

Growing Stronger: A Guidebook to the Tennessee Economy 2016

State of Tennessee

TN

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Getting Stronger: A Guidebook to the Tennessee Economy, 2016

Executive Summary

The Tennessee economy strengthened in 2016. Nonagricultural employment increased from 2,893,900 to 2,965,800; the number of employers increased, the state labor force grew, and state unemployment rates declined. Per capita incomes increased slightly as average wages rose and poverty rates declined somewhat. The short-term job outlook is for annual average employment growth of at least 1.8 percent through the third quarter of 2018, with net total openings of 134,460 over the two year period. From 2015 to 2016, non-fatal injuries and illnesses on the job were also reduced.

Employment

- Nonagricultural employment increased by nearly 2.5 percent from 2015 to 2016, at approximately the same pace as seen in the period from 2014 to 2015. The result was 71,900 new jobs created in the state from 2015 to 2016. All major metropolitan statistical areas increased in employment.

Employers

- The average number of employers increased by 2.0 percent over the year. Total payroll increased as well. Seventy-three counties had a net increase in employers over the year.

Labor Force and Demographics

- Total population increased nearly 1 percent over the year. Even as the labor force increased to 3,135,100 in 2016, the number of unemployed decreased by 26,000 to an annual average of 150,800. The unemployment rate dropped from 5.6 percent in 2015 to 4.8 percent in 2016.

Wages and Income (and Poverty)

- The Tennessee average annual wage increased nearly 1.4 percent in 2015-2016. The median wage, with half of employees earning more and half less, improved over the year by 3.1 percent, bringing the state median wage to \$32,800. Production wages increased from \$17.48/hour in 2015 to \$18.58/hour in 2016. Per capita personal income rose to \$43,380 (2016 revised), while the rate of poverty was 17.6 percent.

Job Outlook

- One measure of the job outlook is the number of unemployed individuals compared to the number of jobs posted monthly on the job seeker website jobs4tn.gov. From June 2015 to June 2016, the number of unemployed became less than the number of job postings, potentially turning the state into a job seekers' market. Job growth through 2018 was expected to be at least 1.8 percent annually.

Safety on the Job

- Safety on the job increased from 2014 to 2015 with a reduction in nonfatal injuries and illnesses.

Workforce Challenges and Strategies

- The Workforce Innovation and Opportunity Act (WIOA) is changing governance in the workforce system and integrating more services into the American Job Center network. To aid the LWDA's in this effort, fourteen categories of individuals with substantial barriers to employment, as identified in the WIOA guidelines, have been included in this report with estimates of the number within each category.
- A priority at the state and national levels in the next year will be the expansion of apprenticeships involving engaged employers/apprenticeship sponsors, classroom instruction, and paid work-based learning. Included for the first time in this report is information on the number of apprentices trained by occupation and county in Tennessee in 2016 and their sponsoring organizations. Additional information is available on request from the Labor Market Information Section.

Tennessee Economy 2016



Employment

Total Employment

2016: 2,965,800
2.5%
2015: 2,893,900

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New Jobs

2016: 71,900
2.5%
2015: 71,700

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MSA Employment 2015-2016 >2%

Nashville 3.8 %
Jackson 2.9 %
Chattanooga 2.6 %
Cleveland 2.1 %
Knoxville 2.1 %



Employers

Average Number of Employers

2016: 153,178
2.0%
2015: 150,243

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Total Payroll

2016: 136.9 Billion
3.9%
2015: 131.8 Billion

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Counties that Increased Employment In 2016: 73
In 2015: 80

Strong



Labor Force & Demographics

Unemployment Rate

2016: 4.8%
-0.8%
2015: 5.6%

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Labor Force

2016: 3,135,100
+2.0%
2015: 3,070,900

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Unemployment Rates

Veterans, 2016: 3.6%
Youth, 2015: 17.6%
With Disability, 2015: 13.5%
% in Poverty, 2015: 17.6%

Challenge



Wages & Income

Average Annual Wage

2016: \$47,404
1.4%
2015: \$46,756

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State Median Wage

2016: \$32,800
3.1%
2015: \$31,818

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Average Hourly Wages – Production Workers

2016: \$18.58
2015: \$17.48

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Job Outlooks

Ratio of Unemployed to Job Openings

June 2016: 0.90
-0.08
June 2015: 0.98

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Projected Annual Growth Rate, All Occupations

2016-2018: 1.8%
2015-2017: 1.6%

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Projected Job Openings

2016-2018: 134,460
2015-2017: 126,700

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Safety on the Job

Total Nonfatal Occupational Illnesses & Injuries, All

2015: 3.2 per 100 FTE
2014: 3.3 per 100 FTE

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Total Nonfatal Occupational Illnesses & Injuries, Public Sector

2015: 4.3 per 100 FTE
2014: 4.1 per 100 FTE

Challenge

Fatal Occupational Injuries

2015: 112
2014: 127

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Tennessee Economic Conditions, December 2016

During late 2016, job growth at the national level continued to remain healthy, increasing an average of 176,000 new jobs from July to December 2016. The national unemployment rate continued to decline, from a seasonally adjusted 4.9 percent in July of 2016 to 4.7 percent in December 2016. In 2016, Tennessee's seasonally adjusted unemployment rate declined from 5.0 percent in June to 4.9 percent in December, and in June 2017 was 4.2 percent, as it continues to remain lower than the national rate.

