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

THE STATE'S ECONOMIC OUTLOOK JANUARY

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

Lawrence M. Kessler, Research Associate Professor and Project Director Boyd Center for Business and Economic Research

#### PREPARED BY THE

Boyd Center for Business and Economic Research
Haslam College of Business
The University of Tennessee
Knoxville, Tennessee
and
Department of Agricultural and Resource Economics,
The University of Tennessee Institute of Agriculture

#### IN COOPERATION WITH THE

Tennessee Department of Finance and Administration
Tennessee Department of Economic and Community Development
Tennessee Department of Revenue
and
Tennessee Department of Labor and Workforce Development



# CONTRIBUTORS

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

#### **AUTHORS**

#### **UT Boyd Center for Business and Economic Research**

Lawrence M. Kessler, Research Associate Professor and Project Director
Donald J. Bruce, Boyd Distinguished Professor, Director, Boyd CBER
Celeste Carruthers, William F. Fox Distinguished Professor of Labor Economics
Matthew Harris, Boyd Distinguished Professor of Health Economics
Timothy A. Kuhn, Research Associate and Director of the Tennessee State Data Center
Seth Neller, Assistant Professor of Economics
Edward Taylor, Senior Research Associate
Alex S. Norwood, Research Associate

#### Department of Agricultural and Resource Economics, The University of Tennessee Institute of Agriculture

Andrew Muhammad, *Professor of Agricultural Economics and Blasingame Chair of Excellence*Andrew P. Griffith, *Professor of Agricultural Economics*Charley Martinez, *Assistant Professor* 

R. Jamey Menard, *Research Leader* 

Aaron Smith, *Professor of Agricultural Economics*Sreedhar Upendram, *Associate Professor of Agricultural Economics*T. Edward Yu, *Professor of Agricultural Economics* 

# **PROJECT SUPPORT STAFF**

# **UT Boyd Center for Business and Economic Research**

Erin Hatfield, *Communications and Events Specialist*Kira Rasmussen, *Business Manager* 

The preparation of this report was financed in part by the following agencies: the Tennessee Department of Finance and Administration, the Tennessee Department of Economic and Community Development, the Tennessee Department of Revenue, and the Tennessee Department of Labor and Workforce Development.

This material is the result of tax-supported research and as such is not copyrightable. It may be freely reprinted with the customary crediting of the source.

# **PREFACE**

This 2025 volume of An Economic Report to the Governor of the State of Tennessee is the forty-ninth 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 first quarter of 2027 and annual forecast through 2034 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 S&P Global Market Intelligence. Tennessee forecasts, current as of December 2024, 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 and presents the short-run and long-run outlook for the state economy, with an agriculture section provided by the University of Tennessee Institute of Agriculture. Finally, Chapter Three focuses on artificial intelligence (AI) and its potential economic implications. This chapter provides a brief description of many of the AI applications currently available, as well as an analysis of AI adoption rates across states, industries, and firm sizes. The chapter also provides a discussion on the potential impacts of AI on employment, and how AI-focused education and workforce development can play key roles in helping to mitigate job losses as AI continues to be integrated into the economy.

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 up-to-date economic analysis to planners and decision-makers in the public and private sectors.

Lawrence M. Kessler

Research Associate Professor and Project Director Boyd Center for Business and Economic Research

# **TABLE OF CONTENTS**

EXE	CUTIVE SUMMARY	VIII
СНА	APTER 1: THE U.S. ECONOMY	1
1.1.	The U.S. Economy: Year in Review	
	Introduction	
	Consumption and Inflation	
	Housing and Interest Rates	
	Employment and Wages	
	Investment and the Stock Market	
	Government Expenditures and Major Policies	16
	International Trade	
1.2.	The U.S. Forecast	18
	Consumption	18
	Investment	18
	Interest Rates and Inflation	18
1.3.	Alternative Scenarios	20
	Labor Market	20
	Federal Budget	20
	International Trade	20
CHA	APTER 2: THE TENNESSEE ECONOMY	21
2.1.	Introduction	
	The Labor Market	
2.2.	The Current Economic Environment	
	Income, Earnings, and Taxable Sales	
	Population Trends	35
	Population Projections	35
	The Tennessee Housing Market	41
	GDP Outlook	45
2.3.	Tennessee Economic Outlook	45
	Labor Market Outlook	47
	Income, Earnings, and Taxable Sales	49
2.4.	Forecast at a Glance	50
2.5.	Tennessee's Agricultural and Forest Industries and Rural Economy	51
	Introduction	51
	Agriculture and Primary Forestry	51
	Food Fiber, and Forestry Manufacturing in Tennessee	60

CHA	APTER 3: ARTIFICIAL INTELLIGENCE: INSIGHTS AND ECONOMIC IMPLICATIONS	63
3.1.	Introduction	63
3.2.	Background	64
3.3.	Current Capabilities of Al	65
3.4.	Current State of Al Adoption in the U.S.	67
3.4.	Current State of Al Adoption in Tennessee	71
3.5.	Al's Expected Economic Effects	72
3.6.	Preparing Tennessee for the Future of Al	75
3.7.	v .	
3.8.	Appendix	77
	PENDIX A: FORECAST DATA	
Quai	rterly Forecast Tables	2
Annı	ual Forecast Tables	18
APF	PENDIX B: HISTORICAL DATA	31
Quai	rterly History Tables	32
Annı	ual History Tables	48

# **FIGURES AND TABLES**

CHAPTER 1: THE U.S. ECONOMY	1
Figure 1.1: Overall, the U.S. Economy Remains Strong, Even as Growth in Other High-Income Eurozone Countries Stagn	nates
(Q4 2019 = 100)	2
Figure 1.2: Consumption Growth is Strong, Driven by Goods Spending	3
Figure 1.3: Vehicle Sales Have Stagnated as Consumers Retain Existing Cars and Trucks for Longer Periods	4
Figure 1.4: Inflation in the U.S. Remains Comparable to European Peers, Despite Stronger Economic Growth	5
Figure 1.5: While Energy Inflation has Subsided, Housing Costs are Still Increasing	5
Figure 1.6: Growth in Housing Values and Rent Have Slowed, but Prices Remain High (Jan. 2020 = 100)	7
Figure 1.7: A Relative Lack of Housing Supply, Combined with Investor Interest, Continue to Keep Housing Prices High	8
Figure 1.8: Interest Rates Have Decreased Slightly, As Federal Reserve Balances Inflation Concerns with a Desire to Stimulate Growth	
Figure 1.9: Unemployment Increased Slightly During the Year, But Remains Low	9
Figure 1.10: Labor Force Participation Rates Remain Steady, While Overall Declines from Pre-Pandemic Period are Du	ue to
an Aging Population	10
Figure 1.11: Real Wages Experienced Strong Overall Growth	11
Figure 1.12: Despite Real-Wage Growth, Earnings Still Lag Behind Overall Labor Productivity	12
Figure 1.13: Gains in Real Wages Have Slightly Improved the Affordability of Housing During the Year, Though this Varies  State	
Figure 1.14: Investment Spending Increased, Led by Equipment Purchases	14
Figure 1.15: Stock Prices Reached All-Time Highs in 2024, Driven by Record Profits	
Figure 1.16: Growth Rate of Government Consumption and Investment Has Fallen, Primarily Due to Decreases in State a	ınd
Local Spending	16
Figure 1.17: Net Exports Decreased Year-over-Year, As Imports of Goods Accelerated	17
Figure 1.18: Consumer Sentiment Recovered Slightly in 2024, Mirroring Falling Concerns About Future Inflation	19
Figure 1.19: The Yield Curve Suggests Recession Risk Has Abated Slightly During the Year	19
CHAPTER 2: THE TENNESSEE ECONOMY	21
Figure 2.1: There are Nearly 184,000 More Workers in Tennessee Than There Were Prior to the Pandemic, but Job Gains	S
Have Slowed Since the Summer of 2023	23
Figure 2.2: Job Growth Has Softened Across Most Broad Sectors in Tennessee	24
Figure 2.3: Employment Growth by County, 2023Q1 to 2024Q1	25
Figure 2.4: Job Openings in Tennessee Remain Slightly Elevated but are Nearing Pre-pandemic Levels	26
Figure 2.5: The Shortage of Tennessee Workers Persists, but has Become Much Less Pronounced	27
Figure 2.6: Labor Force Participation in Tennessee Remains Depressed	28
Figure 2.7: A Larger Share of People Aged 55 to 64 Have Moved to Tennessee Over the Last Three Years Than During the	те
Previous Decade	28
Figure 2.8 Labor Force Participation Rates Across the U.S., October 2024	29
Figure 2.9: Tennesseans Have a Higher Prevalence of Serious Health Ailments	30
Figure 2.10: Adult Educational Attainment Rates Over Time, Tennessee versus the U.S	31
Figure 2.11: Wage Growth is Starting to Subside	32
Figure 2.12: Average Hourly Farnings in Tennessee Across Broad Sectors	32

Figure 2.13: Tennessee Per Capita Income Trails the Nation, but is Third Highest Among all Southeastern States, 2024Q2	33
Figure 2.14: Per Capita Income Across Tennessee Counties, 2023	34
Figure 2.15: Population Growth Across the Nation, 2022 to 2023	36
Figure 2.16: Population Growth Across Tennessee Counties, 2022 to 2023	37
Figure 2.17: Tennessee Resident and Projected Population, 1910-2070	38
Table 2.1: Projected Population Change of Tennesseans, 2022-2040	38
Table 2.2: Projected Population Change of Tennesseans by Race, 2022-2040	39
Figure 2.18: The Number of Deaths in Tennessee Grew Steadily with Population Gains, but Jumped in 2020 as COVID-19	Э
Related Deaths Emerged. Through 2023, Deaths Remain Above Pre-Pandemic Levels	40
Figure 2.19: After a Century of Natural Population Increases, Tennessee saw its First Natural Decrease in 2020 as Deaths	3
Attributed to COVID-19 Grew to Become the State's Third Leading Cause of Death in 2020 and 2021	40
Figure 2.20: 100+ Years of Net Migration	41
Table 2.3a: Share of State Total Migration by Geographic Area	42
Table 2.3b: Comparing Patterns in Net Migration Before and After 2020, Select Tennessee Combined and Metropoitan  Statistical Areas	42
Figure 2.21: The 30-Year Fixed Mortgage Rate is Strongly Correlated with the Federal Funds Rate	43
Figure 2.22: Home Values in Tennessee Grew Rapidly in 2021 and 2022	43
Figure 2.23: The Number of Homes for Sale (i.e. Active Listings) is Back to Pre-Pandemic Levels	
Figure 2.24: The Percentage of Tennesseans Who Are Cost Burdened by Housing Has Risen Across All Income Groups	44
Figure 2.25: Monthly Rent Continues to Rise for More Tennessee Households	45
Table 2.4: Selected U.S. and Tennessee Economic Indicators	46
Figure 2.26: Real GDP Forecast, Tennessee and the U.S.	47
Figure 2.27: Employment Forecast, Tennessee and the U.S.	48
Table 2.5: Tennessee Harvested Acres, Production, and Yield for Corn, Cotton, Soybeans, and Wheat, 2019-2024*	52
Table 2.6: Marketing Year Average Prices for Tennessee, 2019-2024*	52
Table 2.7: Tennessee Agricultural and Related Product Exports in FY 2023 and FY 2024:	55
Table 2.8: Tennessee Agricultural and Related Product Exports in FY 2023 and FY 2024 by Top 10 Products and Partner	
Countries (Destinations)	56
Figure 2.28: U.S. Agricultural Trade (Excluding Forestry): FY 2015 - FY 2025(F)	57
Table 2.9: Indicators of Financial Well-Being of the Tennessee Farm Sector, 2018-2023	58
Table 2.10: Tennessee Food, Fiber, and Forestry Manufacturing, 2023	60
Table 2.11: Multiplier Effects for Economic Activity, Employment, and Total Value Added for Selected Agriculture and Fore	st
Industries in Tennessee, 2022	62
CHAPTER 3: ARTIFICIAL INTELLIGENCE: INSIGHTS AND ECONOMIC IMPLICATIONS	
Figure 3.1. Current State Adoption Rates Range From 1.7% to 7.4% (firm-based)	
Table 3.1. Industry Al Adoption Rates	
Figure 3.2. The Smallest and Largest Firms are Higher Adopters (firm-weighted)	
Table 3.2. U.S. Industrial Sector Al Adoption Rates and Tennessee Firms Using Al	
Table 3.3. Most and Least AL-Exposed Occupations	77

# **EXECUTIVE SUMMARY**

#### THE U.S. ECONOMY

The U.S. economy demonstrated remarkable resilience in 2024, surpassing many forecasts for a year that began with recession concerns. Through the first three quarters of 2024, inflation-adjusted gross domestic product (real GDP) posted quarterly growth rates of 1.6 percent, 3.0 percent, and 2.8 percent, leading to a year-over-year increase of 2.7 percent as of September 2024. This strong performance stands in contrast to the sluggish growth observed in peer economies like the European Union, where quarterly GDP growth remained between 1.0 and 1.3 percent. The U.S. continues to outpace global peers in navigating post-pandemic economic challenges.

Consumption remained the primary driver of GDP growth, accounting for approximately three-quarters of the overall increase. Services dominated this growth, driven by the expanding healthcare sector, which has grown at an annualized rate of 5.6 percent since 2021. Additionally, rising goods consumption boosted third-quarter economic performance, with purchases of recreational and medical goods leading the way.

Despite this growth, inflation remains a key concern, albeit moderated compared to previous years. The Consumer Price Index (CPI) increased by 2.6 percent over the past 12 months, near the Federal Reserve's 2 percent target. However, housing costs, which rose by 4.2 percent year-over-year, contributed disproportionately to inflation, accounting for 73 percent of the overall rate. High mortgage rates and supply shortages have exacerbated affordability issues, with half of U.S. homeowners and renters reporting struggles with housing payments.

The labor market remains a bright spot, with unemployment rates at 4.1 percent overall and 3.5 percent for prime-age workers. The economy added 2.2 million jobs over the past year, and labor force participation rates remain steady, even in light of an aging population. Wage

growth outpaced inflation, with inflation-adjusted earnings rising by 1.4 percent, though gains were uneven across industries.

Investment spending also contributed to GDP growth, particularly in the second and third quarters, with notable increases in information technology and aircraft purchases. Federal policies, such as the Bipartisan Infrastructure Law and CHIPS Act, supported manufacturing and infrastructure investments, offsetting declines in commercial real estate spending. Strong corporate profits were reflected in a record-breaking stock market performance, with the S&P 500 reaching all-time highs as of the time of writing.

Looking ahead, while there are measures of pessimism reflected in both consumer confidence and financial metrics such as the yield curve, the strong underlying fundamentals of the economy are expected to lead to further growth. Specifically, changes in gross domestic product are expected to slow but remain positive, with quarterly annualized growth rates forecasted between 1.8 and 2.3 percent in 2025. Inflation is projected to stabilize near the Federal Reserve's target, while easing monetary policy will bring incremental interest rate cuts, building on reductions initiated in late 2024 as the Federal Reserve seeks to balance inflation control with sustained economic growth. Challenges in the housing market are likely to persist, with affordability concerns continuing to dominate. Employment gains are expected to moderate, with projected employment gains of 1.3 million for 2025, and an unemployment rate averaging 4.4 percent for the year.

Despite mixed signals, the U.S. economy is poised for continued resilience, supported by strong consumer spending and robust business investment. Federal policy initiatives and moderating inflation are expected to sustain economic momentum, though geopolitical and trade uncertainties remain potential risks to the forecast.

#### THE TENNESSEE ECONOMY

The Tennessee economy continues to stabilize as effects from the COVID-19 pandemic and ensuing recovery dissipate. Tennessee saw extremely strong growth as it recovered from the pandemic, with inflation-adjusted gross domestic product (real GDP) growth of 9.0 percent in 2021 and 4.0 percent in 2022. Economic growth began to moderate thereafter, as real GDP advanced by only 1.9 percent in 2023. Expectations are that economic growth in Tennessee will continue to moderate over the near term as the recovery winds down, with a slightly slower rate of GDP growth relative to the nation in 2024, but then stronger growth in 2025. Specifically, Tennessee real GDP will expand by 2.4 percent in 2024 and 2.5 percent in 2025, while the U.S. economy is projected to grow by 2.7 percent and 2.0 percent in 2024 and 2025 respectively. Slower state growth in 2024 is largely driven by timing, as the Tennessee economy recovered more quickly from the pandemic and is therefore stabilizing sooner as well.

Job growth in Tennessee continues to moderate as well. The state added roughly 58,000 new jobs to payrolls in 2023, which was in line with prepandemic job gains, but well below the 100,000-plus jobs added in both 2021 and 2022. Monthly jobs data provide additional evidence of a cooling labor market. In the first half of 2023, the state added an average of roughly 8,000 jobs per month, but starting in July 2023 Tennessee began to see labor force contractions, with 4 out of the 5 months from July through November seeing negative job growth. Since then, job growth has largely turned positive, but gains have been much smaller. In the third quarter of 2024 (July through September), Tennessee added an average of only 2,600 jobs per month. As a result, we project that nonfarm employment growth will increase by 0.7 percent in 2024 and 1.1 percent in 2025, representing much more moderate increases of 22,500 jobs and 36,400 jobs respectively.

Tennessee's unemployment rate, which remains

at a historically low level, has drifted upward in recent months. The state rate reached an all-time low of 3.0 percent in July 2024 but increased to 3.3 percent as of October. Expectations are that the unemployment rate will continue to slowly rise, averaging 3.2 percent for the 2024 year as a whole, 3.3 percent in 2025, and 3.4 percent in 2026. The rising unemployment rate will be driven by both a slowdown in job growth, as well as an increase in the number of unemployed people as the economy cools and it takes longer for some job seekers to find work.

Nominal personal income will advance at an above trend rate of 6.1 percent in 2024 due to strong and sustained growth in wages and salaries. Expectations are that personal income growth will moderate back towards historic trends, and grow by 4.6 percent in 2025, as both wage growth and job growth slow. After adjusting for inflation, real personal income will increase by 3.6 percent in 2024 and 2.6 percent in 2025. On a fiscal year basis, nominal personal income is projected to grow by 5.3 percent in FY24/25 and 4.7 percent in FY25/26.

Over the long term (10 years out), Tennessee real GDP growth will hover around its prepandemic trend of roughly 2.5 to 2.6 percent per year from 2026 through 2029, but then decelerate to around 2.3 to 2.4 percent from 2030 through 2034. Similarly, nonfarm employment will advance by 1.2 to 1.4 percent per year during the first half of the forecast horizon, before slowing to 0.8 to 1.0 percent growth towards the end of the long-term forecast horizon. Slightly slower growth towards the end of the long-term forecast horizon is due to the aging population coupled with lower fertility rates leading to a smaller potential workforce over the long term.

In addition to the economic forecast, this chapter also provides a summary of the updated population projections released by the Boyd Center for Business and Economic Research and the Tennessee State Data Center. This section delves

<sup>1</sup> The full set of population estimates and projections can be found at https://tnsdc.utk.edu/estimates-and-projections/boyd-center-population-projections/

# **EXECUTIVE SUMMARY**

# THE TENNESSEE ECONOMY, CONTINUED

into a number of important long-run trends in population growth. Of note, the state population is projected to increase by 600,000 people between 2020 and 2030, which would be slightly higher than the gains seen during the previous decade. Population growth will slow in the ensuing decade, adding 427,000 new residents between 2030 and 2040. This slowdown is driven by two important factors. First net migration, which rose to record levels over the last two years, is expected to recede to more normalized levels over the long term.

Second, low fertility rates coupled with rising deaths among an aging population will limit population growth. Between now and 2040, the number of senior citizens (aged 65 and older) is projected to increase by 11.7 percent, and the number of individuals aged 85 and older is expected to rise by 71.8 percent. Most of this growth will be driven by aging among current residents rather than an influx of out-of-state retirees, and, importantly, this will lead to an increased demand for health care and other support services.

# ARTIFICIAL INTELLIGENCE: INSIGHTS AND ECONOMIC IMPLICATIONS

Artificial intelligence (AI) represents a significant technological advancement of our time, characterized by the ability of machines to perform cognitive tasks typically associated with human intelligence. AI has advanced so rapidly in the last decade that it can outperform humans in areas like image classification and reading comprehension. The rapid advancement of AI abilities and its increasing use within some industrial sectors have sparked significant interest and debate regarding its economic impacts. This chapter examines the current pace of business adoption and provides an analysis of the economic implications of AI, focusing on both the potential benefits and risks associated with its widespread adoption.

AI adoption has tremendous potential to enhance economic efficiency, and efficiency gains are crucial for businesses seeking to remain competitive in an increasingly digital economy. AI-driven automation and optimization processes enable firms to streamline operations, reduce waste, and improve decision-making accuracy. Other AI technologies such as machine learning and predictive analytics provide valuable insights that drive innovation and strategic planning.

Despite its economic promise, national survey data from February 2024 indicate that only 5 percent of U.S. firms are using AI to produce goods and

services. The rate of AI adoption varies significantly across states, industries, and firm sizes. States with Fortune 500 companies, large metropolitan areas, or cutting-edge research universities tend to have higher adoption rates. Coastal states California, Washington, Florida, and Delaware are among the leaders. Smaller, more rural states like Mississippi, West Virginia, North Dakota, and Maine have some of the lowest rates. Tennessee ranks 17th among the states, just below the national average at 4.9 percent. There is also significant variation across industrial sectors. Information leads all sectors with an 18 percent adoption rate, followed by Professional, Scientific, and Technical Services at 12 percent. In contrast, Mining, Quarrying, and Oil and Gas Extraction; Accommodation and Food Services; Transportation and Warehousing; Agriculture; and Construction all have adoption rates below 2 percent. Interestingly, with regards to firm size, larger firms (with 250 employees or more) and smaller firms (with 1 to 4 employees) are more likely to adopt AI than medium-sized firms. Larger firms likely have more resources to invest in new technologies, such as AI, while smaller firms are more nimble and can implement new strategies more quickly.

While AI adoption among businesses remains modest, there is a growing recognition of AI's transformative potential. Businesses

# ARTIFICIAL INTELLIGENCE: INSIGHTS AND ECONOMIC IMPLICATIONS. CONTINUED

are increasingly investing in AI research and development to harness its capabilities for competitive advantage. The disparity in adoption rates across industrial sectors and different size firms highlights the need for targeted support programs that encourage smaller firms and lagging industries to embrace AI technologies. While the growing investment in AI by businesses signals a shift towards broader adoption, it also raises important questions about the implications for the workforce, particularly as certain jobs may be at risk of displacement.

The impact of AI on employment is multifaceted. While AI has the potential to displace certain jobs, particularly those involving routine tasks, it can also create new job opportunities. Historical data indicates that technological advancements often lead to the emergence of new occupations. However, the transition may not be uniform across all industries. The most vulnerable jobs are those whose tasks are repetitive and lacking in mechanical complexity (e.g. billing clerk), and this is where AI excels. It is essential for policymakers and educational institutions to develop strategies that facilitate workforce reskilling and upskilling to ensure a smooth transition into an AI-integrated economy. Firms can help too. Continuous learning programs for current employees can help them adapt to new roles created by AI advancements.

To fully realize the benefits of AI while minimizing its disruptive effects on employment, there must be a concerted effort toward education and workforce development. Educational institutions should incorporate AI-related curricula at all levels to prepare students for future job markets. Tennessee has been a strong supporter of the AI Education Project for K-12 learners, and the University of Tennessee launched an applied AI program during the Fall 2024 semester. Collaboration between stakeholder groups can accelerate the adoption of beneficial AI technologies while addressing potential

drawbacks. One such effort, the AI Tennessee Initiative, is a broad-based effort that brings together academic, industry, and community partners to enhance education, promote research, and ensure AI benefits for every economic sector.

While education and workforce development are essential for harnessing the benefits of AI, it is equally critical to address the societal risks that accompany its integration. This includes implementing ethical considerations and robust regulatory frameworks to safeguard vulnerable populations. Concerns have been raised that AI could worsen income inequality, introduce biases in hiring practices, and exacerbate housing discrimination. For instance, if not properly managed, biased algorithms in recruitment can reinforce existing disparities. Likewise, AI applications in financial services require scrutiny to prevent discriminatory lending practices. Policymakers must prioritize ethical issues such as data privacy, accountability, and algorithmic transparency in decision-making processes involving AI systems. In response to these and other challenges, governments are beginning to enact legislation to regulate AI use, as demonstrated by recent bills passed in various states across the U.S., including Tennessee.

In summary, the economic impacts of AI are vast and complex. The macroeconomic implications include increased productivity and potentially higher economic growth rates. As AI technologies mature, their integration into various sectors will likely drive significant advancements in healthcare, finance, manufacturing, and other industries. The cumulative effect of these improvements will contribute to sustained economic growth and enhanced global competitiveness. While AI offers significant potential for enhancing efficiency and productivity, it also presents challenges related to job displacement and societal risks. Policymakers and business leaders must navigate these challenges carefully to harness AI's benefits while mitigating its risks.

# CHAPTER 1: THE U.S. ECONOMY

# In this Chapter —

International Trade

# 1.1. The U.S. Economy: Year in Review

Introduction Consumption and Inflation Housing and Interest Rates Employment and Wages Investment and the Stock Market Government Spending and Major Policies

# 1.2. The U.S. Forecast

Consumption Investment Interest Rates and Inflation Labor Market Federal Budget International Trade

# 1.3. Alternative Scenarios

#### THE U.S. ECONOMY: YEAR IN REVIEW 1.1.

#### Introduction

The story of the U.S. economy in 2024 is a now-familiar one. Economic indicators, such as overall growth and stock-market performance, remain very strong, but consumers continue to struggle with high prices, particularly in the housing market, which has dampened confidence.

Real gross domestic product (real GDP), which measures a country's total inflation-adjusted output, grew by 1.6 percent, 3.0 percent, and 2.8 percent over the last three quarters. Indeed, despite the fact that some forecasters expected a recession heading into 2024, the economy has continued with year-over-year growth of 2.7 percent as of September 2024, far outpacing the expectations of all but the most optimistic predictions.

This growth is perhaps even more remarkable when considered in a broader global context. As shown in Figure 1.1, the economies of the United States' closest peer—the European Union—grew at a far-more sluggish rate of between 1.0 percent and 1.3 percent each of the three quarters. This sluggish performance contrasts sharply with the performance of the U.S., which has had greater

success navigating the turbulent economic conditions in the wake of the COVID-19 pandemic.

However, not all is well with the U.S. economy. Despite its solid economic growth—and, perhaps in part because of it—inflation remains a serious concern, as consumers' purchasing power is eroded by rising prices. Although the Consumer Price Index (CPI) rose just 2.6 percent during the past year—slightly above the Federal Reserve's 2 percent target—the cumulative effect of several years of increasing prices has taken a toll. In the University of Michigan's October 2024 Survey of Consumer Confidence, 46 percent of respondents said they were worse-off financially than in 2023, with 43 percent of all survey participants attributing their degraded financial condition to higher prices.

Despite consumer pessimism, the year delivered other positive signs of economic performance, including strong inflation-adjusted wage growth, continuing low unemployment levels, and record-setting stock-market performance. These trends, and the prospects for the year to come, are discussed in greater detail in the remainder of this chapter.

Even as Growth in Other High-Income Eurozone Countries Stagnates (Q4 2019 = 100) 115 110 105 Real GDP 100 95 90 85 2018 2019 2020 2021 2022 2023 2024

# Figure 1.1: Overall, the U.S. Economy Remains Strong,

Sources: Bureau of Economic Analysis, Eurostat.

#### **Consumption and Inflation**

As is typically the case, consumption was the largest contributor to GDP growth during the year, accounting for roughly three-quarters of the overall increase. As shown in **Figure 1.2**, gains in consumption spending started off relatively slowly, growing by 1.9 percent in the first quarter, but has accelerated throughout the year, with annualized growth rates of 2.8 percent and 3.5 percent in the second and third quarters, respectively.

As is often the case, much of this growth is attributable to increased output from the services sector, which has contributed between 1.7 and 2.2 percentage points to the top-line consumption growth during the year so far. In turn, approximately half of the growth in services is attributable to the expanding healthcare sector, despite the fact that this industry comprises only one quarter of all services consumption. This rapid growth is a trend that started in mid-2021, wherein healthcare has expanded at an average annualized rate of 5.6 percent.

While the services were the most consistent contributor to GDP in 2024, rising spending on goods bolstered economic growth during the 3rd quarter, with a 5.6 percent annualized growth rate. This surge was attributable to durable and non-durable goods in roughly equal measure. During the past twelve months, purchases of recreational goods (\$38 billion) have been the leading driver of durable goods, while medical and pharmaceutical purchases (\$33 billion) was the nondurable category exhibiting the largest increase.<sup>1</sup>

Vehicle sales, in contrast, have stagnated since their brief recovery after the pandemic. As demonstrated by **Figure 1.3**, the annualized sales of passenger vehicles and light trucks have fluctuated between 15 and 16 million during 2024, a pace that is historically low outside of recessions and the sluggish recovery from the 2008 financial crisis.

A primary reason for depressed automobile sales is consumer's decision to retain their existing cars for longer periods. As shown in the figure, the average vehicle age reached an all-time high of

All dollar figures are inflation-adjusted (using a base of 2017), unless otherwise noted.

20 **Total Consumption** 15 10 5 Overall 0 -5 -10 2021 2024 2022 2023 20 Quarterly Growth Rates (Annualized) 15 10 5 Services 0 -5 -10 2021 2022 2023 2024 20 Goods Consumption 15 10 Goods 5 Ó -5 -10 2021 2022 2023 2024 \*Subcategories represent contribution to top-line growth.

Figure 1.2: Consumption Growth is Strong, Driven by Goods Spending

Sources: Bureau of Economic Analysis.

Age Vehicle Sales (in Millions) 

Figure 1.3: Vehicle Sales Have Stagnated as Consumers Retain Existing Cars and Trucks for Longer Periods

Sources: Bureau of Economic Analysis, Bureau of Transportation Statistics, S&P Global Mobility

12.6 years during 2024. Consumers are maintaining their cars in response to higher interest rates, making auto loans more costly, and higher vehicle prices, which rose by 33 percent in the wake of the pandemic, due to supply chain issues, and have been very slow to recover, remaining 26 percent higher than their end-of-2019 baseline.

This pattern—surging prices in the wake of pandemic, attributable to supply-chain disruptions and pent-up consumer demand—has repeated itself across nearly all major classes of goods. This is clearly illustrated by **Figure 1.4**, which displays that while inflation is approaching the Federal Reserve's annual target rate of two percent, a *reversal* of recently rising prices—which would be indicated by negative inflation, or *deflation*, is unlikely. Moreover, while consumers would prefer prices to be much lower, deflation is generally considered very harmful by policymakers. If prices decreased sharply, businesses would be required to sell their inventories at a loss, which can lead to mass layoffs, and, ultimately, a recession.<sup>2</sup>

Ultimately, inflation in the U.S., is very comparable to that of European countries. Specifically, as of October 2024, aggregate prices in the U.S. have risen by 2.6 percent during the last several months, as compared to 2.0 percent in Europe. If inflation is measured by annualizing the most recent quarter's price increases, the U.S. and Europe are virtually identical, with annualized rates of 1.4 percent and 1.5 percent, respectively.

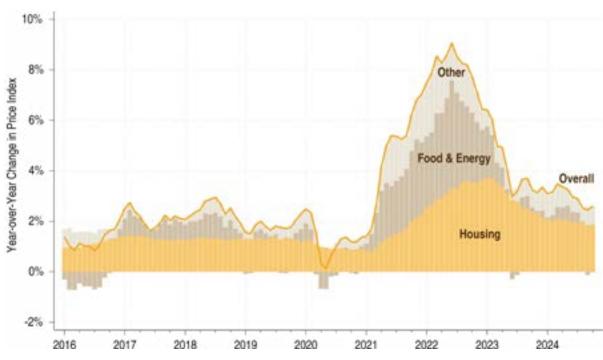
The fact that the U.S. has a slightly higher inflation rate is not surprising. Indeed, the U.S. inflation rate is perhaps lower than what might be expected, given that inflation tends to rise in tandem with economic growth, and the output of the U.S. economy has meaningfully outperformed Europe in the post-pandemic years. This suggests that domestic policy for fighting inflation has been particularly effective, even as global factors pushed prices upward.

As shown in **Figure 1.5**, Most of the inflation during the year was attributable to housing, a trend that has persisted from 2023. The rising

<sup>&</sup>lt;sup>2</sup> For context, the most recent episode of deflation greater than 1 percent was during the Great Recession. The most recent episode of deflation greater than 5 percent was the Great Depression.

Figure 1.4: Inflation in the U.S. Remains Comparable to European Peers, Despite Stronger Economic Growth 12% 10% Year-over-Year Change in Price Index 8% 6% 2% 0% -2% 2016 2017 2018 2019 2020 2021 2022 2023 2024

Figure 1.5: While Energy Inflation has Subsided, Housing Costs are Still Increasing



Source: Bureau of Labor Statistics.

Sources: Bureau of Labor Statistics, Eurostat.

price of shelter increased by 4.2 percent year-over-year, adding 1.9 percentage-points to the overall inflation rate. In other words, rising housing prices accounted for 73 percent of the inflation experienced during the year. However, consumers obtained some relief from rising fuel costs, as energy prices decreased by 4.9 percent over the same period.

Even as inflation slows to historically acceptable levels, the 'new normal' of high prices have taken their toll, with 43 percent of respondents to the University of Michigan's Consumer Confidence Survey noting that they were worse-off financially in the current year due to rising prices. Moreover, perhaps no other area has placed more strain on consumers than the increased cost of housing. Only 21 percent Americans feel that now is a good time to buy a house, a sharp departure from the 20 years prior to the pandemic, when an average of 67 percent of individuals thought it was a good time to buy.<sup>3</sup> Moreover, a recent survey by Redfin, an online real estate company, indicates that half of all U.S. homeowners and renters are struggling with housing payments, causing many to cut back on discretionary spending, such as vacations (35 percent), or taking more drastic measures like skipping meals or selling belongings (22 percent and 21 percent, respectively).4

Given the housing market's continued role in affecting the daily lives of U.S. citizens, we discuss it in greater detail in the following section.

# **Housing and Interest Rates**

Although the pace of housing price increases has moderated compared to last year, accessing affordable housing continues to be a significant hurdle for many Americans in the post-pandemic economic environment. **Figure 1.6** offers additional insights, showcasing trends in the Zillow Home Value Index (top panel) and the Zillow Observed Rent Index (bottom panel) from early 2020 onward. These indices compare national

home values with those observed in selected metropolitan areas across the Southern U.S.

Overall, the average sales price for single-family homes increased by 2.8 percent during the year, bringing the cumulative appreciation since January 2020 to 46.3 percent. Likewise, rental prices increased by 3.3 percent during the year.

However, not all metropolitan areas have experienced the same trends. Some, such as Knoxville, had single-family home prices increase steadily and remain elevated (by 75 percent). Others, such as Austin, experienced an initial surge of prices, up to 73 percent in mid-2022, which has abated somewhat, falling to 42 percent, in-line with national trends. The decrease of prices in Austin is generally attributed to increases in housing supply, driven by new construction and slower inmigration of individuals from out-of-state.

The supply-and-demand dynamics in Austin illustrate one of the main drivers of rising housing prices nationwide. **Figure 1.7** illustrates this succinctly. From the onset of the Great Recession in 2008 until much of 2018, the rate of housing starts—a measure of housing-unit construction—generally matched the formation of new households, much of which was stimulated by work-from-home jobs. However, beginning in 2019, this relationship began to diverge; household formation began to outpace the supply of homes built, putting pressure on prices, a trend that became far more pronounced during the pandemic.

Enticed by the prospect of rising house prices, investors—both individuals and firms buying rental properties—started pouring money into real estate, further increasing demand and, likewise, prices. While both issues of the housing gap and heightened investor interest have decreased from their pandemic-era highs, they remain elevated in comparison to the historical baseline.

Moreover, for potential homebuyers and renters looking for increased affordability, there is not cause for much optimism. Housing starts remained relatively flat in the current year at 1.3

Source: "Housing," Gallup, (April 1-22, 2024). https://news.gallup.com/poll/162752/housing.aspx. Accessed December 2, 2024.

<sup>&</sup>lt;sup>4</sup> Source: "Redfin Survey: Half of U.S. Homeowners and Renters Struggle to Afford Their Housing Payments," (April 5, 2024). https://investors.redfin.com/news-events/press-releases/detail/1077/redfin-survey-half-of-u-s-homeowners-and-renters-struggle. Accessed December 2, 2024.

Single-Family Home Values 175 Knoxville, TN Mami, FL Nashville, TN United States 150 Birmingham, AL 125 New Orleans, LA 100 75 Price Index 2020 2021 2022 2023 2024 Rent for All Homes + Multi-Family Housing 175 Knownie, TN Mami, FL 150 United States Vashville, TN 125 Austin, TX 100 75 2020 2021 2022 2023 2024

Figure 1.6: Growth in Housing Values and Rent Have Slowed, but Prices Remain High (Jan. 2020 = 100)

Source: Zillow.

5,000 25% Percent of New 3,750 Cumulative Housing Gap Since Start of Great Recession (in Thousands) Homes Purchased by Investors 2,500 1,250 5% Gap = Households Formed - Units Created -1,2502008 2012 2014 2010 2016 2018 2020 2022 2024

Figure 1.7: A Relative Lack of Housing Supply, Combined with Investor Interest, Continue to Keep Housing Prices High

Source: U.S. Census Bureau, U.S. Department of Housing and Urban Development, Redfin.

million, and are forecast to remain roughly the same, despite high home prices. One driver behind a lack of supply response is the elevated cost of construction materials, which remain almost 40 percent above the pre-pandemic baseline, decreasing only 2.4 percent year-over-year. Given the high cost of supplies, many private builders are hesitant to build a large inventory of homes, as a sharp decrease in either input prices or home values could lead to potential bankruptcy.

Overall, the main federal policy tool currently utilized to curb housing-price growth—and inflation in general—is adjusting interest rates. During 2022 and the first half of 2023, the Federal Reserve (the Fed) steadily increase rates in an attempt to combat the surging inflation rate. Now that the annual rate of inflation has closed-in on the Feds target rate of two percent—and is in-line with typical inflation rates prior to the Great Recession—the central bank is delicately balancing the need to keep inflation low, which would entail maintaining current interest rates, with stimulating economic growth, which would necessitate cutting them.

Figure 1.8 shows that the Federal Reserve opted for a measured interest rate decreases in the third quarter of 2024, a trend that is expected to continue through their December meeting. As interest rates have fallen, so have average 30-year mortgage rates, which decreased from 7.4 percent in November 2023 to 6.8 percent in November 2024.

#### **Employment and Wages**

Robust labor markets remain a consistent bright spot in the economy, though unemployment has risen slightly in the past year. As shown in **Figure 1.9**, the overall and prime-age (25 to 54 years of age) unemployment rates were 4.1 percent and 3.5 percent, respectively, as of October 2024, both experiencing a rise of 0.3 percentage-points year-over-year. To provide context, this is slightly better than unemployment rates prior to the COVID-19 pandemic, when prime-aged unemployment averaged 3.6 percent for the years from 2016-2019. The rise in unemployment rates

Figure 1.8: Interest Rates Have Decreased Slightly, As Federal Reserve Balances Inflation Concerns with a Desire to Stimulate Growth 20 20 15 15 Inflation (Percent Change Year-over-Year) Effective Federal Funds Rate (Percent) 10 Inflation 5 5 0 Federal Funds

Sources: Bureau of Labor Statistics, Board of Governors of the Federal Reserve System.

2006

2008

2010

2004

6% 5% 4% Unemployment Rate 3% 2% Average prime-aged unemployment during the pre-pandemic period (2016-2019) 1% 0% 2021 2022 2023 2024

Figure 1.9: Unemployment Increased Slightly During the Year, But Remains Low

2012

2014

2016

2018

2020

2022

2024

Source: Bureau of Labor Statistics.

-5

2000

2002

-5

was most pronounced among those without a high-school degree, which experienced a rate increase of 0.8 percentage points during the year.

Moreover, as shown in the top panel **Figure** 1.10, labor force participation rates (LFPR) have remained relatively constant in 2024, settling at 62.6 percent as of October 2024, a 0.1 percentagepoint decrease over the same month in 2023. Overall rates remain slightly depressed when

compared to the pre-pandemic (2016-2019) average of 62.9 percent. This is a by-product of demographic change, rather than individuals being unable—or unwilling—to work. This is clearly demonstrated by the bottom panel of Figure 1.10, which shows that labor force participation has actually increased among all working-age individuals, which is more than offset by the baby-boom generation entering retirement age.

While Overall Declines from Pre-Pandemic Period are Due to an Aging Population 63 Labor Force Participation Rate 61 60 2012 2014 2016 2018 2020 2022 2024 75+ 75 754 65-74 65-74 65-74 55-64 55-64 55-64 45-54 45-54 45-54 35-44 35-44 35-44 25-34 25-34 25-34 16-24 16-24 16-24 20% 40% 60% 80% 100% 0.0% 0.5% 1.0% 1.5% 2.0% Change in Fraction of Pop. in Age Range Overall Labor Force Particip. Rate Change in Labor Force Particip. Rate (Compared to Pre-Pandemic Period) (Compared to Pre-Pandemic Period)

Figure 1.10: Labor Force Participation Rates Remain Steady,

Source: Bureau of Labor Statistics.

All differences are between 2024 rates and the 2016-2019 average

Overall, the economy added 2.2 million workers to nonfarm payrolls between October 2023 and October 2024. The largest gains were in the education and health services sector, where payrolls rose by nearly 1.0 million over the last 12 months. Jobs in the government sector grew by roughly 500,000 over the 12-month period, leisure and hospitality jobs grew by 294,000, and construction employment rose by 216,000. In contrast, manufacturing employment fell by 58,000, and employment in the information sector remained relatively flat since last October.

Consistent with low unemployment, wage growth was robust during the year, with inflationadjusted earnings (real earnings) increasing by 1.4 percent, as shown in **Figure 1.11**. Effectively, this indicates that rising earnings outpaced inflation during the year, meaning that workers are able to purchase more goods and services.

These gains were shared by many industries, particularly by workers in the professional services and financial sectors, which tend to be more highly educated. Notably, the growth of real wages in the retail industry was much slower, rising 0.6 percent year-over-year. This slower growth is consistent with long-term trends. Finally, the inflationadjusted earnings in education and health sector decreased during the year, by 0.2 percent, meaning that the wages for the typical worker in those industries failed to keep pace with the rising cost of living.

While the overall increase in real wages is encouraging, it still lags notably between the economic output generated per worker (i.e. productivity). This is demonstrated by **Figure** 1.12, which shows that output per worker surged during the period from 2020 through 2024, bolstered in part by the rapid technological change in working arrangements brought forth by the pandemic. Nonetheless, many workers have not fully benefited from these productivity gains, which have mostly translated to rising profits for firms.

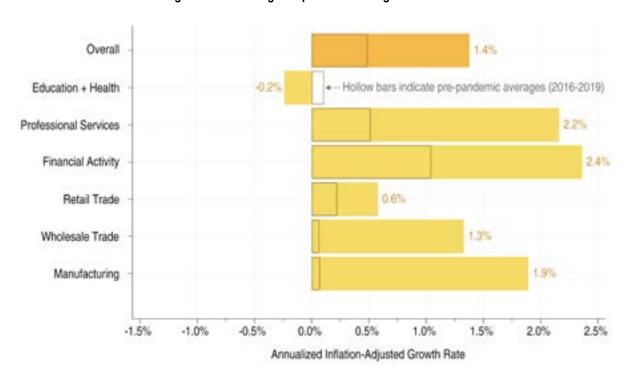


Figure 1.11: Real Wages Experienced Strong Overall Growth

Source: Bureau of Labor Statistics.

120 Labor Productivity Inflation-Adjusted Wages and Labor Productivity 110 90 80 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Figure 1.12: Despite Real-Wage Growth, Earnings Still Lag Behind Overall Labor Productivity

Source: Bureau of Labor Statistics.

We conclude this section by integrating information on rising wages with data on housing prices, since shelter tends to be the greatest out-of-pocket expense for most workers. Specifically, we compare estimated mortgage payments on a new home, which were calculated using prevailing mortgage rates and Zillow home-price data, to the average family income.<sup>5</sup>

The top panel of **Figure 1.13** displays the nationwide results of such an analysis, the average estimated mortgage payment decreased to 23 percent of family income in 2023, down 2 percentage-points during the year. Put another way, 39.8 percent of individuals nationwide cannot afford the 'average' home in their state, meaning that the estimated mortgage payments would comprise more than 30 percent of their income.

There is substantial variation in affordability across the U.S., where coastal states tend to have much higher prices, while those in the South and Midwest tend to have home costs below the national average.

# **Investment and the Stock Market**

Business investment made an outsized contribution to GDP in 2024 so far, with inflation-adjusted investment growing by annualized rates of 3.6 percent, 8.1 percent, and 1.1 percent in each of the first three quarters. Overall, investment has increased by 3.4 percent over the last four quarters.

As shown by **Figure 1.14**, the majority of this growth is from heightened purchases of equipment, which grew by \$70 billion over the

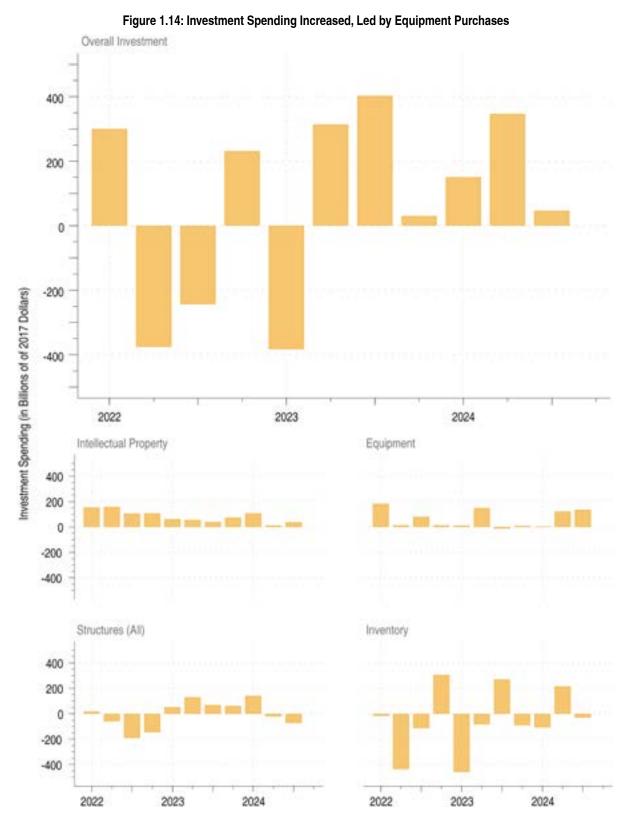
Source: "Down Payments Ease in Q3, but Remain Near Recent Highs," Realtor.com, (October 22, 2024). https://www.realtor.com/research/down-payment-report-oct-2024. Accessed December 2, 2024.

<sup>5</sup> This analysis also assumes a 15-percent down payment across all years, which is approximately the current average.

25 Estimated Mortgage Payment on New Homes as a % of Family Income 20 15 10 5 2010 2012 2014 2016 2020 2022 2024 2018 AK (22%) ME (29% VT (26%) NH (24%) WA (37%) MT (29%) ND (16%) MN (21%) WI (19%) MI (17%) NY (30%) MA (33%) RI (32%) ID (31%) WY (23%) SD (19%) IA (14%) IL (17%) IN (17%) OH (15%) PA (18%) NJ (28%) CT (23%) OR (32%) NV (36%) CO (32%) NE (17%) MO (18%) KY (18%) WV (13%) VA (23%) MD (23%) DE (25%) CA (52%) UT (30%) NM (28%) KS (14%) AR (17%) TN (21%) NC (27%) SC (22%) DC (39%) Values display AZ (31%) OK (17%) LA (21%) MS (18%) AL (19%) GA (25%) TX (22%) FL (34%) HI (62%) Darker colors indicate that housing costs are a higher share of earnings

Figure 1.13: Gains in Real Wages Have Slightly Improved the Affordability of Housing During the Year, Though this Varies by State

Source: Bureau of Labor Statistics, Zillow.



Source: Bureau of Economic Analysis.

past year, with most of that output occurring over the second and third quarters of 2024. Most of this investment was concentrated in two areas information technology investments (\$44 billion) and aircraft purchases (\$27 billion).

While equipment purchases accounted for 51 percent of the increase in business investment, intellectual property remains an important groth area for the U.S. economy, adding \$50 billion in real output during the past four quarters. This, however, is a modest rise in comparison to previous years, when firms were making consistently large investments to keep up with technological change, much of it associated with telework.

Lastly, investment in structures made a modest contribution to growth during the last twelve months, adding \$14 billion in output. Structure investments were driven by manufacturing (\$24 billion) and power (\$8 billion) investments, likely related to the ongoing effects of the Bipartisan Infrastructure Law and CHIPS act, which were offset by falls

in commercial and healthcare investments (a decrease of \$15 billion).

Bolstered by strong economic growth and record profits, overall business values, as reflected by stock prices, surged in 2024, as shown in Figure **1.15**. The S&P 500 Index, which reflects the prices of the largest U.S. companies, settled at 6,032 as of November 29, its highest value of all-time, as of that date, and a 30 percent increase relative to the same time last year.

The market-wide price-to-earnings ratio (PE Ratio) of the S&P 500 crept up to 28.5, up meaningfully from the past year, and higher than the 30-year average of 25.8. This could indicate that investors are particularly optimistic about future economic performance—thereby expecting that future profits will grow quickly. However, it could also be an example of socalled 'irrational exuberance' within the market, when investors are buying stocks based on the simple speculation that prices will continue to rise, rather than based on the fundamentals of a particular firm's performance.

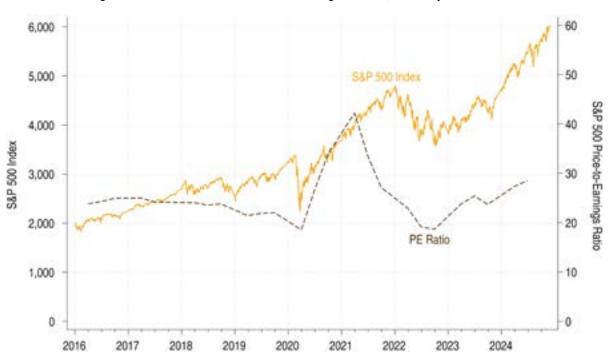


Figure 1.15: Stock Prices Reached All-Time Highs in 2024, Driven by Record Profits

Source: S&P Dow Jones Indices LLC

# **Government Expenditures and Major Policies**

Increased government consumption and investment continues to be a major part of GDP growth, with \$128 billion of additional infllationadjusted growth over the past four quarters, representing a 3.3 percent year-over-year increase. As shown in **Figure 1.16**, state and local spending continues to be a steady contributor, consistent with prior years. Overall, this area of spending added

\$83 billion to economic output, which is partially attributable to continued funds flowing from the Bipartisan Infrastructure Law (BIL), much of which went to state and local governments.

Much of the remaining increase in government output was attributable to defense spending, which included large increases (5.2 percent) in pay across the entire military and large investments in naval shipbuilding.

Beyond government spending on consumption

Overall Government Consumption and Investment 200 100 0 Investment Spending (in Billions of of 2017 Dollars) -100 -200 2022 2023 2024 State & Local Defense Non-Defense 100 -100 2022 2023 2024 2022 2023 2024 2022 2023 2024

Figure 1.16: Growth Rate of Government Consumption and Investment Has Fallen,
Primarily Due to Decreases in State and Local Spending

Source: Bureau of Economic Analysis.

and investment, it is important to account for expenditures that do not directly contribute to gross domestic product. These include subsidies, transfer payments (such as Social Security), and interest payments. Inflation-adjusted spending in these categories rose by just over \$173 billion year-overyear, reflecting a 5.2 percent increase. The primary driver of this growth was higher interest payments on the federal debt, which grew by \$94 billion. As of the third quarter of 2024, government debt stands at 96.0 percent of gross domestic product, up from 93.2 percent during the same period last year.

#### International Trade

Overall economic growth was somewhat slowed by international trade during 2024, which subtracted approximately \$138 billion of real GDP growth (see Figure 1.17). This change was primarily driven by a large increase in goods imports, which increased by \$192 billion year-over-year. While the amount of goods exported by the U.S. rose by \$67 billion, it was not enough to offset the outflowing funds. The net exports of services, which favored the U.S. in 2023, also contributed slightly to the trade deficit.

#### 1.2. THE U.S. FORECAST

Even as the U.S. economy experiences strong growth, low unemployment, and record highs in the stock market, there is still pervasive discontentment with the economy heading into 2025. This feeling is succinctly captured by Figure 1.18, which plots the University of Michigan's Consumer Sentiment Index. Overall, while the average consumer's mood

has recovered a bit since the end of last year, bolstered by lower inflation expectations, it still remains historically low.

Indicators such as low consumer sentiment often precede recessions, which is one reason why forecasters have been pessimistic about the economy's prospects over the last several years.

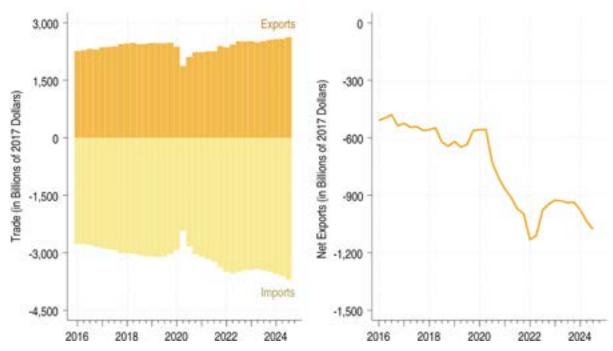


Figure 1.17: Net Exports Decreased Year-over-Year, As Imports of Goods Accelerated

Source: Bureau of Economic Analysis.

# 1.2. THE U.S. FORECAST, CONTINUED

Another potential warning sign for a recession comes from investors, rather than consumers—the so-called yield curve, which is the difference in effective interest rates on 10-year treasury bonds and 3-year treasury bills.

This dynamic is illustrated in **Figure 1.19**. The top panel tracks the yield curve over time, while the bottom panel depicts the recession probability, as estimated by the Federal Reserve Bank of New York, based exclusively on yield curve rates. During 2023, the yield curve "inverted," meaning that the long-term (10-year) bond had a lower effective interest rate than the short-term (3-year) bill, a condition that has persisted into 2024.

The inversion of the yield curve is widely regarded as a troubling indicator because long-term interest rates are generally higher to compensate investors for the added risk of holding debt over extended periods. When long-term rates fall below short-term rates, it suggests that investors expect the Federal Reserve to make significant rate cuts in the near future—an action most commonly associated with recessionary periods. However, in this case the Federal Reserve aggressively increased rates in an effort to curb economic activity and reduce inflationary pressures. As inflation has eased they have recently started to cut rates, and most believe that the Fed will continue cutting rates in the near future.

Despite the pessimistic indicators at the end of last year, the U.S. economy proved itself to be extraordinarily resilient, growing at rates that exceeded the expectations of all but the most optimistic forecasters. Moreover, the Federal Reserve's interest-rate policy does not appear to have stoked inflation, meaning that monetary policy is still available as a means to stimulate investment and the economy as a whole.

With these factors in mind, the national outlook calls for slowing—but still positive—economic growth through the fourth quarter of 2024 and continuing through 2025. Easing monetary policy (i.e. reducing interest rates) and continued moderation of inflation will lead to annualized quarterly growth rates of between 1.8 and 2.3 percent during the year, leading to a real GDP increase of 2.0 percent for the 2025 year as a whole.

It should be noted that the forecast does not

include any assumptions about potential policies that could be passed by the incoming Trump Administration. Perhaps the most relevant proposed policy for forecasted values—because it does not require congressional approval—is the president-elect's stated plans to drastically increase tariffs on imported goods. If such a policy is implemented, it is predicted they will slow near-term GDP growth and increase inflation, as the cost of tariffs have historically been borne by domestic firms and consumers.

# Consumption

Personal consumption spending is expected to be the main driver of U.S. economic growth in 2025, increasing by 2.6 percent, and accounting for 89 percent of the forecasted change in real GDP. The majority of this growth is expected to come from the same sources as in 2024 with durable goods (\$106 billion) and healthcare (\$87 billion) providing a plurality of increased output.

#### Investment

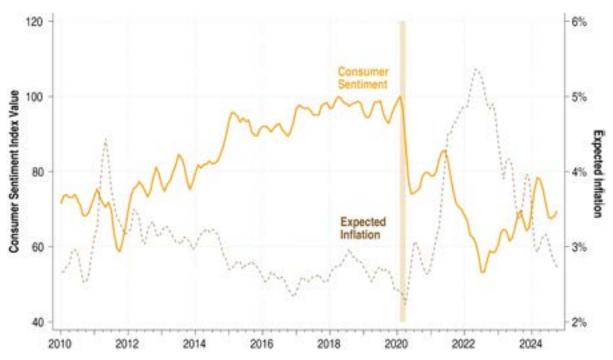
In contrast to consumption, investment is expected to play a smaller role in 2025. While investments in information technology are expected to remain strong, the forecast does not anticipate repeat-performances from aircraft investment—due, in part, to the Boeing Co. strike which slowed production—or manufacturing investment. Nonetheless, growth of 2.1 percent is expected in business investment, primarily on the strength of continued intellectual property investment and growing inventories.

