOD.....	34.6	34.7	34.9	34.7	34.7	35.0	35.1	34.9	34.9	35.2	35.4	35.2	34.2	34.7	34.9	35.1	
% Chg Same Qtr Last Yr.....	2.06	0.77	0.36	0.28	0.14	0.70	0.67	0.58	0.71	0.73	0.76	0.73	2.88	1.36	0.45	0.69	
BEVERAGE & TOBACCO.....	7.0	7.1	7.1	7.1	7.2	7.3	7.2	7.2	7.3	7.3	7.3	7.2	6.6	7.0	7.2	7.3	
% Chg Same Qtr Last Yr.....	7.18	5.97	5.47	4.71	3.69	2.17	1.53	1.46	1.06	0.67	0.45	0.17	10.99	6.61	3.00	0.90	
PAPER.....	14.3	14.4	14.2	14.1	14.3	14.3	14.2	14.1	14.2	14.3	14.1	14.0	14.5	14.3	14.2	14.2	
% Chg Same Qtr Last Yr.....	-2.05	-0.92	-0.91	-0.47	-0.21	-0.70	-0.52	-0.34	-0.33	-0.32	-0.14	-0.14	-0.69	-1.38	-0.47	-0.28	
PRINTING & RELATED SUPPORT.....	9.1	9.0	9.0	8.9	8.9	8.8	8.8	8.8	8.8	8.7	8.8	8.7	9.2	9.0	8.8	8.8	
% Chg Same Qtr Last Yr.....	-1.81	-1.82	-1.23	-1.84	-2.01	-1.94	-1.58	-1.16	-0.93	-0.64	-0.30	-0.19	-0.45	-1.85	-1.84	-0.76	
CHEMICALS.....	25.4	25.4	25.3	25.2	25.3	25.4	25.2	25.1	25.2	25.2	25.1	24.9	25.4	25.3	25.3	25.1	
% Chg Same Qtr Last Yr.....	-0.13	-0.13	-0.11	-0.42	-0.19	-0.15	-0.50	-0.36	-0.62	-0.66	-0.64	-0.68	-0.68	-0.22	-0.32	-0.57	
PLASTICS & RUBBER.....	24.2	24.2	24.5	24.5	24.6	24.5	24.7	24.9	24.9	24.9	25.1	25.2	23.1	24.2	24.6	24.9	
% Chg Same Qtr Last Yr.....	5.22	4.91	4.95	1.90	1.67	1.10	0.92	1.35	1.31	1.61	1.70	1.38	5.05	5.16	1.40	1.49	
MISCELLANEOUS NONDURABLE GOODS.....	11.9	10.9	10.8	10.6	10.7	10.6	10.5	10.3	10.4	10.3	10.2	10.1	11.5	11.3	10.6	10.3	
% Chg Same Qtr Last Yr.....	1.14	-6.84	-1.58	-7.84	-9.94	-2.91	-2.99	-2.99	-2.97	-2.70	-2.47	-2.26	-1.43	-1.83	-6.04	-2.78	

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Table 8: Tennessee Nonfarm Employment by Sector, Seasonally Adjusted (thousands of jobs)

	History				Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	January 2018	
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	January 2018	
TOTAL NONFARM.....	3013.2	3024.5	3036.3	3047.5	3057.5	3066.6	3075.4	3084.6	3094.1	3102.5	3109.1	3114.8	2966.8	3020.4	3061.7	3097.6		
% Chg Prev Qtr SAAR.....	0.73	1.50	1.57	1.48	1.32	1.19	1.16	1.20	1.23	1.10	0.84	0.74	2.56	1.81	1.37	1.17		
% Chg Same Qtr Last Yr.....	1.95	1.61	1.51	1.32	1.47	1.39	1.29	1.22	1.20	1.17	1.09	0.98	2.56	1.81	1.37	1.17		
NATURAL RESOURCES, MINING AND CONSTRUCTION.....	125.4	125.5	125.5	126.1	125.8	126.2	126.7	127.2	127.6	128.1	128.6	129.0	119.4	125.5	126.2	127.9		
% Chg Prev Qtr SAAR.....	-1.06	0.21	0.10	1.97	-1.07	1.26	1.59	1.61	1.44	1.43	1.48	1.37	1.90	5.12	0.52	1.33		
% Chg Same Qtr Last Yr.....	6.36	4.96	3.60	0.30	0.30	0.56	0.93	0.84	1.47	1.52	1.49	1.43	1.90	5.12	0.52	1.33		
MANUFACTURING.....	347.6	346.4	346.8	347.1	347.7	348.0	348.2	348.6	348.9	349.1	349.3	349.5	343.3	346.8	347.8	348.9		
% Chg Prev Qtr SAAR.....	1.08	-1.37	0.49	0.38	0.63	0.38	0.27	0.40	0.34	0.23	0.24	0.27	3.08	1.04	0.26	0.34		
% Chg Same Qtr Last Yr.....	1.25	0.33	0.74	0.14	0.03	0.47	0.41	0.42	0.34	0.31	0.30	0.27	3.08	1.04	0.26	0.34		
DURABLE GOODS.....	221.2	220.8	221.2	221.6	222.1	222.4	222.7	223.0	223.2	223.3	223.5	223.7	218.9	221.0	222.2	223.3		
% Chg Prev Qtr SAAR.....	0.92	-0.76	0.64	0.77	0.85	0.64	0.51	0.49	0.44	0.23	0.28	0.43	3.81	0.97	0.55	0.48		
% Chg Same Qtr Last Yr.....	1.05	0.21	0.61	0.39	0.37	0.73	0.69	0.62	0.52	0.42	0.36	0.35	3.81	0.97	0.55	0.48		
NONDURABLE GOODS.....	126.3	125.6	125.6	125.5	125.6	125.6	125.5	125.6	125.6	125.7	125.8	125.8	124.4	125.9	125.6	125.7		
% Chg Prev Qtr SAAR.....	1.35	-2.43	0.23	-0.31	0.24	-0.08	-0.16	0.24	0.14	0.24	0.18	-0.02	1.82	1.17	-0.23	0.10		
% Chg Same Qtr Last Yr.....	1.60	0.55	0.97	-0.30	-0.57	0.02	-0.08	0.06	0.03	0.12	0.20	0.13	1.82	1.17	-0.23	0.10		
TRADE, TRANSPORTATION, UTILITIES.....	625.7	628.8	631.4	632.8	633.9	634.7	635.3	636.0	636.5	637.1	636.5	636.3	617.7	627.8	634.2	636.5		
% Chg Prev Qtr SAAR.....	0.13	2.00	1.67	0.90	0.72	0.48	0.38	0.44	0.34	0.35	-0.34	-0.17	2.63	1.65	1.01	0.37		
% Chg Same Qtr Last Yr.....	1.54	1.40	1.76	1.17	1.32	0.94	0.62	0.50	0.41	0.38	0.20	0.05	2.63	1.65	1.01	0.37		
WHOLESALE TRADE.....	121.3	123.6	124.0	124.1	124.2	124.2	124.4	124.6	124.7	124.8	124.9	124.9	119.9	122.5	124.2	124.7		
% Chg Prev Qtr SAAR.....	0.22	7.69	1.49	0.26	0.21	0.15	0.67	0.46	0.37	0.39	0.19	0.09	-0.03	2.17	1.39	0.40		
% Chg Same Qtr Last Yr.....	1.59	2.74	3.01	2.37	2.37	0.53	0.32	0.37	0.41	0.47	0.35	0.26	-0.03	2.17	1.39	0.40		
RETAIL TRADE.....	339.1	339.6	340.4	340.8	341.1	341.6	341.6	342.0	342.3	342.5	341.7	341.3	334.3	339.9	341.3	342.1		
% Chg Prev Qtr SAAR.....	-1.67	0.63	0.97	0.46	0.38	0.50	0.06	0.40	0.36	0.32	-0.93	-0.52	2.78	1.69	0.41	0.25		
% Chg Same Qtr Last Yr.....	1.66	1.39	1.26	0.09	0.61	0.58	0.35	0.34	0.33	0.29	0.04	-0.20	2.78	1.69	0.41	0.25		
TRANSPORTATION & UTILITIES.....	165.3	165.6	166.9	167.9	168.6	168.9	169.2	169.5	169.6	169.7	169.9	170.1	163.5	165.4	168.7	169.7		
% Chg Prev Qtr SAAR.....	3.88	0.73	3.27	2.29	1.79	0.67	0.80	0.51	0.29	0.37	0.46	0.36	4.37	1.17	1.98	0.60		
% Chg Same Qtr Last Yr.....	1.27	0.44	1.89	2.53	2.01	2.00	1.39	0.94	0.57	0.49	0.41	0.37	4.37	1.17	1.98	0.60		
INFORMATION.....	45.6	45.6	45.6	45.6	45.7	45.6	45.6	45.6	45.7	45.7	45.7	45.8	45.5	45.6	45.6	45.7		
% Chg Prev Qtr SAAR.....	-0.58	-0.58	0.30	0.32	0.43	-0.53	-0.44	0.39	0.39	0.24	0.34	0.30	2.59	0.28	0.01	0.10		
% Chg Same Qtr Last Yr.....	-0.22	0.51	-0.43	-0.14	0.12	0.13	-0.06	-0.04	-0.05	0.14	0.34	0.32	2.59	0.28	0.01	0.10		
FINANCIAL ACTIVITIES.....	155.7	155.8	156.4	156.6	156.9	157.3	157.7	157.8	157.8	157.8	157.8	157.8	152.6	155.6	157.1	157.8		
% Chg Prev Qtr SAAR.....	3.41	0.26	1.43	0.62	0.75	0.96	0.99	0.31	-0.12	-0.01	0.04	0.00	3.18	1.94	0.99	0.41		
% Chg Same Qtr Last Yr.....	2.50	1.59	1.11	1.42	0.76	0.94	0.83	0.75	0.53	0.29	0.06	-0.02	3.18	1.94	0.99	0.41		

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Table 8: Tennessee Nonfarm Employment by Sector, Seasonally Adjusted (thousands of jobs)

	January 2018											
	History						Forecast Data					
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1
PROFESSIONAL & BUSINESS SERVICES....	414.5	416.2	419.4	424.2	428.8	432.3	435.9	440.2	444.8	448.5	451.3	453.6
% Chg Prev Qtr SAAR.....	2.15	1.62	3.10	4.65	4.47	3.32	3.34	3.98	4.27	3.39	2.49	2.12
% Chg Same Qtr Last Yr.....	2.64	2.11	1.94	2.87	3.45	3.88	3.94	3.78	3.73	3.74	3.53	3.06
EDUCATION & HEALTH SERVICES.....	429.0	430.0	432.8	434.6	436.8	438.9	441.1	442.7	444.8	446.9	448.9	450.7
% Chg Prev Qtr SAAR.....	3.23	0.94	2.64	1.71	1.99	1.93	2.04	1.51	1.90	1.88	1.85	1.57
% Chg Same Qtr Last Yr.....	1.57	0.91	0.82	2.13	1.82	2.07	1.92	1.87	1.85	1.83	1.78	1.80
LEISURE & HOSPITALITY.....	326.1	330.4	331.6	332.7	333.9	335.2	336.3	337.4	338.5	339.5	340.7	341.5
% Chg Prev Qtr SAAR.....	-2.57	5.38	1.40	1.41	1.40	1.55	1.34	1.25	1.36	1.24	1.37	0.91
% Chg Same Qtr Last Yr.....	2.47	2.90	2.31	1.36	2.38	1.44	1.42	1.38	1.37	1.30	1.30	1.22
OTHER SERVICES.....	111.6	112.2	112.7	112.8	113.0	113.2	113.4	113.6	113.8	114.0	114.2	114.4
% Chg Prev Qtr SAAR.....	1.33	2.29	1.66	0.54	0.61	0.61	0.63	0.65	0.70	0.71	0.73	0.74
% Chg Same Qtr Last Yr.....	1.18	1.20	2.05	1.45	1.27	0.85	0.60	0.62	0.65	0.67	0.70	0.72
GOVERNMENT.....	432.0	433.7	434.2	434.8	435.0	435.2	435.3	435.7	435.8	436.0	436.1	436.3
% Chg Prev Qtr SAAR.....	-0.37	1.52	0.48	0.55	0.19	0.20	0.11	0.31	0.12	0.16	0.14	0.19
% Chg Same Qtr Last Yr.....	1.48	1.47	1.06	0.54	0.68	0.36	0.26	0.20	0.18	0.17	0.18	0.15
FEDERAL, CIVILIAN.....	47.7	48.7	48.8	48.8	48.8	48.8	48.7	48.7	48.7	48.6	48.6	48.5
% Chg Prev Qtr SAAR.....	-11.41	8.95	0.28	0.55	-0.32	-0.26	-0.41	0.27	-0.43	-0.44	-0.42	-0.92
% Chg Same Qtr Last Yr.....	-2.85	-1.35	-1.61	-0.67	2.30	0.06	-0.11	-0.18	-0.21	-0.25	-0.26	-0.55
STATE & LOCAL.....	384.3	384.9	385.4	386.0	386.2	386.4	386.6	386.9	387.1	387.3	387.5	387.8
% Chg Prev Qtr SAAR.....	1.12	0.63	0.51	0.55	0.25	0.26	0.17	0.31	0.19	0.23	0.21	0.33
% Chg Same Qtr Last Yr.....	2.04	1.84	1.41	0.70	0.48	0.39	0.31	0.25	0.23	0.23	0.24	0.24
STATISTICAL DISCREPANCY (%).....	0.00	0.02	-	-	-	-	-	-	-	-	-	-

Tennessee Econometric Model

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Table 9: Tennessee Durable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)

Table 9: Tennessee Durable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)																		
	History			Forecast Data												Annual		
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019		
TOTAL DURABLE GOODS.....	221.2	220.8	221.2	221.6	222.1	222.4	222.7	223.0	223.2	223.3	223.5	223.7	218.9	221.0	222.2	223.3		
% Chg Prev Qtr SAAR.....	0.92	-0.76	0.64	0.77	0.85	0.64	0.51	0.49	0.44	0.23	0.28	0.43	3.81	0.97	0.55	0.48		
% Chg Same Qtr Last Yr.....	1.05	0.21	0.61	0.39	0.37	0.73	0.69	0.62	0.52	0.42	0.36	0.35	3.81	0.97	0.55	0.48		
WOOD PRODUCTS.....	12.1	11.9	12.0	12.1	12.1	12.2	12.2	12.2	12.3	12.3	12.3	12.4	12.0	12.0	12.1	12.3		
% Chg Prev Qtr SAAR.....	-0.89	-4.35	1.87	2.10	2.04	1.37	1.02	1.11	0.93	1.07	0.85	1.16	3.95	0.00	0.87	1.13		
% Chg Same Qtr Last Yr.....	0.58	-1.07	-0.55	-0.35	0.38	1.85	1.63	1.38	1.11	1.03	0.99	1.00	3.95	0.00	0.87	1.13		
NONMETALLIC MINERALS.....	13.9	14.0	14.0	14.0	14.1	14.1	14.2	14.2	14.2	14.2	14.3	14.3	13.5	13.9	14.1	14.2		
% Chg Prev Qtr SAAR.....	2.67	4.10	-0.37	1.29	1.43	1.37	0.97	0.63	0.62	0.69	0.61	0.60	6.45	3.21	1.42	0.84		
% Chg Same Qtr Last Yr.....	4.01	2.67	2.45	1.91	1.60	0.93	1.27	1.10	0.90	0.73	0.64	0.63	6.45	3.21	1.42	0.84		
PRIMARY METALS.....	10.5	10.7	10.7	10.8	10.8	10.9	10.9	10.9	10.9	10.9	11.0	11.0	10.5	10.6	10.8	10.9		
% Chg Prev Qtr SAAR.....	0.42	5.96	0.51	3.38	1.70	1.85	1.87	0.63	0.57	0.47	0.53	0.54	1.28	0.91	2.36	1.04		
% Chg Same Qtr Last Yr.....	-0.66	2.64	2.71	2.54	2.87	1.85	2.20	1.51	1.23	0.88	0.55	0.53	1.28	0.91	2.36	1.04		
FABRICATED METALS.....	35.3	35.1	35.2	35.2	35.3	35.3	35.3	35.4	35.4	35.4	35.4	35.5	35.6	35.2	35.3	35.4		
% Chg Prev Qtr SAAR.....	1.40	-2.35	0.93	0.35	0.29	0.28	0.49	0.23	0.21	0.19	0.25	0.66	1.35	-1.11	0.17	0.28		
% Chg Same Qtr Last Yr.....	-1.16	-1.67	-0.32	0.07	-0.20	0.46	0.35	0.32	0.30	0.28	0.22	0.33	1.35	-1.11	0.17	0.28		
MACHINERY.....	25.7	25.6	25.6	25.6	25.7	25.7	25.7	25.8	25.8	25.8	25.8	25.9	25.5	25.6	25.7	25.8		
% Chg Prev Qtr SAAR.....	1.96	-1.72	0.72	0.48	0.40	0.39	0.82	0.76	0.35	0.29	0.27	0.40	0.94	0.33	0.33	0.54		
% Chg Same Qtr Last Yr.....	-0.03	-0.81	0.20	0.35	-0.03	0.50	0.52	0.59	0.58	0.55	0.42	0.33	0.94	0.33	0.33	0.54		
COMPUTERS & ELECTRONICS.....	4.4	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.1	4.0	4.0	4.0	4.7	4.4	4.2	4.1		
% Chg Prev Qtr SAAR.....	-3.06	-5.03	-3.27	-3.64	-4.08	-3.95	-3.97	-2.29	-5.43	-5.71	-5.32	-2.32	-5.21	-6.17	-3.85	-4.13		
% Chg Same Qtr Last Yr.....	-6.31	-6.43	-4.97	-3.76	-4.01	-3.74	-3.91	-3.58	-3.92	-4.36	-4.70	-4.71	-5.21	-6.17	-3.85	-4.13		
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	20.21	20.07	20.08	20.13	20.17	20.22	20.23	20.25	20.27	20.29	20.31	20.36	20.06	20.15	20.19	20.28		
% Chg Prev Qtr SAAR.....	-0.55	-2.73	0.27	0.85	0.94	0.86	0.19	0.48	0.43	0.38	0.35	0.93	1.81	0.45	0.18	0.47		
% Chg Same Qtr Last Yr.....	1.33	-0.62	-0.83	-0.55	-0.18	0.73	0.71	0.62	0.49	0.37	0.41	0.52	1.81	0.45	0.18	0.47		
TRANSPORTATION EQUIP.....	73.90	73.76	73.95	74.02	74.18	74.33	74.47	74.57	74.73	74.82	74.95	75.06	72.08	73.85	74.25	74.77		
% Chg Prev Qtr SAAR.....	0.61	-0.72	1.01	0.36	0.90	0.78	0.78	0.53	0.87	0.50	0.70	0.54	7.96	2.45	0.54	0.70		
% Chg Same Qtr Last Yr.....	2.61	1.11	1.23	0.31	0.39	0.76	0.71	0.75	0.74	0.67	0.65	0.65	7.96	2.45	0.54	0.70		
FURNITURE.....	9.53	9.58	9.60	9.65	9.70	9.75	9.78	9.82	9.89	9.92	9.94	9.92	9.38	9.55	9.72	9.89		
% Chg Prev Qtr SAAR.....	1.96	1.90	1.08	2.07	1.98	2.01	1.54	1.57	2.70	1.21	0.74	-0.68	3.48	1.84	1.80	1.76		
% Chg Same Qtr Last Yr.....	1.84	1.75	2.04	1.75	1.76	1.78	1.90	1.77	1.95	1.75	1.55	0.98	3.48	1.84	1.80	1.76		
MISCELLANEOUS DURABLES.....	15.71	15.73	15.71	15.76	15.81	15.78	15.70	15.69	15.64	15.58	15.52	15.50	15.53	15.69	15.76	15.61		
% Chg Prev Qtr SAAR.....	2.29	0.57	-0.47	1.30	1.15	-0.70	-1.97	-0.22	-1.30	-1.54	-1.45	-0.64	1.25	1.06	0.45	-0.97		
% Chg Same Qtr Last Yr.....	1.06	1.32	1.01	0.92	0.63	0.32	-0.07	-0.44	-1.05	-1.26	-1.13	-1.23	1.25	1.06	0.45	-0.97		
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Table 10: Tennessee Nondurable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)

	History		Forecast Data												Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019		
TOTAL NONDURABLE GOODS.....	126.3	125.6	125.6	125.5	125.6	125.6	125.5	125.6	125.6	125.7	125.8	125.8	125.8	124.4	125.9	125.6	125.7	
% Chg Prev Qtr SAAR.....	1.35	-2.43	0.23	-0.31	0.24	-0.08	-0.16	0.24	0.14	0.24	0.18	-0.02	0.18	1.82	1.17	-0.23	0.10	
% Chg Same Qtr Last Yr.....	1.60	0.55	0.97	-0.30	-0.57	0.02	-0.08	0.06	0.03	0.12	0.20	0.13	0.20	1.82	1.17	-0.23	0.10	
FOOD.....	34.8	34.6	34.7	34.8	34.8	34.9	35.0	35.0	35.1	35.1	35.2	35.3	35.3	34.2	34.7	34.9	35.1	
% Chg Prev Qtr SAAR.....	0.89	-1.51	0.90	0.87	0.31	0.72	0.78	0.49	0.85	0.79	0.89	0.41	0.89	2.88	1.35	0.45	0.69	
% Chg Same Qtr Last Yr.....	2.07	0.78	0.36	0.28	0.14	0.70	0.67	0.58	0.71	0.73	0.76	0.73	0.76	2.88	1.35	0.45	0.69	
BEVERAGE & TOBACCO.....	6.9	7.1	7.1	7.2	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.3	6.6	7.0	7.2	7.3	
% Chg Prev Qtr SAAR.....	6.09	8.09	3.55	1.23	2.02	1.97	0.91	0.94	0.41	0.42	0.01	-0.14	0.01	10.98	6.61	3.01	0.91	
% Chg Same Qtr Last Yr.....	7.16	5.95	5.47	4.71	3.69	2.19	1.53	1.46	1.06	0.67	0.45	0.17	0.45	10.98	6.61	3.01	0.91	
PAPER.....	14.3	14.3	14.3	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.5	14.3	14.2	14.2	
% Chg Prev Qtr SAAR.....	-1.48	1.81	-1.68	-0.48	-0.46	-0.27	-0.85	0.23	-0.41	-0.25	-0.14	0.24	0.24	-0.69	-1.37	-0.48	-0.28	
% Chg Same Qtr Last Yr.....	-2.07	-0.90	-0.91	-0.47	-0.21	-0.72	-0.52	-0.34	-0.33	-0.32	-0.14	-0.14	-0.14	-0.69	-1.37	-0.48	-0.28	
PRINTING & RELATED SUPPORT.....	9.0	9.0	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.2	9.0	8.8	8.8	
% Chg Prev Qtr SAAR.....	-0.61	-1.63	-2.85	-2.26	-1.29	-1.37	-1.40	-0.58	-0.36	-0.22	-0.05	-0.12	-0.12	-0.46	-1.85	-1.84	-0.76	
% Chg Same Qtr Last Yr.....	-1.81	-1.82	-1.23	-1.84	-2.01	-1.94	-1.58	-1.16	-0.93	-0.64	-0.30	-0.19	-0.19	-0.46	-1.85	-1.84	-0.76	
CHEMICALS.....	25.3	25.3	25.3	25.3	25.3	25.3	25.2	25.2	25.1	25.1	25.0	25.0	25.0	25.4	25.3	25.3	25.1	
% Chg Prev Qtr SAAR.....	-0.59	-0.74	0.56	-0.92	0.36	-0.51	-0.94	-0.35	-0.69	-0.65	-0.86	-0.51	-0.68	-0.68	-0.23	-0.31	-0.57	
% Chg Same Qtr Last Yr.....	-0.14	-0.15	-0.11	-0.42	-0.19	-0.13	-0.50	-0.36	-0.62	-0.66	-0.64	-0.68	-0.68	-0.68	-0.23	-0.31	-0.57	
PLASTICS & RUBBER.....	24.2	24.3	24.4	24.5	24.6	24.6	24.7	24.8	24.9	25.0	25.1	25.1	25.1	23.0	24.2	24.6	24.9	
% Chg Prev Qtr SAAR.....	2.83	2.88	1.69	0.23	1.90	0.47	1.10	1.95	1.72	1.67	1.47	0.64	0.64	5.04	5.16	1.39	1.49	
% Chg Same Qtr Last Yr.....	5.20	4.95	4.95	1.90	1.67	1.07	0.92	1.35	1.31	1.61	1.70	1.38	1.38	5.04	5.16	1.39	1.49	
MISCELLANEOUS NONDURABLE GOODS.....	11.8	10.9	10.8	10.7	10.6	10.6	10.5	10.4	10.3	10.3	10.2	10.2	10.2	11.5	11.3	10.6	10.3	
% Chg Prev Qtr SAAR.....	6.36	-28.02	-2.91	-2.96	-3.00	-2.99	-3.00	-2.96	-2.93	-1.90	-2.10	-2.10	-2.10	-1.44	-1.84	-6.05	-2.78	
% Chg Same Qtr Last Yr.....	1.10	-6.79	-1.58	-7.84	-9.94	-2.97	-2.99	-2.99	-2.97	-2.70	-2.47	-2.26	-2.26	-1.44	-1.84	-6.05	-2.78	

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Table 11: Tennessee Average Annual Wage and Salary Rate by Sector, Not Seasonally Adjusted (2009 dollars)

	History				Forecast Data										Annual				
	2017:1				2017:2	2017:3										2017:4			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019		
TOTAL NONFARM.....	43252	43178	43478	43018	43977	43641	43881	43377	44334	43911	44116	43532	44399	43186	43231	43719	43973		
% Chg Same Qtr Last Yr.....	-0.33	0.03	-0.59	1.33	1.68	1.07	0.93	0.83	0.81	0.62	0.54	0.36	0.15	0.13	0.10	1.13	0.58		
NATURAL RESOURCES, MINING AND CONSTRUCTION.....	50867	49639	49035	49149	51173	49636	49122	49418	51801	50002	49432	49638	51921	50308	49673	49837	50218		
% Chg Same Qtr Last Yr.....	-2.36	0.95	-1.09	-2.46	0.60	-0.01	0.18	0.55	1.23	0.74	0.63	0.45	0.23	1.42	-1.26	0.33	0.76		
MANUFACTURING.....	52108	52136	52456	52596	52935	52914	53050	53086	53355	53210	53278	53208	53348	52558	52324	52996	53263		
% Chg Same Qtr Last Yr.....	0.24	-0.56	-1.97	0.55	1.59	1.49	1.13	0.93	0.79	0.56	0.43	0.23	-0.01	0.45	-0.45	1.28	0.50		
DURABLE GOODS.....	51756	51555	51701	51694	51831	51731	51814	51752	51898	51716	51768	51631	51674	51821	51677	51782	51753		
% Chg Same Qtr Last Yr.....	0.45	0.06	-2.43	0.88	0.15	0.34	0.22	0.11	0.13	-0.03	-0.09	-0.23	-0.43	0.94	-0.28	0.20	-0.06		
NONDURABLE GOODS.....	52726	53156	53781	54183	54887	55008	55234	55452	55945	55867	55955	56008	56330	53857	53462	55145	55944		
% Chg Same Qtr Last Yr.....	-0.12	-1.61	-1.19	0.00	4.10	3.48	2.70	2.34	1.93	1.56	1.31	1.00	0.69	-0.29	-0.73	3.15	1.45		
TRADE, TRANSPORTATION, UTILITIES.....	40074	40343	40321	39881	40864	40603	40693	40084	41070	40726	40804	40138	41059	40216	40155	40561	40685		
% Chg Same Qtr Last Yr.....	-0.27	-0.59	-1.85	2.21	1.97	0.64	0.92	0.51	0.50	0.30	0.27	0.13	-0.03	0.81	-0.15	1.01	0.30		
WHOLESALE TRADE.....	63786	64110	64031	63996	64591	64354	64396	64430	65099	64766	64812	64755	65318	63582	63981	64442	64858		
% Chg Same Qtr Last Yr.....	1.76	1.01	-4.20	4.34	1.26	0.38	0.57	0.68	0.79	0.64	0.65	0.50	0.34	2.09	0.63	0.72	0.65		
RETAIL TRADE.....	27121	27285	27239	26860	27599	27297	27427	26906	27653	27295	27413	26848	27540	27271	27126	27307	27302		
% Chg Same Qtr Last Yr.....	-1.07	-1.70	-0.04	0.73	1.76	0.04	0.69	0.17	0.19	-0.01	-0.05	-0.22	-0.41	0.29	-0.53	0.67	-0.02		
TRANSPORTATION & UTILITIES.....	49303	49736	49395	48712	50098	50085	49966	48976	50325	50213	50051	48970	50212	49511	49286	49781	49890		
% Chg Same Qtr Last Yr.....	-0.56	-0.66	-1.72	1.18	1.61	0.70	1.16	0.54	0.45	0.26	0.17	-0.01	-0.22	0.79	-0.45	1.00	0.22		
INFORMATION.....	61659	60205	60094	59795	59875	59632	59735	59878	60118	59917	60051	60154	60313	57436	60438	59780	60060		
% Chg Same Qtr Last Yr.....	7.55	5.13	3.89	4.35	-2.89	-0.95	-0.60	0.14	0.41	0.48	0.53	0.46	0.32	2.04	5.23	-1.09	0.47		
FINANCIAL ACTIVITIES.....	62115	62314	63547	63575	64411	64428	64503	64593	65382	65281	65189	65097	65712	63365	62888	64484	65237		
% Chg Same Qtr Last Yr.....	-1.50	-1.34	-1.23	1.08	3.70	3.39	1.50	1.60	1.51	1.32	1.06	0.78	0.50	0.72	-0.75	2.54	1.17		
PROFESSIONAL & BUSINESS SERVICES.....	49783	49620	50110	49065	51162	50882	51122	50030	52070	51655	51822	50597	52522	49359	49644	50799	51536		
% Chg Same Qtr Last Yr.....	-2.39	0.18	1.06	3.69	2.77	2.54	2.02	1.97	1.78	1.52	1.37	1.13	0.87	-0.85	0.58	2.33	1.45		
EDUCATION & HEALTH SERVICES.....	43776	43911	44254	43650	44025	44182	44414	43850	44189	44293	44498	43868	44122	43693	43898	44118	44212		
% Chg Same Qtr Last Yr.....	0.86	0.22	-0.12	0.94	0.57	0.62	0.36	0.46	0.37	0.25	0.19	0.04	-0.15	-1.04	0.47	0.50	0.21		
LEISURE & HOSPITALITY.....	22843	21898	21786	22486	23392	21835	21798	22434	23362	21812	21804	22431	23329	21578	22253	22365	22352		
% Chg Same Qtr Last Yr.....	2.39	4.10	2.49	3.57	2.40	-0.29	0.05	-0.23	-0.13	-0.10	0.03	-0.01	-0.14	-0.09	3.13	0.50	-0.06		
OTHER SERVICES.....	39273	38670	39145	39712	40011	39146	39549	39990	40235	39294	39668	40045	40212	39240	39200	39674	39810		
% Chg Same Qtr Last Yr.....	-1.02	-0.04	-0.60	1.26	1.88	1.23	1.03	0.70	0.56	0.38	0.30	0.14	-0.06	-0.49	-0.10	1.21	0.34		
GOVERNMENT.....	39133	40185	41229	38933	39476	40350	41262	39027	39569	40388	41283	38983	39439	40119	39870	40029	40056		
% Chg Same Qtr Last Yr.....	-0.65	-0.83	-0.23	-0.79	0.88	0.41	0.08	0.24	0.24	0.09	0.05	-0.11	-0.33	0.53	-0.62	0.40	0.07		
FEDERAL, CIVILIAN.....	70911	71413	73490	73444	73773	71917	73584	74109	74434	72451	74085	74500	74682	70358	72315	73346	73867		
% Chg Same Qtr Last Yr.....	-0.40	1.39	4.75	5.45	4.04	0.70	0.13	0.91	0.90	0.74	0.68	0.53	0.33	-0.93	2.78	1.43	0.71		
STATE & LOCAL.....	35155	36188	37038	34720	35240	36234	37054	34761	35281	36226	37034	34685	35138	36187	35775	35822	35807		
% Chg Same Qtr Last Yr.....	-0.48	-1.05	-1.04	-1.98	0.24	0.13	0.05	0.12	0.12	-0.02	-0.06	-0.22	-0.41	0.97	-1.14	0.13	-0.04		

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Table 12: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2009 dollars)

	History		Forecast Data												Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	
TOTAL NONFARM.....	42843	43213	43364	43463	43560	43677	43760	43826	43912	43948	43996	43983	43974	43166	43221	43706	43960	
% Chg Prev Qtr SAAR.....	-0.46	3.50	1.40	0.92	0.90	1.08	0.75	0.61	0.78	0.33	0.44	-0.11	-0.08	0.04	0.13	1.12	0.58	
% Chg Same Qtr Last Yr.....	-0.34	0.09	-0.56	1.33	1.67	1.07	0.91	0.84	0.81	0.62	0.54	0.36	0.14	0.04	0.13	1.12	0.58	
NATURAL RESOURCES, MINING																		
AND CONSTRUCTION.....	49127	49718	49661	49649	49423	49715	49834	49921	50030	50082	50149	50144	50145	50218	49539	49723	50101	
% Chg Prev Qtr SAAR.....	-13.23	4.90	-0.46	-0.09	-1.81	2.39	0.96	0.70	0.87	0.42	0.54	-0.04	0.01	1.28	-1.35	0.37	0.76	
% Chg Same Qtr Last Yr.....	-2.20	0.54	-1.26	-2.46	0.60	-0.01	0.35	0.55	1.23	0.74	0.63	0.45	0.23	1.28	-1.35	0.37	0.76	
MANUFACTURING.....	51987	52186	52476	52649	52813	52964	53073	53140	53233	53260	53301	53262	53226	52557	52324	52997	53264	
% Chg Prev Qtr SAAR.....	-2.82	1.54	2.24	1.33	1.25	1.15	0.83	0.50	0.70	0.20	0.31	-0.29	-0.27	0.46	-0.44	1.29	0.50	
% Chg Same Qtr Last Yr.....	0.25	-0.55	-1.98	0.55	1.59	1.49	1.14	0.93	0.80	0.56	0.43	0.23	-0.01	0.46	-0.44	1.29	0.50	
DURABLE GOODS.....	51669	51615	51689	51733	51744	51791	51806	51791	51812	51776	51759	51670	51588	51819	51677	51783	51754	
% Chg Prev Qtr SAAR.....	3.04	-0.42	0.58	0.34	0.09	0.36	0.11	-0.11	0.16	-0.27	-0.13	-0.69	-0.63	0.94	-0.28	0.21	-0.06	
% Chg Same Qtr Last Yr.....	0.46	0.07	-2.44	0.88	0.15	0.34	0.22	0.11	0.13	-0.03	-0.09	-0.23	-0.43	0.94	-0.28	0.21	-0.06	
NONDURABLE GOODS.....	52543	53186	53859	54261	54698	55037	55318	55533	55755	55895	56039	56090	56139	53856	53462	55147	55945	
% Chg Prev Qtr SAAR.....	-12.07	4.99	5.16	3.02	3.26	2.50	2.06	1.57	1.60	1.01	1.03	0.37	0.35	-0.28	-0.73	3.15	1.45	
% Chg Same Qtr Last Yr.....	-0.10	-1.61	-1.20	0.00	4.10	3.48	2.71	2.34	1.93	1.56	1.30	1.00	0.69	-0.28	-0.73	3.15	1.45	
TRADE, TRANSPORTATION, UTILITIES.....	39664	40272	40263	40398	40446	40531	40564	40604	40650	40655	40674	40658	40639	40169	40149	40536	40659	
% Chg Prev Qtr SAAR.....	1.41	6.27	-0.09	1.35	0.48	0.84	0.32	0.39	0.46	0.05	0.19	-0.16	-0.19	0.62	-0.05	0.96	0.30	
% Chg Same Qtr Last Yr.....	-0.16	-0.49	-1.68	2.21	1.97	0.64	0.75	0.51	0.50	0.30	0.27	0.13	-0.03	0.62	-0.05	0.96	0.30	
WHOLESALE TRADE.....	63452	64180	63996	64191	64253	64424	64521	64626	64759	64837	64938	64952	64977	63560	63955	64456	64872	
% Chg Prev Qtr SAAR.....	13.15	4.67	-1.14	1.22	0.39	1.07	0.60	0.66	0.83	0.48	0.62	0.09	0.15	2.03	0.62	0.78	0.64	
% Chg Same Qtr Last Yr.....	1.86	1.15	-4.44	4.34	1.26	0.38	0.82	0.68	0.79	0.64	0.65	0.50	0.34	2.03	0.62	0.78	0.64	
RETAIL TRADE.....	26786	27285	27169	27254	27259	27297	27301	27301	27312	27295	27287	27242	27200	27227	27124	27289	27284	
% Chg Prev Qtr SAAR.....	-3.94	7.66	-1.69	1.25	0.07	0.56	0.07	-0.01	0.16	-0.24	-0.11	-0.67	-0.61	0.05	-0.38	0.61	-0.02	
% Chg Same Qtr Last Yr.....	-0.85	-1.53	0.16	0.73	1.76	0.04	0.49	0.17	0.19	-0.01	-0.05	-0.22	-0.41	0.05	-0.38	0.61	-0.02	
TRANSPORTATION & UTILITIES.....	48831	49365	49405	49525	49618	49711	49764	49793	49843	49838	49849	49787	49732	49470	49281	49722	49829	
% Chg Prev Qtr SAAR.....	-0.94	4.44	0.33	0.97	0.76	0.75	0.43	0.23	0.40	-0.04	0.08	-0.49	-0.44	0.61	-0.38	0.89	0.22	
% Chg Same Qtr Last Yr.....	-0.63	-0.75	-1.30	1.18	1.61	0.70	0.73	0.54	0.45	0.26	0.17	-0.01	-0.22	0.61	-0.38	0.89	0.22	
INFORMATION.....	61614	60425	59830	59882	59831	59850	59910	59965	60074	60136	60228	60242	60269	57457	60438	59889	60170	
% Chg Prev Qtr SAAR.....	32.87	-7.50	-3.88	0.35	-0.34	0.13	0.41	0.36	0.73	0.41	0.62	0.09	0.18	2.00	5.19	-0.91	0.47	
% Chg Same Qtr Last Yr.....	7.87	5.44	3.13	4.35	-2.89	-0.95	0.13	0.14	0.41	0.48	0.53	0.46	0.32	2.00	5.19	-0.91	0.47	
FINANCIAL ACTIVITIES.....	61860	62274	63642	63877	64147	64387	64685	64899	65114	65239	65373	65406	65443	63422	62913	64530	65283	
% Chg Prev Qtr SAAR.....	-8.19	2.70	9.08	1.48	1.70	1.51	1.87	1.33	1.33	0.77	0.82	0.20	0.23	0.75	-0.80	2.57	1.17	
% Chg Same Qtr Last Yr.....	-1.36	-1.55	-1.36	1.08	3.70	3.39	1.64	1.60	1.51	1.32	1.06	0.78	0.50	0.75	-0.80	2.57	1.17	

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Table 12: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2009 dollars)

	History		Forecast Data												Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	
PROFESSIONAL & BUSINESS SERVICES...	49055	49424	49833	50114	50413	50681	50909	51100	51308	51452	51606	51679	51754	49286	49607	50776	51511	
% Chg Prev Qtr SAAR.....	6.11	3.04	3.35	2.28	2.41	2.14	1.81	1.51	1.64	1.13	1.20	0.57	0.58	-1.05	0.65	2.36	1.45	
% Chg Same Qtr Last Yr.....	-2.22	0.32	0.92	3.69	2.77	2.54	2.16	1.97	1.78	1.52	1.37	1.13	0.87	-1.05	0.65	2.36	1.45	
EDUCATION & HEALTH SERVICES.....	43800	43833	43965	43965	44049	44103	44146	44166	44213	44214	44230	44185	44146	43667	43891	44116	44211	
% Chg Prev Qtr SAAR.....	2.25	0.30	1.22	0.00	0.77	0.49	0.39	0.18	0.43	0.00	0.15	-0.41	-0.35	-1.15	0.51	0.51	0.21	
% Chg Same Qtr Last Yr.....	0.97	0.33	-0.17	0.94	0.57	0.62	0.41	0.46	0.37	0.25	0.19	0.04	-0.15	-1.15	0.51	0.51	0.21	
LEISURE & HOSPITALITY.....	21815	22395	22380	22349	22340	22331	22309	22298	22311	22307	22316	22295	22280	21585	22235	22319	22307	
% Chg Prev Qtr SAAR.....	4.45	11.06	-0.28	-0.54	-0.16	-0.17	-0.38	-0.20	0.23	-0.06	0.15	-0.37	-0.28	-0.03	3.01	0.38	-0.05	
% Chg Same Qtr Last Yr.....	1.73	3.86	2.87	3.57	2.40	-0.29	-0.31	-0.23	-0.13	-0.10	0.03	-0.01	-0.14	-0.03	3.01	0.38	-0.05	
OTHER SERVICES.....	38826	39155	39342	39448	39555	39637	39692	39724	39777	39787	39811	39779	39754	39196	39193	39652	39788	
% Chg Prev Qtr SAAR.....	-1.36	3.44	1.93	1.08	1.09	0.83	0.55	0.33	0.53	0.10	0.24	-0.32	-0.26	-0.59	-0.01	1.17	0.34	
% Chg Same Qtr Last Yr.....	-1.16	0.34	-0.46	1.26	1.88	1.23	0.89	0.70	0.56	0.38	0.30	0.14	-0.06	-0.59	-0.01	1.17	0.34	
GOVERNMENT.....	39640	39866	39967	39957	39987	40029	40042	40053	40082	40067	40062	40009	39950	40099	39858	40028	40055	
% Chg Prev Qtr SAAR.....	-6.15	2.30	1.02	-0.10	0.30	0.42	0.13	0.11	0.28	-0.15	-0.04	-0.54	-0.58	0.52	-0.60	0.43	0.07	
% Chg Same Qtr Last Yr.....	-0.71	-0.58	-0.33	-0.79	0.88	0.41	0.19	0.24	0.24	0.09	0.05	-0.11	-0.33	0.52	-0.60	0.43	0.07	
FEDERAL, CIVILIAN.....	70286	72811	72887	72950	73123	73324	73485	73611	73778	73868	73986	73999	74023	70278	72234	73386	73908	
% Chg Prev Qtr SAAR.....	6.56	15.16	0.42	0.35	0.95	1.10	0.88	0.69	0.91	0.49	0.64	0.07	0.13	-1.03	2.78	1.59	0.71	
% Chg Same Qtr Last Yr.....	-1.54	3.30	4.03	5.45	4.04	0.70	0.82	0.91	0.90	0.74	0.68	0.53	0.33	-1.03	2.78	1.59	0.71	
STATE & LOCAL.....	35709	35777	35800	35783	35795	35823	35822	35825	35836	35815	35802	35747	35691	36170	35767	35816	35800	
% Chg Prev Qtr SAAR.....	-8.44	0.77	0.25	-0.19	0.13	0.31	-0.01	0.03	0.13	-0.24	-0.14	-0.62	-0.62	0.97	-1.11	0.14	-0.04	
% Chg Same Qtr Last Yr.....	-0.41	-0.99	-1.06	-1.98	0.24	0.13	0.06	0.12	0.12	-0.02	-0.06	-0.22	-0.41	0.97	-1.11	0.14	-0.04	

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Table 13: Tennessee Average Annual Wage and Salary Rate by Sector, Not Seasonally Adjusted (current dollars)