Consumer spending increased by \$334.1 billion from first quarter 2015 to first quarter 2016, although consumer confidence has been somewhat volatile with it reaching a low of 87.2 in October 2016 before rising to 98.2 in December 2016. In the last quarter of 2016, consumer spending increased by \$74.7 billion as gas prices stayed low and wages increased. In Tennessee, average weekly wages of production employees in manufacturing increased by 6.2 percent over the year from 2015 to 2016.

At the national level, despite the steady improvement in job creation, the labor force participation rate decreased slightly from a high of 62.9 percent in September 2016 to 62.7 percent in December 2016. The Tennessee rate was moving closer to the national rate, from December's 2015 rate of 59.8 percent to 60.0 percent in May 2016 and 60.4 percent in December 2016. From 2015 to 2016, Tennessee's estimated population increased by 56,138, an increase of 0.85 percent.

Tennessee's exports in the 4th quarter of 2016 decreased by almost \$130 million from the year before, ¹ at the same time as US exports actually increased slightly over the same period. The state's 1.6% decline in exports gave it a ranking of 34th among all states in export performance for the fourth quarter of 2016, a far lower ranking than the state had in recent years. Tennessee's largest markets continue to be Canada, Mexico and China for total exports, with the Chinese markets (China, Hong Kong, and Taiwan) combining to produce an almost 15% gain in exports. This was due to a large increase in cell phone related shipment and the recent large increase of silicon exports from our state to various countries.

Sales tax revenues were up 6.2 percent and franchise and excise taxes were up 23.4 percent in December 2016 compared to December 2015, helping to fund several of the governor's initiatives in education, transportation infrastructure rebuilding, and increasing the capabilities of our state's workforce.

¹ <http://capone.mtsu.edu/berc/global/spr17/trade.html>



Statewide Employment

Tennessee's average annual nonfarm employment increased 2.5 percent from 2015 to 2016, adding 71,900 jobs. The number of goods-producing jobs grew at the same rate (2.8 percent) as the number of private service-providing jobs, while government grew the slowest (0.5 percent). In the goods-producing sector, mining, logging, and construction grew by 2,100 jobs while manufacturing increased by 10,300 jobs.

In the private service-providing industries, the major industry sectors with the largest total increases were trade, transportation, and utilities which added 14,800 jobs, and professional and business services, adding 12,600 jobs. In the former, the number of warehousing locations has been increasing, adding to more rapid job growth. In professional and business services, the fastest growing sector was management of companies and enterprises, as headquarters operations expanded in Tennessee. Another faster-growing sector has been real estate rental and leasing, growing in tandem with the construction sector.

Since 2011, Tennessee has added 304,400 jobs, an 11.4 percent increase. Professional and business services led the way gaining 82,800 jobs (primarily in administrative support, waste management and remediation, including facilities support and temporary employment services) since 2011. Only government has experienced a decline since 2011. Sectors gaining more than 25,000 jobs included durable goods manufacturing; transportation and utilities; administration, support, waste management, and remediation services; health care and social assistance; and accommodation and food services.