# Interest Rates and Inflation

As supply chain disruptions from the pandemic fully resolve, inflation is expected to further converge on the Federal Reserve's target rate, reaching 2.1 percent during the year. So-called 'core' inflation, which excludes food and energy, is expected to be slightly higher, at 2.6 percent. Core inflation is slightly higher, as it implicitly places higher weight on housing prices, which are expected to appreciate faster than the overall

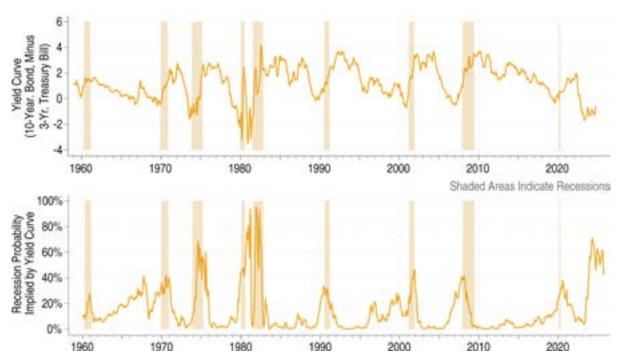
#### THE U.S. FORECAST, CONTINUED 1.2.

Figure 1.18: Consumer Sentiment Recovered Slightly in 2024, Mirroring Falling Concerns About Future Inflation



Source: University of Michigan Consumer Sentiment Index.

Figure 1.19: The Yield Curve Suggests Recession Risk Has Abated Slightly During the Year



Source: Federal Reserve Bank of New York.

# 1.2. THE U.S. FORECAST, CONTINUED

rate. This is consistent with a relative lack of new housing, which is expected to growth at a rate similar to the past two years.

As inflation has reached manageable levels, the Federal Reserve is likely to continue cutting rates, reaching 4.6-4.7 percent by the end of 2024, and continuing with incremental cuts down to 3.1 percent by the end of 2025. These cuts will likely translate to lower mortgage rates, which are expected to fall to 5.5 percent by the fourth quarter of 2025.

#### **Labor Market**

Consistent with slightly slower GDP growth, the unemployment rate is expected to rise slightly, reaching 4.5 percent by the end of 2025, with a 4.4 percent rate when averaging across the entire year; despite the increase, this still remains quite low by historical standards. Moreover, even amidst the demographic shifts caused by an aging population, nonfarm employment is projected to increase by 1.3 million in 2025, or 0.8 percent year-over-year. The majority of this employment is expected to come from two sectors: education and health services and leisure and hospitality, which combine to add a projected 880,000 jobs. The largest decrease comes from the retail trade sector, which is projected to shed 140,000 jobs during the year.

The labor force participation rate, which measures the percent of the civilian population aged 16 and up who are working or actively seeking employment, is projected to remain at 62.6 percent for

both the 2024 and 2025 years as a whole. However, in 2025, labor force participation among those under 65 is expected to tick up by 0.2 percentage points, while the participation rate among those aged 65 and over will fall by 0.2 percentage points as the Baby Boomer generation continues to age.

# **Federal Budget**

The amount of publicly held debt as a percentage of GDP is expected to rise above 100 percent by the end of 2025, an all-time high. This is a function of both increasing interest payments on existing debt and increased social spending on transfer-payment programs, such as Social Security and Medicare. Given that the number of adults 65 and older will continue to increase by 13 percent over the next five years—with a 23 percent increase of those aged 85 and older, which are the most intensive users of Medicare resources—this trend is extremely likely to continue.

#### **International Trade**

Similar to 2024, net exports are expected to slow GDP growth in the upcoming year. Specifically, goods imports are expected to rise by \$160 billion, while export growth will only partially offset the impact to economic output. Goods exports are expected to grow faster than exported services (4.8 percent for goods, as compared to 2.5 percent for services), a reversal of the post-pandemic trend.

# 1.3. ALTERNATIVE SCENARIOS

The baseline forecast outlined above reflects the latest economic data and assumes a continuation of the current policy environment. However, alternative scenarios—both more adverse and more favorable—are possible.

On the downside, risks include ongoing geopolitical conflicts, such as those in the Middle East and Ukraine, which could disrupt global energy markets and drive-up prices. Persistently high inflation could compel the Federal Reserve to slow or halt its planned rate cuts and job growth

may underperform expectations. Additionally, as discussed above, potential shifts in U.S. trade policy leading to higher import costs could dampen economic activity in the short term.

Conversely, an optimistic scenario might unfold if geopolitical tensions ease, labor market demand strengthens, and inflation moderates further. Policy measures such as business deregulation or tax reforms could also encourage greater business investment, providing a boost to economic growth.

# **CHAPTER 2: THE TENNESSEE ECONOMY**

# In this Chapter —

# 2.1. Introduction

# 2.2. The Current Economic Environment

The Labor Market Income, Earnings, and Taxable Sales **Population Trends** Population Projections The Tennessee Housing Market

# 2.3. Tennessee Economic Outlook

GDP Outlook Labor Market Outlook Income, Earnings, and Taxable Sales

# 2.4. Forecast at a Glance

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

Introduction Agriculture and Primary Forestry Food, Fiber, and Forestry Manufacturing in Tennessee

#### 2.1. INTRODUCTION

The Tennessee economy continues to show steady but more moderate growth as the effects of the pandemic and ensuing recovery dissipate. During the recovery, Tennessee inflation-adjusted gross domestic product (real GDP) rose by a robust 9.0 percent in 2021 and another strong rate of 4.0 percent in 2022. The state economy then started to stabilize, growing by a below trend rate of 1.9 percent in 2023. Importantly, economic growth in Tennessee was slower than the nation in 2023, which was the first time that this occurred since 2019. This is likely driven by timing more than anything, as the state economy recovered more quickly from the pandemic and is therefore stabilizing sooner as well. More moderate growth continued in the first quarter

of 2024, as Tennessee real GDP advanced by only 0.3 percent, but real GDP growth then accelerated to 3.0 percent in the second quarter. Looking ahead, the state is projected to see moderate economic growth over the next two years, with Tennessee seeing a slightly slower rate of GDP growth relative to the nation in 2024, but then stronger growth in 2025. Specifically, Tennessee real GDP will expand by 2.4 percent in 2024 and 2.5 percent in 2025, while the U.S. economy is projected to grow by 2.7 percent and 2.0 percent in 2024 and 2025 respectively.

More moderate economic growth can be seen in the state labor market as well. In 2023, the state labor force grew by 1.8 percent, representing a net addition of 57,800 workers. This was

# 2.1. INTRODUCTION, CONTINUED

consistent with pre-pandemic employment gains, but well below the 100,000-plus workers added in both 2021 and 2022. Despite strong job growth, the Tennessee economy faced a persistent shortage of workers over this period. That is, the number of job openings exceeded the number of people looking for work. This was not due to a disappearance of workers, as there were 140,000 more workers on Tennessee payrolls at the end of 2023 than there were prior to the pandemic (February 2020). Instead, this was largely driven by an incredibly strong economic recovery leading to an elevated number of job openings. This suggests that the state labor force is not large enough to keep up with a sustained period of above trend economic growth. This is not unique to Tennessee, as the U.S. economy faced a similar labor shortage issue. As economic growth softens, we expect the labor shortage to recede. Evidence of this is already apparent. As of September 2024, the shortfall of workers has decreased to 58,000 in Tennessee (compared to 190,000 the year prior), which is the lowest it has been in nearly 3.5 years. Importantly, however, future job growth could be limited to some extent by a shortage of available workers, especially as the Baby Boomer generation continues to age out of the workforce.

Job gains have been uneven through the first three quarters of 2024 as well, with employment growth of 2.6 percent in the first quarter, followed by weaker gains of 1.8 percent and 0.4 percent in the second and third quarter respectively. As a result, state employment is projected to increase by only 0.7 percent for the 2024 year as a whole, representing an addition of only 22,500 new workers. Expectations are that Tennessee nonfarm employment growth will see a slight uptick in 2025, and expand by 1.1 percent (an increase of 36,400 workers). Most broad sectors will only see moderate employment growth in 2025. One exception is the natural resources, mining, and construction sector, which is projected to expand by 3.3 percent and add 5,400 workers to payrolls in 2025. This will be driven by increased construction employment, as interest rates come down, leading to a reduction in the cost of borrowing, and

an uptick in both residential and commercial construction projects. The other exception is the education and health services sector, which will continue to show strong employment gains (up 3.3 percent in 2025). This is largely driven by an aging population leading to a sustained demand for health care.

Tennessee's unemployment rate has slowly increased over the last few months, from an all-time low of 3.0 percent in July 2024 to 3.3 percent as of October 2024. Nonetheless, this is still 0.8 percentage points below the national rate of 4.1 percent, and represents an extremely low rate of unemployment. However, as the economic recovery winds down, expectations are that the number of job openings will fall and the unemployment rate will continue to drift upward, as it takes longer for unemployed people to find work in a slower growth environment. Tennessee's unemployment rate is projected to average 3.2 percent for 2024, but then increase to 3.3 percent in 2025 and 3.4 percent in 2026. By comparison, the national rate is projected to increase to 4.5 percent by 2026.

Importantly, a slower growth environment does not imply a recession. Rather, we expect year-to-year gains to moderate but remain positive in the near term.

Over the long term, Tennessee real GDP will advance at a compound annual growth rate of 2.5 percent per year from 2024 to 2034. This is comparable to the 2.6 percent rate of growth seen during the decade prior to the pandemic (2011 to 2019). However, expectations are that the state economy will see slightly slower economic growth towards the end of the long-term forecast horizon (2030 through 2034) due to an aging population leading to fewer prime age workers (aged 25 to 54) and slower potential economic growth in the long run.

Finally, the Tennessee forecast does not account for any potential policy changes made by the incoming Trump administration. Of the many policies discussed during his campaign (e.g. tariffs, immigration reform, tax cuts), it is unclear which will be put in place, the details/scope of those policies, and their timing.

#### 2.2. THE CURRENT ECONOMIC ENVIRONMENT

## The Labor Market

In Tennessee, nonfarm employment rose by 1.8 percent in 2023, representing a net gain of 57,800 workers. This was a significant slowdown relative to the robust job growth seen in 2021 and 2022, but is more in line with pre-pandemic job growth trends. State job growth seems to be moderating in 2024 as well, growing by a relatively strong 2.6 percent in the first quarter (compared to the previous quarter), but then slowing to 1.8 percent in the second quarter and 0.4 percent in the third quarter.

Figure 2.1 presents monthly nonfarm jobs in Tennessee from January 2016 through the fall of 2024. Payrolls in Tennessee continue to track above pre-pandemic levels. As of October 2024, there are roughly 184,000 more workers in Tennessee than there were in February 2020. However, monthly gains have tapered off significantly since the summer of 2023. In the first two quarters of 2023, the state added an average of roughly 8,000 jobs per month, but starting in July 2023 Tennessee

began to see labor force contractions, with 4 out of the 5 months from July through November 2023 seeing negative job growth. Since then, job growth has largely turned positive, but gains have been smaller, as the recovery seems to have wound down. In the third quarter of 2024 (July through September), Tennessee added an average of only 2,600 jobs per month.

A slowdown in employment growth is evident across most broad sectors of the Tennessee economy, as shown in Figure 2.2. In October 2022, nonfarm jobs in Tennessee rose by a robust 4.1 percent over the same month last year, representing a year-over-year increase of nearly 130,000 jobs. However, nonfarm jobs only grew by 0.5 percent in October 2023 (up 16,500), and 1.4 percent in October 2024 (up 45,200). A similar pattern can be seen across most broad sectors. Employment in the professional and business services sector rose by 3.8 percent in October 2022, but then fell by 2.6 percent and 1.3 percent respectively in October 2023 and 2024. This sector employs a relatively large number of

3.400 3,300 3,200 3,100 Thousands of Jobs 3,000 2,900 2.800 2,700 2.600 10/1/2016 10/1/2017 10/1/2018 10/1/2019 10/1/2020 10/1/2021 10/1/2022 10/1/2023 10/1/2024

Figure 2.1: There are Nearly 184,000 More Workers in Tennessee Than There Were Prior to the Pandemic, but Job Gains Have Slowed Since the Summer of 2023

Source: Bureau of Labor Statistics.

16.0 ■ Oct Oct Oct 14.0 2022 2023 2024 Year-Over-Year Percent Change (%) 12.0 10.0 8.0 6.0 4.0 2.0 0.0 Leisure and Hospitality Trade, Transportation, and Utilities Education and Health Services Mining, Logging, and Financial Activities Business Services -2.0 Professional and Manufacturing **Fotal Nonfarm** Other Services Construction Government nformation | -4.0 -6.0

Figure 2.2: Job Growth Has Softened Across Most Broad Sectors in Tennessee

Source: Bureau of Labor Statistics.

temporary workers (compared to other sectors), and the need for temp workers has likely fallen as economic growth has moderated. Similarly, jobs in leisure and hospitality rose by 8.1 percent in October 2022, but slowed to 2.3 percent growth in October 2023, and 0.1 percent in October 2024. This broad-based slowdown in employment growth does not suggest an impending recession, rather that the state economy is normalizing following an incredibly strong economic recovery. One sector, that is bucking the current trend thus far is education and health services, which continues to see increasingly strong job growth—growing by 3.5 percent, 4.7 percent, and 6.0 percent in October 2022, 2023, and 2024 respectively. Sustained growth in this sector has been driven by gains in private educational services, as well as employment growth in hospitals, ambulatory health care services, and nursing and residential care facilities.

Turning to county-level data, **Figure 2.3** reports employment growth between March 2023 and March 2024. During this period, 61 of Tennessee's 95 counties saw positive job

growth, but there was a large degree of variation. Haywood County (home to Ford's soon to be operating Blue Oval City automotive plant) saw the strongest rate of growth, by a wide margin, expanding by 61.0 percent and gaining over 3,200 workers in the 12-month period. At a distant second was Sequatchie County, which saw job growth of 7.0 percent (gaining 243 workers). Job growth was also positive in all of the larger metropolitan areas. Davidson County added 8,847 jobs, Knox County saw an increase of 4,558 jobs, employment in Hamilton County rose by 4,570, and Shelby County gained a more modest 950 jobs. In contrast, there were 34 counties that saw a contraction in the number of workers over the last 12 months. In percentage terms, the largest reductions were in Lauderdale County (down 14.5 percent) and Meigs County (down 7.4 percent). These represented job losses of 969 and 153 respectively. Also of note, Williamson County saw a 3.2 percent reduction in employment, representing a loss of 4,817 jobs over the last 12 months. This was the only county neighboring Davidson to experience job loss.

c-3% or less (34)

Figure 2.3: Employment Growth by County, 2023Q1 to 2024Q1

Panel A: Percent Change



Panel B: Change in Employment



Source: Bureau of Labor Statistics

In addition to the overall slowdown in Tennessee employment growth, the number of job openings in Tennessee seem to be normalizing, but are still somewhat elevated. Figure 2.4 presents the number of monthly job openings, hires, and separations in Tennessee. As of September 2024, there were 169,000 job openings across the state. This was much lower than the 304,000 openings from last September. Furthermore, job openings have averaged roughly 166,000 per month over the last five months. This is still slightly higher than the pre-pandemic levels (150,000 in 2018 and 141,000 in 2019), but the most recent five months of data suggest that job openings are largely normalizing. By comparison, the number of hires and separations are hovering around 2019 levels. As a result, the number of unfilled jobs still exceeds the number of workers available in the state. Figure 2.5 reports Tennessee's labor demand (i.e. total number of workers needed across the state) versus labor supply (i.e. total number of people working or looking for work). Seeing that the number of jobs needed in the state (labor demand) exceeds the number of available

workers (labor supply) indicates that there is still a shortage of workers in Tennessee. The shortage, as measured by the vertical distance between the two lines, currently sits at 58,000, suggesting that even if every unemployed worker in Tennessee found a job today, there would still be 58,000 unfilled job openings throughout the state. This gap between workers needed and workers available has existed for 3.5 years now, but this is the smallest it has been since early-2021. The shortage has also become much less pronounced over the last 11 months, as job openings started to recede in November 2023. It is also important to note that, despite having roughly 184,000 more workers in Tennessee today than there were prior to the pandemic, Tennessee still has a shortage of workers. This shortage has largely been driven by the stronger and longer than expected economic recovery, which has led to increased economic activity and an increase in the demand for jobs (i.e. more job openings). As economic growth has moderated, we have seen job openings start to normalize and this shortage has fallen considerably.

350
300
250
250
100
100
Sep-12 Sep-13 Sep-14 Sep-15 Sep-16 Sep-17 Sep-18 Sep-19 Sep-20 Sep-21 Sep-22 Sep-23 Sep-24
—Job Openings —Hires —Seperations

Figure 2.4: Job Openings in Tennessee Remain Slightly Elevated but are Nearing Pre-pandemic Levels

Source: Bureau of Labor Statistics Job Openings and Labor Turnover Survey.

3700 3500 3300 Thousands 3100 2900 2700 2500 Sep-12 Sep-13 Sep-14 Sep-15 Sep-16 Sep-17 Sep-18 Sep-19 Sep-20 Sep-21 Sep-22 Sep-23 Sep-24 Labor Supply (Employed + Unemployed) Labor Demand (Employed + Job Openings)

Figure 2.5: The Shortage of Tennessee Workers Persists, but has Become Much Less Pronounced

Sources: Bureau of Labor Statistics Job Openings and Labor Turnover Survey, and Boyd CBER UT.

The unemployment rate in Tennessee sits at a nearly all-time low of 3.3 percent – only 0.3 percentage points above the record low that we saw in July of this year. By comparison, the U.S. rate rests at 4.1 percent. Low rates of unemployment are driven by a number of factors, including a shortage of workers both due to a still (slightly) elevated number of job openings coupled with a smaller pool of available workers following the pandemic. The latter has also led to a prolonged reduction in the state's labor force participation rate, as shown in Figure 2.6. Labor force participation is measured as the percentage of the civilian population 16 years and older who are working (employed) or not working but actively seeking a job (unemployed). Labor force participation fell dramatically at the onset of the pandemic for both the state and the nation. However, participation rates have trended back up for the U.S., but remain depressed in Tennessee. One potential reason for this is that Tennessee has seen an uptick in net migration in recent years, and an increasingly larger share of those moving to Tennessee have been older. Figure **2.7** shows that from 2010 to 2019 only 10 percent

of new Tennesseans were between the ages of 55 to 64, however, in the most recent three years this percentage has nearly doubled to 18 percent. While this group of in-migrants are below the standard retirement age, they are less likely to work than those in the prime working age group of 25 to 54.

Figure 2.8 reports the October 2024 labor force participation rates across all states. There were 21 states with participation rates below the U.S. rate of 62.6 percent. Tennessee, at 59.4 percent had the 11th lowest participation rate, but labor force participation was below the U.S. average in all southeastern states except Virginia.

The labor force participation rates discussed above are from the Bureau of Labor Statistics derived from the Current Population Survey (CPS). The CPS is a monthly survey of 60,000 U.S. households and provides official labor force statistics for each state and the nation as a whole. The Census American Community Survey (ACS) also collects data on labor force characteristics based on a larger survey of 3.5 million U.S. households, but with a longer time lag. Annual ACS data are only available through

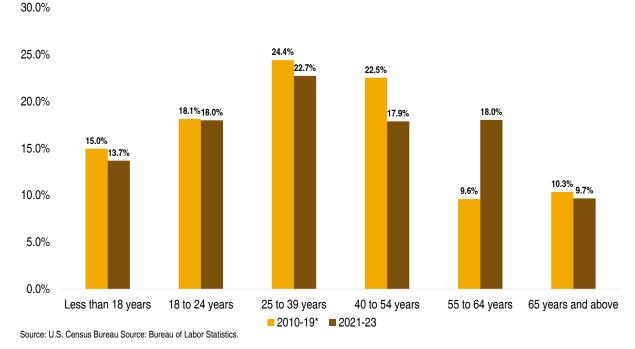
Source: Bureau of Labor Statistics.

# 2.2. THE CURRENT ECONOMIC ENVIRONMENT, CONTINUED

Figure 2.6: Labor Force Participation in Tennessee Remains Depressed 68.0 66.0 Labor Force Participation Rate (%) 64.0 62.0 60.0 58.0 56.0 54.0 10/1/2010 10/1/2012 10/1/2013 10/1/2015 10/1/2016 10/1/2008 10/1/2009 10/1/2014 10/1/2006 10/1/2011 10/1/2017 10/1/2007 10/1/200 10/1/2005 -TN -U.S.

Figure 2.7: A Larger Share of People Aged 55 to 64 Have Moved to Tennessee Over the Last Three Years Than During the Previous Decade

Percentage of Net Migrants by Age, 2010-2019 versus 2021-2023



Note: \*Migration data from 2016 are removed due to a seemingly spurious one-year fluctuation that is inconsistent with the rest of the data series, and are also inconsistent with the population estimate net migration components from the same year. However, the same general trend persists even with the 2016 data included.

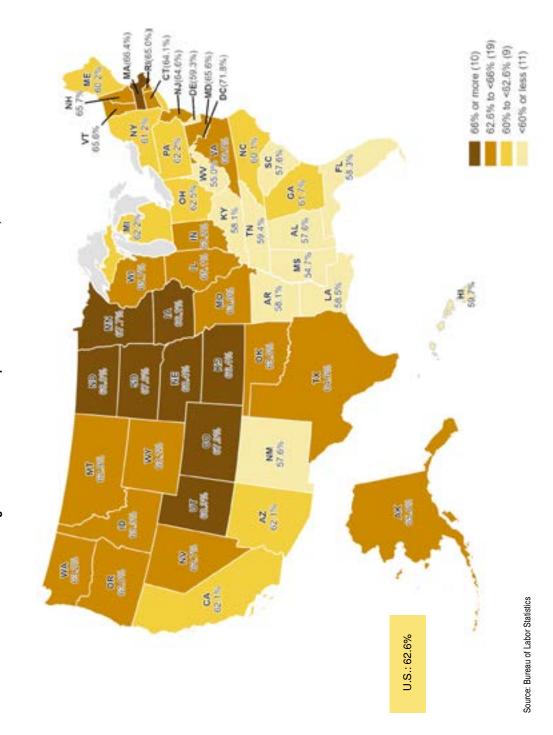


Figure 2.8 Labor Force Participation Rates Across the U.S., October 2024

2023, while the most recent CPS data are from October 2024. Labor force participation rates tend to be higher in the ACS. This is partly because of differences in how people complete each survey (on their own in the ACS, but with an interviewer in the CPS) as well as differences in the activities that count as looking for work when unemployed. Based on the ACS labor force data, 63.5 percent of Tennesseans were working or looking for work in 2023 versus only 59.4 percent according to the CPS data. Similar to the CPS data, however, Tennessee's labor force participation rate was still below the U.S. rate of 64.6 percent from the ACS.<sup>2</sup>

Regardless of which survey is used, the labor force participation rate in Tennessee has consistently been lower than that of the nation. Another potential explanation for lower labor force participation in Tennessee (and the south region in general) is poorer health outcomes and behaviors, which is linked to lower labor force attachment.

On average, healthier individuals are more likely to work, can be more productive, and will take fewer sick days. Unfortunately, however, Tennessee has a higher prevalence for a number of serious health ailments than its national counterparts (**Figure 2.9**). In addition, Tennessee has a higher rate of overdose deaths, infant mortality, obesity, and adult smoking. Improvements in these metrics could provide a boost to the labor force over the long term.

In addition, college educational attainment in Tennessee lags the national average. On average, higher educational attainment is linked to stronger labor force attachment. In previous years, Tennesseans had a lower rate of high school graduates than the national average, but the state overtook the nation in 2021 and has not ceded ground over the last two years (**Figure 2.10 Panel A**). It has been very encouraging to see these gains made at the high school level, and sustaining this trend could have strong positive

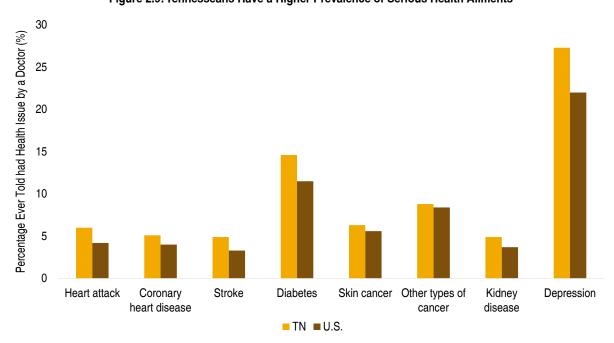


Figure 2.9: Tennesseans Have a Higher Prevalence of Serious Health Ailments

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, 2023.

<sup>&</sup>lt;sup>1</sup> Differences between ACS and CPS labor force measures are discussed here: <a href="https://www.bls.gov/lau/acsqa.htm#Q06">https://www.bls.gov/lau/acsqa.htm#Q06</a>.

<sup>&</sup>lt;sup>2</sup> For additional analysis and discussion of Census ACS labor force participation data, see the recent Boyd Center brief at <a href="https://haslam.utk.edu/publication/tennessees-post-pandemic-labor-force-recovery">https://haslam.utk.edu/publication/tennessees-post-pandemic-labor-force-recovery</a>

implications for the labor force and economic growth going forward. Figure 2.10 Panel B reports the percentage of Tennesseans aged 25 or older with a Bachelor's degree or higher, which has also shown strong gains over the last decade, increasing from 25.7 percent in 2015 to 31.7 percent in 2023. Unfortunately, however, the state still lags the nation. In 2015, the state's percentage with a Bachelor's degree or higher was 4.9 percentage points below the national average. Fast forward to 2023, and the state is still 4.5 percentage points lower than the U.S. This is another important area where gains could provide a boost to the state economy.

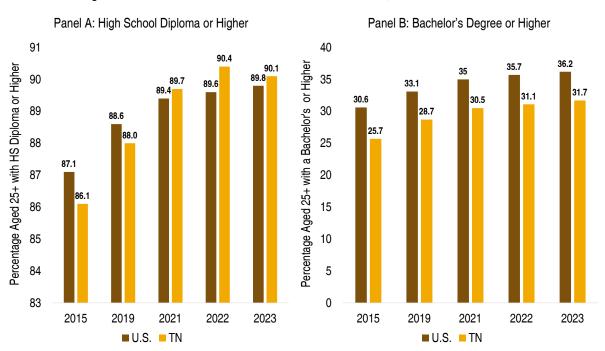
## Income, Earnings, and Taxable Sales

In 2023, Tennessee nominal personal income grew by a robust rate of 6.3 percent. This was largely driven by strong gains in wages and salaries (up 6.0 percent in 2023), as businesses increased wages, on average, in order to attract workers and fill the surplus

of job openings across the state. Figure 2.11 reports average hourly earnings in Tennessee along with year-over-year earnings growth. In 2023, hourly earnings grew by an average of 4.7 percent per month, and as a result the average wage rose from \$28.79 in December 2022 to \$29.85 in December 2023. By comparison, prior to the pandemic, wage growth averaged only 3.7 and 3.6 percent per month in 2018 and 2019 respectively. Personal income growth was also boosted by income from rent, interest, and dividends, which grew by double digits for the second year in a row (up 12.0 percent in both 2022 and 2023) due to elevated rents and high interest rates.

Of course, earnings vary widely across sectors, as shown in Figure 2.12. In December 2023, workers in the financial activities sector saw the highest wages, earning an average of \$38.26 per hour, followed closely by those in professional and business services (\$36.30/ hour) and the information sector (\$35.54). In comparison, those working in the leisure and

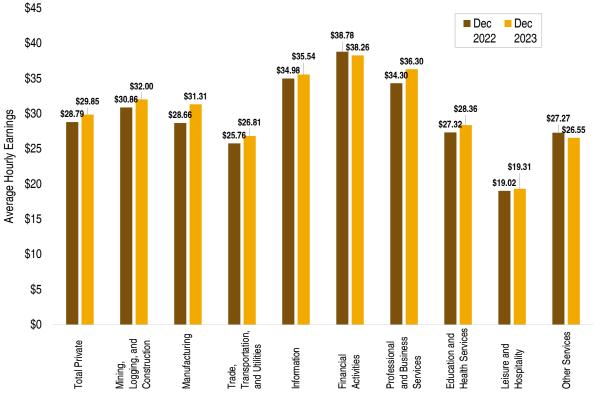
Figure 2.10: Adult Educational Attainment Rates Over Time, Tennessee versus the U.S.



U.S. Census Bureau, 1-Year ACS Estimates.



Figure 2.12: Average Hourly Earnings in Tennessee Across Broad Sectors



Source: Bureau of Labor Statistics.

hospitality sector saw the lowest average wages, earning \$19.31 per hour.

In the first half of 2024 nominal personal income continued to show strong growth, increasing by an annual rate of 8.3 percent in the first quarter and 6.2 percent in the second quarter. Similar to 2023, income gains were driven by strong growth in wages and salaries, but in this case, it was not due to rising wages, but rather stronger job growth. Total wages and salaries are determined based on the prevailing wage rate and the total number of jobs in Tennessee. In 2023, job growth was modest while pay rates were rising. Conversely, in the first quarter of 2024, job growth saw an uptick, while wage growth slowed (see **Figure 2.11**). Nonetheless, the increase in first quarter job growth helped to prop up total wages and salaries for the state and led to an increase in nominal personal income. In addition, federal transfer payments saw strong growth in the first half of 2024, as social security payments continue to rise due to the aging population and continued cost of living adjustments leading to increased monthly payments. Even after adjusting for inflation, Tennessee real personal income rose by a robust annualized rate of 4.7 percent in the first quarter and 3.5 percent in the second quarter of 2024.

Per capita income in Tennessee continues to trail the national average. As of the second quarter of 2024, nominal per capita income is \$65,253 in Tennessee, versus \$72,217 for the U.S. However, Tennessee has been slowly catching up. In 2012, average income in the state was 11.6 percent below the national average, but as of 2024 it trails the nation by 9.5 percent. Still, income growth in Tennessee will need to consistently grow at a faster pace than the U.S., for the state to make further gains. As in years past, this issue is not unique to Tennessee. **Figure 2.13** shows that with the exception of Virginia, all of the southeastern states have a per capita income that is below the national average. Furthermore, Tennessee has the third highest per capita income among southeastern states, only behind Florida and Virginia.

Per capita income also varies widely across the state. Figure 2.14 reports per capita income



Figure 2.13: Tennessee Per Capita Income Trails the Nation, but is Third Highest Among all Southeastern States, 2024Q2

Sources: Bureau of Economic Analysis, Boyd CBER UT, and S&P Global.

across all Tennessee counties for 2023. Williamson County continues to report the highest per capita income level in the state, at \$128,610, which also represents the 25th highest among all counties in the U.S. There were only four Tennessee counties with average income levels above the 2023 national average of \$69,162-Williamson, Davidson, Fayette, and Loudon, and only four additional counties with per capita income above the 2023 state average of \$62,310 -Wilson, Sumner, Knox, and Hamilton. In contrast, there were 39 Tennessee counties with an average income below \$45,000, and nine of which were below \$40,000. Per capita income was lowest in Lake County (\$32,554) followed by Hancock County (\$33,223).

Taxable sales in Tennessee slowed considerably in 2023 relative to the robust rates of growth seen in 2021 and 2022. Specifically, taxable sales grew by 3.0 percent in 2023, compared to 21.3 percent in 2021 and 10.7 percent in 2022. Part of this slowdown was driven by a three-month sales tax holiday on food purchased at grocery stores, which led to a 4.6 percent contraction in food store (taxable) sales for the year. However, the overall slowdown in taxable sales was also due to base effects, as it is very difficult to sustain strong rates of growth following two years of double-digit increases. Despite this slowdown, taxable sales are still well above their pre-pandemic levels. In 2023, taxable sales totaled over \$200 billion, which was more than 40 percent higher than the \$141 billion in sales from 2019. There are a number of factors that have led to this increase, including higher prices and an increase in the Tennessee population. In addition, the expansion of sales tax collections on remote/online purchases, which began in the summer of 2019 and was expanded in 2020 has led to a sizeable increase in taxable sales each year.

Through the first three quarters of 2024, taxable sales growth has been mixed. In the first quarter, taxable sales grew by a very strong 16.4 percent, then fell by 1.4 percent in the second quarter, before growing by 11.3 percent in the third quarter. Strong first quarter growth was largely driven by food store purchases (up 133.3 percent) due to the end of the sales tax holiday. Food store purchases then fell by 18.5 percent in

Figure 2.14: Per Capita Income Across Tennessee Counties, 2023



Bureau of Economic Analysis, Boyd CBER UT, and S&P Globa

the second quarter, and purchases at auto dealers also contracted by 6.5 percent in the second quarter. The latter potentially occurred due to expectations that interest rates would come down later in the year, which they did, so consumers may have delayed major purchases that required a loan. Finally, in the third quarter, purchases from auto dealers rose by 8.3 percent, coinciding with the first Federal Reserve interest rate cut. In addition, food store purchases rose by a robust 52.5 percent, and taxable sales from the other retail and service category grew by a strong 20.8 percent. The latter includes remote/online sales, and was likely driven, in part, by Amazon Prime Day, which occurred in mid-July this year.

## **Population Trends**

From 2022 to 2023, Tennessee added 77,513 new residents, representing an increase of 1.1 percent. This was more than double the U.S. growth rate of 0.5 percent (representing an addition of 1.6 million people). Strong population growth in Tennessee continues to be driven by an uptick in people moving in, as the state added more than 76,000 new Tennesseans through net migration in 2023. This is the second highest net migration number seen in the data's history, lagging only behind the 2022 number of 91,811. At the same time, natural population change (i.e. births minus deaths) rose, and the state added more than 1,000 additional people through higher births and fewer deaths.

Over the last year, 42 states and the District of Columbia saw population gains (Figure **2.15**). Tennessee saw the 6th largest increase in population, with only South Carolina, Georgia, North Carolina, Florida, and Texas, all states in the Census defined South region, adding more people.

At the county level, 90 of Tennessee's 95 counties saw population growth between 2022 and 2023 (Figure 2.16). Rutherford County gained the most people, adding 6,419 new residents, followed by Knox County (up 5,289), and Hamilton County (up 5,262). Regionally, population gains were

strongest in Middle Tennessee, with Davidson County and those surrounding Davidson all seeing strong population growth. Counties in East Tennessee also saw healthy growth, especially those surrounding Knox County and Johnson City. In general, we are seeing strong population growth in the larger metropolitan areas and their surrounding counties, along with smaller but more widespread increases among rural counties in the eastern twothirds of the state. The main exception continues to be Shelby County where the population fell by 6,315 over the last year. Furthermore, the only five counties to see population losses in 2023 were all in West Tennessee (Shelby, Wayne, Haywood, Lake, and Lauderdale), and among the West Tennessee counties that did see positive growth, population gains were relatively modest.

## **Population Projections**

This fall, the Boyd Center for Business and Economic Research and the Tennessee State Data Center updated the population projections by county through 2070. The primary take-away from these projections is that the state's population is expected to grow steadily and consistently over time, reaching 8 million by 2041 and growing to over 9 million by 2070 (Figure 2.17). Embedded in this growth are the continuation of several trends such as an increased number of seniors and growing racial and ethnic diversity. As Tennessee's population composition changes, so may the demand for various public services and supports, particularly on a per-capita basis. Trends that have emerged more recently include increased rates of net migration and elevated deaths. It remains to be seen whether these newer patterns are transitory or likely to persist. In this section we highlight a number of short- and long-run patterns in population trends across Tennessee.<sup>3</sup>

Long-run Trends in Population Growth

The first long-run trend is that Tennessee's population has grown steadily throughout the state's history and growth is projected to continue. The state

<sup>3</sup> This is a high-level overview. More detailed information and discussion can be found at https://tnsdc.utk.edu/estimates-and-projections/boyd-center-populationprojections/

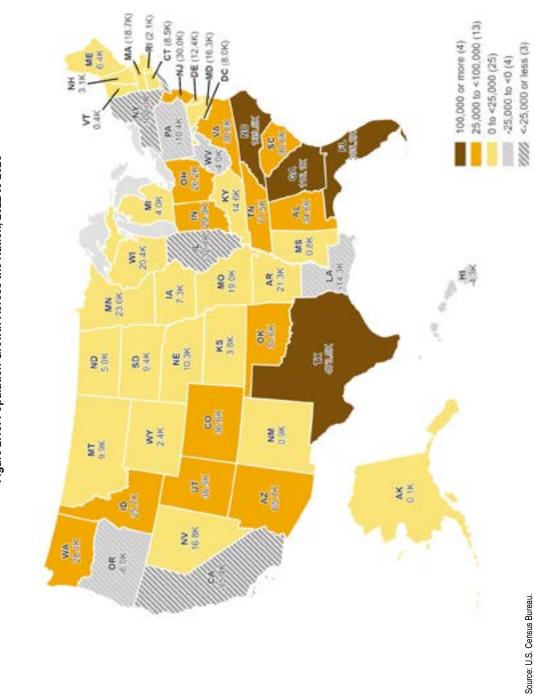


Figure 2.16: Population Growth Across Tennessee Counties, 2022 to 2023



Panel B: Change in Population



Urban: +40,097 (+0.9%) in 2023

Rural: +34,416 (+1.4%) in 2023

Source: U.S. Census Bureau.

Decennial Census Boyd Center Projection 7.94 M 8.35 M 8.79 M 7.51 M 9.25 M 6.91 M 6.35 M 5.69 M 4.59 M <sup>4.88</sup> M 2.18 M 2.34 M  $^{2.62}$  M  $^{2.92}$  M  $^{3.29}$  M  $^{3.57}$  M  $^{3.92}$  M 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 1910

Figure 2.17: Tennessee Resident and Projected Population, 1910-2070

Sources: US Census Bureau, Boyd CBER UT.

is expected to add more than 600,000 people between 2020 and 2030; about 35,000 more people than were added between 2010 and 2020. The resulting 8.7 percent increase this decade puts it on par with last decade's 8.9 percent gain. But beyond that point, the state's population increases are expected to slow somewhat. Between 2030 and 2040 the level of growth is expected to pull back to a 5.7 percent gain when projections show an increase of 427,000 people over the decade. The reasons for the projected slowdown between 2030 and 2040 are mostly attributable to a growing number of deaths among an aging population and uncertainty about how long recent high levels of net migration will persist.

The second long-run trend that is projected to continue is the increasing numbers of senior and older citizens living in Tennessee. Between the present and 2040, the number of senior citizens is expected to increase by 11.7 percent while the number of individuals aged 85 and older is expected to increase by 71.8 percent (**Table 2.1**). While Tennessee is an attractive location for retirees, most of this growth is driven by aging among current residents. There were more live births in the U.S. in 1964 than any year on record until just before the

Table 2.1: Projected Population Change of Tennesseans, 2022-2040

Age Group	2022	2040	Change (Percent)
65 to 74	729,524	815,120	85,596 (11.7%)
75 to 84	372,230	506,795	134,565 (36.2%)
85 and over	119,236	204,895	85,659 (71.8%)
All Seniors 65+	1,220,990	1,526,810	305,820 (25.0%)

Sources: US Census Bureau, Boyd CBER UT.

Great Recession. That cohort will turn 65 in 2029 and 75 in 2039. As this segment of our population continues to grow, we can expect elevated levels of demand – not just for health care, but for support to maintain independent living.

The third long-run trend is the continued racial and ethnic diversification of Tennessee's population. While the populations of all races are expected to continue increasing over the next 20 years, growth will be particularly pronounced among the Hispanic population and the category of 'Other and Two or More Races.' Most of the growth in the latter category has recently been driven by increases in the number of individuals who identify as biracial or multiracial (**Table 2.2**).

Table 2.2: Projected Population Change of Tennesseans by Race, 2022-2040

Race Group	2022	2040	Change
White non-Hispanic	5,141,367	5,495,417	354,050 (6.9%)
Black non-Hispanic	1,153,834	1,220,280	66,446 (5.8%)
Hispanic	449,510	754,170	304,660 (67.8%)
Other and Two-More Races	306,861	470,434	163,573 (53.3%)

Sources: US Census Bureau, Boyd CBER UT.

Emerging Trends

Death rates were still well above prepandemic levels in 2022. In fact, there were more deaths in Tennessee in 2022 than in 2020. Before the pandemic, deaths were gradually but steadily increasing, as the population aged and grew. Data from the National Center for Health Statistics show that deaths per year increased from approximately 60,000 in 2010 to 71,900 in 2019. While the record numbers of deaths in 2020 and 2021 are easily attributable to the pandemic, elevated deaths in 2022 are not as easily dismissed (**Figure 2.18**). The high number of deaths in 2022 is not driven by aging either. For every age category except individuals aged 85+, there were more deaths in 2022 than 2020. While 2023 numbers are still pending revision, estimates place the figure at 79,600, still more than 10 percent higher than before the pandemic. We do not have the specifics yet to see if the elevated levels are distributed differently than in 2022. And it remains to be seen whether death rates will continue to converge to pre-pandemic levels or if these elevated rates will constitute the 'new normal'.

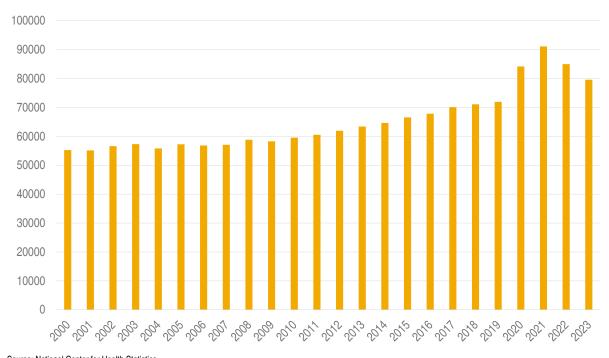
Regardless, COVID-19's emergence in 2020 pushed the state into unprecedented territory when, for the first time in at least a hundred years, deaths outnumbered births - a natural population decrease (Figure 2.19). That trend continued through 2022 but has turned positive in 2023, driven by a growing number of births and a decline in deaths over consecutive years. Although it was historic, a natural decrease was a likely eventuality for Tennessee, as births remained flat and deaths grew. It remains unclear when the state will return to a trend of ever-smaller natural

increases and potentially a period of sustained natural decrease, but based on pre-pandemic trends, that too seems an eventual inevitability. That could leave the state more dependent on the less predictable migration component in the coming years.

The second emerging trend is that annual net migration levels have been much higher so far this decade. Net migration is the difference between the number of people moving into and out of Tennessee. In 2022, net migration from domestic and international sources surged to an annual level of nearly 92,000 people. Estimates for 2023 showed this number had receded to 76,000 people. Going forward, those numbers may remain historically high or begin to decrease. However, there is reason to suspect that this pattern is unlikely to persist as net migration has always been somewhat cyclical since the measure turned positive at the beginning of the 1970's (Figure **2.20**). At present, the state is likely at a cyclical peak for net migration.

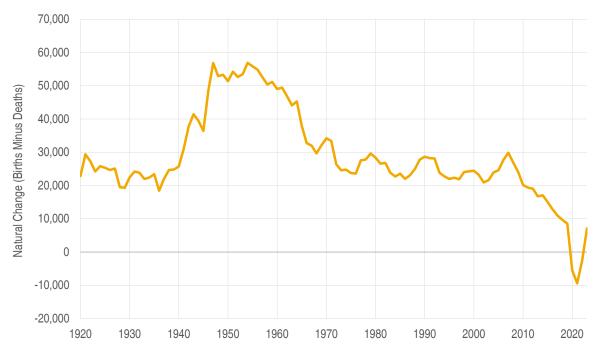
Additionally, the distribution of net migration across Tennessee has changed considerably from 2010-2020 to 2020-2023. Last decade, 60 percent of the net migration in Tennessee was into the Nashville Core-Based Statistical Area (CBSA)—a 20 county area covering the middle third of the state. For the 2020-2023 years, that share decreased to 35 percent (Table 2.3a). So far this decade, the Metropolitan Statistical Areas (MSA) in East Tennessee, Knoxville and Bristol-Kingsport-Johnson City, have seen substantial increases in their share of the state's net migration. More people have moved to the Bristol-Kingsport-Johnson City CBSA from 2020-2023 than did in all the last decade. Counties

Figure 2.18: The Number of Deaths in Tennessee Grew Steadily with Population Gains, but Jumped in 2020 as COVID-19 Related Deaths Emerged. Through 2023, Deaths Remain Above Pre-Pandemic Levels.

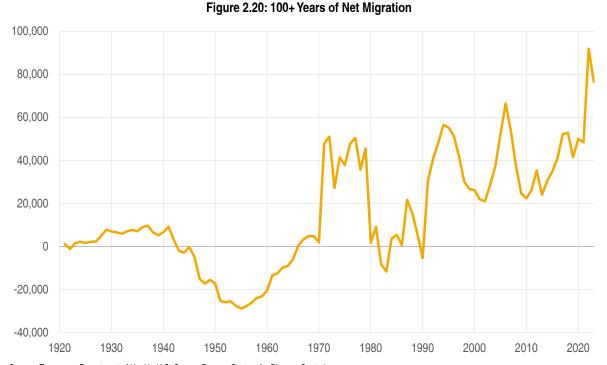


Source: National Center for Health Statistics. Note: Data for 2023 are provisional.

Figure 2.19: After a Century of Natural Population Increases, Tennessee saw its First Natural Decrease in 2020 as Deaths Attributed to COVID-19 Grew to Become the State's Third Leading Cause of Death in 2020 and 2021.



Source: Tennessee Department of Health, Vital Statistics Bulletins



Source: Tennessee Department of Health, U.S. Census Bureau, Centers for Disease Control. Note: Net migration for 1920-1990 is calculated as the residual of total population minus the natural change component (live birth minus deaths) using vital statistics reports from the Tennessee Department of Health. 1991 to 2023 is from the migration component of change published by the U.S. Census Bureau.

that are outside of any MSA/CBSA in Tennessee are also seeing unprecedented levels of net migration in recent years. From 2010-2020, net migration to these mostly rural counties totaled about 3,300 persons per year. From 2020-2023, net migration to rural counties has totaled almost 13,000 persons per year (**Table 2.3b**). Much of this is concentrated in the central and eastern parts of the state – and from what we can tell, is predominantly comprised of working age individuals rather than retirees.

We emphasize that the duration of these migration trends remains uncertain. History suggests that net migration will revert to the mean, but it is unknown when that reversion will occur. In our projections, we have adjusted net migration in the short run to reflect these recent trends, but only for a 10-year horizon. After 2033, we assume that net migration will continue to follow a more historical average trend. However, as more data on net migration become available in subsequent years, we will revise this forecast to reflect the "new normal" if appropriate.

## **The Tennessee Housing Market**

As discussed in Chapter 1, overall inflation has slowly trended downward since peaking at 9.1 percent in the summer of 2022. However, one component that has remained stubbornly sticky is the price of shelter (i.e. housing), where price growth remains elevated. In Tennessee, this has been driven by an increase in housing demand due to a rise in the number of people moving to Tennessee in recent years, coupled with a persistently low supply of available homes. The latter is not unique to Tennessee, but has been a long-term issue across the nation.

Over the last few years, monetary policy by the Federal Reserve has also had an outsized impact on both housing demand and housing supply. At the onset of the pandemic, the Federal Reserve (the Fed) reduced the federal funds rate (the interest rate that commercial banks can borrow from one another for short term loans) to nearzero percent in an effort to stimulate the economy. Figure 2.21 shows that mortgage rates, which are

Table 2.3a: Share of State Total Migration by Geographic Area

	July 1, 2010-	July 1, 2020	2020-2023		
	Total Net Migration	Share of State Total	Total Net Migration	Share of State Total	
Nashville-Davidson-Murfreesboro, TN CSA	235,336	59.9%	77,339	35.7%	
Memphis, TN-MS-AR MSA1	-44,209	-11.3%	-21,613	-10.0%	
Knoxville-Morristown-Sevierville, TN CSA	83,079	21.2%	57,992	26.8%	
Chattanooga-Cleveland-Dalton, TN-GA-AL CSA1	43,912	11.2%	23,301	10.8%	
Johnson City-Kingsport-Bristol, TN-VA CSA <sup>1</sup>	22,948	5.8%	23,840	11.0%	
Clarksville, TN-KY MSA <sup>1</sup>	20,329	5.2%	13,825	6.4%	
Jackson, TN MSA	-2,102	-0.5%	2,870	1.3%	
Other Tennessee Counties	33,333	8.5%	39,083	18.0%	
Tennessee (Total)	392,626		216,637		

Table 2.3b: Comparing Patterns in Net Migration Before and After 2020, Select Tennessee Combined and Metropoitan Statistical Areas

	July 1, 2010-	July 1, 2020	2020	-2023	
	Total Net Migration	Annual Average	Total Net Migration	Annual Average	% Change in Annual Net Migration
Nashville-Davidson-Murfreesboro, TN CSA	235,336	23,534	77,339	25,780	9.5%
Memphis, TN-MS-AR MSA1	-44,209	-4,421	-21,613	-7,204	-63.0%
Knoxville-Morristown-Sevierville, TN CSA	83,079	8,308	57,992	19,331	132.7%
Chattanooga-Cleveland-Dalton, TN-GA-AL CSA1	43,912	4,391	23,301	7,767	76.9%
Johnson City–Kingsport–Bristol, TN-VA CSA <sup>1</sup>	22,948	2,295	23,840	7,947	246.3%
Clarksville, TN-KY MSA <sup>1</sup>	20,329	2,033	13,825	4,608	126.7%
Jackson, TN MSA	-2,102	-210	2,870	957	555.1%
Other Tennessee Counties	33,333	3,333	39,083	13,028	290.8%
Tennessee (Total)	392,626	39,263	216,637	72,212	83.9%

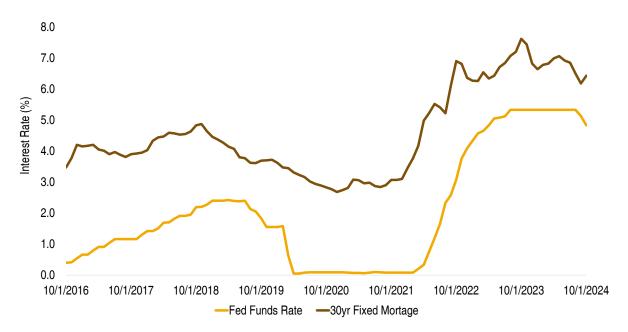
Source: 2020 and 2023 Population Estimates, U.S. Census Bureau. Data shown for the Tennessee portion core-based statistical area.

strongly correlated with the federal funds rate, fell dramatically in response, dropping below 3 percent in the summer of 2020. Lower mortgage rates led to an increase in the demand for housing and put upward pressure on home prices. In addition, many households refinanced their home loans to take advantage of record low mortgage rates. The Fed then began to raise interest rates in 2022 in an effort to reduce economic activity and curb inflationary pressures. Rising interest rates had a lock-in effect on many current homeowners, because the cost of obtaining a new mortgage at the current market rate of around 6 to 6.5 percent is well above the cost

of keeping their current home loan. This led to a reduction in the supply of homes for sale, and also put upward pressure on home prices.

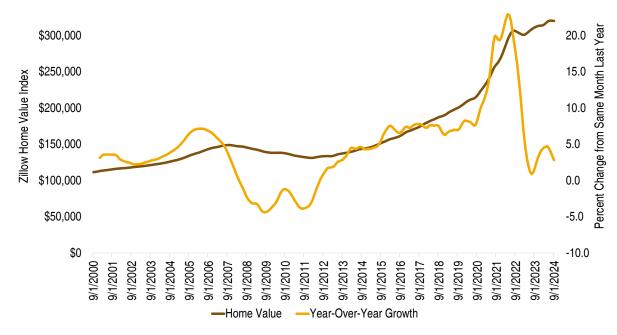
All of these factors have led to a strong increase in the price of homes in Tennessee and the nation as a whole. **Figure 2.22** shows monthly home values, as measured by the Zillow Home Value Index, in Tennessee since 2000, as well as year-over-year growth in home values. Both before and after the Great Recession, average home values in Tennessee grew by around 5 to 6 percent per year, but shot up to over 20 percent in 2021 and 2022. As a result, the average home price in

Figure 2.21: The 30-Year Fixed Mortgage Rate is Strongly Correlated with the Federal Funds Rate



Sources: Federal Reserve Bank of New York and Freddie Mac.

Figure 2.22: Home Values in Tennessee Grew Rapidly in 2021 and 2022



Source: Zillow.

40,000 35,000 30,000 Active Listings 25,000 20,000 15,000 10,000 5,000 n 10/1/2016 10/1/2017 10/1/2018 10/1/2019 10/1/2020 10/1/2021 10/1/2022 10/1/2023 10/1/2024

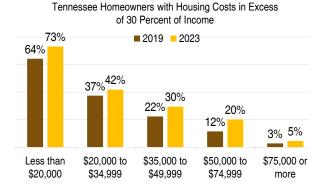
Figure 2.23: The Number of Homes for Sale (i.e. Active Listings) is Back to Pre-Pandemic Levels

Source: Realtor.com.

Tennessee grew from around \$200,000 in early 2020 to \$320,000 today. In recent months, home price growth has retreated, and is currently sitting at around 3 to 4 percent, but home prices remain well above pre-pandemic levels.

Thankfully, activity in the housing market is starting to pick back up, and the number of homes for sale (i.e. active listings), which fell dramatically in the wake of the pandemic, is now back to prepandemic levels (see Figure 2.23). Nonetheless, the cost of housing has become increasingly burdensome for many households across the state. The Department of Housing and Urban Development (HUD) defines a household as "cost-burdened" if their housing costs are over 30 percent of their income. Figure 2.24 shows that the percentage of households that are cost burdened has grown across all income levels since 2019. But of course, households in the lower income groups are more greatly affected. Furthermore, households that are renting have a much higher likelihood of being cost burdened, as the percentage of those who have seen a rent increase has risen dramatically since 2019 (see **Figure 2.25**).

Figure 2.24: The Percentage of Tennesseans Who Are Cost Burdened by Housing Has Risen Across All Income Groups



Tennessee Renters with Housing Costs in Excess of 30
Percent of Income



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

450,000 400,000 350,000 Number of Households 300,000 250,000 200,000 150,000 100,000 50,000 0 Less than \$500 \$500 to \$999 \$1,000 to \$1.500 to \$2,000 to \$2,500 to \$3,000 or more \$2,999 \$1,499 \$1,999 \$2,499 2019 2022 2023

## Figure 2.25: Monthly Rent Continues to Rise for More Tennessee Households

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

#### 2.3. TENNESSEE ECONOMIC OUTLOOK

## **GDP Outlook**

The short-term economic outlook calls for a moderation of growth in the near term, as the economic effects of the pandemic and postpandemic recovery continue to dissipate and the Tennessee economy stabilizes. **Table 2.4** presents a summary of the economic outlook for both Tennessee and the nation. Tennessee inflationadjusted gross domestic product (real GDP) rose by a strong rate of 4.0 percent in 2022, but then slowed to 1.9 percent in 2023. This slowdown occurred due to a reduction in consumer spending, relative to unsustainably high spending levels in 2021 and 2022, along with a moderation of job growth. In addition, the Federal Reserve kept interest rates high through all of 2023 and most of 2024 in an effort to reduce economic activity and curb inflation. This seems to have been successful, thus far, as economic growth has

slowed but remained positive, while the inflation rate has trended downward. Expectations are that Tennessee real GDP will grow by a slightly below trend rate of 2.4 percent in 2024 as the economic recovery continues to wind down. Economic growth will then advance by 2.5 percent in 2025 as the economy stabilizes.

Figure 2.26 reports real GDP growth for both Tennessee and the nation. In 2024, economic growth in Tennessee will likely be slower than the U.S., which is projected to grow by 2.7 percent. This is likely driven by timing, as Tennessee's economy recovered from the pandemic faster than the nation as a whole, so the recovery in Tennessee is winding down sooner as well. Tennessee real GDP growth will then advance by 2.5 percent in 2025 versus a slower projection of 2.0 percent growth for the U.S.

Over the long term, Tennessee real GDP growth is projected to hover around its pre-

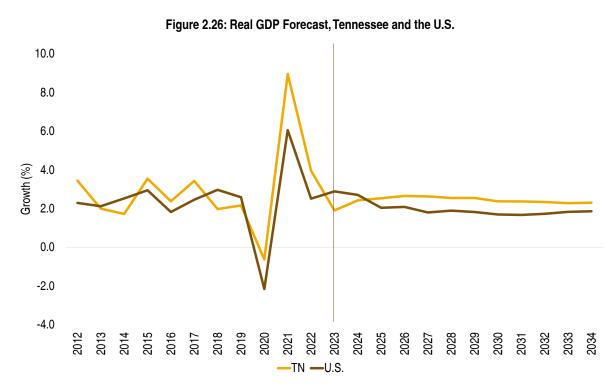
#### TENNESSEE ECONOMIC OUTLOOK, CONTINUED 2.3.