	History		Forecast Data											Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
TOTAL NONFARM.....	48527	48477	48996	48687	49942	49739	50212	49853	51145	50900	51362	50973	52277	47844	48672	49936	51095
% Chg Same Qtr Last Yr.....	1.68	1.59	0.90	2.78	2.92	2.60	2.48	2.39	2.41	2.33	2.29	2.25	2.21	1.32	1.73	2.60	2.32
NATURAL RESOURCES, MINING																	
AND CONSTRUCTION.....	57071	55732	55259	55626	58115	56571	56209	56796	59760	57960	57550	58123	61134	55732	55922	56923	58348
% Chg Same Qtr Last Yr.....	-0.40	2.52	0.39	-1.07	1.83	1.51	1.72	2.10	2.83	2.46	2.39	2.34	2.30	2.63	0.34	1.79	2.50
MANUFACTURING.....	58464	58535	59114	59527	60115	60307	60703	61012	61552	61679	62028	62303	62814	58230	58910	60534	61890
% Chg Same Qtr Last Yr.....	2.26	0.98	-0.50	1.99	2.82	3.03	2.69	2.49	2.39	2.27	2.18	2.12	2.05	1.65	1.17	2.76	2.24
DURABLE GOODS.....	58069	57882	58264	58507	58862	58958	59290	59478	59872	59947	60270	60456	60844	57412	58180	59147	60136
% Chg Same Qtr Last Yr.....	2.47	1.61	-0.97	2.32	1.37	1.86	1.76	1.66	1.72	1.68	1.65	1.64	1.62	2.14	1.34	1.66	1.67
NONDURABLE GOODS.....	59158	59680	60608	61323	62332	62694	63203	63731	64540	64758	65145	65581	66325	59670	60192	62990	65006
% Chg Same Qtr Last Yr.....	1.89	-0.09	0.29	1.43	5.37	5.05	4.28	3.93	3.54	3.29	3.07	2.90	2.77	0.91	0.87	4.65	3.20
TRADE, TRANSPORTATION, UTILITIES.....	44962	45294	45438	45137	46408	46276	46564	46069	47380	47208	47505	46999	48344	44554	45208	46329	47273
% Chg Same Qtr Last Yr.....	1.73	0.96	-0.38	3.67	3.21	2.17	2.48	2.06	2.10	2.02	2.02	2.02	2.04	2.00	1.47	2.48	2.04
WHOLESALE TRADE.....	71566	71978	72158	72429	73353	73345	73686	74049	75101	75074	75456	75823	76908	70441	72033	73608	75364
% Chg Same Qtr Last Yr.....	3.81	2.58	-2.77	5.83	2.50	1.90	2.12	2.24	2.38	2.36	2.40	2.40	2.41	3.31	2.26	2.19	2.38
RETAIL TRADE.....	30429	30634	30696	30399	31343	31110	31384	30923	31901	31639	31915	31437	32427	30212	30540	31190	31723
% Chg Same Qtr Last Yr.....	0.93	-0.17	1.46	2.17	3.00	1.55	2.24	1.72	1.78	1.70	1.69	1.66	1.65	1.47	1.09	2.13	1.71
TRANSPORTATION & UTILITIES.....	55317	55840	55665	55131	56893	57083	57175	56288	58056	58205	58271	57341	59122	54851	55488	56860	57968
% Chg Same Qtr Last Yr.....	1.45	0.89	-0.25	2.63	2.85	2.23	2.71	2.10	2.04	1.96	1.92	1.87	1.84	1.98	1.16	2.47	1.95
INFORMATION.....	69180	67594	67722	67675	67997	67964	68353	68817	69354	69453	69914	70436	71015	63634	68043	68283	69789
% Chg Same Qtr Last Yr.....	9.71	6.76	5.44	5.84	-1.71	0.55	0.93	1.69	2.00	2.19	2.28	2.35	2.40	3.26	6.93	0.35	2.21
FINANCIAL ACTIVITIES.....	69692	69962	71613	71953	73148	73430	73809	74236	75428	75671	75895	76224	77373	70202	70805	73656	75804
% Chg Same Qtr Last Yr.....	0.48	0.19	0.25	2.52	4.96	4.96	3.07	3.17	3.12	3.05	2.83	2.68	2.58	1.92	0.86	4.03	2.92
PROFESSIONAL & BUSINESS SERVICES.....	55856	55709	56471	55530	58102	57991	58498	57499	60070	59877	60332	59245	61842	54677	55892	58022	59881
% Chg Same Qtr Last Yr.....	-0.42	1.74	2.57	5.17	4.02	4.10	3.59	3.55	3.39	3.25	3.14	3.04	2.95	0.32	2.22	3.81	3.20
EDUCATION & HEALTH SERVICES.....	49116	49300	49871	49402	49997	50355	50822	50396	50978	51342	51806	51366	51951	48407	49422	50392	51373
% Chg Same Qtr Last Yr.....	2.88	1.78	1.37	2.38	1.79	2.14	1.91	2.01	1.96	1.96	1.94	1.93	1.91	0.14	2.10	1.96	1.95
LEISURE & HOSPITALITY.....	25629	24586	24551	25449	26565	24886	24943	25783	26951	25284	25385	26266	27469	23905	25054	25544	25971
% Chg Same Qtr Last Yr.....	4.45	5.72	4.03	5.05	3.65	1.22	1.59	1.32	1.45	1.60	1.77	1.87	1.92	1.09	4.81	1.96	1.67
OTHER SERVICES.....	44063	43416	44113	44945	45439	44616	45255	45960	46416	45548	46183	46890	47347	43473	44134	45317	46259
% Chg Same Qtr Last Yr.....	0.97	1.52	0.89	2.70	3.12	2.76	2.59	2.26	2.15	2.09	2.05	2.02	2.00	0.69	1.52	2.68	2.08
GOVERNMENT.....	43907	45117	46462	44064	44831	45988	47215	44853	45649	46815	48062	45647	46438	44448	44887	45722	46543
% Chg Same Qtr Last Yr.....	1.35	0.71	1.27	0.63	2.10	1.93	1.62	1.79	1.82	1.80	1.80	1.77	1.73	1.73	0.99	1.86	1.80
FEDERAL, CIVILIAN.....	79561	80178	82818	83123	83781	81965	84200	85173	85870	83981	86252	87234	87933	77946	81420	83780	85834
% Chg Same Qtr Last Yr.....	1.61	2.96	6.32	6.96	5.30	2.23	1.67	2.47	2.49	2.46	2.44	2.42	2.40	0.25	4.46	2.90	2.45
STATE & LOCAL.....	39444	40630	41739	39295	40020	41297	42400	39950	40701	41992	43116	40614	41373	40092	40277	40917	41606
% Chg Same Qtr Last Yr.....	1.52	0.48	0.43	-0.58	1.46	1.64	1.58	1.67	1.70	1.68	1.69	1.66	1.65	2.17	0.46	1.59	1.68
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Table 14: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (current dollars)

	History				Forecast Data										Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019	
TOTAL NONFARM.....	48069	48517	48868	49190	49469	49780	50073	50369	50658	50942	51221	51502	51777	47823	48661	49923	51081	
% Chg Prev Qtr SAAR.....	1.75	3.78	2.93	2.66	2.29	2.54	2.37	2.39	2.32	2.26	2.21	2.21	2.16	1.24	1.75	2.59	2.32	
% Chg Same Qtr Last Yr.....	1.67	1.65	0.92	2.78	2.91	2.60	2.47	2.40	2.40	2.33	2.29	2.25	2.21	1.24	1.75	2.59	2.32	
NATURAL RESOURCES, MINING AND CONSTRUCTION.....	55120	55820	55964	56192	56127	56661	57024	57374	57716	58052	58385	58715	59043	55638	55774	56797	58217	
% Chg Prev Qtr SAAR.....	-11.30	5.18	1.03	1.64	-0.46	3.86	2.59	2.48	2.40	2.35	2.31	2.28	2.26	2.48	0.24	1.83	2.50	
% Chg Same Qtr Last Yr.....	-0.23	2.11	0.22	-1.07	1.83	1.51	1.89	2.10	2.83	2.46	2.39	2.34	2.30	2.48	0.24	1.83	2.50	
MANUFACTURING.....	58328	58591	59136	59587	59977	60364	60730	61073	61411	61736	62054	62366	62671	58229	58911	60536	61892	
% Chg Prev Qtr SAAR.....	-0.66	1.81	3.78	3.08	2.64	2.61	2.45	2.28	2.23	2.14	2.08	2.02	1.97	1.66	1.17	2.76	2.24	
% Chg Same Qtr Last Yr.....	2.27	0.99	-0.52	1.99	2.83	3.03	2.69	2.49	2.39	2.27	2.18	2.12	2.05	1.66	1.17	2.76	2.24	
DURABLE GOODS.....	57972	57949	58250	58551	58764	59028	59280	59523	59772	60017	60260	60502	60742	57411	58181	59149	60138	
% Chg Prev Qtr SAAR.....	5.34	-0.16	2.09	2.08	1.46	1.81	1.72	1.65	1.68	1.65	1.63	1.62	1.60	2.14	1.34	1.66	1.67	
% Chg Same Qtr Last Yr.....	2.48	1.63	-0.98	2.32	1.37	1.86	1.77	1.66	1.72	1.68	1.65	1.64	1.62	2.14	1.34	1.66	1.67	
NONDURABLE GOODS.....	58952	59713	60695	61412	62118	62727	63299	63824	64320	64791	65242	65677	66101	59671	60193	62992	65008	
% Chg Prev Qtr SAAR.....	-10.12	5.27	6.74	4.81	4.68	3.98	3.70	3.36	3.15	2.96	2.81	2.70	2.60	0.91	0.88	4.65	3.20	
% Chg Same Qtr Last Yr.....	1.91	-0.08	0.27	1.43	5.37	5.05	4.29	3.93	3.55	3.29	3.07	2.90	2.77	0.91	0.88	4.65	3.20	
TRADE, TRANSPORTATION, UTILITIES.....	44502	45214	45373	45721	45933	46194	46416	46665	46895	47125	47354	47608	47850	44503	45203	46302	47246	
% Chg Prev Qtr SAAR.....	3.66	6.55	1.42	3.10	1.86	2.30	1.94	2.16	1.99	1.97	1.96	2.16	2.05	1.81	1.57	2.43	2.04	
% Chg Same Qtr Last Yr.....	1.85	1.05	-0.21	3.67	3.21	2.17	2.30	2.06	2.10	2.02	2.02	2.02	2.04	1.81	1.57	2.43	2.04	
WHOLESALE TRADE.....	71192	72057	72119	72650	72969	73426	73829	74275	74709	75156	75603	76054	76506	70419	72005	73625	75381	
% Chg Prev Qtr SAAR.....	15.67	4.95	0.35	2.97	1.77	2.52	2.22	2.44	2.36	2.42	2.40	2.41	2.40	3.25	2.25	2.25	2.38	
% Chg Same Qtr Last Yr.....	3.90	2.72	-3.01	5.83	2.50	1.90	2.37	2.24	2.38	2.36	2.40	2.40	2.41	3.25	2.25	2.25	2.38	
RETAIL TRADE.....	30054	30634	30618	30845	30956	31110	31240	31377	31508	31639	31769	31898	32027	30164	30538	31171	31703	
% Chg Prev Qtr SAAR.....	-1.81	7.95	-0.22	3.01	1.45	2.01	1.68	1.76	1.68	1.68	1.65	1.64	1.62	1.24	1.24	2.07	1.71	
% Chg Same Qtr Last Yr.....	1.14	0.00	1.66	2.17	3.00	1.55	2.03	1.72	1.78	1.70	1.69	1.66	1.65	1.24	1.24	2.07	1.71	
TRANSPORTATION & UTILITIES.....	54787	55423	55676	56051	56349	56657	56944	57227	57501	57770	58035	58297	58557	54807	55484	56794	57901	
% Chg Prev Qtr SAAR.....	1.26	4.72	1.84	2.72	2.14	2.20	2.04	2.00	1.93	1.89	1.85	1.82	1.79	1.81	1.24	2.36	1.95	
% Chg Same Qtr Last Yr.....	1.37	0.79	0.18	2.63	2.85	2.23	2.28	2.10	2.04	1.96	1.92	1.87	1.84	1.81	1.24	2.36	1.95	
INFORMATION.....	69130	67841	67424	67773	67947	68212	68554	68917	69304	69707	70119	70539	70964	63658	68042	68408	69917	
% Chg Prev Qtr SAAR.....	35.83	-7.25	-2.43	2.09	1.03	1.57	2.02	2.14	2.26	2.35	2.39	2.42	2.43	3.22	6.89	0.54	2.21	
% Chg Same Qtr Last Yr.....	10.04	7.08	4.67	5.84	-1.71	0.55	1.68	1.69	2.00	2.19	2.28	2.35	2.40	3.22	6.89	0.54	2.21	
FINANCIAL ACTIVITIES.....	69406	69917	71720	72294	72848	73383	74018	74588	75118	75622	76109	76586	77055	70266	70834	73709	75859	
% Chg Prev Qtr SAAR.....	-6.15	2.98	10.72	3.24	3.10	2.97	3.50	3.12	2.87	2.71	2.60	2.53	2.48	1.96	0.81	4.06	2.92	
% Chg Same Qtr Last Yr.....	0.62	-0.02	0.11	2.52	4.96	4.96	3.20	3.17	3.12	3.05	2.83	2.68	2.58	1.96	0.81	4.06	2.92	

(CONTINUED ON NEXT PAGE)

Table 14: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (current dollars)

	History			Forecast Data												Annual			
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019		
	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019		
PROFESSIONAL & BUSINESS SERVICES.....	55039	55490	56159	56718	57252	57762	58254	58729	59191	59641	60081	60512	60937	54600	55851	57999	59856		
% Chg Prev Qtr SAAR.....	8.47	3.32	4.91	4.05	3.81	3.62	3.45	3.30	3.18	3.08	2.98	2.91	2.84	0.13	2.29	3.85	3.20		
% Chg Same Qtr Last Yr.....	-0.25	1.88	2.43	5.17	4.02	4.10	3.73	3.55	3.39	3.25	3.14	3.04	2.95	0.13	2.29	3.85	3.20		
EDUCATION & HEALTH SERVICES.....	49143	49212	49546	49759	50025	50265	50515	50760	51006	51250	51494	51737	51980	48379	49415	50391	51372		
% Chg Prev Qtr SAAR.....	4.52	0.57	2.74	1.73	2.15	1.94	2.01	1.95	1.95	1.93	1.92	1.90	1.89	0.03	2.14	1.98	1.95		
% Chg Same Qtr Last Yr.....	3.00	1.89	1.32	2.38	1.79	2.14	1.96	2.01	1.96	1.96	1.94	1.93	1.91	0.03	2.14	1.98	1.95		
LEISURE & HOSPITALITY.....	24476	25144	25220	25294	25370	25451	25528	25627	25739	25858	25981	26106	26233	23914	25034	25494	25921		
% Chg Prev Qtr SAAR.....	6.77	11.36	1.22	1.18	1.21	1.27	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.16	4.68	1.84	1.67		
% Chg Same Qtr Last Yr.....	3.78	5.48	4.41	5.05	3.65	1.22	1.22	1.32	1.45	1.60	1.77	1.87	1.92	1.16	4.68	1.84	1.67		
OTHER SERVICES.....	43562	43960	44336	44647	44921	45175	45418	45655	45888	46119	46349	46579	46808	43425	44126	45292	46234		
% Chg Prev Qtr SAAR.....	0.83	3.71	3.46	2.83	2.48	2.28	2.17	2.10	2.06	2.03	2.01	2.00	1.98	0.59	1.62	2.64	2.08		
% Chg Same Qtr Last Yr.....	0.83	1.90	1.03	2.70	3.12	2.76	2.44	2.26	2.15	2.09	2.05	2.02	2.00	0.59	1.62	2.64	2.08		
GOVERNMENT.....	44476	44759	45040	45223	45412	45622	45819	46033	46240	46443	46642	46847	47039	44426	44874	45722	46543		
% Chg Prev Qtr SAAR.....	-4.07	2.57	2.54	1.63	1.68	1.87	1.74	1.88	1.81	1.77	1.72	1.77	1.65	1.73	1.01	1.89	1.80		
% Chg Same Qtr Last Yr.....	1.29	0.97	1.16	0.63	2.10	1.93	1.73	1.79	1.82	1.80	1.80	1.77	1.73	1.73	1.01	1.89	1.80		
FEDERAL, CIVILIAN.....	78860	81747	82139	82564	83042	83569	84087	84601	85113	85625	86136	86647	87158	77856	81327	83825	85880		
% Chg Prev Qtr SAAR.....	8.93	15.47	1.93	2.09	2.34	2.56	2.50	2.47	2.44	2.43	2.41	2.40	2.38	0.15	4.46	3.07	2.45		
% Chg Same Qtr Last Yr.....	0.44	4.91	5.59	6.96	5.30	2.23	2.37	2.47	2.49	2.46	2.44	2.42	2.40	0.15	4.46	3.07	2.45		
STATE & LOCAL.....	40065	40168	40344	40498	40650	40828	40990	41173	41342	41515	41682	41857	42024	40074	40269	40910	41599		
% Chg Prev Qtr SAAR.....	-6.41	1.04	1.76	1.54	1.51	1.76	1.60	1.80	1.65	1.68	1.62	1.69	1.61	2.18	0.49	1.59	1.68		
% Chg Same Qtr Last Yr.....	1.59	0.54	0.42	-0.58	1.46	1.64	1.60	1.67	1.70	1.68	1.69	1.66	1.65	2.18	0.49	1.59	1.68		

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Table 15: Tennessee Civilian Labor Force and Unemployment Rate, Not Seasonally Adjusted

	History				Forecast Data								Annual				January 2018	
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019		
CIVILIAN LABOR FORCE (THOUS).....	3171	3209	3211	3150	3180	3202	3197	3188	3212	3227	3221	3209	3135	3190	3182	3212		
% Chg Same Qtr Last Yr.....	1.25	1.50	1.64	-0.60	0.30	-0.22	-0.43	1.20	0.99	0.77	0.75	0.68	2.09	1.75	-0.24	0.93		
EMPLOYED PERSONS (THOUS).....	3057	3095	3120	3057	3093	3093	3101	3090	3124	3122	3129	3117	2984	3070	3086	3116		
% Chg Same Qtr Last Yr.....	2.28	3.27	3.83	1.64	1.16	-0.09	-0.59	1.07	1.02	0.94	0.90	0.85	2.94	2.88	0.52	0.98		
UNEMPLOYED PERSONS (THOUS).....	113	113	91	93	87	109	96	98	87	105	92	93	151	120	96	95		
% Chg Same Qtr Last Yr.....	-20.48	-30.79	-40.92	-42.39	-22.96	-3.54	5.26	5.15	0.00	-3.92	-4.00	-4.90	-12.19	-20.63	-19.54	-0.87		
PARTICIPATION RATE (PERCENT).....	60.2	60.8	60.7	59.4	59.8	60.1	59.8	59.5	59.8	60.0	59.7	59.4	60.1	60.5	59.8	59.7		
% Chg Same Qtr Last Yr.....	0.16	0.42	0.61	-1.61	-0.71	-1.17	-1.38	0.24	0.05	-0.16	-0.18	-0.25	1.00	0.67	-1.22	-0.01		
UNEMPLOYMENT RATE (PERCENT).....	3.6	3.5	2.8	2.9	2.7	3.4	3.0	3.1	2.7	3.3	2.9	2.9	4.8	3.8	3.0	3.0		

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Table 16: Tennessee Civilian Labor Force and Unemployment Rate, Seasonally Adjusted

	History			Forecast Data										Annual			
	2017:2	2017:3		2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
CIVILIAN LABOR FORCE (THOUS).....	3180	3161		3215	3173	3185	3196	3201	3211	3217	3221	3225	3232	3139	3188	3189	3218
% Chg Prev Qtr SAAR.....	-1.76	-2.42		7.04	-5.17	1.62	1.29	0.73	1.16	0.78	0.47	0.56	0.86	2.23	1.54	0.04	0.93
% Chg Same Qtr Last Yr.....	1.67	0.30		1.55	-0.68	0.16	1.10	-0.42	1.20	0.99	0.78	0.74	0.67	2.23	1.54	0.04	0.93
EMPLOYED PERSONS (THOUS).....	3049	3059		3120	3076	3084	3094	3101	3109	3116	3123	3129	3135	2988	3063	3089	3119
% Chg Prev Qtr SAAR.....	3.09	1.24		8.28	-5.57	1.15	1.20	1.01	0.94	0.94	0.87	0.84	0.76	2.99	2.52	0.83	0.98
% Chg Same Qtr Last Yr.....	2.21	2.00		3.83	1.64	1.16	1.15	-0.59	1.07	1.02	0.94	0.90	0.85	2.99	2.52	0.83	0.98
UNEMPLOYED PERSONS (THOUS).....	131	102		95	97	101	102	100	102	101	98	96	97	151	124	100	99
% Chg Prev Qtr SAAR.....	-63.25	-62.98		-25.52	8.69	17.54	4.02	-7.62	8.24	-3.86	-11.36	-7.92	4.23	-10.87	-17.85	-19.48	-0.75
% Chg Same Qtr Last Yr.....	-9.41	-33.07		-40.92	-42.39	-22.96	-0.25	5.26	5.15	0.00	-3.92	-4.00	-4.90	-10.87	-17.85	-19.48	-0.75
PARTICIPATION RATE (PERCENT).....	60.4	59.9		60.7	59.8	59.9	59.9	59.9	59.9	59.9	59.8	59.8	59.8	60.2	60.5	59.9	59.9
% Chg Prev Qtr SAAR.....	-2.76	-3.51		6.00	-6.09	0.65	0.33	-0.22	0.22	-0.15	-0.45	-0.35	-0.05	1.14	0.46	-0.95	-0.01
% Chg Same Qtr Last Yr.....	0.59	-0.77		0.52	-1.69	-0.84	0.13	-1.37	0.24	0.04	-0.15	-0.19	-0.25	1.14	0.46	-0.95	-0.01
UNEMPLOYMENT RATE (PERCENT).....	4.1	3.2		3.0	3.1	3.2	3.2	3.1	3.2	3.1	3.0	3.0	3.0	4.8	3.9	3.1	3.1
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Table 17: Tennessee Taxable Sales, Not Seasonally Adjusted (millions of 2009 dollars)

	History				Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2020:1	2020:1	2016	2017	2018	2019
TOTAL TAXABLE SALES.....	27915	28004	30247	26395	28792	28471	30694	26837	29260	28910	31075	27102	27102	27102	107892	111054	114352	116083
% Chg Same Qtr Last Yr.....	2.88	4.81	4.37	6.06	3.14	1.67	1.48	1.68	1.63	1.54	1.24	0.99	0.99	0.99	3.88	2.93	2.97	1.51
AUTO DEALERS.....	2932	2952	2883	2818	2927	3015	2735	2863	2963	3052	2765	2891	2891	2891	11391	11325	11495	11643
% Chg Same Qtr Last Yr.....	3.27	-1.21	-3.71	2.22	-0.17	2.14	1.91	1.58	1.24	1.22	1.12	0.99	0.99	0.99	5.64	-0.58	1.51	1.29
PURCHASES FROM MANUFACTURERS....	1162	1167	1401	991	1187	1197	1439	1018	1222	1231	1475	1040	1040	1040	4711	4758	4815	4946
% Chg Same Qtr Last Yr.....	0.22	0.63	-2.92	-3.60	2.17	2.61	2.74	2.66	2.95	2.82	2.52	2.23	2.23	2.23	5.38	0.98	1.20	2.73
MISC DURABLE GOODS.....	4868	4714	4934	4316	5045	4845	5062	4431	5173	4969	5148	4495	4495	4495	18182	18740	19269	19720
% Chg Same Qtr Last Yr.....	2.45	4.23	2.63	2.18	3.65	2.79	2.60	2.64	2.53	2.56	1.71	1.46	1.46	1.46	6.60	3.07	2.82	2.34
EATING AND DRINKING PLACES.....	3011	2915	2881	2773	3034	2972	2937	2825	3086	3019	2977	2857	2857	2857	11385	11513	11716	11906
% Chg Same Qtr Last Yr.....	2.24	0.95	1.22	2.51	0.78	1.94	1.94	1.86	1.69	1.59	1.37	1.12	1.12	1.12	3.55	1.12	1.77	1.62
FOOD STORES.....	2591	2763	2976	2623	2735	2800	3009	2664	2774	2836	3041	2685	2685	2685	10395	10751	11167	11314
% Chg Same Qtr Last Yr.....	2.61	6.74	4.70	8.36	5.55	1.36	1.10	1.56	1.40	1.30	1.05	0.80	0.80	0.80	2.51	3.42	3.87	1.32
LIQUOR STORES.....	204	196	250	198	211	203	255	203	217	209	261	208	208	208	877	826	867	890
% Chg Same Qtr Last Yr.....	-10.03	-1.60	5.34	12.09	3.62	3.67	2.14	2.94	2.64	2.69	2.49	2.28	2.28	2.28	-1.38	-5.79	4.99	2.68
HOTELS AND MOTELS.....	890	896	790	665	890	914	809	683	913	937	829	701	701	701	3255	3200	3278	3362
% Chg Same Qtr Last Yr.....	0.30	-1.48	-1.07	6.75	-0.01	1.94	2.31	2.77	2.53	2.48	2.56	2.52	2.52	2.52	10.14	-1.69	2.43	2.58
OTHER RETAIL AND SERVICE.....	8245	8344	9774	8042	8618	8456	9907	8182	8754	8582	10032	8266	8266	8266	32986	33883	35023	35550
% Chg Same Qtr Last Yr.....	1.32	5.17	5.94	6.96	4.52	1.34	1.36	1.73	1.57	1.49	1.27	1.03	1.03	1.03	3.17	2.72	3.36	1.50
MISC NONDURABLE GOODS.....	2260	2131	2529	2033	2216	2150	2558	2068	2256	2186	2594	2092	2092	2092	8941	8823	8957	9103
% Chg Same Qtr Last Yr.....	1.60	-0.44	0.80	6.75	-1.92	0.92	1.15	1.72	1.77	1.67	1.41	1.15	1.15	1.15	3.16	-1.31	1.52	1.63
TRANSPORTATION, COMMUNICATION.....	1753	1926	2029	1935	1928	1918	1984	1901	1905	1889	1952	1868	1868	1868	5769	7236	7764	7647
% Chg Same Qtr Last Yr.....	21.82	38.58	36.84	26.58	10.00	-0.42	-2.24	-1.75	-1.19	-1.47	-1.62	-1.75	-1.75	-1.75	-2.74	25.43	7.30	-1.51
PER CAPITA (\$)......	4160	4173	4507	3899	4253	4206	4534	3931	4286	4235	4552	3937	3937	3937	16221	16549	16893	17004
% Chg Same Qtr Last Yr.....	1.97	3.88	3.45	5.14	2.24	0.78	0.59	0.82	0.77	0.69	0.39	0.16	0.16	0.16	3.00	2.02	2.07	0.66

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Table 18: Tennessee Taxable Sales, Seasonally Adjusted (millions of 2009 dollars)

	History				Forecast Data								Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2016	2017	2018	2019
TOTAL TAXABLE SALES.....	27632	28170	28349	28403	28509	28637	28769	28887	28969	29078	29123	29179	107859	110958	114316	116056
% Chg Prev Qtr SAAR.....	12.90	8.01	2.57	0.75	1.50	1.81	1.85	1.65	1.14	1.51	0.63	0.77	4.04	2.87	3.03	1.52
% Chg Same Qtr Last Yr.....	2.92	4.78	4.32	5.95	3.17	1.66	1.48	1.70	1.61	1.54	1.23	1.01	4.04	2.87	3.03	1.52
AUTO DEALERS.....	2876	2820	2835	2854	2872	2881	2889	2899	2907	2916	2922	2928	11393	11324	11495	11644
% Chg Prev Qtr SAAR.....	12.67	-7.58	2.11	2.67	2.52	1.26	1.21	1.33	1.14	1.22	0.79	0.82	5.71	-0.61	1.52	1.29
% Chg Same Qtr Last Yr.....	3.23	-1.24	-3.71	2.22	-0.17	2.14	1.91	1.58	1.24	1.22	1.12	0.99	5.71	-0.61	1.52	1.29
PURCHASES FROM MANUFACTURERS....	1171	1176	1183	1192	1197	1206	1216	1224	1232	1240	1246	1251	4698	4767	4811	4943
% Chg Prev Qtr SAAR.....	-19.57	1.45	2.67	3.08	1.47	3.23	3.21	2.75	2.60	2.73	1.98	1.59	5.47	1.49	0.92	2.74
% Chg Same Qtr Last Yr.....	0.51	0.66	-2.92	-3.60	2.17	2.61	2.74	2.66	2.95	2.82	2.52	2.23	5.47	1.49	0.92	2.74
MISC DURABLE GOODS.....	4627	4694	4746	4777	4795	4825	4869	4903	4916	4948	4952	4974	18179	18741	19266	19720
% Chg Prev Qtr SAAR.....	-4.05	5.93	4.54	2.59	1.58	2.46	3.78	2.77	1.12	2.57	0.38	1.77	6.88	3.10	2.80	2.36
% Chg Same Qtr Last Yr.....	2.57	4.22	2.63	2.18	3.65	2.79	2.60	2.64	2.53	2.56	1.71	1.46	6.88	3.10	2.80	2.36
EATING AND DRINKING PLACES.....	2900	2881	2893	2908	2923	2936	2949	2962	2972	2983	2990	2995	11383	11510	11716	11907
% Chg Prev Qtr SAAR.....	9.25	-2.66	1.73	2.07	2.07	1.89	1.74	1.73	1.38	1.50	0.86	0.76	3.60	1.12	1.79	1.62
% Chg Same Qtr Last Yr.....	2.14	1.01	1.22	2.51	0.78	1.94	1.94	1.86	1.69	1.59	1.37	1.12	3.60	1.12	1.79	1.62
FOOD STORES.....	2639	2759	2777	2774	2786	2797	2807	2817	2825	2833	2837	2839	10389	10735	11163	11311
% Chg Prev Qtr SAAR.....	13.03	19.50	2.54	-0.47	1.76	1.62	1.52	1.36	1.09	1.22	0.55	0.35	2.46	3.33	3.99	1.33
% Chg Same Qtr Last Yr.....	2.67	6.64	4.70	8.36	5.55	1.36	1.10	1.56	1.40	1.30	1.05	0.80	2.46	3.33	3.99	1.33
LIQUOR STORES.....	209	210	214	214	216	218	219	221	222	223	224	226	880	824	867	890
% Chg Prev Qtr SAAR.....	41.75	2.47	8.90	-0.19	3.51	2.68	2.61	2.96	2.33	2.87	1.82	2.12	-0.78	-6.41	5.21	2.69
% Chg Same Qtr Last Yr.....	-10.17	-1.51	5.34	12.09	3.62	3.67	2.14	2.94	2.64	2.69	2.49	2.28	-0.78	-6.41	5.21	2.69
HOTELS AND MOTELS.....	816	807	808	810	816	822	827	832	837	843	848	853	3251	3189	3275	3359
% Chg Prev Qtr SAAR.....	34.05	-4.52	0.73	0.74	3.15	3.16	2.22	2.56	2.19	2.96	2.52	2.42	10.37	-1.90	2.68	2.59
% Chg Same Qtr Last Yr.....	0.29	-1.75	-1.07	6.75	-0.01	1.94	2.31	2.77	2.53	2.48	2.56	2.52	10.37	-1.90	2.68	2.59
OTHER RETAIL AND SERVICE.....	8356	8656	8690	8693	8734	8772	8808	8843	8871	8903	8920	8934	32976	33830	35007	35537
% Chg Prev Qtr SAAR.....	11.77	15.15	1.58	0.10	1.92	1.76	1.64	1.61	1.28	1.41	0.78	0.65	3.41	2.59	3.48	1.51
% Chg Same Qtr Last Yr.....	1.37	4.99	5.94	6.96	4.52	1.34	1.36	1.73	1.57	1.49	1.27	1.03	3.41	2.59	3.48	1.51
MISC NONDURABLE GOODS.....	2275	2222	2228	2225	2232	2243	2253	2263	2271	2280	2285	2289	8942	8809	8953	9100
% Chg Prev Qtr SAAR.....	42.06	-8.98	1.01	-0.57	1.24	2.01	1.92	1.71	1.45	1.58	0.90	0.66	3.40	-1.49	1.62	1.64
% Chg Same Qtr Last Yr.....	1.54	-0.54	0.80	6.75	-1.92	0.92	1.15	1.72	1.77	1.67	1.41	1.15	3.40	-1.49	1.62	1.64
TRANSPORTATION, COMMUNICATION.....	1763	1945	1974	1957	1939	1937	1930	1923	1916	1909	1899	1889	5769	7228	7763	7646
% Chg Prev Qtr SAAR.....	68.81	48.37	6.09	-3.38	-3.73	-0.37	-1.44	-1.42	-1.54	-1.50	-2.03	-1.95	-2.73	25.30	7.40	-1.51
% Chg Same Qtr Last Yr.....	21.87	38.40	36.84	26.58	10.00	-0.42	-2.24	-1.75	-1.19	-1.47	-1.62	-1.75	-2.73	25.30	7.40	-1.51
PER CAPITA (\$).	4118	4198	4225	4196	4211	4230	4250	4231	4243	4259	4266	4239	16216	16535	16887	17000
% Chg Prev Qtr SAAR.....	12.90	8.01	2.57	-2.71	1.50	1.81	1.85	-1.74	1.14	1.51	0.63	-2.49	3.17	1.96	2.13	0.67
% Chg Same Qtr Last Yr.....	2.01	3.85	3.40	5.03	2.27	0.77	0.60	0.85	0.76	0.68	0.38	0.19	3.17	1.96	2.13	0.67
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Table 19: Tennessee Taxable Sales, Not Seasonally Adjusted (millions of current dollars)

	History				Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2020:1	2020:1	2016	2017	2018	2019
TOTAL TAXABLE SALES.....	31341	31559	34233	29975	32815	32579	35276	30960	33917	33658	36387	31911	119563	125056	130645	134923		
% Chg Same Qtr Last Yr.....	4.48	6.37	5.87	7.35	4.70	3.23	3.05	3.29	3.36	3.31	3.15	3.07	5.13	4.59	4.47	3.27		
AUTO DEALERS.....	3291	3327	3037	3201	3336	3450	3143	3303	3434	3554	3238	3404	12620	12749	13130	13529		
% Chg Same Qtr Last Yr.....	4.87	0.27	-2.33	3.46	1.34	3.71	3.49	3.19	2.96	2.99	3.02	3.07	6.90	1.02	2.99	3.04		
PURCHASES FROM MANUFACTURERS....	1304	1315	1585	1126	1352	1370	1654	1174	1416	1433	1728	1225	5224	5358	5502	5751		
% Chg Same Qtr Last Yr.....	1.77	2.13	-1.53	-2.43	3.71	4.19	4.33	4.29	4.70	4.61	4.44	4.33	6.67	2.57	2.69	4.52		
MISC DURABLE GOODS.....	5465	5312	5584	4902	5750	5544	5818	5111	5996	5785	6028	5293	20149	21101	22014	22920		
% Chg Same Qtr Last Yr.....	4.04	5.78	4.10	3.42	5.21	4.37	4.19	4.27	4.28	4.34	3.62	3.55	7.87	4.73	4.33	4.12		
EATING AND DRINKING PLACES.....	3380	3285	3260	3150	3458	3401	3375	3259	3577	3515	3486	3364	12614	12962	13384	13836		
% Chg Same Qtr Last Yr.....	3.83	2.46	2.66	3.76	2.31	3.51	3.52	3.47	3.42	3.36	3.27	3.21	4.79	2.76	3.26	3.38		
FOOD STORES.....	2910	3113	3368	2979	3118	3204	3458	3073	3215	3302	3560	3162	11520	12107	12758	13150		
% Chg Same Qtr Last Yr.....	4.21	8.33	6.19	9.68	7.15	2.92	2.67	3.17	3.12	3.06	2.95	2.88	3.75	5.10	5.38	3.07		
LIQUOR STORES.....	229	221	283	224	241	233	293	235	251	243	306	245	971	930	991	1035		
% Chg Same Qtr Last Yr.....	-8.63	-0.13	6.84	13.46	5.19	5.27	3.72	4.57	4.39	4.48	4.42	4.39	-0.22	-4.24	6.52	4.46		
HOTELS AND MOTELS.....	1000	1010	895	755	1015	1046	929	788	1058	1090	971	825	3607	3603	3745	3908		
% Chg Same Qtr Last Yr.....	1.86	-0.01	0.35	8.06	1.50	3.51	3.90	4.40	4.28	4.27	4.49	4.64	11.46	-0.11	3.93	4.35		
OTHER RETAIL AND SERVICE.....	9257	9404	11062	9133	9822	9676	11386	9439	10147	9991	11747	9733	36557	38160	40018	41324		
% Chg Same Qtr Last Yr.....	2.89	6.74	7.45	8.26	6.10	2.90	2.92	3.34	3.30	3.25	3.17	3.11	4.41	4.38	4.87	3.26		
MISC NONDURABLE GOODS.....	2537	2401	2862	2309	2526	2460	2939	2386	2615	2545	3037	2463	9908	9936	10234	10582		
% Chg Same Qtr Last Yr.....	3.18	1.04	2.24	8.05	-0.43	2.47	2.71	3.33	3.51	3.44	3.32	3.23	4.41	0.28	3.00	3.40		
TRANSPORTATION, COMMUNICATION.....	1968	2170	2297	2197	2198	2194	2280	2193	2208	2200	2285	2199	6392	8150	8869	8886		
% Chg Same Qtr Last Yr.....	23.72	40.65	38.80	28.12	11.67	1.11	-0.73	-0.19	0.49	0.24	0.23	0.27	-1.58	27.50	8.83	0.19		
PER CAPITA (\$).	4670	4703	5101	4428	4848	4813	5211	4535	4968	4930	5330	4636	17976	18636	19299	19763		
% Chg Same Qtr Last Yr.....	3.55	5.43	4.93	6.42	3.79	2.33	2.15	2.41	2.49	2.44	2.28	2.23	4.24	3.67	3.56	2.40		

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Table 20: Tennessee Taxable Sales, Seasonally Adjusted (millions of current dollars)

	History			Forecast Data										Annual			
	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4	2020:1	2020:2	2016	2017	2018	2019
TOTAL TAXABLE SALES.....	31024	31746	32085	32255	32492	32768	33064	33325	33579	33853	34101	34357	34520	119498	124931	130579	134858
% Chg Prev Qtr SAAR.....	13.20	9.64	4.35	2.14	2.96	3.45	3.65	3.20	3.09	3.30	2.97	3.03	3.03	5.28	4.55	4.52	3.28
% Chg Same Qtr Last Yr.....	4.52	6.35	5.81	7.24	4.73	3.22	3.05	3.31	3.35	3.31	3.14	3.10	3.10	5.28	4.55	4.52	3.28
AUTO DEALERS.....	3229	3178	3209	3241	3273	3296	3321	3344	3370	3395	3421	3447	3473	12623	12749	13131	13530
% Chg Prev Qtr SAAR.....	12.97	-6.19	3.88	4.08	4.00	2.89	3.00	2.87	3.09	3.00	3.13	3.08	3.08	6.97	1.00	2.99	3.04
% Chg Same Qtr Last Yr.....	4.83	0.24	-2.33	3.46	1.34	3.71	3.49	3.19	2.96	2.99	3.02	3.07	3.07	6.97	1.00	2.99	3.04
PURCHASES FROM MANUFACTURERS.....	1315	1325	1339	1354	1364	1380	1397	1412	1428	1444	1460	1473	1486	5205	5367	5496	5744
% Chg Prev Qtr SAAR.....	-19.36	2.98	4.45	4.50	2.93	4.89	5.03	4.31	4.58	4.54	4.35	3.87	3.87	6.73	3.12	2.40	4.51
% Chg Same Qtr Last Yr.....	2.07	2.16	-1.53	-2.43	3.71	4.19	4.33	4.29	4.70	4.61	4.44	4.33	4.33	6.73	3.12	2.40	4.51
MISC DURABLE GOODS.....	5194	5290	5372	5425	5465	5521	5596	5656	5699	5760	5799	5857	5915	20141	21100	22007	22914
% Chg Prev Qtr SAAR.....	-3.79	7.53	6.35	4.00	3.04	4.11	5.61	4.33	3.07	4.38	2.71	4.05	4.05	8.15	4.77	4.30	4.12
% Chg Same Qtr Last Yr.....	4.17	5.78	4.10	3.42	5.21	4.37	4.19	4.27	4.28	4.34	3.62	3.55	3.55	8.15	4.77	4.30	4.12
EATING AND DRINKING PLACES.....	3256	3246	3274	3302	3331	3360	3389	3417	3445	3473	3500	3527	3554	12611	12959	13383	13836
% Chg Prev Qtr SAAR.....	9.54	-1.20	3.49	3.47	3.54	3.53	3.54	3.28	3.33	3.29	3.20	3.02	3.02	4.83	2.76	3.27	3.38
% Chg Same Qtr Last Yr.....	3.73	2.52	2.66	3.76	2.31	3.51	3.52	3.47	3.42	3.36	3.28	3.21	3.21	4.83	2.76	3.27	3.38
FOOD STORES.....	2963	3110	3143	3150	3175	3200	3227	3250	3274	3298	3322	3343	3363	11511	12087	12751	13144
% Chg Prev Qtr SAAR.....	13.34	21.30	4.32	0.90	3.23	3.25	3.31	2.90	3.04	3.00	2.88	2.60	2.60	3.69	5.01	5.50	3.08
% Chg Same Qtr Last Yr.....	4.26	8.23	6.19	9.68	7.15	2.92	2.67	3.17	3.12	3.06	2.95	2.88	2.88	3.69	5.01	5.50	3.08
LIQUOR STORES.....	234	236	243	243	246	249	252	254	257	260	263	266	269	975	928	990	1034
% Chg Prev Qtr SAAR.....	42.13	4.01	10.79	1.18	5.00	4.33	4.42	4.52	4.30	4.68	4.18	4.41	4.41	0.37	-4.85	6.74	4.46
% Chg Same Qtr Last Yr.....	-8.78	-0.04	6.84	13.46	5.19	5.27	3.72	4.57	4.39	4.48	4.42	4.39	4.39	0.37	-4.85	6.74	4.46
HOTELS AND MOTELS.....	916	909	915	919	930	941	950	960	970	981	993	1004	1014	3602	3591	3741	3904
% Chg Prev Qtr SAAR.....	34.41	-3.08	2.48	2.12	4.64	4.82	4.03	4.12	4.16	4.78	4.90	4.72	4.72	11.68	-0.30	4.17	4.36
% Chg Same Qtr Last Yr.....	1.85	-0.29	0.35	8.06	1.50	3.51	3.90	4.40	4.28	4.27	4.49	4.64	4.64	11.68	-0.30	4.17	4.36
OTHER RETAIL AND SERVICE.....	9382	9755	9835	9872	9954	10038	10123	10202	10283	10365	10444	10520	10596	36533	38091	39987	41294
% Chg Prev Qtr SAAR.....	12.07	16.89	3.34	1.48	3.39	3.40	3.44	3.15	3.23	3.20	3.12	2.91	2.91	4.64	4.26	4.98	3.27
% Chg Same Qtr Last Yr.....	2.95	6.56	7.45	8.26	6.10	2.90	2.92	3.34	3.30	3.25	3.17	3.11	3.11	4.64	4.26	4.98	3.27
MISC NONDURABLE GOODS.....	2554	2504	2522	2527	2543	2566	2590	2611	2633	2655	2676	2695	2714	9907	9919	10226	10574
% Chg Prev Qtr SAAR.....	42.44	-7.61	2.76	0.80	2.70	3.65	3.72	3.26	3.41	3.37	3.24	2.92	2.92	4.63	0.12	3.10	3.40
% Chg Same Qtr Last Yr.....	3.11	0.95	2.24	8.05	-0.43	2.47	2.71	3.33	3.51	3.44	3.32	3.23	3.23	4.63	0.12	3.10	3.40
TRANSPORTATION, COMMUNICATION.....	1979	2192	2234	2223	2210	2217	2218	2219	2221	2222	2223	2225	2225	6391	8140	8867	8885
% Chg Prev Qtr SAAR.....	69.26	50.61	7.93	-2.05	-2.34	1.23	0.30	0.08	0.36	0.24	0.24	0.25	0.25	-1.58	27.38	8.93	0.19
% Chg Same Qtr Last Yr.....	23.76	40.47	38.80	28.12	11.67	1.11	-0.73	-0.19	0.49	0.24	0.23	0.27	0.27	-1.58	27.38	8.93	0.19
PER CAPITA (\$).	4623	4731	4781	4765	4800	4841	4884	4881	4919	4959	4995	4991	4991	17966	18617	19290	19754
% Chg Prev Qtr SAAR.....	13.20	9.64	4.35	-1.37	2.96	3.45	3.65	-0.24	3.09	3.30	2.97	-0.30	-0.30	4.39	3.62	3.61	2.41
% Chg Same Qtr Last Yr.....	3.60	5.41	4.88	6.31	3.82	2.32	2.15	2.44	2.48	2.44	2.27	2.25	2.25	4.39	3.62	3.61	2.41