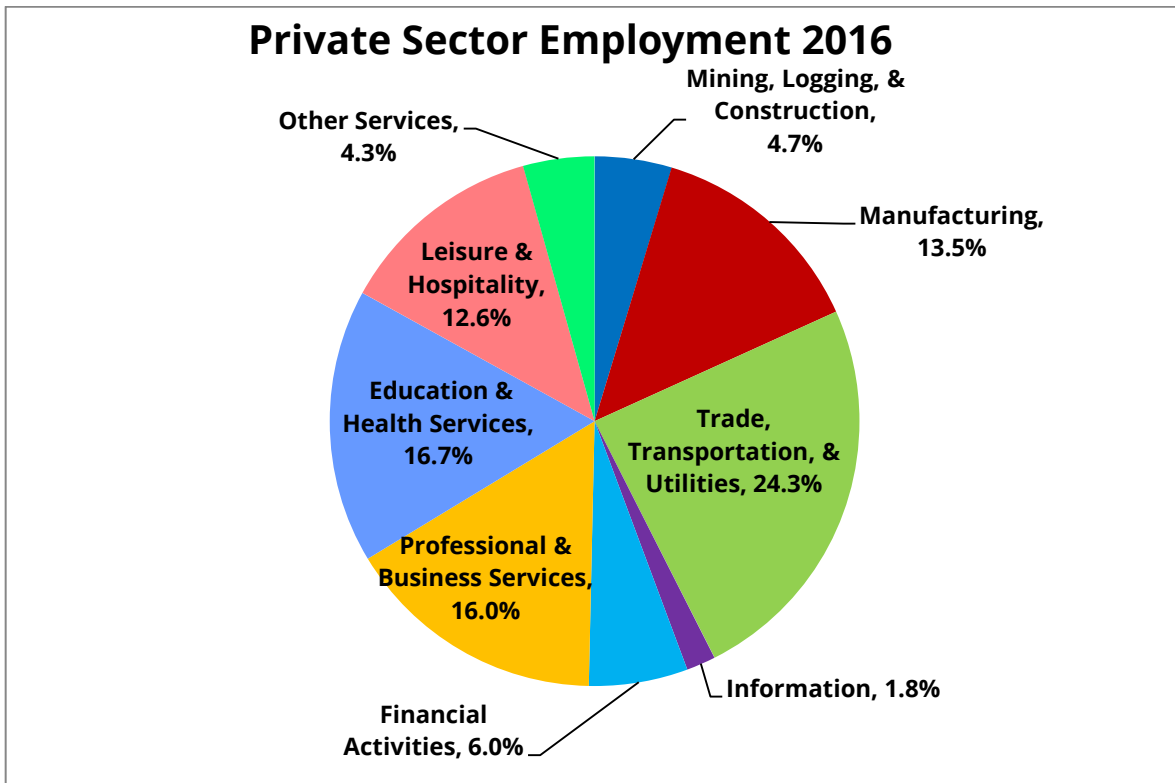
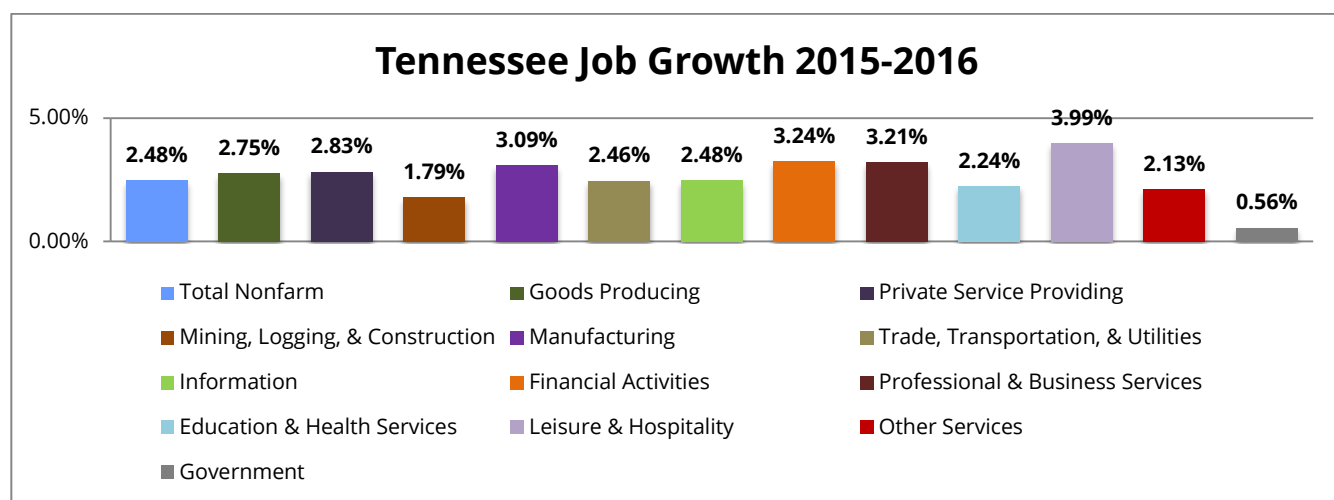


Figure 1

Table 1: Tennessee Industry Employment, 2011 to 2016

Industry Employment (in thousands)	2011	2015	2016	2015-2016		2011-2016	
Total Nonfarm	2661.4	2893.9	2965.8	71.9	2.5%	304.4	11.4%
Goods Producing	413.1	450.1	462.5	12.4	2.8%	49.4	12.0%
Mining, Logging, & Construction	108.7	117.2	119.3	2.1	1.8%	10.6	9.8%
Manufacturing	304.4	333	343.3	10.3	3.1%	38.9	12.8%
Durable Goods Manufacturing	183.7	210.8	218.9	8.1	3.8%	35.2	19.2%
Non-Durable Goods Manufacturing	120.7	122.2	124.4	2.2	1.8%	3.7	3.1%
Private Service Providing	1780.7	1962.1	2017.6	55.5	2.8%	236.9	13.3%
Trade, Transportation, & Utilities	563.5	602.2	617	14.8	2.5%	53.5	9.5%
Wholesale Trade	117.9	120	119.9	-0.1	-0.1%	2	1.7%
Retail Trade	309.2	325.5	333.8	8.3	2.5%	24.6	8.0%
Transportation & Utilities	136.5	156.8	163.4	6.6	4.2%	26.9	19.7%
Information	43.8	44.4	45.5	1.1	2.5%	1.7	3.9%
Financial Activities	136.5	148	152.8	4.8	3.2%	16.3	11.9%
Finance & Insurance	105.5	111.6	114.4	2.8	2.5%	8.9	8.4%
Real Estate, Rental & Leasing	31	36.4	38.3	1.9	5.2%	7.3	23.5%
Professional & Business Services	322.8	393	405.6	12.6	3.2%	82.8	25.7%
Professional, Scientific & Technical Services	108.5	127.5	131.9	4.4	3.5%	23.4	21.6%
Management of Companies & Enterprises	31.7	42.6	44.9	2.3	5.4%	13.2	41.6%
Administration, Support, Waste Management, & Remediation Services	182.6	223	228.7	5.7	2.6%	46.1	25.2%
Education & Health Services	386.5	415	424.3	9.3	2.2%	37.8	9.8%
Educational Services	49.8	56.8	59.2	2.4	4.2%	9.4	18.9%
Health Care & Social Assistance	336.7	358.2	365.1	6.9	1.9%	28.4	8.4%
Leisure & Hospitality	267.6	308	320.3	12.3	4.0%	52.7	19.7%
Arts, Entertainment & Recreation	29.7	34.3	35.8	1.5	4.4%	6.1	20.5%
Accommodation & Food Services	237.9	273.7	284.5	10.8	3.9%	46.6	19.6%
Other Services	102.1	108	110.3	2.3	2.1%	8.2	8.0%
Government	425.5	425.1	427.5	2.4	0.6%	2	0.5%
Federal Government	50.5	49.1	49.2	0.1	0.2%	-1.3	-2.6%
State Government	96.3	96.5	96.4	-0.1	-0.1%	0.1	0.1%
Local Government	278.7	279.4	281.9	2.5	0.9%	3.2	1.1%