Table 2.4: Selected U.S. and Tennessee Economic Indicators

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TN GDP (Mil2012\$) SAAR	434954	445957	457771	469800	481750	494019	505733	517702	529799	541871	554343
Percentage change	2.42	2.53	2.65	2.63	2.54	2.55	2.37	2.37	2.34	2.28	2.30
US GDP (Bil2017\$) SAAR	23283.8	23758.0	24252.7	24688.4	25154.7	25612.3	26045.8	26480.6	26938.0	27430.2	27939.7
Percentage change	2.70	2.04	2.08	1.80	1.89	1.82	1.69	1.67	1.73	1.83	1.86
US GDP (Bil\$) SAAR	29150.4	30408.6	31743.1	32998.9	34351.6	35740.9	37148.7	38627.7	40178.3	41814.6	43521.7
Percentage change	5.16	4.32	4.39	3.96	4.10	4.04	3.94	3.98	4.01	4.07	4.08
TN PERSONAL INCOME (MIL2017\$) SAAR  Percentage change	381311 3.61	391184 2.59	400679 2.43	412814 3.03	424492 2.83	436818 2.90	449576 2.92	461868 2.73	474664 2.77	487365 2.68	500933 2.78
US PERSONAL INCOME (BIL2017\$) SAAR	20056	20625	21210	21769	22368	22892	23396	23894	24409	24958	25528
Percentage change	3.26	2.84	2.84	2.64	2.75	2.34	2.20	2.13	2.16	2.25	2.28
TN PERSONAL INCOME (MIL\$) SAAR	470572	492170	516289	542494	568990	597289	627204	657275	689104	721795	756649
Percentage change	6.11	4.59	4.90	5.08	4.88	4.97	5.01	4.79	4.84	4.74	4.83
US PERSONAL INCOME (BIL\$) SAAR	24761	25966	27275	28579	29932	31268	32614	34005	35454	36969	38552
Percentage change	5.80	4.87	5.04	4.78	4.73	4.46	4.31	4.27	4.26	4.27	4.28
TN NONFARM JOBS (THOUS)	3331.7	3368.1	3411.4	3459.1	3503.9	3547.2	3590.0	3626.5	3662.3	3692.9	3724.1
Percentage change	0.68	1.09	1.29	1.40	1.30	1.23	1.21	1.02	0.99	0.83	0.85
US NONFARM JOBS (MIL)	158.5 1.59	159.9 0.85	160.4 0.31	160.6 0.12	161.0 0.23	161.7 0.45	162.4 0.47	162.9 0.31	163.4 0.30	163.9 0.26	164.2 0.22
TN MFG JOBS (THOUS)	362.7	364.3	367.8	371.4	373.4	374.9	376.1	377.1	377.8	378.7	379.7
Percentage change	-0.34	0.46	0.95	0.97	0.55	0.41	0.30	0.27	0.20	0.23	0.26
US MFG JOBS (MIL)	12.9	12.9	12.7	12.5	12.3	12.2	12.2	12.1	12.0	11.8	11.6
Percentage change	-0.05	-0.27	-1.86	-1.25	-1.44	-0.80	-0.30	-0.57	-0.92	-1.53	-1.77
TN UNEMPLOYMENT RATE (%)	3.2	3.3	3.4	3.5	3.6	3.7	3.7	3.8	3.7	3.7	3.7
US UNEMPLOYMENT RATE (%)	4.0	4.4	4.5	4.6	4.5	4.4	4.3	4.2	4.2	4.2	4.2
CHAINED PRICE INDEX, GDP (2017=100.0)	125.2	128.0	130.9	133.7	136.6	139.5	142.6	145.9	149.1	152.4	155.8
Percentage change	2.39	2.23	2.26	2.12	2.17	2.19	2.21	2.27	2.25	2.21	2.18
US PERS CONSUMP DEFL (2017=100.0)	123.5	125.9	128.6	131.3	133.8	136.6	139.4	142.3	145.2	148.1	151.0
Percentage change	2.46	1.97	2.15	2.09	1.93	2.07	2.06	2.09	2.06	1.98	1.95
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1.000)	3.136	3.203	3.281	3.359	3.426	3.507	3.589	3.674	3.759	3.841	3.922
Percentage change	2.92	2.15	2.43	2.38	1.99	2.36	2.33	2.36	2.31	2.18	2.12
BANK PRIME INTEREST RATE (%)	8.3	6.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
FEDERAL FUNDS RATE (% per annum)	5.145	3.789	2.639	2.625	2.625	2.625	2.625	2.625	2.625	2.625	2.625
30-YEAR FIXED MORTGAGE RATE (%)	6.7	5.8	5.3	5.1	5.0	5.0	4.9	4.9	4.9	4.9	5.0
TN TAXABLE SALES (MIL2017\$)	170565	172327	175515	180290	185706	191116	196856	202646	208330	214357	220785
Percentage change	1.72	1.03	1.85	2.72	3.00	2.91	3.00	2.94	2.81	2.89	3.00
TN TAXABLE SALES (MIL\$)	210490	216811	226156	236925	248921	261325	274635	288381	302449	317467	333492
Percentage change	4.19	3.00	4.31	4.76	5.06	4.98	5.09	5.01	4.88	4.97	5.05
TN AVG ANNUAL WAGE, NONFARM (2017\$)	55392	56066	56642	57578	58485	59436	60392	61413	62502	63649	64831
Percentage change	2.93	1.22	1.03	1.65	1.57	1.63	1.61	1.69	1.77	1.84	1.86
TN AVG ANNUAL WAGE, NONFARM (\$)	68357	70538	72984	75664	78392	81270	84251	87395	90737	94264	97925
Percentage change	5.42	3.19	3.47	3.67	3.60	3.67	3.67	3.73	3.82	3.89	3.88

Sources: Boyd CBER UT, S&P Global, Bureau of Labor Statistics, Bureau of Economic Analysis, TN Department of Revenue.

#### 2.3. TENNESSEE ECONOMIC OUTLOOK, CONTINUED



Sources: Bureau of Economic Analysis, Boyd CBER UT, and S&P Global.

pandemic trend of roughly 2.5 to 2.6 percent per year from 2026 through 2029, but then decelerate to around 2.3 to 2.4 thereafter. Slightly slower growth towards the end of the long-term forecast horizon is due to the aging population coupled with lower fertility rates leading to a smaller potential workforce over the long term. Over the full decade, Tennessee real GDP is projected to increase by a compound annual growth rate of 2.5 percent per year from 2024 to 2034. This is faster than the 1.8 percent annual rate of growth projected for the nation as a whole, and is consistent with the state's pre-pandemic growth path from last decade (2011 to 2019).

## **Labor Market Outlook**

Nonfarm employment growth is projected to slow in 2024, increasing by 0.7 percent in 2024 and 1.1 percent in 2025, representing net increases of 22,500 jobs and 36,400 jobs respectively. By comparison, U.S. employment is projected to increase by a faster 1.6 percent rate of growth in

2024 and then a slower 0.9 percent rate of growth in 2025.

The state will see slower job growth in 2024 due to the quicker economic recovery in Tennessee, leading to the state's earlier return to more stable growth patterns. For similar reasons, Tennessee will see stronger growth in 2025, as national economic growth continues to normalize. In addition to timing differences with respect to the economic recovery, the state employment forecast shows stronger 2025 job growth relative to the U.S. in a number of sectors, most notably the natural resources mining, and construction sector and the manufacturing sector.

In the natural resources, mining, and construction sector, Tennessee employment is projected to increase by 3.3 percent in 2025 versus 1.8 percent for the U.S. as a whole. Relatively strong state employment growth will be driven by a number of large construction projects such as Ford's EV battery manufacturing complex in West Tennessee, along with complementary developments in surrounding areas, Orano's

#### 2.3. TENNESSEE ECONOMIC OUTLOOK, CONTINUED

6.0 4.0 2.0 Employment Growth (%) 0.0 -6.0 -8.0 2023 2017 2022 2025 2025 2027 2028 2029 2030 2031 TN —U.S.

Figure 2.27: Employment Forecast, Tennessee and the U.S.

Sources: Bureau of Labor Statistics, Boyd CBER UT, and S&P Global.

uranium enrichment facility in Oak Ridge, and the new Tennessee Titans stadium in Nashville. In addition, the Federal Reserve will likely continue to reduce interest rates through 2025, which will stimulate real estate investment and increase construction spending and construction employment. Growth in this sector, however, is tempered to some extent by the availability of construction workers leading to a potential backlog of smaller projects.

Expectations are that the state's manufacturing sector, which has a much stronger presence in Tennessee than the nation as a whole, will see a small increase in jobs in 2025, advancing by 0.5 percent and adding 1,700 jobs over the year. By comparison, manufacturing employment for the nation is projected to contract in 2025. In fact, U.S. manufacturing employment is projected to shrink throughout the long term forecast horizon, whereas Tennessee manufacturing employment levels will remain flat or see modest increases.

Finally, employment growth will show strength in the education and health services sector for

both the state and nation, as the aging population continues to increase the demand for health care workers.

Figure 2.27 presents the long-term employment outlook for both the state and nation. Over the next decade, we expect Tennessee employment to expand by a compound annual growth rate of 1.1 percent per year from 2024 to 2034. This would represent a significant slowdown relative to the 1.8 percent pre-pandemic average rate of growth seen between 2010 and 2019. The slowdown is largely driven by demographic factors, as the population continues to age and more older workers retire. As a result, we are projecting stronger employment growth of 1.2 to 1.4 percent per year from 2026 to 2030, but growth will then decelerate to between 0.8 and 1.0 percent per year towards the end of the long term forecast horizon.

Tennessee's unemployment rate has slowly trended upward in the last few months. The state recorded an all-time low unemployment rate of 3.0 percent in July 2024 but has since drifted up to 3.3 percent as of October. Expectations are that

#### 2.3. TENNESSEE ECONOMIC OUTLOOK, CONTINUED

the unemployment rate will continue to slowly rise, averaging 3.2 percent for the 2024 year as a whole, 3.3 percent in 2025, and 3.4 percent in 2026. This upward trend will be driven by a moderation in job growth, relative to the strong gains seen during the recovery, as well as an increase in the number of unemployed people as the economy cools and it takes longer for some job seekers to find work. Over the long term, the unemployment rate is projected to continue increasing through the second half of the decade, and peak at 3.8 percent by 2031 before falling back to 3.7 percent through the rest of the long-term forecast horizon. The latter will occur as fewer people enter the labor force (i.e. working or actively looking for work) due to continued retirements and a smaller pool of younger workers. Nevertheless, the state unemployment rate will remain below the national rate throughout the long-term forecast horizon -unemployment in the U.S. is projected to peak at 4.6 percent in the short-term before trending down to 4.2 percent during the ensuing decade.

## Income, Earnings, and Taxable Sales

Nominal personal income in Tennessee, which grew by a robust 6.3 percent in 2023, will continue to show strength, advancing by 6.1 percent in 2024. Personal income growth in 2024 will be driven by sustained growth in wages and salaries, the largest component of personal income, which is projected to increase by 6.1 percent. This is largely due to strong wage and salary growth in the first half of the year, with gains of 8.0 percent and 6.1 percent in the first and second quarter respectively. Expectations are that wage and salary growth will moderate back towards historic trends, and advance by 4.1 percent in the third quarter and 3.6 percent in the fourth quarter. Total wage and salary growth will then slow to 4.3 percent in 2025, as job growth slows and inflation remains in check. In addition, rent, interest, and dividend income, which grew by 12.0 percent in 2023, will increase by much smaller rates of 4.9 percent and 3.2 percent in 2024 and 2025 respectively, as the Fed continues to slowly reduce interest rates. As a result, nominal personal income is projected to

grow by 4.6 percent in 2025, which is comparable but slightly slower than the pre-pandemic average of 4.7 percent seen between 2014 and 2019. After adjusting for inflation, real personal income will increase by 3.6 percent in 2024 and 2.6 percent in 2025. On a fiscal year basis, nominal personal income is projected to grow by 5.3 percent in FY24/25 and 4.7 percent in FY25/26.

Over the long run, Tennessee personal income will increase at a compound annual growth rate of 4.9 percent per year from 2024 to 2034. This is faster than the projected U.S. growth rate of 4.5 percent per year. Over the next decade, Tennessee per capita income will remain below the national average, but will make up some ground. In 2023, per capita income in Tennessee was \$62,310 and was 9.9 percent lower than the nation's \$69,162. However, expectations are that this gap will fall to 8.9 percent by 2034, as Tennessee per capita income grows to \$98,295 versus \$107,845 for the nation. After adjusting for inflation, Tennessee's per capita income will be \$65,075 in 2034 and the U.S. per capita income level will be \$71,411.

Tennessee nominal taxable sales are projected to grow by 4.2 percent in 2024, representing a slight acceleration compared to the 3.0 percent rate of growth in 2023. As discussed earlier, the stronger 2024 growth was largely due to the three-month sales tax holiday on groceries in 2023 which led to lower taxable sales in 2023 and a very strong 19.2 percent increase in taxable sales at food stores in 2024 (there was no sales tax holiday for grocery store purchases in 2024). Expectations are that taxable sales growth will decelerate to 3.0 percent in 2025 as economic growth moderates and inflation, which has finally come down, remains relatively low. Lower inflation will limit growth on the dollar value of taxable goods and services. In addition, purchases at food stores will see a more stable rate of growth (up 6.3 percent in 2025) as the volatility from the 2023 sales tax holiday on groceries will have no affect on 2025 growth rates. We do however, project to see a slight uptick in sales at auto dealers (up 2.0 percent in 2025, relative to 0.03 percent growth in 2024), as the Fed continues to slowly lower interest rates, leading to an increase in the demand

# 2.3. TENNESSEE ECONOMIC OUTLOOK, CONTINUED

for auto purchases and other big-ticket items that may require a loan. After adjusting for inflation, real taxable sales will increase by 1.7 percent in 2024 and 1.0 percent in 2025.

For the fiscal year, nominal taxable sales are expected to grow by 4.9 percent in FY24/25 and

3.4 percent in FY25/26. Over the long term, nominal taxable sales will grow by a range of 4.3-5.1 percent per year, which is more in line with the rate of growth seen prior to the pandemic. This is equivalent to roughly 3.0 percent growth per year in inflation-adjusted terms.

## 2.4. FORECAST AT A GLANCE

- Tennessee inflation-adjusted gross domestic product (real GDP) growth will continue to moderate in the near term as the recovery winds down. Tennessee real GDP is projected to increase by 2.4 percent in 2024 and 2.5 percent in 2025. By comparison, the U.S. economy is projected to grow by 2.7 percent in 2024 and 2.0 percent in 2025.
- Nonfarm employment growth in Tennessee is projected to soften, advancing by 0.7 percent in 2024 and 1.1 percent in 2025, representing net increases of 22,500 jobs and 36,400 jobs respectively. By comparison, U.S. employment is projected to increase by a faster 1.6 percent rate of growth in 2024 and then a slower 0.9 percent rate of growth in 2025.
- In general, the Tennessee economy is seeing slower economic growth than the U.S. in 2024. This is likely driven by timing more than anything, as the state economy recovered more quickly from the pandemic and is therefore stabilizing sooner as well.
- Over the long term, Tennessee real GDP growth is projected to hover around its pre-

- pandemic trend of 2.5 to 2.6 percent per year from 2026 through 2030, but then decelerate to around 2.3 to 2.4 thereafter. Similarly, nonfarm employment will increase by 1.2 to 1.4 percent per year through the second half of this decade, but then slow to 0.8 to 1.0 percent per year thereafter, as more people from the Baby Boom generation continue to retire and there are fewer younger workers available to replace all of the retirees.
- Tennessee's unemployment rate fell to an all-time low of 3.0 percent in the summer of 2024, but has slowly trended upward since. Expectations are that the unemployment rate will continue to slowly rise, averaging 3.2 percent for the 2024 year as a whole, 3.3 percent in 2025, and 3.4 percent in 2026.
- Nominal personal income will advance at an above trend rate of 6.1 percent in 2024 due to strong wage growth. Expectations are that nominal personal income will then grow by 4.6 percent in 2025, which is more in line with pre-pandemic trends. After adjusting for inflation, real personal income will increase by 3.6 percent in 2024 and 2.6 percent in 2025.

## Introduction

Tennessee's agri-forestry industrial complex spans the supply chain from farm and forest to end consumers of products like retail foods, clothing, paper, and furniture. It includes crop and livestock farming, timber removal, sawmills, and production of agricultural inputs (machinery, fertilizers, soil amendments, herbicides). Downstream manufacturers of food and fiber goods (food and beverage products, textiles, wood, paper, furniture) also demand commodities from farmers and firststage forestry operations.

This chapter includes economic indicators for: a) Primary agriculture and forestry (farming and first-stage forestry) and b) Secondary agriculture and forestry (manufacturing and processing facilities). In 2024, Tennessee's agri-forestry industrial complex was significantly impacted by drought, agricultural land loss, trade deficits, decreasing foreign market demand, below average yields, and relatively lower prices for major commodities.

## **Agriculture and Primary Forestry**

Agricultural Land Use and Farm Size

According to the most recent data (2022), farming operations occupied 10.7 million acres in Tennessee, around 39.6 percent of the state's nearly 27.0 million acres of land area. Acreage wise, just under 49.1 percent of the farmland in Tennessee is operated as cropland. Of Tennessee's 63,100 farming operations, the average farm size was 170 acres. Tennessee ranks 9th in the U.S. in terms of the number of farming operations but 25th in terms of acres operated, reflecting farm sizes smaller than the U.S. average (464 acres). Cash receipts from farming in Tennessee for 2023 were \$5.2 billion, with about 60.0 percent of this value (\$3.2 billion) coming from crops and 49.0 percent (\$2.1) from animals and animal products.4

Tennessee's Crops Market Trends and Outlook

In terms of harvested acreage, Tennessee's four largest row crops are soybeans, corn, wheat, and cotton. Based on 2023 national cash receipts by commodity, Tennessee ranks 19th in corn production (\$646.8 million; 0.8 percent of U.S. total); 9th in cotton production (\$361.0 million; 5.0 percent of U.S. total); 16th in soybean production (\$1,021.6 million; 1.7 percent of U.S. total); and 19th in wheat production (\$192.9 million; 1.5 percent of U.S. total).5 Harvested acreage, production, and yield from 2019 to 2024 for the four principal row crops are shown in Table 1. In 2024, harvested acreage for Tennessee row crops were estimated to be 1.80 million acres of soybeans, 660,000 acres of corn, 320,000 acres of wheat, and 250,000 acres of cotton. Soybean acreage was up 14.7 percent from 2023 and 16.9 percent above the previous five-year average; corn acreage was down 25.8 percent compared to 2023 and 23.8 percent below the five-year average; cotton acreage was down 3.8 percent compared to 2023 and 18.6 percent lower than the five-year average; and wheat acreage was down 17.9 percent compared to 2023 and 6.7 percent above the fiveyear average. Yields and production were adversely affected by drought with the hardest hit areas in the southern middle and eastern parts of the state.

Prices received by Tennessee producers are influenced by local, national, and global market forces. Prices have declined substantially since 2022. Currently, 2024 marketing year average corn prices are 22.4 percent below the five-year average and 17.1 percent below 2023; soybean prices are 21.4 percent below the five-year average and 16 percent below 2023; wheat prices are 20.9 percent below the five-year average and 22.7 percent below 2023; and cotton prices are 10.8 percent below the five-year average and 8.3 percent below 2023 (**Table 2.6**). Current marketing year average prices

<sup>&</sup>lt;sup>4</sup> Farm size and farm numbers: National Agricultural Statistics Service (NASS), USDA. www.nass.usda.gov/Publications/AgCensus/2022/ and www.usda.library. cornell.edu/concern/publications/5712m6524; Cash receipts data: Economic Research Service (ERS), USDA. www.ers.usda.gov/data-products/farm-income-andwealth-statistics.

<sup>&</sup>lt;sup>5</sup> ERS, USDA. See Footnote 4.

<sup>6</sup> NASS Quick Stats. https://quickstats.nass.usda.gov/

Table 2.5: Tennessee Harvested Acres, Production, and Yield for Corn, Cotton, Soybeans, and Wheat, 2019-2024\*

	2019	2020	2021	2022	2023	2024*	5-Year Avg.	Change 5-Year Avg. to 2024	Change 2023 to 2024		
Corn											
Harvested Acres (million)	0.91	0.82	0.93	0.79	0.89	0.66	0.87	-23.80%	-25.80%		
Production (million bushels)	161.1	138.6	158.1	102.1	154	101	142.7	-29.30%	-34.40%		
Yield (bu/acre)	177	170	170	130	173	153	164	-6.70%	-11.60%		
				Co	tton						
Harvested Acres (million)	0.41	0.28	0.27	0.33	0.26	0.25	0.31	-18.60%	-3.80%		
Production (million bales)	0.96	0.61	0.58	0.71	0.68	0.57	0.71	-19.60%	-15.80%		
Yield (lb/acre)	1,138	1,066	1,036	1,053	1,250	1,094	1,109	-1.30%	-12.50%		
				Soyl	peans						
Harvested Acres (million)	1.37	1.62	1.52	1.62	1.57	1.8	1.54	16.90%	14.70%		
Production (million bushels)	64.4	81	76	77.8	80.1	84.6	75.8	11.50%	5.70%		
Yield (bu/acre)	47	50	50	48	51	47	49	-4.50%	-7.80%		
				Wł	neat						
Harvested Acres (million)	0.22	0.23	0.33	0.33	0.39	0.32	0.3	6.70%	-17.90%		
Production (million bushels)	14.4	13.6	23.4	24.5	31.2	24	21.4	12.10%	-23.10%		
Yield (bu/acre)	67	59	71	73	80	75	70	7.10%	-6.30%		

\*Estimated data.

Source: NASS, USDA (2024).

for 2024 will be influenced by South American production, U.S. export demand, and 2025 planting intentions for corn, soybeans, wheat, and cotton in the Northern Hemisphere. The marketing year for corn and soybeans is from September 1 to August 31; wheat, June 1 to May 31; and cotton, August 1 to July 31.

The 2024 crop year will be a challenging year financially for many Tennessee crop producers. U.S. row crop producers have been adversely affected by the decrease in row crop prices, however many production regions have average to above average yields, which will partially mitigate price declines. Tennessee, unlike many states, had below average yields in 2024, which combined with

price declines and changes in harvested acreage will result in a dramatic decline in gross cash receipts. Based on current estimates of average prices, yields, and acreage harvested, gross cash receipts for Tennessee corn, cotton, soybean, and wheat farmers will decline by \$582.3 million compared to 2023 (marketing year) (\$2.2 billion to \$1.6 billion). Estimates do not include any ad hoc, Agriculture Risk Coverage (ARC) or Price Loss Coverage (PLC) programs, or crop insurance payments that may partially mitigate the decline in producer gross cash receipts. The projected decline in gross cash receipts from the four primary Tennessee row crops will adversely affect loan repayment, purchases of inputs, and rural economies.

Table 2.6: Marketing Year Average Prices for Tennessee, 2019-2024\*

Commodity	2019	2020	2021	2022	2023	5-Year Average	2024*
Corn	\$3.78	\$4.70	\$5.67	\$6.72	\$4.80	\$5.13	\$3.98
Cotton	\$0.59	\$0.69	\$0.88	\$0.85	\$0.72	\$0.74	\$0.66
Soybean	\$8.96	\$10.80	\$12.80	\$13.80	\$12.60	\$11.79	\$9.90
Wheat	\$5.45	\$5.55	\$6.87	\$8.40	\$6.75	\$6.60	\$5.22

\*Average daily cash price in Tennessee for the start of the 2024/25 marketing year to November 8, 2024, as reported by AMS, USDA for grain and oilseeds and cotton. The marketing year for corn and soybeans is from September 1 to August 31; wheat, June 1 to May 31; and cotton, August 1 to July 31.

Source: NASS, USDA (2024)

## Farm Bill Programs for Row-Crop Producers

The current Farm Bill (the Agriculture Improvement Act of 2018) covers the crop years 2019-2024 and expired September 30, 2024, after a one-year extension last year. Data for the most recently available crop year (2023) indicated that Tennessee producers received \$0.05 million in direct payments from ARC and \$0 from PLC. Payments to producers for the 2023 crop year were received in fall 2024. For 2024, Tennessee had 0.807 million acres enrolled in PLC and 1.59 million acres enrolled in ARC-County (ARC-CO).

For the 2023 crop year, Tennessee producers purchased 23,697 federal crop insurance policies, covering 2.85 million acres and \$1.63 billion of liability. The federal government's portion of crop insurance premiums was \$95.8 million, and Tennessee producers paid \$44 million in premiums. As of November 11, 2024, Tennessee producers had received \$55.5 million in indemnity payments for the 2023 crop year. As of November 11, 2024, for the 2024 crop year, Tennessee producers purchased 23,451 federal crop insurance policies, covering 2.93 million acres and \$1.40 billion of liability. The federal government's portion of crop insurance premiums was \$76.0 million, and Tennessee producers paid \$37.6 million in premiums. Indemnity payments for the 2024 crop year have not been determined at this time, however due to drought and other causes of loss, indemnity payments are likely to be substantially higher than 2023.8

## Row Crops Outlook

Looking towards the remainder of the 2024/25 crop marketing year, crop prices are likely to trend sideways with the potential for minor seasonal improvements. Prices for the 2024/25 marketing year will be influenced by U.S. export sales, domestic weather and planting conditions, South American crop progress and production, global weather, inflation, input prices and availability, and global economic growth. Direct payments through ad hoc USDA programs are anticipated for U.S. row crop producers for the 2024 crop year, however details on ad hoc payments are not currently available. Due to the dramatic declines in gross revenue, many crop producers will struggle with obtaining financing for the 2025 crop which could adversely affect production and result in further consolidation in the row crop sector in Tennessee. For the 2024/25 marketing year, Tennessee farm-gate prices are projected to be \$5.30-\$6.50 for wheat; \$4.00-\$5.20 for corn; \$10.00-\$11.50 for soybeans; and \$0.67-\$0.78 for cotton.

Livestock, Poultry, and Dairy Industries: Market Trends and Outlook

## Livestock, Poultry, and Dairy Industries

Animals and animal products accounted for 40.0 percent (\$2.10 billion) of Tennessee agricultural receipts in 2023. Based on 2023 cash receipts, cattle and calves were the second highest ranked commodity behind soybeans, with cash receipts totaling \$876.7 million and accounting for 16.7 percent of total receipts. Broilers ranked third with total receipts of \$794.4 million and representing 15.1 percent of cash receipts. Hogs (2.6 percent of cash receipts), dairy products and milk (1.9 percent), and chicken eggs (1.7 percent) rounded out Tennessee's top five for animals and animal products based on cash receipts in 2023.9 Tennessee markets for animals and animal products are influenced by national and international market forces. Thus, changes in the national and international market impact local prices, production, and receipts.

Farm Service Agency (FSA), USDA. <a href="https://www.fsa.usda.gov/resources/programs/arc-plc/program-data">https://www.fsa.usda.gov/resources/programs/arc-plc/program-data</a>

Risk Management Agency (RMA), USDA. https://pubfs-rma.fpac.usda.gov/pub/sob/current\_week/state2023.pdf and https://pubfs-rma.fpac.usda.gov/pub/sob/ current\_week/stcrop2024.pdf

<sup>9</sup> ERS, USDA. See footnote 4.

Through the week ending September 20, 2024, year-to-date red meat (beef, veal, pork, lamb/mutton) production was 0.3 percent higher than the previous year and was nearly 39.1 billion pounds. 10 Poultry (chicken, turkey, duck) production through the end of August was unchanged from the same eight months in 2023 and totaled 46.2 billion pounds. Milk production through the first eight months of 2024 was down 0.4 percent from the previous year to 152.1 billion pounds.<sup>11</sup>

U.S. beef exports from January through July 2024 fell by 2.4 percent compared to 2023 and totaled 1.66 billion pounds. Total beef export value over the first seven months of 2024 totaled \$6.13 billion, an increase of 5.6 percent compared to 2023. Pork exports in the first seven months of 2023 were 4.2 percent higher than 2023 and totaled 3.88 billion pounds. Total pork export value totaled \$4.97 billion, an increase of 6.4 percent compared to 2023.<sup>12</sup> On the dairy side, the total aggregate volume of U.S. dairy exports through August was 3.08 billion pounds, which is an increase of 1.6 percent compared to 2023.13

Calf (500-600 pound steer) and feeder cattle (700-800 pound steer) prices in Tennessee through the first nine months of 2024 increased by 24.1 and 19.1 percent, respectively, compared to the same nine months in 2023. Prices have been supported by strong beef demand and a smaller cattle herd. Similarly, Tennessee milk prices for the Appalachian and Southeast Federal Milk Marketing Orders through the first seven months of 2024 increased by 1.2 percent and 1.6 percent, respectively, compared to the same seven months in 2024.14

Tennessee ranked 16th nationally in terms of total cattle and calves inventory as of January 1,

2024 (1.60 million head including 835,000 beef cows and 25,000 dairy cows) which is the same ranking as a year ago. Tennessee ranks 12th in total beef cow numbers with Kentucky and Florida being the only states east of the Mississippi River with larger beef cow inventories. The state is ranked 4th nationally in meat goat numbers at 72,000 head.15

## Livestock, Poultry, and Dairy Outlook

Looking into 2025, the livestock, poultry, and dairy industries will be faced with challenges of continued high interest rates and inflation and reduced discretionary spending by consumers. Cattle prices will remain elevated but volatile in 2025. Reduced cattle inventory and lower beef production will support cattle prices. Cattle producers will begin retaining heifers in 2025 if conditions allow. Hog prices are expected to remain steady in 2025 compared to 2024 as export head winds would be the primary factor derailing expectations. The potential derailment would likely be the result of how major pork export markets such as Mexico and China respond to President-elect Trump and his administration's approach to managing trade with those respective countries. Red meat demand should support beef and pork prices as demand has remained strong and total production will moderate. However, discretionary spending will be the deciding factor as consumers attempt to get the most out of every dollar. The poultry industry will attempt to increase production as they have for several years if they can solve male fertility issues. Milk and dairy prices are expected to be steady to slightly higher in 2025 relative to 2024, and declining herd size should support milk prices.

<sup>&</sup>lt;sup>10</sup> Agricultural Marketing Service (AMS), USDA. <a href="https://www.ams.usda.gov/mnreports/sj\_ls712.txt">https://www.ams.usda.gov/mnreports/sj\_ls712.txt</a>

<sup>11</sup> NASS, USDA. https://usda.library.cornell.edu/

<sup>&</sup>lt;sup>12</sup> U.S. Meat Export Federation, https://www.usmef.org/export-data/export-statistics/month-to-month.

<sup>&</sup>lt;sup>13</sup> U.S. Dairy Export Council. https://www.usdec.org/research-and-data/market-information/usdec-data-hub

<sup>&</sup>lt;sup>14</sup> AMS, USDA. https://www.ams.usda.gov/mnreports/ams\_2063.pdf and\_https://www.ams.usda.gov/resources/marketing-order-statistics/uniform-price

<sup>15</sup> NASS, USDA (Livestock Inventory). https://downloads.usda.library.cornell.edu/usda-esmis/files/h702q636h/6108x003v/kk91h696g/catl0124.pdf and https:// downloads.usda.library.cornell.edu/usda-esmis/files/000000018/b8517891v/zw130s885/shep0124.pdf

Policy Implications for Tennessee Beef Industry

On October 11, 2024, the USDA's Agricultural Marketing Service (AMS) submitted an Advanced Notice of Proposed Rulemaking (ANPR) (Doc. No. AMS-FTPP-24-0013) to amend regulations under the Packer and Stockyards Act (P&S Act). Among the proposed changes, the most impactful for Tennessee agriculture is that a 50% cap on the use of a regional cash negotiated benchmark unless it meets regulatory standards for depth and reliability. Tennessee, a net exporter of feeder cattle, relies on demand from stockers, backgrounders, and feed lots nationwide. Feeder cattle are eventually fed to slaughter weight in feed lots and marketed to packing plants. The primary marketing methods for fed cattle are negotiated (cash), negotiated grid, formula, and forward contracts, with negotiated and formula trade being the most common. Formula prices are based on negotiated trade with quality adjustments.

The ANPR suggests that negotiated prices do not set the base for formula trade due to a lack of trade, though research disputes this. If implemented, the rule would increase negotiated trade, potentially lowering fed cattle values due to volume-based rather than quality-based pricing. This would reduce demand and value for feeder cattle, impacting Tennessee's beef sector, which heavily relies on feeder cattle receipts, thereby lowering its overall value in the state's agricultural economy.

U.S. and Tennessee Agricultural Trade Outlook

In fiscal year (FY) 2024 (October 2023 – September 2024), total U.S. agricultural and related exports, as reported by the USDA, were \$189.8 billion, down 2.3% percent when compared to exports in FY 2023 (\$194.2 billion). This overall decline was due to lower volumes as well as lower prices. The factors affecting exports at the national level have had an impact on Tennessee. In FY 2024, Tennessee's agricultural and related exports were \$2.7 billion, down \$313.7 million or 10.4 percent when compared to the previous fiscal year (\$3.0 billion). Consumer-oriented exports (\$1.3 billion in FY2024), which include distilled spirits, meat and dairy products, and processed food products accounted for the largest export category for Tennessee. Exports of consumeroriented products were down \$386.3 million or 22.4 percent when compared to the previous year. Interestingly, Tennessee exports of bulk agricultural commodities (\$1.0 billion), which includes cotton, tobacco, and soybeans, were up \$76 million (+8.0 percent), despite similar exports being down for the nation overall. Exports of intermediate products (\$159.9 million), such as soybean meal and oil and other feeds, were down \$18.9 million (-10.5 percent); and related-product exports (\$174.8 million), which are mostly forest products, were up \$15.4 million (+9.7 percent) (Table 2.7).16

Table 2.7: Tennessee Agricultural and Related Product Exports in FY 2023 and FY 2024: Total and by Major Product Category

Product Cotogony	FY 2023	FY 2024	\$ Change	% Change				
Product Category	\$ Million							
Agricultural and Related Products	\$3,016	\$2,702	\$314	-10.40%				
Consumer-Oriented Agriculture	1,727	1,340	-386	-22.40%				
Bulk Agriculture	952	1,028	76	8.00%				
Intermediate Agriculture	179	160	-19	-10.50%				
Other Agricultural Related Products	159	175	15	9.70%				

Note: Fiscal Year (FY) is October to September.

Source: U.S. Department of Agriculture, Foreign Agricultural Service, Global Agricultural Trade System (2023).

Data are from the Foreign Agricultural Service (FAS), USDA. https://apps.fas.usda.gov/gats/default.aspx

Key exports for Tennessee in FY 2024 included cotton (\$949.8 million) and distilled spirits (\$826.8 million), which increased by \$108.5 million and decreased by \$334.2 million, respectively. Note that the overall decrease in exports this fiscal year was due to distilled spirits falling in terms of value as well as volume. Other major exports included baked goods, cereals, and pasta (\$253.2 million, -6.7 percent) and poultry products (\$101.8 million, -22.5 percent). During this period, Tennessee was also a leading exporter of forest products (\$170.7 million), up \$13.6 million (+8.7 percent) when compared to the previous fiscal year (**Table 2.8**).

Changes in FY 2024 exports could also be viewed from the perspective of countries that are major buyers of Tennessee products. In FY 2023, Tennessee exported agricultural and related products to more than 100 countries, with the top markets being China, Canada, the Netherlands, Mexico, and Germany. The most noted increase in exports was to China. In FY 2024, exports to China were valued at \$553 million, an increase of \$184 million (+49.8 percent) when compared to FY 2023. The increase in exports to China was primarily due to a 60 percent increase in cotton exports. Exports to Germany (\$91 million) also

Table 2.8: Tennessee Agricultural and Related Product Exports in FY 2023 and FY 2024 by Top 10 Products and Partner Countries (Destinations)

	2.1.12.1	FY 2023	FY 2024	\$ Change	% Change			
Rank	Product Category	\$ Million						
	Agricultural and Related Products	\$3,016	\$2,703	\$313.70	-10.40%			
1	Cotton	841	950	109	12.90%			
2	Distilled Spirits	1161	827	-334	-28.80%			
3	Bakery Goods, Cereals, and Pasta	271	253	-18	-6.70%			
4	Forest Products	157	171	14	8.70%			
5	Poultry Products	131	102	-30	-22.50%			
6	Tobacco	90	69	-21	-23.70%			
7	Dextrin, Peptones, and Proteins	53	47	-6	-11.40%			
8	Soup and Other Prepared Foods	59	44	-16	-26.70%			
9	Chocolate and Cocoa Products	28	32	5	17.00%			
10	Sugars and Sweeteners	36	31	-5	-14.60%			
Donk	Postpou Country (Postination)	FY 2023	FY 2024	\$ Change	% Change			
Rank	Partner Country (Destination)	FY 2023	FY 2024 \$ Mi		% Change			
Rank	Partner Country (Destination)  World	FY 2023 \$3,016			% Change			
Rank	, , , , , , , , , , , , , , , , , , ,		\$ Mi	llion				
	World	\$3,016	<b>\$ Mi</b> \$2,703	llion \$313.70	-10.40%			
1	World China	<b>\$3,016</b> 369	\$ Mi \$2,703 553	\$313.70 \$314	<b>-10.40%</b> 49.80%			
1 2	World China Canada	<b>\$3,016</b> 369 327	\$ Mi \$2,703 553 324	\$313.70 \$184 -3	-10.40% 49.80% -1.00%			
1 2 3	World China Canada Netherlands	\$3,016 369 327 442	\$ Mi \$2,703 553 324 186	\$313.70 184 -3 -256	-10.40% 49.80% -1.00% -57.90%			
1 2 3 4	World China Canada Netherlands Mexico	\$3,016 369 327 442 120	\$ Mi \$2,703 553 324 186 111	\$313.70 \$313.70 184 -3 -256	-10.40% 49.80% -1.00% -57.90% -7.10%			
1 2 3 4 5	World China Canada Netherlands Mexico Germany	\$3,016 369 327 442 120 73	\$ Mi \$2,703 553 324 186 111 91	\$313.70 \$313.70 184 -3 -256 -9	-10.40% 49.80% -1.00% -57.90% -7.10% 25.50%			
1 2 3 4 5 6	World China Canada Netherlands Mexico Germany United Kingdom	\$3,016 369 327 442 120 73 113	\$ Mi \$2,703 553 324 186 111 91	\$313.70 184 -3 -256 -9 19 -23	-10.40% 49.80% -1.00% -57.90% -7.10% 25.50% -20.60%			
1 2 3 4 5 6 7	World China Canada Netherlands Mexico Germany United Kingdom Vietnam	\$3,016 369 327 442 120 73 113 119	\$ Mi \$2,703 553 324 186 111 91 89	\$313.70 184 -3 -256 -9 19 -23 -34	-10.40% 49.80% -1.00% -57.90% -7.10% 25.50% -20.60% -28.20%			

Note: Fiscal Year (FY) is October to September.

Source: U.S. Department of Agriculture, Foreign Agricultural Service, Global Agricultural Trade System (2024).

increased in FY 2024, up \$19 million (+26.5) percent) when compared to the previous year. The most noted decrease in exports was to the Netherlands, which was the leading country last fiscal year, but is now ranked third among destination markets. In FY 2024, exports to the Neterlands were valued at \$186 million, which is decrease of \$256 million (-57.9 percent) when compared to the previous year, primarily due to a 60% decline in distilled spirits exports (**Table 2.8**).

## U.S. Agricultural Trade Deficits

A concern for the U.S. agricultural sector is the rising agricultural trade deficit. In years past, U.S. agricultural exports exceeded imports. However, this has changed in recent years and the agricultural trade deficit is projected to grow to record levels. Figure 2.28 shows the U.S. agricultural exports, imports, and trade deficit (excluding forestry) from 2015 to 2024, as well projections for 2025 (fiscal

years). Exports peaked in 2022 at \$196.1 billion but have been declining since that time. Exports are forecasted to decline ever further to \$169.5 billion in 2025. Imports have steadily increased over the years, reaching \$207 billion in 2024 and are expected to rise further to \$212 billion in 2025. The trade deficit fluctuated, turning negative in 2019 and 2020, indicating a surplus, but has since widened, with a forecasted deficit of \$42.5 billion in 2025. According to USDA, this decline is mainly due to lower expected prices for soybeans, corn, and cotton, and reduced beef trade volumes. Soybeans, the leading U.S. exports, are expected to drop by \$1.5 billion. Both corn and cotton are projected to fall by \$900 million, while beef exports are expected to fall by \$1 billion.

U.S. agricultural imports differ significantly from exports, with imports being higher value consumer-oriented products, while exports are dominated by bulk commodities and minimally processed products. In 2024, major imports

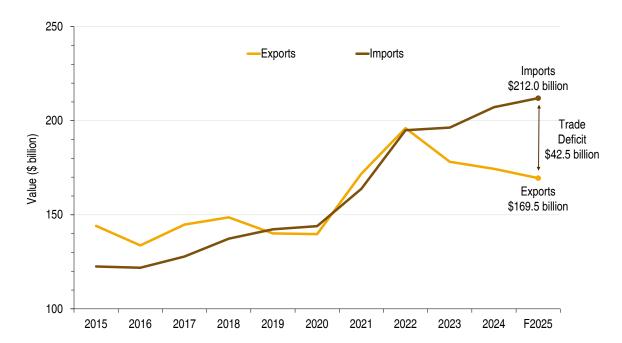


Figure 2.28: U.S. Agricultural Trade (Excluding Forestry): FY 2015 – FY 2025(F)

Note: Fiscal Year (FY) is October to September.

Source: U.S. Department of Agriculture, Foreign Agricultural Service, Global Agricultural Trade System (2024) and USDA Outlook for U.S. Agricultural Trade: August 2024. https://www.ers.usda.gov/publications/pub-details/?pubid=109831.

included fresh fruits and vegetables, distilled spirits, beef products, coffee, wine, and beer. Imports are significantly more expensive than exports, with import unit values being two to three times higher. Despite rising prices, the quantity of imports has continued to increase, unlike exports, which have declined. Key takeaways are that imports are more expensive, more subject to inflation, and have risen persistently despite price increases.<sup>17</sup>

Financial Indicators for Tennessee Farming Industries

Table 2.9 presents financial data from 2018-2023 for the Tennessee farming sector, which can be used to indicate the financial well-being of farms and farm operators in Tennessee. The value of farm production increased from \$4.2 billion in 2018 to \$6.3 billion in 2023. Net farm income was \$1.0 billion in 2023 (up from the low of \$308 million in 2018), averaging \$16,530 per operation. Net cash farm income on a per-acre basis was \$97/acre. The net farm income ratio (net farm income/value of production) during 2018 to 2023 ranged from 7 percent to 33 percent efficiency in converting production to net farm income, with an uptick from 7 percent in 2018 to 33 percent in

2021. The interest expense ratios for the farming sector, holding at 7 percent or less, reflect a low debt burden and interest payment level relative to production. Times interest earned is another measure of ability to cover debt payments, specifically interest payments. For all years, the values are greater than 1, implying sufficient cash to meet interest payments, and in 2023, the value was 3.94. The state's capital consumption ratio, or the percentage of production needed to cover the sector's capital consumption, was relatively low for the 2018 to 2023 period, ranging between 9 percent to 14 percent. In 2023, 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. In 2023, the estimated market value of land and buildings on farms was \$55.2 billion or around \$874,992 per farm in Tennessee.18

# Rural Infrastructure

The rural transportation system is crucial to Tennessee farmers and ranchers, providing farmers the link to access inputs and deliver products to markets in the agricultural supply

Table 2.9: Indicators of Financial Well-Being of the Tennessee Farm Sector, 2018-2023

Indicators	2018	2019	2020	2021	2022	2023
Value of Production (\$ million)	\$4,182	\$4,290	\$4,237	\$5,235	\$6,193	\$6,341
Net Farm Income (\$ million)	\$308	\$894	\$711	\$1,728	\$1,568	\$1,043
Interest Expense <sup>1</sup> (\$ million)	\$282	\$283	\$266	\$269	\$305	\$355
Market Value of Farmland, Buildings, & Equipment (\$ million)	\$42,728	\$43,200	\$44,496	\$45,903	\$50,718	\$55,212
Capital Consumption1 (\$ million)	\$575	\$536	\$542	\$482	\$672	\$659
Total Production Expenses1 (\$ million)	\$3,934	\$3,639	\$4,003	\$3,755	\$4,638	\$5,364
Net Farm Income Ratio	0.07	0.21	0.17	0.33	0.25	0.16
Capital Consumption Ratio	0.14	0.12	0.13	0.09	0.11	0.10
Operating Expense Ratio	0.74	0.66	0.75	0.57	0.59	0.69
Interest Expense Ratio	0.07	0.07	0.06	0.05	0.05	0.06
Times Interest Earned	2.09	4.16	3.68	7.43	6.14	3.94

<sup>1</sup>Excludes operator dwellings. Source: ERS, USDA (2024).

<sup>17</sup> USDA Outlook for U.S. Agricultural trade. https://www.ers.usda.gov/topics/international-markets-u-s-trade/u-s-agricultural-trade/outlook-for-u-s-agricultural-trade/

<sup>&</sup>lt;sup>18</sup> NASS, USDA. See footnote 6; ERS, USDA. See footnote 4.

chain. Tennessee's freight system handled more than 550 million tons of freight at \$813 billion in 2022, ranked 11th in freight movement among all states. In 2021, freight trucks accounted for 28 percent of vehicle miles on the state's rural interstate highways, which ranked in the top six for the nation. From 2022 to 2050, the annual freight tonnage by truck is expected to increase by 59 percent, while the projected increase in truck freight value is even more substantial (105 percent), only behind Indiana, Nebraska, Arkansas, Illinois, and Texas. The state's road and bridge system has been facing increasing challenges to handle the sharp growth in truck freight traffic. A total of 15 percent of the state's major roads are in poor or mediocre condition, and 4 percent of the state's bridges are rated in poor or structurally deficient condition.<sup>19</sup> Nearly 37 percent of the state's bridges are over 50 years old and deteriorated. Currently, federal funds support 72 percent of the state's highway and bridge improvement through the Tennessee Department of Transportation. It is crucial to maintain and upgrade the transportation network to meet the surging freight demand and improve road safety efficiently.

Out of the \$3.7 billion Tennessee received through the US Treasury's Coronavirus State and Local Fiscal Recovery Fund under the American Rescue Plan Act, \$3.6 billion was obligated to 44 approved projects across 16 state agencies to mitigate the negative impact of the COVID-19 pandemic and strengthen economic recovery. The Tennessee Department of Environment and Conservation obligated the budgeted \$1.4 billion to enhance water and wastewater infrastructure to protect and promote human health; improve compliance with water quality requirements; and improve technical, managerial, and financial capabilities of small, disadvantaged water infrastructure systems. The Tennessee Department of Economic and Community Development

budgeted \$500 million of the coronavirus relief funds for broadband programs — \$452 million for broadband infrastructure improvements; \$10 million for broadband ready community adoption grants; \$33 million for digital education, skills and workforce development and \$5 million for Tennessee College of Applied Technologies.<sup>20</sup> An additional \$813 million was allocated in broadband expansion funds through the Bipartisan Infrastructure Law's Broadband Equity, Access and Deployment program (BEAD) program and approved by U.S. Department of Commerce National Telecommunications and Information Administration, according to the Federal Communications Commission, while 20 percent of Tennessee lacked access to high-speed internet before 2021, with these broadband investments, that total was reduced to 5.3 percent.<sup>21</sup>

## Agricultural Land Loss in Tennessee

In 2022, the American Farmland Trust ranked Tennessee as the third most threatened state to have agricultural land to be converted to other uses. There is approximately 26.4 million acres of total space in Tennessee. From 1997-2017, there were 1.1 million acres (4.2 percent of total land in Tennessee) of farmland converted into other uses, mainly residential. The amount of farmland lost was equivalent to 55,601 acres/year, 152 acres/ day, and 6.3 acres/hour. From 2017-2023, there were 432,941 acres (1.64 percent of total land in Tennessee) of farmland converted to other uses. From 2017-2023, the rate of farmland loss increased to 86,588 acres/year, 237 acres/day, and 9.8 acres/hour. In the coming years, the conversion rate could maintain or increase again due to Blue Oval City development in Haywood County and surrounding counties. Additionally, a growing trend in Tennessee is expansion of the solar industry, which could increase the rate of farmland

<sup>&</sup>lt;sup>19</sup> TRIP Research and Resources for Tennessee. <a href="https://tripnet.org/research-news/?states=tennessee">https://tripnet.org/research-news/?states=tennessee</a>

Tennessee Resiliency Plan Dashboard. https://www.tn.gov/content/tn/finance/looking-for/stimulus-financial-accountability-group/tennessee-resiliency-plan.html

<sup>&</sup>lt;sup>21</sup> Tennessee Department of Economic and Community Development. <a href="https://www.tn.gov/ecd/rural-development/broadband-office/broadbandannouncements0/2024/8/19/tnecd-announces-approval-of-proposal-to-invest--813-million-in-broadband-expansion.html

conversion in the next few years. Primary Forestry in Tennessee

Roughly 51 percent of Tennessee is covered in forest that is primarily comprised of hardwoods (89 percent), making Tennessee one of the top three hardwood lumber-producing states in the country. There are more than 120 tree species in Tennessee. The dominant forest type in the state is oak-hickory, accounting for an estimated 9.9 million acres. Of the 13.8 million acres in forest, 83.0 percent is privately owned, with federal (10.0 percent) and state/local governments (7.0 percent) comprising the rest. The state has an estimated 8.5 billion live trees ( $\geq 1.0$  in diameter), with a volume of 46.7 billion cubic feet.<sup>22</sup>

In 2023, the state's 135 sawmill establishments (NAICS 321113) employed 2,273 workers with a total payroll of \$102.9 million, while the state's 145 logging establishments (NAICS 1133) employed 702 workers with a total payroll of \$31.1 million.

From 2013 through 2023, average annual growth rates in employees, payroll, and establishments for sawmills were -1.30 percent, 2.43 percent, and -2.04 percent, respectively. For logging, the average annual growth rates over the same period were 0.03 percent, 3.29 percent, and -0.14 percent, respectively, for employees, payroll, and establishments.23

### Food, Fiber, and Forestry Manufacturing in Tennessee

Value of Shipments, Number of Establishments, and Employees

The state's 2,526 food and fiber processing and manufacturing facilities employed over 92,000 workers with a payroll of \$5.8 billion in 2023 (Table 2.10). By comparison, in 2023 the state's overall manufacturing employment was 363,882 workers. Thus, food- and fiber-related manufacturing in Tennessee employed more than one in four

	Emplo	oyees	Pay	roll	Establis	hments
Manufacturing Industry (NAICS)	2022	2023	2022	2023	2022	2023
	(num	ıber)	(\$ mi	llion)	(num	nber)
Food (311)	39,425	40,830	\$2,457	\$2,600	597	662
Animal Slaughtering/Processing (3116)	12,494	13,292	\$671	\$700	85	100
Beverage & Tobacco Products (312)	9,123	7,404	\$496	\$395	294	309
Textile Mills (313)	3.057	2,779	\$174	\$170	86	87
Textile Product Mills (314)	2,248	2,122	\$109	\$108	150	151
Apparel (315)	3,409	3,043	\$161	\$159	120	119
Leather & Allied Products (316)	340	368	\$13	\$15	32	30
Wood Products (321)	13,996	13,631	\$816	\$796	524	539
Paper (322)	13,326	13,031	\$1,072	\$1,087	212	220
Furniture & Related Products (337)	9,468	8,824	\$448	\$445	399	409
Total	91,338	92,032	\$5,746	\$5,775	2,414	2,526
All Manufacturing	364,182	363,882	\$25,085	\$26,201	8,702	9,259

Table 2.10: Tennessee Food, Fiber, and Forestry Manufacturing, 2023a,b

Source: U.S. Bureau of Labor Statistics. 2024.

<sup>&</sup>lt;sup>a</sup> Values for animal slaughtering and processing are embedded in food manufacturing (311) values.

<sup>&</sup>lt;sup>b</sup> Source data for value of shipments discontinued and will not resume until 2024.

Tennessee Forestry Association. www.tnforestry.com/forest-facts; Forest Service, USDA. www.research.fs.usda.gov/programs/fia#data-and-tools

<sup>&</sup>lt;sup>23</sup> Bureau of Labor Statistics. <a href="https://www.bls.gov/cew/data.htm#">https://www.bls.gov/cew/data.htm#</a>

manufacturing workers. From 2022 to 2023, for food and fiber processing and manufacturing the numbers of employees and establishments increased by 0.8 percent and 4.6 percent, respectively. Payroll for that timeframe grew by 0.5 percent. For all manufacturing for the state, the number of employees fell by 0.1 percent, payroll increased by 4.4 percent, and number of establishments grew by 6.4 percent.

Estimated Economic Impacts from Selected Agricultural Commodities

In 2022, the agri-forestry industrial complex directly and indirectly (i.e., including multiplier effects) contributed \$103.0 billion to the Tennessee economy. In terms of gross output, this value was 11.0 percent of the economic activity conducted in the state. An estimated 385,743 individuals work

in industries either part of or supported by the complex, or 8.8 percent of total employment in Tennessee. Agriculture generated \$73.2 billion in output or 7.8 percent of the economic activity in Tennessee and supported 291,304 jobs, with 94,032 (both full- and part-time) jobs in agricultural production. Forestry included the management and logging of trees; sawmills (primary forestry products), including pulp and paper mills; plus, forestry products manufacturing (secondary forestry products). Forestry accounted for 3.2 percent of the state's economy, supported 94,438 Tennessee jobs, and generated \$29.8 billion in output. Based on IMPLAN 2022 data, Table 2.11 indicates the direct economic activity for selected agriculture and forest sectors, including the multiplier effects for these sectors, along with their employment and total value added.

Table 2.11: Multiplier Effects for Economic Activity, Employment, and Total Value Added for Selected Agriculture and Forest Industries in Tennessee, 2022

	Direct	Multiplie	r Effects	Dir	ect
Sector	Economic Activity <sup>a</sup> (million \$)	Economic Activity <sup>a</sup> (million \$)	Economic Activity Multiplier	Employment <sup>b</sup>	Total Value Added <sup>c</sup>
	(\$ million)	(\$ million)		(number)	(\$ million)
Oilseed farming	\$1,075.80	\$1,541.60	1.43	5,684.70	\$634.50
Grain farming	\$897.50	\$1,597.60	1.78	8,997.30	\$138.30
Vegetable & melon farming	\$110.10	\$185.70	1.69	1,462.00	\$41.20
Greenhouse, nursery & floriculture production	\$351.40	\$570.00	1.62	4,294.90	\$125.90
Tobacco farming	\$93.40	\$157.80	1.69	1,918.90	\$40.30
Cotton farming	\$390.80	\$601.10	1.54	4,582.30	\$161.10
All other crop farmingd	\$182.70	\$318.30	1.74	18,969.50	\$61.00
Beef cattle farming	\$687.00	\$1,000.60	1.46	15,903.10	\$259.00
Dairy cattle & milk production	\$130.90	\$228.40	1.74	548.8	\$21.20
Poultry & egg production	\$1,080.60	\$1,741.20	1.61	3,980.90	\$127.90
Animal production, except cattle, poultry, & eggs <sup>e</sup>	\$231.50	\$312.80	1.35	5,906.40	\$173.80
Forestry, forest products, & timber tract production	\$30.90	\$56.20	1.82	292.6	\$23.10
Commercial logging	\$310.20	\$566.60	1.83	2,819.20	\$195.60
Sawmills	\$1,200.80	\$2,290.40	1.91	2,489.90	\$260.70
Pulp mills	\$43.90	\$69.80	1.59	51.7	\$16.90
Paper mills	\$2,036.50	\$3,070.60	1.51	1,787.20	\$986.10
Paperboard mills	\$1,301.20	\$2,088.10	1.6	1,093.40	\$556.10

<sup>&</sup>lt;sup>a</sup> Total Industry Output – annual value of production by industry.

Source: IMPLAN 2022 data (www.implan.com)

<sup>&</sup>lt;sup>b</sup> Employment – estimated number of wage and salary employees (both full- and part-time), as well as self-employed.

<sup>°</sup> Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and production and import taxes.

<sup>&</sup>lt;sup>d</sup> Primarily hay and seed farming.

e Primarily hogs, sheep and goats, aquaculture, equine, and apiculture.

# CHAPTER 3: ARTIFICIAL INTELLIGENCE: INSIGHTS AND **ECONOMIC IMPLICATIONS**

In this Chapter —

- 3.1. Introduction
- 3.2. Background
- 3.3. Current Capabilities of Al
- 3.4. Current State of Al Adoption in the U.S.

- 3.5. Current State of Al Adoption in Tennessee
- 3.6. Al's Expected Economic Effects
- 3.7. Preparing Tennessee for the Future of Al
- 3.8. Final Thoughts
- 3.9. Appendix

#### INTRODUCTION 3.1.

News about artificial intelligence (AI) and its potential to impact our lives is seemingly everywhere. Growth in public awareness of AI has been remarkable. When ChatGPT was made available for public use, there were 100 million users two months after launch.1 Though initial adoption by government and business remains modest, many foresee that the long-term effects of AI on business and government will rival those of the internet and believe that AI can become "the most important general-purpose technology of our era." If reality approaches these expectations, our economy could undergo a transformational shift.