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Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	Forecast Data											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TN GDP (Mil2009\$) SAAR.....	297486	303768	309939	316122	322416	328922	335547	342475	349371	356449	363738	
Percentage change.....	2.09	2.11	2.03	1.99	1.99	2.02	2.01	2.06	2.01	2.03	2.05	
US GDP (Bil2009\$) SAAR.....	17096.6	17535.8	17944.8	18292.1	18617.9	18974.4	19340.0	19692.7	20051.9	20430.0	20810.8	
Percentage change.....	2.28	2.57	2.33	1.94	1.78	1.91	1.93	1.82	1.82	1.89	1.86	
TN GDP (Mil\$) SAAR.....	344193	359081	374601	390487	406972	423789	441299	459759	478804	498577	519151	
Percentage change.....	3.72	4.33	4.32	4.24	4.22	4.13	4.13	4.18	4.14	4.13	4.13	
US GDP (Bil\$) SAAR.....	19391.6	20307.0	21247.4	22173.5	23083.6	24031.3	25022.7	26033.5	27084.7	28200.3	29350.5	
Percentage change.....	4.12	4.72	4.63	4.36	4.10	4.11	4.13	4.04	4.04	4.12	4.08	
TN PERSONAL INCOME (Mil2009\$) SAAR.....	265255	272696	279536	284789	290959	296949	302889	308640	314562	320786	327444	
Percentage change.....	1.98	2.81	2.51	1.88	2.17	2.06	2.00	1.90	1.92	1.98	2.08	
US PERSONAL INCOME (Bil2009\$) SAAR.....	14573	14957	15425	15841	16219	16599	16984	17356	17732	18119	18512	
Percentage change.....	1.36	2.63	3.13	2.70	2.38	2.34	2.32	2.19	2.16	2.18	2.17	
TN PERSONAL INCOME (Mil\$) SAAR.....	298646	311494	324828	338006	352351	366894	382014	397361	413318	430082	447891	
Percentage change.....	3.64	4.30	4.28	4.06	4.24	4.13	4.12	4.02	4.02	4.06	4.14	
US PERSONAL INCOME (Bil\$) SAAR.....	16418	17113	17961	18853	19710	20588	21504	22433	23395	24405	25449	
Percentage change.....	3.07	4.23	4.96	4.96	4.55	4.46	4.44	4.32	4.29	4.32	4.28	
TN NONFARM JOBS (THOUS).....	3020.4	3061.7	3097.6	3125.4	3155.7	3186.2	3216.1	3241.7	3265.7	3289.4	3313.3	
Percentage change.....	1.81	1.37	1.17	0.90	0.97	0.96	0.94	0.80	0.74	0.73	0.73	
US NONFARM JOBS (MIL).....	146.4	148.6	150.4	151.4	151.8	152.6	153.4	154.0	154.6	155.3	156.1	
Percentage change.....	1.48	1.45	1.25	0.62	0.30	0.51	0.52	0.42	0.37	0.45	0.49	
TN MFG JOBS (THOUS).....	346.8	347.8	348.9	349.8	350.1	350.3	350.0	349.7	349.2	348.2	347.1	
Percentage change.....	1.04	0.26	0.34	0.25	0.09	0.03	-0.07	-0.09	-0.14	-0.30	-0.32	
US MFG JOBS (MIL).....	12.4	12.7	12.9	13.0	13.0	13.0	13.0	13.0	13.1	13.1	13.2	
Percentage change.....	0.65	2.06	1.68	0.76	0.11	-0.01	0.04	0.17	0.32	0.51	0.31	
TN UNEMPLOYMENT RATE (%).....	3.9	3.1	3.1	3.0	3.4	3.9	4.0	4.1	4.1	4.2	4.2	
US UNEMPLOYMENT RATE (%).....	4.4	3.9	3.8	4.0	4.3	4.5	4.6	4.6	4.7	4.7	4.7	
CHAINED PRICE INDEX, GDP (2009=100.0).....	113.4	115.8	118.4	121.2	124.0	126.6	129.4	132.2	135.1	138.0	141.0	
Percentage change.....	1.80	2.09	2.25	2.38	2.28	2.15	2.16	2.18	2.17	2.19	2.17	
US PERS CONSUMP DEFL (2009=100.0).....	112.7	114.4	116.4	119.0	121.5	124.0	126.6	129.2	131.9	134.7	137.5	
Percentage change.....	1.69	1.56	1.77	2.20	2.12	2.06	2.08	2.09	2.08	2.09	2.06	
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1.000).....	2.451	2.495	2.547	2.617	2.682	2.745	2.812	2.882	2.954	3.028	3.104	
Percentage change.....	2.13	1.77	2.11	2.73	2.48	2.37	2.43	2.49	2.50	2.50	2.51	
BANK PRIME INTEREST RATE (%).....	4.1	4.8	5.4	5.9	6.3	6.3	6.2	6.0	6.0	5.8	5.8	
FEDERAL FUNDS RATE (% per annum).....	1.003	1.758	2.325	2.838	3.199	3.200	3.193	2.950	2.940	2.700	2.700	
30-YEAR FIXED MORTGAGE RATE (%).....	4.0	4.4	4.9	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	
TN TAXABLE SALES (Mil2009\$).....	110958	114316	116056	117153	118675	120549	122006	123565	125090	126849	128665	
Percentage change.....	2.87	3.03	1.52	0.94	1.30	1.58	1.21	1.28	1.23	1.41	1.43	
TN TAXABLE SALES (MIL\$).....	124931	130579	134858	139042	143714	148942	153876	159083	164361	170066	175991	
Percentage change.....	4.55	4.52	3.28	3.10	3.36	3.64	3.31	3.38	3.32	3.47	3.48	
TN AVG ANNUAL WAGE, NONFARM (2009\$).....	43221	43706	43960	43972	43970	43983	43980	43950	43931	43924	43887	
Percentage change.....	0.13	1.12	0.58	0.03	0.00	0.03	-0.01	-0.07	-0.04	-0.02	-0.09	
TN AVG ANNUAL WAGE, NONFARM (\$)......	48661	49923	51081	52187	53246	54341	55467	56582	57721	58888	60028	
Percentage change.....	1.75	2.59	2.32	2.17	2.03	2.06	2.07	2.01	2.01	2.02	1.94	
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Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators

	Forecast Data										January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
TN GDP (2009\$) SAAR.....	44332	44874	45399	45926	46468	47039	47626	48254	48875	49520	50190
Percentage change.....	1.18	1.22	1.17	1.16	1.18	1.23	1.25	1.32	1.29	1.32	1.35
US GDP (2009\$) SAAR.....	52457	53379	54190	54806	55350	55980	56630	57236	57857	58527	59202
Percentage change.....	1.57	1.76	1.52	1.14	0.99	1.14	1.16	1.07	1.08	1.16	1.15
TN GDP (\$) SAAR.....	51292	53045	54871	56729	58654	60606	62636	64779	66982	69265	71635
Percentage change.....	2.80	3.42	3.44	3.39	3.39	3.33	3.35	3.42	3.40	3.41	3.42
US GDP (\$) SAAR.....	59499	61814	64164	66435	68627	70899	73269	75665	78149	80787	83496
Percentage change.....	3.40	3.89	3.80	3.54	3.30	3.31	3.34	3.27	3.28	3.38	3.35
TN PERSONAL INCOME (2009\$) SAAR.....	39528	40284	40946	41374	41934	42466	42991	43487	44006	44565	45182
Percentage change.....	1.08	1.91	1.64	1.04	1.35	1.27	1.23	1.15	1.19	1.27	1.39
US PERSONAL INCOME (2009\$) SAAR.....	44715	45527	46581	47463	48217	48971	49731	50445	51162	51906	52664
Percentage change.....	0.66	1.82	2.31	1.89	1.59	1.56	1.55	1.44	1.42	1.45	1.46
TN PERSONAL INCOME (\$) SAAR.....	44504	46015	47580	49105	50782	52469	54221	55987	57821	59749	61802
Percentage change.....	2.72	3.39	3.40	3.20	3.42	3.32	3.34	3.26	3.28	3.33	3.44
US PERSONAL INCOME (\$) SAAR.....	50376	52090	54240	56485	58598	60741	62964	65200	67502	69913	72397
Percentage change.....	2.36	3.40	4.13	4.14	3.74	3.66	3.66	3.55	3.53	3.57	3.55
TN TAXABLE SALES (2009\$).....	16535	16887	17000	17020	17104	17240	17317	17410	17500	17622	17754
Percentage change.....	1.96	2.13	0.67	0.12	0.49	0.79	0.45	0.54	0.51	0.70	0.75
TN TAXABLE SALES (\$).....	18617	19290	19754	20200	20712	21300	21840	22414	22993	23626	24284
Percentage change.....	3.62	3.61	2.41	2.26	2.54	2.84	2.54	2.63	2.58	2.75	2.78

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Table 3: Tennessee Personal Income Components (millions of 2009 dollars)

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TN PERSONAL INCOME.....	265255	272696	279536	284789	290959	296949	302889	308640	314562	320786	327444	
Percentage change.....	1.98	2.81	2.51	1.88	2.17	2.06	2.00	1.90	1.92	1.98	2.08	
WAGES AND SALARIES.....	131372	134643	136997	138253	139582	140956	142257	143278	144264	145277	146194	
Percentage change.....	1.93	2.49	1.75	0.92	0.96	0.98	0.92	0.72	0.69	0.70	0.63	
OTHER LABOR INCOME.....	30568	30909	31181	31505	31846	32308	32708	33265	33817	34491	35058	
Percentage change.....	2.62	1.11	0.88	1.04	1.08	1.45	1.24	1.71	1.66	1.99	1.64	
PROPRIETORS INCOME.....	35434	36574	37715	38502	39481	40579	41758	42951	44209	45599	47264	
Percentage change.....	4.20	3.22	3.12	2.09	2.54	2.78	2.90	2.86	2.93	3.15	3.65	
RENT, INTEREST, DIVIDENDS.....	37573	38744	39960	41009	42574	43651	44849	45978	47245	48659	50136	
Percentage change.....	1.72	3.12	3.14	2.63	3.82	2.53	2.74	2.52	2.76	2.99	3.04	
TRANSFER PAYMENTS.....	53200	54905	56878	58746	60709	62693	64547	66379	68211	69907	71891	
Percentage change.....	0.89	3.21	3.59	3.28	3.34	3.27	2.96	2.84	2.76	2.49	2.84	
LESS: PERS CONT FOR SOC INS.....	21087	21273	21394	21437	21465	21508	21534	21549	21551	21541	21519	
Percentage change.....	2.88	0.88	0.57	0.20	0.13	0.20	0.12	0.07	0.01	-0.05	-0.10	
RESIDENCE ADJUSTMENT.....	-1804	-1806	-1800	-1790	-1768	-1731	-1696	-1664	-1633	-1605	-1579	
Percentage change.....	3.03	0.06	-0.28	-0.61	-1.20	-2.09	-2.02	-1.92	-1.81	-1.72	-1.64	
PER CAPITA PERSONAL INCOME (\$).	39528	40284	40946	41374	41934	42466	42991	43487	44006	44565	45182	
Percentage change.....	1.08	1.91	1.64	1.04	1.35	1.27	1.23	1.15	1.19	1.27	1.39	

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Table 4: Tennessee Personal Income Components (millions of current dollars) January 2018

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TN PERSONAL INCOME.....	298646	311494	324828	338006	352351	366894	382014	397361	413318	430082	447891	
Percentage change.....	3.64	4.30	4.28	4.06	4.24	4.13	4.12	4.02	4.02	4.06	4.14	
WAGES AND SALARIES.....	147910	153797	159192	164085	169030	174155	179416	184461	189552	194771	199965	
Percentage change.....	3.58	3.98	3.51	3.07	3.01	3.03	3.02	2.81	2.76	2.75	2.67	
OTHER LABOR INCOME.....	34416	35306	36233	37392	38564	39918	41252	42828	44434	46242	47953	
Percentage change.....	4.28	2.59	2.63	3.20	3.14	3.51	3.34	3.82	3.75	4.07	3.70	
PROPRIETORS INCOME.....	39894	41778	43825	45697	47812	50138	52667	55299	58089	61136	64651	
Percentage change.....	5.88	4.72	4.90	4.27	4.63	4.87	5.04	5.00	5.04	5.25	5.75	
RENT, INTEREST, DIVIDENDS.....	42303	44256	46434	48673	51558	53934	56566	59196	62079	65239	68579	
Percentage change.....	3.37	4.62	4.92	4.82	5.93	4.61	4.88	4.65	4.87	5.09	5.12	
TRANSFER PAYMENTS.....	59897	62717	66095	69725	73520	77461	81410	85461	89627	93726	98337	
Percentage change.....	2.53	4.71	5.39	5.49	5.44	5.36	5.10	4.98	4.87	4.57	4.92	
LESS: PERS CONT FOR SOC INS.....	23742	24299	24859	25442	25993	26573	27158	27742	28316	28879	29434	
Percentage change.....	4.54	2.35	2.31	2.34	2.17	2.23	2.20	2.15	2.07	1.99	1.92	
RESIDENCE ADJUSTMENT.....	-2032	-2062	-2092	-2124	-2141	-2139	-2139	-2142	-2146	-2152	-2160	
Percentage change.....	4.69	1.52	1.44	1.52	0.80	-0.10	0.02	0.12	0.21	0.29	0.35	
PER CAPITA PERSONAL INCOME (\$)	44504	46015	47580	49105	50782	52469	54221	55987	57821	59749	61802	
Percentage change.....	2.72	3.39	3.40	3.20	3.42	3.32	3.34	3.26	3.28	3.33	3.44	

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Table 5: Tennessee Nonfarm Employment by Sector (thousands of jobs)

January 2018

	Forecast Data										January 2018		
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
TOTAL NONFARM.....	3019.8	3061.0	3096.8	3124.6	3154.9	3185.4	3215.3	3240.8	3264.8	3288.6	3312.4		
Percentage change.....	1.82	1.36	1.17	0.90	0.97	0.96	0.94	0.80	0.74	0.73	0.73		
NATURAL RESOURCES, MINING & CONSTRUCTION.....	125.2	125.9	127.6	129.6	132.1	134.5	136.8	138.7	140.3	141.7	142.9		
Percentage change.....	5.01	0.57	1.34	1.57	1.90	1.81	1.74	1.38	1.13	1.01	0.90		
MANUFACTURING.....	346.8	347.8	349.0	349.8	350.1	350.3	350.0	349.7	349.2	348.2	347.1		
Percentage change.....	1.04	0.27	0.34	0.25	0.09	0.03	-0.07	-0.09	-0.14	-0.30	-0.32		
DURABLE GOODS.....	221.0	222.2	223.3	224.0	224.7	225.4	225.9	226.2	226.4	226.2	226.0		
Percentage change.....	0.97	0.55	0.48	0.35	0.29	0.32	0.20	0.16	0.09	-0.08	-0.11		
NONDURABLE GOODS.....	125.9	125.6	125.7	125.8	125.5	124.9	124.2	123.5	122.8	121.9	121.1		
Percentage change.....	1.17	-0.23	0.10	0.08	-0.26	-0.48	-0.55	-0.53	-0.57	-0.70	-0.70		
TRADE, TRANSPORTATION, UTILITIES.....	627.8	633.8	636.2	636.3	638.6	640.1	639.9	638.4	637.7	637.7	638.0		
Percentage change.....	1.74	0.97	0.37	0.02	0.35	0.24	-0.04	-0.23	-0.11	0.00	0.05		
WHOLESALE TRADE.....	122.5	124.3	124.8	124.9	125.0	125.3	125.5	125.1	124.5	123.6	122.8		
Percentage change.....	2.17	1.45	0.40	0.13	0.10	0.21	0.19	-0.34	-0.51	-0.67	-0.70		
RETAIL TRADE.....	339.9	341.1	341.9	341.4	343.0	344.0	343.1	341.8	341.1	341.0	341.9		
Percentage change.....	1.83	0.36	0.25	-0.17	0.49	0.29	-0.25	-0.39	-0.21	-0.03	0.27		
TRANSPORTATION & UTILITIES.....	165.4	168.5	169.5	170.0	170.5	170.8	171.2	171.5	172.1	173.1	173.4		
Percentage change.....	1.24	1.87	0.60	0.32	0.27	0.17	0.23	0.18	0.38	0.55	0.17		
INFORMATION.....	45.6	45.7	45.8	45.9	46.1	46.3	46.5	46.6	46.6	46.5	46.3		
Percentage change.....	0.24	0.20	0.10	0.30	0.40	0.48	0.37	0.29	0.02	-0.33	-0.42		
FINANCIAL ACTIVITIES.....	155.7	157.2	157.9	158.0	158.5	158.7	158.7	158.5	158.2	157.9	157.6		
Percentage change.....	1.88	1.02	0.41	0.05	0.34	0.13	-0.02	-0.11	-0.18	-0.21	-0.18		
PROFESSIONAL & BUSINESS SERVICES.....	415.3	430.2	446.1	457.9	467.9	479.7	494.6	506.7	518.3	530.5	541.7		
Percentage change.....	2.40	3.58	3.69	2.65	2.19	2.52	3.11	2.44	2.29	2.35	2.12		
EDUCATION & HEALTH SERVICES.....	429.3	437.8	445.8	453.6	461.5	469.7	477.8	486.2	494.7	503.2	512.2		
Percentage change.....	1.16	1.99	1.83	1.73	1.76	1.77	1.72	1.75	1.75	1.73	1.78		
LEISURE & HOSPITALITY.....	329.0	334.1	338.6	342.2	345.1	347.0	348.8	351.1	352.9	355.3	357.5		
Percentage change.....	2.73	1.56	1.34	1.04	0.86	0.57	0.52	0.66	0.51	0.68	0.61		
OTHER SERVICES.....	111.9	113.1	113.8	114.6	116.0	117.1	118.0	118.6	118.4	117.3	116.6		
Percentage change.....	1.50	1.01	0.66	0.74	1.18	0.97	0.71	0.56	-0.21	-0.91	-0.58		
GOVERNMENT.....	433.2	435.3	436.1	436.7	439.0	442.0	444.2	446.3	448.6	450.3	452.5		
Percentage change.....	1.33	0.49	0.18	0.15	0.53	0.67	0.51	0.48	0.50	0.40	0.47		
FEDERAL, CIVILIAN.....	48.5	48.8	48.7	48.3	47.6	47.5	47.5	47.4	47.4	47.3	47.2		
Percentage change.....	-1.32	0.57	-0.22	-0.76	-1.43	-0.20	-0.13	-0.13	-0.14	-0.14	-0.14		
STATE & LOCAL.....	384.6	386.5	387.4	388.4	391.4	394.5	396.8	398.9	401.2	403.1	405.3		
Percentage change.....	1.68	0.47	0.24	0.26	0.78	0.78	0.58	0.55	0.57	0.46	0.55		

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Table 6: Tennessee Durable Goods Manufacturing Employment (thousands of jobs) January 2018

	Forecast Data										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
TOTAL DURABLE GOODS.....	221.0	222.2	223.3	224.0	224.7	225.4	225.8	226.2	226.4	226.2	226.0
Percentage change.....	0.97	0.55	0.48	0.35	0.29	0.32	0.20	0.16	0.09	-0.08	-0.11
WOOD PRODUCTS.....	12.0	12.1	12.3	12.4	12.5	12.6	12.7	12.7	12.8	12.8	12.9
Percentage change.....	0.00	0.87	1.13	0.93	0.78	0.77	0.68	0.59	0.32	0.35	0.29
NONMETALLIC MINERALS.....	13.9	14.1	14.2	14.3	14.4	14.5	14.5	14.6	14.5	14.5	14.4
Percentage change.....	3.21	1.42	0.84	0.62	0.52	0.73	0.15	0.35	-0.37	-0.36	-0.22
PRIMARY METALS.....	10.6	10.8	10.9	11.0	11.0	10.9	10.9	10.8	10.7	10.7	10.6
Percentage change.....	0.91	2.36	1.04	0.51	0.00	-0.49	-0.37	-0.75	-0.80	-0.71	-0.85
FABRICATED METALS.....	35.2	35.3	35.4	35.5	35.4	35.2	35.0	34.8	34.8	34.8	34.7
Percentage change.....	-1.11	0.17	0.28	0.32	-0.25	-0.60	-0.55	-0.54	-0.16	-0.03	-0.25
MACHINERY.....	25.6	25.7	25.8	25.9	26.1	26.2	26.3	26.5	26.6	26.6	26.5
Percentage change.....	0.33	0.33	0.54	0.42	0.49	0.64	0.42	0.62	0.48	-0.23	-0.20
COMPUTERS & ELECTRONICS.....	4.4	4.2	4.1	3.9	3.7	3.5	3.3	3.2	3.0	2.8	2.7
Percentage change.....	-6.17	-3.85	-4.13	-4.86	-5.43	-4.60	-4.98	-4.86	-4.97	-5.43	-5.73
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	20.2	20.2	20.3	20.4	20.6	20.8	21.0	21.1	21.1	21.0	20.9
Percentage change.....	0.45	0.18	0.47	0.63	0.97	1.00	0.73	0.65	-0.09	-0.44	-0.42
TRANSPORTATION EQUIPMENT.....	73.8	74.2	74.8	75.3	75.8	76.5	77.1	77.6	78.1	78.5	78.9
Percentage change.....	2.45	0.54	0.70	0.65	0.78	0.84	0.79	0.63	0.71	0.45	0.51
FURNITURE.....	9.5	9.7	9.9	9.9	9.8	9.8	9.7	9.7	9.6	9.5	9.4
Percentage change.....	1.84	1.80	1.76	0.07	-0.98	-0.14	-0.49	-0.67	-0.87	-0.80	-1.25
MISCELLANEOUS DURABLES.....	15.7	15.8	15.6	15.5	15.4	15.4	15.3	15.3	15.2	15.2	15.1
Percentage change.....	1.06	0.45	-0.97	-0.79	-0.33	-0.24	-0.49	-0.39	-0.32	-0.28	-0.33

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Table 7: Tennessee Nondurable Goods Manufacturing Employment (thousands of jobs)

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TOTAL NONDURABLE GOODS.....	125.9	125.6	125.7	125.8	125.5	124.9	124.2	123.5	122.8	121.9	121.1	
Percentage change.....	1.17	-0.23	0.10	0.08	-0.26	-0.48	-0.55	-0.53	-0.57	-0.70	-0.70	
FOOD.....	34.7	34.9	35.1	35.3	35.4	35.5	35.6	35.7	35.8	35.7	35.6	
Percentage change.....	1.35	0.45	0.69	0.60	0.31	0.21	0.23	0.25	0.24	-0.24	-0.21	
BEVERAGE & TOBACCO.....	7.0	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2	7.2	
Percentage change.....	6.61	3.01	0.91	0.04	-0.05	0.08	-0.22	-0.20	-0.16	-0.31	-0.35	
PAPER.....	14.3	14.2	14.2	14.2	14.1	14.1	14.0	14.0	14.0	14.0	14.0	
Percentage change.....	-1.37	-0.48	-0.28	-0.09	-0.41	-0.21	-0.22	-0.24	-0.13	-0.07	-0.03	
PRINTING & RELATED SUPPORT.....	9.0	8.8	8.8	8.8	8.8	8.8	8.8	8.9	8.9	8.8	8.7	
Percentage change.....	-1.85	-1.84	-0.76	-0.09	0.11	0.24	0.34	0.34	-0.02	-0.67	-0.95	
CHEMICALS.....	25.3	25.3	25.1	25.0	24.6	24.3	23.9	23.5	23.1	22.7	22.5	
Percentage change.....	-0.23	-0.31	-0.57	-0.60	-1.36	-1.46	-1.59	-1.53	-1.78	-1.52	-1.28	
PLASTICS & RUBBER.....	24.2	24.6	24.9	25.2	25.3	25.1	24.9	24.6	24.4	24.3	24.1	
Percentage change.....	5.16	1.39	1.49	1.09	0.40	-0.80	-0.95	-0.92	-0.81	-0.73	-0.84	
MISCELLANEOUS NONDURABLE GOODS.....	11.3	10.6	10.3	10.1	9.9	9.8	9.7	9.6	9.4	9.3	9.1	
Percentage change.....	-1.84	-6.05	-2.78	-2.08	-1.49	-1.13	-1.33	-1.42	-1.43	-1.64	-1.89	

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Table 8: Tennessee Average Annual Wage and Salary Rate by Sector (2009 dollars) January 2018

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TOTAL NONFARM.....	43221	43706	43960	43972	43970	43983	43980	43950	43931	43924	43887	
Percentage change.....	0.13	1.12	0.58	0.03	0.00	0.03	-0.01	-0.07	-0.04	-0.02	-0.09	
NATURAL RESOURCES, MINING & CONSTRUCTION.....	49539	49723	50101	50162	50236	50290	50297	50282	50257	50223	50177	
Percentage change.....	-1.35	0.37	0.76	0.12	0.15	0.11	0.01	-0.03	-0.05	-0.07	-0.09	
MANUFACTURING.....	52324	52997	53264	53183	53080	52981	52902	52784	52732	52698	52613	
Percentage change.....	-0.44	1.29	0.50	-0.15	-0.19	-0.19	-0.15	-0.22	-0.10	-0.06	-0.16	
DURABLE GOODS.....	51677	51783	51754	51482	51230	51020	50881	50696	50623	50585	50474	
Percentage change.....	-0.28	0.21	-0.06	-0.53	-0.49	-0.41	-0.27	-0.36	-0.14	-0.08	-0.22	
NONDURABLE GOODS.....	53462	55147	55945	56212	56393	56522	56580	56607	56620	56620	56605	
Percentage change.....	-0.73	3.15	1.45	0.48	0.32	0.23	0.10	0.05	0.02	0.00	-0.03	
TRADE, TRANSPORTATION, UTILITIES.....	40149	40536	40659	40600	40513	40431	40354	40248	40146	40057	39949	
Percentage change.....	-0.05	0.96	0.30	-0.15	-0.21	-0.20	-0.19	-0.26	-0.25	-0.22	-0.27	
WHOLESALE TRADE.....	63955	64456	64872	65037	65249	65434	65552	65640	65710	65765	65800	
Percentage change.....	0.62	0.78	0.64	0.26	0.33	0.28	0.18	0.13	0.11	0.08	0.05	
RETAIL TRADE.....	27124	27289	27284	27148	27029	26906	26763	26614	26495	26407	26331	
Percentage change.....	-0.38	0.61	-0.02	-0.50	-0.44	-0.46	-0.53	-0.55	-0.45	-0.33	-0.29	
TRANSPORTATION & UTILITIES.....	49281	49722	49829	49663	49509	49340	49129	48906	48715	48592	48505	
Percentage change.....	-0.38	0.89	0.22	-0.33	-0.31	-0.34	-0.43	-0.45	-0.39	-0.25	-0.18	
INFORMATION.....	60438	59889	60170	60335	60565	60767	60907	61017	61110	61187	61244	
Percentage change.....	5.19	-0.91	0.47	0.27	0.38	0.33	0.23	0.18	0.15	0.13	0.09	
FINANCIAL ACTIVITIES.....	62913	64530	65283	65511	65719	65896	66006	66084	66145	66190	66216	
Percentage change.....	-0.80	2.57	1.17	0.35	0.32	0.27	0.17	0.12	0.09	0.07	0.04	
PROFESSIONAL & BUSINESS SERVICES.....	49607	50776	51511	51869	52172	52417	52589	52723	52837	52934	53011	
Percentage change.....	0.65	2.36	1.45	0.69	0.58	0.47	0.33	0.26	0.22	0.18	0.15	
EDUCATION & HEALTH SERVICES.....	43891	44116	44211	44103	44017	43992	43936	43898	43890	43943	43968	
Percentage change.....	0.51	0.51	0.21	-0.24	-0.20	-0.06	-0.13	-0.09	-0.02	0.12	0.06	
LEISURE & HOSPITALITY.....	22235	22319	22307	22265	22248	22223	22179	22127	22073	22017	21957	
Percentage change.....	3.01	0.38	-0.05	-0.19	-0.08	-0.11	-0.20	-0.23	-0.24	-0.25	-0.27	
OTHER SERVICES.....	39193	39652	39788	39729	39692	39729	39713	39749	39726	39739	39773	
Percentage change.....	-0.01	1.17	0.34	-0.15	-0.09	0.09	-0.04	0.09	-0.06	0.03	0.09	
GOVERNMENT.....	39858	40028	40055	39886	39694	39523	39328	39119	38948	38812	38600	
Percentage change.....	-0.60	0.43	0.07	-0.42	-0.48	-0.43	-0.49	-0.53	-0.44	-0.35	-0.55	
FEDERAL, CIVILIAN.....	72234	73386	73908	74084	74295	74472	74576	74644	74748	74904	75078	
Percentage change.....	2.78	1.59	0.71	0.24	0.28	0.24	0.14	0.09	0.14	0.21	0.23	
STATE & LOCAL.....	35767	35816	35800	35631	35484	35311	35111	34898	34724	34579	34351	
Percentage change.....	-1.11	0.14	-0.04	-0.47	-0.41	-0.49	-0.57	-0.61	-0.50	-0.42	-0.66	

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Table 9: Tennessee Average Annual Wage and Salary Rate by Sector (current dollars)

	Forecast Data										January 2018	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TOTAL NONFARM.....	48661	49923	51081	52187	53246	54341	55467	56582	57721	58888	60028	
Percentage change.....	1.75	2.59	2.32	2.17	2.03	2.06	2.07	2.01	2.01	2.02	1.94	
NATURAL RESOURCES, MINING & CONSTRUCTION..	55774	56797	58217	59533	60834	62134	63434	64733	66033	67333	68632	
Percentage change.....	0.24	1.83	2.50	2.26	2.18	2.14	2.09	2.05	2.01	1.97	1.93	
MANUFACTURING.....	58911	60536	61892	63118	64277	65458	66720	67955	69285	70651	71964	
Percentage change.....	1.17	2.76	2.24	1.98	1.84	1.84	1.93	1.85	1.96	1.97	1.86	
DURABLE GOODS.....	58181	59149	60138	61099	62037	63035	64170	65267	66514	67818	69038	
Percentage change.....	1.34	1.66	1.67	1.60	1.53	1.61	1.80	1.71	1.91	1.96	1.80	
NONDURABLE GOODS.....	60193	62992	65008	66715	68290	69833	71359	72877	74393	75909	77424	
Percentage change.....	0.88	4.65	3.20	2.63	2.36	2.26	2.18	2.13	2.08	2.04	2.00	
TRADE, TRANSPORTATION, UTILITIES.....	45203	46302	47246	48185	49060	49952	50894	51815	52747	53703	54642	
Percentage change.....	1.57	2.43	2.04	1.99	1.81	1.82	1.89	1.81	1.80	1.81	1.75	
WHOLESALE TRADE.....	72005	73625	75381	77188	79015	80844	82675	84506	86337	88169	90000	
Percentage change.....	2.25	2.25	2.38	2.40	2.37	2.32	2.26	2.22	2.17	2.12	2.08	
RETAIL TRADE.....	30538	31171	31703	32219	32731	33242	33753	34263	34812	35403	36016	
Percentage change.....	1.24	2.07	1.71	1.63	1.59	1.56	1.54	1.51	1.60	1.70	1.73	
TRANSPORTATION & UTILITIES.....	55484	56794	57901	58941	59953	60959	61961	62962	64007	65146	66345	
Percentage change.....	1.24	2.36	1.95	1.80	1.72	1.68	1.64	1.62	1.66	1.78	1.84	
INFORMATION.....	68042	68408	69917	71607	73342	75078	76816	78554	80293	82031	83770	
Percentage change.....	6.89	0.54	2.21	2.42	2.42	2.37	2.32	2.26	2.21	2.17	2.12	
FINANCIAL ACTIVITIES.....	70834	73709	75859	77751	79583	81415	83246	85077	86908	88739	90570	
Percentage change.....	0.81	4.06	2.92	2.49	2.36	2.30	2.25	2.20	2.15	2.11	2.06	
PROFESSIONAL & BUSINESS SERVICES.....	55851	57999	59856	61560	63179	64762	66325	67877	69423	70967	72509	
Percentage change.....	2.29	3.85	3.20	2.85	2.63	2.51	2.41	2.34	2.28	2.22	2.17	
EDUCATION & HEALTH SERVICES.....	49415	50391	51372	52342	53302	54352	55412	56515	57668	58913	60139	
Percentage change.....	2.14	1.98	1.95	1.89	1.83	1.97	1.95	1.99	2.04	2.16	2.08	
LEISURE & HOSPITALITY.....	25034	25494	25921	26425	26941	27456	27972	28487	29002	29518	30033	
Percentage change.....	4.68	1.84	1.67	1.95	1.95	1.91	1.88	1.84	1.81	1.78	1.75	
OTHER SERVICES.....	44126	45292	46234	47151	48066	49085	50086	51173	52197	53277	54401	
Percentage change.....	1.62	2.64	2.08	1.98	1.94	2.12	2.04	2.17	2.00	2.07	2.11	
GOVERNMENT.....	44874	45722	46543	47337	48068	48830	49600	50363	51174	52034	52797	
Percentage change.....	1.01	1.89	1.80	1.71	1.54	1.59	1.58	1.54	1.61	1.68	1.47	
FEDERAL, CIVILIAN.....	81327	83825	85880	87925	89968	92011	94055	96098	98212	100422	102691	
Percentage change.....	4.46	3.07	2.45	2.38	2.32	2.27	2.22	2.17	2.20	2.25	2.26	
STATE & LOCAL.....	40269	40910	41599	42288	42970	43627	44281	44928	45624	46359	46985	
Percentage change.....	0.49	1.59	1.68	1.66	1.61	1.53	1.50	1.46	1.55	1.61	1.35	

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Table 10: Tennessee Civilian Labor Force and Unemployment Rate **January 2018**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
	Forecast Data										
CIVILIAN LABOR FORCE (THOUS).....	3188	3189	3218	3241	3276	3311	3330	3349	3367	3384	3400
Percentage change.....	1.54	0.04	0.93	0.71	1.07	1.08	0.57	0.58	0.52	0.53	0.47
EMPLOYED PERSONS (THOUS).....	3063	3089	3119	3144	3165	3181	3198	3213	3229	3244	3258
Percentage change.....	2.52	0.83	0.98	0.78	0.68	0.51	0.52	0.48	0.50	0.45	0.43
UNEMPLOYED PERSONS (THOUS).....	124	100	99	98	111	130	132	136	138	141	143
Percentage change.....	-17.85	-19.48	-0.75	-1.76	13.52	17.45	1.80	2.91	1.03	2.31	1.34
PARTICIPATION RATE (PERCENT).....	60.5	59.9	59.9	59.7	59.9	60.0	59.8	59.7	59.6	59.4	59.3
Percentage change.....	0.46	-0.95	-0.01	-0.20	0.18	0.23	-0.25	-0.22	-0.25	-0.22	-0.25
UNEMPLOYMENT RATE (PERCENT).....	3.9	3.1	3.1	3.0	3.4	3.9	4.0	4.1	4.1	4.2	4.2
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Table 11: Tennessee Taxable Sales (millions of 2009 dollars)

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
TOTAL TAXABLE SALES.....	110958	114316	116056	117153	118675	120549	122006	123565	125090	126849	128665	
Percentage change.....	2.87	3.03	1.52	0.94	1.30	1.58	1.21	1.28	1.23	1.41	1.43	
AUTO DEALERS.....	11324	11495	11644	11748	11968	12140	12318	12465	12625	12757	12912	
Percentage change.....	-0.61	1.52	1.29	0.90	1.87	1.43	1.47	1.20	1.28	1.05	1.21	
PURCHASES FROM MANUFACTURERS....	4767	4811	4943	5049	5179	5306	5437	5564	5698	5840	5999	
Percentage change.....	1.49	0.92	2.74	2.14	2.57	2.45	2.48	2.33	2.41	2.49	2.71	
MISC DURABLE GOODS.....	18741	19266	19720	20017	20386	20804	21094	21420	21708	22077	22414	
Percentage change.....	3.10	2.80	2.36	1.51	1.84	2.05	1.39	1.55	1.34	1.70	1.53	
EATING AND DRINKING PLACES.....	11510	11716	11907	12026	12256	12513	12869	13165	13438	13791	14175	
Percentage change.....	1.12	1.79	1.62	1.01	1.91	2.10	2.84	2.30	2.07	2.63	2.78	
FOOD STORES.....	10735	11163	11311	11391	11497	11616	11708	11787	11871	11957	12058	
Percentage change.....	3.33	3.99	1.33	0.70	0.93	1.03	0.79	0.68	0.71	0.73	0.84	
LIQUOR STORES.....	824	867	890	911	931	951	971	995	1017	1042	1072	
Percentage change.....	-6.41	5.21	2.69	2.33	2.19	2.21	2.09	2.44	2.26	2.39	2.90	
HOTELS AND MOTELS.....	3189	3275	3359	3443	3527	3595	3661	3728	3793	3870	3945	
Percentage change.....	-1.90	2.68	2.59	2.48	2.44	1.94	1.81	1.83	1.76	2.03	1.93	
OTHER RETAIL AND SERVICE.....	33830	35007	35537	35868	36243	36930	37281	37811	38341	38940	39527	
Percentage change.....	2.59	3.48	1.51	0.93	1.05	1.89	0.95	1.42	1.40	1.56	1.51	
MISC NONDURABLE GOODS.....	8809	8953	9100	9195	9315	9453	9562	9658	9759	9862	9979	
Percentage change.....	-1.49	1.62	1.64	1.05	1.31	1.48	1.15	1.01	1.04	1.06	1.18	
TRANSPORTATION, COMMUNICATION.....	7228	7763	7646	7505	7374	7241	7105	6971	6840	6712	6586	
Percentage change.....	25.30	7.40	-1.51	-1.85	-1.75	-1.80	-1.87	-1.89	-1.88	-1.88	-1.88	
PER CAPITA (\$).....	16535	16887	17000	17020	17104	17240	17317	17410	17500	17622	17754	
Percentage change.....	1.96	2.13	0.67	0.12	0.49	0.79	0.45	0.54	0.51	0.70	0.75	

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Table 12: Tennessee Taxable Sales (millions of current dollars) January 2018

	Forecast Data										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
TOTAL TAXABLE SALES.....	124931	130579	134858	139042	143714	148942	153876	159083	164361	170066	175991
Percentage change.....	4.55	4.52	3.28	3.10	3.36	3.64	3.31	3.38	3.32	3.47	3.48
AUTO DEALERS.....	12749	13131	13530	13943	14493	14999	15536	16049	16588	17104	17661
Percentage change.....	1.00	2.99	3.04	3.06	3.94	3.49	3.58	3.30	3.36	3.11	3.26
PURCHASES FROM MANUFACTURERS.....	5367	5496	5744	5992	6271	6556	6858	7164	7487	7830	8205
Percentage change.....	3.12	2.40	4.51	4.32	4.66	4.53	4.61	4.46	4.52	4.58	4.79
MISC DURABLE GOODS.....	21100	22007	22914	23757	24687	25704	26604	27578	28523	29599	30658
Percentage change.....	4.77	4.30	4.12	3.68	3.91	4.12	3.50	3.66	3.43	3.77	3.58
EATING AND DRINKING PLACES.....	12959	13383	13836	14273	14842	15461	16231	16950	17657	18490	19389
Percentage change.....	2.76	3.27	3.38	3.16	3.98	4.17	4.98	4.43	4.17	4.72	4.86
FOOD STORES.....	12087	12751	13144	13519	13923	14352	14766	15176	15597	16031	16493
Percentage change.....	5.01	5.50	3.08	2.86	2.99	3.08	2.89	2.77	2.78	2.78	2.88
LIQUOR STORES.....	928	990	1034	1081	1127	1175	1225	1281	1337	1396	1466
Percentage change.....	-4.85	6.74	4.46	4.51	4.26	4.28	4.21	4.57	4.36	4.48	4.98
HOTELS AND MOTELS.....	3591	3741	3904	4086	4271	4442	4617	4799	4984	5189	5396
Percentage change.....	-0.30	4.17	4.36	4.67	4.52	4.01	3.93	3.95	3.85	4.11	3.99
OTHER RETAIL AND SERVICE.....	38091	39987	41294	42570	43890	45628	47020	48679	50378	52207	54066
Percentage change.....	4.26	4.98	3.27	3.09	3.10	3.96	3.05	3.53	3.49	3.63	3.56
MISC NONDURABLE GOODS.....	9919	10226	10574	10913	11280	11680	12059	12434	12822	13222	13649
Percentage change.....	0.12	3.10	3.40	3.21	3.37	3.54	3.25	3.11	3.12	3.12	3.23
TRANSPORTATION, COMMUNICATION.....	8140	8867	8885	8906	8929	8946	8961	8974	8987	8998	9008
Percentage change.....	27.38	8.93	0.19	0.25	0.25	0.19	0.17	0.15	0.14	0.12	0.11
PER CAPITA (\$).	18617	19290	19754	20200	20712	21300	21840	22414	22993	23626	24284
Percentage change.....	3.62	3.61	2.41	2.26	2.54	2.84	2.54	2.63	2.58	2.75	2.78

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Table 13: Tennessee Gross Domestic Product by Sector (millions of 2009 dollars)