Source: TN Department of Labor & Workforce Development, Current Employment Statistics (CES) 2011-2016



Source: TN Department of Labor & Workforce Development, Current Employment Statistics (CES) 2011-2016

Figure 2



Employers

Employers

The total number of employers in Tennessee grew 2 percent to 153,178 in 2016, up from 150,243 total employers in 2015 and 145,749 total employers in 2014.

All 10 of Tennessee's Metropolitan Statistical Areas (MSAs) had a positive growth rate in the number of firms in 2016, ranging from a high of 4.4 percent (Nashville MSA) to a low of 0.6 percent (Jackson MSA). The MSAs with the highest growth rates were the Nashville (4.4 percent), Knoxville (2.4 percent), and Clarksville (2.3 percent). Williamson (6.9 percent), Cannon (6.7 percent), and Hickman (6.4 percent) counties were the highest in the Nashville MSA. The county with the lowest growth rate in the slowest growing MSA in 2016 was Madison (.1 percent).

The counties with the lowest growth rate in the number of firms were Bledsoe (-6.0 percent), Fentress (-2.5 percent), and Clay (-2.2 percent). Seventy of the ninety-five Tennessee counties had a positive growth rate in the average number of firms.

Wages

The average annual wage in Tennessee increased 1.4 percent to \$47,404 in 2016, up from \$46,746 in 2015.

The counties with the highest growth rate in average annual wages were Hardin (13.2 percent), Polk (11.6 percent), Fentress (7.3 percent), Maury (6.7 percent), and Henderson (5.9 percent).

Nine of the ten Tennessee Metropolitan Statistical Areas (MSAs) had a positive wage growth rate in 2016. (The Tri-Cities MSA had a negative wage growth rate of 0.3 percent.) The MSAs with the highest growth rates were Jackson and Knoxville (both 1.9 percent) and Memphis (1.4 percent). Crockett County had the highest wage growth rate (2.9 percent) in the Jackson MSA. Grainger County (5.2 percent) led the Knoxville MSA, and Tipton County reached 3.1 percent in the Memphis MSA.

The counties with the lowest growth rate in average annual wages were Stewart (-5.8 percent), Rhea (-3.8 percent), Scott (-3.6 percent), Morgan (-3.3 percent), and Houston (-2.3 percent). Seventy-nine of the ninety-five Tennessee counties had a positive wage growth rate.

The MSAs with the lowest wage growth rate were Kingsport (-0.3 percent), Chattanooga (0.5 percent), and Clarksville (0.6 percent).

Detailed Industry Employment

The following table (table 2) lists the twenty largest three digit industries in Tennessee. These are the industries fueling Tennessee's growth, with total employment of 1,948,390, making up 67 percent of total employment, or more than two out of every three jobs. The top 10 included seven service providing industries, general government, and two goods producing industries. The fastest growing industries from 2015 to 2016 at the state level were transportation equipment manufacturing, management of companies and enterprises, and specialty trade contractors. The highest weekly wages were found in the management of companies and enterprises (\$1,880), professional and technical services (\$1,457), and insurance carriers (\$1,435) industries.

Table 2: Tennessee's Largest Industries in 2016

Industry Code	Industry Title	Average Number of Firms			Average Annual Employment			Average Weekly Wage
		2016	2015	% Change	2016	2015	% Change	
238	Specialty trade contractors	7,276	7,110	2.3	74,897	71,326	5.0	\$971
336	Transportation equipment manufacturing	383	369	3.8	71,931	66,658	7.9	\$1,149
423	Merchant wholesalers, durable goods	5,250	4,865	7.9	62,195	62,627	-0.7	\$1,261
424	Merchant wholesalers, nondurable goods	2,328	2,148	8.4	40,946	40,888	0.1	\$1,249
441	Motor vehicle and parts dealers	2,536	2,517	0.8	45,607	43,992	3.7	\$1,035
445	Food and beverage stores	2,178	2,195	-0.8	54,482	53,448	1.9	\$409
452	General merchandise stores	1,710	1,651	3.6	73,561	71,504	2.9	\$437
484	Truck transportation	2,268	2,242	1.2	58,748	57,812	1.6	\$945
522	Credit intermediation and related activities	4,722	4,547	3.8	53,601	53,115	0.9	\$1,274
524	Insurance carriers and related activities	3,569	3,498	2.0	43,127	41,763	3.3	\$1,435
541	Professional and technical services	17,110	16,810	1.8	133,404	129,511	3.0	\$1,457
551	Management of companies and enterprises	1,238	1,124	10.1	44,748	42,143	6.2	\$1,880
561	Administrative and support services	8,540	8,461	0.9	219,028	215,113	1.8	\$631
611	Educational services	1,957	1,904	2.8	227,439	225,104	1.0	\$788
621	Ambulatory health care services	10,284	10,112	1.7	148,440	145,916	1.7	\$1,195
622	Hospitals	221	213	3.8	142,369	137,871	3.3	\$1,091
623	Nursing and residential care facilities	1,100	1,070	2.8	65,136	65,131	0.0	\$577
624	Social assistance	2,526	2,512	0.6	48,908	48,588	0.7	\$436
722	Food services and drinking places	11,001	10,621	3.6	250,101	240,790	3.9	\$324
921	Executive, legislative and general government	582	593	-1.9	89,722	87,997	2.0	\$829