Along with AI's tremendous potential to transform aspects of our economy comes considerable risk. Some believe that widespread adoption might cause societal harm by increasing income inequality, instilling bias through AI-

assisted hiring decisions, and promoting housing discrimination. Others even think that AI could fundamentally threaten human existence.<sup>3</sup> Recognizing these dual potentials—both promising yet perilous-President Biden issued an October 2023 executive order emphasizing safe deployment practices aimed at ensuring security and trustworthiness moving forward.

Given the potential for both great promise and great peril, careful planning becomes paramount. The Economic Report of the President (ERP) for 2024 devoted an entire chapter to examining the possible implications of AI adoption on the U.S. labor market as well as the need for policy and regulatory guidance. States too need a plan that ensures the next generation of workers have the necessary AI skills and establishes regulations that safeguard against malicious or improper use.

<sup>&</sup>lt;sup>1</sup> By comparison, it took nine months for TikTok to gain 100 million users (Reuters, February 2, 2023).

<sup>&</sup>lt;sup>2</sup> Brynjolfsson, E., & Mcafee, A. (2017). Artificial intelligence, for real. Harvard Business Review, 1, 1-31.

<sup>&</sup>lt;sup>3</sup> Harris, E; Harris, J. Beal, M. (2024). Defense in Depth: An Action Plan to Increase the Safety and Security of Advanced Al. Gladstone Al Inc.

#### 3.1. INTRODUCTION, CONTINUED

Tennessee's plan is well underway. Foreseeing a rising demand for skilled AI workers, the University of Tennessee, Knoxville began a new academic program in Fall 2024 that offers a Bachelor of Science degree in Applied Artificial Intelligence (BSAAI) and announced FY 2025 seed funds for AI faculty research. These grants hope to generate multi-disciplinary collaboration around ideas that can be leveraged to generate external funding opportunities and partnerships with industry.

Tennessee and other states have also started to exercise their regulatory authority. In 2023, 18 states adopted resolutions or passed legislation concerning AI. Tennessee took its first action in 2024 with the Ensuring Likeness Voice and Image Security Act (ELVIS Act) establishing specific protections prohibiting the use of AI to copy a performer's voice. Later in the year, Tennessee's General Assembly established an artificial intelligence advisory council of 24 members to "recommend an action plan to guide awareness, education, and the usage of artificial intelligence in state government that aligns with the state's policy and goals and that supports public employees in the efficient and effective delivery of customer service. ..." While these efforts represent significant steps forward at a governmental level, it is equally important to consider how businesses are adopting AI technologies across various sectors.

<sup>4</sup> State of Tennessee, House Bill No. 2325, enacted May 24, 2024

In business, the current pace of AI adoption varies across states, industries, and size of firm. In the first part of this chapter, we examine current AI capabilities relative to those of humans and utilize U.S. Census survey data to assess the current breadth of adoption nationally by industry sector and firm size before taking a brief look at Tennessee's adoption rate and labor demand for AI workers relative to other states.

In the second part of the chapter, we examine the possible effects of widespread adoption on productivity, wages, and employment. Then we reiterate the position of state stakeholders that training and AI-related education are imperative for Tennesseans to benefit from the economic promise of AI. We close the chapter with a few examples of Tennessee businesses and institutions realizing the promise of AI by making our lives better while noting concerns that AI could also exacerbate existing environmental and societal issues.

As Tennessee navigates the evolving landscape of artificial intelligence, it stands at a crossroads of immense opportunity and significant responsibility. By embracing AI's potential to drive economic growth, enhance public services, and improve quality of life, the state can position itself as a leader in innovation. However, this journey must be undertaken with a vigilant eye on the ethical, social, and economic implications of AI adoption.

#### 3.2. BACKGROUND

To begin, we need a working definition for AI. The National Artificial Intelligence Research Task Force defines AI as "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments." A few examples and applications

include "machine learning, natural language processing, virtual agents, predictive analytics, machine vision, voice recognition, decisionmaking systems, data analytics, text analytics, and image processing."<sup>5</sup> In simple terms, AI enables machines to perform cognitive tasks typically associated with humans.

<sup>&</sup>lt;sup>5</sup> Breaux, C. and Dinlersoz, E., "Only 3.8% of Businesses Use AI to Produce Goods and Services, Highest Use in Information Sector" (U.S. Census Bureau 2023) https://www.census.gov/library/stories/2023/11/businesses-use-ai.html

#### 3.2. **BACKGROUND, CONTINUED**

Though the term AI came into existence in the 1950s, it is only in recent years that technological advances have made it mainstream. We now use voice assistants like Siri or Alexa and rely on Google Maps to choose optimal routes. Our financial institutions analyze transaction patterns to prevent credit card fraud, Facebook uses image detection to identify people in photos, Amazon makes individualized shopping recommendations, and medical providers use AI to improve patient care. These everyday applications of AI are just the beginning. The technology's potential is further highlighted by recent Nobel Prizes in physics and chemistry, awarded for achievements facilitated by AI tools. As AI becomes more integrated into our daily lives, its economic implications are attracting

more interest.

Despite remarkable scientific progress, the data show that AI adoption in business and industry remains in its early stages, and widespread implementation will pose significant challenges. On one hand, AI promises to drive significant productivity gains across various sectors by automating routine tasks, enhancing decisionmaking processes, and enabling the creation of new products and services leading to substantial economic growth and the emergence of entirely new industries. On the other hand, a future with widespread AI adoption raises concerns about educating the AI workforce of tomorrow, reskilling displaced workers, and the potential for growing income inequality, among other issues.

#### 3.3. CURRENT CAPABILITIES OF AI

An AI Index Steering Committee reports AI progress annually for selected tasks/skills against human benchmarks. The 2024 report listed nine tasks ranging from image classification to visual commonsense reasoning and charted AI's progress over the past decade. Against these benchmarks, AI performance now exceeds that of humans on all but two. We briefly examine a sampling of these tasks/skills, note the year in which AI capabilities surpassed average human performance, and provide examples of occupations or industries where the skills might be applied.

**Image classification** technology enables AI systems to identify objects, people, text, scenes, and activities in images with high accuracy. Humans rely on visual perception honed over years of experience whereas AI models must be trained with thousands to millions of images. By 2015, Google's DeepMind surpassed human-level performance in this task. Current applications include facial recognition for security purposes, medical imaging diagnostics such as identifying tumors or fractures in radiology scans, and quality control in manufacturing processes. In fields like healthcare where accurate diagnosis is critical or security where surveillance is paramount, image recognition can serve both complementary roles assisting practitioners—and substitutive roles automating repetitive inspection tasks.

Reading comprehension is a critical AI skill that enables systems to understand and interpret text and answer questions based on the content. AI has made significant progress in this area, first surpassing human performance in 2018 when models developed by Microsoft and Alibaba slightly outperformed humans on the Stanford Question Answering Dataset. Applications of AI in reading comprehension include educational tools that personalize learning experiences and content summarization tools that extract key information from large texts.

English language understanding enables systems to understand and generate human-like text. ChatGPT is a familiar example. In 2021, models began to exceed human averages in various language understanding tasks and have

<sup>6</sup> Maslej, N., et al. (2024), "The Al Index 2024 Annual Report," Al Index Steering Committee, Institute for Human-Centered Al, Stanford University, Stanford, CA, April 2024.

#### 3.3. **CURRENT CAPABILITIES OF AI, CONTINUED**

since demonstrated significant improvements in natural language processing capabilities. Current applications of language modeling are extensive, including chatbots for customer service, content generation for marketing, and language translation services. Content writers can use AI to generate ideas or drafts, while customer support agents can leverage chatbots to handle routine inquiries, allowing them to focus on more complex issues. Data analysts can utilize language models to extract insights from unstructured text data, improving their analytical capabilities.

Visual question answering (VQA) or visual **reasoning** is an advanced AI skill that combines computer vision and natural language inference, enabling systems to interpret images and respond to questions about their content. AI models first surpassed the human baseline on the Visual Question Answering Challenge in 2021. Current applications of VQA are diverse, including assistive technologies for visually impaired individuals, interactive educational tools, and customer support systems that can analyze images and provide relevant information. Software developers can leverage VQA to create more engaging applications and improve accessibility features.

Natural language inference (NLI) is an AI task that involves determining the relationship between two sentences to decide if one logically follows from the other, contradicts it, or neither. For example, when you ask a virtual assistant follow-up questions, it uses NLI to understand your queries in context. Similarly, customer service chatbots use NLI to provide accurate responses by understanding user statements and their relation to previous information. Industries like technology and healthcare heavily rely on NLI; companies such as Amazon and Google integrate it into their chatbots and virtual assistants to improve conversational abilities, while clinical support systems in healthcare assist professionals by inferring relationships between patient symptoms and diagnoses from medical texts. Since 2022, AI models have achieved human-level performance.

Multitask language understanding is an

advanced AI capability where a single model is designed to perform various natural language processing tasks simultaneously. It can handle different types of language-related activities, such as answering questions, translating text, summarizing documents, and generating creative content—all within the same framework. One might encounter this through virtual assistants like Siri or Alexa, who can answer questions, set reminders, translate phrases into different languages, and even tell jokes upon request. Since 2023, large-scale models like Gemini Ultra have shown remarkable proficiency in multitask language understanding by achieving human-like performance. Industries requiring content generation can benefit from multitask language understanding. For example, marketing departments might leverage them to generate content across multiple formats.

Visual commonsense reasoning (VCR) is one of the areas where AI still lags human performance. This task involves understanding and interpreting images with the same level of common sense that humans use. In layman's terms, it means creating an AI system that can look at a picture and make logical inferences about what is happening, why it is happening, and what might happen next based on everyday knowledge. For example, VCR can be found in advanced driver assistance systems that interpret road scenes to predict potential hazards and take preventive actions. VCR can have retail applications as well. Large retailers must manage the inventory in distribution centers. VCR can analyze images from surveillance cameras or drones to monitor stock levels, identify misplaced items, and detect damaged goods. By understanding the context of these visual scenes—such as recognizing that an empty shelf signifies the need for restocking or that a dented box might indicate potential damage—AI can make more accurate decisions about inventory status without human intervention.

In summary, the advancements in artificial intelligence over the past decade have been nothing short of remarkable. From natural

#### 3.3. **CURRENT CAPABILITIES OF AI, CONTINUED**

language processing and image recognition to reading comprehension and natural language inference, AI models have not only surpassed human performance on benchmark tasks, but the performance gap continues to grow. This underscores the rapid pace of technological progress, as just ten years ago, humans outperformed AI on these same tasks. The

continuous enhancement of AI capabilities signals an opportunity across various industries, promising unprecedented levels of efficiency, accuracy, and innovation. As we move forward, AI will likely continue to redefine our understanding of what machines can achieve, setting new standards for performance and pushing the boundaries of possibility.

#### **CURRENT STATE OF AI ADOPTION IN THE U.S.** 3.4.

The latest data on U.S. industry adoption come from the U.S. Census Business Trends and Outlook Survey (BTOS), an experimental survey designed to capture high-frequency changes of current and future use. This survey began in September 2023, and results are available by firm size, industrial sector, and state.<sup>7,8</sup> In a 12-week period from Dec. 2023 to Feb. 2024, survey results indicated only 5.0 percent of U.S. firms were currently using AI while 6.5 percent predicted use within the next six months. This result is surprising given the much higher estimates being reported by other sources.9

One possible explanation is that nonrepresentative samples in other surveys can lead to higher estimates. In an unbiased, representative survey, the probability of a given type of industry being sampled should be proportional to its actual proportion in the universe of industries. With selection bias, a sample survey including too many high-use (e.g. Information sector) firms and too few low-use (e.g. Construction sector) firms would provide a higher estimate.<sup>10</sup>

Adoption varies sharply across the U.S. and Figure 3.1 shows adoption rates across

the nation. Tennessee's current AI adoption rate stands at 4.9 percent. This is slightly below the national average of 5.0 percent, placing Tennessee 17th among states. Tennessee ranks just behind Texas, Minnesota, North Carolina, and Kansas, all at 5.1 percent, and just ahead of Idaho at 4.8 percent. The state's ranking is likely bolstered by the presence of Fortune 500 companies in its two largest cities and two R1 research universities.

A state's major metropolitan areas play a key role in AI adoption. California and other western states have early momentum primarily because of Silicon Valley and high activity in other western metropolitan areas. Minnesota (home of the Mayo Clinic), Colorado, and Texas are also leaders.

In the eastern U.S., Florida, Delaware, Maryland and Massachusetts have strong rates of adoption, and there is a significant concentration of use in the District of Columbia. In contrast, states with smaller metro areas and lacking high-tech industry (e.g. Mississippi, West Virginia, and Maine) are lagging behind.

<sup>&</sup>lt;sup>7</sup> The U.S. Census Business Trends and Outlook Survey (BTOS) is a representative, weighted survey of 200,000 firms every two weeks. The average response rate is approximately 16 percent.

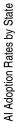
<sup>8</sup> The survey has many questions, and two relate to the current and future use of Al. The current use question asks, "In the last two weeks, did this business use Artificial Intelligence (AI) in producing goods or services? (Examples of AI: machine learning, natural language processing, virtual agents, voice recognition, etc.). The future use question asks, "During the next six months, do you think this business will be using Artificial Intelligence (AI) in producing goods or services? Examples of Al: machine learning, natural language processing, virtual agents, voice recognition, etc.)."

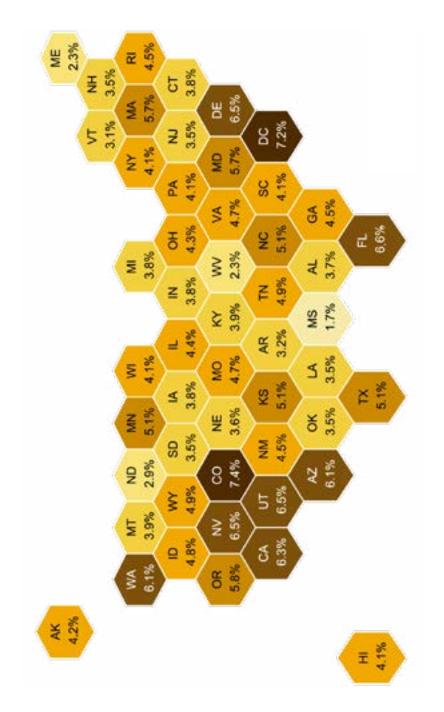
<sup>9</sup> In "The state of AI in early 2024; Gen AI adoption spikes and starts to generate value" McKinsey (2024), the authors report that 72 percent of businesses have adopted AI capability in at least one function.

<sup>10</sup> This is the explanation given in the Census report, "Tracking Firm Use of AI in Real Time: A Snapshot from the Business Trends and Outlook Survey."

#### **CURRENT STATE OF AI ADOPTION IN THE U.S., CONTINUED** 3.4.

Figure 3.1. Current State Adoption Rates Range From 1.7% to 7.4% (firm-based)





Source: The Business Trends and Outlook Survey (BTOS) Al Supplement in the 12-week period beginning December 4, 2023 and ending February 25, 2024.

#### 3.4. **CURRENT STATE OF AI ADOPTION IN THE U.S., CONTINUED**

Differences in adoption rates across states are driven in large part by varying degrees of adoption across metropolitan areas. One report recognizes five tiers of activity among metropolitan areas:11

- Superstars the California Bay Area has about one-quarter of all AI papers, patents, and companies
- Early adopter metro areas these 13 areas include large tech hubs like New York and Boston as well as smaller, high-activity metro areas such as

- Boulder, Colorado and Austin, Texas
- Federal research and contracting centers - these include 20 prominent research universities and one private entity (i.e. the Mayo Clinic)
- Potential adoption centers eighty-seven metro areas (including Nashville and Memphis) that are home to early-adopting Fortune 500 companies
- Others Another 261 metro areas, including 6 in Tennessee, without current meaningful AI activity

Table 3.1. Industry Al Adoption Rates

Industrial Sector	BTOS Current Al Adoption Rate (firm-weighted)	Rank	BTOS Future Al Adoption Rate
US	5.0% (+/- 0.1%)		6.5% (+/- 0.1%)
Information (NAICS 51)	18.1% (+/- 1.4%)	1	21.5% (+/- 1.5%)
Professional, Scientific, and Technical Services (NAICS 54)	12.0% (+/- 0.3%)	2	15.3% (+/- 0.4%)
Educational Services (NAICS 61)	9.1% (+/- 1.3%)	3	10.1% (+/- 1.3%)
Real Estate and Rental and Leasing (NAICS 53)	8.0% (+/- 0.5%)	4	9.0% (+/- 0.5%)
Management of Companies and Enterprises (NAICS 55)	7.8% (+/- 3.9%)	5	6.8% (+/- 4.5%)
Finance and Insurance (NAICS 52)	6.9% (+/- 0.5%)	6	10.2% (+/- 0.7%)
Health Care and Social Assistance (NAICS 62)	5.0% (+/- 0.2%)	7	6.8% (+/- 0.2%)
Arts, Entertainment, and Recreation (NAICS 71)	5.0% (+/- 0.5%)	7	6.1% (+/- 0.7%)
Administrative and Support and Waste Management			
and Remediation Services (NAICS 56)	4.6% (+/- 0.5%)	9	5.9% (+/- 0.3%)
Retail Trade (NAICS 44-45)	3.4% (+/- 0.3%)	10	4.3% (+/- 0.3%)
Manufacturing (NAICS 31-33)	2.8% (+/- 0.2%)	11	4.4% (+/- 0.3%)
Other Services (except Public Administration) (NAICS 81)	2.5% (+/- 0.3%)	12	3.1% (+/- 0.3%)
Wholesale Trade (NAICS 42)	2.4% (+/- 0.2%)	13	4.1% (+/- 0.2%)
Mining, Quarrying, and Oil and Gas Extraction (NAICS 21)	1.9% (+/- 0.9%)	14	2.8% (+/- 1.4%)
Accommodation and Food Services (NAICS 72)	1.6% (+/- 0.2%)	15	2.5% (+/- 0.3%)
Transportation and Warehousing (NAICS 48-49)	1.5% (+/- 0.4%)	16	2.6% (+/- 0.6%)
Agriculture, Forestry, Fishing and Hunting (NAICS 11)	1.4% (+/- 0.7%)	17	1.5% (+/- 0.6%)
Construction (NAICS 23)	1.4% (+/- 0.1%)	17	2.2% (+/- 0.1%)

Source: The Business Trends and Outlook Survey (BTOS) Al supplement in the 12-week period beginning December 4, 2023 and ending February 25, 2024.

<sup>11</sup> Muro, M., Liu, S. (2021). The Geography of Al. Brookings.

## 3.4. CURRENT STATE OF AI ADOPTION IN THE U.S., CONTINUED

In addition to the state-level survey data featured above, the BTOS also collects adoption data by industry and firm size. Current and planned use varies widely among industrial sectors (see **Table 3.1**). Information leads all sectors with an 18 percent current adoption rate, followed by Professional, Scientific, and Technical Services at 12 percent. In contrast, Mining, Quarrying, and Oil and Gas Extraction; Accommodation and Food Services; Transportation and Warehousing; Agriculture; and Construction all have adoption rates below 2 percent.

Figure 3.2 indicates how AI adoption varies according to the number of employees in a firm. From the U-shaped pattern, we see the largest firms adopting in greater percentages followed by the smallest firms. Firms having more than 250 employees had an adoption rate of 7.2 percent, and firms with 4 or fewer employees, at 5.5 percent, were the only categories to exceed the national rate of 5.0 percent. Early adopters tend to be innovative, smaller firms that are less risk averse and more agile, and larger firms that can invest the necessary human and financial capital.

Given all of the discussion around AI in popular media, it is reasonable to ask why business adoption rates are not higher. The two most common reasons firms cited in the BTOS are the inapplicability of AI to firm operations (80 percent) and the firm's lack of institutional knowledge about AI (7 percent). It may be possible that these reasons are related, and a lack of knowledge creates the perception that AI has narrow capabilities not useful to the firm. It is surprising that cost, a lack of skilled workers, and regulations were not listed as significant reasons for non-adoption. Just as surprising and perhaps indicating the difficulty of successful adoption, the survey indicated that 1 in 7 current adopters did not plan to use AI in the next six months.

In addition to those listed in the BTOS, other barriers to AI adoption include (but are not limited to) data constraints, risk of erroneous predictions/lack of trust, difficulties integrating AI into human tasks, and financial constraints. No matter the primary reason(s), experts are quick to note that such frictional factors are inherent in any technology implementation. Therefore, great optimism persists that AI's advancing capabilities will increase diffusion by incentivizing organizations to learn more about AI, find applications for implementation, and invest the necessary resources for its integration.

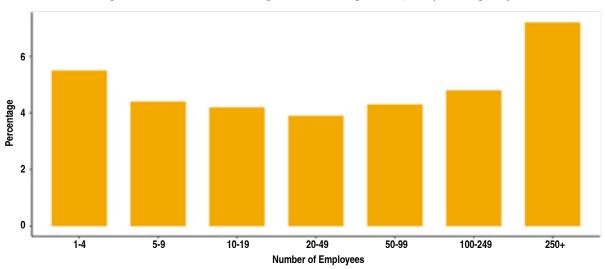


Figure 3.2. The Smallest and Largest Firms are Higher Adopters (firm-weighted)

Source: U.S. Census Bureau Business Trends and Outlook Survey (BTOS) Al Supplement in the 12-week period beginning December 4, 2023 and ending February 25, 2024.

#### **CURRENT STATE OF AI ADOPTION IN TENNESSEE** 3.4.

Although the BTOS has not published industrial sector adoption rates at the state level, we can estimate Tennessee-specific adoption rates by applying the national adoption rates by sector to those in Tennessee. Of course, some sectors in Tennessee will have adoption rates that differ from those across the nation, but given that Tennessee's firm-weighted adoption rate is close to the national average of 5.0 percent, we feel that these estimates can still provide useful insights. Table 3.2 lists the current AI adoption rate by sector for the U.S., the number of Tennessee firms in each of these

sectors, and the estimated number of Tennessee firms using AI by sector.<sup>12</sup>

Note that almost half of the adopting establishments come from only two sectors. The sector with the most adopting establishments is Professional, Scientific, and Technical Services (31 percent of total adopters). It employs professions like accountants, auditors, architects, lawyers, analysts, and scientists who may leverage AI in a complementary manner to increase productivity. By automating routine tasks, these professionals may focus on higher-level strategic work thereby

Table 3.2. U.S. Industrial Sector AI Adoption Rates and Tennessee Firms Using AI

Industrial Sector	BTOS Current National Al Adoption Rate (firm-weighted)	TN Firms per Sector	BTOS Future Al Adoption Rate
Professional, Scientific, and Technical Services (NAICS 54)	12.0% (+/- 0.3%)	29,875	3,585
Retail Trade (NAICS 44-45)	3.4% (+/- 0.3%)	24,947	848
Health Care and Social Assistance (NAICS 62)	5.0% (+/- 0.2%)	23,125	1,156
Construction (NAICS 23)	1.4% (+/- 0.1%)	16,132	226
Accommodation and Food Services (NAICS 72)	1.6% (+/- 0.2%)	16,028	256
Wholesale Trade (NAICS 42)	2.4% (+/- 0.2%)	14,816	356
Other Services (except Public Administration) (NAICS 81)	2.5% (+/- 0.3%)	14,644	366
Finance and Insurance (NAICS 52)	6.9% (+/- 0.5%)	13,409	925
Administrative and Support and Waste Management and Remediation Services (NAICS 56)	4.6% (+/- 0.5%)	13,323	612
Information (NAICS 51)	18.1% (+/- 1.4%)	9,581	1,734
Manufacturing (NAICS 31-33)	2.8% (+/- 0.2%)	9,259	259
Real Estate and Rental and Leasing (NAICS 53)	8.0% (+/- 0.5%)	8,062	645
Transportation and Warehousing (NAICS 48-49)	1.5% (+/- 0.4%)	6,539	98
Arts, Entertainment, and Recreation (NAICS 71)	5.0% (+/- 0.5%)	3,913	196
Educational Services (NAICS 61)	9.1% (+/- 1.3%)	2,744	250
Management of Companies and Enterprises (NAICS 55)	7.8% (+/- 3.9%)	1,603	125
Agriculture, Forestry, Fishing and Hunting (NAICS 11)	1.4% (+/- 0.7%)	1,019	14
Mining, Quarrying, and Oil and Gas Extraction (NAICS 21)	1.9% (+/- 0.9%)	260	5
TOTAL			11,656

Sources: The Business Trends and Outlook Survey (BTOS) Al supplement in the 12-week period beginning December 4, 2023, and ending February 25, 2024, and U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2023 Annual Averages.

<sup>12</sup> The estimated number of Tennessee firms using Al by sector is the product of the nation's Al adoption rate in a given sector and the number of Tennessee firms in that same sector.

#### 3.4. **CURRENT STATE OF AI ADOPTION IN TENNESSEE, CONTINUED**

driving better outcomes for their organizations. The other sector is Information (15 percent of total adopters). Professionals like software developers, data analysts, web developers, and technical writers are also able to automate routine tasks and focus more on the creative aspects of their work. Firms in these two sectors tend to be small, and together they employ only 230,000 people in Tennessee, or less than 8 percent of the total workforce. In contrast, Tennessee's three largest industries by employment—Health Care, Manufacturing, and Retail Trade—employ about one-third of the state's workforce and have average firm-weighted adoption rates of 5 percent or less. This suggests that Tennessee's employee-weighted rate is lower than its firm-weighted rate. In fact, BTOS estimates it at approximately 3 percent, ranking 38th among the states. That is, while 4.9 percent of Tennessee firms are currently using some form of AI, this adoption rate represents only 3 percent of the state's workforce.

Adoption is not the only metric for measuring AI diffusion; job postings also provide valuable insight. Analyzing 2023 data from millions of job postings

worldwide, the U.S. led all countries with 1.6 percent of postings requiring AI-related skills like machine learning proficiency and working with text data for sentiment analysis. Among the 50 states, California had the highest number of AI-related job postings at 70,630, while West Virginia had the fewest at 533. Tennessee ranked 24th with 5,318 postings. Peer states included Alabama (6,214), Missouri (7,390), North Carolina (12,976), South Carolina (3,305), and Kentucky (2,315). Naturally, total postings are heavily influenced by population size. When considering AI-related job postings as a percentage of all total postings, Delaware ranked first at 2.38 percent. Tennessee ranked 44th at 0.64 percent, just behind Wisconsin and Florida, and just ahead of Indiana, South Carolina, and Louisiana.

The industrial sectors with the highest AI adoption rates also led in job postings requiring AI-related skills. The Information sector accounted for 4.6 percent of all postings, followed by Professional, Scientific, and Technical Services at 3.3 percent. In contrast, Retail Trade and Waste Management lagged, with each sector having less than 0.5 percent of AI job postings.

#### 3.5. AI'S EXPECTED ECONOMIC EFFECTS

Technological innovation profoundly impacts new business formation, employment, and productivity, determining winners and losers across industries, occupations, and demographic categories. The extent and nature of these impacts on individual workers largely depend on whether AI is used in a complementary or substitutive manner. That is, will AI be used as a tool to enhance a worker's job (i.e. complement for labor), or will AI lead to job displacement (i.e. substitute for labor)?

The Council of Economic Advisors (CEA) within the Executive Office of the President issued a July 2024 report that listed the 25 least AI-exposed occupations.<sup>13</sup> Among them were HR managers,

laundry workers, clergy, and sales managers. Also listed were the 25 most AI-exposed occupations. This list included tax preparers, electrical engineers, airline pilots, and six different clerk occupations. See **Table 3.3** on page 77 for the complete list. Similarly, Felton et al. (2023) provides two more comprehensive lists showing occupations most exposed to AI applications for language modeling and image generation.14

It is important to note that the jobs with the highest exposure to AI are not necessarily the most vulnerable to job displacement. In general, highexposure jobs are more vulnerable to substitution if the job requires less complexity. Some examples of high-exposure, at-risk jobs include billing clerks

https://www.whitehouse.gov/wp-content/uploads/2024/07/Potential-Labor-Market-Impacts-of-Artificial-Intelligence-An-Empirical-Analysis-July-2024.pdf

<sup>14</sup> Felten, E. W., Raj, M., & Seamans, R. (2023). Occupational heterogeneity in exposure to generative ai. Available at SSRN 4414065.

#### 3.5. AI'S EXPECTED ECONOMIC EFFECTS, CONTINUED

and proofreaders. However, it is unclear how or which jobs will become more/less vulnerable to displacement as AI becomes more advanced and better able to perform human tasks. For example, as AI continues to improve its image recognition abilities, how does this impact an architect's job or a radiologist's? Currently, radiologists are using AI as a tool to assist in identifying and diagnosing abnormalities with mixed results, depending on the accuracy of the AI tool and how the radiologist interprets the AI's findings.15 Similarly, as AI becomes better at writing, will it be used as a jobenhancing tool or will it lead to job displacement for journalists and/or technical writers?

At the macro level, AI is expected to enhance economic efficiency. Significant efficiency gains have already been observed in isolated cases. For instance, a survey on AI adoption by function revealed that 55 percent of AI-adopting manufacturing respondents reported cost savings, while 66 percent reported revenue growth. 16 Additionally, a Microsoft meta-analysis found that knowledge workers using AI tools could reduce task completion times by 26 to 73 percent in complementary applications.<sup>17</sup>

While efficiency gains have been observed in specific areas, they have not yet reached the breadth and magnitude necessary to significantly boost overall productivity. This is not unusual, as new technologies often need to reach critical mass before producing measurable productivity gains. In 1987, as personal computers became commonplace, economist Robert Solow remarked, "You can see the computer age everywhere but in the productivity statistics." Similarly, there is currently no clear evidence of a measurable AI

impact on productivity, and opinions about its near-term effects remain mixed.

With continued efficiency gains and more widespread adoption, Goldman Sachs estimates that measurable AI-driven productivity boosts could begin by 2027. Their optimistic forecast suggests that AI could increase U.S. GDP by approximately 0.4 percentage points annually by 2034. Other estimates are more conservative; for instance, Acemoglu (2024) projects an upperbound effect on GDP of a cumulative 1.5 percent over the next ten years.19

Real wages typically rise with productivity. However, just as AI has not significantly impacted overall productivity, it has not broadly increased wages. Nonetheless, a wage differential exists for AI workers with high job exposure, cutting across race, gender, and education levels. In 2022, workers with the highest exposure to AI and education beyond a bachelor's degree earned an average of \$41 per hour, compared to \$26 per hour for those with the least exposure.<sup>20</sup>

Despite these wage differentials, the broader impact of AI on the workforce remains a concern. Transformational technologies are disruptive by definition. Many workers fear that AI could threaten their job security, and some will inevitably be displaced. A recent analysis indicated that 1 in 5 U.S. workers could have half of their job tasks impacted by large language models (LLMs), a specific type of AI.<sup>21</sup> However, new technologies also create jobs. For instance, in 2018, less than 40 percent of existing occupations had existed in 1940.<sup>22</sup>

Given these potential disruptions, there is significant interest in identifying which demographic groups, industries, and jobs are most

<sup>15</sup> Yu, F., Moehring, A., Banerjee, O., Salz, T., Agarwal, N., & Rajpurkar, P. (2024). Heterogeneity and predictors of the effects of Al assistance on radiologists. Nature Medicine, 30(3), 837-849.

<sup>&</sup>lt;sup>16</sup> "The state of AI in 2023: Generative AI's breakout year" (McKinsey 2023).

<sup>17</sup> Cambon, A., Hecht, B., Edelman, B., Ngwe, D., Jaffe, S., Heger, A., ... & Teevan, J. (2023). Early LLM-based Tools for Enterprise Information Workers Likely Provide Meaningful Boosts to Productivity. Microsoft Research. MSR-TR-2023-43.

<sup>&</sup>lt;sup>18</sup> "Al may start to boost US GDP in 2027" (Goldman Sachs Research 2023).

<sup>19</sup> Acemoglu, D. (2024). "The Simple Macroeconomics of Al" (No. w32487). National Bureau of Economic Research.

<sup>&</sup>lt;sup>20</sup> "Which U.S. Workers Are More Exposed to AI on Their Jobs?" (Pew Research Center 2023).

<sup>21</sup> Eloundou, T., Manning, S., Mishkin, P., & Rock, D. (2023). "Gpts are gpts: An early look at the labor market impact potential of large language models." arXiv preprint arXiv:2303.10130.

<sup>&</sup>lt;sup>22</sup> Autor, D., Chin, C., Salomons, A., & Seegmiller, B. (2024). "New frontiers: The origins and content of new work." 1940–2018. The Quarterly Journal of Economics,

#### AI'S EXPECTED ECONOMIC EFFECTS, CONTINUED 3.5.

exposed to AI. One study found approximately 1 in 5 workers are in high-exposure jobs (top quintile) and about 1 in 4 workers are in lowexposure jobs (bottom quartile).<sup>23</sup> It noted that exposure tends to vary by education level, gender, race, and wage. Specific demographics with more exposure include those holding a bachelor's degree or higher, females, Asian and White workers, and higher-wage workers.

Industries with many high-exposure jobs, such as accountants, engineers, and programmers, are likely to be high-exposure themselves. Examples include professional services, finance, and public administration, all of which prioritize analytical and quantitative skills. Conversely, low-exposure jobs like construction laborers, agricultural workers and miners are in low-exposure industries that emphasize mechanical skills and physical tasks.



Source: Pew Research Center 2023 report, "Which U.S. Workers Are More Exposed to Al on Their Jobs?"

<sup>&</sup>quot;Which U.S. Workers Are More Exposed to AI on Their Jobs?" (Pew Research Center 2023).

#### PREPARING TENNESSEE FOR THE FUTURE OF AI 3.6.

Tennessee is actively preparing its citizens for the future of AI. Education is key, and it is imperative that our state establishes educational programs at all levels. Tennessee is advancing formal initiatives to reach students from kindergarten through post-secondary education.

The Tennessee Higher Education Commission (THEC) Master Plan Update 2020 highlighted the urgency of this preparation: "Tennessee's economy is at great risk for disruption resulting from automation and artificial intelligence. For this reason, all individuals employed in Tennessee must learn to interact with artificial intelligence using critical thinking, data analysis, and diverse communication skills rather than simply rely on artificial intelligence to complete a variety of tasks."

Since that update, leaders in the education field have emerged. Dr. Lynne Parker, former Deputy United States Chief Technology Officer, founding director of the National Artificial Intelligence Office, and now serving on Tennessee's AI Advisory Council, has been a strong advocate for AI education. In 2023, she spoke about the AI Education Project, a non-profit effort to advance AI education for every K-12 student in America, stating, "Students from all geographic regions of the country deserve access to cuttingedge AI education that will prepare them for the workforce of the future."

While Dr. Parker emphasized future workers, the current workforce should not be neglected. Widespread AI adoption will displace some workers, particularly those in highly repetitive jobs that do not require a high degree of judgment or mechanical complexity. These jobs, often held by the most vulnerable workers, are susceptible to labor substitution. Therefore, state and local governments, along with community organizations, must collaborate to reskill and upskill workers whose jobs are displaced or significantly altered by AI.

Just as individuals must keep pace with new skills, industries must learn to leverage AI to remain relevant and competitive. Industrial research and development are fundamental to economic growth. The AI Tennessee Initiative is a broad-based collaborative effort that brings together academic, industry, and community partners to enhance education, promote research, and ensure AI benefits for every economic sector. Its priorities include leveraging Tennessee's unique strengths while addressing regional challenges, proposing innovative AI-relevant research projects with clear quantitative outcomes, and fostering entrepreneurialism and external partnerships among industries, foundations, and community organizations.

Tennessee's ability to prosper in this evolving digital economy hinges on diverse organizations working together toward a shared vision. To advance this vision effectively, stakeholders must focus not only on education and workforce development, but also on ensuring safety and equity as they navigate this complex landscape. In fact, safety and equity initiatives are already underway. For example, Tennessee's Strategic Technology Solutions (STS) group has crafted a plan to address generative AI risks within state government.<sup>24</sup> Additionally, Tennessee's Attorney General has joined forces with the U.S. Department of Justice and seven other states to combat AI price manipulation in rental markets.25

As artificial intelligence continues its rapid evolution, it is imperative that both state governments and key stakeholder groups such as the AI Education Project and the AI Tennessee Initiative—maintain their forwardthinking strategies. The groundwork laid today will be crucial in defining how effectively we harness this transformative technology for our future.

<sup>24 &</sup>quot;STS Roadmap for Artificial Intelligence, Deploying and Managing Generative Al" (Tennessee Department of Finance & Administration June 2024).

<sup>&</sup>lt;sup>25</sup> In August 2024, Tennessee joined the legal action against RealPage, a vendor of Al-driven, revenue management software tailored for landlords. The complaint alleges that competing landlords share non-public transactional data with the vendor, and the vendor's Al algorithm generates non-competitive price recommendations.

#### 3.7. FINAL THOUGHTS

As society stands at the edge of an AI future, it is crucial to recognize both the potential benefits and harms that this transformative technology could bring. While AI holds immense potential to make our lives better, it also poses significant challenges that we must collectively address to ensure the technology remains safe, sustainable, and beneficial for all.

In Tennessee, businesses and institutions are already leveraging AI to enhance various aspects of life, from health care to traffic management, while also protecting us from global threats. For instance, Azra AI, a company based in Franklin, has developed a platform that allows hospitals and cancer centers to streamline oncology care, improve operational efficiency, achieve better patient outcomes, and increase their bottom line. The Tennessee Department of Transportation (TDOT), in collaboration with its academic partner, has created algorithms to alleviate traffic congestion, including one that sets variable speed limits on a heavily traveled section of I-24. Additionally, Oak Ridge National Laboratory (ORNL) has established the Center for Artificial Intelligence Security Research to mitigate threats to national security from the misuse of AI systems by rogue actors.

However, AI has also raised significant concerns. According to the Electric Power Research Institute (EPRI), a ChatGPT request requires ten times the power of a traditional search query. In 2023, total power consumption by U.S. data centers accounted for about 4 percent of total U.S. electricity generation. In a potential high-growth scenario, EPRI estimates the share of total U.S. electricity

consumption by data centers could increase to about 6.8 percent by 2030, or 1.5 times the 2023 level.<sup>26</sup> If such high growth occurs, the energy demand for powering AI systems will require sustainable solutions. With sustainability in mind, both Amazon and Google have invested in projects to develop small modular nuclear reactors capable of producing zero-emission electric power.

Another frequently mentioned concern is the potential for increased income inequality. The nature of AI is such that it can be both a complement and substitute for human labor. Highly analytic and technical fields, such as engineering and software development, have found productivity gains from complementary use. In contrast, jobs that are less technical and more repetitive (e.g., call center operations) are more likely to use AI as a substitute. In occupations where substitution is more likely, AI use is high, and new tasks are not created, workers are at greater risk of job loss. In the worst-case scenario, increasing productivity among higher-wage workers leads to further wage growth, while broad task substitution leads to job loss for a subset of lowerwage workers. This combination would almost certainly worsen income inequality.

As we navigate these concerns, it's clear that the growing use of AI will bring both challenges and opportunities for Tennessee's future. Policymakers must focus on creating inclusive growth strategies that reap the potential benefits while managing associated risks. A balanced approach is essential so that Tennessee can position itself as a leader in leveraging artificial intelligence for broad-based economic advancement.

<sup>26 &</sup>quot;Powering Intelligence – Analyzing Artificial Intelligence and Data Center Energy Consumption" (Electric Power Research Institute May 2024).

# 3.8. APPENDIX

Table 3.3. Most and Least Al-Exposed Occupations

	Most Al-Exposed Occupations	Least Al-Exposed Occupations
1	Eligibility Interviewers, Government Programs	Human Resources Managers
2	Title Examiners, Abstractors, and Searchers	Bicycle Repairers
3	Medical Transcriptionists	Laundry and Dry-Cleaning Workers
4	Cartographers and Photogrammetrists	Clergy
5	Judicial Law Clerks	Demonstrators and Product Promoters
6	Tax Preparers	Sales Managers
7	Biological Technicians	Exercise Trainers and Group Fitness Instructors
8	Electrical Engineers	Marketing Managers
9	Compliance Officers	Food Preparation Workers
10	Proofreaders and Copy Markers	Dancers
11	Architectural and Civil Drafters	Manicurists and Pedicurists
12	Private Detectives and Investigators	Passenger Attendants
13	Billing and Posting Clerks	Bartenders
14	Commercial and Industrial Designers	Training and Development Managers
15	Production, Planning, and Expediting Clerks	Writers and Authors
16	Drilling and Boring Machine Tool Setters, Operators, and Tenders	Laborers and Freight, Stock, and Material Movers, Hand
17	Airline Pilots, Copilots, and Flight Engineers	First-Line Supervisors of Retail Sales Workers
18	Payroll and Timekeeping Clerks	Education and Childcare Administrators, Preschool and Daycare
19	Nuclear Power Reactor Operators	Cutters and Trimmers, Hand
20	Court, Municipal, and License Clerks	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
21	Paralegals and Legal Assistants	Directors, Religious Activities and Education
22	Switchboard Operators, Including Answering Service	Dishwashers
23	Bookkeeping, Accounting, and Auditing Clerks	Cashiers
24	Loan Interviewers and Clerks	Dining Room and Cafeteria Attendants and Bartender Helpers
25	Surveying and Mapping Technicians	Orderlies

Sources: Council of Economic Advisers (CEA), American Community Survey; Department of Labor; Pew Research Center; CEA calculations

# In this Section —

# Appendix A: Forecast Data

Quarterly Pages 2-17 (2023:4 to 2026:1) Annual Pages 18-30 (2023 to 2033)

## **QUARTERLY FORECAST TABLES**

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted	2
Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators, Seasonally Adjusted	
Table 3: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of 2017 dollars)	5
Table 4: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of current dollars)	6
Table 5: Tennessee Nonfarm Employment by Sector, Seasonally Adjusted (thousands of jobs)	7
Table 6: Tennessee Durable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)	g
Table 7: Tennessee Nondurable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)	10
Table 8: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2017 dollars)	11
Table 9: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (current dollars)	13
Table 10: Tennessee Civilian Labor Force and Unemployment Rate, Seasonally Adjusted	15
Table 11: Tennessee Taxable Sales, Seasonally Adjusted (millions of 2017 dollars)	16
Table 12: Tennessee Taxable Sales, Seasonally Adjusted (millions of current dollars)	17

## **ANNUAL FORECAST TABLES**

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted	18
Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators	19
Table 3: Tennessee Personal Income Components (millions of 2017 dollars)	20
Table 4: Tennessee Personal Income Components (millions of current dollars)	21
Table 5: Tennessee Nonfarm Employment by Sector (thousands of jobs)	22
Table 6: Tennessee Durable Goods Manufacturing Employment (thousands of jobs)	23
Table 7: Tennessee Nondurable Goods Manufacturing Employment (thousands of jobs)	24
Table 8: Tennessee Average Annual Wage and Salary Rate by Sector (2017 dollars)	25
Table 9: Tennessee Average Annual Wage and Salary Rate by Sector (current dollars)	26
Table 10: Tennessee Civilian Labor Force and Unemployment Rate	27
Table 11: Tennessee Taxable Sales (millions of 2017 dollars)	28
Table 12: Tennessee Taxable Sales (millions of current dollars)	29
Table 13: Tennessee Gross Domestic Product by Sector (millions of 2017 dollars)	30

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

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted	conomic Indi	ndicators	s, Seaso	nally Ad	insted		Forecast Data	t Data							December 2024	r 2024
	2024:2 2024:3	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
US GDP (Bil2017\$) SAAR	23223.9 23386.2 2.83 2.99 2.83 3.04 2.66	23386.2 2.83 2.66	23471.6 1.47 2.23	23585.8 1.96 2.31	23690.0 1.78 2.01	23810.5 2.05 1.81	23945.7 ; 2.29 2.02	24075.7 2.19 2.08	24201.8 2.11 2.16	24312.3 1.84 2.11	24421.1 1.80 1.99	24524.8 1.71 1.87	22671.1 3 2.89 2.89	23283.8 ; 2.70 2.70	23758.0 2· 2.04 2.04	24252.7 2.08 2.08
US GDP (Bil\$) SAAR	29016.7 2 . 5.60 . 5.69	29349.9 4.67 4.94	29610.7 3.60 4.64	29918.1 4.22 4.52	30234.8 4.30 4.20	30563.4 4.42 4.13	30918.3 ; 4.73 4.42	31299.0 5.02 4.62	31580.5 3.65 4.45	31884.0 3.90 4.32	32208.9 4.14 4.17	32529.9 4.05 3.93	27720.7 6.59 6.59	29150.4 ; 5.16 5.16	30408.6 3 4.32 4.32	31743.1 4.39 4.39
TN PERSONAL INCOME (MIL2017\$) SAAR 380138 % Chg Prev Qtr SAAR		383008 3.05 3.90	385240 2.35 3.40	388161 3.07 3.00	390054 1.97 2.61	392189 2.21 2.40	394333 2.20 2.36	396616 2.34 2.18	399463 2.90 2.41	401891 2.45 2.47	404746 2.87 2.64	408260 3.52 2.94	368034 2.39 2.39	381311 3.61 3.61	391184 4 2.59 2.59	400679 2.43 2.43
US PERSONAL INCOME (BIL2017\$) SAAR % Chg Prev Qtr SAAR % Chg Same Qtr Last Yr	20004 2.69 3.23	20108 2.10 3.38	20239 2.64 3.27	20401 3.24 2.67	20543 2.80 2.69	20698 3.06 2.93	20858 3.14 3.06	21043 3.58 3.14	21173 2.49 3.07	21259 1.64 2.71	21366 2.03 2.43	21529 3.09 2.31	19422 2.10 2.10	20056 3.26 3.26	20625 2.84 2.84	21210 2.84 2.84
TN PERSONAL INCOME (MIL\$) SAAR	468616 6.15 6.40	473624 4.34 6.20	478372 4.07 5.69	484183 4.95 4.87	489197 4.21 4.39	494777 4.64 4.47	500525 4.73 4.63	507026 5.30 4.72	513180 4.94 4.90	519292 4.85 4.95	525658 4.99 5.02	532814 5.56 5.09	443472 6.25 6.25	470572 6.11 6.11	492170 5 4.59 4.59	516289 4.90 4.90
US PERSONAL INCOME (BIL\$) SAAR	. 24660 . 5.29 . 5.89	24881 3.64 5.73	25157 4.51 5.67	25482 5.26 4.67	25807 5.21 4.65	26125 5.01 5.00	26449 5.05 5.13	26832 5.93 5.30	27148 4.80 5.20	27409 3.90 4.92	27709 4.44 4.77	28084 5.53 4.67	23403 5.95 5.95	24761 5.80 5.80	25966 4.87 4.87	27275 5.04 5.04
TN NONFARM JOBS (THOUS)	. 3331.6 . 1.79 . 0.11	3334.8 0.39 0.86	3343.6 1.06 1.46	3352.6 1.07 1.08	3362.6 1.20 0.93	3373.2 1.26 1.15	3384.1 1.30 1.21	3394.8 1.27 1.26	3405.6 1.28 1.28	3416.9 1.33 1.30	3428.3 1.34 1.31	3441.0 1.49 1.36	3309.3 1.78 1.78	3331.7 0.68 0.68	3368.1 1.09 1.09	3411.4 1.29 1.29
US NONFARM JOBS (MIL)	158.4 . 1.47 . 1.69	158.8 1.07 1.52	159.1 0.81 1.33	159.5 1.00 1.09	159.8 0.72 0.90	160.0 0.53 0.77	160.2 0.32 0.64	160.3 0.25 0.46	160.4 0.30 0.35	160.4 0.14 0.25	160.5 0.08 0.20	160.5 0.10 0.16	156.1 2.32 2.32	158.5 1.59 1.59	159.9 0.85 0.85	160.4 0.31 0.31
TN MFG JOBS (THOUS)	363.0 . 0.77 1.04	362.5 -0.52 0.10	362.8 0.33 0.75	363.5 0.67 0.31	364.0 0.56 0.26	364.5 0.61 0.54	365.4 0.99 0.71	366.4 1.06 0.80	367.3 0.98 0.91	368.2 1.06 1.02	369.3 1.12 1.05	370.1 0.88 1.01	363.9 -0.15 -0.15	362.7 -0.34 -0.34	364.3 0.46 0.46	367.8 0.95 0.95
US MFG JOBS (MIL)	13.0	12.9 -0.71 -0.10	12.9 -1.00 -0.34	12.9 0.15 -0.42	13.0 1.85 0.07	12.9 -0.96 0.00	12.8 -3.85 -0.72	12.7 -2.89 -1.49	12.7 -1.25 -2.24	12.7 -0.63 -2.16	12.6 -1.40 -1.55	12.6 -1.18 -1.12	12.9 0.99 0.99	12.9 -0.05 -0.05	12.9 -0.27 -0.27	12.7 -1.86 -1.86
TN UNEMPLOYMENT RATE (%)	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.4	3.4	3.4	3.5	3.5	3.3	3.2	3.3	3.4
US UNEMPLOYMENT RATE (%)	4.0	4.2	4.2	4.3	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.6	3.6	4.0	4.4	4.5
				9	(CONTINUED	D ON NEXT	XT PAGE)									

Table 1: Selected U.S. and Tennessee Economic Indicators,	onomic Ir	ndicators		Seasonally Adjusted	nsted										December 2024	r 2024
	History	ory					Forecast Data	t Data						Annual	a	
	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
(2017=100.0)	124.9	125.5	126.2	126.8	127.6	128.4	129.1	130.0	130.5	131.1	131.9	132.6	122.3	125.2	128.0	130.9
% Chg Same Qtr Last Yr	2.57	2.22	2.36	2.16	2.15	2.27	2.35	2.49	2.24	2.17	2.15	2.03	3.58	2.39	2.23	2.26
US PERS CONSUMP DEFL (2017=100.0) % Chg Prev Qtr SAAR	123.3 2.53 2.57	123.7 1.51 2.28	124.3 1.82 2.32	124.9 1.95 1.95	125.6 2.35 1.91	126.2 1.89 2.00	126.8 1.85 2.01	127.5 2.27 2.09	128.2 2.25 2.06	128.9 2.22 2.15	129.7 2.37 2.28	130.4 2.37 2.30	120.5 3.77 3.77	123.5 2.46 2.46	125.9 1.97 1.97	128.6 2.15 2.15
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1,000)	3.132 2.82 3.19	3.141 1.22 2.64	3.161 2.55 2.59	3.176 1.97 2.14	3.198 2.73 2.12	3.212 1.80 2.26	3.226 1.75 2.06	3.248 2.69 2.24	3.269 2.69 2.23	3.292 2.75 2.47	3.316 3.01 2.79	3.341 3.03 2.87	3.047 4.13 4.13	3.136 2.92 2.92	3.203 2.15 2.15	3.281 2.43 2.43
BANK PRIME INTEREST RATE (%)	8.5	8.4	7.8	7.5	7.2	6.8	6.3	5.8	5.8	5.8	2.8	5.8	8.2	8.3	6.9	5.8
FEDERAL FUNDS RATE (% per annum)	5.330	5.263	4.658	4.308	4.067	3.648	3.132	2.689	2.620	2.621	2.625	2.625	5.024	5.145	3.789	2.639
30-YEAR FIXED MORTGAGE RATE (%)	7.0	6.4	6.5	6.2	5.9	2.7	5.5	5.4	5.3	5.2	5.2	5.1	8.9	6.7	5.8	5.3
TN TAXABLE SALES (MIL2017\$)	42083 -3.84 -0.33	43088 9.89 4.23	42897 -1.76 3.98	42938 0.38 1.04	42954 0.15 2.07	43126 1.61 0.09	43309 1.71 0.96	43483 1.62 1.27	43761 2.59 1.88	43994 2.15 2.01	44276 2.58 2.23	44581 2.78 2.52	167688 -0.70 -0.70	170565 7 1.72 1.72	172327 1 1.03 1.03	175515 1.85 1.85
TN TAXABLE SALES (MIL\$)	51878 -1.41 2.23	53282 11.27 6.54	53267 -0.11 6.28	53560 2.21 2.88	53872 2.36 3.84	54407 4.03 2.11	54972 4.22 3.20	55588 4.56 3.79	56219 4.62 4.36	56846 4.54 4.48	57503 4.70 4.60	58181 4.81 4.67	202028 3.04 3.04	210490 2 4.19 4.19	216811 2 3.00 3.00	226156 4.31 4.31
TN AVG ANNUAL WAGE, NONFARM (2012\$)	55249 1.69 3.86	55585 2.45 2.91	55715 0.95 1.71	55889 1.25 1.58	56009 0.86 1.38	56123 0.81 0.97	56242 0.85 0.94	56338 0.68 0.80	56554 1.54 0.97	56724 1.21 1.07	56952 1.62 1.26	57204 1.78 1.54	53813 0.31 0.31	55392 2.93 2.93	56066 1.22 1.22	56642 1.03 1.03
TN AVG ANNUAL WAGE, NONFARM (\$) % Chg Prev Qtr SAAR	68108 4.26 6.53	68735 3.73 5.19	69185 2.64 3.96	69715 3.10 3.43	70246 3.08 3.14	70804 3.22 3.01	71388 3.34 3.18	72021 3.60 3.31	72654 3.56 3.43	73295 3.58 3.52	73966 3.71 3.61	74656 3.79 3.66	64845 4.11 4.11	68357 5.42 5.42	70538 3.19 3.19	72984 3.47 3.47
Boyd Center for Business and Economic Research, University of Tennessee	Research	, Univers	ity of Te	nnessee									Tenness	Tennessee Econometric Model	ometric	Model

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

	History	Σ					Forecast Data	t Data						Annual	ıal	
•	2024:2 2024:3	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
US GDP (2017\$) SAAR	68012	68327	68426	68617	68786	69010	69283	69553	69820	70056	70295	70522	67000	68112	68925	69931
	1.98	1.87	0.58	1.12	0.99	1.31	1.59	1.57	1.55	1.36	1.37	1.30	1.82	1.66	1.19	1.46
	1.97	1.63	1.25	1.39	1.14	1.00	1.25	1.36	1.50	1.52	1.46	1.39	1.82	1.66	1.19	1.46
US GDP (\$) SAAR	84976	85751	86324	87040	87790	88582	89457	90420	91107	91874	92711	93541	81923	85273	88219	91529
	4.57	3.70	2.70	3.36	3.49	3.66	4.01	4.37	3.07	3.41	3.70	3.63	5.48	4.09	3.45	3.75
	4.59	3.89	3.65	3.58	3.31	3.30	3.63	3.88	3.78	3.72	3.64	3.45	5.48	4.09	3.45	3.75
TN PERSONAL INCOME (2017\$) SAAR % Chg Prev Qtr SAAR	52933	53332	53643	53593	53855	54149	54445	54331	54721	55054	55445	55506	51711	53096	54011	54888
	3.53	3.05	2.35	-0.37	1.97	2.21	2.20	-0.84	2.90	2.45	2.87	0.45	1.45	2.68	1.72	1.62
	2.80	2.97	2.47	2.13	1.74	1.53	1.50	1.38	1.61	1.67	1.84	2.16	1.45	2.68	1.72	1.62
US PERSONAL INCOME (2017\$) SAAR % Chg Prev Qtr SAAR	58582	58749	59004	59353	59647	59989	60351	60791	61082	61258	61501	61908	57397	58669	59836	61158
	1.68	1.14	1.75	2.39	2.00	2.31	2.43	2.95	1.93	1.16	1.59	2.67	1.04	2.22	1.99	2.21
	2.16	2.34	2.29	1.74	1.82	2.11	2.28	2.42	2.40	2.12	1.91	1.84	1.04	2.22	1.99	2.21
TN PERSONAL INCOME (\$) SAAR	65253	65950	66611	66851	67543	68314	69107	69456	70299	71136	72008	72440	62310	65525	67954	70725
	6.15	4.34	4.07	1.45	4.21	4.64	4.73	2.03	4.94	4.85	4.99	2.42	5.27	5.16	3.71	4.08
	5.44	5.25	4.74	3.99	3.51	3.58	3.75	3.90	4.08	4.13	4.20	4.30	5.27	5.16	3.71	4.08
US PERSONAL INCOME (\$) SAAR	72217	72694	73341	74133	74935	75717	76525	77516	78321	78981	79758	80757	69162	72432	75329	78645
	4.26	2.67	3.60	4.39	4.40	4.25	4.33	5.28	4.22	3.41	4.00	5.10	4.85	4.73	4.00	4.40
	4.79	4.67	4.66	3.73	3.76	4.16	4.34	4.56	4.52	4.31	4.23	4.18	4.85	4.73	4.00	4.40
TN TAXABLE SALES (2017\$)	5860	6000	5973	5928	5931	5954	5980	5957	5995	6027	6065	6061	23561	23750	23793	24043
	-3.84	9.89	-1.76	-2.97	0.15	1.61	1.71	-1.53	2.59	2.15	2.58	-0.27	-1.61	0.80	0.18	1.05
	-1.22	3.30	3.04	0.18	1.21	-0.76	0.11	0.47	1.08	1.21	1.43	1.75	-1.61	0.80	0.18	1.05
TN TAXABLE SALES (\$)	7224	7419	7417	7395	7438	7512	7590	7615	7701	7787	7877	7910	28386	29310	29935	30980
	-1.41	11.27	-0.11	-1.19	2.36	4.03	4.22	1.32	4.62	4.54	4.70	1.69	2.09	3.25	2.13	3.49
	1.32	5.58	5.33	2.01	2.97	1.25	2.33	2.97	3.54	3.66	3.78	3.88	2.09	3.25	2.13	3.49