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
GROSS DOMESTIC PRODUCT.....	297,486	303,768	309,939	316,122	322,416	328,922	335,547	342,475	349,371	356,449	363,738	
Percentage change.....	2.09	2.11	2.03	1.99	1.99	2.02	2.01	2.06	2.01	2.03	2.05	
AGRICULTURE, FORESTRY, FISHING & HUNTING.....	1,515	1,541	1,591	1,565	1,511	1,460	1,412	1,367	1,325	1,285	1,249	
Percentage change.....	4.20	1.72	3.24	-1.63	-3.44	-3.37	-3.29	-3.20	-3.10	-2.98	-2.84	
NATURAL RESOURCES & MINING.....	2,261	2,273	2,287	2,306	2,319	2,330	2,339	2,341	2,336	2,333	2,323	
Percentage change.....	3.63	0.55	0.61	0.83	0.56	0.47	0.40	0.05	-0.20	-0.12	-0.43	
CONSTRUCTION.....	10,521	10,487	10,533	10,614	10,721	10,818	10,909	10,961	10,987	11,000	11,001	
Percentage change.....	1.02	-0.32	0.44	0.77	1.00	0.91	0.84	0.48	0.24	0.11	0.01	
MANUFACTURING.....	48,672	49,862	51,003	52,149	53,265	54,324	55,398	56,604	57,765	58,978	60,298	
Percentage change.....	1.82	2.45	2.29	2.25	2.14	1.99	1.98	2.18	2.05	2.10	2.24	
DURABLE GOODS.....	29,188	29,970	30,801	31,644	32,443	33,216	33,996	34,860	35,681	36,569	37,534	
Percentage change.....	1.74	2.68	2.77	2.74	2.52	2.38	2.35	2.54	2.35	2.49	2.64	
WOOD PRODUCTS.....	680	701	722	735	749	758	770	778	792	807	819	
Percentage change.....	1.50	3.01	3.06	1.82	1.87	1.23	1.54	1.09	1.80	1.83	1.49	
NONMETALLIC MINERAL PRODUCTS.....	1,202	1,226	1,250	1,277	1,301	1,318	1,328	1,340	1,343	1,347	1,352	
Percentage change.....	2.09	2.00	1.97	2.19	1.91	1.30	0.72	0.92	0.20	0.31	0.36	
PRIMARY METALS.....	1,526	1,589	1,619	1,651	1,686	1,721	1,756	1,793	1,826	1,860	1,899	
Percentage change.....	3.01	4.14	1.90	2.01	2.11	2.07	2.01	2.10	1.87	1.87	2.10	
FABRICATED METAL PRODUCTS.....	3,498	3,529	3,562	3,610	3,642	3,675	3,714	3,770	3,829	3,892	3,948	
Percentage change.....	-0.88	0.90	0.93	1.34	0.89	0.90	1.06	1.51	1.57	1.63	1.45	
MACHINERY.....	3,036	3,130	3,206	3,269	3,344	3,390	3,438	3,490	3,547	3,628	3,708	
Percentage change.....	2.19	3.10	2.42	1.99	2.27	1.40	1.41	1.50	1.64	2.29	2.20	
COMPUTER & ELECTRONIC PRODUCTS.....	974	1,005	1,041	1,077	1,117	1,153	1,199	1,238	1,287	1,331	1,384	
Percentage change.....	3.78	3.21	3.64	3.41	3.71	3.25	3.96	3.27	3.96	3.43	3.98	
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	3,709	3,817	3,931	4,027	4,099	4,153	4,219	4,282	4,349	4,430	4,510	
Percentage change.....	1.58	2.89	3.00	2.44	1.78	1.32	1.59	1.50	1.57	1.86	1.80	
MOTOR VEHICLES, BODIES & TRAILERS, & PARTS.....	10,753	11,071	11,470	11,907	12,328	12,768	13,199	13,686	14,131	14,585	15,103	
Percentage change.....	2.06	2.95	3.61	3.81	3.53	3.57	3.38	3.69	3.25	3.21	3.55	
OTHER TRANSPORTATION EQUIPMENT.....	431	445	460	478	496	513	530	551	570	592	614	
Percentage change.....	2.55	3.20	3.47	3.82	3.74	3.51	3.25	3.97	3.54	3.87	3.58	
FURNITURE.....	523	540	557	567	574	581	586	590	593	597	598	
Percentage change.....	1.52	3.17	3.13	1.74	1.36	1.21	0.86	0.68	0.47	0.74	0.09	
MISCELLANEOUS DURABLE GOODS.....	2,856	2,918	2,982	3,045	3,107	3,185	3,257	3,341	3,412	3,499	3,599	
Percentage change.....	2.01	2.18	2.19	2.11	2.04	2.49	2.26	2.59	2.12	2.55	2.87	
NONDURABLE GOODS.....	19,484	19,892	20,201	20,504	20,822	21,108	21,403	21,744	22,084	22,408	22,764	
Percentage change.....	1.95	2.10	1.55	1.50	1.55	1.37	1.40	1.59	1.57	1.47	1.59	
FOOD AND BEVERAGE & TOBACCO.....	6,653	6,780	6,879	6,985	7,122	7,258	7,395	7,535	7,678	7,791	7,906	
Percentage change.....	1.38	1.92	1.46	1.53	1.97	1.91	1.88	1.90	1.90	1.47	1.48	
TEXTILE MILLS & TEXTILE PRODUCT MILLS	457	448	450	454	457	461	465	470	473	476	481	
Percentage change.....	0.47	-1.96	0.53	0.88	0.62	0.93	0.92	0.97	0.70	0.64	1.00	

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Table 13: Tennessee Gross Domestic Product by Sector (millions of 2009 dollars)

	Forecast Data											January 2018	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
APPAREL & LEATHER PRODUCTS.....	173	168	169	170	171	171	171	171	171	171	171		
Percentage change.....	1.52	-2.84	0.63	0.69	0.38	0.04	0.08	0.10	0.02	0.14	0.02		
PAPER.....	2,482	2,543	2,611	2,662	2,712	2,769	2,824	2,879	2,938	2,993	3,065		
Percentage change.....	1.55	2.47	2.67	1.94	1.91	2.10	1.98	1.95	2.03	1.89	2.38		
PRINTING & RELATED SUPPORT.....	1,004	995	986	976	966	958	949	938	928	919	924		
Percentage change.....	-0.92	-0.91	-0.94	-1.00	-0.99	-0.89	-0.92	-1.14	-1.05	-0.95	0.52		
CHEMICALS.....	5,614	5,801	5,891	5,992	6,093	6,176	6,263	6,366	6,500	6,628	6,754		
Percentage change.....	2.23	3.34	1.54	1.72	1.68	1.37	1.41	1.97	1.78	1.96	1.91		
PLASTICS & RUBBER.....	2,090	2,138	2,190	2,237	2,267	2,276	2,290	2,314	2,341	2,370	2,396		
Percentage change.....	6.13	2.33	2.43	2.13	1.33	0.41	0.63	1.02	1.17	1.24	1.10		
MISCELLANEOUS NONDURABLE GOODS.....	1,012	1,019	1,025	1,029	1,034	1,038	1,045	1,050	1,055	1,060	1,067		
Percentage change.....	0.65	0.62	0.65	0.38	0.44	0.42	0.65	0.48	0.46	0.52	0.65		
TRADE.....	56,441	57,853	59,104	60,323	61,640	62,969	64,200	65,430	66,651	67,841	69,045		
Percentage change.....	3.53	2.87	2.12	1.80	2.04	2.00	1.82	1.55	1.60	1.65	1.67		
WHOLESALE TRADE.....	21,202	21,951	22,709	23,429	24,164	24,951	25,758	26,449	27,114	27,750	28,394		
Percentage change.....	3.57	3.53	3.45	3.17	3.14	3.25	3.23	2.68	2.52	2.35	2.32		
RETAIL TRADE.....	21,268	21,701	22,140	22,624	23,115	23,570	23,905	24,349	24,824	25,325	25,818		
Percentage change.....	2.04	2.04	2.02	2.19	2.17	1.97	1.42	1.86	1.95	2.02	1.95		
TRANSPORTATION & UTILITIES.....	13,971	14,201	14,255	14,269	14,360	14,448	14,538	14,632	14,713	14,766	14,834		
Percentage change.....	1.02	1.65	0.38	0.10	0.64	0.61	0.62	0.65	0.55	0.36	0.46		
INFORMATION.....	9,312	9,544	9,804	10,096	10,311	10,619	10,935	11,238	11,512	11,798	12,089		
Percentage change.....	2.17	2.49	2.72	2.98	2.13	2.99	2.97	2.77	2.44	2.49	2.46		
FINANCIAL ACTIVITIES.....	46,707	47,599	48,774	49,989	51,139	52,205	53,213	54,192	55,153	56,168	57,159		
Percentage change.....	1.97	1.91	2.47	2.49	2.30	2.08	1.93	1.84	1.77	1.84	1.77		
PROFESSIONAL & BUSINESS SERVICES.....	36,233	37,414	38,645	39,955	41,372	42,978	44,906	46,842	48,842	50,913	53,092		
Percentage change.....	3.76	3.26	3.29	3.39	3.55	3.88	4.49	4.31	4.27	4.24	4.28		
EDUCATION & HEALTH SERVICES.....	31,783	32,543	33,268	33,974	34,707	35,458	36,208	36,986	37,780	38,584	39,425		
Percentage change.....	1.56	2.39	2.23	2.12	2.16	2.16	2.11	2.15	2.15	2.13	2.18		
LEISURE & HOSPITALITY.....	14,507	14,945	15,199	15,427	15,613	15,757	15,894	16,152	16,415	16,691	16,956		
Percentage change.....	3.09	3.02	1.69	1.50	1.21	0.92	0.87	1.62	1.63	1.68	1.59		
OTHER SERVICES.....	6,743	6,715	6,664	6,618	6,602	6,572	6,525	6,468	6,409	6,350	6,294		
Percentage change.....	0.06	-0.42	-0.76	-0.68	-0.25	-0.46	-0.71	-0.86	-0.92	-0.91	-0.89		
GOVERNMENT.....	32,790	32,991	33,068	33,105	33,215	33,431	33,607	33,895	34,197	34,508	34,807		
Percentage change.....	0.99	0.61	0.23	0.11	0.33	0.65	0.53	0.86	0.89	0.91	0.87		
FEDERAL.....	8,539	8,577	8,473	8,473	8,343	8,316	8,296	8,275	8,254	8,233	8,212		
Percentage change.....	-1.43	0.45	-0.34	-0.87	-1.54	-0.32	-0.24	-0.25	-0.25	-0.26	-0.26		
STATE & LOCAL.....	24,251	24,414	24,520	24,632	24,873	25,115	25,311	25,620	25,942	26,275	26,595		
Percentage change.....	1.88	0.67	0.43	0.46	0.98	0.97	0.78	1.22	1.26	1.28	1.22		

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Table 14: Tennessee Gross Domestic Product by Sector (millions of current dollars)

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
GROSS DOMESTIC PRODUCT.....	344,193	359,081	374,601	390,487	406,972	423,789	441,299	459,759	478,804	498,577	519,151	
Percentage change.....	3.72	4.33	4.32	4.24	4.22	4.13	4.13	4.18	4.14	4.13	4.13	
AGRICULTURE, FORESTRY, FISHING & HUNTING.....	1,501	1,523	1,569	1,547	1,498	1,454	1,378	1,341	1,341	1,306	1,273	
Percentage change.....	3.81	1.47	3.02	-1.40	-3.19	-2.93	-2.60	-2.69	-2.69	-2.62	-2.51	
NATURAL RESOURCES & MINING.....	2,701	2,772	2,861	2,966	3,059	3,151	3,246	3,331	3,408	3,488	3,559	
Percentage change.....	5.91	2.64	3.21	3.64	3.14	3.01	3.00	2.65	2.30	2.35	2.04	
CONSTRUCTION.....	13,088	13,578	14,200	14,915	15,658	16,385	17,130	17,833	18,509	19,176	19,835	
Percentage change.....	4.45	3.74	4.58	5.04	4.99	4.64	4.54	4.10	3.79	3.60	3.44	
MANUFACTURING.....	55,693	58,384	61,180	63,960	66,882	69,650	72,466	75,609	78,808	82,157	85,764	
Percentage change.....	2.70	4.83	4.79	4.54	4.57	4.14	4.04	4.34	4.23	4.25	4.39	
DURABLE GOODS.....	31,993	33,553	35,225	36,828	38,515	40,099	41,662	43,440	45,216	47,125	49,181	
Percentage change.....	2.38	4.88	4.99	4.55	4.58	4.11	3.90	4.27	4.09	4.22	4.36	
WOOD PRODUCTS.....	841	868	897	894	906	913	924	931	945	959	971	
Percentage change.....	-0.45	3.20	3.31	-0.33	1.33	0.82	1.19	0.76	1.47	1.51	1.17	
NONMETALLIC MINERAL PRODUCTS.....	1,381	1,451	1,534	1,624	1,712	1,789	1,856	1,931	1,994	2,061	2,130	
Percentage change.....	2.26	5.08	5.69	5.84	5.42	4.50	3.79	4.01	3.28	3.34	3.37	
PRIMARY METALS.....	1,575	1,649	1,690	1,728	1,769	1,814	1,860	1,908	1,954	2,009	2,069	
Percentage change.....	3.42	4.72	2.45	2.25	2.37	2.56	2.51	2.60	2.44	2.77	3.01	
FABRICATED METAL PRODUCTS.....	3,888	4,097	4,340	4,603	4,847	5,084	5,330	5,612	5,912	6,227	6,544	
Percentage change.....	0.18	5.38	5.93	6.05	5.32	4.88	4.84	5.30	5.35	5.32	5.09	
MACHINERY.....	3,593	3,833	4,046	4,251	4,516	4,740	4,969	5,215	5,481	5,794	6,119	
Percentage change.....	3.35	6.69	5.56	5.06	6.23	4.97	4.83	4.95	5.11	5.71	5.60	
COMPUTER & ELECTRONIC PRODUCTS.....	862	864	869	869	873	872	873	868	867	859	854	
Percentage change.....	-0.46	0.24	0.67	0.00	0.42	-0.16	0.18	-0.65	-0.12	-0.87	-0.60	
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	4,143	4,329	4,548	4,729	4,899	5,029	5,177	5,356	5,520	5,696	5,878	
Percentage change.....	2.85	4.47	5.08	3.98	3.59	2.65	2.95	3.46	3.05	3.19	3.18	
MOTOR VEHICLES, BODIES & TRAILERS, & PARTS.....	11,441	12,016	12,651	13,283	13,941	14,589	15,195	15,897	16,591	17,305	18,122	
Percentage change.....	2.83	5.02	5.29	4.99	4.96	4.65	4.15	4.62	4.37	4.31	4.72	
OTHER TRANSPORTATION EQUIPMENT.....	508	541	580	624	670	715	761	816	870	931	994	
Percentage change.....	3.81	6.47	7.20	7.53	7.28	6.78	6.43	7.18	6.73	7.02	6.70	
FURNITURE.....	581	611	642	662	684	700	714	732	745	761	770	
Percentage change.....	3.53	5.11	5.10	3.09	3.27	2.46	1.87	2.62	1.76	2.19	1.18	
MISCELLANEOUS DURABLE GOODS.....	3,179	3,293	3,427	3,561	3,699	3,853	4,003	4,174	4,335	4,521	4,730	
Percentage change.....	2.47	3.61	4.05	3.93	3.86	4.18	3.89	4.28	3.85	4.28	4.63	
NONDURABLE GOODS.....	23,700	24,831	25,954	27,132	28,367	29,551	30,804	32,169	33,592	35,033	36,583	
Percentage change.....	3.13	4.77	4.52	4.54	4.55	4.17	4.24	4.43	4.42	4.29	4.43	
FOOD AND BEVERAGE & TOBACCO.....	7,739	8,068	8,427	8,824	9,269	9,715	10,177	10,663	11,171	11,650	12,150	
Percentage change.....	2.46	4.25	4.46	4.70	5.04	4.81	4.75	4.78	4.77	4.29	4.29	
TEXTILE MILLS & TEXTILE PRODUCT MILLS	519	519	529	543	556	570	585	601	616	630	648	
Percentage change.....	0.90	0.01	2.08	2.60	2.32	2.59	2.62	2.70	2.45	2.39	2.77	

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Table 14: Tennessee Gross Domestic Product by Sector (millions of current dollars)

January 2018

	Forecast Data											January 2018
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
APPAREL & LEATHER PRODUCTS.....	184	178	180	182	184	184	185	186	187	188	188	
Percentage change.....	-0.54	-3.38	1.11	1.12	0.93	0.44	0.35	0.42	0.41	0.51	0.42	
PAPER.....	2,936	3,074	3,192	3,290	3,414	3,528	3,645	3,753	3,883	4,002	4,166	
Percentage change.....	0.25	4.70	3.82	3.07	3.77	3.34	3.33	2.97	3.47	3.06	4.10	
PRINTING & RELATED SUPPORT.....	983	974	969	962	956	950	943	934	927	920	927	
Percentage change.....	-3.43	-0.94	-0.50	-0.69	-0.61	-0.62	-0.76	-0.94	-0.80	-0.71	0.78	
CHEMICALS.....	7,309	7,796	8,215	8,693	9,180	9,647	10,143	10,721	11,305	11,936	12,589	
Percentage change.....	4.33	6.66	5.37	5.83	5.60	5.09	5.14	5.70	5.45	5.57	5.48	
PLASTICS & RUBBER.....	2,503	2,653	2,830	3,008	3,166	3,292	3,427	3,581	3,747	3,922	4,097	
Percentage change.....	9.38	6.00	6.67	6.27	5.26	3.98	4.09	4.50	4.64	4.65	4.48	
MISCELLANEOUS NONDURABLE GOODS.....	1,528	1,570	1,612	1,630	1,642	1,663	1,699	1,729	1,756	1,785	1,816	
Percentage change.....	2.68	2.74	2.71	1.10	0.77	1.28	2.12	1.79	1.54	1.67	1.75	
TRADE.....	65,237	68,418	71,505	74,673	78,027	81,474	84,971	88,592	92,327	96,142	100,099	
Percentage change.....	4.06	4.88	4.51	4.43	4.49	4.42	4.29	4.26	4.22	4.13	4.12	
WHOLESALE TRADE.....	24,294	25,716	27,251	28,852	30,519	32,284	34,156	35,945	37,780	39,643	41,581	
Percentage change.....	5.26	5.85	5.97	5.87	5.78	5.78	5.80	5.24	5.10	4.93	4.89	
RETAIL TRADE.....	23,691	24,793	25,911	27,003	28,097	29,177	30,164	31,328	32,563	33,874	35,212	
Percentage change.....	3.52	4.65	4.51	4.22	4.05	3.84	3.38	3.86	3.94	4.03	3.95	
TRANSPORTATION & UTILITIES.....	17,252	17,910	18,343	18,818	19,411	20,013	20,651	21,319	21,984	22,625	23,305	
Percentage change.....	3.13	3.81	2.42	2.59	3.15	3.10	3.19	3.24	3.12	2.91	3.01	
INFORMATION.....	9,005	9,143	9,335	9,559	9,722	9,960	10,201	10,440	10,626	10,844	11,063	
Percentage change.....	1.41	1.54	2.10	2.39	1.71	2.44	2.41	2.35	1.78	2.05	2.02	
FINANCIAL ACTIVITIES.....	55,459	57,931	60,888	63,432	65,923	68,371	70,814	73,272	75,769	78,413	81,092	
Percentage change.....	3.68	4.46	5.10	4.18	3.93	3.71	3.57	3.47	3.41	3.49	3.42	
PROFESSIONAL & BUSINESS SERVICES.....	40,566	42,724	45,080	47,678	50,451	53,523	57,133	60,888	64,855	69,053	73,546	
Percentage change.....	5.67	5.32	5.51	5.76	5.82	6.09	6.74	6.57	6.52	6.47	6.51	
EDUCATION & HEALTH SERVICES.....	35,972	37,308	38,781	40,463	42,180	43,890	45,587	47,319	49,049	50,745	52,438	
Percentage change.....	2.85	3.71	3.95	4.34	4.24	4.06	3.87	3.80	3.66	3.46	3.34	
LEISURE & HOSPITALITY.....	17,559	18,497	19,229	20,076	20,886	21,630	22,420	23,412	24,444	25,534	26,684	
Percentage change.....	5.39	5.34	3.96	4.41	4.03	3.56	3.65	4.43	4.41	4.46	4.42	
OTHER SERVICES.....	8,323	8,465	8,626	8,830	9,077	9,314	9,542	9,757	9,964	10,175	10,394	
Percentage change.....	2.11	1.70	1.91	2.36	2.80	2.61	2.44	2.25	2.12	2.13	2.15	
GOVERNMENT.....	39,088	40,337	41,347	42,387	43,609	44,987	46,375	47,928	49,703	51,543	53,424	
Percentage change.....	3.23	3.20	2.50	2.52	2.88	3.16	3.09	3.35	3.70	3.70	3.65	
FEDERAL.....	9,993	10,208	10,354	10,453	10,518	10,752	10,969	11,172	11,376	11,582	11,795	
Percentage change.....	0.49	2.14	1.44	0.95	0.62	2.23	2.02	1.86	1.82	1.81	1.84	
STATE & LOCAL.....	29,094	30,130	30,992	31,934	33,091	34,235	35,407	36,756	38,328	39,961	41,629	
Percentage change.....	4.20	3.56	2.86	3.04	3.62	3.46	3.42	3.81	4.28	4.26	4.17	

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APPENDIX B: HISTORICAL DATA

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Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	Historical Data																Annual	
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2	2018:3
US GDP (Bil2009\$) SAAR.....	15935.8	16139.5	16220.2	16350.0	16460.9	16527.6	16547.6	16571.6	16663.5	16778.1	16851.4	16903.2	17031.1	17169.7	17300.0	17427.6	17550.0	17678.1
% Chg Prev Qtr SAAR.....	4.60	5.21	2.02	3.24	2.74	1.63	0.49	0.58	2.24	2.78	1.76	1.24	3.06	3.30	2.57	2.86	2.86	1.49
% Chg Same Qtr Last Yr.....	2.67	3.19	2.70	3.76	3.29	2.40	2.02	1.36	1.23	1.52	1.84	2.00	2.21	2.33	2.57	2.86	2.86	1.49
US GDP (Bil\$) SAAR.....	17320.9	17622.3	17735.9	17874.7	18093.2	18227.7	18287.2	18325.2	18538.0	18729.1	18905.5	19057.7	19250.0	19509.0	19727.6	19950.0	20173.0	20400.0
% Chg Prev Qtr SAAR.....	6.98	7.14	2.61	3.17	4.98	3.01	1.31	0.83	4.73	4.19	3.82	3.26	4.10	5.49	4.41	3.98	2.78	2.78
% Chg Same Qtr Last Yr.....	4.71	5.21	4.33	4.95	4.46	3.44	3.11	2.52	2.46	2.75	3.38	4.00	3.84	4.16	4.41	3.98	2.78	2.78
TN PERSONAL INCOME (MIL2009\$) SAAR..	239554	240746	244126	249645	252903	254606	257915	258089	259430	261980	260900	262372	264452	266289	268120	269586	270900	272100
% Chg Prev Qtr SAAR.....	2.78	2.01	5.73	9.35	5.32	2.72	5.30	0.27	2.09	3.99	-1.64	2.28	3.21	2.81	2.63	5.48	2.50	2.50
% Chg Same Qtr Last Yr.....	2.40	2.54	3.66	4.93	5.57	5.76	5.65	3.38	2.58	2.90	1.16	1.66	1.94	1.64	2.63	5.48	2.50	2.50
US PERSONAL INCOME (BIL2009\$) SAAR..	13482	13635	13849	14044	14182	14236	14361	14321	14391	14435	14362	14479	14553	14597	13575	14206	14377	14377
% Chg Prev Qtr SAAR.....	4.57	4.64	6.42	5.76	3.96	1.54	3.55	-1.10	1.97	1.23	-2.01	3.30	2.07	1.19	3.72	4.65	1.21	1.21
% Chg Same Qtr Last Yr.....	3.13	3.82	5.14	5.34	5.19	4.40	3.69	1.97	1.48	1.40	0.01	1.10	1.13	1.12	3.72	4.65	1.21	1.21
TN PERSONAL INCOME (MIL\$) SAAR.....	261439	263511	267035	271980	276702	279458	283208	283859	286813	290887	291120	294376	296908	300089	262623	277837	288170	288170
% Chg Prev Qtr SAAR.....	4.61	3.21	5.46	7.62	7.13	4.04	5.48	0.92	4.23	5.80	0.32	4.55	3.48	4.35	4.18	5.79	3.72	3.72
% Chg Same Qtr Last Yr.....	4.22	4.29	4.90	5.21	5.84	6.05	6.06	4.37	3.65	4.09	2.79	3.70	3.52	3.16	4.18	5.79	3.72	3.72
US PERSONAL INCOME (BIL\$) SAAR.....	14714	14925	15149	15301	15516	15626	15769	15751	15910	16028	16026	16245	16340	16451	14818	15553	15929	15929
% Chg Prev Qtr SAAR.....	6.44	5.87	6.14	4.08	5.74	2.85	3.73	-0.46	4.10	3.00	-0.06	5.59	2.34	2.76	5.29	4.96	2.42	2.42
% Chg Same Qtr Last Yr.....	4.97	5.59	6.40	5.63	5.45	4.69	4.10	2.94	2.54	2.58	1.63	3.14	2.70	2.64	5.29	4.96	2.42	2.42
TN NONFARM JOBS (THOUS).....	2811.5	2829.5	2848.1	2858.9	2882.1	2904.8	2925.0	2944.2	2955.5	2976.6	2991.1	3007.8	3013.2	3024.5	2821.0	2892.7	2966.8	2966.8
% Chg Prev Qtr SAAR.....	2.38	2.59	2.65	1.54	3.28	3.19	2.81	2.65	1.54	2.89	1.96	2.25	0.73	1.50	2.22	2.54	2.56	2.56
% Chg Same Qtr Last Yr.....	2.09	2.42	2.34	2.29	2.51	2.66	2.70	2.98	2.55	2.47	2.26	2.16	1.95	1.61	2.22	2.54	2.56	2.56
US NONFARM JOBS (MIL).....	138.6	139.3	140.1	140.8	141.5	142.1	142.8	143.4	144.0	144.7	145.2	145.7	146.2	146.7	138.9	141.8	144.3	144.3
% Chg Prev Qtr SAAR.....	2.42	2.13	2.27	2.00	1.99	1.83	1.99	1.72	1.43	1.97	1.42	1.51	1.34	1.29	1.88	2.07	1.76	1.76
% Chg Same Qtr Last Yr.....	1.82	1.95	2.07	2.21	2.10	2.02	1.95	1.88	1.74	1.78	1.63	1.58	1.56	1.39	1.88	2.07	1.76	1.76
TN MFG JOBS (THOUS).....	323.2	325.8	328.0	329.6	331.9	334.0	336.6	340.3	343.3	345.2	344.3	346.6	347.6	346.4	325.0	333.0	343.3	343.3
% Chg Prev Qtr SAAR.....	0.32	3.24	2.72	1.99	2.83	2.56	3.18	4.50	3.52	2.29	-1.13	2.80	1.08	-1.37	2.04	2.48	3.08	3.08
% Chg Same Qtr Last Yr.....	1.91	2.31	2.07	2.06	2.69	2.52	2.64	3.26	3.44	3.37	2.27	1.86	1.25	0.33	2.04	2.48	3.08	3.08
US MFG JOBS (MIL).....	12.2	12.2	12.3	12.3	12.3	12.3	12.4	12.4	12.3	12.3	12.3	12.4	12.4	12.4	12.2	12.3	12.3	12.3
% Chg Prev Qtr SAAR.....	1.55	1.70	2.21	1.16	0.78	0.53	0.14	0.64	-0.85	-0.08	-0.41	1.38	1.00	1.11	1.38	1.23	0.11	0.11
% Chg Same Qtr Last Yr.....	1.26	1.63	1.67	1.65	1.46	1.17	0.65	0.52	0.11	-0.04	-0.18	0.01	0.47	0.77	1.38	1.23	0.11	0.11
TN UNEMPLOYMENT RATE (%).....	6.5	6.5	6.3	6.0	5.7	5.3	5.0	4.7	4.6	4.8	5.1	5.3	4.1	3.2	6.5	5.5	4.8	4.8
US UNEMPLOYMENT RATE (%).....	6.2	6.1	5.7	5.5	5.4	5.1	5.0	4.9	4.9	4.9	4.7	4.7	4.4	4.3	6.2	5.3	4.9	4.9

(CONTINUED ON NEXT PAGE)

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted January 2018

	Historical Data															Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016	
CHAINED PRICE INDEX, GDP																		
(2009=100.0).....	108.7	109.2	109.4	109.3	109.9	110.3	110.5	110.6	111.3	111.6	112.2	112.8	113.0	113.6	108.8	110.0	111.4	
% Chg Prev Qtr SAAR.....	2.20	1.88	0.58	-0.14	2.21	1.38	0.76	0.29	2.44	1.39	1.98	2.02	1.01	2.14	1.80	1.08	1.28	
% Chg Same Qtr Last Yr.....	2.00	1.95	1.56	1.13	1.13	1.01	1.05	1.16	1.22	1.22	1.52	1.96	1.60	1.79	1.80	1.08	1.28	
US PERS CONSUMP DEFL (2009=100.0)....																		
% Chg Prev Qtr SAAR.....	1.79	1.18	-0.26	-1.59	1.71	1.29	0.17	0.65	2.09	1.74	1.99	2.22	0.27	1.55	1.51	0.30	1.19	
% Chg Same Qtr Last Yr.....	1.78	1.70	1.20	0.27	0.25	0.28	0.39	0.95	1.05	1.16	1.62	2.01	1.55	1.50	1.51	0.30	1.19	
CONSUMER PRICE INDEX,																		
ALL-URBAN (82-84=1.000).....	2.368	2.374	2.370	2.355	2.368	2.377	2.379	2.380	2.394	2.404	2.422	2.441	2.439	2.452	2.367	2.370	2.400	
% Chg Prev Qtr SAAR.....	1.88	1.04	-0.70	-2.52	2.35	1.50	0.36	0.11	2.33	1.78	3.04	3.15	-0.31	2.01	1.61	0.12	1.28	
% Chg Same Qtr Last Yr.....	2.05	1.76	1.19	-0.09	0.03	0.14	0.40	1.08	1.07	1.14	1.81	2.57	1.91	1.96	1.61	0.12	1.28	
BANK PRIME INTEREST RATE (%).....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.5	3.5	3.5	3.5	3.8	4.0	4.3	3.3	3.3	3.5	
FEDERAL FUNDS RATE (% per annum).....	0.093	0.090	0.100	0.110	0.123	0.137	0.160	0.360	0.373	0.397	0.450	0.700	0.950	1.153	0.089	0.133	0.395	
30-YEAR FIXED MORTGAGE RATE (%).....																		
TN TAXABLE SALES (MIL2009\$).....	24028	24560	24979	24778	25908	26293	26686	26951	26848	26885	27174	26807	27632	28170	97543	103665	107859	
% Chg Prev Qtr SAAR.....	0.88	9.16	6.99	-3.18	19.53	6.08	6.12	4.02	-1.51	0.55	4.38	-5.30	12.90	8.01	3.62	6.28	4.04	
% Chg Same Qtr Last Yr.....	2.11	4.39	5.44	3.35	7.82	7.06	6.84	8.77	3.63	2.25	1.83	-0.53	2.92	4.78	3.62	6.28	4.04	
TN TAXABLE SALES (MIL\$).....																		
% Chg Prev Qtr SAAR.....	26224	26883	27323	26995	28346	28860	29303	29642	29682	29852	30322	30077	31024	31746	106480	113504	119498	
% Chg Prev Qtr SAAR.....	2.68	10.44	6.71	-4.71	21.57	7.45	6.29	4.70	0.55	2.30	6.46	-3.20	13.20	9.64	5.18	6.60	5.28	
% Chg Same Qtr Last Yr.....	3.93	6.17	6.71	3.62	8.09	7.35	7.25	9.81	4.71	3.44	3.48	1.47	4.52	6.35	5.18	6.60	5.28	
TN AVG ANNUAL WAGE, NONFARM																		
(2009\$).....	41732	41631	42197	42591	43163	43078	43756	42988	43174	43610	42893	42843	43213	43364	41883	43147	43166	
% Chg Prev Qtr SAAR.....	-2.27	-0.97	5.56	3.78	5.48	-0.79	6.45	-6.84	1.73	4.10	-6.41	-0.46	3.50	1.40	0.90	3.02	0.04	
% Chg Same Qtr Last Yr.....	0.60	0.42	1.76	1.48	3.43	3.48	3.69	0.93	0.02	1.23	-1.97	-0.34	0.09	-0.56	0.90	3.02	0.04	
TN AVG ANNUAL WAGE, NONFARM (\$).																		
% Chg Prev Qtr SAAR.....	45545	45567	46157	46402	47225	47283	48047	47281	47730	48421	47861	48069	48517	48868	45718	47239	47823	
% Chg Prev Qtr SAAR.....	-0.52	0.20	5.28	2.13	7.29	0.49	6.63	-6.23	3.86	5.92	-4.55	1.75	3.78	2.93	2.43	3.33	1.24	
% Chg Same Qtr Last Yr.....	2.39	2.13	2.98	1.75	3.69	3.76	4.10	1.89	1.07	2.41	-0.39	1.67	1.65	0.92	2.43	3.33	1.24	
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Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	Historical Data												Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2018
US GDP (2009\$) SAAR.....	49981	50511	50674	51002	51259	51363	51340	51338	51534	51784	51925	52009	52312	52633	50170
% Chg Prev Qtr SAAR.....	3.84	4.31	1.29	2.62	2.03	0.81	-0.18	-0.01	1.54	1.96	1.09	0.64	2.36	2.47	1.82
% Chg Same Qtr Last Yr.....	1.92	2.43	1.95	3.01	2.56	1.69	1.32	0.66	0.54	0.82	1.14	1.31	1.51	1.64	1.82
US GDP (\$) SAAR.....	54325	55152	55409	55759	56342	56646	56737	56771	57331	57806	58255	58638	59128	59804	54601
% Chg Prev Qtr SAAR.....	6.20	6.23	1.88	2.55	4.25	2.18	0.65	0.24	4.01	3.35	3.14	2.65	3.39	4.65	3.65
% Chg Same Qtr Last Yr.....	3.95	4.44	3.57	4.19	3.71	2.71	2.40	1.82	1.76	2.05	2.68	3.29	3.13	3.46	3.65
TN PERSONAL INCOME (2009\$) SAAR.....	36603	36785	37302	37853	38347	38606	39107	38803	39005	39388	39226	39099	39409	39682	36761
% Chg Prev Qtr SAAR.....	2.78	2.01	5.73	6.05	5.32	2.72	5.30	-3.07	2.09	3.99	-1.64	-1.29	3.21	2.81	1.84
% Chg Same Qtr Last Yr.....	1.62	1.76	2.87	4.13	4.77	4.95	4.84	2.51	1.72	2.03	0.30	0.76	1.03	0.75	1.84
US PERSONAL INCOME (2009\$) SAAR.....	42284	42674	43266	43811	44161	44241	44555	44366	44507	44553	44255	44550	44702	44746	42530
% Chg Prev Qtr SAAR.....	3.81	3.74	5.66	5.13	3.24	0.72	2.87	-1.69	1.27	0.42	-2.65	2.69	1.37	0.39	2.96
% Chg Same Qtr Last Yr.....	2.38	3.06	4.37	4.58	4.44	3.67	2.98	1.27	0.78	0.71	-0.67	0.41	0.44	0.43	2.96
TN PERSONAL INCOME (\$) SAAR.....	39947	40264	40802	41240	41956	42374	42943	42678	43122	43735	43770	43868	44245	44719	40128
% Chg Prev Qtr SAAR.....	4.61	3.21	5.46	4.36	7.13	4.04	5.48	-2.44	4.23	5.80	0.32	0.90	3.48	4.35	3.38
% Chg Same Qtr Last Yr.....	3.43	3.49	4.10	4.41	5.03	5.24	5.25	3.49	2.78	3.21	1.93	2.79	2.60	2.25	3.38
US PERSONAL INCOME (\$) SAAR.....	46147	46710	47326	47730	48317	48559	48925	48796	49204	49469	49381	49984	50188	50430	46426
% Chg Prev Qtr SAAR.....	5.66	4.96	5.39	3.46	5.01	2.02	3.05	-1.05	3.39	2.17	-0.71	4.97	1.64	1.94	4.52
% Chg Same Qtr Last Yr.....	4.20	4.81	5.62	4.87	4.70	3.96	3.38	2.23	1.84	1.87	0.93	2.43	2.00	1.94	4.52
TN TAXABLE SALES (2009\$).....	3671	3753	3817	3757	3928	3987	4046	4052	4037	4042	4086	3995	4118	4198	14904
% Chg Prev Qtr SAAR.....	0.88	9.16	6.99	-6.10	19.53	6.08	6.12	0.55	-1.51	0.55	4.38	-8.61	12.90	8.01	2.83
% Chg Same Qtr Last Yr.....	1.34	3.60	4.64	2.56	7.00	6.24	6.02	7.85	2.76	1.39	0.97	-1.41	2.01	3.85	2.83
TN TAXABLE SALES (\$).....	4007	4108	4175	4093	4298	4376	4443	4457	4463	4488	4559	4482	4623	4731	16270
% Chg Prev Qtr SAAR.....	2.68	10.44	6.71	-7.59	21.57	7.45	6.29	1.21	0.55	2.30	6.46	-6.57	13.20	9.64	4.38
% Chg Same Qtr Last Yr.....	3.14	5.36	5.89	2.83	7.27	6.53	6.43	8.88	3.83	2.56	2.60	0.57	3.60	5.41	4.38

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Table 3: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of 2009 dollars)

	Historical Data																Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4	2018:1	2014	2015	2016
TN PERSONAL INCOME.....	239554	240746	244126	249645	252903	254606	257915	258089	259430	261980	260900	262372	264452	240586	253767	260100			
% Chg Prev Qtr SAAR.....	2.78	2.01	5.73	9.35	5.32	2.72	5.30	0.27	2.09	3.99	-1.64	2.28	3.21	2.63	5.48	2.50			
% Chg Same Qtr Last Yr.....	2.40	2.54	3.66	4.93	5.57	5.76	5.65	3.38	2.58	2.90	1.16	1.66	1.94	2.63	5.48	2.50			
WAGES AND SALARIES.....	118165	118628	121014	122554	125192	125927	128768	127395	128422	130627	129110	129689	131037	118989	125610	128888			
% Chg Prev Qtr SAAR.....	0.05	1.58	8.29	5.19	8.89	2.37	9.33	-4.20	3.26	7.05	-4.56	1.80	4.22	3.11	5.56	2.61			
% Chg Same Qtr Last Yr.....	2.67	2.81	4.10	3.73	5.95	6.15	6.41	3.95	2.58	3.73	0.27	1.80	2.04	3.11	5.56	2.61			
OTHER LABOR INCOME.....	27163	27094	27245	27433	27812	28136	28729	29130	29553	30162	30308	30346	30564	27186	28028	29788			
% Chg Prev Qtr SAAR.....	-1.11	-1.01	2.24	2.79	5.65	4.74	8.70	5.69	5.93	8.50	1.95	0.51	2.90	-1.61	3.10	6.28			
% Chg Same Qtr Last Yr.....	-1.70	-2.21	-1.89	0.71	2.39	3.85	5.45	6.19	6.26	7.20	5.49	4.17	3.42	-1.61	3.10	6.28			
PROPRIETORS INCOME.....	30684	30531	30683	32424	32447	32711	33021	33549	33784	34111	34579	35280	35246	30544	32651	34006			
% Chg Prev Qtr SAAR.....	5.48	-1.98	2.00	24.70	0.29	3.29	3.84	6.56	2.82	3.93	5.61	8.35	-0.38	7.02	6.90	4.15			
% Chg Same Qtr Last Yr.....	7.52	6.48	8.47	7.09	5.75	7.14	7.62	3.47	4.12	4.28	4.72	5.16	4.33	7.02	6.90	4.15			
RENT, INTEREST, DIVIDENDS.....	33967	34558	35127	35920	36612	36844	36783	36989	36921	36856	36985	37192	37418	34222	36540	36938			
% Chg Prev Qtr SAAR.....	9.08	7.14	6.76	9.34	7.93	2.56	-0.66	2.26	-0.74	-0.70	1.41	2.25	2.45	4.01	6.77	1.09			
% Chg Same Qtr Last Yr.....	3.87	4.72	5.93	8.07	7.79	6.62	4.71	2.98	0.84	0.03	0.55	0.55	1.35	4.01	6.77	1.09			
TRANSFER PAYMENTS.....	49600	49996	50490	52076	52086	52370	52441	52976	52881	52780	52278	52556	53089	49797	52243	52729			
% Chg Prev Qtr SAAR.....	4.11	3.23	4.01	13.17	0.08	2.20	0.55	4.14	-0.72	-0.76	-3.76	2.15	4.11	0.13	4.91	0.93			
% Chg Same Qtr Last Yr.....	-0.22	0.37	0.97	6.05	5.01	4.75	3.87	1.73	1.53	0.78	-0.31	-0.79	0.39	0.13	4.91	0.93			
LESS: PERS CONT FOR SOC INS.....	18785	18824	19168	19434	19842	19958	20362	20265	20413	20749	20562	20896	21093	18902	19899	20497			
% Chg Prev Qtr SAAR.....	-0.96	0.84	7.51	5.66	8.67	2.35	8.35	-1.89	2.95	6.76	-3.56	6.66	3.82	2.33	5.27	3.01			
% Chg Same Qtr Last Yr.....	1.83	1.79	3.06	3.20	5.63	6.02	6.23	4.28	2.88	3.97	0.98	3.12	3.33	2.33	5.27	3.01			
RESIDENCE ADJUSTMENT.....	-1241	-1237	-1264	-1328	-1404	-1425	-1466	-1685	-1717	-1806	-1798	-1794	-1809	-1250	-1406	-1751			
% Chg Prev Qtr SAAR.....	-5.61	-1.49	9.17	21.65	24.94	6.32	11.98	74.56	7.63	22.45	-1.82	-0.74	3.33	-4.61	12.42	24.59			
% Chg Same Qtr Last Yr.....	-3.70	-5.21	-6.19	5.42	13.07	15.25	15.98	26.94	22.30	26.69	22.60	6.46	5.38	-4.61	12.42	24.59			
PER CAPITA PERSONAL INCOME (\$).	36603	36785	37302	37853	38347	38606	39107	38803	39005	39388	39226	39099	39409	36761	38478	39106			
% Chg Prev Qtr SAAR.....	2.78	2.01	5.73	6.05	5.32	2.72	5.30	-3.07	2.09	3.99	-1.64	-1.29	3.21	1.84	4.67	1.63			
% Chg Same Qtr Last Yr.....	1.62	1.76	2.87	4.13	4.77	4.95	4.84	2.51	1.72	2.03	0.30	0.76	1.03	1.84	4.67	1.63			

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Table 4: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of current dollars)