Source: TN Department of Labor & Workforce Development, Quarterly Census of Employment and Wages (QCEW)

The table below lists the ten counties with the largest annual average wage increases from 2015 to 2016. Five of the ten counties are in the West Tennessee Region.

Table 3: Tennessee Counties with Largest Wage Increases

County	Region	Average Number of Establishments			Average Annual Wages		
		2016	2015	% Change	2016	2015	% Change
HARDIN	West	524	530	-1.1	\$42,352	\$37,411	13.2
POLK	East	244	241	1.2	\$31,539	\$28,252	11.6
FENTRESS	Middle	274	281	-2.5	\$31,256	\$29,143	7.3
MAURY	Middle	1,819	1,771	2.7	\$44,996	\$42,160	6.7
HENDERSON	West	499	501	-0.4	\$36,229	\$34,223	5.9
GRAINGER	East	267	254	5.1	\$34,860	\$33,123	5.2
LAKE	West	117	114	2.6	\$30,594	\$29,114	5.1
CARROLL	West	458	457	0.2	\$34,388	\$32,754	5.0
DECATUR	West	222	218	1.8	\$35,867	\$34,336	4.5
TROUSDALE	Middle	134	136	-1.5	\$32,037	\$30,788	4.1

Source: TN Department of Labor & Workforce Development, Quarterly Census of Employment and Wages (QCEW)

Table 4: Regional Employment, Number of Firms, and Payroll, 2015-2016

Area	Total Employment 2016	# of Firms 2016	# of Firms 2015	2015-2016 Increase	Total Wages 2016 (\$Bill)	Total Wages 2015 (\$Bill)	2015-2016 Increase (\$Bill)
East Region	989,282	49,639	48,717	922	42.8	41.5	1.3
Middle Region	1,145,756	60,906	58,711	2,195	56.3	53.8	2.5
West Region	691,754	31,669	31,424	245	33.7	32.7	1.0

Source: TN Department of Labor & Workforce Development, Quarterly Census of Employment and Wages (QCEW)

The table above summarizes the growth in employment, number of firms, and total payroll in the East, Middle, and West Regions from 2015 to 2016. All regions increased the number of firms and payroll, with the largest increases in the middle region.



The annual average unemployment rate in the U.S. was 8.1 percent in 2012; 7.4 percent in 2013; 6.2 percent in 2014; 5.3 percent in 2015; and 4.9 percent in 2016. Tennessee had a lower unemployment rate than the national average in 2012 and 2016 (figure 3).

The **average annual unemployment rate** in Tennessee dropped from 5.6 percent in 2015 to 4.8 percent in 2016, a drop of -0.8 percentage points. Comparing July 2016 to July 2015 (figure 4) the unemployment rate declined from 5.6% to 4.3 percent as the state economy continued to strengthen. This decline of 1.3 percent was the second largest decline in unemployment in the country. During this time period, there was a decrease of 38, 652 people who were unemployed. This 22.5% drop was the second largest rate of decline nationally. At the same time, the labor force increased 75,546 (2.44 percent), which was the seventh highest rate of growth nationally (**Source: U.S. Department of Labor, Bureau of Labor Statistics**).

Detailed information on the labor force within Tennessee’s East, Middle, and West regions can be found in the regional analysis section.