Boyd Center for Business and Economic Research, University of Tennessee

Tennessee Econometric Model

**Tennessee Econometric Model** 

Table 3: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of 2017 dollars)

	25 2026	34 400679 59 2.43 59 2.43	53 194278 31 2.33 31 2.33	58 38868 59 2.13 59 2.13	77 57070 77 3.06 77 3.06	51 61510 25 1.40 25 1.40	10 81541 54 2.77 54 2.77	33 1.72 33 1.72 33 1.72	00 -2169 33 -1.43 33 -1.43	11 54888 72 1.62 72 1.62
Annual	2025	391184 2.59 2.59	2.31 2.31 2.31	38058 2.69 2.69	3.07 3.07 3.07	60661 1.25 1.25	79340 3.54 3.54	29904 1.83 1.83	-2200 -0.93 -0.93	54011 1.72 1.72
A	2024	381311 3.61 3.61	185570 3.63 3.63	37063 3.74 3.74	53727 3.11 3.11	59913 2.47 2.47	76625 4.23 4.23	29366 2.29 2.29	-2221 3.02 3.02	53096 2.68 2.68
	2023	368034 2.39 2.39	179077 2.09 2.09	35727 2.38 2.38	52109 1.86 1.86	58470 7.96 7.96	73516 -0.81 -0.81	28710 2.29 2.29	-2156 -2.84 -2.84	51711 1.45 1.45
	2027:1	408260 3.52 2.94	197927 3.30 2.94	39492 2.64 2.57	58204 3.58 3.15	62309 2.09 2.14	83284 4.73 3.12	30804 1.83 2.10	-2151 -1.37 -1.26	55506 0.45 2.16
	2026:4	404746 2.87 2.64	196325 3.01 2.62	39236 2.69 2.35	57694 3.03 2.90	61988 2.12 1.81	82327 2.79 2.93	30664 2.36 2.02	-2159 -1.02 -1.38	55445 2.87 1.84
	2026:3	401891 4 2.45 2.47	194874 2.57 2.40	38976 2.25 2.11	57265 2.63 3.05	61663 1.81 1.53	81763 2.25 2.79	30486 1.73 1.83	-2164 -1.80 -1.48	55054 2.45 1.67
	2026:2	399463 2.90 2.41	193641 2.88 2.26	38760 2.71 2.04	56895 3.35 3.45	61387 2.54 1.32	81310 2.74 2.70	30355 2.47 1.70	-2174 -0.83 -1.40	54721 2.90 1.61
	2026:1	396616 2.34 2.18	192272 2.04 2.04	38502 1.76 2.00	56428 2.59 2.83	61003 0.75 0.93	80762 3.95 2.67	30171 1.51 1.33	-2179 -1.86 -1.45	54331 -0.84 1.38
t Data	2025:4	394333 3 2.20 2.36	2.12 2.15 2.15	38334 1.74 2.24	56069 3.65 2.97	60888 1.03 1.16	79983 2.22 2.96	30058 1.63 1.38	-2189 -1.44 -1.26	54445 2.20 1.50
Forecast Data	2025:3	392189 : 2.21 2.40	190306 2.00 2.10	38170 1.96 2.60	55569 4.22 2.93	60731 0.98 1.31	79546 1.90 3.15	29937 1.20 1.78	-2197 -1.46 -1.14	54149 2.21 1.53
	2025:2	390054 : 1.97 2.61	189368 2.00 2.31	37985 2.57 2.89	54997 0.91 2.90	60584 0.96 1.45	79172 2.63 3.58	29847 0.96 2.01	-2205 -1.03 -0.94	53855 1.97 1.74
	2025:1	388161 3.07 3.00	188431 2.48 2.68	37745 2.70 3.02	54873 3.11 3.50	60440 1.67 1.07	78659 5.10 4.52	29776 1.71 2.18	-2211 -1.11 -0.39	53593 -0.37 2.13
	2024:4	385240 : 2.35 3.40	187282 1.92 3.16	37495 3.20 2.99	54454 3.51 2.72	60189 1.65 0.99	77687 2.97 6.00	29650 3.25 2.06	-2217 -0.98 0.18	53643 2.35 2.47
	2024:3	383008 3.05 3.90	186394 2.83 3.79	37201 3.09 3.69	53986 4.08 3.18	59943 1.51 2.58	77120 3.61 5.16	29414 2.13 2.20	-2222 -0.63 3.58	53332 3.05 2.97
Suc	2024:2	380138 3.53 3.73	3.51 3.97	36919 3.11 4.09	53449 3.29 3.54	59719 -0.54 2.40	76439 6.45 3.64	29259 1.63 2.41	-2226 1.16 3.98	52933 3.53 2.80
History	2024:1 2024:2	376857 380138 4.67 3.53 3.41 3.73	183507 185098 4.40 3.51 3.59 3.97	36637 2.58 4.20	53019 0.06 2.99	59801 1.35 3.96	75255 11.15 2.13	29142 1.25 2.48	-2219 1.19 4.44	52476 0.96 2.48
	. 1	TN PERSONAL INCOME	WAGES AND SALARIES	OTHER LABOR INCOME	PROPRIETORS INCOME	RENT, INTEREST, DIVIDENDS	TRANSFER PAYMENTS	LESS: PERS CONT FOR SOC INS % Chg Prev Qtr SAAR	RESIDENCE ADJUSTMENT	PER CAPITA PERSONAL INCOME (\$) % Chg Prev Qtr SAAR

Boyd Center for Business and Economic Research, University of Tennessee

ŝ
ä
ğ
re
ਹੁ
S
흗
Ξ
tes
Ra
nua
Ā
sted
흕
<u>×</u>
nal
asc
Š,
ents
ŏ
ē
ပ
50
Ē
õ
Pers
ee
ess
enn
.4 ⊢
ā
Tabl

	History	ory					Forecast Data	Data							Annua	a	
•	2024:1 2024:2	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TN PERSONAL INCOME	461676 468616	468616	473624	478372	484183 4	489197 4	494777 {	500525 5	507026	513180 5	519292 5	525658 5	532814	443472 4	470572 <sup>4</sup>	492170 5	516289
	8.25 6.15	6.15	4.34	4.07	4.95	4.21	4.64	4.73	5.30	4.94	4.85	4.99	5.56	6.25	6.11	4.59	4.90
	6.17 6.40	6.40	6.20	5.69	4.87	4.39	4.47	4.63	4.72	4.90	4.95	5.02	5.09	6.25	6.11	4.59	4.90
WAGES AND SALARIES	224809 228179 7.98 6.13 6.35 6.65	228179 6.13 6.65	230493 4.12 6.09	232558 3.63 5.45	235044 ; 4.35 4.55	237501 <i>2</i> 4.25 4.09	240087 <i>;</i> 4.43 4.16	242823 2 4.64 4.41	245797 2 4.99 4.57	248766 2 4.92 4.74	251801 2 4.97 4.88	254974 2 5.14 5.00	258311 5.34 5.09	215786 ; 5.95 5.95	229010 2 6.13 6.13	238864 2 4.30 4.30	50334 4.80 4.80
OTHER LABOR INCOME	44883	45512	46002	46559	47082	47640	48154	48658	49220	49794	50362	50957	51540	43052	45739	47883	50083
	6.09	5.72	4.38	4.93	4.57	4.82	4.39	4.25	4.70	4.75	4.64	4.81	4.66	6.25	6.24	4.69	4.59
	6.99	6.77	5.98	5.28	4.90	4.67	4.68	4.51	4.54	4.52	4.58	4.72	4.71	6.25	6.24	4.69	4.59
PROPRIETORS INCOME	64951	65889	66758	67618	68447	68977	70104	71168	72136	73092	73994	74929	75961	62791	66304	69674	73538
	3.49	5.90	5.38	5.25	4.99	3.13	6.70	6.21	5.56	5.40	5.03	5.15	5.62	5.72	5.59	5.08	5.55
	5.74	6.20	5.46	5.00	5.38	4.69	5.01	5.25	5.39	5.97	5.55	5.28	5.30	5.72	5.59	5.08	5.55
RENT, INTEREST, DIVIDENDS	73260	73619	74125	74740	75391	75983	76618	77285	77984	78862	79676	80505	81318	70456	73936	76319	79257
	4.82	1.97	2.78	3.36	3.53	3.18	3.38	3.53	3.67	4.58	4.19	4.23	4.10	12.00	4.94	3.22	3.85
	6.74	5.04	4.85	3.23	2.91	3.21	3.36	3.40	3.44	3.79	3.99	4.17	4.27	12.00	4.94	3.22	3.85
TRANSFER PAYMENTS	92192	94230	95366	96468	98118	99296	100354	101522 1	103245 1	104457 1	105648 1	106922 1	108692	88579	94564	99822 1	105068
	14.96	9.14	4.91	4.70	7.02	4.89	4.33	4.74	6.96	4.78	4.64	4.91	6.79	2.94	6.76	5.56	5.25
	4.86	6.31	7.49	8.35	6.43	5.38	5.23	5.24	5.23	5.20	5.28	5.32	5.28	2.94	6.76	5.56	5.25
LESS: PERS CONT FOR SOC INS % Chg Prev Qtr SAAR	35700	36070	36373	36818	37142	37434	37767	38152	38570	38997	39391	39824	40201	34594	36240	37624	39195
	4.72	4.20	3.41	4.98	3.57	3.18	3.61	4.14	4.45	4.50	4.11	4.47	3.84	6.14	4.76	3.82	4.18
	5.22	5.04	4.46	4.33	4.04	3.78	3.83	3.62	3.84	4.17	4.30	4.38	4.23	6.14	4.76	3.82	4.18
RESIDENCE ADJUSTMENT	-2719	-2744	-2748	-2753	-2758	-2765	-2772	-2778	-2785	-2793	-2797	-2804	-2808	-2598	-2741	-2768	-2795
	4.65	3.72	0.61	0.68	0.70	1.15	0.89	0.99	0.98	1.14	0.50	1.02	0.57	0.84	5.50	1.00	0.95
	7.23	6.66	5.87	2.40	1.42	0.78	0.85	0.93	1.00	1.00	0.90	0.91	0.81	0.84	5.50	1.00	0.95
PER CAPITA PERSONAL INCOME (\$) % Chg Prev Qtr SAAR	64286	65253	65950	66611	66851	67543	68314	69107	69456	70299	71136	72008	72440	62310	65525	67954	70725
	4.42	6.15	4.34	4.07	1.45	4.21	4.64	4.73	2.03	4.94	4.85	4.99	2.42	5.27	5.16	3.71	4.08
	5.22	5.44	5.25	4.74	3.99	3.51	3.58	3.75	3.90	4.08	4.13	4.20	4.30	5.27	5.16	3.71	4.08
Boyd Center for Business and Economic Research, U	mic Res	earch, U	niversity of Tennessee	of Tenn	essee									Tenness	ee Econ	Tennessee Econometric Model	Model

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

	Hist	tory					Forecast Data	Data						Annual	lal	
. 1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3 2	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TOTAL NONFARM	3331.6	3334.8	3343.6	3352.6			384.1				3428.3	3441.0	3309.3	3331.7	3368.1	3411.4
% Chg Prev Qtr SAAR	1.79	0.39	1.06	1.07	1.20	1.26	1.30	1.27	1.28	1.33	1.34	1.49	1.78	0.68	1.09	1.29
% Chg Same Qtr Last Yr	0.11	0.86	1.46	1.08			1.21				1.31	1.36	1.78	0.68	1.09	1.29
NATURAL RESOURCES, MINING	, ,	000	000	101	0	7 7 7	000	0	0,00	27.	7	707	0 0 1	4	7	7
% Cha Prev Oft SAAR	1.18	10.16	177	2.97	2.85	221	2.53	2.64	2.50	2.38	2.49	2.63	4 41	190	3.33	2.51
% Chg Same Qtr Last Yr	-0.06	2.62	4.14	3.94	4.37	2.43	2.62	2.56	2.47	2.51	2.50	2.50	4.41	1.90	3.33	2.51
MANUFACTURING	363.0	362.5	362.8	363.5	364.0	364.5	365.4	366.4	367.3	368.2	369.3	370.1	363.9	362.7	364.3	367.8
% Chg Prev Qtr SAAR	0.77	-0.52	0.33	0.67	0.56	0.61	0.99	1.06	0.98	1.06	1.12	0.88	0.15	-0.34 -0.34	0.46	0.95
DURABLE GOODS	234.3	234.8	235.3	235.9	236.4	237.0	237.9	238.9	239.8	240.9	241.9	242.8	233.1	234.4	236.8	240.4
% Chg Prev Qtr SAAR	2.06	0.83	0.74	1.03	0.97	96.0	1.54	1.72	1.50	1.75	1.77	1.44	0.22	0.54	1.03	1.51
% Chg Same Qtr Last Yr	-0.30	1.48	1.60	1.17	0.89	0.93	1.13	1.30	1.43	1.63	1.68	1.61	0.22	0.54	1.03	1.51
NONDURABLE GOODS	128.7	127.7	127.6	127.6	127.5	127.5	127.5	127.5	127.5	127.4	127.4	127.3	130.8	128.3	127.5	127.4
% Chg Prev Qtr SAAR	-1.52 -2.35	-2.96 -2.33	-0.42	0.01 -1.23	-0.19 -0.90	-0.05	0.03	-0.18 -0.18	0.00	-0.21	-0.11	0.16 0.12	0. 0. 1. 8. 0. 1. 8. 0.	-1.91 -1.91	-0.59	6. 6. 6.
TRADE, TRANSPORTATION, UTILITIES	6.989	688.4	688.6	690.5	691.7	692.7	693.6	694.0	694.8	92.6	696.4	697.4	682.0	686.4	692.1	695.2
% Chg Prev Qtr SAAR	3.03	0.88	0.16	1.06	0.70	0.63	0.53	0.21	0.45	0.45	0.46	0.57	0.83	0.65	0.83	0.44
	0.0	1 00 1	1 26 1	12.1	2 6	0.00	120.7	0.0	5 5	1 0	5.5	5 6	0.00	0.0	0.0	1 0 7
% Chg Prev Qtr SAAR	2.10	5.13	-0.03	2.67	1.80	1.64	1.49	0.94	1.34	1.34	1.35	1.57	4.04	1.38	2.06	1.33
% Chg Same Qtr Last Yr	0.87	1.91	1.75	2.45	2.38	1.52	1.90	1.47	1.35	1.28	1.24	1.40	4.04	1.38	2.06	1.33
RETAIL TRADE	346.6	347.5	347.3	347.9	348.1	348.1	347.9	346.9	346.5	346.1	345.7	345.3	343.5	346.2	348.0	346.3
% Chg Prev Qtr SAAR	3.66	0.97	-0.23 1.56	0.76	0.21	-0.02 0.18	-0.25 0.17	-1.06 -0.28	-0.49 -0.46	-0.49	-0.49 -0.63	-0.44 -0.48	0.66 0.66	0.80	0.51	-0.49 -0.49
TRANSPORTATION & UTILITIES	205.0	204.0	204.5	204.7	205.1	205.6	206.3	207.2	208.0	208.7	209.5	210.3	204.5	204.3	205.4	208.3
% Chg Prev Qtr SAAR	2.58	-2.00 0.03	0.97	0.48	0.79	1.00	1.21	1.90	1.42	1.43 1.49	1.44	1.59	06.0 06.0	-0.07 -0.07	0.55	1.4. 1.4.
INFORMATION	54.3	54.3	54.3	54.4	54.4	54.5	54.5	54.6	54.6	54.6	54.7	54.7	55.4	54.4	54.5	54.6
% Chg Prev Qtr SAAR	-4.07	-0.49	0.19	0.56	0.41	0.37	0.49	0.56	-0.20	0.17	0.49	0.01	1.62	-1.66	0.01	0.32
FINANCIAL ACTIVITIES	1826	182 4	182.3	182 9	183.3	183.8	184.3	185.3	186.0	186 7	187.4	1882	1856	182 4	183.6	186.3
% Chg Prev Qtr SAAR	0.07	-0.36	-0.29	1.44	0.81	1.04	1.27	2.06	1.50	1.50	1.50	1.69	1.22	-1.72	0.62	1.49
% Chg Same Qtr Last Yr	-3.15	-0.74	-0.96	0.21 (CONTII	0.40 NUED ON	0.75 N NEXT F	1.14 PAGE)	1.29	1.47	1.58	1.64	1.55	1.22	-1.72	0.62	1.49

2025

2024 446.2 -2.57 -2.57

2026:4 2027:

2026:2

2025:4 2026:1

2025:2

2025:1

2024:2 2024:3

History

445.7 -0.60

446.4

% Chg Prev Qtr SAAR......

% Chg Same Qtr Last Yr...... EDUCATION & HEALTH SERVICES.

PROFESSIONAL & BUSINESS SERVICES.

Forecast Data

Annual

0.49

458.0 -1.08 -1.08

535.4

531.8

528.6

525.4

522.3

520.1

516.9

513.3

509.6 4.08 363.7

506.4

502.4

496.4

% Chg Prev Qtr SAAR.....

% Chg Same Qtr Last Yr...... LEISURE & HOSPITALITY.....

2.98

2.50 368.7 1.99

> 366.9 96.0 133.5 1.49

> > 0.96

3.08

360.7

365.3 3.09 0.77

1.31

% Chg Prev Qtr SAAR.....

% Chg Same Qtr Last Yr.....

OTHER SERVICES.....

% Chg Prev Qtr SAAR..

-0.20

1.92

1.87

1.80

December 2024

527.0	371.1	134.8	447.2	58.6	388.6
2.34	1.60	1.51	0.36	-0.04	0.42
2.34	1.60	1.51	0.36	-0.04	0.42
515.0	365.2	132.8	445.6	58.6	387.0
3.26	0.61	1.39	0.00	0.58	-0.08
3.26	0.61	1.39	0.00	0.58	-0.08
498.7	363.0	130.9	445.6	58.3	387.3
5.27	0.73	2.66	0.26	4.68	-0.37
5.27	0.73	2.66	0.26	4.68	-0.37
473.8	360.4	127.6	444.5	55.7	388.8
4.88	4.73	1.86	1.67	6.30	1.04
4.88	4.73	1.86	1.67	6.30	1.04

448.5

447.9

447.5 0.40

447.0 0.40 0.33 58.6 -0.06 388.4

446.5 0.26 58.6

446.0 0.13 58.6

445.7

445.5

445.4 0.00 -0.17 58.6 1.62 386.8

445.4

444.1 -2.450.62 58.6

446.9 99.0 -0.42 58.3 5.43

% Chg Same Qtr Last Yr.....

GOVERNMENT

% Chg Prev Qtr SAAR.

0.09

-0.31

0.49

% Chg Same Qtr Last Yr.....

FEDERAL, CIVILIAN.....

% Chg Prev Qtr SAAR.

1.27

0.50

0.26

0.54

0.39

0.44 58.6

0.43 58.6

58.6

58.6 0.09

58.6

58.6 2.92 386.8

0.09

0.04

0.21

135.9

35.5

1.87

373.4

1.30

1.39 1.49

1.43

1.66 1.52

1.47

1.45

0.68

2.01

1.50

132.5

132.0

131.2

130.6

34.1

Boyd Center for Business and Economic Research, University of Tennessee

0.60

389.9

388.8

388.0

387.4

387.1

-0.0

1.31

385.5

388.6

% Chg Same Qtr Last Yr.....

STATE & LOCAL.....

% Chg Prev Qtr SAAR.

0.14

% Chg Same Qtr Last Yr.....

0.31

-0.04 389.3

0.01

-0.07

0.01

0.60 386.9

History	History				Forecast Data		Forecast	Data						Annua	nual	
	2024:2 2024:3	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TOTAL DURABLE GOODS	234.3	234.8	235.3	235.9	236.4	237.0	237.9	238.9	239.8	240.9	241.9	242.8	233.1	234.4	236.8	240.4
	2.06	0.83	0.74	1.03	0.97	0.96	1.54	1.72	1.50	1.75	1.77	1.44	0.22	0.54	1.03	1.51
	-0.30	1.48	1.60	1.17	0.89	0.93	1.13	1.30	1.43	1.63	1.68	1.61	0.22	0.54	1.03	1.51
WOOD PRODUCTS	13.8	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.8	13.8	13.7	13.8	13.7	13.7
	-0.96	-2.70	0.13	0.52	-0.21	-0.10	0.20	0.40	-0.11	0.14	0.38	0.09	-1.79	0.27	-0.29	0.13
	0.90	-0.02	-0.57	-0.76	-0.57	0.08	0.10	0.07	0.10	0.16	0.20	0.12	-1.79	0.27	-0.29	0.13
NONMETALLIC MINERALS	15.6	15.5	15.5	15.5	15.5	15.5	15.5	15.6	15.6	15.6	15.6	15.6	15.3	15.5	15.5	15.6
	3.99	-1.74	-0.42	0.16	0.54	0.59	0.51	0.47	0.38	0.36	0.30	0.45	2.68	1.06	0.19	0.46
	1.95	0.85	0.59	0.48	-0.37	0.22	0.45	0.53	0.49	0.43	0.38	0.37	2.68	1.06	0.19	0.46
PRIMARY METALS	11.1 -0.15 -0.74	11.2 3.97 1.28	11.2 0.56 1.36	11.2 0.54 1.22	11.2 0.37 1.35	11.2 0.26 0.43	11.2 0.58 0.44	11.2 0.52 0.43	11.3 0.36 0.43	11.3 0.54 0.50	11.3 0.64 0.51	11.3 0.31 0.46	11.1 -1.05 -1.05	11.1 0.02 0.02	11.2 0.86 0.86	11.3 0.47 0.47
FABRICATED METALS	42.6	42.8	42.9	43.0	43.0	43.1	43.1	43.2	43.2	43.3	43.4	43.4	42.3	42.6	43.0	43.3
	3.48	2.16	0.66	0.50	0.50	0.51	0.55	0.45	0.67	0.53	0.65	0.58	0.95	0.92	0.92	0.54
	-0.08	2.59	2.29	1.69	0.95	0.54	0.51	0.50	0.54	0.55	0.57	0.61	0.95	0.92	0.92	0.54
MACHINERY	24.8	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.9	24.9	24.9	24.9	24.7	24.9	25.0	24.9
	-0.55	3.98	0.07	0.25	-0.15	-0.39	-0.16	-0.25	-0.33	-0.66	0.16	0.31	-0.50	0.58	0.44	-0.29
	-0.40	1.62	1.81	0.92	1.02	-0.06	-0.11	-0.24	-0.28	-0.35	-0.27	-0.13	-0.50	0.58	0.44	-0.29
COMPUTERS & ELECTRONICS	7.9	8.0	8.0	8.0	8.0	8.0	8.1	8.1	8.1	8.1	8.1	8.1	7.8	7.9	8.0	8.1
	0.52	6.04	0.94	1.07	0.66	0.67	0.89	0.73	0.98	0.79	0.74	0.65	12.33	1.40	1.48	0.80
	-0.48	2.61	2.20	2.12	2.15	0.83	0.82	0.74	0.82	0.85	0.81	0.79	12.33	1.40	1.48	0.80
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS	18.58	18.64	18.64	18.62	18.61	18.59	18.60	18.60	18.60	18.61	18.62	18.61	18.44	18.65	18.60	18.61
	-3.45	1.41	-0.18	-0.40	-0.21	-0.37	0.13	0.15	-0.01	0.17	0.18	-0.19	-2.90	1.13	-0.26	0.03
	0.84	2.16	0.23	-0.67	0.15	-0.29	-0.21	-0.08	-0.03	0.11	0.12	0.04	-2.90	1.13	-0.26	0.03
TRANSPORTATION EQUIP	75.32	75.26	75.60	76.10	76.58	77.12	77.96	78.92	79.76	80.74	81.65	82.44	74.46	75.15	76.94	80.27
	4.93	-0.33	1.82	2.67	2.56	2.85	4.41	5.04	4.31	5.01	4.58	3.92	1.91	0.93	2.38	4.32
	-0.37	1.40	2.64	2.26	1.67	2.47	3.12	3.71	4.15	4.69	4.73	4.45	1.91	0.93	2.38	4.32
FURNITURE	8.70	8.72	8.72	8.71	8.71	8.69	8.69	8.67	8.68	8.68	8.68	8.67	8.83	8.72	8.70	8.68
	-3.12	0.95	0.03	-0.32	-0.01	-0.73	-0.35	-0.56	0.05	0.21	-0.13	-0.29	-7.12	-1.17	-0.27	-0.27
	-2.02	0.39	0.03	-0.63	0.16	-0.26	-0.35	-0.41	-0.40	-0.16	-0.11	-0.04	-7.12	-1.17	-0.27	-0.27
MISCELLANEOUS DURABLES	16.09	16.02	16.02	16.02	16.04	16.03	15.99	15.96	15.92	15.90	15.91	15.87	16.43	16.04	16.02	15.92
	1.82	-1.72	0.10	0.04	0.39	-0.26	-0.93	-0.87	-0.92	-0.49	0.13	-0.86	-4.70	-2.37	-0.09	-0.63
	-3.45	0.02	-0.11	0.05	-0.30	0.07	-0.19	-0.42	-0.75	-0.80	-0.54	-0.54	-4.70	-2.37	-0.09	-0.63

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

	₽	<u>&gt;</u>				Fore	ä	g						Annual	al	
•	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TOTAL NONDURABLE GOODS	128.7	127.7	127.6	127.6	127.5	127.5	127.5	127.5	127.5	127.4	127.4	127.3	130.8	128.3	127.5	127.4
	-1.52	-2.96	-0.42	0.01	-0.19	-0.05	-0.03	-0.18	0.00	-0.21	-0.11	-0.16	-0.81	-1.91	-0.59	-0.10
	-2.35	-2.33	-0.77	-1.23	-0.90	-0.16	-0.06	-0.11	-0.06	-0.10	-0.12	-0.12	-0.81	-1.91	-0.59	-0.10
FOOD	39.9	39.8	39.7	39.8	39.7	39.8	39.8	39.8	39.8	39.8	39.8	39.8	40.6	39.9	39.8	39.8
	-1.30	-1.31	-0.45	0.53	-0.38	0.23	0.41	-0.16	0.47	0.14	-0.25	0.06	2.78	-1.87	-0.22	0.13
	-3.59	-1.23	-0.23	-0.64	-0.41	-0.02	0.20	0.02	0.24	0.21	0.05	0.10	2.78	-1.87	-0.22	0.13
BEVERAGE & TOBACCO	7.2	7.0	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9	6.9	6.9	7.4	7.2	7.0	6.9
	-11.59	-7.96	-0.79	-1.64	-1.28	-0.94	-0.78	-0.77	-0.91	-1.37	-1.21	-1.30	1.25	-3.31	-2.76	-0.95
	-3.69	-5.28	-3.36	-5.60	-2.96	-1.16	-1.16	-0.94	-0.85	-0.96	-1.07	-1.20	1.25	-3.31	-2.76	-0.95
PAPER	13.1 -1.96 -0.52	13.1 -1.15 -1.26	13.0 -1.24 -0.84	13.0 -1.13 -1.37	13.0 -1.06 -1.15	12.9	12.9 -0.97 -1.07	12.9 -1.01 -1.04	12.8 -1.31 -1.11	12.8 -0.88 -1.04	12.8 -0.91 -1.03	12.7 -1.06 -1.04	13.2 -1.44 -1.44	13.1 -0.72 -0.72	13.0 -1.18 -1.18	12.8 -1.05
PRINTING & RELATED SUPPORT	8.0	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8	7.8	7.8	8.1	7.9	7.9	7.8
	-1.47	-4.38	-0.06	-0.28	-0.28	-0.61	-0.13	-0.33	-0.80	-0.38	-0.08	-0.23	-1.01	-2.59	-0.87	-0.40
	-3.33	-3.33	-0.89	-1.56	-1.27	-0.31	-0.33	-0.34	-0.47	-0.41	-0.40	-0.37	-1.01	-2.59	-0.87	-0.40
CHEMICALS	27.0	26.5	26.6	26.5	26.5	26.5	26.5	26.5	26.5	26.4	26.4	26.4	26.9	26.8	26.5	26.5
	-2.04	-7.08	0.56	-0.31	0.14	-0.25	-0.51	-0.15	-0.03	-0.62	-0.07	-0.57	0.77	-0.46	-1.06	-0.24
	0.48	-2.00	-1.32	-2.26	-1.72	0.03	-0.23	-0.19	-0.24	-0.33	-0.22	-0.32	0.77	-0.46	-1.06	-0.24
PLASTICS & RUBBER	25.0	24.6	24.5	24.5	24.6	24.6	24.6	24.7	24.7	24.7	24.7	24.8	25.3	24.7	24.6	24.7
	2.21	-6.97	-1.07	0.69	0.46	0.69	0.52	0.36	0.42	0.38	0.71	0.63	-0.53	-2.09	-0.59	0.47
	-0.90	-3.44	-1.94	-1.35	-1.77	0.19	0.59	0.51	0.50	0.42	0.47	0.53	-0.53	-2.09	-0.59	0.47
MISCELLANEOUS NONDURABLE GOODS % Chg Prev Qtr SAAR	8.5	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.2	8.7	8.9	8.9
	-1.91	19.18	-0.15	-0.04	0.12	0.08	0.03	-0.02	0.19	-0.19	0.17	0.14	-18.18	-5.74	2.07	0.04
	-9.60	-3.33	4.26	3.93	4.47	0.00	0.05	0.05	0.07	0.00	0.04	0.08	-18.18	-5.74	2.07	0.04

Boyd Center for Business and Economic Research, University of Tennessee

Tennessee Econometric Model

<u></u>
ollar
317 d
3d (2
djuste
IJ A
sona
r, Sea
ecto
by S
/ Rate
Salar
and S
Vage
ual W
e Anr
erag
ee A
ness
Ten
ble 8:
ā

			,														Ī
	History	tory				For	Forecast Data	a							Ann	al	
	2024:1 2024:2	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TOTAL NONFARM	55018	55249	55585	55715	55889	56009	56123	56242	56338	56554	56724	56952	57204	53813	55392	56066	56642
	1.74	1.69	2.45	0.95	1.25	0.86	0.81	0.85	0.68	1.54	1.21	1.62	1.78	0.31	2.93	1.22	1.03
	3.30	3.86	2.91	1.71	1.58	1.38	0.97	0.94	0.80	0.97	1.07	1.26	1.54	0.31	2.93	1.22	1.03
NATURAL RESOURCES, MINING AND CONSTRUCTION. % Chg Prev Qtr SAAR. % Chg Same Qtr Last Yr	68360	68696	69172	69518	69799	69944	70085	70226	70413	70760	71095	71449	71926	65392	68936	70013	70929
	4.43	1.98	2.80	2.02	1.63	0.83	0.81	0.81	1.07	1.99	1.91	2.01	2.70	5.27	5.42	1.56	1.31
	6.70	7.55	4.80	2.80	2.11	1.82	1.32	1.02	0.88	1.17	1.44	1.74	2.15	5.27	5.42	1.56	1.31
MANUFACTURING	62065	62741	63339	63671	63834	63948	64086	64210	64303	64532	64712	64940	65182	60622	62954	64020	64622
	5.54	4.43	3.86	2.11	1.03	0.72	0.86	0.78	0.58	1.43	1.12	1.41	1.50	0.10	3.85	1.69	0.94
	3.53	3.65	4.22	3.98	2.85	1.92	1.18	0.85	0.74	0.91	0.98	1.14	1.37	0.10	3.85	1.69	0.94
DURABLE GOODS	62238	62872	63541	63974	64203	64397	64653	64874	65076	65403	65676	65994	66305	60564	63156	64531	65537
	3.97	4.14	4.32	2.75	1.44	1.21	1.60	1.38	1.25	2.03	1.68	1.95	1.90	1.52	4.28	2.18	1.56
	5.03	3.46	4.86	3.79	3.16	2.43	1.75	1.41	1.36	1.56	1.58	1.73	1.89	1.52	4.28	2.18	1.56
NONDURABLE GOODS	61755	62504	62968	63112	63153	63117	63032	62972	62855	62894	62890	62939	63039	60722	62585	63069	62894
	8.48	4.94	3.00	0.92	0.26	-0.22	-0.54	-0.38	-0.74	0.25	-0.03	0.31	0.64	-2.30	3.07	0.77	-0.28
	0.94	3.98	3.08	4.30	2.26	0.98	0.10	-0.22	-0.47	-0.35	-0.23	-0.05	0.29	-2.30	3.07	0.77	-0.28
TRADE, TRANSPORTATION, UTILITIES % Chg Prev Qtr SAAR	49615	49490	49627	49663	49761	49798	49828	49862	49874	49982	50062	50166	50283	49202	49599	49812	50021
	7.73	-1.01	1.12	0.29	0.79	0.30	0.24	0.27	0.10	0.87	0.64	0.83	0.94	-1.46	0.81	0.43	0.42
	-0.14	0.59	0.82	1.98	0.29	0.62	0.40	0.40	0.23	0.37	0.47	0.61	0.82	-1.46	0.81	0.43	0.42
WHOLESALE TRADE	80071	80416	80943	81289	81629	81854	82071	82272	82395	82726	82992	83318	83660	77388	80680	81957	82858
	17.77	1.74	2.65	1.72	1.68	1.11	1.06	0.99	0.60	1.61	1.29	1.58	1.65	-0.38	4.25	1.58	1.10
	4.24	3.94	3.09	5.76	1.95	1.79	1.39	1.21	0.94	1.06	1.12	1.27	1.54	-0.38	4.25	1.58	1.10
RETAIL TRADE	32708	32457	32435	32368	32311	32219	32106	31986	31847	31772	31678	31601	31524	32997	32492	32156	31724
	3.25	-3.03	-0.28	-0.82	-0.70	-1.14	-1.39	-1.48	-1.73	-0.94	-1.18	-0.97	-0.97	-2.24	-1.53	-1.04	-1.34
	-2.60	-2.26	-0.97	-0.24	-1.21	-0.74	-1.01	-1.18	-1.44	-1.39	-1.33	-1.21	-1.01	-2.24	-1.53	-1.04	-1.34
TRANSPORTATION & UTILITIES	58018	57892	57896	57862	57966	58000	58034	58090	58111	58235	58340	58453	58584	57949	57917	58022	58285
	4.73	-0.87	0.03	-0.24	0.72	0.24	0.23	0.39	0.14	0.86	0.72	0.77	0.90	-2.38	-0.06	0.18	0.45
	-1.75	0.51	0.17	0.89	-0.09	0.19	0.24	0.40	0.25	0.41	0.53	0.62	0.81	-2.38	-0.06	0.18	0.45
INFORMATION	75398	75905	75965	75970	76046	76037	76038	76020	75917	76050	76108	76208	76394	74357	75809	76035	76071
	-13.60	2.72	0.31	0.03	0.40	-0.05	0.01	-0.10	-0.54	0.70	0.30	0.53	0.98	-3.20	1.95	0.30	0.05
	7.56	3.11	0.60	-2.86	0.86	0.17	0.10	0.07	-0.17	0.02	0.09	0.25	0.63	-3.20	1.95	0.30	0.05
FINANCIAL ACTIVITIES	80733	81687	82230	82397	82493	82707	82493 82707 82936 83	83121	83239	83581	83868	84261	84670	76988	81762	82814	83737
	11.12	4.81	2.68	0.82	0.47	1.04	0.47 1.04 1.11 0	0.90	0.57	1.65	1.38	1.89	1.95	-0.17	6.20	1.29	1.11
	6.93	7.33	5.81	4.79	2.18	1.25	2.18 1.25 0.86 C	0.88	0.90	1.06	1.12	1.37	1.72	-0.17	6.20	1.29	1.11
				ی		EDON	EAL PA	⊐ر ا⊐ر									

Table 8: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2017 dollars)

	History	ory				Fore	Forecast Data	g							Annua	lal	
	2024:1 2024:2	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
PROFESSIONAL & BUSINESS SERVICES 67483 681	67483	68130	68634	69017	69489	63659	70331	20760	71111	71638	72132	72693	73313	65538	68316	70127	71893
% Chg Prev Qtr SAAR	-4.32	3.89	2.99	2.25	2.76	2.56	2.32	2.46	2.00	3.00	2.79	3.15	3.45	1.38	4.24	2.65	2.52
% Chg Same Qtr Last Yr	4.41	6.75	4.83	1.15	2.97	2.64	2.47	2.53	2.33	2.44	2.56	2.73	3.10	1.38	4.24	2.65	2.52
EDUCATION & HEALTH SERVICES	54688		54849	54949	55053	55130	55192	55262	55322	55509	55578	55799	56018	53538	54791	55159	55552
% Chg Prev Qtr SAAR	1.98	-0.08	1.26	0.73	0.76	0.56	0.46	0.51	0.43	1.36	0.50	1.59	1.58	0.05	2.34	0.67	0.71
% Chg Same Qtr Last Yr	3.60	2.73	2.11	0.97	0.67	0.83	0.63	0.57	0.49	69.0	0.70	0.97	1.26	0.05	2.34	0.67	0.71
LEISURE & HOSPITALITY	30327	30617	30771	30916	31075	31144	31265	31357	31459	31651	31741	31866	32037	29856	30658	31210	31679
% Chg Prev Qtr SAAR	-2.86	3.88	2.02	1.91	2.07	0.89	1.57	1.17	1.31	2.47	1.14	1.58	2.16	0.78	2.69	1.80	1.50
% Chg Same Qtr Last Yr	3.30	3.42	2.87	1.21	2.47	1.72	1.61	1.42	1.24	1.63	1.52	1.62	1.84	0.78	2.69	1.80	1.50
OTHER SERVICES	47304	47268	47369	47410	47410	47430	47452	47486	47497	47498	47482	47504	47523	46855	47338	47444	47495
% Chg Prev Qtr SAAR	-8.70	-0.30	0.86	0.34	0.00	0.17	0.18	0.28	0.09	0.02	-0.14	0.18	0.16	-0.44	1.03	0.23	0.11
% Chg Same Qtr Last Yr	1.15	3.21	1.94	-2.03	0.23	0.34	0.18	0.16	0.18	0.14	0.06	0.04	0.05	-0.44	1.03	0.23	0.11
GOVERNMENT	49937	50148	50379	50443	50478	50486	50432	50413	50351	50386	50452	50535	20600	48611	50227	50452	50431
% Chg Prev Qtr SAAR	-0.55	1.70	1.85	0.51	0.28	90.0	-0.43	-0.15	-0.49	0.28	0.52	99.0	0.52	2.90	3.32	0.45	-0.04
% Chg Same Qtr Last Yr	4.77	5.98	1.86	0.87	1.08	0.67	0.11	-0.06	-0.25	-0.20	0.04	0.24	0.49	2.90	3.32	0.45	-0.04
FEDERAL, CIVILIAN	80807	80652	81060	81287	81459	81487	81625	81653	81555	81610	81760	82040	82252	79763	80951	81556	81741
% Chg Prev Qtr SAAR	-0.54	-0.77	2.04	1.12	0.85	0.14	0.68	0.14	-0.48	0.27	0.73	1.38	1.04	1.99	1.49	0.75	0.23
% Chg Same Qtr Last Yr	2.48	1.87	1.18	0.46	0.81	1.04	0.70	0.45	0.12	0.15	0.16	0.47	0.85	1.99	1.49	0.75	0.23
STATE & LOCAL	45354	45575	45718	45750	45774	45769	45678	45647	45594	45624	45674	45724	45766	44151	45599	45717	45654
% Chg Prev Qtr SAAR	-0.84	1.96	1.26	0.29	0.21	-0.05	-0.79	-0.27	-0.46	0.26	0.44	0.44	0.36	2.61	3.28	0.26	-0.14
% Chg Same Qtr Last Yr	4.63	6.38	1.67	99.0	0.93	0.43	-0.09	-0.23	-0.39	-0.32	-0.01	0.17	0.38	2.61	3.28	0.26	-0.14

Tennessee Econometric Model

_
(current dollars)
djusted
y Adju
Seasonall
Sector,
Rate by
nd Salary
le ar
l Wag
Annual
Average
Tennessee /
Table 9:

	History 2024:1 20	tory 2024:2	2024:3	2024:4	2025:1	2025:2 ;	Forecast Data 2025:3 2025:	4	2026:1	2026:2	2026:3 2	2026:4 ;	2027:1	2023	Annual 2024	al 2025	2026
TOTAL NONFARM	67402 5.23 6.06	68108 4.26 6.53	68735 3.73 5.19	69185 2.64 3.96									74656 3.79 3.66	64845 4.11 4.11	68357 5.42 5.42		72984 3.47 3.47
NATURAL RESOURCES, MINING AND CONSTRUCTION. % Chg Prev Qtr SAAR. % Chg Same Qtr Last Yr	83745 8.00 9.55	84684 4.56 10.32	85537 4.09 7.11	86324 3.73 5.08	87065 3.48 3.96	87722 3.05 3.59	88418 3.21 3.37	89138 3.30 3.26	3.99 3.39	90903 4.01 3.63	91863 4.29 3.90	92793 4.11 4.10	93869 4.72 4.28	78804 9.26 9.26	85073 7.96 7.96	3.54 3.54 3.54	91393 3.75 3.75
MANUFACTURING	76035 9.16 6.29	77345 7.07 6.32	78324 5.16 6.53	79063 3.83 6.29	79625 2.87 4.72	80203 2.93 3.70	80849 3.26 3.22	81502 3.27 3.09	82204 3.49 3.24	82903 3.45 3.37	83616 3.49 3.42	84340 3.51 3.48	85067 3.50 3.48	73048 3.90 3.90	77692 6.36 6.36	3.67 3.67 3.67	83266 3.38 3.38
DURABLE GOODS	76245 7.53 7.83	77505 6.77 6.12	78574 5.63 7.18	79439 4.48 6.10	3.29 5.04	80765 3.44 4.21	81564 4.02 3.81	82344 3.88 3.66	83192 4.18 3.88	84022 4.05 4.03	84862 4.06 4.04	85708 4.05 4.08	86534 3.91 4.02	72981 5.37 5.37	77941 6.80 6.80	81190 8 4.17 4.17	34446 4.01 4.01
NONDURABLE GOODS	75654 12.20 3.63	77052 7.60 6.66	77866 4.29 5.36	78369 2.61 6.61	78775 2.09 4.13	79160 1.97 2.74	79520 1.83 2.12	79930 2.08 1.99	80353 2.13 2.00	80799 2.24 2.07	_	81741 2.38 2.26	82271 2.62 2.39	73164 1.41 1.41	77235 5.56 5.56	79346 8 2.73 2.73	81038 2.13 2.13
TRADE, TRANSPORTATION, UTILITIES % Chg Prev Qtr SAAR	60782 11.42 2.52	61008 1.50 3.18	61369 2.38 3.05	61669 1.97 4.24	62070 2.63 2.12	62455 2.50 2.37	62861 2.63 2.43	63289 2.75 2.63	63758 2.99 2.72	64210 2.87 2.81	64686 3.00 2.90	65152 2.91 2.94	65624 2.93 2.93	59281 2.27 2.27		62669 ( 2.39 2.39	64452 2.84 2.84
WHOLESALE TRADE	98092 21.80 7.03	99133 4.31 6.62	3.93 5.37	3.43 3.43 8.11	3.54 3.80 3.80	3.33 3.56 3.56	03539 1 3.47 3.44	_	05333 1 3.51 3.45	3.63 3.52 3.52	_	08208 1 3.68 3.62	3.65 3.66 3.66	93248 3.39 3.39	99565 1 6.77 6.77	03112 10 3.56 3.56	06763 3.54 3.54
RETAIL TRADE	40070 6.79 0.01	40012 -0.58 0.25	40108 0.97 1.23	40193 0.85 1.97	40304 1.11 0.59	40408 1.03 0.99	40504 0.96 0.99			40817 1.03 1.01	40932 1.13 1.05	41041 1.07 1.08	41141 0.98 1.05	39755 1.45 1.45	40096 0.86 0.86	40454 , 0.89 0.89	40876 1.04 1.04
TRANSPORTATION & UTILITIES	71077 8.32 0.87	71366 1.64 3.10	71593 1.28 2.39	71850 1.44 3.13	72305 2.56 1.73	72742 2.44 1.93	73214 2.62 2.26	73734 2.87 2.62	74288 3.04 2.74	74813 2.86 2.85	75383 3.08 2.96	75914 2.85 2.96	76457 2.89 2.92	69819 1.30 1.30	71471 2.37 2.37	72999 . 2.14 2.14	75100 2.88 2.88
INFORMATION	92367 -10.64 10.43	93572 5.32 5.77	93937 1.57 2.82	94336 1.71 -0.70	94858 2.23 2.70	95363 2.15 1.91	95928 2.39 2.12	96492 2.37 2.28	97051 2.34 2.31	97700 2.70 2.45	98341 2.65 2.51	98974 2.60 2.57	99701 2.97 2.73	89617 0.52 0.52	93553 4.39 4.39	95660 9 2.25 2.25	98016 2.46 2.46
FINANCIAL ACTIVITIES	98904 10 14.93 9.79	100700 7.46 10.09	3.97 3.15 8.15	2.51 7.11	2.30 2.4.04	03729 1 3.26 3.01	04630 1 3.52 2.90	505 1 3.39 3.12	06412 1 3.48 3.41	07375 1 3.67 3.51	08367 1 3.75 3.57	09433 1 3.99 3.72	3.96 3.84	92774 1 3.62 3.62	8.76 8.76 8.76	04191 10 3.26 3.26	3.56 3.56 3.56
				<u>ö</u>	(CONTINUED ON NEXT PAGE)	NO Q	EXT PAG	Ű.									

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

Annual	2023 2024 2025 2026	78979 84308 88231 92637 5.23 6.75 4.65 4.99 5.23 6.75 4.65 4.99	64514     67614     69397     71579       3.84     4.81     2.64     3.14       3.84     4.81     2.64     3.14	35977     37834     39267     40819       4.58     5.16     3.79     3.95       4.58     5.16     3.79     3.95	56461     58417     59690     61197       3.32     3.46     2.18     2.52       3.32     3.46     2.18     2.52	58580     61983     63474     64980       6.80     5.81     2.41     2.37       6.80     5.81     2.41     2.37	96114 99898 102607 105323 5.85 3.94 2.71 2.65 5.85 3.94 2.71 2.65	53206     56272     57517     58825       6.50     5.76     2.21     2.27
	2027:1	95680 5.49 5.25	73108 3.58 3.37	41811 4.17 3.96	62021 2.13 2.14	66038 2.50 2.59	107346 3.03 2.96	59728 2.34
	2026:4	94409 5.28 5.11	72468 3.69 3.31	41386 3.68 3.98	61695 2.25 2.36	65631 2.73 2.57	106548 3.47 2.80	59383 2.51
	2026:3	93203 5.19 5.04	71814 2.85 3.14	41013 3.51 3.98	61353 2.20 2.49	65190 2.87 2.46	105644 3.09 2.59	59017 2.79
	2026:2	92031 5.04 4.93	71311 3.37 3.14	40661 4.50 4.10	61020 2.00 2.58	64730 2.27 2.23	104843 2.26 2.59	58612 2.25
	2026:1	90907 4.95 4.88	70723 3.34 2.99	40216 4.24 3.75	60719 2.99 2.67	64368 2.39 2.23	104259 2.40 2.61	58287 2.42
Forecast Data	2025:4	89815 4.99 4.80	70144 2.99 2.80	39801 3.67 3.67	60273 2.76 2.38	63989 2.32 2.16	103642 2.61 2.68	57939 2.19
Foreca	2025:3	88729 4.76 4.54	69630 2.85 2.66	39444 3.99 3.66	59864 2.57 2.20	63623 1.94 2.13	102977 3.08 2.73	57626 1.57
	2025:2	87703 4.81 4.42	69142 2.77 2.58	39060 3.11 3.49	59486 2.37 2.09	63318 2.26 2.42	102199 2.34 2.79	57402 2.15
	2025:1	86679 4.64 4.85	68672 2.60 2.50	38762 3.93 4.33	59138 1.83 2.05	62965 2.11 2.92	101610 2.69 2.64	57098 2.04
	2024:4	85702 3.97 3.39	68232 2.42 3.21	38390 3.62 3.45	58871 2.03 0.14	62637 2.20 3.11	100938 2.82 2.69	56810 1.97
	2024:3	84872 4.28 7.15	67826 2.53 4.36	38050 3.30 5.15	58576 2.12 4.20	62298 3.13 4.11	100238 3.32 3.42	56534 2.53
History	2024:1 2024:2	83987 6.52 9.50	67403 2.45 5.37	37743 6.51 6.08	58270 2.22 5.87	61820 4.28 8.71	99423 1.74 4.49	56182 4.54
Hist	2024:1	82672 -1.05 7.20	66996 5.47 6.36	37152 0.47 6.06	57950 -5.57 3.85	61176 61 2.86 4 7.57 8	98994 2.87 5.22	55562 2.56
	,	PROFESSIONAL & BUSINESS SERVICES 82672 83987 % Chg Prev Qtr SAAR1.05 6.52 % Chg Same Qtr Last Yr 7.20 9.50	EDUCATION & HEALTH SERVICES	LEISURE & HOSPITALITY	OTHER SERVICES	GOVERNMENT	FEDERAL, CIVILIAN	STATE & LOCAL

Boyd Center for Business and Economic Research, University of Tennessee

Tennessee Econometric Model

5.88 0.37 3359 1.02 5.88 59.7 0.37 December 2024 Tennessee Econometric Mode 0.83 3.73 -0.04 3325 0.83 59.5 -0.04 3.3 Annual -0.56 2024 0.94 0.94 59.5 -0.56 3298 108 3.2 0.81 0.81 2023 0.5959.8 -0.91 -0.91 3.3 0.590.38 122 3.64 59.8 3.5 3381 1.04 0.37 1.02 2027:1 4.72 5.82 59.8 0.36 2026:4 3.5 3372 1.05 0.42 1.21 1.0 121 5.09 0.37 0.40 2026:3 3.4 3364 1.04 120 6.00 59.7 1.0 2026:2 5.47 0.37 0.37 3355 1.02 5.97 59.7 3.4 0.98 8.03 59.6 0.57 3347 0.31 3.4 2026:1 1.37 Forecast Data 5.44 59.5 0.30 0.19 3.3 2025:4 0.97 0.90 3337 114 Table 10: Tennessee Civilian Labor Force and Unemployment Rate, Seasonally Adjusted 2025:3 1.06 0.93 4.97 59.5 0.22 0.04 3329 0.73 5.86 3.3 3433 0.15 2025:2 59.4 3321 4.49 -0.21 3.2 0.88 0.60 7.01 Boyd Center for Business and Economic Research, University of Tennessee 3.99 0.08 2025:1 0.93 0.97 3314 0.83 -0.16 1.09 59.4 3.2 2024:4 0.57 10.10 -0.30 3307 0.27 1.26 109 6.53 59.4 -0.27 3.2 59.5 2024:3 0.68 3305 -0.60 0.80 0.41 96.0 107 9.61 -3.68 3.1 History 2024:2 2.85 59.6 1.72 0.56 0.35 -0.84 3302 -27.34 -1.23 104 3.1 EMPLOYED PERSONS (THOUS)..... PARTICIPATION RATE (PERCENT)..... % Chg Prev Qtr SAAR..... % Chg Prev Qtr SAAR..... CIVILIAN LABOR FORCE (THOUS)..... % Chg Same Qtr Last Yr..... % Chg Same Qtr Last Yr..... % Chg Prev Qtr SAAR...... % Chg Same Qtr Last Yr..... % Chg Same Qtr Last Yr..... UNEMPLOYMENT RATE (PERCENT)..... % Chg Prev Qtr SAAR...... UNEMPLOYED PERSONS (THOUS).