	Historical Data													Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2014	2015	2016
TEN PERSONAL INCOME.....	261439	263511	267035	271980	276702	279458	283208	283859	286813	290887	291120	294376	296908	262623	277837	288170
% Chg Prev Qtr SAAR.....	4.61	3.21	5.46	7.62	7.13	4.04	5.48	0.92	4.23	5.80	0.32	4.55	3.48	4.18	5.79	3.72
% Chg Same Qtr Last Yr.....	4.22	4.29	4.90	5.21	5.84	6.05	6.06	4.37	3.65	4.09	2.79	3.70	3.52	4.18	5.79	3.72
WAGES AND SALARIES.....	128961	129846	132370	133519	136972	138219	141396	140115	141977	145040	144065	145508	147119	129888	137526	142799
% Chg Prev Qtr SAAR.....	1.84	2.77	8.00	3.52	10.75	3.69	9.52	-3.57	5.42	8.91	-2.66	4.07	4.50	4.66	5.88	3.83
% Chg Same Qtr Last Yr.....	4.49	4.56	5.35	4.01	6.21	6.45	6.82	4.94	3.65	4.94	1.89	3.85	3.62	4.66	5.88	3.83
OTHER LABOR INCOME.....	29645	29656	29802	29887	30429	30883	31547	32039	32672	33490	33818	34048	34315	29675	30687	33005
% Chg Prev Qtr SAAR.....	0.66	0.15	1.97	1.15	7.46	6.09	8.89	6.38	8.14	10.40	3.98	2.74	3.18	-0.13	3.41	7.55
% Chg Same Qtr Last Yr.....	0.05	-0.54	-0.71	0.98	2.65	4.13	5.86	7.20	7.37	8.44	7.20	6.27	5.03	-0.13	3.41	7.55
PROPRIETORS INCOME.....	33488	33418	33562	35325	35501	35904	36259	36899	37350	37875	38585	39583	39572	33342	35747	37677
% Chg Prev Qtr SAAR.....	7.37	-0.83	1.73	22.72	2.01	4.63	4.01	7.25	4.97	5.74	7.71	10.76	-0.11	8.64	7.22	5.40
% Chg Same Qtr Last Yr.....	9.43	8.29	9.77	7.38	6.01	7.44	8.03	4.46	5.21	5.49	6.41	7.27	5.95	8.64	7.22	5.40
RENT, INTEREST, DIVIDENDS.....	37070	37826	38424	39134	40057	40440	40391	40683	40818	40922	41269	41728	42010	37358	40005	40923
% Chg Prev Qtr SAAR.....	11.03	8.40	6.47	7.60	9.78	3.88	-0.49	2.92	1.33	1.03	3.43	4.53	2.73	5.59	7.09	2.29
% Chg Same Qtr Last Yr.....	5.71	6.51	7.20	8.36	8.06	6.91	5.12	3.96	1.90	1.19	2.17	2.57	2.92	5.59	7.09	2.29
TRANSFER PAYMENTS.....	54132	54723	55227	56735	56987	57482	57584	58266	58462	58604	58333	58967	59604	54359	57197	58416
% Chg Prev Qtr SAAR.....	5.96	4.44	3.74	11.37	1.79	3.52	0.72	4.82	1.36	0.98	-1.84	4.42	4.39	1.65	5.22	2.13
% Chg Same Qtr Last Yr.....	1.55	2.08	2.18	6.34	5.27	5.04	4.27	2.70	2.59	1.95	1.30	1.20	1.95	1.65	5.22	2.13
LESS: PERS CONT FOR SOC INS....	20502	20604	20967	21173	21709	21906	22359	22288	22567	23039	22944	23445	23681	20633	21787	22710
% Chg Prev Qtr SAAR.....	0.81	2.02	7.23	3.98	10.53	3.67	8.53	-1.26	5.10	8.62	-1.64	9.03	4.09	3.88	5.59	4.24
% Chg Same Qtr Last Yr.....	3.64	3.53	4.29	3.48	5.89	6.31	6.64	5.27	3.95	5.17	2.62	5.19	4.94	3.88	5.59	4.24
RESIDENCE ADJUSTMENT.....	-1355	-1354	-1383	-1446	-1536	-1564	-1610	-1854	-1898	-2005	-2006	-2013	-2031	-1365	-1539	-1941
% Chg Prev Qtr SAAR.....	-3.92	-0.33	8.88	19.71	27.07	7.70	12.17	75.70	9.88	24.59	0.14	1.47	3.61	-3.17	12.76	26.08
% Chg Same Qtr Last Yr.....	-1.99	-3.60	-5.07	5.70	13.35	15.57	16.43	28.15	23.58	28.16	24.58	8.60	7.02	-3.17	12.76	26.08
PER CAPITA PERSONAL INCOME (\$)	39947	40264	40802	41240	41956	42374	42943	42678	43122	43735	43770	43868	44245	40128	42128	43326
% Chg Prev Qtr SAAR.....	4.61	3.21	5.46	4.36	7.13	4.04	5.48	-2.44	4.23	5.80	0.32	0.90	3.48	3.38	4.98	2.84
% Chg Same Qtr Last Yr.....	3.43	3.49	4.10	4.41	5.03	5.24	5.25	3.49	2.78	3.21	1.93	2.79	2.60	3.38	4.98	2.84

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Table 5: Tennessee Nonfarm Employment by Sector, Not Seasonally Adjusted (thousands of jobs)

	Historical Data														Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016
TOTAL NONFARM.....	2813.5	2821.8	2883.8	2832.7	2883.9	2896.7	2962.2	2916.8	2956.2	2968.2	3022.0	2979.4	3015.7	3016.5	2822.2	2893.9	2965.8
% Chg Same Qtr Last Yr.....	2.07	2.41	2.39	2.28	2.50	2.65	2.72	2.97	2.50	2.47	2.02	2.15	2.01	1.63	2.25	2.54	2.48
NATURAL RESOURCES, MINING & CONSTRUCTION	111.0	113.1	114.6	110.7	117.3	120.1	120.6	114.8	118.6	121.3	122.4	121.4	125.6	127.1	110.9	117.2	119.3
% Chg Same Qtr Last Yr.....	2.43	2.63	4.63	5.46	5.61	6.25	5.24	3.73	1.11	0.94	1.49	5.78	5.93	4.78	2.76	5.64	1.79
MANUFACTURING.....	323.4	326.0	328.4	328.6	332.1	334.2	337.0	339.5	343.6	345.4	344.6	345.8	347.9	346.5	324.9	333.0	343.3
% Chg Same Qtr Last Yr.....	1.91	2.26	2.05	2.11	2.69	2.50	2.61	3.31	3.44	3.35	2.27	1.87	1.26	0.32	2.04	2.48	3.09
DURABLE GOODS.....	204.2	205.7	207.6	208.1	210.1	211.5	213.6	216.0	219.2	220.3	220.0	220.4	221.5	220.8	205.1	210.8	218.9
% Chg Same Qtr Last Yr.....	3.15	3.26	2.92	2.51	2.91	2.85	2.86	3.80	4.32	4.16	3.01	2.04	1.06	0.20	3.15	2.78	3.82
NONDURABLE GOODS.....	119.3	120.4	120.8	120.6	122.0	122.7	123.4	123.5	124.4	125.1	124.6	125.5	126.4	125.7	119.8	122.2	124.4
% Chg Same Qtr Last Yr.....	-0.14	0.58	0.58	1.43	2.32	1.91	2.18	2.46	1.94	1.96	0.97	1.57	1.61	0.53	0.20	1.96	1.83
TRADE, TRANSPORTATION, UTILITIES.....	585.8	590.0	605.9	587.7	597.5	603.5	620.2	607.0	614.5	618.1	628.5	619.1	624.6	627.9	589.9	602.2	617.0
% Chg Same Qtr Last Yr.....	1.42	1.78	1.88	1.71	2.00	2.29	2.36	3.28	2.85	2.42	1.33	1.99	1.64	1.58	1.52	2.10	2.45
WHOLESALE TRADE.....	120.5	120.5	120.4	119.4	120.0	120.2	120.4	118.9	119.4	120.5	120.8	120.6	121.4	123.5	120.3	120.0	119.9
% Chg Same Qtr Last Yr.....	-0.39	-0.50	-0.50	-0.25	-0.47	-0.22	-0.03	-0.45	-0.50	0.25	0.30	1.43	1.73	2.49	-0.37	-0.24	-0.10
RETAIL TRADE.....	318.7	320.5	330.1	316.9	323.6	325.1	336.2	327.5	333.0	333.4	341.1	336.3	339.1	338.7	320.8	325.5	333.8
% Chg Same Qtr Last Yr.....	2.13	2.09	1.56	0.95	1.54	1.46	1.84	3.37	2.88	2.54	1.47	2.68	1.83	1.60	1.87	1.45	2.55
TRANSPORTATION & UTILITIES.....	146.5	149.0	155.4	151.4	153.9	158.2	163.6	160.5	162.2	164.2	166.6	162.2	164.1	165.6	148.8	156.8	163.4
% Chg Same Qtr Last Yr.....	1.41	2.99	4.51	5.02	5.03	6.13	5.32	6.03	5.37	3.81	1.79	1.02	1.17	0.87	2.36	5.38	4.20
INFORMATION.....	43.9	43.7	43.8	43.4	44.3	44.6	45.2	45.0	45.8	45.5	45.9	45.7	45.8	45.4	43.8	44.4	45.5
% Chg Same Qtr Last Yr.....	-0.90	-0.61	-0.91	-0.61	0.84	1.98	3.35	3.53	3.39	1.94	1.40	1.56	0.07	-0.22	-0.64	1.39	2.55
FINANCIAL ACTIVITIES.....	143.9	145.2	145.9	145.7	147.3	148.8	150.2	149.7	152.2	153.8	155.4	153.8	155.6	156.1	144.2	148.0	152.8
% Chg Same Qtr Last Yr.....	4.18	3.62	3.25	2.87	2.41	2.53	2.95	2.77	3.28	3.36	3.44	2.72	2.28	1.45	3.79	2.69	3.21
PROFESSIONAL & BUSINESS SERVICES.....	372.7	376.4	391.6	379.1	389.7	394.2	409.1	394.6	401.7	405.9	420.2	406.3	412.9	413.9	375.5	393.0	405.6
% Chg Same Qtr Last Yr.....	6.70	6.55	5.18	4.93	4.56	4.72	4.48	4.11	3.07	2.96	2.71	2.95	2.78	1.97	6.06	4.67	3.20
EDUCATION & HEALTH SERVICES.....	403.4	404.8	412.6	411.1	412.5	414.0	422.5	420.3	421.1	423.5	432.4	425.8	428.2	427.2	406.3	415.0	424.3
% Chg Same Qtr Last Yr.....	0.68	1.44	1.55	1.69	2.26	2.28	2.41	2.24	2.08	2.30	2.34	1.31	1.68	0.86	1.17	2.16	2.24
LEISURE & HOSPITALITY.....	302.4	305.7	297.8	290.5	314.3	316.5	310.7	304.0	326.2	328.7	322.1	313.5	333.5	339.4	296.5	308.0	320.3
% Chg Same Qtr Last Yr.....	3.63	3.77	3.94	3.74	3.95	3.53	4.33	4.67	3.79	3.84	3.69	3.11	2.24	3.28	3.69	3.89	3.99
OTHER SERVICES.....	106.9	106.5	106.0	105.7	108.7	108.8	108.8	108.8	111.3	111.3	109.7	110.0	113.0	112.8	106.1	108.0	110.3
% Chg Same Qtr Last Yr.....	0.19	-0.03	0.60	0.67	1.62	2.19	2.64	3.00	2.39	2.30	0.86	1.04	1.56	1.35	0.47	1.78	2.13
GOVERNMENT.....	420.0	410.4	437.3	430.3	420.2	411.9	437.9	433.0	421.3	414.7	440.9	438.0	428.6	420.4	424.2	425.1	427.5
% Chg Same Qtr Last Yr.....	-0.54	0.33	0.63	0.26	0.04	0.36	0.14	0.64	0.26	0.69	0.69	1.16	1.74	1.37	0.38	0.20	0.57
FEDERAL, CIVILIAN.....	48.2	48.2	48.3	49.0	49.2	49.1	49.2	49.0	49.1	49.3	49.2	48.7	48.6	48.3	48.4	49.1	49.2
% Chg Same Qtr Last Yr.....	-2.89	-2.23	-1.90	0.20	2.08	1.80	1.86	0.07	-0.07	0.48	0.07	-0.61	-1.02	-2.03	-2.12	1.48	0.14
STATE & LOCAL.....	371.8	362.2	389.0	381.3	371.0	362.8	388.7	384.0	372.1	365.4	391.7	389.3	380.0	372.1	375.8	375.9	378.3
% Chg Same Qtr Last Yr.....	-0.22	0.69	0.95	0.26	-0.22	0.17	-0.08	0.71	0.31	0.72	0.77	1.39	2.10	1.82	0.71	0.03	0.63

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Table 6: Tennessee Durable Goods Manufacturing Employment, Not Seasonally Adjusted (thousands of jobs)

	Historical Data															Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016	
TOTAL DURABLE GOODS.....	204.2	205.7	207.6	208.1	210.1	211.5	213.6	216.0	219.2	220.3	220.0	220.4	221.5	220.8	205.1	210.8	218.9	
% Chg Same Qtr Last Yr.....	3.15	3.26	2.92	2.51	2.91	2.85	2.86	3.80	4.32	4.16	3.01	2.04	1.06	0.20	3.15	2.78	3.82	
WOOD PRODUCTS.....	11.1	11.4	11.4	11.3	11.5	11.6	11.9	11.9	12.0	12.2	12.1	12.0	12.1	12.0	11.2	11.6	12.0	
% Chg Same Qtr Last Yr.....	2.77	4.89	3.33	3.04	3.29	1.75	4.40	5.01	4.35	4.58	1.97	1.12	0.56	-1.10	3.38	3.12	3.96	
NONMETALLIC MINERAL PRODUCTS.....	12.0	12.1	12.2	12.2	12.6	12.8	13.0	13.2	13.4	13.7	13.7	13.7	13.9	14.1	12.0	12.7	13.5	
% Chg Same Qtr Last Yr.....	-1.91	0.00	2.80	3.97	5.29	6.08	6.27	7.63	6.08	7.03	5.13	3.80	3.99	2.68	-1.10	5.41	6.45	
PRIMARY METALS.....	10.0	10.1	10.2	10.2	10.3	10.4	10.5	10.6	10.6	10.3	10.4	10.5	10.5	10.6	10.1	10.4	10.5	
% Chg Same Qtr Last Yr.....	1.01	1.34	0.99	1.67	2.99	2.64	3.61	4.26	2.58	-0.32	-1.27	-0.94	-0.63	2.58	1.09	2.73	1.29	
FABRICATED METAL PRODUCTS.....	34.4	34.4	34.8	34.9	35.0	35.2	35.5	35.6	35.8	35.8	35.3	35.1	35.4	35.2	34.4	35.2	35.6	
% Chg Same Qtr Last Yr.....	1.57	1.47	2.35	2.45	1.55	2.42	1.91	1.91	2.48	1.51	-0.47	-1.31	-1.12	-1.68	1.55	2.08	1.35	
MACHINERY.....	25.4	25.4	25.6	25.1	25.6	25.2	25.2	25.0	25.9	25.7	25.4	25.4	25.9	25.5	25.4	25.3	25.5	
% Chg Same Qtr Last Yr.....	-1.42	0.93	2.82	-1.44	0.92	-0.66	-1.30	-0.40	1.30	1.98	0.79	1.87	0.00	-0.78	0.30	-0.62	0.92	
COMPUTER & ELECTRONIC PRODUCTS.....	5.0	5.1	5.1	5.1	5.0	4.9	4.8	4.8	4.7	4.7	4.6	4.5	4.4	4.4	5.1	5.0	4.7	
% Chg Same Qtr Last Yr.....	-5.66	-2.56	0.00	0.66	0.00	-2.63	-5.23	-5.26	-5.33	-4.73	-5.52	-6.94	-6.34	-6.38	-3.35	-1.82	-5.21	
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	19.2	19.5	19.1	19.5	19.7	19.7	19.9	19.8	19.9	20.3	20.3	20.2	20.1	20.1	19.3	19.7	20.1	
% Chg Same Qtr Last Yr.....	4.92	3.17	-0.69	0.17	2.43	1.20	4.19	1.71	1.02	2.70	1.84	2.02	1.34	-0.66	4.04	1.98	1.82	
TRANSPORTATION EQUIPMENT.....	63.3	63.7	65.2	65.7	66.1	67.1	68.1	70.4	71.9	72.7	73.3	73.3	73.9	73.8	63.8	66.8	72.1	
% Chg Same Qtr Last Yr.....	8.63	6.58	4.93	4.67	4.37	5.34	4.39	7.20	8.72	8.30	7.68	4.97	2.64	1.10	7.13	4.69	7.98	
FURNITURE.....	9.1	9.0	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.4	9.3	9.5	9.6	9.6	9.0	9.1	9.4	
% Chg Same Qtr Last Yr.....	3.02	3.83	-1.12	-1.47	-1.10	0.74	4.15	4.48	4.44	3.66	1.45	1.79	1.77	1.77	2.76	0.56	3.50	
MISCELLANEOUS DURABLE GOODS.....	14.6	15.0	15.2	15.2	15.3	15.4	15.4	15.4	15.6	15.6	15.6	15.5	15.7	15.8	14.8	15.3	15.5	
% Chg Same Qtr Last Yr.....	0.00	2.51	5.31	5.56	5.02	2.90	1.32	1.32	1.52	1.08	1.08	0.87	1.07	1.28	1.78	3.66	1.25	
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Table 7: Tennessee Nondurable Goods Manufacturing Employment, Not Seasonally Adjusted (thousands of jobs)

	Historical Data															Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016	
TOTAL NONDURABLE GOODS.....	119.3	120.4	120.8	120.6	122.0	122.7	123.4	123.5	124.4	125.1	124.6	125.5	126.4	125.7	119.8	122.2	124.4	
% Chg Same Qtr Last Yr.....	-0.14	0.58	0.58	1.43	2.32	1.91	2.18	2.46	1.94	1.96	0.97	1.57	1.61	0.53	0.20	1.96	1.83	
FOOD.....	32.4	33.0	33.1	33.0	33.1	33.4	33.6	33.8	33.9	34.5	34.7	34.6	34.6	34.7	32.7	33.3	34.2	
% Chg Same Qtr Last Yr.....	0.62	1.64	0.92	1.64	2.16	1.31	1.51	2.53	2.41	3.09	3.48	2.27	2.06	0.77	1.05	1.65	2.88	
BEVERAGE & TOBACCO.....	5.5	5.5	5.7	5.6	5.9	6.0	6.1	6.3	6.5	6.7	6.8	6.8	7.0	7.1	5.5	5.9	6.6	
% Chg Same Qtr Last Yr.....	3.14	3.13	6.25	5.62	7.93	9.09	8.24	11.83	10.17	11.67	10.33	7.94	7.18	5.97	3.45	7.74	10.99	
PAPER.....	14.6	14.8	14.5	14.5	14.6	14.6	14.6	14.4	14.6	14.6	14.4	14.2	14.3	14.4	14.6	14.6	14.5	
% Chg Same Qtr Last Yr.....	-1.13	0.45	-0.91	0.23	0.23	-1.13	0.92	-0.46	-0.23	-0.46	-1.60	-1.62	-2.05	-0.92	-0.79	0.06	-0.69	
PRINTING & RELATED SUPPORT.....	9.5	9.5	9.5	9.3	9.3	9.1	9.2	9.3	9.2	9.1	9.1	9.0	9.1	9.0	9.5	9.2	9.2	
% Chg Same Qtr Last Yr.....	-1.38	-1.05	-1.73	-2.45	-2.80	-3.52	-3.17	-0.36	-0.36	0.00	-1.09	-2.52	-1.81	-1.82	-1.21	-2.98	-0.45	
CHEMICALS.....	25.3	25.4	25.2	25.2	25.6	25.8	25.7	25.4	25.4	25.4	25.4	25.3	25.4	25.4	25.3	25.6	25.4	
% Chg Same Qtr Last Yr.....	2.84	2.01	0.53	0.26	1.05	1.71	1.72	0.66	-0.78	-1.42	-1.17	-0.52	-0.13	-0.13	1.92	1.19	-0.68	
PLASTICS & RUBBER.....	20.4	20.9	21.6	21.5	21.9	21.9	22.5	22.8	23.0	23.1	23.3	24.1	24.2	24.2	20.8	21.9	23.1	
% Chg Same Qtr Last Yr.....	0.49	4.67	8.01	6.78	7.19	4.62	4.17	5.88	5.18	5.33	3.86	5.56	5.22	4.91	2.93	5.66	5.05	
MISCELLANEOUS NONDURABLE GOODS.....	11.5	11.3	11.3	11.4	11.6	11.8	11.8	11.5	11.7	11.7	11.0	11.5	11.9	10.9	11.5	11.7	11.5	
% Chg Same Qtr Last Yr.....	-8.24	-11.02	-10.79	-3.12	1.16	4.13	4.42	1.17	0.86	-0.57	-7.06	0.00	1.14	-6.84	-8.93	1.60	-1.43	

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Table 8: Tennessee Nonfarm Employment by Sector, Seasonally Adjusted (thousands of jobs)

	Historical Data												Annual				
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016
TOTAL NONFARM.....	2811.5	2829.5	2848.1	2858.9	2882.1	2904.8	2925.0	2944.2	2955.5	2976.6	2991.1	3007.8	3013.2	3024.5	2821.0	2892.7	2966.8
% Chg Prev Qtr SAAR.....	2.38	2.59	2.65	1.54	3.28	3.19	2.81	2.65	1.54	2.89	1.96	2.25	0.73	1.50	2.22	2.54	2.56
% Chg Same Qtr Last Yr.....	2.09	2.42	2.34	2.29	2.51	2.66	2.70	2.98	2.55	2.47	2.26	2.16	1.95	1.61	2.22	2.54	2.56
NATURAL RESOURCES, MINING AND CONSTRUCTION.....	110.5	110.9	113.2	114.9	116.6	118.3	119.0	119.1	117.9	119.5	121.1	125.7	125.4	125.5	110.9	117.2	119.4
% Chg Prev Qtr SAAR.....	4.98	1.46	8.56	6.15	6.30	5.72	2.39	0.34	-3.86	5.66	5.46	16.08	-1.06	0.21	2.79	5.66	1.90
% Chg Same Qtr Last Yr.....	2.41	2.91	4.62	5.25	5.58	6.67	5.13	3.66	1.09	1.07	1.82	5.60	6.36	4.96	2.79	5.66	1.90
MANUFACTURING.....	323.2	325.8	328.0	329.6	331.9	334.0	336.6	340.3	343.3	345.2	344.3	346.6	347.6	346.4	325.0	333.0	343.3
% Chg Prev Qtr SAAR.....	0.32	3.24	2.72	1.99	2.83	2.56	3.18	4.50	3.52	2.29	-1.13	2.80	1.08	-1.37	2.04	2.48	3.08
% Chg Same Qtr Last Yr.....	1.91	2.31	2.07	2.06	2.69	2.52	2.64	3.26	3.44	3.37	2.27	1.86	1.25	0.33	2.04	2.48	3.08
DURABLE GOODS.....	204.0	205.6	207.4	208.5	209.9	211.5	213.4	216.3	218.9	220.4	219.8	220.7	221.2	220.8	205.1	210.8	218.9
% Chg Prev Qtr SAAR.....	1.01	3.20	3.58	2.11	2.72	3.11	3.59	5.64	4.90	2.62	-0.96	1.65	0.92	-0.76	3.15	2.78	3.81
% Chg Same Qtr Last Yr.....	3.14	3.33	2.93	2.47	2.90	2.88	2.88	3.76	4.31	4.18	3.02	2.03	1.05	0.21	3.15	2.78	3.81
NONDURABLE GOODS.....	119.2	120.2	120.5	121.1	122.0	122.5	123.2	124.0	124.3	124.9	124.4	125.9	126.3	125.6	119.8	122.2	124.4
% Chg Prev Qtr SAAR.....	-0.84	3.30	1.27	1.77	3.02	1.60	2.49	2.54	1.15	1.71	-1.42	4.86	1.35	-2.43	0.19	1.96	1.82
% Chg Same Qtr Last Yr.....	-0.13	0.61	0.62	1.36	2.34	1.91	2.22	2.41	1.94	1.97	0.98	1.55	1.60	0.55	0.19	1.96	1.82
TRADE, TRANSPORTATION, UTILITIES.....	588.2	591.3	594.8	594.3	599.2	605.0	608.7	613.9	616.2	620.1	620.4	625.5	625.7	628.8	589.7	601.8	617.7
% Chg Prev Qtr SAAR.....	2.63	2.15	2.37	-0.31	3.29	3.95	2.49	3.46	1.46	2.56	0.24	3.28	0.13	2.00	1.47	2.06	2.63
% Chg Same Qtr Last Yr.....	1.44	1.77	1.87	1.70	1.86	2.31	2.34	3.30	2.84	2.49	1.92	1.88	1.54	1.40	1.47	2.06	2.63
WHOLESALE TRADE.....	120.4	120.2	120.0	120.1	119.9	119.9	119.9	119.6	119.4	120.3	120.4	121.2	121.3	123.6	120.3	120.0	119.9
% Chg Prev Qtr SAAR.....	-0.33	-0.55	-0.55	0.33	-0.66	-0.22	0.22	-1.00	-0.78	2.94	0.44	2.80	0.22	7.69	-0.37	-0.25	-0.03
% Chg Same Qtr Last Yr.....	-0.33	-0.50	-0.50	-0.28	-0.36	-0.28	-0.08	-0.42	-0.44	0.33	0.39	1.34	1.59	2.74	-0.37	-0.25	-0.03
RETAIL TRADE.....	320.1	321.7	322.6	321.5	324.3	326.6	328.5	332.3	333.5	334.9	336.2	340.5	339.1	339.6	320.7	325.2	334.3
% Chg Prev Qtr SAAR.....	2.07	1.97	1.12	-1.36	3.61	2.78	2.39	4.75	1.45	1.69	1.52	5.21	-1.67	0.63	1.81	1.41	2.78
% Chg Same Qtr Last Yr.....	2.12	2.07	1.63	0.94	1.32	1.52	1.84	3.38	2.84	2.56	2.34	2.46	1.66	1.39	1.81	1.41	2.78
TRANSPORTATION & UTILITIES.....	147.7	149.5	152.2	152.7	154.9	158.6	160.3	162.0	163.2	164.9	163.8	163.7	165.3	165.6	148.7	156.6	163.5
% Chg Prev Qtr SAAR.....	6.38	4.78	7.52	1.41	5.80	9.81	4.44	4.22	3.17	4.06	-2.48	-0.24	3.88	0.73	2.28	5.32	4.37
% Chg Same Qtr Last Yr.....	1.47	3.01	4.37	5.00	4.85	6.09	5.32	6.05	5.38	3.97	2.20	1.09	1.27	0.44	2.28	5.32	4.37
INFORMATION.....	43.8	43.8	43.6	43.6	44.2	44.6	45.0	45.1	45.7	45.3	45.8	45.7	45.6	45.6	43.8	44.4	45.5
% Chg Prev Qtr SAAR.....	-0.30	0.00	-2.41	0.31	5.30	3.98	3.94	0.89	5.42	-3.45	4.18	-0.87	-0.58	-0.58	-0.74	1.31	2.59
% Chg Same Qtr Last Yr.....	-0.98	-0.68	-0.98	-0.61	0.76	1.75	3.37	3.52	3.55	1.64	1.70	1.26	-0.22	0.51	-0.74	1.31	2.59
FINANCIAL ACTIVITIES.....	144.0	144.8	145.4	146.5	147.2	148.5	149.6	150.6	151.9	153.4	154.7	154.4	155.7	155.8	144.2	147.9	152.6
% Chg Prev Qtr SAAR.....	4.57	2.05	1.85	2.87	2.02	3.49	3.18	2.52	3.68	3.92	3.34	-0.60	3.41	0.26	3.78	2.62	3.18
% Chg Same Qtr Last Yr.....	4.22	3.63	3.27	2.83	2.20	2.56	2.89	2.80	3.22	3.32	3.36	2.57	2.50	1.59	3.78	2.62	3.18

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Table 8: Tennessee Nonfarm Employment by Sector, Seasonally Adjusted (thousands of jobs)

	Historical Data															Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016	
PROFESSIONAL & BUSINESS SERVICES..	373.0	377.7	382.4	385.2	390.6	395.6	399.3	401.2	403.8	407.6	411.4	412.3	414.5	416.2	375.0	392.7	406.0	
% Chg Prev Qtr SAAR.....	7.01	5.10	5.03	2.96	5.76	5.18	3.83	1.92	2.65	3.75	3.78	0.91	2.15	1.62	6.01	4.72	3.40	
% Chg Same Qtr Last Yr.....	6.75	6.51	5.08	5.02	4.71	4.73	4.43	4.16	3.39	3.03	3.02	2.77	2.64	2.11	6.01	4.72	3.40	
EDUCATION & HEALTH SERVICES.....	404.3	406.6	409.0	411.3	413.3	415.9	418.7	420.5	422.3	426.1	429.3	425.6	429.0	430.0	406.1	414.8	424.8	
% Chg Prev Qtr SAAR.....	-0.10	2.23	2.42	2.27	1.96	2.57	2.72	1.73	1.72	3.62	3.01	-3.40	3.23	0.94	1.15	2.15	2.35	
% Chg Same Qtr Last Yr.....	0.71	1.46	1.50	1.70	2.22	2.30	2.38	2.24	2.19	2.44	2.52	1.20	1.57	0.91	1.15	2.15	2.35	
LEISURE & HOSPITALITY.....	295.0	298.2	300.4	302.4	306.7	309.5	313.2	316.3	318.3	321.1	324.1	328.3	326.1	330.4	296.3	307.9	320.0	
% Chg Prev Qtr SAAR.....	4.75	4.36	2.94	2.74	5.76	3.70	4.96	3.97	2.51	3.65	3.75	5.24	-2.57	5.38	3.65	3.93	3.90	
% Chg Same Qtr Last Yr.....	3.65	3.85	3.98	3.69	3.94	3.78	4.28	4.60	3.78	3.77	3.47	3.78	2.47	2.90	3.65	3.93	3.90	
OTHER SERVICES.....	105.9	106.0	106.4	106.7	107.7	108.3	109.2	109.9	110.3	110.9	110.4	111.2	111.6	112.2	106.1	108.0	110.4	
% Chg Prev Qtr SAAR.....	-0.38	0.25	1.65	1.13	3.54	2.37	3.49	2.59	1.34	2.19	-1.67	2.93	1.33	2.29	0.48	1.78	2.23	
% Chg Same Qtr Last Yr.....	0.13	0.00	0.57	0.66	1.64	2.17	2.63	3.00	2.45	2.40	1.10	1.18	1.18	1.20	0.48	1.78	2.23	
GOVERNMENT.....	423.4	424.5	425.0	424.5	424.8	425.2	425.5	427.2	425.7	427.4	429.6	432.4	432.0	433.7	424.1	425.0	427.5	
% Chg Prev Qtr SAAR.....	0.03	1.01	0.44	-0.44	0.28	0.41	0.25	1.61	-1.37	1.54	2.14	2.63	-0.37	1.52	0.34	0.22	0.58	
% Chg Same Qtr Last Yr.....	-0.45	0.32	0.41	0.26	0.32	0.17	0.13	0.64	0.22	0.50	0.97	1.23	1.48	1.47	0.34	0.22	0.58	
FEDERAL, CIVILIAN.....	48.0	48.5	47.8	48.9	49.6	49.2	48.8	48.9	49.1	49.4	49.6	49.2	47.7	48.7	48.3	49.1	49.2	
% Chg Prev Qtr SAAR.....	-6.40	3.95	-5.39	9.83	5.28	-3.19	-2.68	0.55	1.65	2.47	1.36	-3.19	-11.41	8.95	-2.33	1.78	0.24	
% Chg Same Qtr Last Yr.....	-2.77	-2.61	-2.71	0.27	3.26	1.44	2.16	-0.07	-0.94	0.47	1.50	0.55	-2.85	-1.35	-2.33	1.78	0.24	
STATE & LOCAL.....	375.4	376.0	377.2	375.6	375.2	376.1	376.7	378.3	376.6	378.0	380.1	383.3	384.3	384.9	375.8	375.9	378.2	
% Chg Prev Qtr SAAR.....	0.89	0.64	1.21	-1.69	-0.35	0.89	0.64	1.75	-1.75	1.42	2.24	3.41	1.12	0.63	0.69	0.02	0.63	
% Chg Same Qtr Last Yr.....	-0.14	0.71	0.82	0.26	-0.05	0.01	-0.13	0.73	0.37	0.51	0.90	1.31	2.04	1.84	0.69	0.02	0.63	
STATISTICAL DISCREPANCY (%).....	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	0.02	0.01	0.00	0.00	

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Table 9: Tennessee Durable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)

	Historical Data														Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016
TOTAL DURABLE GOODS.....	204.0	205.6	207.4	208.5	209.9	211.5	213.4	216.3	218.9	220.4	219.8	220.7	221.2	220.8	205.1	210.8	218.9
% Chg Prev Qtr SAAR.....	1.01	3.20	3.58	2.11	2.72	3.11	3.59	5.64	4.90	2.62	-0.96	1.65	0.92	-0.76	3.15	2.78	3.81
% Chg Same Qtr Last Yr.....	3.14	3.33	2.93	2.47	2.90	2.88	2.88	3.76	4.31	4.18	3.02	2.03	1.05	0.21	3.15	2.78	3.81
WOOD PRODUCTS.....	11.1	11.3	11.3	11.4	11.5	11.5	11.8	12.0	12.0	12.1	12.1	12.1	12.1	11.9	11.2	11.6	12.0
% Chg Prev Qtr SAAR.....	0.73	7.05	0.30	3.27	2.90	0.97	10.82	5.01	0.97	2.20	-0.25	1.29	-0.89	-4.35	3.36	3.11	3.95
% Chg Same Qtr Last Yr.....	2.78	5.08	3.37	2.80	3.35	1.85	4.42	4.86	4.37	4.68	1.96	1.05	0.58	-1.07	3.36	3.11	3.95
NONMETALLIC MINERALS.....	11.9	12.0	12.2	12.3	12.6	12.7	13.0	13.3	13.3	13.6	13.7	13.8	13.9	14.0	12.0	12.7	13.3
% Chg Prev Qtr SAAR.....	1.34	2.73	7.49	3.84	7.41	5.83	8.04	8.97	1.75	9.64	0.48	3.45	2.67	4.10	-1.11	5.40	6.45
% Chg Same Qtr Last Yr.....	-1.87	0.12	2.79	3.82	5.35	6.13	6.27	7.56	6.11	7.05	5.13	3.77	4.01	2.67	-1.11	5.40	6.45
PRIMARY METALS.....	10.0	10.1	10.1	10.2	10.3	10.4	10.5	10.6	10.6	10.4	10.4	10.5	10.5	10.7	10.1	10.4	10.5
% Chg Prev Qtr SAAR.....	-0.04	4.63	0.79	0.93	5.50	3.80	4.46	2.86	-0.83	-7.04	0.23	4.09	0.42	5.96	1.08	2.73	1.28
% Chg Same Qtr Last Yr.....	0.93	1.46	1.04	1.56	2.94	2.74	3.66	4.15	2.55	-0.24	-1.26	-0.97	-0.66	2.64	1.08	2.73	1.28
FABRICATED METALS.....	34.4	34.4	34.8	35.0	34.9	35.2	35.5	35.7	35.8	35.7	35.3	35.2	35.3	35.1	34.4	35.2	35.6
% Chg Prev Qtr SAAR.....	2.49	0.02	5.09	2.25	-1.08	3.46	3.21	2.21	0.90	-0.31	-4.42	-1.22	1.40	-2.35	1.55	2.08	1.35
% Chg Same Qtr Last Yr.....	1.55	1.50	2.35	2.45	1.54	2.40	1.94	1.93	2.44	1.49	-0.44	-1.28	-1.16	-1.67	1.55	2.08	1.35
MACHINERY.....	25.1	25.5	25.8	25.1	25.3	25.3	25.4	25.0	25.7	25.8	25.6	25.5	25.7	25.6	25.4	25.3	25.5
% Chg Prev Qtr SAAR.....	-4.89	6.10	4.76	-10.08	4.10	-0.96	1.56	-5.24	10.58	1.38	-3.25	-0.14	1.96	-1.72	0.31	-0.63	0.94
% Chg Same Qtr Last Yr.....	-1.37	0.88	2.61	-1.26	1.00	-0.73	-1.49	-0.19	1.32	1.92	0.69	2.02	-0.03	-0.81	0.31	-0.63	0.94
COMPUTERS & ELECTRONICS.....	5.0	5.1	5.1	5.1	5.0	4.9	4.8	4.8	4.7	4.7	4.6	4.5	4.4	4.4	5.0	5.0	4.7
% Chg Prev Qtr SAAR.....	-2.78	4.82	4.00	-2.95	-5.22	-6.51	-6.21	-2.84	-5.56	-4.55	-9.09	-8.40	-3.06	-5.03	-3.34	-1.82	-5.21
% Chg Same Qtr Last Yr.....	-5.62	-2.71	0.03	0.71	0.07	-2.75	-5.23	-5.21	-5.29	-4.80	-5.54	-6.92	-6.31	-6.43	-3.34	-1.82	-5.21
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	19.3	19.4	19.1	19.5	19.7	19.7	19.9	19.8	19.9	20.2	20.3	20.2	20.2	20.1	19.3	19.7	20.1
% Chg Prev Qtr SAAR.....	-5.01	3.33	-7.31	10.22	4.40	-1.66	4.44	-0.53	1.92	5.15	1.14	-0.30	-0.55	-2.73	4.04	1.98	1.81
% Chg Same Qtr Last Yr.....	4.90	3.23	-0.64	0.07	2.46	1.20	4.26	1.62	1.02	2.72	1.90	1.96	1.33	-0.62	4.04	1.98	1.81
TRANSPORTATION EQUIPMENT.....	63.6	63.9	64.9	65.6	66.3	67.3	67.8	70.3	72.0	73.0	73.1	73.8	73.9	73.8	63.8	66.8	72.1
% Chg Prev Qtr SAAR.....	5.10	2.14	6.22	4.91	3.84	6.65	2.72	15.65	10.06	5.33	0.52	4.07	0.61	-0.72	7.13	4.69	7.96
% Chg Same Qtr Last Yr.....	8.55	6.68	5.03	4.58	4.27	5.40	4.52	7.10	8.67	8.33	7.75	4.94	2.61	1.11	7.13	4.69	7.96
FURNITURE.....	9.0	9.0	8.9	8.9	8.9	9.1	9.3	9.3	9.4	9.4	9.4	9.5	9.5	9.6	9.0	9.1	9.4
% Chg Prev Qtr SAAR.....	-1.77	-1.43	-4.13	1.09	0.56	5.83	9.31	1.83	1.56	2.26	-0.07	3.24	1.96	1.90	2.73	0.57	3.48
% Chg Same Qtr Last Yr.....	3.04	3.97	-1.19	-1.58	-1.00	0.78	4.14	4.33	4.58	3.69	1.39	1.74	1.84	1.75	2.73	0.57	3.48
MISCELLANEOUS DURABLES.....	14.6	14.9	15.2	15.3	15.3	15.3	15.4	15.5	15.5	15.5	15.6	15.6	15.7	15.7	14.8	15.3	15.5
% Chg Prev Qtr SAAR.....	2.65	9.30	7.68	2.64	0.64	0.96	1.00	2.60	1.41	-0.44	0.75	1.67	2.29	0.57	1.78	3.66	1.25
% Chg Same Qtr Last Yr.....	-0.02	2.54	5.32	5.53	5.01	2.94	1.31	1.30	1.49	1.14	1.08	0.84	1.06	1.32	1.78	3.66	1.25

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Table 10: Tennessee Nondurable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)

	Historical Data												January 2018		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	Annual
TOTAL NONDURABLE GOODS.....	119.2	120.2	120.5	121.1	122.0	122.5	123.2	124.0	124.3	124.9	124.4	125.9	126.3	125.6	119.8
% Chg Prev Qtr SAAR.....	-0.84	3.30	1.27	1.77	3.02	1.60	2.49	2.54	1.15	1.71	-1.42	4.86	1.35	-2.43	0.19
% Chg Same Qtr Last Yr.....	-0.13	0.61	0.62	1.36	2.34	1.91	2.22	2.41	1.94	1.97	0.98	1.55	1.60	0.55	0.19
FOOD.....	32.6	32.9	32.9	33.1	33.3	33.3	33.4	33.9	34.1	34.4	34.6	34.7	34.8	34.6	32.7
% Chg Prev Qtr SAAR.....	-0.15	4.30	0.05	2.32	1.99	0.89	0.98	6.26	1.59	3.63	2.59	1.18	0.89	-1.51	1.05
% Chg Same Qtr Last Yr.....	0.61	1.63	0.96	1.61	2.15	1.31	1.54	2.51	2.41	3.09	3.50	2.24	2.07	0.78	1.05
BEVERAGE & TOBACCO.....	5.5	5.5	5.7	5.7	5.9	6.0	6.1	6.3	6.5	6.7	6.8	6.8	6.9	7.1	5.5
% Chg Prev Qtr SAAR.....	6.69	2.78	13.35	0.13	16.07	7.40	10.21	13.90	9.23	13.13	5.47	4.19	6.09	8.09	3.46
% Chg Same Qtr Last Yr.....	3.08	3.11	6.34	5.62	7.87	9.06	8.30	11.85	10.16	11.60	10.38	7.95	7.16	5.95	3.46
PAPER.....	14.6	14.7	14.5	14.6	14.6	14.5	14.6	14.5	14.6	14.4	14.4	14.3	14.3	14.3	14.6
% Chg Prev Qtr SAAR.....	-1.29	3.22	-4.63	3.46	-0.88	-2.04	3.22	-2.26	0.36	-2.91	-1.64	-2.23	-1.48	1.81	-0.82
% Chg Same Qtr Last Yr.....	-1.16	0.59	-0.91	0.13	0.24	-1.06	0.91	-0.51	-0.21	-0.43	-1.62	-1.61	-2.07	-0.90	-0.82
PRINTING & RELATED SUPPORT.....	9.5	9.5	9.4	9.3	9.2	9.2	9.1	9.3	9.2	9.2	9.0	9.1	9.0	9.0	9.5
% Chg Prev Qtr SAAR.....	-2.85	-0.24	-2.33	-4.75	-3.72	-3.18	-0.79	6.31	-3.51	-1.60	-5.16	0.21	-0.61	-1.63	-1.21
% Chg Same Qtr Last Yr.....	-1.34	-0.99	-1.69	-2.56	-2.77	-3.50	-3.12	-0.42	-0.37	0.04	-1.08	-2.53	-1.81	-1.82	-1.21
CHEMICALS.....	25.3	25.3	25.2	25.3	25.6	25.7	25.7	25.5	25.4	25.3	25.4	25.4	25.3	25.3	25.3
% Chg Prev Qtr SAAR.....	0.85	-0.44	-1.22	2.01	3.89	2.03	-0.87	-2.21	-2.05	-0.70	0.39	0.34	-0.59	-0.74	1.92
% Chg Same Qtr Last Yr.....	2.82	1.96	0.57	0.29	1.04	1.66	1.75	0.68	-0.79	-1.46	-1.15	-0.51	-0.14	-0.15	1.92
PLASTICS & RUBBER.....	20.3	21.0	21.5	21.5	21.8	22.0	22.4	22.7	23.0	23.2	23.3	24.0	24.2	24.3	20.8
% Chg Prev Qtr SAAR.....	3.58	14.84	9.57	-0.77	6.35	3.53	7.81	5.50	4.24	3.89	1.68	12.77	2.83	2.88	2.93
% Chg Same Qtr Last Yr.....	0.61	4.69	8.00	6.64	7.34	4.60	4.18	5.78	5.26	5.35	3.82	5.56	5.20	4.95	2.93
MISCELLANEOUS NONDURABLE GOODS.....	11.5	11.3	11.3	11.5	11.6	11.7	11.8	11.6	11.7	11.7	11.0	11.6	11.8	10.9	11.5
% Chg Prev Qtr SAAR.....	-14.08	-7.08	0.77	8.94	2.45	4.81	2.28	-5.17	1.49	-0.40	-21.89	26.23	6.36	-28.02	-8.92
% Chg Same Qtr Last Yr.....	-8.23	-10.99	-10.70	-3.24	1.11	4.20	4.58	1.02	0.78	-0.49	-6.98	-0.08	1.10	-6.79	-8.92

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Table 11: Tennessee Average Annual Wage and Salary Rate by Sector, Not Seasonally Adjusted (2009 dollars)