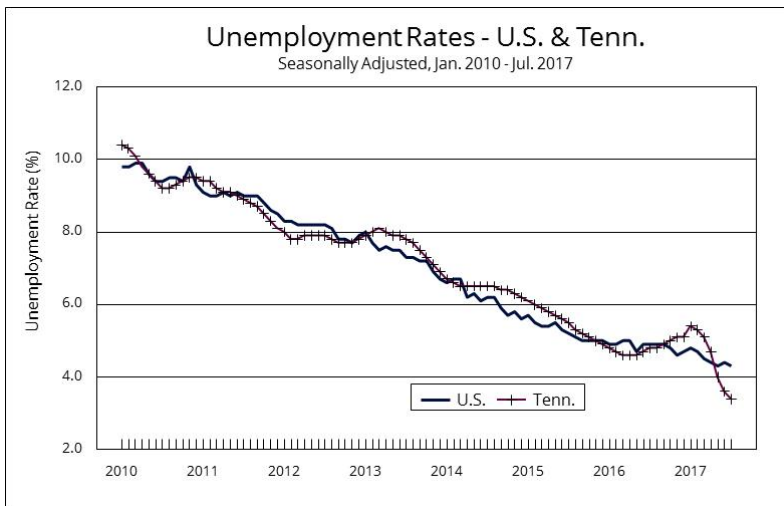


Figure 3

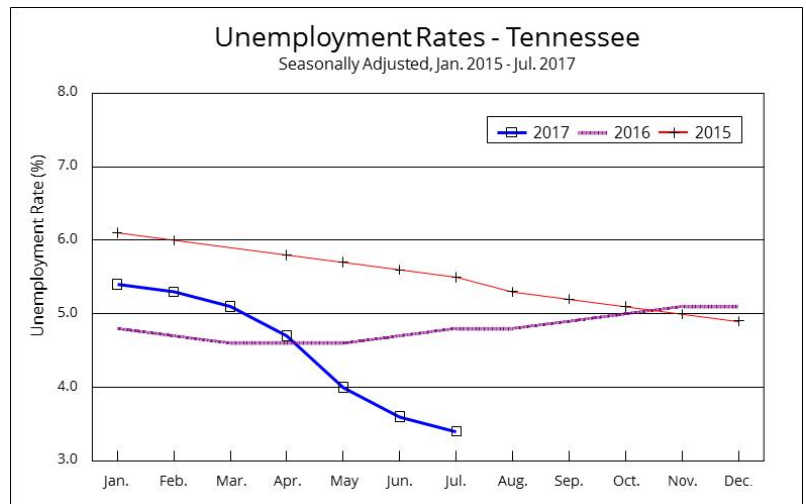


Figure 4

Source: TN Department of Labor & Workforce Development, Local Area Unemployment Statistics (LAUS)



Wages & Income

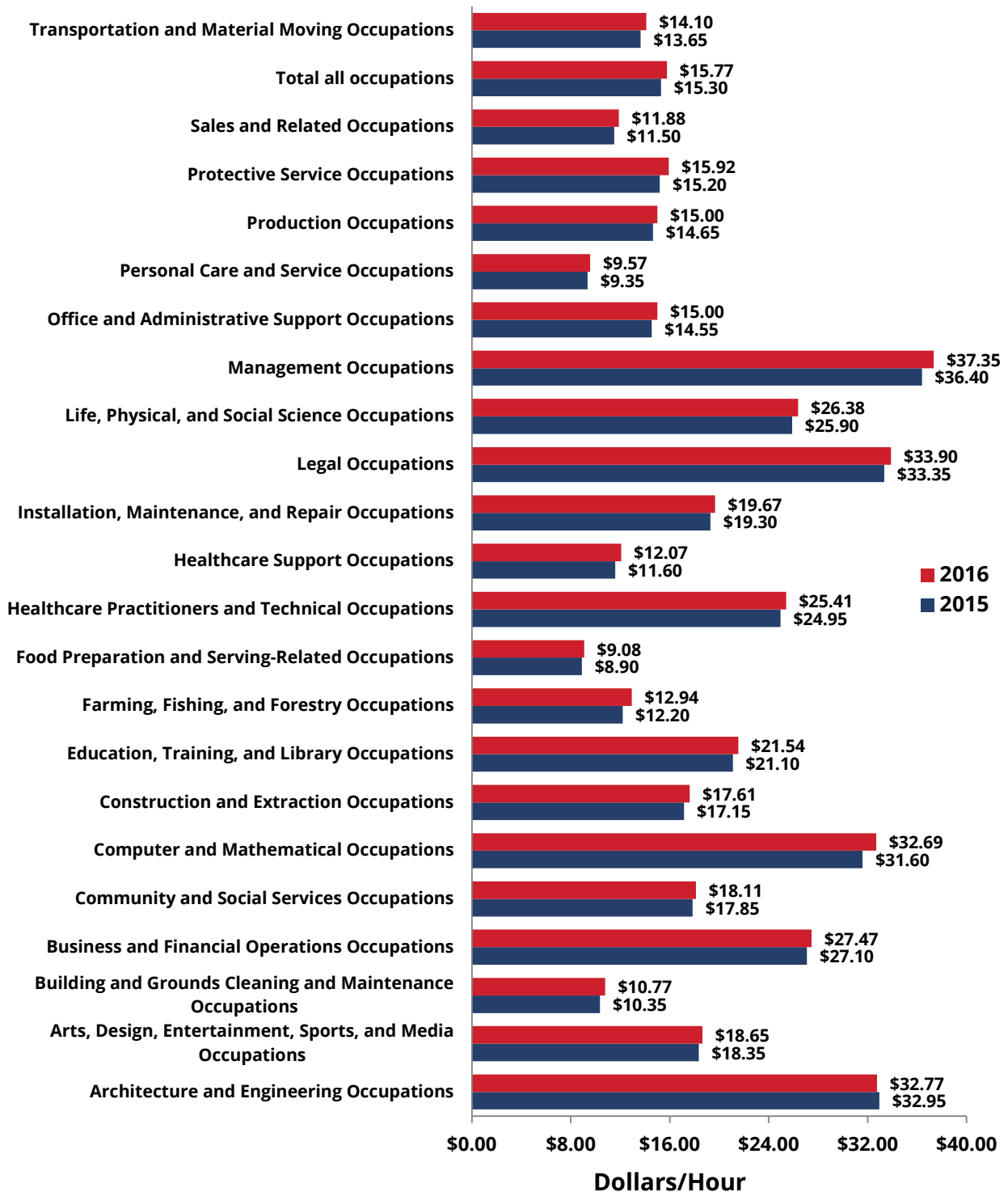
Analysis of Median Wages in Tennessee 2015 - 2016