3.4

Table 11: Tennessee Taxable Sales, Seasonally Adjusted (millions of 2017 dollars)

	Histor	Suc					Forecas	t Data						Ann	ıal	
	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TOTAL TAXABLE SALES	42083	43088	42897	42938	42954	43126	43309	43483	43761	43994	44276	44581	167688	170565	172327	75515
	-3.84	9.89	-1.76	0.38	0.15	1.61	1.71	1.62	2.59	2.15	2.58	2.78	-0.70	1.72	1.03	1.85
	-0.33	4.23	3.98	1.04	2.07	0.09	0.96	1.27	1.88	2.01	2.23	2.52	-0.70	1.72	1.03	1.85
AUTO DEALERS	3486	3545	3542	3540	3535	3537	3542	3553	3572	3583	3598	3613	14478	14140	14153	14305
	-8.80	7.00	-0.32	-0.31	-0.51	0.18	0.56	1.23	2.20	1.21	1.76	1.67	-0.64	-2.33	0.09	1.08
	-2.60	-2.09	-2.41	-0.77	1.42	-0.24	-0.02	0.36	1.04	1.30	1.60	1.71	-0.64	-2.33	0.09	1.08
PURCHASES FROM MANUFACTURERS % Chg Prev Qtr SAAR	2296 11.24 -0.63	2226 -11.58 -0.50	2222 -0.73 5.31	2208 -2.57 -1.24	2208 -0.07 -3.85	2215 1.40 -0.50	2224 1.53 0.06	2227 0.54 0.85	2237 1.85 1.33	2248 1.91 1.46	2257 1.71 1.50	2270 2.32 1.95	9010 -2.15 -2.15	8980 -0.33 -0.33	-1.40 -1.40	8968 1.28 1.28
MISC DURABLE GOODS	7067	7097	7110	7123	7127	7144	7162	7185	7220	7252	7292	7333	29711	28408	28557	28949
	-3.70	1.69	0.72	0.75	0.25	0.95	1.03	1.26	1.98	1.76	2.26	2.27	-3.51	-4.39	0.52	1.37
	-4.85	-4.26	-0.62	-0.16	0.85	0.66	0.74	0.87	1.30	1.51	1.81	2.07	-3.51	-4.39	0.52	1.37
EATING AND DRINKING PLACES	4199	4162	4119	4110	4107	4128	4154	4176	4205	4217	4237	4261	17008	16635	16499	16834
	4.29	-3.50	-4.07	-0.87	-0.33	2.08	2.62	2.09	2.78	1.14	1.98	2.31	4.21	-2.19	-0.82	2.04
	-0.27	-2.13	-2.93	-1.09	-2.21	-0.82	0.86	1.61	2.39	2.15	1.99	2.05	4.21	-2.19	-0.82	2.04
FOOD STORES	3377	3741	3747	3748	3756	3769	3784	3797	3820	3841	3867	3897	12419	14441	15056	15325
	-20.48	50.59	0.58	0.13	0.86	1.38	1.62	1.41	2.43	2.20	2.77	3.12	-8.03	16.29	4.26	1.78
	-1.39	41.73	28.39	4.79	11.21	0.74	1.00	1.32	1.71	1.91	2.20	2.63	-8.03	16.29	4.26	1.78
LIQUOR STORES	303	305	306	306	306	306	306	306	307	307	308	309	1241	1225	1224	1228
	-9.00	3.32	0.76	0.08	-0.18	-0.30	-0.02	0.26	1.03	0.95	0.87	1.35	-0.92	-1.31	-0.10	0.38
	-2.07	-2.56	-2.05	-1.32	0.99	0.09	-0.11	-0.06	0.24	0.55	0.78	1.05	-0.92	-1.31	-0.10	0.38
HOTELS AND MOTELS	1469	1417	1415	1417	1417	1423	1425	1426	1435	1440	1446	1452	5966	5770	5682	5747
	-0.24	-13.23	-0.63	0.42	0.17	1.52	0.80	0.16	2.69	1.14	1.69	1.75	5.03	-3.28	-1.54	1.14
	-0.83	-3.26	-4.55	-3.60	-3.50	0.37	0.73	0.66	1.29	1.20	1.42	1.82	5.03	-3.28	-1.54	1.14
OTHER RETAIL AND SERVICE	15055	15733	15587	15647	15674	15774	15885	15993	16139	16279	16433	16597	58298	61604	62980	64844
	-4.49	19.28	-3.67	1.56	0.70	2.56	2.85	2.76	3.70	3.51	3.83	4.07	1.64	5.67	2.23	2.96
	3.37	8.06	6.87	2.75	4.12	0.26	1.91	2.21	2.97	3.20	3.45	3.78	1.64	5.67	2.23	2.96
MISC NONDURABLE GOODS	3111	3157	3152	3146	3134	3146	3147	3148	3157	3164	3176	3189	12378	12542	12573	12644
	-1.46	6.07	-0.70	-0.73	-1.46	1.53	0.05	0.12	1.15	0.95	1.53	1.67	-0.64	1.32	0.25	0.57
	0.99	2.13	2.28	0.75	0.75	-0.34	-0.16	0.06	0.71	0.57	0.94	1.32	-0.64	1.32	0.25	0.57
TRANSPORTATION, COMMUNICATION % Chg Prev Qtr SAAR	1721	1703	1698	1694	1690	1685	1680	1673	1670	1665	1661	1658	7179	6819	6750	6669
	5.40	-4.11	-1.23	-0.83	-0.88	-1.16	-1.24	-1.66	-0.79	-1.13	-0.88	-0.79	-7.00	-5.01	-1.02	-1.19
	-6.28	-2.38	-2.43	-0.25	-1.77	-1.03	-1.03	-1.23	-1.21	-1.20	-1.11	-0.90	-7.00	-5.01	-1.02	-1.19
PER CAPITA (\$)	5860	6000	5973	5928	5931	5954	5980	5957	5995	6027	6065	6061	23561	23750	23793	24043
	-3.84	9.89	-1.76	-2.97	0.15	1.61	1.71	-1.53	2.59	2.15	2.58	-0.27	-1.61	0.80	0.18	1.05
	-1.22	3.30	3.04	0.18	1.21	-0.76	0.11	0.47	1.08	1.21	1.43	1.75	-1.61	0.80	0.18	1.05
		:										ľ				

	History	ory					Forecast	Data						Ann	nal	
- •	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4	2026:1	2026:2	2026:3	2026:4	2027:1	2023	2024	2025	2026
TOTAL TAXABLE SALES	51878	53282	53267	53560	53872	54407	54972	55588	56219	56846	57503	58181	202028	210490	216811	226156
	-1.41	11.27	-0.11	2.21	2.36	4.03	4.22	4.56	4.62	4.54	4.70	4.81	3.04	4.19	3.00	4.31
	2.23	6.54	6.28	2.88	3.84	2.11	3.20	3.79	4.36	4.48	4.60	4.67	3.04	4.19	3.00	4.31
AUTO DEALERS	4297	4297 4384 43	4399	4415	4434	4462	4495	4541	4589	4629	4673	4716	3.11	17450	17806	18433
	-6.49	-6.49 8.34 1.	1.35	1.51	1.68	2.57	3.04	4.16	4.23	3.58	3.86	3.67	3.11	0.03	2.04	3.52
	-0.09	-0.09 0.08 -0.	-0.24	1.04	3.18	1.78	2.20	2.86	3.50	3.75	3.96	3.83	3.11	0.03	2.04	3.52
PURCHASES FROM MANUFACTURERS % Chg Prev Qtr SAAR	2830	2753	2760	2754	2769	2795	2823	2847	2874	2904	2931	2963	10854	11082	0.52	11556
	14.06	-10.48	0.94	-0.79	2.13	3.82	4.04	3.45	3.87	4.29	3.81	4.34	1.53	2.10	0.52	3.73
	1.93	1.71	7.65	0.56	-2.18	1.51	2.28	3.36	3.79	3.91	3.85	4.08	1.53	2.10	0.52	3.73
MISC DURABLE GOODS	8712 -1.26 -2.40	8776 2.96 -2.14	8828 2.41 1.58	8885 2.59 1.66	8939 2.45 2.60	9013 3.35 2.70	3.53 2.98	9185 4.19 3.38	9276 4.00 3.77	9370 4.14 3.96	9471 4.37 4.17	9571 4.28 4.20	35793 0.13 0.13	35056 -2.06 -2.06	35928 2.49 2.49	37302 3.82 3.82
EATING AND DRINKING PLACES	5177	5147	5115	5127	5150	5207	5273	5338	5402	5448	5503	5562	20493	20528	20758	21691
	6.93	-2.29	-2.46	0.94	1.86	4.51	5.15	5.04	4.82	3.50	4.08	4.32	8.11	0.17	1.12	4.50
	2.30	0.03	-0.77	0.71	-0.51	1.18	3.10	4.13	4.88	4.63	4.36	4.18	8.11	0.17	1.12	4.50
FOOD STORES	4163	4626	4652	4675	4711	4755	4803	4854	4907	4963	5022	5086	14954	17823	18943	19747
	-18.47	52.48	2.27	1.96	3.08	3.79	4.13	4.34	4.46	4.59	4.89	5.15	-4.62	19.18	6.28	4.24
	1.15	44.87	31.24	6.70	13.15	2.77	3.24	3.83	4.18	4.38	4.57	4.77	-4.62	19.18	6.28	4.24
LIQUOR STORES	374	378	380	382	384	386	388	391	394	397	400	403	1495	1511	1539	1583
	-6.69	4.62	2.45	1.91	2.01	2.07	2.45	3.16	3.03	3.31	2.95	3.35	2.82	1.07	1.85	2.80
	0.45	-0.41	0.13	0.48	2.74	2.11	2.11	2.42	2.68	2.99	3.11	3.16	2.82	1.07	1.85	2.80
HOTELS AND MOTELS	1810 2.28 1.72	1753 -12.15 -1.12	1757 1.04 -2.43	1767 2.25 -1.84	2.37 2.37 -1.82	1795 3.94 2.39	1809 3.29 2.96	1823 3.06 3.16	1844 4.73 3.75	3.51 3.65	1877 3.79 3.77	1895 3.75 3.94	7188 8.95 8.95	7120 -0.94 -0.94	7148 0.39 0.39	7404 3.58 3.58
OTHER RETAIL AND SERVICE	18559 -2.08 6.03	19456 20.77 10.45	19355 -2.05 9.24	3.41 4.62	19658 2.91 5.93	19900 5.00 2.28	20163 5.39 4.17	20445 5.73 4.75	20734 5.76 5.47	21034 5.93 5.70	21342 5.97 5.85	21661 6.12 5.94	70244 5.47 5.47	76026 8.23 8.23	79239 4.23 4.23	83555 5.45 5.45
MISC NONDURABLE GOODS	3835	3904	3913	3924	3931	3969	3994	4024	4055	4088	4125	4162	3.11	3.77	15818	16292
	1.03	7.40	0.97	1.08	0.71	3.95	2.52	3.02	3.16	3.31	3.62	3.67	3.11	3.77	2.20	3.00
	3.59	4.39	4.55	2.58	2.50	1.67	2.06	2.54	3.16	3.00	3.28	3.44	3.11	3.77	2.20	3.00
TRANSPORTATION, COMMUNICATION % Chg Prev Qtr SAAR	2121	2106	2108	2113	2120	2126	2133	2139	2145	2151	2158	2164	8648	8415	8492	8593
	8.07	-2.91	0.43	0.98	1.30	1.19	1.20	1.19	1.18	1.18	1.17	1.16	-3.47	-2.69	0.91	1.19
	-3.87	-0.22	-0.27	1.56	-0.07	0.97	1.17	1.22	1.19	1.19	1.18	1.17	-3.47	-2.69	0.91	1.19
PER CAPITA (\$)	7224	7419	7417	7395	7438	7512	7590	7615	7701	7787	7877	7910	28386	29310	29935	30980
	-1.41	11.27	-0.11	-1.19	2.36	4.03	4.22	1.32	4.62	4.54	4.70	1.69	2.09	3.25	2.13	3.49
	1.32	5.58	5.33	2.01	2.97	1.25	2.33	2.97	3.54	3.66	3.78	3.88	2.09	3.25	2.13	3.49
In dozent for Business and Economic Bosessel	Postop	Ilnivorei	tr. of Ton	00000									Tonnor	100 E	omotrio	Model

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

					Fo	Forecast Data					
. !	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TN GDP (Mil2017\$) SAAR	434954	445957	457771	469800	481750	494019	505733	517702	529799	541871	554343
Percentage change	2.42	2.53	2.65	2.63	2.54	2.55	2.37	2.37	2.34	2.28	2.30
US GDP (Bil2017\$) SAAR	23283.8	23758.0	24252.7	24688.4	25154.7	25612.3	26045.8	26480.6	26938.0	27430.2	27939.7
Percentage change	2.70	2.04	2.08	1.80	1.89	1.82	1.69	1.67	1.73	1.83	1.86
US GDP (Bil\$) SAAR	29150.4	30408.6	31743.1	32998.9	34351.6	35740.9	37148.7	38627.7	40178.3	41814.6	43521.7
Percentage change	5.16	4.32	4.39	3.96	4.10	4.04	3.94	3.98	4.01	4.07	4.08
TN PERSONAL INCOME (MIL2017\$) SAAR	381311	391184	400679	412814	424492	436818	449576	461868	474664	487365	500933
Percentage change	3.61	7.59	2.43	3.03	2.83	2.90	2.92	2.73	7.7.7	7.68	2.78
US PERSONAL INCOME (BIL2017\$) SAARPercentade chande.	3.26	20625	21210	21769	22368	22892	23396	23894	24409	24958	25528
TN PERSONAL INCOME (MILS) SAAR	470572	492170	516289	542494	568990	597289	627204	657275	689104	721795	756649
Percentage change	6.11	4.59	4.90	5.08	4.88	4.97	5.01	4.79	4.84	4.74	4.83
US PERSONAL INCOME (BIL\$) SAAR Percentage change	24761	25966	27275 5.04	28579	29932	31268	32614	34005	35454	36969	38552 4.28
SOLODE SOL MONTHON INT	7 7000	2260 4	7 7 7 7 7	7 0 1 1 0 1	0 6030	0547.0	0.0036	2 2020	0 0000	0 0000	2707.4
Percentage change	0.68	1.09	1.29	1.40	1.30	3347.2 1.23	1.21	1.02	0.99	0.83	0.85
US NONFARM JOBS (MIL)	158.5	159.9	160.4	160.6	161.0	161.7	162.4	162.9	163.4	163.9	164.2
(GI CITE ) GOOD OF NEW INF	20.00	0 700	0.20	7 7 7 7	27.0 4	0.170	276.4	277.4	277.0	270 7	1 0 0
Percentage change	.0.34 -0.34	0.46	0.95	0.97	0.55	0.41	0.30	0.27	0.20	0.23	379.7 0.26
US MFG JOBS (MIL)	12.9	12.9	12.7	12.5	12.3	12.2	12.2	12.1	12.0	11.8	11.6
Percentage change	-0.05	-0.27	-1.86	-1.25	-1.44	-0.80	-0.30	-0.57	-0.92	-1.53	-1.77
TN UNEMPLOYMENT RATE (%)	3.2	3.3	3.4	3.5	3.6	3.7	3.7	3.8	3.7	3.7	3.7
US UNEMPLOYMENT RATE (%)	4.0	4.4	4.5	4.6	4.5	4.4	4.3	4.2	4.2	4.2	4.2
CHAINED PRICE INDEX, GDP (2017=100.0)	125.2	128.0	130.9	133.7	136.6	139.5	142.6	145.9	149.1	152.4	155.8
Percentage change	2.39	2.23	7.70	2.12	71.7	2.19	7.27	7.77	2.25	12.2	2.18
US PERS CONSUMP DEFL (2017=100.0)Perse change	123.5 2.46	125.9 1.97	128.6 2.15	131.3 2.09	133.8 1.93	136.6 2.07	139.4	142.3 2.09	145.2 2.06	148.1 1.98	151.0 1.95
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1.000)	3.136	3.203	3.281	3.359	3.426	3.507	3.589	3.674	3.759	3.841	3.922
Percentage change	2.92	2.15	2.43	2.38	1.99	2.36	2.33	2.36	2.31	2.18	2.12
BANK PRIME INTEREST RATE (%)	8.3	6.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
FEDERAL FUNDS RATE (% per annum)	5.145	3.789	2.639	2.625	2.625	2.625	2.625	2.625	2.625	2.625	2.625
30-YEAR FIXED MORTGAGE RATE (%)	6.7	5.8	5.3	5.1	5.0	5.0	4.9	4.9	4.9	4.9	2.0
TN TAXABLE SALES (MIL2017\$)	170565	172327 1.03	175515 1.85	180290	185706 3.00	191116	196856 3.00	202646	208330	214357	220785 3.00
TN TAXABI E SAI ES (MII \$)	210490	216811	226156	236925	248921	261325	274635	288381	302449	317467	333492
Percentage change	4.19	3.00	4.31	4.76	5.06	4.98	5.09	5.01	4.88	4.97	5.05
TN AVG ANNUAL WAGE, NONFARM (2017\$)	55392	26066	56642	57578	58485	59436	60392	61413	62502	63649	64831
Percentage change	2.93	1.22	1.03	1.65	1.57	1.63	1.61	1.69	1.77	1.84	1.86
TN AVG ANNUAL WAGE, NONFARM (\$)	68357	70538	72984	75664	78392	81270	84251	87395	90737	94264	97925
Percentage change	5.42	3.19	3.47	3.67	3.60	3.67	3.67		3.82	3.89	3.88
Boyd Center for Business and Economic Research, Uni	ı, University of Tennesse	Jennesse	<b>4</b>					Ē	ennessee Econometric Mode	conometri	c Model

December 2024 Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators

					For	Forecast Data					
1	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TN GDP (2017\$) SAAR	96209	61232	62336	63492	64614	65784	62899	67993	69111	70228	71369
Percentage change	1.22	1.38	1.80	1.85	1.77	1.81	1.66	1.67	1.64	1.62	1.62
US GDP (2017\$) SAAR	68112	68925	69931	70887	71928	72944	73892	74847	75867	76987	78159
Percentage change	1.66	1.19	1.46	1.37	1.47	1.41	1.30	1.29	1.36	1.48	1.52
US GDP (\$) SAAR	85273	88219	91529	94748	98226	101790	105392	109180	113156	117359	121748
Percentage change	4.09	3.45	3.75	3.52	3.67	3.63	3.54	3.59	3.64	3.71	3.74
TN PERSONAL INCOME (2017\$) SAAR	53096	54011	54888	56125	57284	58532	59834	61064	62363	63661	65075
Percentage change	2.68	1.72	1.62	2.26	2.06	2.18	2.22	2.06	2.13	2.08	2.22
US PERSONAL INCOME (2017\$) SAAR	58669	59836	61158	62505	63960	65198	66374	67537	68745	70047	71411
Percentage change	2.22	1.99	2.21	2.20	2.33	1.94	1.80	1.75	1.79	1.89	1.95
TN PERSONAL INCOME (\$) SAAR	65525	67954	70725	73756	76784	80035	83474	86899	90537	94283	98295
Percentage change	5.16	3.71	4.08	4.29	4.10	4.23	4.30	4.10	4.19	4.14	4.25
US PERSONAL INCOME (\$) SAAR	72432	75329	78645	82059	82288	89050	92526	96116	99851	103759	107845
Percentage change	4.73	4.00	4.40	4.34	4.30	4.05	3.90	3.88	3.89	3.91	3.94
TN TAXABLE SALES (2017\$)	23750	23793	24043	24512	25061	25609	26199	26792	27371	28000	28682
Percentage change	0.80	0.18	1.05	1.95	2.24	2.19	2.31	2.26	2.16	2.30	2.44
TN TAXABLE SALES (\$)	29310	29935	30980	32212	33591	35017	36551	38127	39737	41469	43323
Percentage change	3.25	2.13	3.49	3.98	4.28	4.24	4.38	4.31	4.22	4.36	4.47

Table 3: Tennessee Personal Income Components (millions of 2017 dollars)

					Fo	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TN PERSONAL INCOMEPercentage change	381311	391184	400679	412814	424492	436818	449576	461868	474664	487365	500933
	3.61	2.59	2.43	3.03	2.83	2.90	2.92	2.73	2.77	2.68	2.78
WAGES AND SALARIESPercentage change	185570	189853	194278	200213	205846	211730	217686	223574	229744	235875	242249
	3.63	2.31	2.33	3.05	2.81	2.86	2.81	2.70	2.76	2.67	2.70
OTHER LABOR INCOMEPercentage change	37063	38058	38868	39897	41005	42102	43283	44388	45495	46710	47984
	3.74	2.69	2.13	2.65	2.78	2.67	2.80	2.55	2.49	2.67	2.73
PROPRIETORS INCOMEProperties of the percentage change	53727 3.11	55377 3.07	57070 3.06	58926 3.25	60667 2.95	62488 3.00	64315 2.92	66118	67935 2.75	69795 2.74	71928 3.06
RENT, INTEREST, DIVIDENDS Percentage change	59913	60661	61510	62834	64217	65683	67422	6872 <i>7</i>	70394	71916	73594
	2.47	1.25	1.40	2.15	2.20	2.28	2.65	1.94	2.42	2.16	2.33
TRANSFER PAYMENTSPercentage change	76625	79340	81541	84154	86587	89311	91973	94791	97470	100141	103097
	4.23	3.54	2.77	3.20	2.89	3.15	2.98	3.06	2.83	2.74	2.95
LESS: PERS CONT FOR SOC INS	29366 2.29	29904	30419 1.72	31066 2.13	31714 2.09	32404 2.17	33039 1.96	33692 1.97	34364 1.99	35086 2.10	35960 2.49
RESIDENCE ADJUSTMENTPercentage change	-2221	-2200	-2169	-2144	-211 <i>7</i>	-2092	-2064	-2038	-2010	-1986	-1960
	3.02	-0.93	-1.43	-1.18	-1.22	-1.19	-1.34	-1.28	-1.38	-1.19	-1.32
PER CAPITA PERSONAL INCOME (\$) Percentage change	53096	54011	54888	56125	57284	58532	59834	61064	62363	63661	65075
	2.68	1.72	1.62	2.26	2.06	2.18	2.22	2.06	2.13	2.08	2.22

**Tennessee Econometric Model** 

Boyd Center for Business and Economic Research, University of Tennessee

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

					Fo	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TN PERSONAL INCOMEPercentage change	470572	492170	516289	542494	568990	597289	627204	657275	689104	721795	756649
	6.11	4.59	4.90	5.08	4.88	4.97	5.01	4.79	4.84	4.74	4.83
WAGES AND SALARIES	229010	238864	250334	263107	275916	289512	303694	318163	333536	349334	365912
	6.13	4.30	4.80	5.10	4.87	4.93	4.90	4.76	4.83	4.74	4.75
OTHER LABOR INCOMEPercentage change	45739	47883	50083	52430	54964	57569	60384	63168	66048	69179	72479
	6.24	4.69	4.59	4.69	4.83	4.74	4.89	4.61	4.56	4.74	4.77
PROPRIETORS INCOMEPROPRIETORS INCOME	66304	69674	73538	77438	81318	85443	89726	94091	98626	103367	108646
	5.59	5.08	5.55	5.30	5.01	5.07	5.01	4.87	4.82	4.81	5.11
RENT, INTEREST, DIVIDENDSPercentage change	73936	76319	79257	82571	86076	89812	94060	97804	102195	106508	111162
	4.94	3.22	3.85	4.18	4.24	4.34	4.73	3.98	4.49	4.22	4.37
TRANSFER PAYMENTSPercentage change	94564	99822	105068	110589	116062	122121	128312	134895	141505	148311	155727
	6.76	5.56	5.25	5.26	4.95	5.22	5.07	5.13	4.90	4.81	5.00
LESS: PERS CONT FOR SOC INS	36240	37624	39195	40824	42509	44307	46093	47946	49888	51963	54317
	4.76	3.82	4.18	4.16	4.13	4.23	4.03	4.02	4.05	4.16	4.53
RESIDENCE ADJUSTMENTPercentage change	-2741	-2768	-2795	-2817	-2838	-2861	-2880	-2900	-2917	-2941	-2960
	5.50	1.00	0.95	0.79	0.76	0.80	0.66	0.70	0.61	0.80	0.64
PER CAPITA PERSONAL INCOME (\$)	65525 5.16	67954 3.71	70725 4.08	73756 4.29	76784 4.10	80035 4.23	83474 4.30	86899	90537 4.19	94283	98295 4.25
Boyd Center for Business and Economic Research, University of Tennessee	search, Uni	iversity of T	ennessee						Tennessee	Tennessee Econometric Model	ic Model

					For	Forecast Data					
1 1	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TOTAL NONFARM	3331.7 0.68	3368.1 1.09	3411.4 1.29	3459.1 1.40	3503.9 1.30	3547.2 1.23	3590.0 1.21	3626.5 1.02	3662.3 0.99	3692.9 0.83	3724.1 0.85
NATURAL RESOURCES, MINING AND CONSTRUCTIONPercentage change	161.3	166.7 3.33	170.8	175.2 2.56	179.2 2.29	183.0 2.08	186.6	190.1	193.9 2.04	197.5 1.83	200.9
MANUFACTURINGPercentage change	362.7 -0.34	364.3	367.8 0.95	371.4 0.97	373.4 0.55	374.9 0.41	376.1 0.30	377.1 0.27	377.8 0.20	378.7 0.23	379.7 0.26
DURABLE GOODSPercentage change	234.4	236.8	240.4	244.1	246.1	247.7 0.62	249.0 0.53	250.1	251.0 0.38	252.1 0.41	253.0 0.37
NONDURABLE GOODSPercentage change	128.3 -1.91	127.5 -0.59	127.4	127.3 -0.12	127.3	127.3 -0.01	127.1 -0.13	127.0	126.8	126.7 -0.11	126.7 0.05
TRADE, TRANSPORTATION, UTILITIES Percentage change	686.4 0.65	692.1 0.83	695.2 0.44	698.4 0.47	700.6	702.8	704.8	708.0	711.6	713.8 0.31	716.0 0.31
WHOLESALE TRADEPercentage change	135.9	138.7 2.06	140.5 1.33	142.4	143.9	145.4 1.08	147.2 1.21	148.9	150.8 1.26	152.4 1.06	153.8 0.94
RETAIL TRADE	346.2 0.80	348.0 0.51	346.3 -0.49	344.6 -0.49	342.7 -0.55	340.8 -0.57	338.7 -0.61	337.0 -0.49	335.2 -0.54	333.6 -0.47	332.4 -0.38
TRANSPORTATION & UTILITIES	204.3	205.4 0.55	208.3	211.4 1.45	214.1	216.6	218.9	222.1 1.43	225.6 1.59	227.8 0.96	229.8
INFORMATIONPercentage change	54.4	54.5 0.01	54.6 0.32	54.7 0.17	54.7	54.9 0.24	54.9	54.9 0.05	55.0 0.10	55.1 0.14	55.1 0.17
FINANCIAL ACTIVITIESPercentage change	182.4	183.6 0.62	186.3	189.1 1.50	191.4	193.9 1.29	196.1 1.14	198.4	200.5	202.6 1.03	204.8
PROFESSIONAL & BUSINESS SERVICES Percentage change	446.2 -2.57	448.4 0.49	456.6 1.83	466.4 2.16	477.5 2.37	487.6 2.11	497.0 1.94	506.3 1.87	514.1	520.3 1.21	526.2 1.14
EDUCATION & HEALTH SERVICES	498.7 5.27	515.0 3.26	527.0 2.34	540.2 2.50	552.6 2.29	564.5 2.15	575.6 1.98	585.0 1.62	593.2 1.41	600.3	607.8 1.26
LEISURE & HOSPITALITYPercentage change	363.0 0.73	365.2 0.61	371.1 1.60	377.8 1.81	385.1 1.93	391.8 1.75	399.2 1.88	405.6 1.62	411.7	417.4	423.0 1.36
OTHER SERVICESPercentage change	130.9	132.8	134.8	136.6 1.35	138.3	140.4 1.46	142.2 1.29	143.9	145.5 1.09	147.0	148.6
GOVERNMENTPercentage change	445.6 0.26	445.6 0.00	447.2 0.36	449.2 0.45	451.1 0.41	453.6 0.57	457.5 0.86	457.2 -0.08	459.0 0.40	460.3 0.29	461.9 0.34
FEDERAL, CIVILIANPercentage change	58.3 4.68	58.6 0.58	58.6 -0.04	58.6 0.02	58.7	59.0 0.52	61.3 3.94	59.2 -3.48	59.4 0.39	59.5 0.26	59.7 0.33
STATE & LOCAL Percentage change	387.3 -0.37	387.0 -0.08	388.6 0.42	390.6 0.51	392.4 0.46	394.7 0.57	396.2 0.40	398.0 0.45	399.6 0.41	400.8	402.2 0.34

Boyd Center for Business and Economic Research, University of Tennessee

December 2024 Table 6: Tennessee Durable Goods Manufacturing Employment (thousands of jobs)

	,										
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TOTAL DURABLE GOODS	234.4 0.54	236.8	240.4 1.51	244.1 1.55	246.1 0.83	247.7 0.62	249.0 0.53	250.1 0.45	251.0 0.38	252.1 0.41	253.0 0.37
WOOD PRODUCTS	13.8 0.27	13.7	13.7	13.8 0.22	13.8 -0.06	13.8 0.25	13.8 0.13	13.8 0.07	13.8 -0.20	13.8	13.8
NONMETALLIC MINERALS	15.5 1.06	15.5 0.19	15.6 0.46	15.6 0.38	15.7 0.47	15.8 0.44	15.9 0.44	15.9 0.39	16.0 0.36	16.0 0.36	16.1 0.31
PRIMARY METALSPercentage change	11.1	11.2	11.3	11.3	11.4	11.4	11.5 0.48	11.5 0.35	11.6	11.6 0.34	11.6
FABRICATED METALSPercentage change	42.6 0.92	43.0	43.3 0.54	43.5 0.59	43.7 0.49	43.9 0.35	44.0 0.34	44.2 0.30	44.3 0.29	44.5 0.34	44.6 0.37
MACHINERYPrecentage change	24.9 0.58	25.0 0.44	24.9 -0.29	24.9 -0.19	24.9	24.9	25.0 0.16	25.0 0.05	25.0 0.01	25.0 -0.06	24.9
COMPUTERS & ELECTRONICS	7.9	8.0	8.1	8.2 0.83	8.2 0.81	8.3 0.85	8.4 0.77	8.4 0.74	8.5 0.71	8.6 0.83	8.6 0.74
& COMPONENTS	18.7	18.6 -0.26	18.6 0.03	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
TRANSPORTATION EQUIPMENT	75.1 0.93	76.9	80.3 4.32	83.7 4.26	85.3 1.95	86.4 1.24	87.3 1.09	88.1 0.87	88.8 0.82	89.5 0.76	90.1
FURNITUREPercentage change	8.7	8.7 -0.27	8.7 -0.27	8.7 -0.24	8.7 0.00	8.7 0.01	8.6 -0.28	8.6 0.02	8.6 -0.37	8.6 -0.33	8.6 -0.20
MISCELLANEOUS DURABLESProcentage change	16.0 -2.37	16.0 -0.09	15.9 -0.63	15.9 -0.44	15.9 0.04	15.9 0.28	15.9 0.02	15.9 0.12	15.9 -0.12	15.9 0.27	16.0

December 2024 Table 7: Tennessee Nondurable Goods Manufacturing Employment (thousands of jobs)

	6			, a							
					Fore	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TOTAL NONDURABLE GOODS	128.3	127.5	127.4	127.3	127.3	127.3	127.1	127.0	126.8	126.7	126.7
Percentage change	-1.91	-0.59	-0.10	-0.12	00.00	-0.01	-0.13	-0.09	-0.16	-0.11	0.05
FOOD	39.9	39.8	39.8	39.8	39.9	40.0	39.9	39.9	39.8	39.9	40.0
Percentage change	-1.87	-0.22	0.13	90.0	0.21	0.11	-0.25	0.03	-0.19	0.12	0.29
BEVERAGE & TOBACCO	7.2	7.0	6.9	8.9	6.7	6.7	9.9	6.5	6.5	6.4	6.3
Percentage change	-3.31	-2.76	-0.95	-1.25	-1.22	-1.02	-0.96	-1.27	-1.06	-1.01	-1.05
PAPER	13.1	13.0	12.8	12.7	12.6	12.4	12.3	12.2	12.1	11.9	11.8
Percentage change	-0.72	-1.18	-1.05	-1.02	-0.94	-1.09	-0.95	-1.01	-0.98	-1.23	-1.12
PRINTING & RELATED SUPPORT	7.9	7.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.7	7.7
Percentage change	-2.59	-0.87	-0.40	-0.22	-0.23	-0.25	0.01	-0.24	-0.07	-0.07	-0.20
CHEMICALS	26.8	26.5	26.5	26.4	26.3	26.3	26.3	26.2	26.2	26.1	26.1
Percentage change	-0.46	-1.06	-0.24	-0.31	-0.17	0.02	-0.06	-0.32	-0.14	-0.31	0.03
PLASTICS & RUBBER	24.7	24.6	24.7	24.8	25.0	25.2	25.3	25.5	25.6	25.7	25.8
Percentage change	-2.09	-0.59	0.47	0.55	0.67	0.70	0.56	99.0	0.42	0.38	0.64
MISCELLANEOUS NONDURABLE GOODS	8.7	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
Percentage change	-5.74	2.07	0.04	0.03	0.24	-0.09	-0.10	0.24	0.00	0.22	-0.05
Boyd Center for Business and Economic Research, Un	earch, Unive	iversity of Tennessee	nessee						Tennessee Econometric Model	=conometri	c Model

Tennessee Econometric Model

					For	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TOTAL NONFARMPotable	55392	56066	56642	57578	58485	59436	60392	61413	62502	63649	64831
	2.93	1.22	1.03	1.65	1.57	1.63	1.61	1.69	1.77	1.84	1.86
NATURAL RESOURCES, MINING AND CONSTRUCTIONPrecentage change	68936 5.42	70013 1.56	70929	72541 2.27	74001	75589 2.15	77020	78488 1.91	80022	81713	83524
MANUFACTURINGPande	62954	64020	64622	65603	66731	67750	68869	70272	71579	73012	74470
	3.85	1.69	0.94	1.52	1.72	1.53	1.65	2.04	1.86	2.00	2.00
DURABLE GOODSPurable	63156 4.28	64531 2.18	65537 1.56	66872 2.04	68466 2.38	69988	71601 2.30	73485 2.63	75281 2.44	77212 2.56	79158 2.52
NONDURABLE GOODSProcentage change	62585 3.07	63069	62894	63166 0.43	63376 0.33	63394 0.03	63518 0.20	63944 0.67	64248 0.47	64654 0.63	65111 0.71
TRADE, TRANSPORTATION, UTILITIES Percentage change	49599	49812	50021	50487	50984	51441	51917	52475	53120	53699	54330
	0.81	0.43	0.42	0.93	0.98	0.90	0.93	1.07	1.23	1.09	1.17
WHOLESALE TRADEProcentage change	80680	81957	82858	84253	85800	87119	88409	89800	91625	93157	94866
	4.25	1.58	1.10	1.68	1.84	1.54	1.48	1.57	2.03	1.67	1.83
RETAIL TRADEPercentage change	32492	32156	31724	31432	31155	30834	30571	30339	30081	29832	29604
	-1.53	-1.04	-1.34	-0.92	-0.88	-1.03	-0.85	-0.76	-0.85	-0.83	-0.76
TRANSPORTATION & UTILITIES Percentage change	57917	58022	58285	58803	59335	59910	60410	61040	61617	62260	62957
	-0.06	0.18	0.45	0.89	0.90	0.97	0.83	1.04	0.94	1.04	1.12
INFORMATIONPercentage change	75809	76035	76071	76591	77044	77345	77619	78102	78648	79169	79721
	1.95	0.30	0.05	0.68	0.59	0.39	0.35	0.62	0.70	0.66	0.70
FINANCIAL ACTIVITIESPinAndel	81762	82814	83737	85276	86866	88262	89716	91320	93051	94945	96761
	6.20	1.29	1.11	1.84	1.87	1.61	1.65	1.79	1.90	2.03	1.91
PROFESSIONAL & BUSINESS SERVICES Percentage change	68316	70127	71893	74204	76473	78833	81275	83662	86059	88620	91332
	4.24	2.65	2.52	3.21	3.06	3.09	3.10	2.94	2.87	2.98	3.06
EDUCATION & HEALTH SERVICES Percentage change	54791 2.34	55159 0.67	55552 0.71	56304 1.35	56910 1.08	57707 1.40	58386 1.18	59178 1.36	60010	60890	61774 1.45
LEISURE & HOSPITALITYPEISURE Percentage change	30658	31210	31679	32289	32901	33588	34299	34960	35695	36435	37207
	2.69	1.80	1.50	1.92	1.90	2.09	2.12	1.93	2.10	2.07	2.12
OTHER SERVICESProrentage change	47338	47444	47495	47591	47677	47900	48018	48298	48617	48996	49400
	1.03	0.23	0.11	0.20	0.18	0.47	0.25	0.58	0.66	0.78	0.82
GOVERNMENT Percentage change	50227	50452	50431	50732	50982	51246	51607	51788	52274	52831	53337
	3.32	0.45	-0.04	0.60	0.49	0.52	0.70	0.35	0.94	1.07	0.96
FEDERAL, CIVILIANPercentage change	80951	81556	81741	82522	83019	83556	83515	84280	85060	85765	86514
	1.49	0.75	0.23	0.95	0.60	0.65	-0.05	0.92	0.93	0.83	0.87
STATE & LOCALPercentage change	45599	45717	45654	45872	46074	46300	46550	46839	47281	47817	48286
	3.28	0.26	-0.14	0.48	0.44	0.49	0.54	0.62	0.94	1.13	0.98

Table 8: Tennessee Average Annual Wage and Salary Rate by Sector (2017 dollars)

o o	
7	
>	١
C	
5	
_	
٠. ٢	
+	
a	
- 0	
2	
•	١
-	
_	
Č	
Froncine	
ш	
ų	
q	ľ
u	į
ŭ	i
Tennessee	
9	
2	
_	
-	
_q	
-	

					Fo	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TOTAL NONFARMPercentage change	68357	70538	72984	75664	78392	81270	84251	87395	90737	94264	97925
	5.42	3.19	3.47	3.67	3.60	3.67	3.67	3.73	3.82	3.89	3.88
NATURAL RESOURCES, MINING AND CONSTRUCTION	85073 7.96	88086 3.54	91393 3.75	95328 4.31	99190	103356 4.20	107449 3.96	111694 3.95	116173 4.01	121017 4.17	126160 4.25
MANUFACTURINGPercentage change	77692 6.36	80545 3.67	83266 3.38	86209 3.54	89445 3.75	92637 3.57	96079 3.72	100002	103915 3.91	108131 4.06	112484 4.03
DURABLE GOODSPercentage change	77941 6.80	81190	84446 4.01	87878 4.06	91771	95698 4.28	99890 4.38	104575 4.69	109291 4.51	114351 4.63	119566 4.56
NONDURABLE GOODSPercentage change	77235	79346	81038	83006	84945	86678	88611	90995	93270	95751	98346
	5.56	2.73	2.13	2.43	2.34	2.04	2.23	2.69	2.50	2.66	2.71
TRADE, TRANSPORTATION, UTILITIES Percentage change	61207	62669	64452	66345	68337	70336	72428	74674	77117	79528	82062
	3.25	2.39	2.84	2.94	3.00	2.93	2.97	3.10	3.27	3.13	3.19
WHOLESALE TRADEPercentage change	99565	103112	106763	110719	115004	119121	123338	127790	133017	137965	143291
	6.77	3.56	3.54	3.71	3.87	3.58	3.54	3.61	4.09	3.72	3.86
RETAIL TRADEPercentage change	40096	40454 0.89	40876 1.04	41304 1.05	41758 1.10	42158 0.96	42647 1.16	43172 1.23	43669 1.15	44179 1.17	44714 1.21
TRANSPORTATION & UTILITIES	71471	72999	75100	77273	79530	81916	84275	86862	89451	92206	95092
	2.37	2.14	2.88	2.89	2.92	3.00	2.88	3.07	2.98	3.08	3.13
INFORMATIONPercentage change	93553	95660	98016	100647	103266	105755	108282	111141	114175	117247	120412
	4.39	2.25	2.46	2.68	2.60	2.41	2.39	2.64	2.73	2.69	2.70
FINANCIAL ACTIVITIESPercentage change	100901	104191	107897	112062	116434	120683	125161	129954	135088	140613	146153
	8.76	3.26	3.56	3.86	3.90	3.65	3.71	3.83	3.95	4.09	3.94
PROFESSIONAL & BUSINESS SERVICES Percentage change	84308	88231	92637	97514	102504	107793	113388	119057	124939	131248	137955
	6.75	4.65	4.99	5.26	5.12	5.16	5.19	5.00	4.94	5.05	5.11
EDUCATION & HEALTH SERVICES	67614	69397	71579	73989	76280	78904	81452	84214	87119	90177	93306
	4.81	2.64	3.14	3.37	3.10	3.44	3.23	3.39	3.45	3.51	3.47
LEISURE & HOSPITALITYPercentage change	37834	39267	40819	42431	44100	45926	47851	49750	51820	53960	56199
	5.16	3.79	3.95	3.95	3.93	4.14	4.19	3.97	4.16	4.13	4.15
OTHER SERVICESPercentage change	58417	59690	61197	62539	63903	65494	66988	68729	70578	72561	74615
	3.46	2.18	2.52	2.19	2.18	2.49	2.28	2.60	2.69	2.81	2.83
GOVERNMENTPercentage change	61983	63474	64980	66666	68334	70070	71995	73696	75888	78241	80561
	5.81	2.41	2.37	2.60	2.50	2.54	2.75	2.36	2.97	3.10	2.97
FEDERAL, CIVILIANPercentage change	99898	102607	105323	108442	111275	114246	116508	119934	123484	127015	130673
	3.94	2.71	2.65	2.96	2.61	2.67	1.98	2.94	2.96	2.86	2.88
STATE & LOCALPercentage change	56272 5.76	57517 2.21	58825 2.27	60280	61756 2.45	63306 2.51	64939 2.58	66654 2.64	68640 2.98	70816 3.17	72933 2.99
		:									:

Boyd Center for Business and Economic Research, University of Tennessee

Table 10: Tennessee Civilian Labor Force and Unemployment Rate	and Unem	oloyment R	ate							Decem	December 2024
					Fore	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
CIVILIAN LABOR FORCE (THOUS)	3406	3438	3478	3517	3554	3594	3626	3646	3659	3667	3680
Percentage change	0.81	0.92	1.18	1.12	1.05	1.11	0.91	0.53	0.35	0.23	0.37
EMPLOYED PERSONS (THOUS)	3298	3325	3359	3393	3425	3460	3491	3509	3522	3531	3544
Percentage change	0.94	0.83	1.02	1.00	0.94	1.02	0.89	0.51	0.38	0.25	0.39
UNEMPLOYED PERSONS (THOUS)	108	112	119	124	129	134	136	137	137	136	136
Percentage change	-2.75	3.73	5.88	4.38	4.18	3.41	1.45	1.07	-0.31	-0.27	-0.23
PARTICIPATION RATE (PERCENT)	59.5	59.5	29.7	59.9	60.1	60.3	60.5	60.4	60.3	60.1	0.09
Percentage change	-0.56	-0.04	0.37	0.36	0:30	0.40	0.24	-0.10	-0.24	-0.31	-0.14
UNEMPLOYMENT RATE (PERCENT)	3.2	3.3	3.4	3.5	3.6	3.7	3.7	3.8	3.7	3.7	3.7
Boyd Center for Business and Economic Research,	1-	Jniversity of Tennessee	Tennesse						Tennessee Econometric Model	<b>Econometri</b>	c Model

					Ē	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TOTAL TAXABLE SALES	170565 1.72	172327 1.03	175515 1.85	180290 2.72	185706 3.00	191116 2.91	196856 3.00	202646 2.94	208330 2.81	214357 2.89	220785 3.00
AUTO DEALERSPercentage change	14140	14153 0.09	14305 1.08	14571 1.86	14866	15159 1.97	15492 2.20	15801 1.99	16122 2.03	16481	16934 2.75
PURCHASES FROM MANUFACTURERS Percentage change	8980 -0.33	8855 -1.40	8968 1.28	9161 2.15	9351 2.07	9533 1.95	9742 2.20	9992 2.56	10184 1.93	10326 1.39	10499
MISC DURABLE GOODSPercentage change	28408	28557 0.52	28949	29607 2.27	30382 2.62	31182 2.64	31935 2.41	32619 2.14	33231 1.88	33920 2.07	34698 2.29
EATING AND DRINKING PLACES	16635 -2.19	16499 -0.82	16834 2.04	17235 2.38	17751 2.99	18283 3.00	18834 3.01	19366 2.83	19923 2.88	20471 2.75	21058 2.86
FOOD STORESPoon Store	14441 16.29	15056 4.26	15325 1.78	15759 2.83	16263 3.20	16752 3.01	17282 3.17	17884 3.48	18415 2.96	18990 3.12	19571 3.06
LIQUOR STORESPercentage change	1225 -1.31	1224	1228	1243 1.23	1264 1.69	1284 1.58	1304	1324 1.59	1340	1353 1.01	1374 1.54
HOTELS AND MOTELSPortentage change	5770 -3.28	5682 -1.54	5747 1.14	5847 1.75	5941 1.60	6081 2.37	6245 2.70	6412 2.67	6590 2.78	6767 2.68	6958 2.81
OTHER RETAIL AND SERVICE	61604 5.67	62980 2.23	64844 2.96	67402 3.94	70233 4.20	72973 3.90	75949 4.08	78968 3.98	82036 3.89	85354 4.04	88785 4.02
MISC NONDURABLE GOODS	12542 1.32	12573 0.25	12644 0.57	12850 1.62	13097 1.92	13361 2.02	13631 2.02	13887 1.88	14153 1.92	14410	14686 1.91
TRANSPORTATION, COMMUNICATION	6819 -5.01	6750 -1.02	6669	6615 -0.81	6559 -0.85	6508 -0.79	6443	6392 -0.78	6337 -0.87	6285 -0.82	6223 -0.98
PER CAPITA (\$)	23750 0.80	23793 0.18	24043 1.05	24512 1.95	25061 2.24	25609 2.19	26199 2.31	26792 2.26	27371 2.16	28000	28682
Boyd Center for Business and Economic Research, University of Tennessee	earch, Univ	ersity of Te	nnessee						Tennessee	Tennessee Econometric Model	ic Model

1	2024	2025	2026	2027	Fo. 2028	Forecast Data 2029	2030	2031	2032	2033	2034
TOTAL TAXABLE SALES	210490 4.19	216811 3.00	226156 4.31	236925 4.76	248921 5.06	261325 4.98	274635 5.09	288381 5.01	302449 4.88	317467 4.97	333492 5.05
AUTO DEALERSPercentage change	17450 0.03	17806	18433 3.52	19148 3.88	19926 4.06	20727 4.02	21612 4.27	22485 4.04	23405	24409 4.29	25578 4.79
PURCHASES FROM MANUFACTURERS	11082 2.10	11140	11556 3.73	12039 4.18	12533 4.11	13035 4.00	13591 4.27	14219 4.62	14785 3.98	15292 3.43	15858 3.70
MISC DURABLE GOODS	35056 -2.06	35928 2.49	37302 3.82	38907 4.30	40723 4.67	42637 4.70	44552 4.49	46418 4.19	48243 3.93	50235 4.13	52410 4.33
EATING AND DRINKING PLACESProcentage change	20528	20758	21691 4.50	22650 4.42	23794 5.05	25000 5.07	26275 5.10	27560 4.89	28924 4.95	30318 4.82	31807 4.91
FOOD STORESPool Storentage change	17823 19.18	18943 6.28	19747 4.24	20709	21798 5.26	22906 5.08	24111 5.26	25451 5.56	26734 5.04	28124 5.20	29561 5.11
LIQUOR STORESPriculor Stores	1511 1.07	1539 1.85	1583 2.80	1634 3.24	1695 3.73	1756 3.62	1819 3.56	1885 3.63	1945 3.20	2004	2075 3.56
HOTELS AND MOTELSPotentage change	7120	7148	7404	7683 3.77	7963 3.64	8315 4.43	8713 4.78	9125 4.73	9568 4.85	10022	10509 4.86
OTHER RETAIL AND SERVICE	76026 8.23	79239 4.23	83555 5.45	88577 6.01	94143 6.28	99782 5.99	105958 6.19	112379 6.06	119100 5.98	126412 6.14	134111 6.09
MISC NONDURABLE GOODS	15477 3.77	15818 2.20	16292 3.00	16886 3.64	17555 3.96	18269 4.07	19016 4.09	19762 3.92	20546 3.97	21341	22182 3.94
TRANSPORTATION, COMMUNICATION	8415 -2.69	8492 0.91	8593 1.19	8693 1.16	1.13	8898 1.21	8988 1.01	9096	9199	9308	9400
PER CAPITA (\$)PER CAPITA (\$)Percentage change	29310 3.25	29935 2.13	30980 3.49	32212 3.98	33591 4.28	35017 4.24	36551 4.38	38127 4.31	39737 4.22	41469 4.36	43323 4.47
Boyd Center for Business and Economic Research, University of Tennessee	earch, Univ	ersity of Te	nnessee						Tennessee	Tennessee Econometric Model	ic Model

Table 13: Tennessee Gross Domestic Product by Sector (millions of 2017 dollars)

					R	Forecast Data					
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
GROSS DOMESTIC PRODUCTPercentage change	434,954	445,957	457,771	469,800	481,750	494,019	505,733	517,702	529,799	541,871	554,343
	2.42	2.53	2.65	2.63	2.54	2.55	2.37	2.37	2.34	2.28	2.30
NATURAL RESOURCES & MININGPercentage change	2,306	2,263	2,260	2,260	2,254	2,254	2,252	2,251	2,250	2,242	2,249
CONSTRUCTIONPercentage change	15,211	15,748	16,256	16,746	17,218	17,628	18,086	18,533	19,061	19,593	20,143
	4.12	3.53	3.23	3.01	2.82	2.38	2.60	2.47	2.85	2.79	2.81
MANUFACTURINGPercentage change	60,302	61,197	62,244	63,395	64,687	66,007	67,271	68,536	69,816	71,063	72,373
	3.48	1.49	1.71	1.85	2.04	2.04	1.91	1.88	1.87	1.79	1.84
DURABLE GOODSPercentage change	33,487	34,031	34,731	35,514	36,421	37,337	38,249	39,142	40,061	41,007	42,018
	0.93	1.62	2.06	2.26	2.56	2.51	2.44	2.34	2.35	2.36	2.46
NONDURABLE GOODSPercentage change	26,815 6.84	27,167 1.31	27,513 1.28	27,881	28,265 1.38	28,670 1.43	29,022 1.23	29,394 1.28	29,755 1.23	30,055 1.01	30,355 1.00
TRADE, TRANSPORTATION & UTILITIESPercentage change	78,984	80,183	81,241	82,380	83,411	84,611	85,557	86,419	87,247	88,098	88,871
	2.47	1.52	1.32	1.40	1.25	1.44	1.12	1.01	0.96	0.97	0.88
WHOLESALE TRADEPercentage change	25,677 3.16	26,196 2.02	26,651 1.74	27,006	27,441 1.61	27,907 1.70	28,331 1.52	28,725 1.39	29,136 1.43	29,541 1.39	29,946 1.37
RETAIL TRADEPercentage change	31,868	32,330	32,656	33,176	33,521	34,037	34,343	34,608	34,829	35,083	35,297
	3.61	1.45	1.01	1.59	1.04	1.54	0.90	0.77	0.64	0.73	0.61
TRANSPORTATION & UTILITIESPercentage change	21,439 0.03	21,658 1.02	21,933 1.27	22,198 1.21	22,449 1.13	22,667 0.97	22,883	23,086	23,282	23,473 0.82	23,628 0.66
INFORMATIONPercentage change	17,293	17,544	18,521	19,290	20,100	20,892	21,604	22,473	23,403	24,316	25,244
	-4.87	1.45	5.57	4.15	4.20	3.94	3.41	4.02	4.14	3.90	3.82
FINANCIAL ACTIVITIESPercentage change	77,427	80,230	83,014	85,505	87,976	90,396	92,953	95,621	98,278	101,050	103,828
	3.89	3.62	3.47	3.00	2.89	2.75	2.83	2.87	2.78	2.82	2.75
PROFESSIONAL & BUSINESS SERVICESPercentage change	59,231	61,475	64,205	67,193	70,120	73,239	76,220	79,345	82,403	85,312	88,435
	2.65	3.79	4.44	4.65	4.36	4.45	4.07	4.10	3.85	3.53	3.66
EDUCATION & HEALTH SERVICESPercentage change	48,125	50,435	52,084	53,844	55,524	57,240	58,734	60,220	61,792	63,392	65,091
	5.47	4.80	3.27	3.38	3.12	3.09	2.61	2.53	2.61	2.59	2.68
LEISURE & HOSPITALITY	25,788	26,211	26,874	27,707	28,598	29,465	30,397	31,279	32,142	33,000	33,894
	1.72	1.64	2.53	3.10	3.22	3.03	3.16	2.90	2.76	2.67	2.71
OTHER SERVICESPercentage change	9,139 -3.59	9,213 0.82	9,297 0.91	9,382	9,459 0.82	9,563 1.10	9,625 0.65	9,690	9,775 0.87	9,855 0.82	9,932 0.78
GOVERNMENTPercentage change	41,150	41,456	41,774	42,099	42,405	42,725	43,034	43,335	43,632	43,952	44,283
	-0.30	0.74	0.77	0.78	0.73	0.76	0.72	0.70	0.69	0.73	0.75
FEDERALPercentage change	11,622	11,695	11,787	11,876	11,973	12,052	12,140	12,216	12,301	12,398	12,486
	2.90	0.63	0.78	0.75	0.82	0.67	0.73	0.62	0.70	0.79	0.71
STATE & LOCALPercentage change	29,527 -1.50	29,761 0.79	29,987 0.76	30,224 0.79	30,432 0.69	30,673 0.79	30,894	31,119 0.73	31,331 0.68	31,553 0.71	31,796 0.77
Boyd Center for Business and Economic Research, Univ	University of Te	Fennessee						Ĕ	ennessee E	Econometric Mode	ic Model

## In this Section—

## Appendix B: Historical Data

Quarterly Pages 32-47 (2020:2 to 2023:3) Annual Pages 48-60 (2011 to 2022)

## **Quarterly History Tables**

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted	32
Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators, Seasonally Adjusted	34
Table 3: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of 2017 dollars)	3
Table 4: Tennessee Personal Income Components, Seasonally Adjusted Annual Rates (millions of current dollars)	36
Table 5: Tennessee Nonfarm Employment by Sector, Seasonally Adjusted (thousands of jobs)	37
Table 6: Tennessee Durable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)	39
Table 7: Tennessee Nondurable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)	40
Table 8: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2017 dollars)	4 <sup>-</sup>
Table 9: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (current dollars)	43
Table 10: Tennessee Civilian Labor Force and Unemployment Rate, Seasonally Adjusted	4
Table 11: Tennessee Taxable Sales, Seasonally Adjusted (millions of 2017 dollars)	46
Table 12: Tennessee Taxable Sales, Seasonally Adjusted (millions of current dollars)	47

## **Annual History Tables**

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted	48
Table 2: Selected Per Capita U.S. and Tennessee Economic Indicators	49
Table 3: Tennessee Personal Income Components (millions of 2017 dollars)	50
Table 4: Tennessee Personal Income Components (millions of current dollars)	51
Table 5: Tennessee Nonfarm Employment by Sector (thousands of jobs)	52
Table 6: Tennessee Durable Goods Manufacturing Employment (thousands of jobs)	53
Table 7: Tennessee Nondurable Goods Manufacturing Employment (thousands of jobs)	54
Table 8: Tennessee Average Annual Wage and Salary Rate by Sector (2017 dollars)	55
Table 9: Tennessee Average Annual Wage and Salary Rate by Sector (current dollars)	56
Table 10: Tennessee Civilian Labor Force and Unemployment Rate	57
Table 11: Tennessee Taxable Sales (millions of 2017 dollars)	58
Table 12: Tennessee Taxable Sales (millions of current dollars)	
Table 13: Tennessee Gross Domestic Product by Sector (millions of 2017 dollars)	

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

Table 1: Selected U.S. and Tennessee Economic Indicat	conomic		ors, Seasonally Adjusted	nally Ac	justed											December 2024	r 2024
							Historical Data	l Data						Ì		Annual	
	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
US GDP (Bil2017\$) SAAR	21389.0 21571.4 6.43 3.46 12.24 4.98		21960.4 2 7.41 5.72	21903.9 2 -1.03 4.01	21919.2 2 0.28 2.48	22066.8 2 2.72 2.30	22249.5 2 3.35 1.32	22403.4 2.80 2.80 2.28	22539.4 2.45 2.83	22780.9 4.36 3.24	3.19 3.20 3.20	23053.5 1.63 2.90	23223.9 2 2.99 3.04	23386.2 2.83 2.66	21494.8 2 6.06 6.06	22034.8 2 2.51 2.51	22671.1 2.89 2.89
US GDP (Bil\$) SAAR	. 23368.9	23922.0	24777.0 2	25215.5 2	25805.8 2	26272.0 2	26734.3 2	27164.4 2	27453.8	27967.7	28297.0	28624.1	29016.7 2	29349.9	23681.2 2	26006.9 2	27720.7
	13.18	9.81	15.08	7.27	9.70	7.42	7.23	6.59	4.33	7.70	4.79	4.70	5.60	4.67	10.90	9.82	6.59
	17.22	10.32	12.27	11.29	10.43	9.82	7.90	7.73	6.39	6.45	5.85	5.37	5.69	4.94	10.90	9.82	6.59
TN PERSONAL INCOME (MIL2017\$) SAAR. % Chg Prev Qtr SAAR	360826 -27.55 1.88	359283 -1.70 4.28	359492 0.23 4.77	359450 ( -0.05 -8.09	357134 ( -2.55 -1.02	359341 (2.50 0.02	361857 2.83 0.66	364443 2.89 1.39	366480 2.26 2.62	368627 2.36 2.58	372584 4.36 2.96	376857 4.67 3.41	380138 3.53 3.73	383008 3.05 3.90	367675 6.91 6.91	359445 3-2.24 -2.24 -2.24	368034 2.39 2.39
US PERSONAL INCOME (BIL2017\$) SAAR % Chg Prev Qtr SAAR	. 19443	19282	19140	18979	18892	19057	19163	19260	19378	19451	19598	19872	20004	20108	19666	19023	19422
	-23.62	-3.27	-2.92	-3.31	-1.82	3.54	2.24	2.04	2.47	1.52	3.06	5.70	2.69	2.10	4.88	-3.27	2.10
	0.12	1.91	2.43	-8.74	-2.83	-1.17	0.12	1.48	2.57	2.07	2.27	3.18	3.23	3.38	4.88	-3.27	2.10
TN PERSONAL INCOME (MIL\$) SAAR % Chg Prev Qtr SAAR	. 390370	394065	400802	408281 47.68	413104 4	420479 4	427613	434853	440444	445976	452615	461676	468616	473624	400468	417369 4	443472
	-22.93	3.84	7.02	7.68	4.81	7.34	6.96	6.95	5.24	5.12	6.09	8.25	6.15	4.34	11.28	4.22	6.25
	5.99	9.11	10.89	-2.00	5.82	6.70	6.69	6.51	6.62	6.06	5.85	6.17	6.40	6.20	11.28	4.22	6.25
US PERSONAL INCOME (BIL\$) SAAR % Chg Prev Qtr SAAR	21035	21149	21339	21557	21853	22300	22646	22981	23289	23532	23808	24344	24660	24881	21419	22089	23403
	-18.75	2.19	3.64	4.16	5.60	8.43	6.35	6.06	5.46	4.25	4.76	9.32	5.29	3.64	9.17	3.13	5.95
	4.16	6.63	8.41	-2.70	3.89	5.44	6.12	6.60	6.57	5.53	5.13	5.93	5.89	5.73	9.17	3.13	5.95
TN NONFARM JOBS (THOUS)	3084.6	3131.3	3157.6	3207.0	3240.1	3275.3	3283.5	3307.4	3327.8	3306.4	3295.4	3316.9	3331.6	3334.8	3110.5	3251.5	3309.3
	2.12	6.19	3.40	6.41	4.19	4.43	1.00	2.95	2.48	-2.54	-1.32	2.63	1.79	0.39	3.30	4.53	1.78
	8.10	4.99	3.30	4.51	5.04	4.60	3.99	3.13	2.71	0.95	0.36	0.28	0.11	0.86	3.30	4.53	1.78
US NONFARM JOBS (MIL)	. 145.2	147.2	149.2	150.8	152.0	153.3	154.1	155.0	155.8	156.4	157.1	157.8	158.4	158.8	146.3	152.5	156.1
	4.56	5.85	5.39	4.30	3.27	3.50	2.18	2.35	1.96	1.72	1.59	1.98	1.47	1.07	2.89	4.28	2.32
	8.56	4.71	4.62	5.02	4.70	4.11	3.31	2.83	2.50	2.05	1.90	1.81	1.69	1.52	2.89	4.28	2.32
TN MFG JOBS (THOUS)	348.6	351.2	352.1	358.4	364.8	367.7	367.0	366.6	366.8	362.2	360.1	362.3	363.0	362.5	349.5	364.5	363.9
	2.77	3.11	0.95	7.33	7.42	3.18	-0.75	-0.48	0.29	-4.98	-2.24	2.46	0.77	-0.52	4.12	4.28	-0.15
	12.55	4.07	2.98	3.51	4.66	4.68	4.24	2.29	0.55	-1.50	-1.87	-1.16	-1.04	0.10	4.12	4.28	-0.15
US MFG JOBS (MIL)	12.3	12.4	12.5	12.7	12.8	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	12.9	12.4	12.8	12.9
	1.14	4.56	4.52	3.91	4.32	2.75	1.73	0.15	0.08	0.12	-0.03	0.44	-0.10	-0.71	1.56	3.72	0.99
	4.93	2.83	3.11	3.52	4.33	3.87	3.17	2.23	1.17	0.52	0.08	0.15	0.11	-0.10	1.56	3.72	0.99
TN UNEMPLOYMENT RATE (%)	4.8	4.2	3.6	3.4	3.3	3.4	3.5	3.3	3.1	3.3	3.5	3.3	3.1	3.1	4.5	3.4	3.3
US UNEMPLOYMENT RATE (%)	. 5.9	5.1	4.2	3.8	3.7	3.6	3.6	3.5	3.6	3.7	3.8	3.8	4.0	4.2	5.4	3.6	3.6
					(CONT	NUED O	(CONTINUED ON NEXT PAGE)	PAGE)									