	Historical Data														Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2014	2015	2016	
TOTAL NONFARM.....	41702	41745	41675	42985	43135	43199	43207	43393	43164	43734	42454	43252	43178	41870	43132	43186	
% Chg Same Qtr Last Yr.....	0.62	0.43	1.71	1.48	3.44	3.48	3.68	0.95	0.07	1.24	-1.74	-0.33	0.03	0.87	3.01	0.13	
NATURAL RESOURCES, MINING																	
AND CONSTRUCTION.....	47045	46307	46442	49190	49394	49599	50224	52097	49172	49574	50389	50867	49639	47094	49602	50308	
% Chg Same Qtr Last Yr.....	4.26	3.79	2.17	1.25	4.99	7.11	8.14	5.91	-0.45	-0.05	0.33	-2.36	0.95	3.11	5.33	1.42	
MANUFACTURING.....	51243	51107	52039	51546	52288	52029	53422	51984	52432	53510	52307	52108	52136	51649	52321	52558	
% Chg Same Qtr Last Yr.....	1.37	0.60	2.91	-1.27	2.04	1.80	2.66	0.85	0.28	2.85	-2.09	0.24	-0.56	1.44	1.30	0.45	
DURABLE GOODS.....	50347	50245	51538	50047	51384	51127	52804	51523	51526	52989	51245	51756	51555	50601	51341	51821	
% Chg Same Qtr Last Yr.....	2.45	1.85	4.61	-0.45	2.06	1.76	2.46	2.95	0.28	3.64	-2.95	0.45	0.06	2.20	1.46	0.94	
NONDURABLE GOODS.....	52777	52580	52900	54133	53845	53585	54491	52789	54028	54427	54182	52726	53156	53442	54013	53857	
% Chg Same Qtr Last Yr.....	-0.22	-1.26	0.26	-2.48	2.02	1.91	3.01	-2.48	0.34	1.57	-0.57	-0.12	-1.61	0.36	1.07	-0.29	
TRADE, TRANSPORTATION, UTILITIES.....	38509	38591	38932	39670	39718	39914	40278	40184	40581	41080	39020	40074	40343	38827	39895	40216	
% Chg Same Qtr Last Yr.....	-0.73	0.29	4.04	1.00	3.14	3.43	3.46	1.30	2.17	2.92	-3.12	-0.27	-0.59	1.29	2.75	0.81	
WHOLESALE TRADE.....	59432	60339	61771	61777	62785	61677	62878	62681	63470	66840	61336	63786	64110	60545	62279	63582	
% Chg Same Qtr Last Yr.....	1.51	3.39	5.95	1.88	5.64	2.22	1.79	1.46	1.09	8.37	-2.45	1.76	1.01	3.90	2.86	2.09	
RETAIL TRADE.....	26129	26075	26727	26764	27010	27741	27259	27413	27757	27249	26666	27121	27285	26422	27193	27271	
% Chg Same Qtr Last Yr.....	-0.89	-0.69	5.69	0.03	3.37	6.39	1.99	2.43	2.76	-1.77	-2.17	-1.07	-1.70	1.07	2.92	0.29	
TRANSPORTATION & UTILITIES.....	48227	47924	47163	49243	48461	48398	50400	49578	50065	50259	48144	49303	49736	48028	49125	49511	
% Chg Same Qtr Last Yr.....	-1.77	-0.89	0.47	0.91	0.49	0.99	6.86	0.68	3.31	3.85	-4.48	-0.56	-0.66	-0.33	2.29	0.79	
INFORMATION.....	55855	55856	55916	57316	56158	55476	56212	57330	57267	57844	57304	61659	60205	56033	56291	57436	
% Chg Same Qtr Last Yr.....	2.76	2.66	3.26	1.43	0.54	-0.68	0.53	0.02	1.98	4.27	1.94	7.55	5.13	3.56	0.46	2.04	
FINANCIAL ACTIVITIES.....	61300	61033	62139	62853	62806	62304	63694	63062	63160	64339	62898	62115	62314	61964	62914	63365	
% Chg Same Qtr Last Yr.....	0.28	0.51	1.25	-0.84	2.46	2.08	2.50	0.33	0.56	3.27	-1.25	-1.50	-1.34	1.10	1.53	0.72	
PROFESSIONAL & BUSINESS SERVICES.....	47330	46857	46823	50541	51002	49670	47925	51002	49530	49585	47320	49783	49620	47212	49785	49359	
% Chg Same Qtr Last Yr.....	-1.91	-3.03	-0.76	5.65	7.76	6.00	2.35	0.91	-2.89	-0.17	-1.26	-2.39	0.18	-2.26	5.45	-0.85	
EDUCATION & HEALTH SERVICES.....	42526	42494	41936	43654	43911	44544	44499	43405	43814	44306	43245	43776	43911	42376	44152	43693	
% Chg Same Qtr Last Yr.....	0.14	-0.43	0.63	2.60	3.26	4.82	6.11	-0.57	-0.22	-0.53	-2.82	0.86	0.22	0.20	4.19	-1.04	
LEISURE & HOSPITALITY.....	19837	19979	20963	21549	21157	20999	22686	22309	21036	21256	21711	22843	21898	20433	21598	21578	
% Chg Same Qtr Last Yr.....	2.66	2.71	4.75	2.85	6.65	5.11	8.22	3.53	-0.57	1.22	-4.30	2.39	4.10	3.02	5.70	-0.09	
OTHER SERVICES.....	38021	38279	39173	39107	39085	39339	40207	39677	38684	39380	39219	39273	38670	38602	39435	39240	
% Chg Same Qtr Last Yr.....	4.20	2.67	3.82	0.44	2.80	2.77	2.64	1.46	-1.03	0.10	-2.46	-1.02	-0.04	3.81	2.16	-0.49	
GOVERNMENT.....	40097	40944	38042	39333	40173	41281	38838	39388	40523	41322	39242	39133	40185	39577	39906	40119	
% Chg Same Qtr Last Yr.....	1.71	2.08	-0.56	0.27	0.19	0.82	2.09	0.14	0.87	0.10	1.04	-0.65	-0.83	0.82	0.83	0.53	
FEDERAL, CIVILIAN.....	72645	72038	71711	72047	71128	70665	70249	71195	70435	70157	69646	70911	71413	72016	71022	70358	
% Chg Same Qtr Last Yr.....	9.11	9.25	4.53	0.53	-2.09	-1.91	-2.04	-1.18	-0.97	-0.72	-0.86	-0.40	1.39	7.79	-1.38	-0.93	
STATE & LOCAL.....	35881	36803	33862	35129	36070	37304	34862	35326	36573	37429	35421	35155	36188	35400	35841	36187	
% Chg Same Qtr Last Yr.....	0.20	0.64	-1.50	0.21	0.53	1.36	2.95	0.56	1.40	0.33	1.60	-0.48	-1.05	-0.58	1.25	0.97	

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Table 12: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2009 dollars)

	Historical Data												Annual			
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2014	2015	2016
TOTAL NONFARM.....	41732	41631	42197	42591	43163	43078	43756	42988	43174	43610	42893	42843	43213	41883	43147	43166
% Chg Prev Qtr SAAR.....	-2.27	-0.97	5.56	3.78	5.48	-0.79	6.45	-6.84	1.73	4.10	-6.41	-0.46	3.50	0.90	3.02	0.04
% Chg Same Qtr Last Yr.....	0.60	0.42	1.76	1.48	3.43	3.48	3.69	0.93	0.02	1.23	-1.97	-0.34	0.09	0.90	3.02	0.04
NATURAL RESOURCES, MINING																
AND CONSTRUCTION.....	47286	47226	47017	47392	49663	50382	50900	50230	49450	50293	50902	49127	49718	47060	49584	50218
% Chg Prev Qtr SAAR.....	5.00	-0.51	-1.76	3.23	20.59	5.92	4.17	-5.16	-6.07	7.00	4.93	-13.23	4.90	3.07	5.36	1.28
% Chg Same Qtr Last Yr.....	4.28	3.51	2.18	1.45	5.03	6.68	8.26	5.99	-0.43	-0.18	0.00	-2.20	0.54	3.07	5.36	1.28
MANUFACTURING.....	51284	51150	52110	51400	52329	52064	53480	51858	52475	53536	52359	51987	52186	51644	52318	52557
% Chg Prev Qtr SAAR.....	-5.63	-1.04	7.72	-5.34	7.43	-2.01	11.33	-11.59	4.85	8.33	-8.50	-2.82	1.54	1.44	1.30	0.46
% Chg Same Qtr Last Yr.....	1.37	0.55	2.89	-1.22	2.04	1.79	2.63	0.89	0.28	2.83	-2.10	0.25	-0.55	1.44	1.30	0.46
DURABLE GOODS.....	50391	50261	51592	49942	51431	51130	52847	51434	51578	52981	51283	51669	51615	50598	51338	51819
% Chg Prev Qtr SAAR.....	1.95	-1.03	11.02	-12.19	12.47	-2.32	14.13	-10.27	1.13	11.33	-12.21	3.04	-0.42	2.20	1.46	0.94
% Chg Same Qtr Last Yr.....	2.46	1.79	4.61	-0.41	2.07	1.73	2.43	2.99	0.29	3.62	-2.96	0.46	0.07	2.20	1.46	0.94
NONDURABLE GOODS.....	52814	52672	53001	53910	53873	53677	54575	52597	54054	54514	54260	52543	53186	53433	54009	53856
% Chg Prev Qtr SAAR.....	-16.47	-1.06	2.52	7.03	-0.27	-1.45	6.86	-13.73	11.55	3.45	-1.85	-12.07	4.99	0.36	1.08	-0.28
% Chg Same Qtr Last Yr.....	-0.23	-1.28	0.23	-2.42	2.01	1.91	2.97	-2.43	0.34	1.56	-0.58	-0.10	-1.61	0.36	1.08	-0.28
TRADE, TRANSPORTATION, UTILITIES.....	38352	38501	39661	39227	39608	39815	41039	39728	40472	40950	39526	39664	40272	38837	39922	40169
% Chg Prev Qtr SAAR.....	-4.87	1.57	12.60	-4.30	3.94	2.11	12.88	-12.18	7.70	4.81	-13.20	1.41	6.27	1.35	2.80	0.62
% Chg Same Qtr Last Yr.....	-0.75	0.30	4.05	1.02	3.28	3.41	3.48	1.28	2.18	2.85	-3.69	-0.16	-0.49	1.35	2.80	0.62
WHOLESALE TRADE.....	59514	60473	61977	61417	62803	61848	63122	62297	63453	66970	61522	63452	64180	60558	62297	63560
% Chg Prev Qtr SAAR.....	-4.91	6.60	10.33	-3.57	9.34	-5.94	8.50	-5.13	7.63	24.09	-28.78	13.15	4.67	3.91	2.87	2.03
% Chg Same Qtr Last Yr.....	1.45	3.39	5.95	1.91	5.53	2.28	1.85	1.43	1.04	8.28	-2.53	1.86	1.15	3.91	2.87	2.03
RETAIL TRADE.....	26017	25977	27354	26381	26952	27619	27898	27017	27710	27124	27057	26786	27285	26430	27212	27227
% Chg Prev Qtr SAAR.....	-5.29	-0.61	22.93	-13.48	8.94	10.28	4.09	-12.04	10.66	-8.18	-0.99	-3.94	7.66	1.17	2.96	0.05
% Chg Same Qtr Last Yr.....	-0.88	-0.67	5.62	0.03	3.59	6.32	1.99	2.41	2.81	-1.79	-3.01	-0.85	-1.53	1.17	2.96	0.05
TRANSPORTATION & UTILITIES.....	47835	47785	48144	48813	48148	48275	51448	49139	49738	50056	48947	48831	49365	48031	49171	49470
% Chg Prev Qtr SAAR.....	-4.28	-0.41	3.04	5.67	-5.33	1.06	29.00	-16.78	4.97	2.58	-8.57	-0.94	4.44	-0.26	2.37	0.61
% Chg Same Qtr Last Yr.....	-1.82	-0.91	0.60	0.93	0.65	1.03	6.86	0.67	3.30	3.69	-4.86	-0.63	-0.75	-0.26	2.37	0.61
INFORMATION.....	55940	55728	56172	57097	56285	55476	56462	57119	57309	58014	57388	61614	60425	56033	56330	57457
% Chg Prev Qtr SAAR.....	-2.48	-1.50	3.23	6.75	-5.57	-5.63	7.30	4.73	1.34	5.01	-4.25	32.87	-7.50	3.66	0.53	2.00
% Chg Same Qtr Last Yr.....	2.84	2.73	3.34	1.43	0.62	-0.45	0.52	0.04	1.82	4.58	1.64	7.87	5.44	3.66	0.53	2.00
FINANCIAL ACTIVITIES.....	61229	61201	62352	62524	62863	62458	63949	62713	63257	64521	63196	61860	62274	61953	62949	63422
% Chg Prev Qtr SAAR.....	-10.94	-0.18	7.74	1.11	2.19	-2.55	9.90	-7.51	3.51	8.23	-7.96	-8.19	2.70	1.11	1.61	0.75
% Chg Same Qtr Last Yr.....	0.24	0.50	1.24	-0.80	2.67	2.05	2.56	0.30	0.63	3.30	-1.18	-1.36	-1.55	1.11	1.61	0.75

(CONTINUED ON NEXT PAGE)

Table 12: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2009 dollars)

	Historical Data														January 2018		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2
PROFESSIONAL & BUSINESS SERVICES.....	47292	46700	47949	49741	50889	49499	49101	50167	49268	49378	48332	49055	49424	47265	49807	49286	
% Chg Prev Qtr SAAR.....	1.47	-4.91	11.13	15.81	9.56	-10.49	-3.18	8.97	-6.98	0.90	-8.21	6.11	3.04	-2.19	5.38	-1.05	
% Chg Same Qtr Last Yr.....	-1.96	-3.00	-0.67	5.56	7.61	5.99	2.40	0.86	-3.19	-0.24	-1.57	-2.22	0.32	-2.19	5.38	-1.05	
EDUCATION & HEALTH SERVICES.....	42428	42305	42302	43633	43830	44337	44899	43381	43690	44039	43557	43800	43833	42391	44175	43667	
% Chg Prev Qtr SAAR.....	-0.97	-1.15	-0.04	13.20	1.82	4.71	5.17	-12.86	2.88	3.24	-4.31	2.25	0.30	0.23	4.21	-1.15	
% Chg Same Qtr Last Yr.....	0.11	-0.45	0.68	2.59	3.30	4.80	6.14	-0.58	-0.32	-0.67	-2.99	0.97	0.33	0.23	4.21	-1.15	
LEISURE & HOSPITALITY.....	20333	20481	20781	20698	21686	21477	22500	21444	21563	21755	21579	21815	22395	20428	21590	21585	
% Chg Prev Qtr SAAR.....	4.39	2.96	5.99	-1.59	20.50	-3.81	20.47	-17.50	2.24	3.61	-3.18	4.45	11.06	3.06	5.69	-0.03	
% Chg Same Qtr Last Yr.....	2.64	2.62	4.71	2.90	6.66	4.86	8.27	3.60	-0.57	1.29	-4.09	1.73	3.86	3.06	5.69	-0.03	
OTHER SERVICES.....	38380	38448	39001	38716	39448	39521	40036	39280	39023	39522	38959	38826	39155	38593	39430	39196	
% Chg Prev Qtr SAAR.....	-1.69	0.70	5.89	-2.90	7.78	0.74	5.31	-7.34	-2.59	5.21	-5.58	-1.36	3.44	3.80	2.17	-0.59	
% Chg Same Qtr Last Yr.....	4.26	2.64	3.86	0.44	2.78	2.79	2.65	1.46	-1.08	0.00	-2.69	-1.16	0.34	3.80	2.17	-0.59	
GOVERNMENT.....	39772	39587	39146	39867	39734	39986	39970	39923	40098	40100	40275	39640	39866	39567	39890	40099	
% Chg Prev Qtr SAAR.....	0.11	-1.84	-4.38	7.57	-1.33	2.56	-0.16	-0.47	1.76	0.03	1.75	-6.15	2.30	0.83	0.82	0.52	
% Chg Same Qtr Last Yr.....	1.62	2.09	-0.34	0.27	-0.09	1.01	2.10	0.14	0.91	0.28	0.76	-0.71	-0.58	0.83	0.82	0.52	
FEDERAL, CIVILIAN.....	72897	71691	72461	72145	70554	70569	70777	71389	70483	70063	69178	70286	72811	72216	71011	70278	
% Chg Prev Qtr SAAR.....	6.16	-6.45	4.37	-1.73	-8.53	0.09	1.18	3.51	-4.98	-2.36	-4.96	6.56	15.16	8.01	-1.67	-1.03	
% Chg Same Qtr Last Yr.....	8.98	9.68	5.41	0.46	-3.21	-1.56	-2.32	-1.05	-0.10	-0.72	-2.26	-1.54	3.30	8.01	-1.67	-1.03	
STATE & LOCAL.....	35537	35450	34924	35662	35663	35988	35976	35856	36136	36184	36505	35709	35777	35374	35822	36170	
% Chg Prev Qtr SAAR.....	-0.54	-0.98	-5.80	8.72	0.02	3.69	-0.13	-1.33	3.17	0.53	3.59	-8.44	0.77	-0.59	1.27	0.97	
% Chg Same Qtr Last Yr.....	0.12	0.61	-1.38	0.22	0.36	1.52	3.01	0.54	1.33	0.55	1.47	-0.41	-0.99	-0.59	1.27	0.97	

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Table 13: Tennessee Average Annual Wage and Salary Rate by Sector, Not Seasonally Adjusted (current dollars)

	Historical Data														January 2018		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4	2018:1	2018:2
TOTAL NONFARM.....	45512	45692	45586	46831	47194	47416	47444	47725	47719	48560	47371	48527	48477	45703	47221	47844	
% Chg Same Qtr Last Yr.....	2.41	2.14	2.93	1.76	3.70	3.77	4.08	1.91	1.11	2.41	-0.15	1.68	1.59	2.39	3.32	1.32	
NATURAL RESOURCES, MINING AND CONSTRUCTION.....	51343	50686	50800	53591	54042	54441	55150	57298	54362	55044	56225	57071	55732	51404	54306	55732	
% Chg Same Qtr Last Yr.....	6.11	5.56	3.40	1.52	5.26	7.41	8.56	6.92	0.59	1.11	1.95	-0.40	2.52	4.67	5.65	2.63	
MANUFACTURING.....	55925	55940	56922	56158	57208	57107	58661	57175	57966	59414	58366	58464	58535	56378	57284	58230	
% Chg Same Qtr Last Yr.....	3.17	2.31	4.14	-1.00	2.30	2.09	3.05	1.81	1.32	4.04	-0.50	2.26	0.98	2.98	1.61	1.65	
DURABLE GOODS.....	54947	54996	56374	54525	56219	56117	57983	56668	56965	58836	57181	58069	57882	55236	56211	57412	
% Chg Same Qtr Last Yr.....	4.28	3.58	5.87	-0.18	2.32	2.04	2.85	3.93	1.33	4.84	-1.38	2.47	1.61	3.75	1.77	2.14	
NONDURABLE GOODS.....	57599	57552	57864	58976	58912	58815	59835	58061	59731	60433	60458	59158	59680	58332	59134	59670	
% Chg Same Qtr Last Yr.....	1.56	0.42	1.47	-2.22	2.28	2.19	3.40	-1.55	1.39	2.75	1.04	1.89	-0.09	1.88	1.38	0.91	
TRADE, TRANSPORTATION, UTILITIES.....	42027	42240	42585	43219	43456	43810	44228	44196	44855	45613	43540	44962	45294	42382	43678	44554	
% Chg Same Qtr Last Yr.....	1.04	2.00	5.29	1.27	3.40	3.72	3.86	2.26	3.24	4.12	-1.56	1.73	0.96	2.82	3.06	2.00	
WHOLESALE TRADE.....	64862	66044	67568	67304	68693	67697	69044	68940	70170	74216	68440	71566	71978	66089	68185	70441	
% Chg Same Qtr Last Yr.....	3.31	5.14	7.22	2.16	5.91	2.50	2.18	2.43	2.15	9.63	-0.87	3.81	2.58	5.47	3.17	3.31	
RETAIL TRADE.....	28516	28540	29235	29158	29552	30449	29932	30150	30687	30256	29754	30429	30634	28841	29773	30212	
% Chg Same Qtr Last Yr.....	0.87	1.00	6.95	0.30	3.63	6.69	2.39	3.40	3.84	-0.63	-0.59	0.93	-0.17	2.61	3.23	1.47	
TRANSPORTATION & UTILITIES.....	52633	52456	51589	53648	53021	53122	55343	54528	55350	55804	53720	55317	55840	52424	53784	54851	
% Chg Same Qtr Last Yr.....	-0.02	0.79	1.67	1.19	0.74	1.27	7.28	1.64	4.39	5.05	-2.93	1.45	0.89	1.18	2.59	1.98	
INFORMATION.....	60958	61137	61163	62444	61442	60891	61725	63055	63312	64226	63942	69180	67594	61164	61626	63634	
% Chg Same Qtr Last Yr.....	4.59	4.40	4.50	1.71	0.79	-0.40	0.92	0.98	3.04	5.48	3.59	9.71	6.76	5.13	0.75	3.26	
FINANCIAL ACTIVITIES.....	66901	66804	67970	68477	68716	68386	69940	69359	69827	71438	70184	69692	69962	67636	68880	70202	
% Chg Same Qtr Last Yr.....	2.06	2.22	2.46	-0.57	2.71	2.37	2.90	1.29	1.62	4.46	0.35	0.48	0.19	2.63	1.84	1.92	
PROFESSIONAL & BUSINESS SERVICES.....	51654	51288	51216	55063	55802	54519	52625	56094	54757	55056	52801	55856	55709	51534	54502	54677	
% Chg Same Qtr Last Yr.....	-0.17	-1.38	0.43	5.94	8.03	6.30	2.75	1.87	-1.87	0.99	0.34	-0.42	1.74	-0.78	5.76	0.32	
EDUCATION & HEALTH SERVICES.....	46411	46512	45871	47560	48043	48892	48863	47739	48439	49195	48254	49116	49300	46256	48340	48407	
% Chg Same Qtr Last Yr.....	1.92	1.26	1.84	2.87	3.52	5.12	6.52	0.38	0.82	0.62	-1.25	2.88	1.78	1.72	4.50	0.14	
LEISURE & HOSPITALITY.....	21650	21868	22930	23477	23148	23049	24911	24536	23256	23601	24226	25629	24586	22303	23646	23905	
% Chg Same Qtr Last Yr.....	4.48	4.46	6.00	3.13	6.92	5.40	8.64	4.51	0.47	2.40	-2.75	4.45	5.72	4.57	6.02	1.09	
OTHER SERVICES.....	41495	41899	42849	42605	42763	43179	44151	43638	42767	43725	43762	44063	43416	42137	43175	43473	
% Chg Same Qtr Last Yr.....	6.05	4.42	5.06	0.71	3.06	3.06	3.04	2.42	0.01	1.26	-0.88	0.97	1.52	5.37	2.46	0.69	
GOVERNMENT.....	43760	44816	41612	42852	43953	45310	42647	43321	44800	45881	43788	43907	45117	43202	43691	44448	
% Chg Same Qtr Last Yr.....	3.52	3.81	0.63	0.54	0.44	1.10	2.49	1.09	1.93	1.26	2.68	1.35	0.71	2.35	1.13	1.73	
FEDERAL, CIVILIAN.....	79282	78850	78440	78493	77821	77563	77138	78303	77870	77898	77714	79561	80178	78611	77754	77946	
% Chg Same Qtr Last Yr.....	11.05	11.11	5.78	0.80	-1.84	-1.63	-1.66	-0.24	0.06	0.43	0.75	1.61	2.96	9.41	-1.09	0.25	
STATE & LOCAL.....	39159	40284	37040	38272	39464	40945	38281	38854	40434	41559	39524	39444	40630	38642	39241	40092	
% Chg Same Qtr Last Yr.....	1.98	2.35	-0.32	0.48	0.78	1.64	3.35	1.52	2.46	1.50	3.25	1.52	0.48	0.93	1.55	2.17	

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Table 14: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (current dollars)

	Historical Data														Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2014	2015	2016	
TOTAL NONFARM.....	45545	45567	46157	46402	47225	47283	48047	47281	47730	48421	47861	48069	48517	45718	47239	47823	
% Chg Prev Qtr SAAR.....	-0.52	0.20	5.28	2.13	7.29	0.49	6.63	-6.23	3.86	5.92	-4.55	1.75	3.78	2.43	3.33	1.24	
% Chg Same Qtr Last Yr.....	2.39	2.13	2.98	1.75	3.69	3.76	4.10	1.89	1.07	2.41	-0.39	1.67	1.65	2.43	3.33	1.24	
NATURAL RESOURCES, MINING & CONSTRUCTION....	51606	51692	51429	51632	54336	55300	55892	55245	54669	55842	56798	55120	55820	51370	54290	55638	
% Chg Prev Qtr SAAR.....	6.87	0.67	-2.02	1.59	22.65	7.29	4.35	-4.55	-4.11	8.86	7.02	-11.30	5.18	4.63	5.68	2.48	
% Chg Same Qtr Last Yr.....	6.13	5.27	3.40	1.73	5.29	6.98	8.68	7.00	0.61	0.98	1.62	-0.23	2.11	4.63	5.68	2.48	
MANUFACTURING.....	55969	55987	57000	55999	57253	57146	58724	57036	58014	59443	58424	58328	58591	56373	57280	58229	
% Chg Prev Qtr SAAR.....	-3.95	0.13	7.44	-6.84	9.26	-0.75	11.52	-11.01	7.04	10.22	-6.68	-0.66	1.81	2.98	1.61	1.66	
% Chg Same Qtr Last Yr.....	3.17	2.26	4.12	-0.95	2.29	2.07	3.03	1.85	1.33	4.02	-0.51	2.27	0.99	2.98	1.61	1.66	
DURABLE GOODS.....	54994	55013	56433	54411	56271	56121	58030	56570	57022	58827	57224	57972	57949	55232	56208	57411	
% Chg Prev Qtr SAAR.....	3.78	0.14	10.73	-13.58	14.39	-1.06	14.32	-9.69	3.24	13.27	-10.47	5.34	-0.16	3.75	1.77	2.14	
% Chg Same Qtr Last Yr.....	4.28	3.52	5.86	-0.14	2.32	2.01	2.83	3.97	1.34	4.82	-1.39	2.48	1.63	3.75	1.77	2.14	
NONDURABLE GOODS.....	57639	57653	57975	58733	58942	58917	59927	57849	59760	60529	60545	58952	59713	58323	59130	59671	
% Chg Prev Qtr SAAR.....	-14.98	0.10	2.25	5.33	1.43	-0.17	7.04	-13.17	13.88	5.25	0.10	-10.12	5.27	1.87	1.38	0.91	
% Chg Same Qtr Last Yr.....	1.55	0.40	1.43	-2.15	2.26	2.19	3.37	-1.51	1.39	2.74	1.03	1.91	-0.08	1.87	1.38	0.91	
TRADE, TRANSPORTATION, UTILITIES.....	41855	42142	43382	42737	43335	43701	45064	43695	44743	45468	44104	44502	45214	42393	43709	44503	
% Chg Prev Qtr SAAR.....	-3.17	2.77	12.30	-5.82	5.72	3.42	13.07	-11.61	9.95	6.64	-11.47	3.66	6.55	2.89	3.10	1.81	
% Chg Same Qtr Last Yr.....	1.01	2.00	5.29	1.29	3.53	3.70	3.88	2.24	3.25	4.04	-2.13	1.85	1.05	2.89	3.10	1.81	
WHOLESALE TRADE.....	64951	66191	67793	66912	68712	67885	69313	68517	70150	74359	68648	71192	72057	66104	68206	70419	
% Chg Prev Qtr SAAR.....	-3.21	7.85	10.04	-5.10	11.21	-4.73	8.68	-4.51	9.88	26.25	-27.36	15.67	4.95	5.48	3.18	3.25	
% Chg Same Qtr Last Yr.....	3.26	5.15	7.22	2.18	5.79	2.56	2.24	2.40	2.09	9.54	-0.96	3.90	2.72	5.48	3.18	3.25	
RETAIL TRADE.....	28394	28434	29920	28741	29488	30315	30633	29715	30634	30117	30191	30054	30634	28851	29795	30164	
% Chg Prev Qtr SAAR.....	-3.59	0.56	22.61	-14.86	10.81	11.70	4.27	-11.47	12.97	-6.58	0.98	-1.81	7.95	2.70	3.27	1.24	
% Chg Same Qtr Last Yr.....	0.88	1.02	6.88	0.30	3.85	6.62	2.38	3.39	3.89	-0.65	-1.44	1.14	0.00	2.70	3.27	1.24	
TRANSPORTATION & UTILITIES.....	52205	52304	52662	53180	52679	52988	56494	54046	54988	55579	54616	54787	55423	52429	53835	54807	
% Chg Prev Qtr SAAR.....	-2.57	0.76	2.77	3.99	-3.72	2.36	29.21	-16.24	7.16	4.37	-6.75	1.26	4.72	1.24	2.68	1.81	
% Chg Same Qtr Last Yr.....	-0.08	0.78	1.81	1.21	0.91	1.31	7.28	1.63	4.38	4.89	-3.32	1.37	0.79	1.24	2.68	1.81	
INFORMATION.....	61051	60998	61443	62206	61581	60891	61999	62822	63358	64415	64035	69130	67841	61164	61669	63658	
% Chg Prev Qtr SAAR.....	-0.74	-0.34	2.95	5.06	-3.96	-4.41	7.48	5.41	3.46	6.84	-2.34	35.83	-7.25	5.23	0.83	3.22	
% Chg Same Qtr Last Yr.....	4.67	4.48	4.58	1.70	0.87	-0.18	0.90	0.99	2.89	5.79	3.28	10.04	7.08	5.23	0.83	3.22	
FINANCIAL ACTIVITIES.....	66823	66989	68204	68118	68779	68555	70220	68975	69934	71640	70516	69406	69917	67625	68918	70266	
% Chg Prev Qtr SAAR.....	-9.35	0.99	7.45	-0.50	3.93	-1.30	10.08	-6.91	5.68	10.12	-6.13	-6.15	2.98	2.64	1.91	1.96	
% Chg Same Qtr Last Yr.....	2.02	2.21	2.45	-0.53	2.93	2.34	2.96	1.26	1.68	4.50	0.42	0.62	-0.02	2.64	1.91	1.96	

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Table 14: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (current dollars)

	Historical Data														Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2014	2015	2016	
PROFESSIONAL & BUSINESS SERVICES.....	51612	51116	52449	54191	55678	54330	53916	55176	54468	54827	53931	55039	55490	51594	54529	54600	
% Chg Prev Qtr SAAR.....	3.28	-3.79	10.84	13.97	11.43	-9.33	-3.01	9.68	-5.03	2.66	-6.38	8.47	3.32	-0.71	5.69	0.13	
% Chg Same Qtr Last Yr.....	-0.22	-1.35	0.52	5.85	7.88	6.29	2.80	1.82	-2.17	0.91	0.03	-0.25	1.88	-0.71	5.69	0.13	
EDUCATION & HEALTH SERVICES.....	46304	46306	46271	47537	47954	48664	49303	47712	48301	48899	48603	49143	49212	46273	48365	48379	
% Chg Prev Qtr SAAR.....	0.80	0.02	-0.30	11.40	3.56	6.06	5.35	-12.29	5.03	5.04	-2.40	4.52	0.57	1.74	4.52	0.03	
% Chg Same Qtr Last Yr.....	1.89	1.24	1.89	2.87	3.56	5.09	6.55	0.37	0.72	0.48	-1.42	3.00	1.89	1.74	4.52	0.03	
LEISURE & HOSPITALITY.....	22190	22418	22731	22550	23727	23573	24707	23585	23839	24155	24079	24476	25144	22299	23639	23914	
% Chg Prev Qtr SAAR.....	6.26	4.17	5.71	-3.15	22.57	-2.57	20.67	-16.97	4.38	5.42	-1.25	6.77	11.36	4.62	6.01	1.16	
% Chg Same Qtr Last Yr.....	4.46	4.37	5.96	3.18	6.93	5.15	8.69	4.59	0.47	2.47	-2.54	3.78	5.48	4.62	6.01	1.16	
OTHER SERVICES.....	41887	42083	42661	42180	43160	43379	43962	43202	43142	43883	43471	43562	43960	42128	43170	43425	
% Chg Prev Qtr SAAR.....	0.06	1.89	5.61	-4.44	9.62	2.04	5.49	-6.74	-0.55	7.05	-3.70	0.83	3.71	5.37	2.47	0.59	
% Chg Same Qtr Last Yr.....	6.12	4.39	5.10	0.71	3.04	3.08	3.05	2.42	-0.04	1.16	-1.12	0.83	1.90	5.37	2.47	0.59	
GOVERNMENT.....	43405	43331	42820	43434	43473	43890	43890	43909	44330	44525	44940	44476	44759	43189	43672	44426	
% Chg Prev Qtr SAAR.....	1.90	-0.69	-4.63	5.86	0.36	3.88	0.00	0.18	3.89	1.77	3.78	-4.07	2.57	2.36	1.12	1.73	
% Chg Same Qtr Last Yr.....	3.42	3.82	0.85	0.54	0.16	1.29	2.50	1.09	1.97	1.45	2.39	1.29	0.97	2.36	1.12	1.73	
FEDERAL, CIVILIAN.....	79557	78470	79261	78600	77193	77458	77718	78517	77923	77793	77191	78860	81747	78830	77742	77856	
% Chg Prev Qtr SAAR.....	8.05	-5.35	4.09	-3.29	-6.97	1.38	1.35	4.18	-2.99	-0.66	-3.06	8.93	15.47	9.64	-1.38	0.15	
% Chg Same Qtr Last Yr.....	10.91	11.54	6.67	0.73	-2.97	-1.29	-1.95	-0.11	0.94	0.43	-0.68	0.44	4.91	9.64	-1.38	0.15	
STATE & LOCAL.....	38783	38802	38202	38853	39019	39501	39504	39436	39951	40177	40733	40065	40168	38613	39219	40074	
% Chg Prev Qtr SAAR.....	1.24	0.19	-6.04	6.99	1.73	5.03	0.03	-0.69	5.33	2.28	5.66	-6.41	1.04	0.92	1.57	2.18	
% Chg Same Qtr Last Yr.....	1.90	2.32	-0.19	0.49	0.61	1.80	3.41	1.50	2.39	1.71	3.11	1.59	0.54	0.92	1.57	2.18	

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Table 15: Tennessee Civilian Labor Force and Unemployment Rate, Not Seasonally Adjusted

	Historical Data																Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016		
CIVILIAN LABOR FORCE (THOUS).....	3043	3053	3045	3042	3084	3077	3080	3089	3132	3161	3159	3169	3171	3209	3040	3071	3135		
% Chg Same Qtr Last Yr.....	-1.83	-0.80	0.37	0.79	1.35	0.77	1.15	1.52	1.54	2.75	2.54	2.61	1.25	1.50	-1.06	1.02	2.09		
EMPLOYED PERSONS (THOUS).....	2848	2842	2864	2857	2906	2903	2930	2946	2989	2998	3005	3008	3057	3095	2841	2899	2984		
% Chg Same Qtr Last Yr.....	-0.15	0.23	1.46	1.57	2.06	2.17	2.32	3.11	2.85	3.24	2.55	2.12	2.28	3.27	0.30	2.03	2.94		
UNEMPLOYED PERSONS (THOUS).....	195	212	182	186	178	173	150	143	142	164	154	161	113	113	199	172	151		
% Chg Same Qtr Last Yr.....	-21.17	-12.78	-14.24	-9.82	-9.01	-18.07	-17.22	-22.93	-19.90	-5.44	2.40	12.70	-20.48	-30.79	-17.12	-13.51	-12.19		
PARTICIPATION RATE (PERCENT).....	59.6	59.7	59.3	59.2	59.8	59.5	59.4	59.4	60.1	60.5	60.3	60.3	60.2	60.8	59.5	59.5	60.1		
% Chg Same Qtr Last Yr.....	-2.72	-1.71	-0.58	-0.17	0.38	-0.21	0.15	0.49	0.45	1.63	1.43	1.50	0.16	0.42	-1.96	0.04	1.00		
UNEMPLOYMENT RATE (PERCENT).....	6.4	6.9	6.0	6.1	5.8	5.6	4.9	4.6	4.5	5.2	4.9	5.1	3.6	3.5	6.5	5.6	4.8		

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Table 16: Tennessee Civilian Labor Force and Unemployment Rate, Seasonally Adjusted

	Historical Data																Annual			
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016			
CIVILIAN LABOR FORCE (THOUS).....	3022	3029	3041	3057	3066	3070	3091	3112	3128	3151	3166	3194	3180	3161	3028	3071	3139			
% Chg Prev Qtr SAAR.....	0.15	0.89	1.67	2.06	1.18	0.61	2.75	2.76	2.00	3.04	1.84	3.66	-1.76	-2.42	-1.06	1.42	2.23			
% Chg Same Qtr Last Yr.....	-1.63	-0.86	0.32	1.19	1.45	1.38	1.65	1.82	2.03	2.64	2.41	2.63	1.67	0.30	-1.06	1.42	2.23			
EMPLOYED PERSONS (THOUS).....	2824	2832	2850	2873	2891	2906	2936	2966	2983	2999	3005	3026	3049	3059	2832	2901	2988			
% Chg Prev Qtr SAAR.....	0.47	1.14	2.59	3.15	2.54	2.18	4.16	4.15	2.33	2.09	0.85	2.83	3.09	1.24	0.23	2.45	2.99			
% Chg Same Qtr Last Yr.....	-0.13	0.41	1.24	1.83	2.35	2.61	3.00	3.25	3.20	3.18	2.35	2.02	2.21	2.00	0.23	2.45	2.99			
UNEMPLOYED PERSONS (THOUS).....	198	196	191	184	175	164	155	146	145	153	161	168	131	102	196	170	151			
% Chg Prev Qtr SAAR.....	-4.39	-2.69	-10.91	-13.25	-18.26	-22.80	-19.92	-20.91	-4.45	24.23	22.70	20.24	-63.25	-62.98	-16.64	-13.54	-10.87			
% Chg Same Qtr Last Yr.....	-19.02	-16.16	-11.65	-7.91	-11.45	-16.43	-18.63	-20.49	-17.32	-6.88	3.60	15.04	-9.41	-33.07	-16.64	-13.54	-10.87			
PARTICIPATION RATE (PERCENT).....	59.2	59.2	59.3	59.4	59.5	59.4	59.6	59.9	60.0	60.3	60.4	60.8	60.4	59.9	59.2	59.5	60.2			
% Chg Prev Qtr SAAR.....	-0.71	-0.13	0.59	1.16	0.30	-0.45	1.57	1.74	0.91	1.87	0.68	2.64	-2.76	-3.51	-1.97	0.44	1.14			
% Chg Same Qtr Last Yr.....	-2.52	-1.78	-0.62	0.22	0.48	0.40	0.64	0.79	0.94	1.52	1.30	1.52	0.59	-0.77	-1.97	0.44	1.14			
UNEMPLOYMENT RATE (PERCENT).....	6.5	6.5	6.3	6.0	5.7	5.3	5.0	4.7	4.6	4.8	5.1	5.3	4.1	3.2	6.5	5.5	4.8			

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Table 17: Tennessee Taxable Sales, Not Seasonally Adjusted (millions of 2009 dollars)

	Historical Data																Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016		
TOTAL TAXABLE SALES.....	24332	24324	26585	23114	26204	26087	28455	25058	27135	26720	28979	24887	27915	28004	97671	103860	107892		
% Chg Same Qtr Last Yr.....	1.94	4.52	5.74	3.05	7.69	7.25	7.03	8.41	3.55	2.43	1.84	-0.68	2.88	4.81	3.69	6.34	3.88		
AUTO DEALERS.....	2425	2542	2373	2532	2749	2870	2631	2777	2839	2988	2787	2757	2932	2952	9678	10783	11391		
% Chg Same Qtr Last Yr.....	4.97	5.22	8.83	8.32	13.37	12.90	10.87	9.66	3.25	4.14	5.91	-0.71	3.27	-1.21	5.81	11.41	5.64		
PURCHASES FROM MANUFACTURERS....	1007	1036	1247	883	1099	1136	1353	950	1159	1160	1443	1028	1162	1167	4107	4471	4711		
% Chg Same Qtr Last Yr.....	1.72	6.85	10.75	7.99	9.19	9.65	8.54	7.61	5.42	2.12	6.63	8.25	0.22	0.63	5.55	8.87	5.38		
MISC DURABLE GOODS.....	4243	4119	4229	3527	4547	4345	4639	4101	4751	4523	4807	4224	4868	4714	16095	17057	18182		
% Chg Same Qtr Last Yr.....	1.44	4.64	4.99	0.66	7.15	5.48	9.69	16.27	4.50	4.09	3.64	3.02	2.45	4.23	2.92	5.98	6.60		
EATING AND DRINKING PLACES.....	2608	2617	2612	2550	2835	2809	2800	2706	2945	2888	2846	2706	3011	2915	10262	10994	11385		
% Chg Same Qtr Last Yr.....	2.15	5.34	6.58	5.15	8.68	7.35	7.22	6.12	3.89	2.79	1.64	-0.01	2.24	0.95	4.29	7.14	3.55		
FOOD STORES.....	2406	2445	2669	2384	2500	2538	2718	2439	2525	2588	2843	2420	2591	2763	9802	10141	10395		
% Chg Same Qtr Last Yr.....	3.42	3.28	3.12	4.48	3.91	3.82	1.83	2.28	1.01	1.96	4.60	-0.74	2.61	6.74	2.83	3.46	2.51		
LIQUOR STORES.....	193	195	247	199	211	210	268	214	226	199	237	176	204	196	820	889	877		
% Chg Same Qtr Last Yr.....	5.25	3.91	7.39	7.32	9.22	8.11	8.73	7.29	7.25	-5.17	-11.65	-17.57	-10.03	-1.60	5.40	8.38	-1.38		
HOTELS AND MOTELS.....	713	730	670	574	801	832	748	659	888	910	799	623	890	896	2646	2955	3255		
% Chg Same Qtr Last Yr.....	13.10	16.57	11.66	7.65	12.38	13.96	11.70	14.69	10.85	9.37	6.75	-5.40	0.30	-1.48	12.18	11.69	10.14		
OTHER RETAIL AND SERVICE.....	7396	7198	8617	7067	7855	7773	9278	7687	8138	7934	9226	7519	8245	8344	30179	31973	32986		
% Chg Same Qtr Last Yr.....	3.03	3.62	5.82	1.41	6.22	7.99	7.67	8.78	3.60	2.07	-0.55	-2.19	1.32	5.17	4.18	5.94	3.17		
MISC NONDURABLE GOODS.....	2046	1985	2380	1915	2135	2098	2518	2068	2224	2140	2508	1904	2260	2131	8299	8666	8941		
% Chg Same Qtr Last Yr.....	2.54	3.72	4.08	1.38	4.36	5.73	5.83	8.01	4.17	1.98	-0.39	-7.91	1.60	-0.44	2.61	4.43	3.16		
TRANSPORTATION, COMMUNICATION.....	1295	1458	1543	1483	1472	1475	1501	1458	1439	1390	1483	1528	1753	1926	5783	5932	5769		
% Chg Same Qtr Last Yr.....	-14.79	2.25	2.13	-0.30	13.65	1.20	-2.67	-1.73	-2.23	-5.80	-1.23	4.85	21.82	38.58	-2.86	2.57	-2.74		
PER CAPITA (\$).	3718	3717	4062	3505	3973	3955	4315	3767	4080	4017	4357	3709	4160	4173	14924	15748	16221		
% Chg Same Qtr Last Yr.....	1.16	3.72	4.93	2.26	6.87	6.43	6.22	7.49	2.68	1.56	0.98	-1.56	1.97	3.88	2.90	5.52	3.00		