Median hourly wage growth for Tennessee from 2015 to 2016 averaged three percent. Among the 22 major occupational groups, median wages increased for 21 of the groups. The highest percentage change was for farming and forestry occupations (6.07 percent), protective service occupations (4.74 percent), and building and grounds and maintenance occupations (4.06 percent), and health care support occupations (4.05 percent). The one major group experiencing a decrease was architecture and engineering occupations (-0.55 percent).

Median annual wages for all occupations in Tennessee improved 3.09 percent from 2015 to 2016, increasing from \$31,818 to \$32,800. All areas reported increases. The top four areas displaying percentage changes greater than the state included the Cleveland MSA (9.30 percent), Chattanooga MSA (5.46 percent), Knoxville MSA (3.41 percent), and the Johnson City MSA (3.23 percent). Just below the state's growth rate were the Kingsport-Bristol-TN-VA MSA (3.09 percent), the Morristown MSA (2.54 percent), the Nashville-Davidson County MSA (2.40 percent), and the Memphis MSA (1.82 percent).

There were no areas reporting a loss in median wages over the same period. The area with the lowest increase was Clarksville MSA at 0.23 percent.

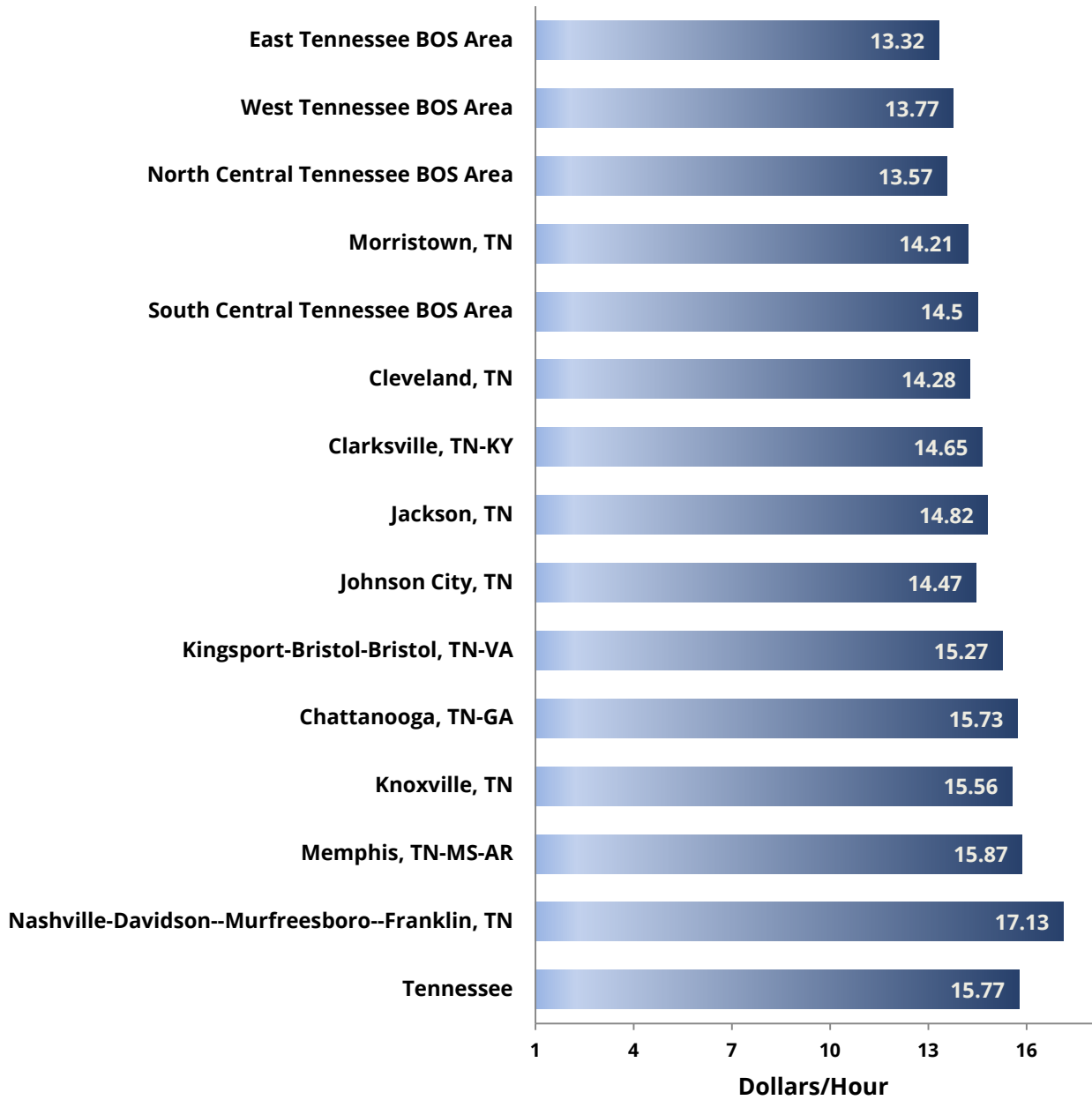
Median Hourly Wages, Major Occupational Groups