Table 1: Selected U.S. and Tennessee Economic Indicators,	onomic I	ndicator		Seasonally Adjusted	justed											December 2024	r 2024
							Historical Data	l Data								Annual	
	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
CHAINED PRICE INDEX, GDP (2017=100.0)	109.3	110.9	112.8	115.2	117.8	119.1	120.2	121.2	121.8	122.8	123.2	124.2	124.9	125.5	110.2	118.0	122.3
	6.21	6.19	7.05	8.50	9.34	4.54	3.75	3.62	1.87	3.24	1.51	3.02	2.52	1.83	4.55	7.14	3.58
	4.42	5.07	6.16	6.98	7.76	7.34	6.50	5.29	3.44	3.12	2.56	2.41	2.57	2.22	4.55	7.14	3.58
US PERS CONSUMP DEFL (2017=100.0) % Chg Prev Qtr SAAR	108.2	109.7	111.5	113.6	115.7	117.0	118.2	119.3	120.2	121.0	121.5	122.5	123.3	123.7	109.0	116.1	120.5
	6.38	5.64	6.77	7.73	7.55	4.72	4.02	3.94	2.92	2.69	1.65	3.42	2.53	1.51	4.14	6.55	3.77
	4.04	4.63	5.84	6.62	6.92	6.69	5.99	5.05	3.90	3.39	2.80	2.67	2.57	2.28	4.14	6.55	3.77
CONSUMER PRICE INDEX. ALL-URBAN (82-84=1.000)	2.686	2.729	2.787	2.848	2.917	2.955	2.984	3.012	3.035	3.060	3.081	3.110	3.132	3.141	2.710	2.926	3.047
	7.73	6.51	8.76	9.12	10.02	5.32	4.03	3.75	3.04	3.43	2.73	3.81	2.82	1.22	4.68	7.99	4.13
	4.80	5.26	6.75	8.02	8.59	8.29	7.09	5.75	4.03	3.56	3.24	3.25	3.19	2.64	4.68	7.99	4.13
BANK PRIME INTEREST RATE (%)	3.3	3.3	3.3	3.3	3.9	5.4	8.9	7.7	8.2	8.4	8.5	8.5	8.5	8.4	3.3	4.9	8.2
FEDERAL FUNDS RATE (% per annum)	0.070	0.090	0.080	0.120	0.770	2.190	3.653	4.517	4.990	5.260	5.330	5.330	5.330	5.263	0.080	1.683	5.024
30-YEAR FIXED MORTGAGE RATE (%)	3.1	3.0	3.2	4.0	5.4	2.7	9.9	6.3	6.5	7.1	7.3	8.9	7.0	6.4	3.0	5.4	8.9
TN TAXABLE SALES (MIL2017\$)	40718	40969	41336	42100	42644	42139	41980	42871	42223	41337	41256	42498	42083	43088	162554	3.88	.0.70
	12.57	2.49	3.63	7.60	5.27	-4.65	-1.50	8.76	-5.92	-8.13	-0.78	12.59	-3.84	9.89	16.46	3.88	-0.70
	23.48	14.99	10.03	6.50	4.73	2.86	1.56	1.83	-0.99	-1.90	-1.72	-0.87	-0.33	4.23	16.46	3.88	-0.70
TN TAXABLE SALES (MIL\$)	44052	44935	46086	47819	49327	49309	49609	51154	50744	50011	50118	52062	51878	53282	177185	196065 2	202028
	19.75	8.26	10.64	15.92	13.22	-0.15	2.46	13.05	-3.17	-5.65	0.86	16.44	-1.41	11.27	21.28	10.66	3.04
	28.47	20.31	16.45	13.55	11.97	9.73	7.64	6.97	2.87	1.42	1.03	1.78	2.23	6.54	21.28	10.66	3.04
TN AVG ANNUAL WAGE, NONFARM (2017\$)	54626	54646	54638	54267	53327	53603	53386	53262	53198	54011	54781	55018	55249	55585	54498	53646	53813
	4.07	0.15	-0.05	-2.69	-6.75	2.09	-1.62	-0.92	-0.48	6.25	5.83	1.74	1.69	2.45	2.95	-1.56	0.31
	2.87	2.45	0.95	0.34	-2.38	-1.91	-2.29	-1.85	-0.24	0.76	2.61	3.30	3.86	2.91	2.95	-1.56	0.31
TN AVG ANNUAL WAGE, NONFARM (\$) % Chg Prev Qtr SAAR	59099	59936	60917	61639	61684	62724	63087	63553	63934	65344	66548	67402	68108	68735	59392	62283	64845
	10.71	5.79	6.71	4.82	0.29	6.91	2.34	2.99	2.42	9.11	7.58	5.23	4.26	3.73	7.21	4.87	4.11
	7.03	7.19	6.85	6.98	4.37	4.65	3.56	3.11	3.65	4.18	5.49	6.06	6.53	5.19	7.21	4.87	4.11
Boyd Center for Business and Economic Research, University of Tennessee	Researcl	ո, Univer	sity of T	ennesse	o.									Tennes	Tennessee Econometric Model	ometric	Model

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

	2021:2 2021:3		2021:4	2022:1	2022:2	2022:3	Historical Data 2022:4 2023:	I Data 2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	Annual 2022	2023
US GDP (2017\$) SAAR	64367	3.01	65919	65635	65544	65830	66203	66481	66700	67232	67581	67679	68012	68327	64638	65804	67000
	6.12	3.01	6.79	-1.71	-0.56	1.76	2.29	1.69	1.33	3.23	2.09	0.58	1.98	1.87	5.81	1.80	1.82
	12.06	4.71	5.33	3.50	1.83	1.52	0.43	1.29	1.76	2.13	2.08	1.80	1.97	1.63	5.81	1.80	1.82
US GDP (\$) SAAR	70325	71911	74374	75559	77166	78375	79547	80609	81244	82540	83288	84033	84976	85751	71213	77666	81923
	12.85	9.33	14.42	6.52	8.78	6.42	6.12	5.45	3.19	6.54	3.67	3.63	4.57	3.70	10.64	9.06	5.48
	17.04	10.04	11.86	10.74	9.73	8.99	6.96	6.68	5.28	5.31	4.70	4.25	4.59	3.89	10.64	9.06	5.48
TN PERSONAL INCOME (2017\$) SAAR % Chg Prev Qtr SAAR % Chg Same Qtr Last Yr	51781	51559	51589	50974	50646	50959	51316	51206	51492	51794	52350	52476	52933	53332	52764	50974	51711
	-27.55	-1.70	0.23	-4.68	-2.55	2.50	2.83	-0.85	2.26	2.36	4.36	0.96	3.53	3.05	6.25	-3.39	1.45
	1.25	3.64	4.13	-9.18	-2.19	-1.16	-0.53	0.45	1.67	1.64	2.02	2.48	2.80	2.97	6.25	-3.39	1.45
US PERSONAL INCOME (2017\$) SAAR % Chg Prev Qtr SAAR % Chg Same Qtr Last Yr	58510	57963	57452	56871	56492	56852	57020	57153	57345	57405	57684	58338	58582	58749	59137	56809	57397
	-23.84	-3.68	-3.48	-3.98	-2.64	2.57	1.18	0.94	1.35	0.42	1.96	4.61	1.68	1.14	4.63	-3.94	1.04
	-0.04	1.66	2.05	-9.20	-3.45	-1.92	-0.75	0.50	1.51	0.97	1.16	2.07	2.16	2.34	4.63	-3.94	1.04
TN PERSONAL INCOME (\$) SAAR	56020	56551	57517	57899	58583	59629	60641	61099	61885	62662	63595	64286	65253	65950	57469	59188	62310
	-22.93	3.84	7.02	2.68	4.81	7.34	6.96	3.06	5.24	5.12	6.09	4.42	6.15	4.34	10.60	2.99	5.27
	5.34	8.44	10.21	-3.16	4.57	5.44	5.43	5.53	5.64	5.09	4.87	5.22	5.44	5.25	10.60	2.99	5.27
US PERSONAL INCOME (\$) SAAR	63301	63575	64054	64597	65346	66525	67381	68196	68918	69450	70074	71468	72217	72694	64412	65965	69162
	-18.98	1.74	3.05	3.44	4.72	7.42	5.25	4.92	4.31	3.12	3.65	8.20	4.26	2.67	8.91	2.41	4.85
	4.00	6.36	8.01	-3.18	3.23	4.64	5.19	5.57	5.47	4.40	4.00	4.80	4.79	4.67	8.91	2.41	4.85
TN TAXABLE SALES (2017\$)	5843	5879	5932	5970	6047	5976	5953	6024	5933	5808	5797	5918	5860	6000	23327	23947	23561
	12.57	2.49	3.63	2.61	5.27	-4.65	-1.50	4.81	-5.92	-8.13	-0.78	8.60	-3.84	9.89	15.74	2.66	-1.61
	22.72	14.29	9.36	5.24	3.49	1.64	0.36	0.89	-1.90	-2.81	-2.63	-1.76	-1.22	3.30	15.74	2.66	-1.61
TN TAXABLE SALES (\$)	6322	6448	6614	6781	6995	6993	7035	7187	7130	7027	7042	7249	7224	7419	25427	27804	28386
	19.75	8.26	10.64	10.54	13.22	-0.15	2.46	8.94	-3.17	-5.65	0.86	12.32	-1.41	11.27	20.54	9.35	2.09
	27.68	19.57	15.74	12.21	10.65	8.44	6.37	5.99	1.92	0.49	0.10	0.86	1.32	5.58	20.54	9.35	2.09
Boyd Center for Business and Economic Research, University of Tennessee	Researc	th, Univ	ersity o	f Tenne	essee									enness	Tennessee Econometric Model	metric I	lodel

Table 3: Tennessee Personal Income Component	compor	Ś.	Seasonally	ıy Adjusted	ted Ann	ual Rate	S (milli	7 IO SIIC	.u.i / aoi	ars)						ecempe	2024
							Historical Data	I Data								Annual	
	2021:1 2021:2	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2021	2022	2023
TN PERSONAL INCOME	391099 360826	360826	359283	359492 (	359450 (	357134 :	359341 3	361857	364443	366480	368627	372584	376857 ;	380138	367675 3	359445 3	368034
	68.82 -27.55	-27.55	-1.70	0.23	-0.05	-2.55	2.50	2.83	2.89	2.26	2.36	4.36	4.67	3.53	6.91	-2.24	2.39
	17.14 1.88	1.88	4.28	4.77	-8.09	-1.02	0.02	0.66	1.39	2.62	2.58	2.96	3.41	3.73	6.91	-2.24	2.39
WAGES AND SALARIES166903 169451 % Chg Prev Qtr SAAR	166903 1.19 2.85	169451 6.25 11.11	172065 6.31 7.50	3.26 3.26 4.23	3.67 3.87 4.86	173758 -2.85 2.54	176554 6.59 2.61	176279 -0.62 1.63	177154 2.00 1.22	178030 1.99 2.46	179584 3.54 1.72	181542 4.43 2.99	183507 4.40 3.59	3.51 3.97 3.97	170468 6.33 6.33	175403 1 2.90 2.90	2.09 2.09 2.09
OTHER LABOR INCOME	36025	35957	35724	35361	35061	34652	34834	35041	35159	35467	35878	36405	36637	36919	35767	34897	35727
	2.08	-0.75	-2.56	-4.01	-3.35	-4.59	2.12	2.40	1.35	3.55	4.71	6.01	2.58	3.11	2.60	-2.43	2.38
	2.65	7.08	2.29	-1.34	-2.68	-3.63	-2.49	-0.90	0.28	2.35	3.00	3.89	4.20	4.09	2.60	-2.43	2.38
PROPRIETORS INCOME	51955	52748	52547	53544	52162	50673	50800	51000	51482	51622	52321	53010	53019	53449	52698	51159	52109
	20.13	6.25	-1.52	7.81	-9.93	-10.94	1.01	1.58	3.83	1.10	5.53	5.37	0.06	3.29	10.96	-2.92	1.86
	3.82	30.68	5.21	7.89	0.40	-3.93	-3.32	-4.75	-1.30	1.87	2.99	3.94	2.99	3.54	10.96	-2.92	1.86
RENT, INTEREST, DIVIDENDS % Chg Prev Qtr SAAR	50373 3.32 1.90	51429 8.65 5.53	51969 4.27 7.31	52405 3.39 4.89	52382 -0.18 3.99	53522 9.00 4.07	54595 8.26 5.05	56131 11.74 7.11	57524 10.30 9.82	58318 5.64 8.96	58437 0.82 7.04	59600 8.20 6.18	59801 1.35 3.96	59719 -0.54 2.40	51544 4.89 4.89	54158 5.07 5.07	58470 7.96 7.96
TRANSFER PAYMENTS	114278	79864	75915	73870	74900	74513	73070	73983	73685	73755	73334	73291	75255	76439	85982	74116	73516
	595.08	-76.15	-18.36	-10.35	5.70	-2.05	-7.52	5.09	-1.60	0.39	-2.27	-0.23	11.15	6.45	6.90	-13.80	-0.81
	74.44	-24.89	-4.50	4.96	-34.46	-6.70	-3.75	0.15	-1.62	-1.02	0.36	-0.93	2.13	3.64	6.90	-13.80	-0.81
LESS: PERS CONT FOR SOC INS % Chg Prev Qtr SAAR	26437	26545	26798	27010	27840	27802	28292	28339	28436	28571	28781	29051	29142	29259	26697	28068	28710
	-4.78	1.64	3.86	3.20	12.87	-0.55	7.24	0.67	1.37	1.92	2.97	3.81	1.25	1.63	2.23	5.13	2.29
	0.57	5.07	2.50	0.92	5.31	4.73	5.58	4.92	2.14	2.77	1.73	2.51	2.48	2.41	2.23	5.13	2.29
RESIDENCE ADJUSTMENT	-1998	-2078	-2140	-2128	-2235	-2182	-2220	-2239	-2125	-2141	-2146	-2213	-2219	-2226	-2086	-2219	-2156
	-47.74	17.20	12.35	-2.26	21.79	-9.08	7.02	3.46	-18.82	2.96	0.94	13.15	1.19	1.16	-5.01	6.39	-2.84
	-8.85	0.82	-1.89	-9.44	11.89	5.01	3.74	5.23	-4.92	-1.92	-3.34	-1.15	4.44	3.98	-5.01	6.39	-2.84
PER CAPITA PERSONAL INCOME (\$) % Chg Prev Qtr SAAR	56125	51781	51559	51589	50974	50646	50959	51316	51206	51492	51794	52350	52476	52933	52764	50974	51711
	64.71	-27.55	-1.70	0.23	-4.68	-2.55	2.50	2.83	-0.85	2.26	2.36	4.36	0.96	3.53	6.25	-3.39	1.45
	16.42	1.25	3.64	4.13	-9.18	-2.19	-1.16	-0.53	0.45	1.67	1.64	2.02	2.48	2.80	6.25	-3.39	1.45

Boyd Center for Business and Economic Research, University of Tennessee

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

	23	72 25 25	86 95 95	52 25 25	91 72 72	26 00 00	79 94 94	8 <del>1</del> <del>1</del>	88 88 84 88	10 27 27
	2023	443472 6.25 6.25	215786 5.95 5.95 5.95	43052 6.25 6.25	62791 5.72 5.72	70456 12.00 12.00	88579 2.94 2.94	34594 6.14 6.14	-2598 0.84 0.84	62310 5.27 5.27
Annual	2022	417369 4.22 4.22	203673 9.61 9.61	40519 3.97 3.97	59394 3.41 3.41	62906 11.97 11.97	86049 -7.91 -7.91	32594 12.02 12.02	-2577 13.31 13.31	59188 2.99 2.99
	2021	400468 11.28 11.28	185808 10.75 10.75	38971 6.83 6.83	57436 15.53 15.53	56182 9.26 9.26	93441 11.09 11.09	29097 6.47 6.47	-2274 -1.06 -1.06	57469 10.60 10.60
	2024:2	468616 6.15 6.40	228179 6.13 6.65	45512 5.72 6.77	65889 5.90 6.20	73619 1.97 5.04	94230 9.14 6.31	36070 4.20 5.04	-2744 3.72 6.66	65253 6.15 5.44
	2024:1	461676 8.25 6.17	224809 7.98 6.35	44883 6.09 6.99	64951 3.49 5.74	73260 4.82 6.74	92192 14.96 4.86	35700 4.72 5.22	-2719 4.65 7.23	64286 4.42 5.22
	2023:4	452615 4 6.09 5.85	220537 ; 6.16 5.87	44225 7.76 6.80	64397 7.11 6.85	72403 9.99 9.15	89034 1.42 1.84	35291 5.53 5.38	-2688 15.02 1.61	63595 6.09 4.87
	2023:3	445976 4 5.12 6.06	217266 2 6.33 5.17	43406 7.53 6.49	63300 8.37 6.49	70699 3.53 10.67	88721 0.36 3.77	34820 5.74 5.18	-2596 3.66 -0.06	62662 5.12 5.09
	2023:2	440444 5.24 6.62	213959 2 4.97 6.45	42625 6.57 6.34	62040 4.05 5.84	70087 8.72 13.21	3.32 2.84	34337 4.90 6.77	-2573 5.97 1.91	61885 5.24 5.64
	2023:1	434853 4 6.95 6.51	211381 2 6.02 6.33	41952 5.35 5.34	61428 7.92 3.68	68637 14.65 15.36	87920 2.28 3.34	33929 5.36 7.30	-2536 -15.62 -0.12	61099 3.06 5.53
Data	2022:4	427613 4 6.96 6.69	208313 2 3.37 7.72	41409 6.52 5.04	60268 5.66 0.96	66331 16.23 13.53	87427 9.31 6.15	33489 4.71 11.21	-2646 7.62 11.53	60641 6.96 5.43
Historical I	2022:3	420479 7.34 6.70	206593 11.63 9.47	40760 6.94 4.03	59443 5.78 3.14	63884 13.38 12.08	85502 -3.16 2.69	33106 12.31 12.63	-2597 12.07 10.68	59629 7.34 5.44
_	2022:2	413104 4 4.81 5.82	200989 2 4.48 9.63	40082 2.62 3.04	58615 -4.21 2.71	61910 17.23 11.27	86190 5.35 -0.25	32159 6.97 11.98	-2525 -2.21 12.27	58583 4.81 4.57
	2022:1	408281 7.68 7.68 -2.00	198797 11.68 11.81	39824 4.12 3.77	59248 -2.97 7.05	59498 7.54 10.88	85075 13.86 -30.12	31622 21.59 12.28	-2539 31.20 19.30	57899 2.68 -3.16
	2021:4	400802 7.02 10.89	193383 10.25 10.32	39424 2.49 4.42	59696 15.10 14.19	58426 10.39 11.01	82358 -4.28 11.09	30113 10.18 6.82	-2372 4.35 -4.16	57517 7.02 10.21
	2021:3	394065 4 3.84 9.11	12.31 12.48	39182 2.93 7.02	57634 4.03 10.07	57000 10.14 12.28	83265 -13.76 -0.09	29392 9.72 7.24	-2347 18.68 2.65	56551 3.84 8.44
	2021:2		183326 7 13.02 15.60	38901 5.57 11.41	57067 13.02 35.96	55640 15.58 9.79	86403 -74.63 -21.85	28719 8.13 9.31	-2249 24.67 4.89	56020 -22.93 5.34
	2021:1 2021:2	416634 390370 76.57 -22.93 19.52 5.99	177800 183326 5.83 13.02 4.94 15.60	38377 6.77 4.74	55347 25.65 5.93	53662 8.06 3.98	121740 627.00 77.99	28163 -0.41 2.62	-2128 -45.34 -7.00	59789 72.28 18.79
		TN PERSONAL INCOME  % Chg Prev Qtr SAAR	WAGES AND SALARIES	OTHER LABOR INCOME  % Chg Prev Qtr SAAR  % Chg Same Qtr Last Yr	PROPRIETORS INCOME	RENT, INTEREST, DIVIDENDS	TRANSFER PAYMENTS  % Chg Prev Qtr SAAR  % Chg Same Qtr Last Yr	LESS: PERS CONT FOR SOC INS % Chg Prev Qtr SAAR % Chg Same Qtr Last Yr	RESIDENCE ADJUSTMENT.  % Chg Prev Qtr SAAR  % Chg Same Qtr Last Yr	PER CAPITA PERSONAL INCOME (\$) % Chg Prev Qtr SAAR

Boyd Center for Business and Economic Research, University of Tennessee

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

Table 5. Telliessee Notifaffi Employment by Sector, Seasonary Adjusted (mousarids of Jobs) Hist	ny secto	r, oeast	nally A	naisnír	(mousa	of io spir	Historical Data	મ Data								Annual	1 2024
	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
TOTAL NONFARM  % Chg Prev Qtr SAAR  % Chg Same Qtr Last Yr	3084.6	3131.3	3157.6	3207.0	3240.1	3275.3	3283.5	3307.4	3327.8	3306.4	3295.4	3316.9	3331.6	3334.8	3110.5	3251.5	3309.3
	2.12	6.19	3.40	6.41	4.19	4.43	1.00	2.95	2.48	-2.54	-1.32	2.63	1.79	0.39	3.30	4.53	1.78
	8.10	4.99	3.30	4.51	5.04	4.60	3.99	3.13	2.71	0.95	0.36	0.28	0.11	0.86	3.30	4.53	1.78
	139.23	141.73	144.33	147.57	150.13	153.43	155.23	157.37	159.37	159.00	157.37	158.8	159.27	163.17	140.80	151.59	158.28
	3.92	7.38	7.54	9.27	7.14	9.09	4.78	5.61	5.18	-0.92	-4.05	3.69	1.18	10.16	4.90	7.66	4.41
	5.45	6.46	6.13	7.01	7.83	8.25	7.55	6.64	6.15	3.63	1.37	0.91	-0.06	2.62	4.90	7.66	4.41
MANUFACTURING	348.6	351.2	352.1	358.4	364.8	367.7	367.0	366.6	366.8	362.2	360.1	362.3	363.0	362.5	349.5	364.5	363.9
	2.77	3.11	0.95	7.33	7.42	3.18	-0.75	-0.48	0.29	-4.98	-2.24	2.46	0.77	-0.52	4.12	4.28	-0.15
	12.55	4.07	2.98	3.51	4.66	4.68	4.24	2.29	0.55	-1.50	-1.87	-1.16	-1.04	0.10	4.12	4.28	-0.15
DURABLE GOODS	3.62	3.74 4.51	223.2 0.39 3.38	228.2 9.25 4.20	232.6 7.99 5.29	235.1 4.39 5.45	234.6 -0.83 5.13	234.6 -0.10 2.80	235.0 0.84 1.06	231.4 -6.05 -1.57	231.5 0.24 -1.31	233.1 2.79 -0.60	234.3 2.06 -0.30	234.8 0.83 1.48	221.5 4.87 4.87	232.6 5.02 5.02	233.1 0.22 0.22
NONDURABLE GOODS	127.7	128.3	128.9	130.2	132.2	132.6	132.4	132.0	131.8	130.8	128.6	129.2	128.7	127.7	128.0	131.9	130.8
	1.32	2.01	1.93	4.05	6.42	1.08	-0.60	-1.14	-0.68	-3.05	-6.53	1.87	-1.52	-2.96	2.86	2.99	-0.81
	6.93	3.33	2.28	2.33	3.59	3.35	2.70	1.40	-0.34	-1.37	-2.87	-2.14	-2.35	-2.33	2.86	2.99	-0.81
TRADE, TRANSPORTATION, UTILITIES % Chg Prev Qtr SAAR	642.2	652.6	661.4	673.0	675.1	678.2	679.1	680.5	683.1	683.3	680.9	681.8	686.9	688.4	650.5	676.3	682.0
	-2.27	6.59	5.50	7.25	1.23	1.83	0.53	0.85	1.52	0.16	-1.42	0.51	3.03	0.88	3.49	3.97	0.83
	6.54	4.17	2.24	4.20	5.12	3.92	2.68	1.11	1.18	0.76	0.27	0.19	0.56	0.74	3.49	3.97	0.83
WHOLESALE TRADE	. 119.4	122.4	123.9	125.8	127.4	130.2	131.9	133.2	134.0	134.3	134.5	134.5	135.2	136.9	121.3	128.8	134.0
	-0.22	10.56	4.77	6.39	5.19	8.97	5.33	4.00	2.63	0.90	0.60	-0.10	2.10	5.13	2.08	6.20	4.04
	1.96	4.32	4.65	5.30	6.70	6.32	6.46	5.86	5.21	3.20	2.02	1.00	0.8704	1.91	2.08	6.20	4.04
RETAIL TRADE	328.2	331.4	335.0	340.0	340.8	341.4	342.7	343.0	343.9	345.1	341.9	343.5	346.6	347.5	331.3	341.2	343.5
	-2.87	3.92	4.42	6.11	0.94	0.67	1.61	0.35	1.01	1.36	-3.58	1.88	3.66	0.97	2.28	2.99	0.66
	6.70	2.60	0.36	2.83	3.83	3.01	2.31	0.89	0.91	1.08	-0.23	0.15	0.79	0.70	2.28	2.99	0.66
TRANSPORTATION & UTILITIES	194.6	198.7	202.5	207.2	206.9	206.6	204.5	204.3	205.1	203.9	204.4	203.7	205.0	204.0	197.9	206.3	204.5
	-2.50	8.77	7.80	9.68	-0.64	-0.51	-4.13	-0.33	1.64	-2.32	0.98	-1.36	2.58	-2.00	6.49	4.24	-0.90
	9.26	6.79	4.01	5.82	6.32	3.98	0.97	-1.42	-0.85	-1.31	-0.02	-0.28	-0.05	0.03	6.49	4.24	-0.90
INFORMATION	45.6 12.27 9.53	48.8 30.81 14.75	50.1 11.39 15.35	52.2 17.55 17.76	53.8 13.41 18.06	55.9 15.99 14.56	56.1 1.44 11.91	56.9 5.83 9.01	55.6 -8.40 3.34	54.6 -7.23 -2.27	54.4 -1.70 -3.03	54.9 3.98 -3.46	54.3 4.07 -2.34	54.3 -0.49	47.2 8.92 8.92	54.5 15.45 15.45	55.4 1.62 1.62
FINANCIAL ACTIVITIES	175.7 0.99 1.70	176.8 2.53 1.88	178.4 3.75 2.14	180.3 4.25 2.87	182.3 185.1 4.44 6.29 3.74 4.68 CONTINUED ON		186.0 18( 2.03 0. 4.24 3. NEXT PAGE)	186.3 0.57 3.31 \GE)	188.5 4.88 3.42	183.8 -9.67 -0.70	184.0 0.58 -1.06	182.5 -3.22 -2.00	182.6 0.07 -3.15	182.4 -0.36 -0.74	176.6 0.84 0.84	183.4 3.88 3.88	185.6 1.22 1.22
				•													

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

							Historical Data	al Data								Annual	
- •	2021:2 2021:3	021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
PROFESSIONAL & BUSINESS SERVICES	431.4	440.6	446.8	458.7	463.0	468.5	461.7	464.8	467.2	455.1	444.8	448.0	446.4	445.7	437.8	463.0	458.0
% Chg Prev Qtr SAAR	-0.98	8.74	5.75	11.12	3.80	4.81	-5.63	2.68	2.08	-9.99	-8.75	2.97	-1.48	-0.60	5.12	5.75	-1.08
% Chg Same Qtr Last Yr	9.75	7.20	4.02	90.9	7.32	6.33	3.35	1.33	0.91	-2.86	-3.67	-3.61	4.46	-2.06	5.12	5.75	-1.08
EDUCATION & HEALTH SERVICES	439.4	441.0	441.8	444.5	448.9	454.7	458.8	464.7	470.4	478.1	481.8	489.6	496.4	502.4	439.9	451.7	473.8
% Chg Prev Qtr SAAR		1.46	0.73	2.50	3.96	5.27	3.69	5.27	5.00	6.68	3.13	6.63	5.70	4.92	1.26	2.68	4.88
% Chg Same Qtr Last Yr	4.30	2.35	1.14	1.62	2.15	3.10	3.85	4.54	4.80	5.15	5.01	5.35	5.53	5.09	1.26	2.68	4.88
LEISURE & HOSPITALITY		323.7	326.9	335.0	340.3	348.1	352.9	358.4	360.6	361.8	360.7	362.5	365.3	360.7	314.6	344.1	360.4
% Chg Prev Qtr SAAR	11.26	22.32	3.97	10.33	6.44	9.42	5.63	6.38	2.48	1.38	-1.25	2.09	3.09	-4.94	7.20	9.38	4.73
% Chg Same Qtr Last Yr		14.57	9.93	11.78	10.55	7.52	7.94	96.9	5.96	3.95	2.21	1.16	1.31	-0.30	7.20	9.38	4.73
OTHER SERVICES	. 121.7	122.9	123.5	124.2	124.9	125.8	126.0	127.5	127.4	127.2	128.2	130.2	130.6	131.2	122.1	125.2	127.6
% Chg Prev Qtr SAAR	4.85	3.89	2.19	2.29	2.16	2.80	0.85	4.63	-0.21	-0.63	3.07	6.61	1.03	1.85	4.40	2.57	1.86
% Chg Same Qtr Last Yr	11.21	6.47	4.01	3.30	2.63	2.36	2.02	2.60	2.00	1.14	1.69	2.17	2.49	3.12	4.40	2.57	1.86
GOVERNMENT	432.9	432.0	432.3	433.1	436.8	438.1	440.7	444.5	448.8	441.4	443.2	446.1	446.9	444.1	431.5	437.2	444.5
% Chg Prev Qtr SAAR	3.78	-0.86	0.25	0.74	3.52	1.20	2.33	3.53	3.90	-6.43	1.70	2.64	99.0	-2.45	-0.29	1.31	1.67
% Chg Same Qtr Last Yr	1.44	0.57	0.19	96.0	06.0	1.42	1.94	2.64	2.73	0.74	0.58	0.37	-0.42	0.62	-0.29	1.31	1.67
FEDERAL, CIVILIAN	51.4	51.7	51.8	51.9	52.1	52.3	53.1	54.0	55.3	56.4	56.9	57.7	58.3	58.6	51.6	52.4	55.7
% Chg Prev Qtr SAAR	0.78	1.83	1.30	0.77	1.03	2.06	6.26	6.95	9.45	8.72	3.59	5.25	4.23	2.08	-0.72	1.55	6.30
% Chg Same Qtr Last Yr	1.38	-5.55	-0.19	1.17	1.23	1.29	2.51	4.04	6.15	7.83	7.15	6.72	5.43	3.78	-0.72	1.55	6.30
STATE & LOCAL	. 381.5	380.3	380.4	381.1	384.8	385.8	387.5	390.5	393.5	384.9	386.3	388.5	388.6	385.5	380.0	384.8	388.8
% Chg Prev Qtr SAAR		-1.22	0.11	0.74	3.87	1.08	1.81	3.06	3.14	-8.43	1.43	2.26	0.14	-3.12	-0.23	1.27	1.04
% Chg Same Qtr Last Yr	1.45	1.47	0.24	0.94	0.86	<u>4</u> .	1.87	2.45	2.27	-0.22	-0.32	-0.51	-1.25	0.16	-0.23	1.27	40.1

Tennessee Econometric Model

Boyd Center for Business and Economic Research, University of Tennessee

Table 6: Tennessee Durable Goods Manufacturing Employment, Seasonally Adjusted (thousands of jobs)

							Historical Data	al Data								Annual	
•	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
TOTAL DURABLE GOODS	220.9	223.0	223.2	228.2	232.6	235.1	234.6	234.6	235.0	231.4	231.5	233.1	234.3	234.8	221.5	232.6	233.1
	3.62	3.74	0.39	9.25	7.99	4.39	-0.83	-0.10	0.84	-6.05	0.24	2.79	2.06	0.83	4.87	5.02	0.22
	16.07	4.51	3.38	4.20	5.29	5.45	5.13	2.80	1.06	-1.57	-1.31	-0.60	-0.30	1.48	4.87	5.02	0.22
WOOD PRODUCTS	13.1	13.4	13.5	13.8	14.2	14.1	13.9	13.7	13.7	13.7	13.8	13.8	13.8	13.7	13.2	14.0	13.7
	2.63	9.28	4.92	9.07	10.17	-2.21	-6.59	-3.30	-1.42	0.92	2.35	1.30	-0.96	-2.70	3.92	5.60	-1.79
	4.46	6.85	4.51	6.44	8.34	5.37	2.35	-0.68	-3.40	-2.64	-0.39	0.78	0.90	-0.02	3.92	5.60	-1.79
NONMETALLIC MINERALS	13.7	13.9	14.1	14.5	14.9	15.1	15.2	15.3	15.3	15.4	15.4	15.4	15.6	15.5	13.9	14.9	15.3
	0.49	3.97	7.29	11.46	9.82	7.66	0.97	2.73	-0.34	2.61	0.60	0.63	3.99	-1.74	1.71	7.57	2.68
	4.45	2.14	4.25	5.72	8.10	9.04	7.40	5.23	2.71	1.48	1.39	0.87	1.95	0.85	1.71	7.57	2.68
PRIMARY METALS	11.1	11.1	11.0	11.1	11.4	11.3	11.2	11.3	11.1	11.0	11.0	11.1	11.1	11.2	11.0	11.2	11.1
	3.62	-0.42	-1.84	2.33	11.50	-2.64	-2.57	1.60	4.20	-4.07	0.25	1.09	-0.15	3.97	4.79	1.96	-1.05
	15.90	5.83	2.35	0.90	2.76	2.19	2.00	1.81	-1.98	-2.34	-1.64	-1.76	-0.74	1.28	4.79	1.96	-1.05
FABRICATED METALS	39.2	39.9	40.3	40.8	41.6	42.5	42.7	42.7	42.6	41.8	41.9	42.2	42.6	42.8	39.5	41.9	42.3
	9.02	7.30	3.25	5.13	8.11	8.83	1.88	0.37	-0.49	-8.07	1.85	2.87	3.48	2.16	6.91	6.08	0.95
	9.57	9.88	7.04	6.15	5.93	6.31	5.95	4.73	2.58	-1.65	-1.66	-1.05	-0.08	2.59	6.91	6.08	0.95
MACHINERY	23.9	24.1	24.4	24.4	24.8	25.1	25.1	25.0	24.9	24.6	24.6	24.8	24.8	25.0	24.0	24.9	24.7
	3.74	2.17	6.09	0.46	6.18	4.69	-0.09	-2.27	-1.55	4.04	-0.67	3.81	-0.55	3.98	2.82	3.47	-0.50
	7.17	4.53	4.56	3.09	3.70	4.33	2.78	2.07	0.16	-2.00	-2.14	-0.66	-0.40	1.62	2.82	3.47	-0.50
COMPUTERS & ELECTRONICS	6.5	6.4	6.3	6.5	6.7	7.1	7.5	7.7	7.9	7.8	7.8	7.8	7.9	8.0	6.4	7.0	7.8
	6.25	-3.42	-5.49	7.44	18.96	25.72	20.71	15.14	7.83	-6.14	2.54	1.41	0.52	6.04	5.77	8.46	12.33
	9.42	6.16	1.16	1.03	3.93	11.01	18.01	20.07	17.16	8.90	4.55	1.29	-0.48	2.61	5.77	8.46	12.33
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS	S 18.2 6.27 9.83	18.5 6.57 9.40	18.6 1.74 5.88	18.8 4.90 4.86	19.3 10.38 5.85	19.2 -3.05 3.38	18.7 -9.76 0.33	18.5 -3.54 -1.76	18.4 -1.71 -4.56	18.3 -3.76 -4.74	18.6 7.72 -0.43	18.7 3.28 1.29	18.6 -3.45 0.84	18.6 1.41 2.16	18.3 6.90 6.90	19.0 3.58 3.58	18.4 -2.90 -2.90
TRANSPORTATION EQUIPMENT	69.1	69.3	68.4	71.5	72.7	73.8	74.2	74.4	75.6	74.2	73.7	74.4	75.3	75.3	69.0	73.1	74.5
% Chg Prev Qtr SAAR	0.12	1.29	-5.16	18.97	7.24	6.27	2.27	0.60	6.83	-7.08	-3.03	4.23	4.93	-0.33	5.28	5.91	1.91
% Chg Same Qtr Last Yr	35.44	0.42	0.27	3.43	5.22	6.49	8.52	4.06	3.96	0.53	-0.80	0.08	-0.37	1.40	5.28	5.91	1.91
FURNITURE	9.6	9.7	9.7	9.7	9.8	9.5	9.1	9.0	8.9	8.7	8.7	8.8	8.7	8.7	9.6	9.5	8.8
	4.22	3.43	-3.14	0.85	3.73	-9.44	-18.26	-0.90	-6.91	-8.37	1.48	2.33	-3.12	0.95	6.50	-1.47	-7.12
	26.19	3.47	2.44	1.30	1.18	-2.12	-6.19	-6.60	-9.09	-8.83	-3.76	-2.99	-2.02	0.39	6.50	-1.47	-7.12
MISCELLANEOUS DURABLES	16.4	16.6	16.8	17.1	17.3	17.4	17.2	17.0	16.7	16.0	16.0	16.0	16.1	16.0	16.5	17.2	16.4
	5.17	6.43	4.37	7.69	3.81	2.09	4.78	-4.08	-7.35	-14.67	0.60	-0.59	1.82	-1.72	1.59	4.49	-4.70
	3.94	4.02	4.06	5.91	5.56	4.47	2.10	-0.81	-3.59	-7.82	-6.54	-5.70	-3.45	0.02	1.59	4.49	-4.70
Boyd Center for Business and Economic Research	c Resea	ırch, Uni	, University of Tennessee	of Tenne	essee									[enness	Fennessee Econometric Mode	metric	Model

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

•							Historic	Historical Data								Annual	
•	2021:2	2021:3 2	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
TOTAL NONDURABLE GOODS	127.7	128.3	128.9	130.2	132.2	132.6	132.4	132.0	131.8	130.8	128.6	129.2	128.7	127.7	128.0	131.9	130.8
	1.32	2.01	1.93	4.05	6.42	1.08	-0.60	-1.14	-0.68	-3.05	-6.53	1.87	-1.52	-2.96	2.86	2.99	-0.81
	6.93	3.33	2.28	2.33	3.59	3.35	2.70	1.40	-0.34	-1.37	-2.87	-2.14	-2.35	-2.33	2.86	2.99	-0.81
FOOD	37.5	37.8	37.8	38.2	39.1	40.0	40.7	41.0	41.4	40.3	39.8	40.0	39.9	39.8	37.6	39.5	40.6
	0.94	3.91	0.19	3.71	10.40	9.42	7.18	2.69	3.84	-10.41	-4.39	2.18	-1.30	-1.31	3.87	5.05	2.78
	4.98	4.88	2.68	2.17	4.49	5.85	7.65	7.38	5.75	0.59	-2.24	-2.36	-3.59	-1.23	3.87	5.05	2.78
BEVERAGE & TOBACCO	7.1	7.3	7.3	7.2	7.4	7.3	7.4	7.5	7.5	7.4	7.3	7.4	7.2	7.0	7.2	7.3	7.4
	3.83	9.46	1.22	-6.38	15.24	-3.66	2.87	5.05	-0.96	-1.60	-8.44	8.03	-11.59	-7.96	4.71	2.34	1.25
	11.37	7.82	5.97	1.87	4.56	1.28	1.69	4.66	0.77	1.30	-1.60	-0.91	-3.69	-5.28	4.71	2.34	1.25
PAPER	12.4	12.4	12.9	13.3	13.5	13.4	13.4	13.2	13.2	13.3	13.2	13.2	13.1	13.1	12.5	13.4	13.2
	6.24	1.83	15.67	14.17	4.18	-0.56	-2.56	-4.00	-0.92	1.87	-2.91	1.01	-1.96	-1.15	-0.01	7.43	-1.44
	0.56	0.13	3.65	9.33	8.80	8.15	3.61	-0.78	-2.02	-1.42	-1.51	-0.25	-0.52	-1.26	-0.01	7.43	-1.44
PRINTING & RELATED SUPPORT	8.0	8.1	8.1	8.1	8.2	8.3	8.3	8.2	8.2	8.2	7.9	8.0	8.0	7.9	8.0	8.2	8.1
	2.66	4.01	-0.47	2.71	5.15	3.72	-1.09	-2.20	0.83	-4.37	-9.53	2.46	-1.47	-4.38	-1.72	2.60	-1.01
	1.20	3.34	1.74	2.22	2.83	2.76	2.60	1.35	0.29	-1.72	-3.89	-2.77	-3.33	-3.33	-1.72	2.60	-1.01
CHEMICALS	26.2	26.1	26.3	26.4	26.7	26.9	26.9	26.9	26.9	27.1	26.9	27.2	27.0	26.5	26.2	26.7	26.9
	-0.08	-0.24	2.55	1.31	5.15	3.43	-1.27	0.33	0.01	2.69	-2.21	3.61	-2.04	-7.08	2.22	2.07	0.77
	4.16	2.42	1.61	0.88	2.17	3.10	2.13	1.88	0.61	0.43	0.19	1.00	0.48	-2.00	2.22	2.07	0.77
PLASTICS & RUBBER	24.1	24.2	24.4	25.1	25.6	25.5	25.3	25.4	25.2	25.4	25.0	24.9	25.0	24.6	24.2	25.4	25.3
	0.92	2.30	3.27	11.53	8.44	-1.76	-3.53	1.64	-2.61	3.25	-6.98	-1.72	2.21	-6.97	4.65	4.86	-0.53
	18.30	2.59	2.63	4.43	6.32	5.25	3.47	1.10	-1.58	-0.35	-1.26	-2.08	-0.90	-3.44	4.65	4.86	-0.53
MISCELLANEOUS NONDURABLE GOODS % Chg Prev Qtr SAAR	12.5	12.3	12.1	11.9	11.7	11.0	10.5	9.8	9.4	9.2	8.5	8.5	8.5	8.9	12.4	11.3	9.2
	-0.75	-4.46	-7.43	-6.16	-8.44	-20.10	-17.84	-23.64	-15.83	-8.85	-26.20	1.23	-1.91	19.18	2.77	-8.81	-18.18
	7.14	2.88	-1.29	-4.73	-6.63	-10.71	-13.34	-17.69	-19.40	-16.71	-18.91	-12.99	-9.60	-3.33	2.77	-8.81	-18.18

Boyd Center for Business and Economic Research, University of Tennessee

Table 8: Tennessee Average Annual Wage and Salary Rate by Sector, Seasonally Adjusted (2017 dollars)

•							Historical Data	Data						ĺ		Annual	
•	2021:1 2021:2		2021:3 2	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2021	2022	2023
PROFESSIONAL & BUSINESS SERVICES 64923 % Chg Prev Qtr SAAR	64923	65828	64012	64856	65318	63900	64529	64827	64631	63821	65469	68233	67483	68130	64905	64643	65538
	3.78	5.70	-10.59	5.38	2.88	-8.40	3.99	1.86	-1.20	-4.92	10.74	17.99	-4.32	3.89	3.91	-0.40	1.38
	9.10	3.63	2.41	0.83	0.61	-2.93	0.81	-0.04	-1.05	-0.12	1.46	5.25	4.41	6.75	3.91	-0.40	1.38
EDUCATION & HEALTH SERVICES	54106	53535	54048	54517	54197	53485	53710	52658	52789	53225	53718	54421	54688	54677	54052	53512	53538
	-1.15	-4.16	3.89	3.52	-2.33	-5.15	1.69	-7.61	1.00	3.34	3.76	5.34	1.98	-0.08	1.54	-1.00	0.05
	4.94	2.70	-1.69	0.47	0.17	-0.09	-0.63	-3.41	-2.60	-0.49	0.01	3.35	3.60	2.73	1.54	-1.00	0.05
LEISURE & HOSPITALITY	26637	28153	29412	29579	29042	29581	30027	29849	29359	29606	29912	30547	30327	30617	28445	29625	29856
	31.68	24.79	19.12	2.29	-7.07	7.64	6.18	-2.36	-6.40	3.41	4.20	8.77	-2.86	3.88	11.82	4.15	0.78
	-1.40	16.76	14.19	18.95	9.03	5.07	2.09	0.91	1.09	0.08	-0.38	2.34	3.30	3.42	11.82	4.15	0.78
OTHER SERVICES	46287	46268	48084	47060	46778	46891	47363	47218	46766	45798	46466	48392	47304	47268	46925	47063	46855
	-14.68	-0.16	16.64	-8.25	-2.37	0.97	4.09	-1.22	-3.78	-8.02	5.96	17.64	-8.70	-0.30	-1.99	0.29	-0.44
	-2.31	-4.68	1.39	-2.29	1.06	1.35	-1.50	0.34	-0.03	-2.33	-1.89	2.49	1.15	3.21	-1.99	0.29	-0.44
GOVERNMENT	48196	48669	48516	48172	47504	47051	47177	47233	47663	47317	49459	50005	49937	50148	48388	47241	48611
	-0.37	3.98	-1.25	-2.81	-5.43	-3.76	1.07	0.48	3.70	-2.87	19.38	4.49	-0.55	1.70	0.50	-2.37	2.90
	0.90	1.07	0.18	-0.14	-1.44	-3.32	-2.76	-1.95	0.34	0.56	4.84	5.87	4.77	5.98	0.50	-2.37	2.90
FEDERAL, CIVILIAN	81288	80807	80248	79545	78635	77949	77821	78410	78851	79172	80111	80916	80807	80652	80472	78204	79763
	2.32	-2.35	-2.74	-3.45	-4.50	-3.44	-0.66	3.06	2.27	1.64	4.83	4.08	-0.54	-0.77	0.83	-2.82	1.99
	2.28	0.17	2.51	-1.58	-3.26	-3.54	-3.02	-1.43	0.28	1.57	2.94	3.20	2.48	1.87	0.83	-2.82	1.99
STATE & LOCAL	43697	44336	44205	43897	43262	42870	43020	42958	43347	42843	44965	45450	45354	45575	44034	43028	44151
	-0.78	5.98	-1.18	-2.76	-5.66	-3.57	1.40	-0.57	3.67	-4.57	21.34	4.38	-0.84	1.96	0.47	-2.29	2.61
	-0.01	1.30	0.31	0.26	-1.00	-3.31	-2.68	-2.14	0.20	-0.06	4.52	5.80	4.63	6.38	0.47	-2.29	2.61

Boyd Center for Business and Economic Research, University of Tennessee

Table 9: Tennessee Average Annual Wage and Sala	and Sala	ary Rate by	by Sector,	tor, Sea	Seasonally Adjusted (current dollars)	Adjuste	d (curre	ent doll	ars)						De	December	2024
							Historical Data	l Data								Annual	
,	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2021	2022	2023
TOTAL NONFARM	57615	59099	59936	60917	61639	61684	62724	63087	63553	63934	65344	66548	67402	68108	59392	62283 (	34845
	4.30	10.71	5.79	6.71	4.82	0.29	6.91	2.34	2.99	2.42	9.11	7.58	5.23	4.26	7.21	4.87	4.11
	7.79	7.03	7.19	6.85	6.98	4.37	4.65	3.56	3.11	3.65	4.18	5.49	6.06	6.53	7.21	4.87	4.11
NATURAL RESOURCES, MINING AND CONSTRUCTION	63879	65150	67218	70165	70710	71865	72688	73245	76445	76764	79856	82149	83745	84684	66603	8.29	78804
	-12.28	8.20	13.32	18.72	3.15	6.69	4.66	3.10	18.65	1.68	17.11	11.99	8.00	4.56	4.79	8.29	9.26
	4.30	4.94	3.58	6.30	10.69	10.31	8.14	4.39	8.11	6.82	9.86	12.16	9.55	10.32	4.79	8.29	9.26
MANUFACTURING	65772	66315	66333	67768	70258	69013	71109	70846	71534	72748	73524	74387	76035	77345	66547	70306	73048
	-5.61	3.34	0.11	8.94	15.53	-6.91	12.71	-1.47	3.94	6.96	4.33	4.78	9.16	7.07	3.15	5.65	3.90
	3.49	4.80	2.83	1.56	6.82	4.07	7.20	4.54	1.82	5.41	3.40	5.00	6.29	6.32	3.15	5.65	3.90
DURABLE GOODS	64849	65306	64666	66036	68959	67780	70420	69885	70708	73032	73308	74875	76245	77505	65214	69261	5.37
	-7.36	2.85	-3.87	8.75	18.92	-6.67	16.51	-3.00	4.80	13.81	1.52	8.83	7.53	6.77	3.05	6.20	5.37
	2.51	7.30	2.77	-0.10	6.34	3.79	8.90	5.83	2.54	7.75	4.10	7.14	7.83	6.12	3.05	6.20	5.37
NONDURABLE GOODS	67361	68060	69230	70765	72535	71181	72331	72550	73000	72242	73906	73508	75654	77052	68854	72149	73164
	-2.57	4.21	7.06	9.17	10.38	-7.26	6.62	1.22	2.51	-4.09	9.54	-2.14	12.20	7.60	3.46	4.79	1.41
	5.15	1.40	2.97	4.37	7.68	4.59	4.48	2.52	0.64	1.49	2.18	1.32	3.63	6.66	3.46	4.79	1.41
TRADE, TRANSPORTATION, UTILITIES % Chg Prev Qtr SAAR	53236	55492	57006	58071	57496	57524	58143	58708	59286	59126	59550	59161	60782	61008	55951	3.60	59281
	5.55	18.06	11.37	7.69	-3.90	0.19	4.38	3.94	4.00	-1.08	2.90	-2.59	11.42	1.50	10.01	3.60	2.27
	9.02	8.62	11.75	10.57	8.00	3.66	2.00	1.10	3.11	2.79	2.42	0.77	2.52	3.18	10.01	3.60	2.27
WHOLESALE TRADE	81482	84155	85373	88014	90006	89763	89808	91170	91652	92978	94988	93373	98092	99133	84756	90187 9	3.39
	8.06	13.78	5.92	12.96	9.37	-1.07	0.20	6.20	2.13	5.92	8.93	-6.63	21.80	4.31	8.84	6.41	3.39
	6.85	9.03	9.28	10.13	10.46	6.66	5.20	3.59	1.83	3.58	5.77	2.42	7.03	6.62	8.84	6.41	3.39
RETAIL TRADE	36860	39094	39885	41396	38952	38941	39357	39494	40067	39911	39623	39417	40070	40012	39309	39186 :	39755
	8.23	26.54	8.34	16.04	-21.61	-0.11	4.34	1.39	5.94	-1.55	-2.86	-2.06	6.79	-0.58	11.81	-0.31	1.45
	10.95	9.80	11.85	14.55	5.68	-0.39	-1.32	-4.60	2.86	2.49	0.68	-0.19	0.01	0.25	11.81	-0.31	1.45
TRANSPORTATION & UTILITIES	63654	65563	68079	67342	68186	68281	69232	69979	70460	69220	69924	69671	71077	71366	66159	68920 (	69819
	-1.88	12.55	16.25	-4.26	5.11	0.56	5.69	4.38	2.78	-6.86	4.13	-1.44	8.32	1.64	8.54	4.17	1.30
	8.53	8.07	12.43	5.29	7.12	4.14	1.69	3.92	3.33	1.38	1.00	-0.44	0.87	3.10	8.54	4.17	1.30
INFORMATION	86716	93632	91458	88504	91632	88378	88323	88266	83641	88470	91357	95002	92367	93572	90078	89150 8	89617
	-3.58	35.93	-8.97	-12.31	14.91	-13.47	-0.25	-0.26	-19.37	25.17	13.70	16.94	-10.64	5.32	11.49	-1.03	0.52
	17.38	17.58	11.31	1.14	5.67	-5.61	-3.43	-0.27	-8.72	0.10	3.43	7.63	10.43	5.77	11.49	-1.03	0.52
FINANCIAL ACTIVITIES	87848 12.65 12.88	89720 8.80 11.96	91656 8.91 13.86	89034 -10.96 4.41	89678 2.93 2.08		88843 1.95 -3.07	91185 10.97 2.42	90087 -4.73 0.46	91467 6.27 3.45	94021 11.64 5.83	95523 6.54 4.76	98904 14.93 9.79	100700 7.46 10.09	89565 10.67 10.67	89530 9 -0.04 -0.04	92774 3.62 3.62
				8	(CONTINUED		ON NEXT PAGE	Ш́									

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

							Historical Data	Data							,	Annual	
	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3 2	2023:4 2	2024:1	2024:2	2021	2022	2023
PROFESSIONAL & BUSINESS SERVICES 69162 % Chg Prev Qtr SAAR	69162 8.54 11.32	71218 12.43 7.81	70209 -5.55 7.14	72308 12.51 6.71	74191 10.83 7.27	73915 -1.48 3.79	75507 8.90 7.55	76607 5.96 5.95	77118 2.69 3.94	76701 -2.15 3.77	79206 8 13.72 4.90	82889 19.94 8.20	82672 -1.05 7.20	83987 6.52 9.50	70724 8.19 8.19	75055 7 6.12 6.12	78979 5.23 5.23
EDUCATION & HEALTH SERVICES	57639 3.39 7.07	57919 1.96 6.84	59280 9.74 2.86	60781 10.52 6.34	61560 5.22 6.80	61867 2.01 6.82	62848 6.49 6.02	62227 -3.90 2.38	62988 4.99 2.32	63966 6.36 3.39	64990 (6.55 6.55 3.41	66110 7.08 6.24	66996 5.47 6.36	67403 2.45 5.37	58905 5.74 5.74	62125 ( 5.47 5.47	64514 3.84 3.84
LEISURE & HOSPITALITY	28376 37.73 0.61	30458 32.75 21.48	32259 25.83 19.47	32978 9.21 25.90	32987 0.11 16.25	34217 15.77 12.34	35136 11.19 8.92	35273 1.56 6.96	35031 -2.71 6.20	35581 6.43 3.99	36188 7.01 2.99	37109 10.57 5.21	37152 0.47 6.06	37743 6.51 6.08	31018 16.53 16.53	34403 3 10.91 10.91	35977 4.58 4.58
OTHER SERVICES	49309 -10.76 -0.32	50057 6.21 -0.83	52739 23.21 6.08	52468 -2.04 3.42	53133 5.17 7.76	54240 8.59 8.36	55421 9.00 5.09	55799 2.75 6.35	55801 0.02 5.02	55041 -5.34 1.48	56215 8 8.81 1.43	58786 19.59 5.35	57950 -5.57 3.85	58270 2.22 5.87	51143 2.09 2.09	54648 (6.85 6.85	56461 3.32 3.32
GOVERNMENT	51343 4.20 2.95	52654 10.61 5.15	53213 4.31 4.82	53707 3.77 5.69	53957 1.88 5.09	54425 3.51 3.36	55203 5.84 3.74	55816 4.51 3.93	56872 7.78 5.40	56867 -0.04 4.49	59837 (22.59 8.39	60746 6.22 8.83	61176 2.86 7.57	61820 4.28 8.71	52729 4.66 4.66	54850 { 4.02 4.02	58580 6.80 6.80
FEDERAL, CIVILIAN	86595 7.02 4.36	87423 3.88 4.21	88016 2.74 7.25	88686 3.08 4.17	89317 2.88 3.14	3.85 3.14	91062 4.04 3.46	92658 7.20 4.48	94085 6.30 5.34	95151 4.61 5.53	96921 7.65 6.43	98297 5.80 6.09	98994 2.87 5.22	99423 1.74 4.49	87680 4.98 4.98	3.56 3.56 3.56	96114 5.85 5.85
STATE & LOCAL	46551 3.78 2.03	47967 12.73 5.39	48485 4.39 4.95	48942 3.82 6.12	49139 1.63 5.56	49589 3.71 3.38	50339 6.19 3.82	50765 3.42 3.72	51722 7.76 5.26	51490 -1.79 3.83	54400 (24.61 8.07	55212 6.10 8.76	55562 2.56 7.42	56182 4.54 9.11	47986 4.63 4.63	49958 { 4.11 4.11	53206 6.50 6.50

Table 10: Tennessee Civilian Labor Force and Unemployment Rate, Seasonally Adjusted