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Table 18: Tennessee Taxable Sales, Seasonally Adjusted (millions of 2009 dollars)

	Historical Data															Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016	
TOTAL TAXABLE SALES.....	24028	24560	24979	24778	25908	26293	26686	26951	26848	26885	27174	26807	27632	28170	97543	103665	107859	
% Chg Prev Qtr SAAR.....	0.88	9.16	6.99	-3.18	19.53	6.08	6.12	4.02	-1.51	0.55	4.38	-5.30	12.90	8.01	3.62	6.28	4.04	
% Chg Same Qtr Last Yr.....	2.11	4.39	5.44	3.35	7.82	7.06	6.84	8.77	3.63	2.25	1.83	-0.53	2.92	4.78	3.62	6.28	4.04	
AUTO DEALERS.....	2377	2433	2519	2550	2700	2743	2785	2807	2786	2856	2944	2792	2876	2820	9677	10777	11393	
% Chg Prev Qtr SAAR.....	5.15	9.89	14.89	4.98	25.61	6.57	6.22	3.18	-2.84	10.30	13.00	-19.14	12.67	-7.58	5.86	11.38	5.71	
% Chg Same Qtr Last Yr.....	5.43	5.02	8.37	8.65	13.59	12.72	10.53	10.06	3.21	4.10	5.73	-0.52	3.23	-1.24	5.86	11.38	5.71	
PURCHASES FROM MANUFACTURERS.....	999	1040	1063	1066	1100	1141	1147	1145	1166	1168	1219	1237	1171	1176	4086	4454	4698	
% Chg Prev Qtr SAAR.....	6.89	17.29	9.30	0.83	13.58	15.90	2.01	-0.68	7.31	0.84	18.66	6.04	-19.57	1.45	5.35	9.02	5.47	
% Chg Same Qtr Last Yr.....	2.51	7.39	9.15	8.42	10.08	9.75	7.87	7.47	5.95	2.33	6.27	8.02	0.51	0.66	5.35	9.02	5.47	
MISC DURABLE GOODS.....	4003	4105	4082	3908	4304	4329	4467	4540	4511	4504	4624	4675	4627	4694	16075	17008	18179	
% Chg Prev Qtr SAAR.....	12.65	10.60	-2.17	-16.02	47.15	2.32	13.41	6.69	-2.57	-0.62	11.17	4.43	-4.05	5.93	2.85	5.81	6.88	
% Chg Same Qtr Last Yr.....	1.87	4.70	4.60	0.59	7.53	5.46	9.43	16.18	4.80	4.04	3.52	2.97	2.57	4.22	2.85	5.81	6.88	
EATING AND DRINKING PLACES.....	2522	2584	2628	2664	2736	2774	2814	2833	2839	2852	2858	2837	2900	2881	10257	10988	11383	
% Chg Prev Qtr SAAR.....	-0.09	10.23	6.87	5.60	11.29	5.75	5.80	2.82	0.85	1.76	0.90	-2.98	9.25	-2.66	4.29	7.13	3.60	
% Chg Same Qtr Last Yr.....	2.10	5.28	6.37	5.59	8.47	7.36	7.08	6.37	3.78	2.79	1.58	0.12	2.14	1.01	4.29	7.13	3.60	
FOOD STORES.....	2441	2454	2488	2521	2542	2542	2534	2579	2571	2588	2652	2560	2639	2759	9798	10139	10389	
% Chg Prev Qtr SAAR.....	4.35	2.05	5.66	5.53	3.26	0.11	-1.24	7.18	-1.24	2.66	10.37	-13.26	13.03	19.50	2.79	3.49	2.46	
% Chg Same Qtr Last Yr.....	3.62	3.12	3.19	4.39	4.11	3.62	1.88	2.28	1.14	1.78	4.65	-0.74	2.67	6.64	2.79	3.49	2.46	
LIQUOR STORES.....	199	208	212	215	217	225	230	232	232	213	203	191	209	210	819	887	880	
% Chg Prev Qtr SAAR.....	-2.19	17.92	8.71	6.62	3.04	14.78	10.67	2.16	1.08	-29.09	-16.78	-22.16	41.75	2.47	5.27	8.34	-0.78	
% Chg Same Qtr Last Yr.....	5.06	3.97	7.39	7.53	8.94	8.20	8.69	7.53	7.02	-5.12	-11.65	-17.46	-10.17	-1.51	5.27	8.34	-0.78	
HOTELS AND MOTELS.....	655	669	680	693	734	755	763	799	814	821	817	758	816	807	2641	2945	3251	
% Chg Prev Qtr SAAR.....	11.20	8.79	7.13	7.61	26.28	11.85	4.32	20.29	7.39	3.69	-2.04	-25.70	34.05	-4.52	11.82	11.54	10.37	
% Chg Same Qtr Last Yr.....	12.97	15.71	12.01	8.67	12.18	12.96	12.22	15.38	10.80	8.73	7.03	-5.11	0.29	-1.75	11.82	11.54	10.37	
OTHER RETAIL AND SERVICE.....	7468	7511	7703	7584	7943	8096	8265	8285	8243	8245	8203	8127	8356	8656	30127	31887	32976	
% Chg Prev Qtr SAAR.....	1.28	2.33	10.61	-6.06	20.36	7.91	8.61	0.97	-2.00	0.07	-1.99	-3.66	11.77	15.15	4.05	5.85	3.41	
% Chg Same Qtr Last Yr.....	3.16	3.54	5.45	1.87	6.36	7.79	7.29	9.25	3.77	1.84	-0.74	-1.90	1.37	4.99	4.05	5.85	3.41	
MISC NONDURABLE GOODS.....	2064	2080	2101	2080	2153	2194	2221	2257	2241	2234	2210	2084	2275	2222	8288	8648	8942	
% Chg Prev Qtr SAAR.....	4.22	3.28	4.11	-3.96	14.66	7.99	4.89	6.71	-2.86	-1.14	-4.26	-20.95	42.06	-8.98	2.52	4.35	3.40	
% Chg Same Qtr Last Yr.....	2.46	3.41	3.99	1.85	4.31	5.48	5.68	8.50	4.09	1.82	-0.47	-7.67	1.54	-0.54	2.52	4.35	3.40	
TRANSPORTATION, COMMUNICATION.....	1301	1477	1502	1498	1480	1493	1460	1474	1446	1406	1443	1546	1763	1945	5778	5931	5769	
% Chg Prev Qtr SAAR.....	-43.14	66.10	7.03	-1.23	-4.71	3.79	-8.56	3.86	-7.38	-10.79	11.00	31.97	68.81	48.37	-2.86	2.64	-2.73	
% Chg Same Qtr Last Yr.....	-14.63	2.32	1.70	-0.04	13.73	1.12	-2.78	-1.56	-2.25	-5.88	-1.21	4.89	21.87	38.40	-2.86	2.64	-2.73	
PER CAPITA (\$).	3671	3753	3817	3757	3928	3987	4046	4052	4037	4042	4086	3995	4118	4198	14904	15719	16216	
% Chg Prev Qtr SAAR.....	0.88	9.16	6.99	-6.10	19.53	6.08	6.12	0.55	-1.51	0.55	4.38	-8.61	12.90	8.01	2.83	5.46	3.17	
% Chg Same Qtr Last Yr.....	1.34	3.60	4.64	2.56	7.00	6.24	6.02	7.85	2.76	1.39	0.97	-1.41	2.01	3.85	2.83	5.46	3.17	

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Table 19: Tennessee Taxable Sales, Not Seasonally Adjusted (millions of current dollars)

	Historical Data																Annual		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2014	2015	2016		
TOTAL TAXABLE SALES.....	26555	26624	29080	25183	28670	28633	31246	27560	29999	29668	32336	27923	31341	31559	106630	113731	119563		
% Chg Same Qtr Last Yr.....	3.75	6.30	7.01	3.33	7.96	7.55	7.45	9.44	4.63	3.62	3.49	1.32	4.48	6.37	5.26	6.66	5.13		
AUTO DEALERS.....	2647	2782	2596	2759	3008	3150	2889	3054	3138	3318	3110	3094	3291	3327	10565	11806	12620		
% Chg Same Qtr Last Yr.....	6.84	7.01	10.14	8.61	13.65	13.21	11.30	10.71	4.33	5.34	7.62	1.29	4.87	0.27	7.42	11.75	6.90		
PURCHASES FROM MANUFACTURERS....	1099	1134	1364	962	1203	1246	1486	1045	1281	1288	1610	1154	1304	1315	4484	4897	5224		
% Chg Same Qtr Last Yr.....	3.53	8.66	12.07	8.28	9.46	9.96	8.96	8.63	6.53	3.30	8.35	10.42	1.77	2.13	7.15	9.20	6.67		
MISC DURABLE GOODS.....	4631	4509	4626	3843	4974	4769	5094	4510	5253	5022	5364	4740	5465	5312	17572	18679	20149		
% Chg Same Qtr Last Yr.....	3.25	6.42	6.25	0.93	7.42	5.77	10.12	17.37	5.60	5.30	5.31	5.09	4.04	5.78	4.49	6.30	7.87		
EATING AND DRINKING PLACES.....	2847	2864	2857	2778	3101	3084	3075	2976	3256	3206	3176	3036	3380	3285	11203	12038	12614		
% Chg Same Qtr Last Yr.....	3.97	7.14	7.86	5.44	8.95	7.65	7.63	7.13	4.98	3.98	3.28	2.00	3.83	2.46	5.88	7.46	4.79		
FOOD STORES.....	2626	2676	2919	2598	2736	2786	2984	2682	2792	2874	3172	2716	2910	3113	10701	11103	11520		
% Chg Same Qtr Last Yr.....	5.25	5.04	4.35	4.77	4.17	4.11	2.23	3.25	2.06	3.14	6.29	1.25	4.21	8.33	4.38	3.76	3.75		
LIQUOR STORES.....	211	213	270	217	231	231	295	235	250	221	264	198	229	221	896	974	971		
% Chg Same Qtr Last Yr.....	7.12	5.67	8.68	7.61	9.49	8.41	9.16	8.31	8.37	-4.07	-10.22	-15.91	-8.63	-0.13	6.97	8.71	-0.22		
HOTELS AND MOTELS.....	778	799	733	626	876	913	822	724	981	1010	891	699	1000	1010	2889	3237	3607		
% Chg Same Qtr Last Yr.....	15.11	18.55	13.00	7.94	12.66	14.28	12.13	15.78	12.01	10.64	8.48	-3.50	1.86	-0.01	13.90	12.03	11.46		
OTHER RETAIL AND SERVICE.....	8071	7879	9426	7699	8595	8532	10187	8455	8997	8810	10295	8436	9257	9404	32947	35013	36557		
% Chg Same Qtr Last Yr.....	4.86	5.39	7.09	1.68	6.48	8.29	8.08	9.82	4.68	3.26	1.06	-0.22	2.89	6.74	5.74	6.27	4.41		
MISC NONDURABLE GOODS.....	2233	2172	2603	2086	2336	2303	2765	2274	2459	2376	2799	2137	2537	2401	9060	9490	9908		
% Chg Same Qtr Last Yr.....	4.36	5.49	5.33	1.65	4.63	6.03	6.24	9.04	5.26	3.17	1.22	-6.06	3.18	1.04	4.15	4.75	4.41		
TRANSPORTATION, COMMUNICATION.....	1413	1596	1687	1616	1610	1619	1649	1603	1591	1543	1655	1715	1968	2170	6313	6494	6392		
% Chg Same Qtr Last Yr.....	-13.28	3.99	3.35	-0.04	13.94	1.48	-2.30	-0.79	-1.21	-4.71	0.37	6.96	23.72	40.65	-1.39	2.87	-1.58		
PER CAPITA (\$).	4058	4068	4443	3818	4347	4342	4738	4144	4510	4461	4862	4161	4670	4703	16293	17245	17976		
% Chg Same Qtr Last Yr.....	2.96	5.49	6.19	2.54	7.14	6.72	6.63	8.52	3.75	2.74	2.62	0.42	3.55	5.43	4.46	5.84	4.24		

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Table 20: Tennessee Taxable Sales, Seasonally Adjusted (millions of current dollars)

	Historical Data												January 2018		
	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	Annual
TOTAL TAXABLE SALES.....	26224	26883	27323	26995	28346	28860	29303	29642	29682	29852	30322	30077	31024	31746	106480
% Chg Prev Qtr SAAR.....	2.68	10.44	6.71	-4.71	21.57	7.45	6.29	4.70	0.55	2.30	6.46	-3.20	13.20	9.64	5.18
% Chg Same Qtr Last Yr.....	3.93	6.17	6.71	3.62	8.09	7.35	7.25	9.81	4.71	3.44	3.48	1.47	4.52	6.35	5.18
AUTO DEALERS.....	2594	2664	2756	2778	2954	3011	3058	3087	3081	3171	3285	3132	3229	3178	10563
% Chg Prev Qtr SAAR.....	7.03	11.18	14.59	3.31	27.76	7.94	6.40	3.85	-0.81	12.23	15.26	-17.34	12.97	-6.19	7.47
% Chg Same Qtr Last Yr.....	7.30	6.80	9.67	8.94	13.87	13.04	10.96	11.10	4.29	5.31	7.44	1.48	4.83	0.24	7.47
PURCHASES FROM MANUFACTURERS....	1091	1138	1163	1161	1204	1253	1260	1259	1289	1297	1360	1388	1315	1325	4460
% Chg Prev Qtr SAAR.....	8.80	18.67	9.01	-0.77	15.52	17.40	2.18	-0.04	9.55	2.60	21.02	8.40	-19.36	2.98	6.95
% Chg Same Qtr Last Yr.....	4.34	9.21	10.46	8.71	10.35	10.05	8.29	8.49	7.06	3.51	7.99	10.20	2.07	2.16	6.95
MISC DURABLE GOODS.....	4368	4493	4465	4258	4709	4751	4905	4993	4987	5000	5160	5245	5194	5290	17548
% Chg Prev Qtr SAAR.....	14.66	11.91	-2.43	-17.35	49.67	3.63	13.60	7.39	-0.54	1.11	13.38	6.75	-3.79	7.53	4.41
% Chg Same Qtr Last Yr.....	3.68	6.48	5.86	0.86	7.80	5.75	9.85	17.28	5.90	5.24	5.19	5.04	4.17	5.78	4.41
EATING AND DRINKING PLACES.....	2753	2829	2874	2902	2993	3045	3090	3116	3139	3167	3189	3183	3256	3246	11196
% Chg Prev Qtr SAAR.....	1.69	11.53	6.59	3.93	13.19	7.12	5.98	3.49	2.96	3.54	2.92	-0.83	9.54	-1.20	5.87
% Chg Same Qtr Last Yr.....	3.91	7.07	7.65	5.87	8.75	7.65	7.50	7.38	4.87	3.98	3.22	2.13	3.73	2.52	5.87
FOOD STORES.....	2664	2686	2721	2747	2781	2790	2783	2836	2842	2873	2959	2872	2963	3110	10695
% Chg Prev Qtr SAAR.....	6.22	3.25	5.39	3.86	5.02	1.40	-1.08	7.88	0.82	4.45	12.57	-11.33	13.34	21.30	4.35
% Chg Same Qtr Last Yr.....	5.47	4.87	4.42	4.67	4.37	3.90	2.27	3.25	2.20	2.96	6.34	1.26	4.26	8.23	4.35
LIQUOR STORES.....	217	227	232	235	237	246	253	255	257	237	227	214	234	236	894
% Chg Prev Qtr SAAR.....	-0.44	19.30	8.42	4.93	4.81	16.26	10.86	2.82	3.19	-27.86	-15.12	-20.43	42.13	4.01	6.86
% Chg Same Qtr Last Yr.....	6.92	5.74	8.68	7.82	9.21	8.51	9.11	8.56	8.14	-4.02	-10.22	-15.80	-8.78	-0.04	6.86
HOTELS AND MOTELS.....	714	732	744	755	803	829	838	879	900	912	911	851	916	909	2883
% Chg Prev Qtr SAAR.....	13.19	10.08	6.85	5.90	28.44	13.29	4.50	21.08	9.64	5.50	-0.09	-24.04	34.41	-3.08	13.51
% Chg Same Qtr Last Yr.....	14.98	17.68	13.35	8.97	12.47	13.28	12.65	16.48	11.96	9.99	8.76	-3.21	1.85	-0.29	13.51
OTHER RETAIL AND SERVICE.....	8150	8221	8426	8262	8691	8886	9075	9112	9113	9154	9153	9118	9382	9755	32886
% Chg Prev Qtr SAAR.....	3.09	3.53	10.32	-7.55	22.42	9.31	8.79	1.63	0.05	1.82	-0.04	-1.52	12.07	16.89	5.62
% Chg Same Qtr Last Yr.....	5.00	5.30	6.71	2.14	6.63	8.09	7.71	10.29	4.86	3.02	0.86	0.07	2.95	6.56	5.62
MISC NONDURABLE GOODS.....	2252	2277	2299	2266	2355	2409	2439	2482	2477	2481	2466	2338	2554	2504	9047
% Chg Prev Qtr SAAR.....	6.08	4.49	3.84	-5.49	16.62	9.38	5.06	7.40	-0.83	0.59	-2.35	-19.19	42.44	-7.61	4.07
% Chg Same Qtr Last Yr.....	4.29	5.17	5.24	2.13	4.57	5.78	6.09	9.53	5.18	3.00	1.13	-5.81	3.11	0.95	4.07
TRANSPORTATION, COMMUNICATION....	1420	1617	1643	1632	1619	1639	1604	1621	1599	1561	1610	1735	1979	2192	6307
% Chg Prev Qtr SAAR.....	-42.13	68.05	6.75	-2.80	-3.08	5.13	-8.41	4.53	-5.45	-9.24	13.21	34.90	69.26	50.61	-1.39
% Chg Same Qtr Last Yr.....	-13.12	4.06	2.92	0.23	14.02	1.40	-2.41	-0.62	-1.23	-4.79	0.39	7.00	23.76	40.47	-1.39
PER CAPITA (\$)	4007	4108	4175	4093	4298	4376	4443	4457	4463	4488	4559	4482	4623	4731	16270
% Chg Prev Qtr SAAR.....	2.68	10.44	6.71	-7.59	21.57	7.45	6.29	1.21	0.55	2.30	6.46	-6.57	13.20	9.64	4.38
% Chg Same Qtr Last Yr.....	3.14	5.36	5.89	2.83	7.27	6.53	6.43	8.88	3.83	2.56	2.60	0.57	3.60	5.41	4.38

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Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

	Historical Data											January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TN GDP (MIL2009\$) SAAR.....	253139	259825	256408	257925	248284	251607	258765	266651	271262	275350	284028	291408
Percentage change.....	1.47	2.64	-1.32	0.59	-3.74	1.34	2.84	3.05	1.73	1.51	3.15	2.60
US GDP (BIL2009\$) SAAR.....	14234.2	14613.8	14873.7	14830.4	14418.7	14783.8	15020.6	15354.6	15612.2	16013.3	16471.5	16716.2
Percentage change.....	3.35	2.67	1.78	-0.29	-2.78	2.53	1.60	2.22	1.88	2.57	2.86	1.49
TN GDP (MIL\$) SAAR.....	229363	241319	244868	251216	248284	253909	265037	279861	290312	300748	318288	331864
Percentage change.....	4.11	5.21	1.47	2.59	-1.17	2.27	4.38	5.59	3.73	3.59	5.83	4.27
US GDP (BIL\$) SAAR.....	13093.7	13855.9	14477.6	14718.6	14418.7	14964.4	15517.9	16155.3	16691.5	17427.6	18120.7	18624.5
Percentage change.....	6.67	5.82	4.49	1.66	-2.04	3.78	3.70	4.11	3.32	4.41	3.98	2.78
TN PERSONAL INCOME (MIL2009\$) SAAR.....	204145	211779	216974	220530	218414	222942	230081	235839	234431	240586	253767	260100
Percentage change.....	1.74	3.74	2.45	1.64	-0.96	2.07	3.20	2.50	-0.60	2.63	5.48	2.50
US PERSONAL INCOME (BIL2009\$) SAAR.....	11503	12028	12358	12494	12095	12274	12726	13112	13088	13575	14206	14377
Percentage change.....	2.66	4.56	2.75	1.10	-3.19	1.48	3.69	3.03	-0.18	3.72	4.65	1.21
TN PERSONAL INCOME (MIL\$) SAAR.....	188356	200623	210696	220670	218408	226634	239634	250286	252091	262623	277837	288170
Percentage change.....	4.64	6.51	5.02	4.73	-1.02	3.77	5.74	4.45	0.72	4.18	5.79	3.72
US PERSONAL INCOME (BIL\$) SAAR.....	10614	11394	12000	12502	12095	12477	13255	13915	14074	14818	15553	15929
Percentage change.....	5.58	7.35	5.32	4.18	-3.26	3.16	6.23	4.98	1.14	5.29	4.96	2.42
TN NONFARM JOBS (THOUS).....	2743.0	2783.0	2797.7	2775.3	2619.3	2615.2	2661.9	2715.1	2759.8	2821.0	2892.7	2966.8
Percentage change.....	1.38	1.46	0.53	-0.80	-5.62	-0.16	1.79	2.00	1.65	2.22	2.54	2.56
US NONFARM JOBS (MIL).....	134.0	136.5	138.0	137.2	131.3	130.4	131.9	134.2	136.4	138.9	141.8	144.3
Percentage change.....	1.72	1.80	1.13	-0.55	-4.33	-0.72	1.22	1.69	1.65	1.88	2.07	1.76
TN MFG JOBS (THOUS).....	408.8	399.4	379.9	360.9	309.2	299.0	304.4	313.4	318.5	325.0	333.0	343.3
Percentage change.....	-0.74	-2.30	-4.87	-4.99	-14.33	-3.32	1.84	2.94	1.62	2.04	2.48	3.08
US MFG JOBS (MIL).....	14.2	14.2	13.9	13.4	11.8	11.5	11.7	11.9	12.0	12.2	12.3	12.3
Percentage change.....	-0.62	-0.49	-1.97	-3.42	-11.61	-2.69	1.72	1.70	0.78	1.38	1.23	0.11
TN UNEMPLOYMENT RATE (%).....	5.5	5.2	4.7	6.8	10.6	9.6	8.9	7.8	7.7	6.5	5.5	4.8
US UNEMPLOYMENT RATE (%).....	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.2	5.3	4.9
CHAINED PRICE INDEX, GDP (2009=100.0).....	92.0	94.8	97.3	99.2	100.0	101.2	103.3	105.2	106.9	108.8	110.0	111.4
Percentage change.....	3.22	3.07	2.67	1.93	0.79	1.23	2.06	1.84	1.61	1.80	1.08	1.28
US PERS CONSUMP DEFL (2009=100.0).....	92.3	94.7	97.1	100.1	100.0	101.7	104.1	106.1	107.5	109.2	109.5	110.8
Percentage change.....	2.85	2.68	2.50	3.05	-0.06	1.65	2.46	1.89	1.33	1.51	0.30	1.19
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1,000).....	1,953	2,016	2,073	2,153	2,146	2,181	2,249	2,296	2,329	2,367	2,370	2,400
Percentage change.....	3.37	3.22	2.87	3.81	-0.32	1.64	3.14	2.07	1.46	1.61	0.12	1.28
BANK PRIME INTEREST RATE (%).....	6.2	8.0	8.1	5.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.5
FEDERAL FUNDS RATE (% per annum).....	3.213	4.984	5.019	1.928	0.160	0.175	0.102	0.140	0.108	0.089	0.133	0.395
30-YEAR FIXED MORTGAGE RATE (%).....	5.9	6.4	6.3	6.0	5.0	4.7	4.5	3.7	4.0	4.2	3.9	3.6
TN TAXABLE SALES (MIL2009\$).....	95679	97859	98868	93181	86224	86954	89896	92369	94139	97543	103665	107859
Percentage change.....	3.75	2.28	1.03	-5.75	-7.47	0.85	3.38	2.75	1.92	3.62	6.28	4.04
TN TAXABLE SALES (MIL\$).....	88283	92704	95995	93235	86220	88394	93633	98020	101231	106480	113504	119498
Percentage change.....	6.72	5.01	3.55	-2.88	-7.52	2.52	5.93	4.69	3.28	5.18	6.60	5.28
TN AVG ANNUAL WAGE, NONFARM (2009\$).....	39441	40242	40849	40546	40821	41448	41310	41971	41507	41883	43147	43166
Percentage change.....	-0.11	2.03	1.51	-0.74	0.68	1.54	-0.33	1.60	-1.10	0.90	3.02	0.04
TN AVG ANNUAL WAGE, NONFARM (\$).....	36388	38122	39665	40571	40822	42133	43023	44540	44633	45718	47239	47823
Percentage change.....	2.73	4.76	4.05	2.28	0.62	3.21	2.11	3.53	0.21	2.43	3.33	1.24

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Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators

	Historical Data											January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TN GDP (2009\$) SAAR.....	42253	42673	41519	41285	39373	39582	40447	41314	41766	42072	43067	43813
Percentage change.....	0.11	0.99	-2.70	-0.56	-4.63	0.53	2.19	2.14	1.09	0.73	2.36	1.73
US GDP (2009\$) SAAR.....	48014	48830	49214	48632	46878	47674	48081	48798	49273	50170	51241	51646
Percentage change.....	2.40	1.70	0.79	-1.18	-3.61	1.70	0.85	1.49	0.97	1.82	2.13	0.79
TN GDP (\$) SAAR.....	38284	39634	39650	40211	39373	39944	41427	43360	44699	45953	48262	49895
Percentage change.....	2.71	3.52	0.04	1.42	-2.09	1.45	3.71	4.67	3.09	2.81	5.02	3.39
US GDP (\$) SAAR.....	44167	46297	47903	48266	46878	48257	49673	51343	52680	54601	56372	57542
Percentage change.....	5.70	4.82	3.47	0.76	-2.88	2.94	2.93	3.36	2.60	3.65	3.24	2.08
TN PERSONAL INCOME (2009\$) SAAR.....	34247	34992	35320	35453	34758	35072	35963	36540	36095	36761	38478	39106
Percentage change.....	0.48	2.18	0.94	0.38	-1.96	0.90	2.54	1.60	-1.22	1.84	4.67	1.63
US PERSONAL INCOME (2009\$) SAAR.....	38803	40188	40890	40972	39324	39580	40737	41670	41306	42530	44193	44420
Percentage change.....	1.72	3.57	1.75	0.20	-4.02	0.65	2.92	2.29	-0.87	2.96	3.91	0.52
TN PERSONAL INCOME (\$) SAAR.....	31597	33148	34296	35475	34756	35653	37457	38778	38814	40128	42128	43326
Percentage change.....	3.34	4.91	3.46	3.44	-2.03	2.58	5.06	3.53	0.09	3.38	4.98	2.84
US PERSONAL INCOME (\$) SAAR.....	35803	38071	39706	40998	39322	40236	42428	44223	44418	46426	48384	49213
Percentage change.....	4.62	6.34	4.29	3.25	-4.09	2.32	5.45	4.23	0.44	4.52	4.22	1.71
TN TAXABLE SALES (2009\$).....	16050	16169	16095	14981	13721	13679	14051	14311	14494	14904	15719	16216
Percentage change.....	2.46	0.74	-0.46	-6.92	-8.41	-0.31	2.72	1.85	1.28	2.83	5.46	3.17
TN TAXABLE SALES (\$).....	14809	15317	15627	14990	13721	13906	14636	15187	15586	16270	17210	17966
Percentage change.....	5.39	3.43	2.02	-4.08	-8.47	1.35	5.25	3.77	2.63	4.38	5.78	4.39

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Table 3: Tennessee Personal Income Components (millions of 2009 dollars)

	Historical Data												January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
TN PERSONAL INCOME.....	204145	211779	216974	220530	218414	222942	230081	235839	234431	240586	253767	260100	
Percentage change.....	1.74	3.74	2.45	1.64	-0.96	2.07	3.20	2.50	-0.60	2.63	5.48	2.50	
WAGES AND SALARIES.....	109129	112922	115251	113521	107965	109400	110853	114827	115405	118989	125610	128888	
Percentage change.....	1.26	3.48	2.06	-1.50	-4.89	1.33	1.33	3.59	0.50	3.11	5.56	2.61	
OTHER LABOR INCOME.....	26715	25965	26618	26803	25817	25379	25904	27759	27631	27186	28028	29788	
Percentage change.....	2.13	-2.81	2.51	0.70	-3.68	-1.70	2.07	7.16	-0.46	-1.61	3.10	6.28	
PROPRIETORS INCOME.....	24607	26396	23493	24096	27133	26428	28648	27511	28541	30544	32651	34006	
Percentage change.....	-0.98	7.27	-11.00	2.57	12.60	-2.60	8.40	-3.97	3.75	7.02	6.90	4.15	
RENT, INTEREST, DIVIDENDS.....	27252	29482	31803	32608	30040	30591	32093	34105	32903	34222	36540	36938	
Percentage change.....	1.95	8.18	7.87	2.53	-7.88	1.83	4.91	6.27	-3.52	4.01	6.77	1.09	
TRANSFER PAYMENTS.....	35531	36559	39183	42789	46062	49595	49388	48980	49733	49797	52243	52729	
Percentage change.....	4.08	2.89	7.18	9.20	7.65	7.67	-0.42	-0.83	1.54	0.13	4.91	0.93	
LESS: PERS CONT FOR SOC INS.....	17219	17684	18051	17978	17644	17697	16033	16218	18471	18902	19899	20497	
Percentage change.....	1.30	2.70	2.07	-0.40	-1.86	0.30	-9.40	1.15	13.90	2.33	5.27	3.01	
RESIDENCE ADJUSTMENT.....	-1870	-1861	-1323	-1309	-958	-753	-772	-1125	-1311	-1250	-1406	-1751	
Percentage change.....	-6.09	-0.46	-28.93	-1.03	-26.83	-21.42	2.58	45.78	16.47	-4.61	12.42	24.59	
PER CAPITA PERSONAL INCOME (\$).	34247	34992	35320	35453	34758	35072	35963	36540	36095	36761	38478	39106	
Percentage change.....	0.48	2.18	0.94	0.38	-1.96	0.90	2.54	1.60	-1.22	1.84	4.67	1.63	

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Table 4: Tennessee Personal Income Components (millions of current dollars) **January 2018**

	Historical Data												January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
TN PERSONAL INCOME.....	188356	200623	210696	220670	218408	226634	239634	250286	252091	262623	277837	288170	
Percentage change.....	4.64	6.51	5.02	4.73	-1.02	3.77	5.74	4.45	0.72	4.18	5.79	3.72	
WAGES AND SALARIES.....	100686	106974	111913	113587	107961	111211	115453	121860	124099	129888	137526	142799	
Percentage change.....	4.14	6.24	4.62	1.50	-4.95	3.01	3.81	5.55	1.84	4.66	5.88	3.83	
OTHER LABOR INCOME.....	24646	24597	25849	26819	25814	25798	26980	29460	29713	29675	30687	33005	
Percentage change.....	5.02	-0.20	5.09	3.75	-3.75	-0.06	4.58	9.19	0.86	-0.13	3.41	7.55	
PROPRIETORS INCOME.....	22708	25003	22809	24111	27136	26865	29841	29196	30690	33342	35747	37677	
Percentage change.....	1.87	10.11	-8.78	5.71	12.54	-1.00	11.08	-2.16	5.12	8.64	7.22	5.40	
RENT, INTEREST, DIVIDENDS.....	25147	27931	30886	32629	30035	31098	33428	36197	35382	37358	40005	40923	
Percentage change.....	4.86	11.07	10.58	5.64	-7.95	3.54	7.49	8.28	-2.25	5.59	7.09	2.29	
TRANSFER PAYMENTS.....	32780	34633	38051	42822	46064	50417	51434	51978	53479	54359	57197	58416	
Percentage change.....	7.04	5.65	9.87	12.54	7.57	9.45	2.02	1.06	2.89	1.65	5.22	2.13	
LESS: PERS CONT FOR SOC INS.....	15886	16752	17528	17989	17644	17989	16698	17210	19863	20633	21787	22710	
Percentage change.....	4.19	5.45	4.63	2.63	-1.92	1.96	-7.18	3.07	15.41	3.88	5.59	4.24	
RESIDENCE ADJUSTMENT.....	-1725	-1763	-1285	-1310	-958	-765	-804	-1195	-1410	-1365	-1539	-1941	
Percentage change.....	-3.43	2.22	-27.14	1.96	-26.89	-20.10	5.11	48.53	18.01	-3.17	12.76	26.08	
PER CAPITA PERSONAL INCOME (\$).	31597	33148	34296	35475	34756	35653	37457	38778	38814	40128	42128	43326	
Percentage change.....	3.34	4.91	3.46	3.44	-2.03	2.58	5.06	3.53	0.09	3.38	4.98	2.84	

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Table 5: Tennessee Nonfarm Employment by Sector (thousands of jobs)

	Historical Data											January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TOTAL NONFARM.....	2743.1	2782.7	2797.4	2774.8	2619.9	2615.3	2661.4	2715.0	2760.0	2822.2	2893.9	2965.8
Percentage change.....	1.37	1.44	0.53	-0.81	-5.59	-0.17	1.76	2.01	1.66	2.25	2.54	2.48
NATURAL RESOURCES, MINING & CONSTRUCTION....	125.2	134.4	137.8	132.4	109.9	105.1	108.7	108.9	107.9	110.9	117.2	119.3
Percentage change.....	3.38	7.33	2.54	-3.97	-17.00	-4.35	3.41	0.18	-0.86	2.76	5.64	1.79
MANUFACTURING.....	408.8	399.4	380.0	361.0	309.2	298.9	304.4	313.4	318.4	324.9	333.0	343.3
Percentage change.....	-0.73	-2.29	-4.87	-5.00	-14.34	-3.32	1.84	2.94	1.61	2.04	2.48	3.09
DURABLE GOODS.....	254.6	251.8	237.1	220.9	181.8	176.3	183.7	193.9	198.9	205.1	210.8	218.9
Percentage change.....	0.23	-1.10	-5.83	-6.86	-17.67	-3.03	4.21	5.56	2.54	3.15	2.78	3.82
NONDURABLE GOODS.....	154.2	147.6	142.8	140.1	127.4	122.6	120.7	119.5	119.6	119.8	122.2	124.4
Percentage change.....	-2.28	-4.25	-3.23	-1.91	-9.08	-3.72	-1.57	-1.04	0.11	0.20	1.96	1.83
TRADE, TRANSPORTATION, UTILITIES.....	598.0	607.3	610.5	600.1	559.5	555.1	563.5	575.0	581.0	589.9	602.2	617.0
Percentage change.....	1.74	1.54	0.54	-1.70	-6.77	-0.79	1.53	2.04	1.04	1.52	2.10	2.45
WHOLESALE TRADE.....	130.3	132.0	133.0	131.7	120.8	116.8	117.9	120.4	120.7	120.3	120.0	119.9
Percentage change.....	1.76	1.34	0.71	-0.96	-8.31	-3.29	0.93	2.15	0.27	-0.37	-0.24	-0.10
RETAIL TRADE.....	324.3	328.2	330.5	325.3	307.0	306.7	309.2	312.8	314.9	320.8	325.5	333.8
Percentage change.....	1.51	1.21	0.71	-1.58	-5.62	-0.10	0.80	1.18	0.67	1.87	1.45	2.55
TRANSPORTATION & UTILITIES.....	143.5	147.0	147.0	143.1	131.7	131.5	136.5	141.8	145.4	148.8	156.8	163.4
Percentage change.....	2.23	2.49	-0.02	-2.66	-7.97	-0.11	3.75	3.87	2.53	2.36	5.38	4.20
INFORMATION.....	49.4	49.6	50.3	50.5	46.9	45.0	43.8	43.2	44.1	43.8	44.4	45.5
Percentage change.....	-0.19	0.35	1.38	0.50	-7.11	-4.08	-2.80	-1.26	1.99	-0.64	1.39	2.55
FINANCIAL ACTIVITIES.....	143.3	143.5	144.8	145.0	140.6	137.1	136.5	137.1	138.9	144.2	148.0	152.8
Percentage change.....	0.95	0.17	0.91	0.14	-3.07	-2.46	-0.42	0.42	1.30	3.79	2.69	3.21
PROFESSIONAL & BUSINESS SERVICES.....	312.6	319.0	322.6	321.1	293.9	304.1	322.8	338.5	354.0	375.5	393.0	405.6
Percentage change.....	3.34	2.04	1.11	-0.46	-8.48	3.49	6.13	4.87	4.58	6.06	4.67	3.20
EDUCATION & HEALTH SERVICES.....	332.8	343.4	352.7	361.6	368.4	376.2	386.5	396.1	401.5	406.3	415.0	424.3
Percentage change.....	2.93	3.18	2.72	2.52	1.89	2.10	2.76	2.49	1.36	1.17	2.16	2.24
LEISURE & HOSPITALITY.....	262.0	270.1	276.3	273.8	263.5	262.0	267.6	276.8	285.9	296.5	308.0	320.3
Percentage change.....	3.31	3.09	2.28	-0.91	-3.76	-0.57	2.15	3.44	3.28	3.69	3.89	3.99
OTHER SERVICES.....	100.7	101.8	104.0	104.5	102.0	101.2	102.1	104.2	105.6	106.1	108.0	110.3
Percentage change.....	-0.94	1.01	2.19	0.50	-2.38	-0.80	0.84	2.15	1.29	0.47	1.78	2.13
GOVERNMENT.....	410.2	414.2	418.5	424.9	426.0	430.6	425.5	421.7	422.6	424.2	425.1	427.5
Percentage change.....	-0.60	0.98	1.02	1.55	0.26	1.08	-1.19	-0.90	0.23	0.38	0.20	0.57
FEDERAL, CIVILIAN.....	49.2	48.8	48.8	49.4	50.1	52.4	50.5	50.1	49.5	48.4	49.1	49.2
Percentage change.....	-1.91	-0.78	-0.12	1.21	1.55	4.45	-3.49	-0.81	-1.36	-2.12	1.48	0.14
STATE & LOCAL.....	361.0	365.4	369.7	375.6	375.9	378.3	375.0	371.5	373.2	375.8	375.9	378.3
Percentage change.....	-0.42	1.22	1.18	1.59	0.09	0.63	-0.87	-0.92	0.44	0.71	0.03	0.63

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Table 6: Tennessee Durable Goods Manufacturing Employment (thousands of jobs) **January 2018**

	Historical Data											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TOTAL DURABLE GOODS.....	254.6	251.8	237.1	220.8	181.8	176.3	183.7	193.9	198.9	205.1	210.8	218.9
Percentage change.....	0.22	-1.11	-5.83	-6.85	-17.66	-3.04	4.21	5.55	2.54	3.15	2.78	3.81
WOOD PRODUCTS.....	17.7	17.9	16.1	14.3	11.3	10.9	10.8	11.0	10.9	11.2	11.6	12.0
Percentage change.....	1.91	0.95	-10.14	-11.24	-20.84	-3.55	-1.07	2.25	-1.59	3.36	3.11	3.95
NONMETALLIC MINERALS.....	15.9	16.1	15.5	14.2	11.6	11.3	11.8	12.5	12.1	12.0	12.7	13.5
Percentage change.....	1.73	1.05	-3.52	-8.38	-18.89	-2.05	4.21	5.80	-2.66	-1.11	5.40	6.45
PRIMARY METALS.....	12.0	11.8	11.7	11.1	9.0	8.8	9.2	9.7	10.0	10.1	10.4	10.5
Percentage change.....	-0.98	-1.55	-0.85	-4.97	-18.84	-2.68	4.66	4.89	3.20	1.08	2.73	1.28
FABRICATED METALS.....	42.6	43.4	41.5	39.7	33.6	33.0	33.6	34.5	33.9	34.4	35.2	35.6
Percentage change.....	2.23	1.92	-4.46	-4.30	-15.37	-1.95	1.91	2.66	-1.68	1.55	2.08	1.35
MACHINERY.....	33.9	33.2	32.0	31.2	26.0	24.8	25.1	25.5	25.4	25.4	25.3	25.5
Percentage change.....	-1.16	-1.97	-3.69	-2.50	-16.63	-4.79	1.46	1.65	-0.71	0.31	-0.63	0.94
COMPUTERS & ELECTRONICS.....	10.4	9.3	8.1	7.4	6.2	5.6	5.6	5.6	5.2	5.0	5.0	4.7
Percentage change.....	-7.48	-11.27	-12.55	-8.27	-16.07	-10.58	0.43	0.58	-7.24	-3.34	-1.82	-5.21
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	23.5	23.2	22.1	20.6	17.8	16.9	17.7	17.9	18.6	19.3	19.7	20.1
Percentage change.....	1.65	-1.36	-4.66	-6.94	-13.51	-4.99	4.51	1.65	3.48	4.04	1.98	1.81
TRANSPORTATION EQUIPMENT.....	63.9	63.7	58.6	52.5	40.4	40.5	45.8	53.6	59.5	63.8	66.8	72.1
Percentage change.....	1.59	-0.27	-7.99	-10.46	-22.96	0.03	13.21	17.04	11.03	7.13	4.69	7.96
FURNITURE.....	19.2	17.7	16.0	14.2	10.8	9.7	8.9	8.7	8.8	9.0	9.1	9.4
Percentage change.....	-2.04	-7.71	-9.72	-11.08	-24.26	-10.21	-7.73	-2.92	1.07	2.73	0.57	3.48
MISCELLANEOUS DURABLES.....	15.3	15.3	15.4	15.5	15.0	14.9	15.2	14.9	14.5	14.8	15.3	15.5
Percentage change.....	-3.83	0.16	0.18	0.98	-2.99	-0.68	1.83	-2.30	-2.25	1.78	3.66	1.25

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Table 7: Tennessee Nondurable Goods Manufacturing Employment (thousands of jobs)

	Historical Data											January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TOTAL NONDURABLE GOODS.....	154.2	147.6	142.8	140.1	127.4	122.6	120.7	119.5	119.6	119.8	122.2	124.4
Percentage change.....	-2.28	-4.25	-3.24	-1.92	-9.08	-3.72	-1.57	-1.04	0.11	0.19	1.96	1.82
FOOD.....	34.3	34.0	32.7	32.5	32.3	32.6	33.1	33.0	32.4	32.7	33.3	34.2
Percentage change.....	-1.38	-0.97	-3.84	-0.62	-0.46	0.80	1.62	-0.24	-1.90	1.05	1.65	2.88
BEVERAGE & TOBACCO.....	5.4	5.2	5.1	5.1	5.1	5.0	5.0	5.2	5.3	5.5	5.9	6.6
Percentage change.....	-5.79	-4.31	-2.56	0.14	0.16	-1.64	0.17	3.51	2.58	3.46	7.73	10.98
PAPER.....	18.9	18.3	17.4	17.2	16.2	15.7	15.3	14.7	14.7	14.6	14.6	14.5
Percentage change.....	0.72	-3.23	-5.06	-1.02	-6.13	-2.94	-2.53	-3.76	-0.17	-0.82	0.05	-0.69
PRINTING & RELATED SUPPORT.....	18.8	17.8	17.0	15.7	13.3	11.4	10.0	9.6	9.6	9.5	9.2	9.2
Percentage change.....	-4.32	-5.39	-4.51	-7.53	-15.27	-13.96	-12.93	-3.44	0.09	-1.21	-2.99	-0.46
CHEMICALS.....	27.2	26.3	26.9	27.5	25.8	25.0	24.6	24.4	24.8	25.3	25.6	25.4
Percentage change.....	-1.76	-3.14	2.34	2.20	-6.17	-3.26	-1.63	-0.68	1.67	1.92	1.19	-0.68
PLASTICS & RUBBER.....	29.3	27.6	26.6	25.4	20.4	19.9	20.5	20.0	20.2	20.8	21.9	23.0
Percentage change.....	1.46	-5.76	-3.64	-4.40	-19.81	-2.49	2.89	-2.45	1.03	2.93	5.66	5.04
MISCELLANEOUS NONDURABLE GOODS.....	20.3	18.4	17.2	16.7	14.3	13.1	12.3	12.6	12.6	11.5	11.7	11.5
Percentage change.....	-9.02	-9.01	-6.65	-2.95	-14.29	-8.66	-5.75	1.90	0.22	-8.92	1.59	-1.44

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Table 8: Tennessee Average Annual Wage and Salary Rate by Sector (2009 dollars) **January 2018**

	Historical Data												Tennessee Econometric Model	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
TOTAL NONFARM.....	39441	40242	40849	40546	40821	41448	41310	41971	41507	41883	43147	43166		
Percentage change.....	-0.11	2.03	1.51	-0.74	0.68	1.54	-0.33	1.60	-1.10	0.90	3.02	0.04		
NATURAL RESOURCES, MINING AND CONSTRUCTION.....	42264	44042	45349	45130	44489	45421	45447	45943	45659	47060	49584	50218		
Percentage change.....	1.73	4.20	2.97	-0.48	-1.42	2.10	0.06	1.09	-0.62	3.07	5.36	1.28		
MANUFACTURING.....	46605	47371	48006	48163	48923	51200	50738	51667	50909	51644	52318	52557		
Percentage change.....	-0.61	1.64	1.34	0.33	1.58	4.65	-0.90	1.83	-1.47	1.44	1.30	0.46		
DURABLE GOODS.....	45774	46584	47071	47380	48242	50335	49667	51258	49507	50598	51338	51819		
Percentage change.....	-0.64	1.77	1.04	0.66	1.82	4.34	-1.33	3.20	-3.42	2.20	1.46	0.94		
NONDURABLE GOODS.....	47976	48721	49551	49402	49884	52454	52365	52337	53241	53433	54009	53856		
Percentage change.....	-0.50	1.55	1.70	-0.30	0.97	5.15	-0.17	-0.05	1.73	0.36	1.08	-0.28		
TRADE, TRANSPORTATION, UTILITIES.....	37797	38337	38926	38008	37815	38270	38523	38774	38318	38837	39922	40169		
Percentage change.....	0.72	1.43	1.54	-2.36	-0.51	1.20	0.66	0.65	-1.18	1.35	2.80	0.62		
WHOLESALE TRADE.....	54161	56196	57141	56361	55941	56904	57359	58843	58281	60558	62297	63560		
Percentage change.....	0.78	3.76	1.68	-1.37	-0.74	1.72	0.80	2.59	-0.96	3.91	2.87	2.03		
RETAIL TRADE.....	26583	26659	27206	26281	26401	26841	26929	26718	26125	26430	27212	27227		
Percentage change.....	0.36	0.29	2.05	-3.40	0.46	1.67	0.33	-0.78	-2.22	1.17	2.96	0.05		
TRANSPORTATION & UTILITIES.....	48297	48367	48796	47789	47801	48376	48524	48331	48158	48031	49171	49470		
Percentage change.....	0.89	0.15	0.89	-2.06	0.02	1.20	0.31	-0.40	-0.36	-0.26	2.37	0.61		
INFORMATION.....	48521	52767	52342	51111	51533	52405	54183	55051	54054	56033	56330	57457		
Percentage change.....	0.64	8.75	-0.81	-2.35	0.83	1.69	3.39	1.60	-1.81	3.66	0.53	2.00		
FINANCIAL ACTIVITIES.....	54620	57508	58928	57322	57385	60363	60284	63330	61272	61953	62949	63422		
Percentage change.....	-2.74	5.29	2.47	-2.73	0.11	5.19	-0.13	5.05	-3.25	1.11	1.61	0.75		
PROFESSIONAL & BUSINESS SERVICES.....	40405	41932	43665	44569	46282	46898	46073	48600	48325	47265	49807	49286		
Percentage change.....	-0.20	3.78	4.13	2.07	3.84	1.33	-1.76	5.49	-0.57	-2.19	5.38	-1.05		
EDUCATION & HEALTH SERVICES.....	41829	41964	42412	42312	43362	43271	42619	42573	42296	42391	44175	43667		
Percentage change.....	1.66	0.32	1.07	-0.23	2.48	-0.21	-1.51	-0.11	-0.65	0.23	4.21	-1.15		
LEISURE & HOSPITALITY.....	19397	19858	20195	19686	19666	20077	19980	20211	19821	20428	21590	21585		
Percentage change.....	-0.76	2.38	1.69	-2.52	-0.10	2.09	-0.48	1.16	-1.93	3.06	5.69	-0.03		
OTHER SERVICES.....	36314	37234	36543	36437	37018	37008	37193	37491	37180	38593	39430	39196		
Percentage change.....	-1.89	2.53	-1.85	-0.29	1.60	-0.03	0.50	0.80	-0.83	3.80	2.17	-0.59		
GOVERNMENT.....	38341	38749	39248	39166	39366	39255	39396	39312	39239	39567	39890	40099		
Percentage change.....	0.01	1.07	1.29	-0.21	0.51	-0.28	0.36	-0.21	-0.19	0.83	0.82	0.52		
FEDERAL, CIVILIAN.....	63280	63711	64944	63288	64163	65790	67988	67172	66860	72216	71011	70278		
Percentage change.....	0.34	0.68	1.94	-2.55	1.38	2.54	3.34	-1.20	-0.47	8.01	-1.67	-1.03		
STATE & LOCAL.....	34943	35413	35860	35996	36062	35597	35547	35564	35583	35374	35822	36170		
Percentage change.....	0.07	1.35	1.26	0.38	0.18	-1.29	-0.14	0.05	0.05	-0.59	1.27	0.97		

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Table 9: Tennessee Average Annual Wage and Salary Rate by Sector (current dollars)

	Historical Data											January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TOTAL NONFARM.....	36388	38122	39665	40571	40822	42133	43023	44540	44633	45718	47239	47823
Percentage change.....	2.73	4.76	4.05	2.28	0.62	3.21	2.11	3.53	0.21	2.43	3.33	1.24
NATURAL RESOURCES, MINING & CONSTRUCTION.....	38995	41722	44042	45158	44486	46170	47328	48752	49099	51370	54290	55638
Percentage change.....	4.63	7.00	5.56	2.53	-1.49	3.79	2.51	3.01	0.71	4.63	5.68	2.48
MANUFACTURING.....	42999	44875	46616	48192	48934	52048	52839	54829	54743	56373	57280	58229
Percentage change.....	2.22	4.36	3.88	3.38	1.54	6.36	1.52	3.77	-0.16	2.98	1.61	1.66
DURABLE GOODS.....	42231	44128	45705	47412	48252	51166	51724	54394	53235	55232	56208	57411
Percentage change.....	2.19	4.49	3.57	3.73	1.77	6.04	1.09	5.16	-2.13	3.75	1.77	2.14
NONDURABLE GOODS.....	44265	46156	48119	49427	49896	53325	54532	55542	57251	58323	59130	59671
Percentage change.....	2.33	4.27	4.25	2.72	0.95	6.87	2.26	1.85	3.08	1.87	1.38	0.91
TRADE, TRANSPORTATION, UTILITIES.....	34872	36317	37796	38030	37816	38903	40120	41148	41204	42393	43709	44503
Percentage change.....	3.59	4.14	4.07	0.62	-0.56	2.87	3.13	2.56	0.14	2.89	3.10	1.81
WHOLESALE TRADE.....	49972	53236	55483	56395	55941	57846	59737	62451	62672	66104	68206	70419
Percentage change.....	3.65	6.53	4.22	1.64	-0.81	3.41	3.27	4.54	0.35	5.48	3.18	3.25
RETAIL TRADE.....	24525	25255	26417	26298	26402	27285	28047	28353	28093	28851	29795	30164
Percentage change.....	3.21	2.98	4.60	-0.45	0.40	3.34	2.79	1.09	-0.92	2.70	3.27	1.24
TRANSPORTATION & UTILITIES.....	44556	45819	47379	47815	47802	49176	50533	51289	51785	52429	53835	54807
Percentage change.....	3.75	2.84	3.40	0.92	-0.03	2.87	2.76	1.50	0.97	1.24	2.68	1.81
INFORMATION.....	44752	49988	50817	51141	51535	53268	56430	58424	58127	61164	61669	63658
Percentage change.....	3.48	11.70	1.66	0.64	0.77	3.36	5.94	3.53	-0.51	5.23	0.83	3.22
FINANCIAL ACTIVITIES.....	50399	54482	57219	57358	57388	61370	62784	67211	65887	67625	68918	70266
Percentage change.....	0.04	8.10	5.02	0.24	0.05	6.94	2.30	7.05	-1.97	2.64	1.91	1.96
PROFESSIONAL & BUSINESS SERVICES.....	37273	39723	42403	44594	46283	47673	47980	51579	51965	51594	54529	54600
Percentage change.....	2.64	6.57	6.75	5.17	3.79	3.00	0.64	7.50	0.75	-0.71	5.69	0.13
EDUCATION & HEALTH SERVICES.....	38593	39752	41184	42339	43363	43987	44387	45180	45481	46273	48365	48379
Percentage change.....	4.56	3.00	3.60	2.81	2.42	1.44	0.91	1.79	0.67	1.74	4.52	0.03
LEISURE & HOSPITALITY.....	17896	18812	19610	19698	19666	20409	20809	21448	21314	22299	23639	23914
Percentage change.....	2.07	5.12	4.24	0.45	-0.17	3.78	1.96	3.07	-0.62	4.62	6.01	1.16
OTHER SERVICES.....	33504	35272	35482	36458	37021	37619	38733	39786	39981	42128	43170	43425
Percentage change.....	0.92	5.27	0.60	2.75	1.54	1.61	2.96	2.72	0.49	5.37	2.47	0.59
GOVERNMENT.....	35372	36708	38110	39189	39363	39903	41031	41719	42194	43189	43672	44426
Percentage change.....	2.85	3.78	3.82	2.83	0.44	1.37	2.83	1.68	1.14	2.36	1.12	1.73
FEDERAL, CIVILIAN.....	58379	60354	63058	63324	64164	66884	70805	71279	71898	78830	77742	77856
Percentage change.....	3.20	3.38	4.48	0.42	1.33	4.24	5.86	0.67	0.87	9.64	-1.38	0.15
STATE & LOCAL.....	32237	33548	34820	36018	36059	36184	37022	37742	38262	38613	39219	40074
Percentage change.....	2.91	4.06	3.79	3.44	0.11	0.35	2.32	1.94	1.38	0.92	1.57	2.18

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Table 10: Tennessee Civilian Labor Force and Unemployment Rate **January 2018**

	Historical Data												
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
CIVILIAN LABOR FORCE (THOUS).....	2901	3032	3062	3052	3050	3088	3118	3092	3061	3028	3071	3139	
Percentage change.....	0.73	4.52	0.97	-0.32	-0.05	1.23	0.99	-0.84	-1.02	-1.06	1.42	2.23	
EMPLOYED PERSONS (THOUS).....	2740	2874	2916	2845	2727	2790	2841	2850	2825	2832	2901	2988	
Percentage change.....	0.54	4.89	1.46	-2.46	-4.14	2.32	1.82	0.33	-0.88	0.23	2.45	2.99	
UNEMPLOYED PERSONS (THOUS).....	161	158	145	207	323	298	278	242	235	196	170	151	
Percentage change.....	4.17	-1.86	-7.93	42.71	56.11	-7.95	-6.77	-12.84	-2.71	-16.64	-13.54	-10.87	
PARTICIPATION RATE (PERCENT).....	62.9	64.6	64.3	63.3	62.7	62.7	62.7	61.6	60.4	59.2	59.5	60.2	
Percentage change.....	-0.77	2.68	-0.46	-1.59	-1.01	0.05	0.04	-1.80	-1.87	-1.97	0.44	1.14	
UNEMPLOYMENT RATE (PERCENT).....	5.5	5.2	4.7	6.8	10.6	9.6	8.9	7.8	7.7	6.5	5.5	4.8	
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Table 11: Tennessee Taxable Sales (millions of 2009 dollars)

	Historical Data											January 2018
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TOTAL TAXABLE SALES.....	95679	97859	98868	93181	86224	86954	89896	92369	94139	97543	103665	107859
Percentage change.....	3.75	2.28	1.03	-5.75	-7.47	0.85	3.38	2.75	1.92	3.62	6.28	4.04
AUTO DEALERS.....	10223	9911	9788	7935	6724	7545	8092	8740	9141	9677	10777	11393
Percentage change.....	-2.90	-3.06	-1.24	-18.93	-15.27	12.22	7.25	8.00	4.58	5.86	11.38	5.71
PURCHASES FROM MANUFACTURERS.....	5204	4939	4884	4494	3493	3596	3849	3808	3878	4086	4454	4698
Percentage change.....	12.44	-5.10	-1.11	-7.98	-22.26	2.93	7.04	-1.06	1.83	5.35	9.02	5.47
MISC DURABLE GOODS.....	17170	18165	17964	16339	13747	14258	14961	15430	15629	16075	17008	18179
Percentage change.....	8.60	5.80	-1.11	-9.05	-15.86	3.71	4.93	3.14	1.29	2.85	5.81	6.88
EATING AND DRINKING PLACES.....	8627	8935	9144	8968	8840	8909	9127	9610	9835	10257	10988	11383
Percentage change.....	3.83	3.56	2.35	-1.93	-1.43	0.78	2.45	5.28	2.35	4.29	7.13	3.60
FOOD STORES.....	8884	8887	8992	8592	8822	8740	8848	9131	9531	9798	10139	10389
Percentage change.....	0.40	0.04	1.17	-4.44	2.67	-0.93	1.24	3.20	4.38	2.79	3.49	2.46
LIQUOR STORES.....	536	578	612	636	657	673	699	747	778	819	887	880
Percentage change.....	5.09	7.76	5.86	3.89	3.37	2.48	3.76	6.92	4.10	5.27	8.34	-0.78
HOTELS AND MOTELS.....	2215	2342	2425	2312	2038	2033	2239	2345	2362	2641	2945	3251
Percentage change.....	5.65	5.73	3.56	-4.66	-11.84	-0.25	10.12	4.72	0.72	11.82	11.54	10.37
OTHER RETAIL AND SERVICE.....	27970	28642	29151	28220	26805	26870	27609	28439	28954	30127	31887	32976
Percentage change.....	3.31	2.40	1.78	-3.19	-5.01	0.24	2.75	3.01	1.81	4.05	5.85	3.41
MISC NONDURABLE GOODS.....	7613	7698	7990	7780	7364	7521	7668	7937	8084	8288	8648	8942
Percentage change.....	4.72	1.12	3.79	-2.63	-5.34	2.13	1.96	3.51	1.85	2.52	4.35	3.40
TRANSPORTATION, COMMUNICATION.....	7237	7763	7918	7905	7731	6808	6803	6182	5948	5778	5931	5769
Percentage change.....	1.27	7.26	2.01	-0.17	-2.20	-11.94	-0.08	-9.13	-3.78	-2.86	2.64	-2.73
PER CAPITA (\$)......	16050	16169	16095	14981	13721	13679	14051	14311	14494	14904	15719	16216
Percentage change.....	2.46	0.74	-0.46	-6.92	-8.41	-0.31	2.72	1.85	1.28	2.83	5.46	3.17

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Table 12: Tennessee Taxable Sales (millions of current dollars) **January 2018**

	Historical Data											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TOTAL TAXABLE SALES.....	88283	92704	95995	93235	86220	88394	93633	98020	101231	106480	113504	119498
Percentage change.....	6.72	5.01	3.55	-2.88	-7.52	2.52	5.93	4.69	3.28	5.18	6.60	5.28
AUTO DEALERS.....	9429	9389	9503	7938	6725	7671	8430	9275	9830	10563	11801	12623
Percentage change.....	-0.16	-0.43	1.21	-16.47	-15.28	14.07	9.89	10.03	5.98	7.47	11.71	6.97
PURCHASES FROM MANUFACTURERS.....	4802	4678	4741	4496	3493	3656	4009	4042	4170	4460	4877	5205
Percentage change.....	15.64	-2.58	1.35	-5.17	-22.31	4.65	9.66	0.82	3.18	6.95	9.34	6.73
MISC DURABLE GOODS.....	15845	17208	17440	16347	13747	14494	15583	16373	16806	17548	18623	20141
Percentage change.....	11.72	8.60	1.35	-6.27	-15.91	5.43	7.52	5.07	2.65	4.41	6.13	8.15
EATING AND DRINKING PLACES.....	7960	8464	8880	8973	8840	9057	9507	10198	10576	11196	12030	12611
Percentage change.....	6.79	6.34	4.91	1.06	-1.48	2.45	4.97	7.27	3.71	5.87	7.45	4.83
FOOD STORES.....	8196	8419	8731	8600	8821	8884	9216	9690	10249	10695	11101	11511
Percentage change.....	3.26	2.72	3.70	-1.49	2.57	0.72	3.73	5.14	5.77	4.35	3.79	3.69
LIQUOR STORES.....	495	548	594	636	657	685	728	793	836	894	971	975
Percentage change.....	8.10	10.63	8.51	7.05	3.31	4.18	6.32	8.93	5.49	6.86	8.67	0.37
HOTELS AND MOTELS.....	2044	2218	2355	2313	2038	2067	2333	2488	2539	2883	3225	3602
Percentage change.....	8.67	8.55	6.15	-1.78	-11.87	1.40	12.85	6.67	2.06	13.51	11.88	11.68
OTHER RETAIL AND SERVICE.....	25806	27134	28304	28237	26805	27315	28756	30179	31135	32886	34914	36533
Percentage change.....	6.26	5.15	4.31	-0.24	-5.07	1.90	5.28	4.95	3.17	5.62	6.17	4.64
MISC NONDURABLE GOODS.....	7024	7293	7758	7784	7364	7645	7987	8423	8693	9047	9469	9907
Percentage change.....	7.72	3.82	6.38	0.33	-5.40	3.81	4.47	5.45	3.21	4.07	4.66	4.63
TRANSPORTATION, COMMUNICATION.....	6682	7353	7689	7910	7729	6921	7085	6560	6396	6307	6493	6391
Percentage change.....	4.23	10.05	4.57	2.87	-2.29	-10.45	2.38	-7.41	-2.50	-1.39	2.95	-1.58
PER CAPITA (\$)......	14809	15317	15627	14990	13721	13906	14636	15187	15586	16270	17210	17966
Percentage change.....	5.39	3.43	2.02	-4.08	-8.47	1.35	5.25	3.77	2.63	4.38	5.78	4.39

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Table 13: Tennessee Gross Domestic Product by Sector (millions of 2009 dollars)

	Historical Data														January 2018	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GROSS DOMESTIC PRODUCT.....	253,139	259,825	256,408	257,925	248,284	251,607	258,765	266,651	271,262	275,350	284,028	291,408	298,154	305,812	312,545	319,278
Percentage change.....	1.47	2.64	-1.32	0.59	-3.74	1.34	2.84	3.05	1.73	1.51	3.15	2.60	2.30	2.45	2.20	2.15
AGRICULTURE, FORESTRY, FISHING & HUNTING.....	1,808	2,305	1,636	1,836	1,744	1,242	1,246	1,028	1,468	1,294	1,328	1,454	1,454	1,454	1,454	1,454
Percentage change.....	-5.29	27.49	-29.02	12.22	-5.01	-28.78	0.32	-17.50	42.80	-11.85	2.63	9.49	0.00	0.00	0.00	0.00
NATURAL RESOURCES & MINING.....	3,020	3,617	2,950	2,952	2,717	2,196	2,046	1,779	2,231	2,091	2,172	2,182	2,182	2,182	2,182	2,182
Percentage change.....	-2.74	19.77	-18.44	0.07	-7.96	-19.18	-6.83	-13.05	25.41	-6.28	3.87	0.45	0.00	0.00	0.00	0.00
CONSTRUCTION.....	11,930	11,585	11,112	10,494	9,256	8,714	9,072	9,883	9,661	9,682	10,263	10,415	10,415	10,415	10,415	10,415
Percentage change.....	-3.08	-2.89	-4.08	-5.56	-11.80	-5.86	4.11	8.94	-2.25	0.22	6.00	1.48	0.00	0.00	0.00	0.00
MANUFACTURING.....	43,958	45,680	43,780	42,805	38,637	39,980	41,765	44,085	45,512	45,535	46,192	47,800	47,800	47,800	47,800	47,800
Percentage change.....	-1.63	3.92	-4.16	-2.23	-9.74	3.48	4.46	5.55	3.24	0.05	1.44	3.48	0.00	0.00	0.00	0.00
DURABLE GOODS.....	26,119	27,096	24,486	24,875	20,624	21,017	23,342	25,015	25,534	26,665	27,535	28,690	28,690	28,690	28,690	28,690
Percentage change.....	4.03	3.74	-9.63	1.59	-17.09	1.91	11.06	7.17	2.07	4.43	3.26	4.19	0.00	0.00	0.00	0.00
WOOD PRODUCTS.....	705	730	814	809	602	611	663	659	565	578	656	670	670	670	670	670
Percentage change.....	7.63	3.55	11.51	-0.61	-25.59	1.50	8.51	-0.60	-14.26	2.30	13.49	2.18	0.00	0.00	0.00	0.00
NONMETALLIC MINERAL PRODUCTS.....	1,497	1,335	1,332	1,136	889	972	1,074	1,086	1,025	1,061	1,142	1,177	1,177	1,177	1,177	1,177
Percentage change.....	-10.63	-10.82	-0.22	-14.71	-21.74	9.34	10.49	1.12	-5.62	3.51	7.63	3.06	0.00	0.00	0.00	0.00
PRIMARY METALS.....	1,121	1,075	853	847	766	874	991	1,156	1,230	1,233	1,424	1,481	1,481	1,481	1,481	1,481
Percentage change.....	-1.15	-4.10	-20.65	-0.70	-9.56	14.10	13.39	16.65	6.40	0.24	15.49	4.00	0.00	0.00	0.00	0.00
FABRICATED METAL PRODUCTS.....	4,294	4,601	4,483	3,899	3,527	3,751	3,625	3,711	3,434	3,550	3,474	3,529	3,529	3,529	3,529	3,529
Percentage change.....	-4.09	7.15	-2.56	-13.03	-9.54	6.35	-3.36	2.37	-7.46	3.38	-2.14	1.59	0.00	0.00	0.00	0.00
MACHINERY.....	3,797	3,534	3,064	3,614	2,760	2,598	2,802	2,546	3,121	2,852	2,864	2,971	2,971	2,971	2,971	2,971
Percentage change.....	15.10	-6.93	-13.30	17.95	-23.63	-5.87	7.85	-9.14	22.58	-8.62	0.42	3.72	0.00	0.00	0.00	0.00
COMPUTER & ELECTRONIC PRODUCTS.....	2,561	2,302	2,752	3,849	4,056	1,716	1,489	1,141	858	821	905	938	938	938	938	938
Percentage change.....	-10.70	-10.11	19.55	39.86	5.38	-57.69	-13.23	-23.37	-24.80	-4.31	10.23	3.66	0.00	0.00	0.00	0.00
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	2,828	3,090	2,487	3,089	2,909	2,535	2,696	3,495	3,216	3,662	3,583	3,652	3,652	3,652	3,652	3,652
Percentage change.....	9.49	9.26	-19.51	24.21	-5.83	-12.86	6.35	29.64	-7.98	13.87	-2.16	1.92	0.00	0.00	0.00	0.00
MOTOR VEHICLES, BODIES & TRAILERS, & PARTS.....	5,859	7,082	5,318	4,399	1,972	4,795	6,825	8,138	9,132	9,938	9,956	10,536	10,536	10,536	10,536	10,536
Percentage change.....	16.71	20.87	-24.91	-17.28	-55.17	143.15	42.34	19.24	12.21	8.83	0.18	5.83	0.00	0.00	0.00	0.00
OTHER TRANSPORTATION EQUIPMENT.....	946	806	752	631	423	493	538	459	367	451	389	420	420	420	420	420
Percentage change.....	5.82	-14.80	-6.70	-16.09	-32.96	16.55	9.13	-14.68	-20.04	22.89	-13.75	8.07	0.00	0.00	0.00	0.00
FURNITURE.....	905	849	826	651	471	424	404	426	473	500	506	516	516	516	516	516
Percentage change.....	-8.59	-6.19	-2.71	-21.19	-27.65	-9.98	-4.72	5.45	11.03	5.71	1.20	1.90	0.00	0.00	0.00	0.00
MISCELLANEOUS DURABLE GOODS.....	1,606	1,692	1,805	1,951	2,249	2,248	2,235	2,198	2,113	2,019	2,636	2,800	2,800	2,800	2,800	2,800
Percentage change.....	6.29	5.35	6.68	8.09	15.27	-0.04	-0.58	-1.66	-3.87	-4.45	30.56	6.21	0.00	0.00	0.00	0.00
NONDURABLE GOODS.....	17,839	18,584	19,294	17,930	18,013	18,963	18,423	19,070	19,978	18,870	18,657	19,111	19,111	19,111	19,111	19,111
Percentage change.....	-8.89	4.18	3.82	-7.07	0.46	5.27	-2.85	3.51	4.76	-5.55	-1.13	2.43	0.00	0.00	0.00	0.00
FOOD AND BEVERAGE & TOBACCO.....	5,938	6,585	7,370	6,780	6,915	7,095	6,763	6,801	6,696	6,503	6,434	6,562	6,562	6,562	6,562	6,562
Percentage change.....	-1.26	10.90	11.92	-8.01	1.99	2.60	-4.68	0.56	-1.54	-2.88	-1.06	1.99	0.00	0.00	0.00	0.00
TEXTILE MILLS & TEXTILE PRODUCT MILLS.....	618	668	582	614	421	369	295	332	465	442	452	454	454	454	454	454
Percentage change.....	-14.76	8.09	-12.87	5.50	-31.43	-12.35	-20.05	12.54	40.06	-4.95	2.26	0.55	0.00	0.00	0.00	0.00

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Table 13: Tennessee Gross Domestic Product by Sector (millions of 2009 dollars) **January 2018**

	Historical Data												
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
APPAREL & LEATHER PRODUCTS.....	298	240	230	243	213	242	207	208	329	174	167	170	
Percentage change.....	-14.61	-19.46	-4.17	5.65	-12.35	13.62	-14.46	0.48	58.17	-47.11	-4.02	1.93	
PAPER.....	2,462	2,746	2,348	2,385	2,590	2,709	2,452	2,615	2,716	2,639	2,390	2,444	
Percentage change.....	2.50	11.54	-14.49	1.58	8.60	4.59	-9.49	6.65	3.86	-2.84	-9.44	2.26	
PRINTING & RELATED SUPPORT.....	1,256	1,304	1,276	1,237	1,092	1,063	1,040	994	1,117	1,069	1,023	1,014	
Percentage change.....	1.87	3.82	-2.15	-3.06	-11.72	-2.66	-2.16	-4.42	12.37	-4.30	-4.30	-0.91	
CHEMICALS.....	4,218	4,604	4,781	4,335	4,554	5,196	5,641	5,936	6,188	5,149	5,334	5,492	
Percentage change.....	-23.39	9.15	3.84	-9.33	5.05	14.10	8.56	5.23	4.25	-16.79	3.59	2.95	
PLASTICS & RUBBER.....	2,280	1,932	2,121	1,919	1,757	1,894	1,749	1,787	1,994	1,962	1,857	1,969	
Percentage change.....	-9.13	-15.26	9.78	-9.52	-8.44	7.80	-7.66	2.17	11.58	-1.60	-5.35	6.02	
MISCELLANEOUS NONDURABLE GOODS.....	769	505	586	417	471	395	276	397	473	932	1,000	1,006	
Percentage change.....	-8.56	-34.33	16.04	-28.84	12.95	-16.14	-30.13	43.84	19.14	97.04	7.30	0.58	
TRADE.....	52,613	53,975	53,375	52,279	47,339	49,261	50,384	51,780	52,229	52,985	54,003	55,144	
Percentage change.....	4.33	2.59	-1.11	-2.05	-9.45	4.06	2.28	2.77	0.87	1.45	1.92	3.70	
WHOLESALE TRADE.....	18,344	18,974	19,406	19,436	16,671	17,141	17,444	18,354	18,792	19,489	19,887	20,471	
Percentage change.....	3.87	3.43	2.28	0.15	-14.23	2.82	1.77	5.22	2.39	3.71	2.04	2.94	
RETAIL TRADE.....	20,070	20,229	19,865	18,830	17,961	18,575	18,905	19,344	19,320	19,734	20,420	20,843	
Percentage change.....	4.75	0.79	-1.80	-5.21	-4.61	3.42	1.78	2.32	-0.12	2.14	3.48	2.07	
TRANSPORTATION & UTILITIES.....	14,199	14,772	14,104	14,013	12,707	13,545	14,035	14,082	14,117	13,762	13,696	13,830	
Percentage change.....	4.32	4.04	-4.52	-0.65	-9.32	6.59	3.62	0.33	0.25	-2.51	-0.48	0.98	
INFORMATION.....	6,784	7,551	8,597	8,100	8,495	8,415	8,332	7,554	7,825	7,881	8,887	9,115	
Percentage change.....	8.58	11.31	13.85	-5.78	4.88	-0.94	-0.99	-9.34	3.59	0.72	12.76	2.56	
FINANCIAL ACTIVITIES.....	34,784	35,332	37,007	37,519	39,030	40,568	41,890	42,181	42,576	43,982	44,849	45,804	
Percentage change.....	-1.71	1.58	4.74	1.38	4.03	3.94	3.26	0.69	0.94	3.30	1.97	2.13	
PROFESSIONAL & BUSINESS SERVICES.....	24,128	24,441	24,847	26,488	25,047	26,143	27,036	29,183	30,570	31,366	33,392	34,918	
Percentage change.....	0.24	1.30	1.66	6.60	-5.44	4.38	3.42	7.94	4.75	2.60	6.46	4.57	
EDUCATION & HEALTH SERVICES.....	22,753	23,299	23,500	25,111	26,416	26,651	27,448	28,104	28,374	28,768	30,492	31,296	
Percentage change.....	3.50	2.40	0.86	6.86	5.20	0.89	2.99	2.39	0.96	1.39	5.99	2.64	
LEISURE & HOSPITALITY.....	11,753	12,473	12,712	11,562	10,760	11,030	11,396	11,724	11,919	12,744	13,486	14,073	
Percentage change.....	3.26	6.13	1.92	-9.05	-6.94	2.51	3.32	2.88	1.66	6.92	5.82	4.35	
OTHER SERVICES.....	7,401	7,422	7,097	6,767	6,454	6,435	6,526	6,758	6,612	6,628	6,693	6,739	
Percentage change.....	-0.84	0.28	-4.38	-4.65	-4.63	-0.29	1.41	3.56	-2.16	0.24	0.98	0.69	
GOVERNMENT.....	32,207	32,145	29,795	32,012	32,389	30,972	31,624	32,592	32,285	32,394	32,271	32,467	
Percentage change.....	5.59	-0.19	-7.31	7.44	1.18	-4.37	2.11	3.06	-0.94	0.34	-0.38	0.61	
FEDERAL.....	8,794	8,778	8,600	8,036	8,115	8,241	8,025	7,871	8,048	8,660	8,661	8,663	
Percentage change.....	-2.34	-0.18	-2.03	-6.56	0.98	1.55	-2.62	-1.92	2.25	7.60	0.01	0.02	
STATE & LOCAL.....	23,413	23,367	21,195	23,976	24,274	22,731	23,599	24,721	24,237	23,734	23,610	23,805	
Percentage change.....	8.91	-0.20	-9.30	13.12	1.24	-6.36	3.82	4.75	-1.96	-2.08	-0.52	0.82	
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Tennessee Econometric Model													

Table 14: Tennessee Gross Domestic Product by Sector (millions of current dollars)

January 2018

	Forecast Data											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GROSS DOMESTIC PRODUCT.....	229,363	241,319	244,868	251,216	248,284	253,909	265,037	279,861	290,312	300,748	318,288	331,864
Percentage change.....	4.11	5.21	1.47	2.59	-1.17	2.27	4.38	5.59	3.73	3.59	5.83	4.27
AGRICULTURE, FORESTRY, FISHING & HUNTING.....	1,859	2,329	1,903	2,205	1,744	1,415	1,838	1,556	2,268	1,837	1,576	1,446
Percentage change.....	-13.70	25.28	-18.29	15.87	-20.91	-18.86	29.89	-15.34	45.76	-19.00	-14.21	-8.25
NATURAL RESOURCES & MINING.....	2,671	3,320	3,066	3,275	2,717	2,467	2,794	2,460	3,070	2,691	2,477	2,551
Percentage change.....	-3.85	24.30	-7.65	6.82	-17.04	-9.20	13.25	-11.95	24.80	-12.35	-7.95	2.97
CONSTRUCTION.....	10,099	10,736	10,956	10,348	9,256	8,556	9,038	10,134	10,253	10,941	12,044	12,530
Percentage change.....	7.60	6.31	2.05	-5.55	-10.55	-7.56	5.63	12.13	1.17	6.71	10.08	4.04
MANUFACTURING.....	41,093	42,262	40,291	40,045	38,637	39,376	41,126	45,301	47,649	49,126	51,937	54,231
Percentage change.....	-0.25	2.84	-4.66	-0.61	-3.52	1.91	4.44	10.15	5.18	3.10	5.72	4.42
DURABLE GOODS.....	25,804	26,016	23,418	23,510	20,624	20,383	22,165	24,490	25,396	27,264	29,661	31,250
Percentage change.....	2.76	0.82	-9.99	0.39	-12.28	-1.17	8.74	10.49	3.70	7.36	8.79	5.36
WOOD PRODUCTS.....	942	907	887	834	602	631	627	663	659	767	845	845
Percentage change.....	5.49	-3.72	-2.21	-5.98	-27.82	4.82	-0.63	5.74	-0.60	16.39	10.17	0.03
NONMETALLIC MINERAL PRODUCTS.....	1,333	1,316	1,307	1,062	889	941	1,005	1,058	1,049	1,123	1,285	1,351
Percentage change.....	-4.85	-1.28	-0.68	-18.75	-16.29	5.85	6.80	5.27	-0.85	7.05	14.43	5.11
PRIMARY METALS.....	1,433	1,672	1,401	1,408	766	1,104	1,435	1,480	1,396	1,511	1,457	1,523
Percentage change.....	9.81	16.68	-16.21	0.50	-45.60	44.13	29.98	3.14	-5.68	8.24	-3.57	4.52
FABRICATED METAL PRODUCTS.....	3,474	3,706	3,696	3,356	3,527	3,491	3,361	3,624	3,453	3,560	3,694	3,881
Percentage change.....	0.35	6.68	-0.27	-9.20	5.10	-1.02	-3.72	7.83	-4.72	3.10	3.76	5.07
MACHINERY.....	3,359	3,116	2,747	3,235	2,760	2,483	2,651	2,523	3,234	3,050	3,266	3,476
Percentage change.....	17.57	-7.23	-11.84	17.76	-14.68	-10.04	6.77	-4.83	28.18	-5.69	7.08	6.43
COMPUTER & ELECTRONIC PRODUCTS.....	3,515	2,866	3,086	3,960	4,056	1,670	1,399	1,060	804	770	852	865
Percentage change.....	-17.20	-18.46	7.68	28.32	2.42	-58.83	-16.23	-24.23	-24.15	-4.23	10.65	1.58
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS.....	2,358	2,636	2,212	2,829	2,909	2,470	2,593	3,568	3,353	3,853	3,894	4,028
Percentage change.....	11.33	11.79	-16.08	27.89	2.83	-15.09	4.98	37.60	-6.03	14.91	1.06	3.45
MOTOR VEHICLES, BODIES & TRAILERS, & PARTS.....	6,191	6,678	4,883	3,776	1,972	4,466	5,948	7,397	8,395	9,530	10,524	11,127
Percentage change.....	7.91	7.87	-26.88	-22.67	-47.78	126.47	33.18	24.36	13.49	13.52	10.43	5.73
OTHER TRANSPORTATION EQUIPMENT.....	863	754	709	597	423	493	543	474	391	495	442	490
Percentage change.....	9.10	-12.63	-5.97	-15.80	-29.15	16.55	10.14	-12.71	-17.51	26.60	-10.71	10.83
FURNITURE.....	773	729	734	578	471	405	386	423	469	502	541	561
Percentage change.....	-5.50	-5.69	0.69	-21.25	-18.51	-14.01	-4.69	9.59	10.87	7.04	7.77	3.79
MISCELLANEOUS DURABLE GOODS.....	1,563	1,636	1,756	1,875	2,249	2,229	2,217	2,220	2,193	2,103	2,861	3,102
Percentage change.....	5.39	4.67	7.33	6.78	19.95	-0.89	-0.54	0.14	-1.22	-4.10	36.04	8.42
NONDURABLE GOODS.....	15,289	16,246	16,873	16,535	18,013	18,993	18,961	20,811	22,253	21,862	22,276	22,981
Percentage change.....	-4.96	6.26	3.86	-2.00	8.94	5.44	-0.17	9.76	6.93	-1.76	1.89	3.16
FOOD AND BEVERAGE.....	5,037	5,442	6,061	6,053	6,915	6,986	6,504	7,052	7,126	7,270	7,548	7,553
Percentage change.....	0.54	8.04	11.37	-0.13	14.24	1.03	-6.90	8.43	1.05	2.02	3.82	0.06
TEXTILE MILLS & TEXTILE PRODUCT MILLS.....	576	636	553	572	421	369	332	359	497	483	511	514
Percentage change.....	-10.70	10.42	-13.05	3.44	-26.40	-12.35	-10.03	8.13	38.44	-2.82	5.80	0.57

(CONTINUED ON NEXT PAGE)

Table 14: Tennessee Gross Domestic Product by Sector (millions of current dollars) **January 2018**

	Forecast Data												January 2018			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016				
APPAREL & LEATHER PRODUCTS.....	311	246	231	240	213	235	203	205	325	173	180	185				
Percentage change.....	-16.40	-20.90	-6.10	3.90	-11.25	10.33	-13.62	0.99	58.54	-46.77	4.05	2.89				
PAPER.....	1,971	2,334	2,040	2,171	2,590	2,806	2,537	2,698	2,960	2,908	2,771	2,929				
Percentage change.....	4.07	18.42	-12.60	6.42	19.30	8.34	-9.59	6.35	9.71	-1.76	-4.71	5.69				
PRINTING & RELATED SUPPORT.....	1,258	1,350	1,307	1,222	1,092	1,039	973	921	1,036	1,007	1,024	1,018				
Percentage change.....	4.57	7.31	-3.19	-6.50	-10.64	-4.85	-6.35	-5.34	12.49	-2.80	1.69	-0.58				
CHEMICALS.....	3,367	3,806	3,962	3,981	4,554	5,203	6,109	6,850	7,319	6,323	6,667	7,006				
Percentage change.....	-20.14	13.04	4.10	0.48	14.39	14.25	17.41	12.13	6.85	-13.61	5.44	5.08				
PLASTICS & RUBBER.....	1,909	1,780	1,898	1,745	1,757	1,834	1,752	1,878	2,124	2,055	2,103	2,289				
Percentage change.....	-7.19	-6.76	6.63	-8.06	0.69	4.38	-4.47	7.19	13.10	-3.25	2.34	8.82				
MISCELLANEOUS NONDURABLE GOODS.....	860	652	821	551	471	521	551	848	866	1,643	1,472	1,488				
Percentage change.....	24.64	-24.19	25.92	-32.89	-14.52	10.62	5.76	53.90	2.12	89.72	-10.41	1.08				
TRADE.....	46,801	49,477	50,073	50,279	47,339	49,824	51,980	54,950	56,222	57,990	60,693	62,693				
Percentage change.....	6.99	5.72	1.20	0.41	-5.85	5.25	4.33	5.71	2.31	3.14	4.66	3.30				
WHOLESALE TRADE.....	15,657	16,761	17,502	18,083	16,671	17,548	18,275	19,825	20,470	21,394	22,104	23,080				
Percentage change.....	6.59	7.05	4.42	3.32	-7.81	5.26	4.14	8.48	3.25	4.51	3.32	4.41				
RETAIL TRADE.....	18,415	19,103	19,282	18,606	17,961	18,718	19,432	20,418	20,576	21,184	22,260	22,885				
Percentage change.....	7.23	3.74	0.94	-3.51	-3.47	4.21	3.81	5.07	0.77	2.95	5.08	2.81				
TRANSPORTATION & UTILITIES.....	12,729	13,613	13,289	13,590	12,707	13,558	14,273	14,707	15,176	15,412	16,329	16,729				
Percentage change.....	7.14	6.94	-2.38	2.27	-6.50	6.70	5.27	3.04	3.19	1.56	5.95	2.45				
INFORMATION.....	7,093	7,742	8,692	8,097	8,495	8,364	8,247	7,482	7,808	7,861	8,714	8,880				
Percentage change.....	5.53	9.15	12.27	-6.85	4.92	-1.54	-1.40	-9.28	4.36	0.68	10.85	1.90				
FINANCIAL ACTIVITIES.....	33,467	34,754	37,061	37,947	39,030	40,855	42,716	44,188	45,671	48,397	50,831	53,490				
Percentage change.....	0.41	3.85	6.64	2.39	2.85	4.68	4.56	3.45	3.36	5.97	5.03	5.23				
PROFESSIONAL & BUSINESS SERVICES.....	21,731	22,817	24,222	26,130	25,047	26,271	27,396	29,960	31,839	33,022	36,132	38,391				
Percentage change.....	3.04	5.00	6.16	7.88	-4.14	4.89	4.28	9.36	6.27	3.72	9.42	6.25				
EDUCATION & HEALTH SERVICES.....	20,132	21,136	22,198	24,214	26,416	27,255	28,457	29,683	30,335	31,145	33,593	34,974				
Percentage change.....	6.66	4.99	5.02	9.08	9.09	3.18	4.41	4.31	2.20	2.67	7.86	4.11				
LEISURE & HOSPITALITY.....	10,091	11,096	11,787	11,062	10,760	11,034	11,389	12,151	12,662	13,879	15,386	16,661				
Percentage change.....	7.42	9.96	6.23	-6.15	-2.73	2.55	3.22	6.69	4.21	9.61	10.86	8.29				
OTHER SERVICES.....	6,258	6,532	6,500	6,444	6,454	6,604	6,854	7,286	7,349	7,565	7,917	8,152				
Percentage change.....	3.18	4.38	-0.49	-0.86	0.16	2.32	3.79	6.30	0.86	2.94	4.65	2.96				
GOVERNMENT.....	28,068	29,118	28,119	31,170	32,389	31,888	33,202	34,710	35,186	36,294	36,988	37,866				
Percentage change.....	9.74	3.74	-3.43	10.85	3.91	-1.55	4.12	4.54	1.37	3.15	1.91	2.37				
FEDERAL.....	7,896	8,122	8,254	7,887	8,115	8,550	8,526	8,384	8,747	9,666	9,861	9,945				
Percentage change.....	1.89	2.87	1.62	-4.45	2.89	5.36	-0.28	-1.67	4.34	10.51	2.01	0.85				
STATE & LOCAL.....	20,172	20,996	19,865	23,283	24,274	23,338	24,676	26,326	26,439	26,628	27,127	27,922				
Percentage change.....	13.15	4.08	-5.39	17.21	4.26	-3.86	5.73	6.69	0.43	0.71	1.87	2.93				
													Tennessee Econometric Model			

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