						_	Historical Data	Data							`	Annual	
	2021:2 2021:3		2021:4	2022:1	2022:2	2022:3 2	2022:4 2	2023:1	2023:2	2023:3	2023:4 2	2024:1	2024:2	2024:3	2021	2022	2023
CIVILIAN LABOR FORCE (THOUS)	3316	3325	3339	3370	3376	3359	3345	3361	3387	3385	3383	3391	3406	3412	3324	3362	3379
% Chg Same Qtr Last Yr		1.04	0.34	1.64	1.81	1.00	0.20	-0.25	0.32	0.77	1.1 5.4 5.4	0.90	0.56	0.80	0.80	1.16	0.49
EMPLOYED PERSONS (THOUS)	3155	3186	3218	3256	3265	3245	3228	3249	3281	3274	3266	3279	3302	3305	3175	3249	3268
% Chg Prev Qtr SAAR	1.81	3.94	4.03	4.81	1.16	-2.41	-2.15	2.66	4.03	-0.91	-0.91	1.51	2.85	0.41	4.06	2.31	0.59
% Chg Same Qtr Last Yr	11.73	5.13	2.84	3.64	3.48	1.86	0.31	-0.21	0.49	0.88	1.19	0.91	0.62	96.0	4.06	2.31	0.59
UNEMPLOYED PERSONS (THOUS)	160	139	121	114	11	113	117	112	106	11	117	113	104	107	149	114	111
% Chg Prev Qtr SAAR27.52 -43.68	-27.52	43.68	-43.06		-10.57	9.55	15.78	-16.70	-21.55	21.21	24.11	-12.95	-27.34	9.61	-39.63	-23.44	-2.11
% Chg Same Qtr Last Yr60.80 -46.60	-60.80	-46.60	-39.11	-34.60	-31.07	-18.60	-2.80	-1.41	-4.59	-2.14	-0.43	0.68	-1.23	-3.68	-39.63	-23.44	-2.11
PARTICIPATION RATE (PERCENT)	60.4	60.4	60.5	8.09	60.7	60.2	59.7	59.8	60.1	59.8	59.6	59.5	9.69	59.5	60.5	60.4	59.8
% Chg Prev Qtr SAAR	-0.82	-0.12	0.23	2.51	-0.69	-3.55	-2.97	0.64	1.68	-1.74	-1.62	-0.35	0.35	-0.76	-0.11	-0.17	-0.91
% Chg Same Qtr Last Yr	1.60	0.09	-0.71	0.44	0.48	-0.40	-1.20	-1.66	-1.08	-0.61	-0.27	-0.52	-0.84	-0.60	-0.11	-0.17	-0.91
UNEMPLOYMENT RATE (PERCENT)	4.8	4.2	3.6	3.4	3.3	3.4	3.5	3.3	3.1	3.3	3.5	3.3	3.1	3.1	4.5	3.4	3.3
Boyd Center for Business and Economic Research, U	c Resear	·ch, Univ	niversity of Tennessee	f Tenne	essee									enness	Tennessee Econometric Model	metric I	lodel

Table 11: Tennessee Taxable Sales, Seasonally Adjusted (millions of 2017 dollars)

						_	Historical Data	Data							`	Annual	
	2021:2 2021	ώ.	2021:4 2	2022:1	2022:2	2022:3 2	2022:4 2	I I	2023:2 2	2023:3 2	2023:4 2	2024:1 2	2024:2 2	2024:3	2021	2022	2023
TOTAL TAXABLE SALES	40718 12.57 23.48	40969 2.49 14.99	3.63 10.03	42100 7.60 6.50	42644 <i>4</i> 5.27 4.73	42139 4 -4.65 2.86	41980 4 -1.50 1.56	42871 <sup>4</sup> 8.76 1.83	12223 4 -5.92 -0.99	41337 4-8.13 -8.13 -1.90	41256 4 -0.78 -1.72	12.59 4 12.59 -0.87	42083 4 -3.84 -0.33	43088 9.89 4.23	162554 1 16.46 16.46	168864 1 3.88 3.88	167688 -0.70 -0.70
AUTO DEALERS	4111 14.24 23.81	3706 -34.00 5.73	3688 -1.88 1.48	3648 -4.27 -8.26										3545 7.00 -2.09	15481 13.69 13.69	14571 -5.88 -5.88	14478 -0.64 -0.64
PURCHASES FROM MANUFACTURERS % Chg Prev Qtr SAAR	1993 34.40 32.85	1998 1.00 21.60	2045 9.78 2.41	2280 54.49 23.18		•								2226 -11.58 -0.50	7887 16.78 16.78	9208 16.75 16.75	9010 -2.15 -2.15
MISC DURABLE GOODS	7205 12.54 17.20	7280 4.23 13.61	7428 8.39 9.77	7765 19.37 10.99		•		•				7134 -1.11 -7.55		7097 1.69 -4.26	28910 15.34 15.34	30792 6.51 6.51	29711 -3.51 -3.51
EATING AND DRINKING PLACES	3945 37.28 43.29	3860 -8.30 16.68	3987 13.76 19.06	3970 -1.66 8.93										4162 -3.50 -2.13	15436 22.21 22.21	16322 5.73 5.73	17008 4.21 4.21
FOOD STORES	3331 -6.51 -5.29	3440 13.79 -3.36	3466 3.04 0.64	3418 -5.43 0.90								•		3741 50.59 41.73	13624 -2.22 -2.22	13503 -0.89 -0.89	12419 -8.03 -8.03
LIQUOR STORES	321 -0.93 1.16	317 -4.73 -1.14	321 4.72 1.59	315 -6.81 -2.03										305 3.32 -2.56	1280 3.62 3.62	1253 -2.14 -2.14	1241 -0.92 -0.92
HOTELS AND MOTELS	1163 178.04 185.25	1309 60.09 84.54	1298 -3.29 73.63	1383 28.84 53.46										1417 -13.23 -3.26	4671 66.22 66.22	5681 21.62 21.62	5966 5.03 5.03
OTHER RETAIL AND SERVICE	14010 10.61 28.79	3.12 20.46	14100 -0.51 9.88	14199 2.84 3.94										15733 19.28 8.06	55889 21.01 21.01	57359 2.63 2.63	58298 1.64 1.64
MISC NONDURABLE GOODS	3024 26.62 35.88	3039 2.04 16.40	3060 2.87 14.66	3105 5.96 8.94	3149 5.75 4.14	3125 -2.92 2.85	3079 -5.85 0.60	3126 6.22 0.66	3080 -5.65 -2.17	3091 1.40 -1.10	3081 -1.28 0.08	3122 5.44 -0.10	3111 -1.46 0.99	3157 6.07 2.13	11973 21.03 21.03	12458 4.05 4.05	12378 -0.64 -0.64
TRANSPORTATION, COMMUNICATION % Chg Prev Qtr SAAR	1615 -52.04 -15.38	1902 92.27 3.25	1943 8.80 7.20	2018 16.37 3.95		•					1740 -1.01 -6.00			1703 -4.11 -2.38	7402 -0.75 -0.75	7719 4.29 4.29	7179 -7.00 -7.00
PER CAPITA (\$)	5843 12.57 22.72	5879 2.49 14.29	5932 3.63 9.36	5970 2.61 5.24			5953 -1.50 0.36	6024 4.81 0.89	5933 -5.92 -1.90	5808 -8.13 -2.81	5797 -0.78 -2.63	5918 8.60 -1.76	5860 -3.84 -1.22	6000 9.89 3.30	23327 15.74 15.74	23947 2.66 2.66	23561 -1.61 -1.61
Boyd Center for Business and Economic Research, Uni	search,	Univers	versity of Tennessee	enness	99								ř	ennesse	Fennessee Econometric Mode	metric I	lodel

							Historical Data	l Data								Annual	
	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4 ;	2023:1 2	2023:2 2	2023:3	2023:4	2024:1	2024:2	2024:3	2021	2022	2023
TOTAL TAXABLE SALES	44052 19.75 28.47	44935 8.26 20.31	46086 10.64 16.45	47819 15.92 13.55	49327 13.22 11.97	49309 -0.15 9.73		51154 13.05 6.97		50011 -5.65 1.42		52062 16.44 1.78	51878 -1.41 2.23	53282 11.27 6.54	177185 21.28 21.28	196065 10.66 10.66	202028 3.04 3.04
AUTO DEALERS	4448 21.53 28.81	4064 -30.28 10.62	4112 4.76 7.40	4144 3.13 -2.19		4232 0.29 4.14		4353 3.76 5.05		4381 7.62 3.50		4370 -3.55 0.39	4297 -6.49 -0.09	4384 8.34 0.08	16860 18.30 18.30	16918 0.34 0.34	3.11 3.11
PURCHASES FROM MANUFACTURERS % Chg Prev Qtr SAAR	2156 42.97 38.21	2191 6.69 27.23	2280 17.21 8.39	2590 66.43 31.34	2711 20.02 25.72	2807 15.03 28.10	2583 -28.31 13.29	2806 39.33 8.36	2777 -4.12 2.45	2707 -9.69 -3.56	2564 -19.57 -0.75	2739 30.29 -2.40	2830 14.06 1.93	2753 -10.48 1.71	8599 21.62 21.62	10690 24.32 24.32	10854 1.53 1.53
MISC DURABLE GOODS	7795 19.71 21.93	7985 10.10 18.86	8282 15.73 16.18	8819 28.59 18.34		9033 -2.57 13.12		9208 19.77 4.40		8968 1.89 -0.72		8740 2.28 -5.08	8712 -1.26 -2.40	8776 2.96 -2.14	31515 20.13 20.13	35745 13.42 13.42	35793 0.13 0.13
EATING AND DRINKING PLACES	4268 46.03 49.08	4234 -3.14 22.08	4445 21.46 26.01	4509 5.94 16.15		4880 15.59 15.26		5133 24.54 13.83		5145 6.85 5.42		5091 -4.87 -0.83	5177 6.93 2.30	5147 -2.29 0.03	16829 27.29 27.29	18955 12.63 12.63	20493 8.11 8.11
FOOD STORES	3603 -0.55 -1.47	3773 20.20 1.11	3864 10.01 6.52	3882 1.88 7.58	3968 9.11 .	3603 -32.03 -4.52		4100 -11.35 5.62		3193 -63.76 -11.36	•	4381 133.33 6.85	4163 -18.47 1.15	4626 52.48 44.87	14849 1.85 1.85	15678 5.58 5.58	14954 4.62 4.62
LIQUOR STORES	347 5.39 5.25	348 0.64 3.43	357 11.81 7.52	358 0.40 4.46		361 3.62 3.91		365 -12.70 1.92		379 8.24 5.00		380 0.50 4.20	374 -6.69 0.45	378 4.62 -0.41	1395 7.90 7.90	1454 4.27 4.27	1495 2.82 2.82
HOTELS AND MOTELS	1259 195.76 196.77	1435 69.11 93.07	3.25 3.25 83.77	1570 38.79 63.63		1667 5.55 16.15		1835 31.04 16.84		1773 -1.60 6.32		1800 -0.19 -1.90	1810 2.28 1.72	1753 -12.15 -1.12	5101 73.37 73.37	6598 29.35 29.35	7188 8.95 8.95
OTHER RETAIL AND SERVICE	15157 17.66 34.00	15485 8.93 26.03	15720 6.22 16.29	16128 10.78 10.82	16733 15.88 10.40	16832 2.38 8.70		17407 12.32 7.93		17615 2.57 4.65		18656 22.93 7.17	18559 -2.08 6.03	19456 20.77 10.45	60916 26.00 26.00	66602 9.34 9.34	70244 5.47 5.47
MISC NONDURABLE GOODS	3271 34.69 41.37	3333 7.79 21.79	3412 9.83 21.36	3527 14.14 16.15	3642 13.73 11.34	3657 1.66 9.73		3729 10.41 5.74		3740 4.14 2.26		3825 9.05 2.57	3835 1.03 3.59	3904 7.40 4.39	13053 26.05 26.05	14465 10.82 10.82	3.11 3.11 3.11
TRANSPORTATION, COMMUNICATION % Chg Prev Qtr SAAR	1748 -48.98 -11.97	2086 103.10 8.03	2166 16.16 13.46	2292 25.36 10.83	2243 -8.26 28.35	2236 -1.24 7.18	2187 -8.47 0.98	2217 5.63 -3.26		2110 -16.36 -5.63	2114 0.62 -3.37	2080 -6.12 -6.17	2121 8.07 -3.87	2106 -2.91 -0.22	8068 3.40 3.40	8959 11.03 11.03	8648 -3.47 -3.47
PER CAPITA (\$)	6322 19.75 27.68	6448 8.26 19.57	6614 10.64 15.74	6781 10.54 12.21	6995 13.22 10.65	6993 -0.15 8.44	7035 2.46 6.37	7187 8.94 5.99	7130 -3.17 1.92	7027 -5.65 0.49	7042 0.86 0.10	7249 12.32 0.86	7224 -1.41 1.32	7419 11.27 5.58	25427 20.54 20.54	27804 9.35 9.35	28386 2.09 2.09
Boyd Center for Business and Economic Research,	search		University of Tennessee	ennes	ee									enness	Tennessee Econometric Mode	ometric	Model

Boyd Center for Business and Economic Research, University of Tennessee

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

						Historical Data	l Data					
. 1	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TN GDP (Mil2017\$) SAAR	312470	318697	324177	335660	343635	355418	362422	370257	367924	400880	416747	424665
Percentage change	3.45	1.99	1.72	3.54	2.38	3.43	1.97	2.16	-0.63	8.96	3.96	1.90
US GDP (Bil2017\$) SAAR	17442.8	17812.2	18261.7	18799.6	19141.7	19612.1	20193.9	20715.7	20267.6	21494.8	22034.8	22671.1
Percentage change	67.7	7.17	7.52	7.95	78.	7.40	78.7	7.58	-2.10	00.0	7.5	7.89
US GDP (Bils) SAAR	16254.0 4.19	16880.7 3.86	17608.1 4.31	18295.0 3.90	18804.9 2.79	19612.1 4.29	20656.5 5.33	21540.0 4.28	21354.1 -0.86	23681.2 10.90	26006.9 9.82	27720.7 6.59
TN PERSONAL INCOME (MIL2017\$) SAAR	267190	265675	271674	285050	291527	299298	309820	324219	343923	367675	359445	368034
Percentage change	2.71	-0.57	2.26	4.92	2.27	2.67	3.52	4.65	80.9	6.91	-2.24	2.39
US PERSONAL INCOME (BIL2017\$) SAAR	14722	14688	15222	15903 4.48	16165	16662	3.08	17740	18751	19666 4 88	19023	19422
	20.1	21.0	00.00	94.47	2000		046477	02:0	0.00	00.00	11.0	2.1.2
IN PERSONAL INCOME (MIL\$) SAAR.  Percentage change	252592 4.62	254465 0.74	3.69	277356 5.12	3.31	299308 4.46	3161 <i>//</i> 5.64	335602 6.14	359873 7.23	400468	417369	443472 6.25
US PERSONAL INCOME (BIL\$) SAARPercentage change	13918 4.57	14069	14784 5.08	15474 4.66	15888	16663	17528 5.19	18363	19620 6.84	21419 9.17	22089 3.13	23403 5.95
TN NONFARM JOBS (THOUS)	2723.5	2769.2	2830.6	2902.2	2974.6	3022.9	3073.9	3128.7	3011.0	3110.5	3251.5	3309.3
Percentage change	2.03	1.68	2.22	2.53	2.50	1.62	1.69	1.78	-3.76	3.30	4.53	1.78
US NONFARM JOBS (MIL)	134.2	136.4	138.9	141.8	144.3	146.6	148.9	150.9	142.2	146.3	152.5	156.1
TN MFG JOBS (THOUS)	311.5	316.6	323.1	331.2	342.0	346.8	350.9	355.6	335.7	349.5	364.5	363.9
Percentage change	2.94	1.62	2.07	2.50	3.26	1.39	1.21	1.33	-5.60	4.12	4.28	-0.15
US MFG JOBS (MIL)	11.9	12.0	12.2	12.3	12.4	12.4	12.7	12.8	12.2	12.4	12.8	12.9
Percentage change	1.70	0.77	1.38	1.23	0.15	0.70	2.00	1.01	-5.08	1.56	3.72	0.99
TN UNEMPLOYMENT RATE (%)	8.0	7.7	9.9	9.6	4.8	3.7	3.5	3.3	7.5	4.5	3.4	3.3
US UNEMPLOYMENT RATE (%)	8.1	7.4	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.4	3.6	3.6
CHAINED PRICE INDEX, GDP (2017=100.0)Percentage change	93.2	94.8	96.4	97.3	98.2	100.0	102.3	104.0	105.4	110.2	118.0	122.3 3.58
US PERS CONSUMP DEFI (2017=100.0)	94.5	95.8	97 1	97.3	0 80	1000	1020	103.5	104 6	109.0	116.1	120.5
Percentage change	1.86	1.32	1.40	0.18	1.01	1.75	2.05	1.43	1.09	4.14	6.55	3.77
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1.000)	2.296	2.330	2.367	2.370	2.400	2.451	2.511	2.557	2.588	2.710	2.926	3.047
Percentage change	2.07	1.47	1.62	0.12	1.27	2.13	2.44	1.81	1.25	4.68	7.99	4.13
BANK PRIME INTEREST RATE (%)	3.3	3.3	3.3	3.3	3.5	4.1	4.9	5.3	3.5	3.3	4.9	8.2
FEDERAL FUNDS RATE (% per annum)	0.140	0.108	0.089	0.133	0.395	1.002	1.832	2.158	0.376	0.080	1.683	5.024
30-YEAR FIXED MORTGAGE RATE (%)	3.7	4.1	4.3	4.0	3.8	4.1	4.7	4.1	3.2	3.0	5.4	8.9
TN TAXABLE SALES (MIL2017\$)	103688 2.78	105682 1.92	109617 3.72	116622 6.39	121553 4.23	125264 3.05	131074 4.64	136958 4.49	139581 1.92	162554 16.46	168864 3.88	167688 -0.70
TN TAXABLE SALES (MIL\$)	98017	101224	106465	113481	119468	125274	133762	141774	146095	177185	196065	202028
Percentage change	4.68	3.27	5.18	6.59	5.28	4.86	6.78	5.99	3.05	21.28	10.66	3.04
TN AVG ANNUAL WAGE, NONFARM (2017\$)	46960	46419	46905	48385	48536	49047	49671	50250	52938	54498	53646	53813
Percentage change	1.66	-1.15	1.05	3.15	0.31	1.05	1.27	1.17	5.35	2.95	-1.56	0.31
TN AVG ANNUAL WAGE, NONFARM (\$)	44394	44460	45555	47078	47704	49048	50688	52014	55398 6 51	59392	62283	64845
relicelitage dialige	0.00	0	2.40	0.04	 	70.7	40.0	70.7	- 11	12.7	4.07	+
Boyd Center for Business and Economic Research, Univ	h, University of Tennesse	Tennesse	<b>o</b>						<u>ie</u>	ennessee Econometric Mode	conometr	ic Model

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

						Historical Data	Data					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TN GDP (2017\$) SAAR	48344	48966	49417	50745	51485	52718	53226	53933	53125	57529	59100	59668
Percentage change	2.50	1.29	0.92	2.69	1.46	2.40	96.0	1.33	-1.50	8.29	2.73	96.0
US GDP (2017\$) SAAR	55404	56165	57140	58377	58988	60022	61429	62670	61092	64638	65804	00029
Percentage change	1.55	1.37	1.74	2.17	1.05	1.75	2.34	2.02	-2.52	5.81	1.80	1.82
US GDP (\$) SAAR	51628	53228	55095	56811	57950	60022	62836	65164	64367	71213	21,000	81923
Percentage change	3.44	3.10	3.51	3.11	2.01	3.58	4.69	3.70	-1.22	10.64	90.6	5.48
TN PERSONAL INCOME (2017\$) SAAR	41338	40819	41413	43093	43678	44394	45501	47227	49660	52764	50974	51711
Percentage change	1.76	-1.26	1.45	4.06	1.36	1.64	2.49	3.79	5.15	6.25	-3.39	1.45
US PERSONAL INCOME (2017\$) SAAR	46762	46315	47628	49383	49814	50994	52248	53669	56519	59137	56809	57397
Percentage change	1.91	-0.95	2.84	3.68	0.87	2.37	2.46	2.72	5.31	4.63	-3.94	1. 4
TN PERSONAL INCOME (\$) SAAR	39080	39097	40222	41930	42929	44396	46434	48885	51963	57469	59188	62310
Percentage change	3.66	0.04	2.88	4.25	2.38	3.42	4.59	5.28	6.30	10.60	2.99	5.27
US PERSONAL INCOME (\$) SAAR	44208	44361	46258	48050	48960	20396	53320	55553	59140	64412	65965	69162
Percentage change	3.81	0.35	4.28	3.87	1.90	4.16	4.56	4.19	6.46	8.91	2.41	4.85
TN TAXABLE SALES (2017\$)	16042	16237	16710	17631	18212	18580	19250	19950	20154	23327	23947	23561
Percentage change	1.83	1.22	2.91	5.51	3.29	2.02	3.60	3.64	1.03	15.74	2.66	-1.61
TN TAXABLE SALES (\$)	15165	15552	16229	17156	17899	18582	19644	20651	21095	25427	27804	28386
Percentage change	3.72	2.56	4.35	5.71	4.33	3.81	5.72	5.12	2.15	20.54	9.35	2.09

Boyd Center for Business and Economic Research, University of Tennessee

Table 3: Tennessee Personal Income Components (millions of 2017 dollars)

						Historical Data	Data					
1 1	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TN PERSONAL INCOMEPERSONAL INCOME	267190	265675	271674	285050	291527	299298	309820	324219	343923	367675	359445	368034
	2.71	-0.57	2.26	4.92	2.27	2.67	3.52	4.65	6.08	6.91	-2.24	2.39
WAGES AND SALARIESPercentage change	128872	129494	133708	141308	145336	149232	153649	158177	160312	170468	175403	179077
	3.68	0.48	3.25	5.68	2.85	2.68	2.96	2.95	1.35	6.33	2.90	2.09
OTHER LABOR INCOMEProcentage change	30443	30811	30319	31099	31561	32564	33869	34558	34860	35767	34897	35727
	7.23	1.21	-1.60	2.57	1.48	3.18	4.01	2.04	0.87	2.60	-2.43	2.38
PROPRIETORS INCOMEPPercentage change	33909	35201	36583	38094	39023	39763	41118	44884	47494	52698	51159	52109
	-1.99	3.81	3.93	4.13	2.44	1.89	3.41	9.16	5.82	10.96	-2.92	1.86
RENT, INTEREST, DIVIDENDS Percentage change	38415	36412	37828	39679	40899	43169	45807	49379	49139	51544	54158	58470
	5.86	-5.22	3.89	4.89	3.07	5.55	6.11	7.80	-0.49	4.89	5.07	7.96
TRANSFER PAYMENTSPPercentage change	54888	55783 1.63	55684 -0.18	58472 5.01	59165 1.19	60035 1.47	61667 2.72	64744 4.99	80428 24.23	85982 6.90	74116 -13.80	73516 -0.81
LESS: PERS CONT FOR SOC INS Percentage change	18199	20728	21210	22244	22834	23713	24354	25284	26115	26697	28068	28710
	1.24	13.90	2.33	4.87	2.65	3.85	2.70	3.82	3.29	2.23	5.13	2.29
RESIDENCE ADJUSTMENT Percentage change	-1139	-1297	-1238	-1359	-1624	-1752	-1936	-2239	-2196	-2086	-2219	-2156
	38.45	13.88	-4.54	9.77	19.50	7.90	10.49	15.65	-1.94	-5.01	6.39	-2.84
PER CAPITA PERSONAL INCOME (\$) Percentage change	41338	40819	41413	43093	43678	44394	45501	47227	49660	52764	50974	51711
	1.76	-1.26	1.45	4.06	1.36	1.64	2.49	3.79	5.15	6.25	-3.39	1.45

Boyd Center for Business and Economic Research, University of Tennessee

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

	2012	2013	2014	2015	2016	Historical Data 2017	Data 2018	2019	2020	2021	2022	2023
TN PERSONAL INCOMEPercentage change	252592	254465	263856	277356	286532	299308	316177	335602	359873	400468	417369	443472
	4.62	0.74	3.69	5.12	3.31	4.46	5.64	6.14	7.23	11.28	4.22	6.25
WAGES AND SALARIESPercentage change	121832	124031	129860	137496	142850	149238	156800	163730	167775	185808	203673	215786
	5.62	1.80	4.70	5.88	3.89	4.47	5.07	4.42	2.47	10.75	9.61	5.95
OTHER LABOR INCOME	28780	29510	29446	30260	31021	32566	34564	35771	36481	38971	40519	43052
	9.23	2.54	-0.22	2.77	2.51	4.98	6.14	3.49	1.98	6.83	3.97	6.25
PROPRIETORS INCOMEPercentage change	32055	33715	35530	37065	38355	39763	41961	46461	49713	57436	59394	62791
	-0.18	5.18	5.38	4.32	3.48	3.67	5.53	10.72	7.00	15.53	3.41	5.72
RENT, INTEREST, DIVIDENDS	36318	34875	36741	38608	40199	43172	46751	51113	51422	56182	62906	70456
	7.83	-3.97	5.35	5.08	4.12	7.40	8.29	9.33	0.60	9.26	11.97	12.00
TRANSFER PAYMENTSPercentage change	51889 0.98	53429 2.97	54082 1.22	56893 5.20	58148 2.21	60035 3.24	62930 4.82	67017 6.49	84110 25.51	93441	86049	88579 2.94
LESS: PERS CONT FOR SOC INS Percentage change	17204	19854	20600	21644	22443	23714	24853	26172	27329	29097	32594	34594
	3.13	15.40	3.76	5.07	3.69	5.66	4.81	5.30	4.42	6.47	12.02	6.14
RESIDENCE ADJUSTMENT	-1077	-1242	-1202	-1322	-1596	-1753	-1976	-2318	-2298	-2274	-2577	-2598
	41.03	15.35	-3.21	9.98	20.71	9.78	12.75	17.30	-0.85	-1.06	13.31	0.84
PER CAPITA PERSONAL INCOME (\$) Percentage change	39080	39097	40222	41930	42929	44396	46434	48885	51963	57469	59188	62310
	3.66	0.04	2.88	4.25	2.38	3.42	4.59	5.28	6.30	10.60	2.99	5.27

Boyd Center for Business and Economic Research, University of Tennessee

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

						Historical Data	Data					
. !	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL NONFARM	2723.5 2.03	2769.2 1.68	2830.6 2.22	2902.2 2.53	2974.6 2.50	3022.9 1.62	3073.9 1.69	3128.7 1.78	3011.0	3110.5 3.30	3251.5 4.53	3309.3 1.78
NATURAL RESOURCES, MINING AND CONSTRUCTIONPercentage change	109.2 0.22	108.2 -0.91	111.2 2.80	117.5 5.64	119.4	124.6 4.36	129.2 3.67	134.6 4.20	134.2 -0.27	140.8	151.6 7.66	158.3 4.41
MANUFACTURINGPercentage change	311.5	316.6	323.1 2.07	331.2 2.50	342.0 3.26	346.8	350.9 1.21	355.6 1.33	335.7 -5.60	349.5 4.12	364.5	363.9 -0.15
DURABLE GOODSPercentage change	194.3 5.54	199.3 2.58	205.6 3.15	211.4 2.79	219.6 3.90	222.2	224.2 0.91	227.7 1.53	211.2 -7.22	221.5 4.87	232.6 5.02	233.1 0.22
NONDURABLE GOODSPercentage change	117.2	117.2	117.5	119.8	122.4	124.6	126.7 1.75	128.0 0.97	124.5 -2.73	128.0 2.86	131.9	130.8 -0.81
TRADE, TRANSPORTATION, UTILITIES Percentage change	570.3 2.00	576.4 1.07	584.5	597.0 2.14	612.2 2.55	616.5 0.70	623.5	634.9	628.6 -0.99	650.5 3.49	676.3 3.97	682.0 0.83
WHOLESALE TRADEProcentage change	119.3	119.5 0.20	119.1	118.4	117.8	119.3	120.4	121.8	118.8	121.3	128.8	134.0 4.04
RETAIL TRADEPercentage change	310.1	312.3 0.73	317.7	322.9	331.3 2.62	333.0 0.51	333.2 0.05	332.3 -0.26	323.9 -2.52	331.3 2.28	341.2 2.99	343.5 0.66
TRANSPORTATION & UTILITIES Percentage change	140.9 3.76	144.5 2.55	147.7 2.24	155.8 5.43	163.1 4.73	164.2	170.0 3.50	180.8 6.39	185.9 2.77	197.9 6.49	206.3	204.5
INFORMATIONPercentage change	43.6	44.5	44.2	44.8	45.7 1.95	46.2 1.24	45.3 -1.97	45.6 0.70	43.3	47.2 8.92	54.5 15.45	55.4 1.62
FINANCIAL ACTIVITIESPinAnder	144.8	146.7 1.35	152.3 3.78	156.5 2.77	162.0 3.49	168.8	174.7 3.51	178.2 1.98	175.1 -1.74	176.6 0.84	183.4	185.6 1.22
PROFESSIONAL & BUSINESS SERVICES Percentage change	341.8	357.5 4.59	379.1 6.02	396.2 4.52	407.0	410.8	418.1	427.7 2.28	416.5	437.8 5.12	463.0 5.75	458.0
EDUCATION & HEALTH SERVICESPercentage change	399.0 2.54	404.6	409.3	418.2 2.16	427.8	435.1 1.70	440.1 1.14	445.3 1.20	434.4	439.9 1.26	451.7 2.68	473.8 4.88
LEISURE & HOSPITALITYPEISURE & HOSPITALITY	277.2 3.47	286.3 3.30	296.7 3.63	308.1	319.8 3.78	329.3 2.97	338.0 2.64	347.4 2.78	293.4 -15.52	314.6 7.20	344.1 9.38	360.4 4.73
OTHER SERVICESPercentage change	104.3	105.6 1.28	106.1	107.8	110.9	114.5 3.24	118.3 3.32	121.9 3.05	116.9 -4.04	122.1 4.40	125.2 2.57	127.6 1.86
GOVERNMENTPoversity	421.9	422.8 0.21	424.1	424.9 0.18	427.9 0.72	430.4 0.57	435.9 1.27	437.6 0.40	432.8 -1.10	431.5 -0.29	437.2	444.5 1.67
FEDERAL, CIVILIANPErcentage change	50.1	49.5 -1.35	48.4	49.1 1.45	49.2 0.29	49.1	49.1	50.1	51.9 3.73	51.6	52.4 1.55	55.7 6.30
STATE & LOCALPercentage change	371.7 -0.89	373.3 0.42	375.7 0.65	375.8 0.02	378.7 0.77	381.3	386.8	387.5 0.20	380.9 -1.72	380.0 -0.23	384.8	388.8
Boyd Center for Business and Economic Res	search, Ur	iversity o	earch, University of Tennessee	99					Ten	Tennessee Econometric Mode	onometric	Model

**Tennessee Econometric Model** 

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

December 2024

						Historical Data	Data					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL DURABLE GOODSPotable Percentage change	194.3 5.54	199.3 2.58	205.6 3.15	211.4	219.6 3.90	222.2 1.18	224.2 0.91	227.7 1.53	211.2 -7.22	221.5 4.87	232.6 5.02	233.1 0.22
WOOD PRODUCTSProcontage change	11.0	10.9	11.2 3.20	11.6 3.18	12.1	12.6 3.36	12.5 -0.13	12.8	12.7 -0.12	13.2 3.92	14.0	13.7
NONMETALLIC MINERALSProcentage change	12.5 5.95	12.2 -2.52	12.0	12.7 5.59	13.3 4.97	13.7	14.2 3.96	1.18	13.6 -5.20	13.9	14.9 7.57	15.3 2.68
PRIMARY METALSPercentage change	9.8	10.1	10.2	10.5	10.6	10.7 0.78	11.0	11.4	10.5	11.0	11.2	11.1
FABRICATED METALSPABRICATED METALS	34.6 2.58	34.1 -1.62	34.6 1.57	35.3 2.02	35.7 1.27	35.6 -0.47	36.6 2.98	38.0	36.9 -2.91	39.5 6.91	41.9	42.3 0.95
MACHINERYPercentage change	25.6 1.68	25.4 -0.74	25.5 0.41	25.3 -0.62	25.5 0.60	25.3 -0.61	25.9 2.14	26.3 1.69	23.4	24.0	24.9 3.47	24.7 -0.50
COMPUTERS & ELECTRONICS Percentage change	5.6 0.73	5.2 -7.38	5.1	5.0	4.8	4.9 1.92	5.2 7.00	5.8 11.47	6.1	6.4	7.0	7.8 12.33
ELECTRICAL EQUIPMENT, APPLIANCES & COMPONENTS	17.9 1.46	18.6 3.80	19.4	19.8 2.06	19.9 0.46	19.3 -3.07	18.7	17.6 -5.80	17.2 -2.41	18.3 6.90	19.0 3.58	18.4
TRANSPORTATION EQUIPMENT	53.6 17.03	59.6 11.02	63.8 7.13	66.8 4.72	72.5 8.57	74.5 2.72	74.0	75.1 1.43	65.5 -12.75	69.0 5.28	73.1 5.91	74.5 1.91
FURNITUREPercentage change	8.7 -2.92	8.8	9.0	9.1	9.4	9.5 0.88	9.6 1.15	9.7	9.1	9.6 6.50	9.5 -1.47	8.8 -7.12
MISCELLANEOUS DURABLES	14.9	14.6	14.8	15.3 3.60	15.6	16.2 3.57	16.4	16.6	16.2 -2.30	16.5 1.59	17.2 4.49	16.4

Boyd Center for Business and Economic Research, University of Tennessee

2023

December 2024 2022 2.60 8.2 26.7 2.07 24.2 26.2 4.65 12.4 -0.01 8.0 -1.72 2021 0.84 -0.66 25.6 -1.75 -0.70 -6.91 8.2 2020 35.9 1.85 3.63 9.0 0.65 12.6 26.1 0.97 0.31 12.1 9.0 25.8 2.35 24.8 2.06 12.0 2.98 2018 35.7 0.76 1.54 12.1 26.7 Historical Data 25.2 -0.85 24.3 5.10 124.6 3.05 11.9 -0.15 9.0 11.7 2017 6.9 5.57 2016 34.4 3.00 9.9 10.83 12.0 -0.76 9.3 -0.11 25.4 -1.17 23.2 5.61 Table 7: Tennessee Nondurable Goods Manufacturing Employment (thousands of jobs) 2015 119.8 9.3 -2.90 25.7 3.45 11.5 0.95 1.94 2014 -0.84 9.5 -1.08 20.2 0.99 12.6 2013 0.01 -1.85 9.7 0.00 12.5 2012 -4.99 9.7 24.6 -2.29 117.2 -0.21 5.2 -0.64 20.0 12.2 3.51 Percentage change..... MISCELLANEOUS NONDURABLE GOODS. BEVERAGE & TOBACCO...... Percentage change..... Percentage change..... PRINTING & RELATED SUPPORT Percentage change..... Percentage change..... Percentage change..... TOTAL NONDURABLE GOODS. Percentage change.... CHEMICALS..... Percentage change... PAPER..... PLASTICS & RUBBER.

26.9

13.2 4.1-8. -1.01

Boyd Center for Business and Economic Research, University of Tennessee

(S
r (2017 dollars
r (201
y Secto
Salary Rate by Sector (2017
d Salar
/age an
Annual Wage and Salary Rat
Average
Tennessee Aver
Table 8:

						Historical Data	Data					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL NONFARMPotation Percentage change	46960 1.66	46419	46905 1.05	48385 3.15	48536 0.31	49047 1.05	49671 1.27	50250 1.17	52938 5.35	54498 2.95	53646 -1.56	53813 0.31
NATURAL RESOURCES, MINING AND CONSTRUCTIONPercentage change	51331 1.37	51021	52609	55545 5.58	56470 1.67	57733 2.24	57090	58238 2.01	60733 4.28	61100	62120 1.67	65392 5.27
MANUFACTURINGParamer Percentage change	58277	57428	58305	59133	59386	59799	59746	59612	61650	61074	60560	60622
	1.87	-1.46	1.53	1.42	0.43	0.70	-0.09	-0.22	3.42	-0.93	-0.84	0.10
DURABLE GOODSPurable Percentage change	57318	55341	56625	57534	58122	58582	58823	58688	60473	59857	59657	60564
	3.28	-3.45	2.32	1.60	1.02	0.79	0.41	-0.23	3.04	-1.02	-0.33	1.52
NONDURABLE GOODSProcentage change	59873	60975	61242	61953	61657	61968	61378	61261	63601	63183	62151	60722
	0.04	1.84	0.44	1.16	-0.48	0.50	-0.95	-0.19	3.82	-0.66	-1.63	-2.30
TRADE, TRANSPORTATION, UTILITIES Percentage change	43862	43348	44011	45270	45525	45819	46136	46293	48604	51331	49930	49202
	0.82	-1.17	1.53	2.86	0.56	0.64	0.69	0.34	4.99	5.61	-2.73	-1.46
WHOLESALE TRADE	66643 2.37	66049	68725 4.05	71005 3.32	72920 2.70	72333 -0.81	70840 -2.06	71657 1.15	74413 3.85	77763 4.50	77686 -0.10	77388 -0.38
RETAIL TRADEPercentage change	30239	29557	29952	30821	30937	31224	31691	31454	33596	36058	33753	32997
	-0.51	-2.26	1.33	2.90	0.38	0.93	1.50	-0.75	6.81	7.33	-6.39	-2.24
TRANSPORTATION & UTILITIES Percentage change	54551	54375	54340	55657	55378	56151	56954	56485	58248	60706	59361	57949
	-0.10	-0.32	-0.06	2.42	-0.50	1.39	1.43	-0.82	3.12	4.22	-2.22	-2.38
INFORMATIONPercentage change	61289	60167	62339	62784	64511	67361	71646	71973	77198	82679	76813	74357
	1.68	-1.83	3.61	0.71	2.75	4.42	6.36	0.46	7.26	7.10	-7.09	-3.20
FINANCIAL ACTIVITIESPinAnCiAL ACTIVITIES	67312	65126	65985	67015	67376	66676	69171	70668	77334	82205	77119	76988
	5.00	-3.25	1.32	1.56	0.54	-1.04	3.74	2.16	9.43	6.30	-6.19	-0.17
PROFESSIONAL & BUSINESS SERVICES Percentage change	54010	53653	52510	55513	55398	56013	57731	59872	62465	64905	64643	65538
	5.48	-0.66	-2.13	5.72	-0.21	1.11	3.07	3.71	4.33	3.91	-0.40	1.38
EDUCATION & HEALTH SERVICES Percentage change	47441	47126	47368	49322	49068	49604	49783	50244	53232	54052	53512	53538
	-0.13	-0.66	0.51	4.13	-0.51	1.09	0.36	0.93	5.95	1.54	-1.00	0.05
LEISURE & HOSPITALITYPersontage change	22641	22215	22927	24321	24596	25336	26086	26142	25437	28445	29625	29856
	1.23	-1.88	3.21	6.08	1.13	3.01	2.96	0.22	-2.70	11.82	4.15	0.78
OTHER SERVICESPercentage change	41976 1.07	41652 -0.77	43296 3.95	44453 2.67	44266 -0.42	44225 -0.09	44488	44481 -0.02	47877 7.63	46925 -1.99	47063 0.29	46855 -0.44
GOVERNMENTPoversity	44236	44043	44471	44900	45058	45825	46160	46695	48147	48388	47241	48611
	-0.23	-0.44	0.97	0.96	0.35	1.70	0.73	1.16	3.11	0.50	-2.37	2.90
FEDERAL, CIVILIANPEDERAL, CIVILIAN	76218	74978	80936	79936	79228	79359	80585	79140	79813	80472	78204	79763
	-1.36	-1.63	7.95	-1.24	-0.89	0.17	1.55	-1.79	0.85	0.83	-2.82	1.99
STATE & LOCALPercentage change	39922 0.06	39944 0.06	39774 -0.43	40322 1.38	40615 0.73	41512 2.21	41790	42503 1.71	43830 3.12	44034 0.47	43028 -2.29	44151 2.61

Boyd Center for Business and Economic Research, University of Tennessee

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

						Historical Data	Data					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL NONFARM	44394 3.56	44460	45555 2.46	47078 3.34	47704	49048 2.82	50688	52014 2.62	55398 6.51	59392 7.21	62283 4.87	64845 4.11
NATURAL RESOURCES, MINING AND CONSTRUCTIONPercentage change	48523 3.27	48868	51095 4.56	54047 5.78	55506 2.70	57737 4.02	58258 0.90	60279	63558 5.44	66603	72127 8.29	78804 9.26
MANUFACTURINGPercentage change	55091	55004	56626	57537	58369	59801	60967	61703	64515	66547	70306	73048
	3.78	-0.16	2.95	1.61	1.45	2.45	1.95	1.21	4.56	3.15	5.65	3.90
DURABLE GOODSPercentage change	54183	53005	54996	55982	57124	58584	60026	60747	63286	65214	69261	72981
	5.21	-2.17	3.75	1.79	2.04	2.56	2.46	1.20	4.18	3.05	6.20	5.37
NONDURABLE GOODSPercentage change	56602 1.91	58401 3.18	59476 1.84	60279	60603 0.54	61971 2.26	62632 1.07	63409 1.24	66554 4.96	68854 3.46	72149 4.79	73164 1.41
TRADE, TRANSPORTATION, UTILITIES	41465	41518	42745	44048	44745	45820	47081	47916	50862	55951	57968	59281
	2.71	0.13	2.95	3.05	1.58	2.40	2.75	1.77	6.15	10.01	3.60	2.27
WHOLESALE TRADE	63006	63261	66748	69088	71673	72333	72286	74168	77870	84756	90187	93248
	4.29	0.41	5.51	3.51	3.74	0.92	-0.06	2.60	4.99	8.84	6.41	3.39
RETAIL TRADE	28585	28309	29090	29989	30406	31225	32341	32556	35156	39309	39186	39755
	1.34	-0.96	2.76	3.09	1.39	2.69	3.57	0.67	7.99	11.81	-0.31	1.45
TRANSPORTATION & UTILITIES	51569	52081	52776	54155	54429	56152	58120	58465	60957	66159	68920	69819
	1.77	0.99	1.33	2.61	0.51	3.17	3.50	0.59	4.26	8.54	4.17	1.30
INFORMATIONPercentage change	57943 3.58	57627 -0.55	60543 5.06	61086 0.90	63409 3.80	67361 6.23	73109 8.53	74504 1.91	80796 8.45	90078	89150 -1.03	89617 0.52
FINANCIAL ACTIVITIES	63635	62374	64082	65205	66218	66679	70592	73148	80932	89565	89530	92774
	6.97	-1.98	2.74	1.75	1.55	0.70	5.87	3.62	10.64	10.67	-0.04	3.62
PROFESSIONAL & BUSINESS SERVICES	51063	51388	50999	54014	54448	56013	58914	61974	65368	70724	75055	78979
	7.46	0.64	-0.76	5.91	0.80	2.88	5.18	5.19	5.48	8.19	6.12	5.23
EDUCATION & HEALTH SERVICES	44848	45137	46004	47991	48227	49604	50803	52007	55708	58905	62125	64514
	1.73	0.64	1.92	4.32	0.49	2.85	2.42	2.37	7.12	5.74	5.47	3.84
LEISURE & HOSPITALITYPercentage change	21403	21278	22267	23666	24175	25336	26622	27060	26618	31018	34403	35977
	3.11	-0.59	4.65	6.28	2.15	4.80	5.08	1.64	-1.63	16.53	10.91	4.58
OTHER SERVICESPercentage change	39681	39896	42050	43252	43505	44225	45400	46044	50098	51143	54648	56461
	2.96	0.54	5.40	2.86	0.58	1.66	2.66	1.42	8.80	2.09	6.85	3.32
GOVERNMENTPercentage change	41818	42184	43191	43687	44286	45827	47105	48336	50382	52729	54850	58580
	1.64	0.87	2.39	1.15	1.37	3.48	2.79	2.61	4.23	4.66	4.02	6.80
FEDERAL, CIVILIANPercentage change	72050 0.49	71817 -0.32	78606 9.45	77777	77868 0.12	79361 1.92	82235 3.62	81917 -0.39	83517 1.95	87680 4.98	90801 3.56	96114 5.85
STATE & LOCAL	37740	38258	38628	39233	39919	41514	42646	43997	45865	47986	49958	53206
	1.92	1.37	0.97	1.56	1.75	3.99	2.73	3.17	4.25	4.63	4.11	6.50

Boyd Center for Business and Economic Research, University of Tennessee

Table 10: Tennessee Civilian Labor Force and Unemployment Rate

						Historical Data	Jata					
<b> </b>	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CIVILIAN LABOR FORCE (THOUS)	3096	3079	3044	3074	3137	3196	3258	3340	3297	3324	3362	3379
Percentage change	-0.66	-0.55	-1.16	1.01	2.03	1.90	1.92	2.52	-1.27	08.0	1.16	0.49
EMPLOYED PERSONS (THOUS)	2850	2841	2842	2903	2987	3077	3144	3228	3051	3175	3249	3268
Percentage change	0.59	-0.28	0.03	2.15	2.89	2.99	2.19	2.67	-5.48	4.06	2.31	0.59
UNEMPLOYED PERSONS (THOUS)	247	238	201	171	149	120	114	112	246	149	114	111
Percentage change	-13.10	-3.60	-15.41	-15.02	-12.68	-19.91	-5.05	-1.73	120.54	-39.63	-23.44	-2.11
PARTICIPATION RATE (PERCENT)	61.7	8.09	59.6	59.6	60.2	60.5	61.0	61.9	60.5	60.5	60.4	59.8
Percentage change	-1.59	-1.42	-2.04	0.04	96.0	0.53	0.81	1.48	-2.16	-0.11	-0.17	-0.91
UNEMPLOYMENT RATE (PERCENT)	8.0	7.7	9.9	5.6	4.8	3.7	3.5	3.3	7.5	4.5	3.4	3.3
Boyd Center for Business and Economic Research,	Research, L	Iniversity o	niversity of Tennessee	9					_	ennessee	Fennessee Econometric	c Model

l			1	1		Historical Data	Data					
1	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL TAXABLE SALESPotal	103688 2.78	105682 1.92	109617 3.72	116622 6.39	121553 4.23	125264 3.05	131074 4.64	136958 4.49	139581 1.92	162554 16.46	168864 3.88	167688 -0.70
AUTO DEALERSPuto Deacentage change	9811 8.03	10259 4.57	10870 5.95	12115 11.46	12827 5.88	12872 0.34	13077	13463 2.95	13617	15481 13.69	14571 -5.88	14478 -0.64
PURCHASES FROM MANUFACTURERS Percentage change	4275 -1.03	4354 1.84	4592 5.47	5011 9.13	5296 5.68	5481 3.49	5823 6.26	6239 7.14	6753 8.24	7887 16.78	9208 16.75	9010
MISC DURABLE GOODSPercentage change	17320 3.16	17545 1.30	18063 2.95	19131 5.91	20486 7.08	21362 4.27	22201 3.93	23228	25064 7.90	28910 15.34	30792 6.51	29711 -3.51
EATING AND DRINKING PLACES	10787 5.31	11041 2.36	11527 4.40	12363 7.25	12829 3.77	12911 0.64	13404 3.82	14583 8.79	12631 -13.38	15436 22.21	16322 5.73	17008 4.21
FOOD STORESPool Storentage change	10250 3.22	10701 4.40	11013 2.92	11411 3.61	11715 2.66	12122 3.47	12540 3.45	12768 1.82	13933 9.12	13624 -2.22	13503 -0.89	12419 -8.03
LIQUOR STORESPiQUOR STORES	839 6.95	873 4.10	920 5.39	998 8.46	992	908	953 4.98	1020 6.94	1235 21.17	1280 3.62	1253 -2.14	1241 -0.92
HOTELS AND MOTELSPOTELS Percentage change	2632 4.73	2650 0.70	2966 11.90	3311 11.64	3662 10.61	3605 -1.57	3754 4.12	4552 21.28	2810 -38.27	4671 66.22	5681 21.62	5966 5.03
OTHER RETAIL AND SERVICEProcentage change	31924 3.03	32505 1.82	33859 4.17	35883 5.98	37170 3.59	38038 2.34	40471 6.39	42158 4.17	46187 9.56	55889 21.01	57359 2.63	58298 1.64
MISC NONDURABLE GOODSProcentage change	8910 3.53	9076 1.86	9315 2.64	9729 4.44	10076 3.57	9875 -2.00	10207 3.36	10431 2.20	9893 -5.16	11973 21.03	12458 4.05	12378 -0.64
TRANSPORTATION, COMMUNICATION	6940 -9.11	6678	6493	6671 2.74	6500 -2.56	8092 24.48	8645 6.84	8516 -1.49	7458 -12.43	7402 -0.75	7719 4.29	7179 -7.00
PER CAPITA (\$) Percentage change	16042 1.83	16237 1.22	16710 2.91	17631 5.51	18212 3.29	18580 2.02	19250 3.60	19950 3.64	20154	23327 15.74	23947 2.66	23561 -1.61

Boyd Center for Business and Economic Research, University of Tennessee

**Tennessee Econometric Model** 

ı	2012	2013	2014	2015	2016	Historical Data 2017 2	Data 2018	2019	2020	2021	2022	2023
TOTAL TAXABLE SALES	98017 4.68	101224 3.27	106465 5.18	113481 6.59	119468 5.28	125274 4.86	133762 6.78	141774 5.99	146095 3.05	177185 21.28	196065 10.66	202028 3.04
AUTO DEALERSPercentage change	9275 10.03	9827 5.95	10557 7.43	11789	12608 6.95	12872 2.09	13345 3.67	13936 4.44	14252 2.26	16860 18.30	16918 0.34	17444 3.11
PURCHASES FROM MANUFACTURERS Percentage change	4042	4170 3.18	4460 6.95	4876 9.33	5206 6.76	5481 5.29	5943 8.44	6459 8.67	7070 9.46	8599 21.62	10690 24.32	10854 1.53
MISC DURABLE GOODS	16372 5.06	16805 2.64	17544 4.40	18617 6.12	20135 8.16	21364 6.10	22657 6.05	24046 6.13	26233 9.09	31515 20.13	35745 13.42	35793 0.13
EATING AND DRINKING PLACESPercentage change	10197 7.26	10576 3.71	11196 5.86	12030 7.45	12609 4.81	12911 2.39	13679 5.96	15095 10.34	13221 -12.41	16829 27.29	18955 12.63	20493 8.11
FOOD STORES	9690 5.14	10250 5.78	10696 4.36	11103 3.80	11514 3.71	12123 5.29	12796 5.55	13217 3.29	14579 10.31	14849 1.85	15678 5.58	14954 -4.62
LIQUOR STORESPercentage change	793 8.93	836 5.47	894	971 8.66	975 0.36	908	973 7.14	1055 8.46	1293 22.49	1395 7.90	1454 4.27	1495 2.82
HOTELS AND MOTELSPercentage change	2488	2539 2.03	2881 13.47	3222 11.85	3600 11.72	3605 0.15	3831 6.27	4712 22.98	2942 -37.56	5101 73.37	6598 29.35	7188 8.95
OTHER RETAIL AND SERVICEPercentage change	30178 4.95	31134 3.17	32885 5.62	34916 6.18	36531 4.62	38042 4.13	41300 8.57	43641 5.67	48346 10.78	60916 26.00	66602 9.34	70244 5.47
MISC NONDURABLE GOODS	8423 5.45	8693 3.21	9047	9467 4.63	9902 4.60	9875 -0.28	10416 5.48	10797 3.67	10356 -4.09	13053 26.05	14465 10.82	14915 3.11
TRANSPORTATION, COMMUNICATION Percentage change	6560 -7.41	6396 -2.50	6306 -1.40	6491 2.93	6388 -1.58	8094 26.71	8822	8816 -0.07	7803 -11.48	8068 3.40	8959 11.03	8648 -3.47
PER CAPITA (\$)	15165 3.72	15552 2.56	16229 4.35	17156 5.71	17899 4.33	18582 3.81	19644 5.72	20651 5.12	21095 2.15	25427 20.54	27804 9.35	28386 2.09

Boyd Center for Business and Economic Research, University of Tennessee

Table 13: Tennessee Gross Domestic Product by Sector (millions of 2017 dollars)

						Historica	l Data					
I	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
GROSS DOMESTIC PRODUCTPercentage change	312,470 3.45	318,697 1.99	324,177 1.72	335,660 3.54	343,635 2.38	355,418 3.43	362,422 1.97	370,257 2.16	367,924 -0.63	400,880 8.96	416,747 3.96	424,665 1.90
NATURAL RESOURCES & MINING	1,745	2,280	2,065	2,237	2,216	2,231	2,249	2,382 5.93	2,266	2,791	2,691	2,560
CONSTRUCTION	11,637 7.86	11,129 -4.37	10,919 -1.89	11,200 2.58	11,543 3.06	12,016 4.10	12,496 3.99	13,205 5.67	13,253 0.37	14,311 7.98	14,594 1.98	14,609
MANUFACTURING	46,645 5.93	49,141 5.35	48,773 -0.75	50,122 2.77	51,486 2.72	55,231 7.27	54,202 -1.86	54,242 0.07	54,674 0.80	58,716 7.39	61,367 4.51	58,276 -5.04
DURABLE GOODS	25,801 8.55	26,790 3.83	27,317 1.97	28,534 4.45	29,773 4.34	31,351 5.30	30,212 -3.63	30,398 0.62	30,116 -0.93	31,812 5.63	34,179 7.44	33,178 -2.93
NONDURABLE GOODSPercentage change	20,844 2.85	22,350 7.23	21,456 -4.00	21,588 0.62	21,713 0.58	23,880 9.98	23,990 0.46	23,843 -0.61	24,558 3.00	26,905 9.55	27,187 1.05	25,098 -7.68
TRADE, TRANSPORTATION & UTILITIESPercentage change	58,670 2.88	59,552 1.50	61,001 2.43	63,571 4.21	66,246 4.21	67,613 2.06	69,229 2.39	70,878 2.38	72,452 2.22	76,166 5.13	74,277 -2.48	77,081 3.78
WHOLESALE TRADEPercentage change	21,882 6.12	22,133 1.15	22,888 3.41	23,464 2.52	23,641	23,368	23,481 0.48	24,142 2.81	24,543 1.66	25,141 2.43	24,864 -1.10	24,890 0.11
RETAIL TRADE	20,456	20,805 1.70	21,347 2.61	22,621 5.97	24,451 8.09	25,687 5.05	27,051 5.31	27,884 3.08	28,184	28,952 2.72	27,612 -4.63	30,757 11.39
TRANSPORTATION & UTILITIESPercentage change	16,332 0.96	16,614 1.73	16,767 0.92	17,486 4.29	18,154 3.82	18,558 2.22	18,697 0.75	18,852 0.83	19,725 4.63	22,074 11.91	21,800	21,433 -1.68
INFORMATION	8,758 -5.04	8,794 0.41	8,487	9,130 7.58	9,954 9.02	10,737 7.86	11,771 9.63	12,451 5.78	12,869 3.36	15,660 21.69	16,575 5.84	18,178 9.67
FINANCIAL ACTIVITIESPinandial Activities	54,533 3.16	55,078 1.00	56,691 2.93	57,862 2.07	59,736 3.24	61,991 3.77	62,717 1.17	63,275 0.89	65,132 2.93	71,083 9.14	73,455 3.34	74,528 1.46
PROFESSIONAL & BUSINESS SERVICESPROFESSIONAL & BUSINESS SERVICES	32,410 7.93	33,832 4.39	34,858 3.03	36,417 4.47	36,868 1.24	38,645 4.82	41,822 8.22	44,639 6.74	44,118	50,748 15.03	56,185 10.71	57,702 2.70
EDUCATION & HEALTH SERVICESPercentage change	35,120 1.51	36,050 2.65	36,946 2.49	39,728 7.53	39,799 0.18	39,439 -0.90	38,871 -1.44	39,498 1.61	38,876 -1.58	41,463 6.66	42,533 2.58	45,629 7.28
LEISURE & HOSPITALITYPercentage change	15,767 3.42	15,979 1.34	17,178 7.50	18,337 6.75	18,460 0.67	19,492 5.59	20,549 5.42	21,545 4.85	16,089 -25.32	21,197 31.75	24,178 14.07	25,352 4.85
OTHER SERVICES	8,228 2.67	8,194	8,433	8,543	8,644	8,937 3.39	9,371 4.85	9,509 1.47	8,855 -6.87	9,523 7.53	9,928 4.25	9,479 -4.52
GOVERNIMENT	38,957 2.28	38,670 -0.74	38,827 0.40	38,512 -0.81	38,685 0.45	39,086 1.04	39,145 0.15	38,635 -1.30	39,341 1.83	39,223 -0.30	40,966 4.44	41,272 0.75
FEDERAL	9,699	9,935 2.43	10,659 7.29	10,868 1.96	11,072 1.88	11,245 1.56	11,163 -0.73	11,084 -0.71	11,059 -0.23	11,067 0.07	11,909 7.60	11,295 -5.16
STATE & LOCAL	29,258 3.36	28,735	28,167	27,643 -1.86	27,612 -0.11	27,841 0.83	27,982 0.51	27,551 -1.54	28,282 2.65	28,156 -0.44	29,057 3.20	29,977 3.17
onomic Research, Uni	versity of Tennesse	ennessee							۲	ennessee E	conometric Mode	c Model