Source: TN Department of Labor & Workforce Development, Occupational Employment Statistics (OES)

Figure 5

2016 Median Hourly Wages, State and Sub-State Areas



Source: TN Department of Labor & Workforce Development, Occupational Employment Statistics (OES)

Figure 6



The following table lists ***middle skill occupations in demand*** according to the definition used by Garrett Harper in the publication “Strengthening the Middle Tennessee Region 2020.” Middle skill includes occupations with the usual entry-level education of a high school diploma and requiring more than short-term on-the-job training but less than a bachelor’s degree, and with median hourly wages greater than \$13.68.

The statewide data were developed from the 2014 to 2024 Tennessee statewide occupational employment projections, and includes those middle skill occupations with a supply-demand ratio in their program of study of less than 1.55, a positive growth rate during the projection period, and annual average openings of 25 or more. These occupations are expected to be in demand with employers in Tennessee.

For each of the statewide occupations in demand, information on the number of annual average openings expected in each LWDA was compiled from the Department’s 2014-2024 occupational projections. If less than 11 openings were expected annually in an LWDA, the cell in the occupational row is blank. For this reason and due to confidentiality concerns, the annual average total openings do not necessarily add up to statewide annual total openings.

The blue cells represent expected openings at the LWDA level for the major occupational groups. The educational levels include high school (HS), associates degrees (AA/AS), postsecondary non-degree award (PS) and some college, no degree (SC).

Eleven of the 22 occupational groups have middle skill jobs in demand. Some of the larger number of openings are in the business and financial, computer and mathematical, health practitioners and technical, construction and production, and maintenance and repair categories. As the economy continues to improve, demand is still there for tractor-trailer truck drivers in every LWDA.

***Where to find it: Jobs in Demand in LWDAs
Jobs4tn.gov>LMI Home Page- Supply and
Demand Data>Labor Market Supply>Labor
Supply and Demand by Occupation or Labor
Supply and Demand by Education Cluster***

Table 5: Tennessee in Demand Middle Skill Occupations

Occupation Code	Occupation Title	Educ Level	TN	Annual Total Openings												
				LWDA 1	LWDA 2	LWDA 3	LWDA 4	LWDA 5	LWDA 6	LWDA 7	LWDA 8	LWDA 9	LWDA 10	LWDA 11	LWDA 12	LWDA 13
130000	Business and Financial Operations Occupations			170	120	385	225	345	95	70	970	1555	65	70	70	845
131022	Wholesale and Retail Buyers, Except Farm Products	HS	95			15					30	55				35
131023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	HS	130					15				35				30
131031	Claims Adjusters, Examiners, and investigators	HS	140								65	55				
150000	Computer and Mathematical Occupations			70	30	205	90	130	30	15	380	805	20	15		460
151151	Computer Support Specialists	SC	310			40	35	20			55	165				50
270000	Arts, Design, Entertainment, Sports, and Media Occupations			85	70	150	45	145	20	25	215	725	20	25	20	235
271026	Merchandise Displayers and Window Trimmers	HS	60	40								25				20
290000	Healthcare Practitioners and Technical Occupations			720	345	880	440	955	200	250	740	2275	195	365	255	1760
292052	Pharmacy Technicians	HS	420	25	25	25					40	105				
292061	Licensed Practical and Licensed Vocational Nurses	PS	1205		70	85		115				260				145
292071	Medical Records and Health Information Technicians	PS	225	25		50		25			20	100		15		45
292081	Opticians, Dispensing	HS	50									25				
330000	Protective Service Occupations			130	100	165	110	160	55	40	180	610	75	70	85	590
331021	First-Line Supervisors of Fire Fighting and Prevention Workers	PS	75					15			15	15				25
332011	Firefighters	PS	185			20		15			20	30				40
410000	Sales and Related Occupations			660	760	1085	775	1110	280	285	1650	3020	345	345	375	1945
413011	Advertising Sales Agents	HS	60									55				25
414012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	HS	305	35	30	65	40	60		15	110	240	15	20	25	160
419022	Real Estate Sales Agents	HS	50									35				25
430000	Office and Administrative Support Occupations			885	680	1540	855	1555	360	355	2010	4105	375	415	375	2745
433031	Bookkeeping, Accounting, and Auditing Clerks	HS	910	40	25	60	30	50	10	10	70	150	10	10	10	60
433051	Payroll and Timekeeping Clerks	HS	195								20	30				25
435061	Production, Planning, and Expediting Clerks	HS	285	15		20	30	25			35	85				95

Legend: Education Level: Usual required education level. *HS* = High school diploma or equivalent; *AA/AS* = Associate's degree; *PS* = Postsecondary non- degree award; *SC* = Some college, no degree.

Source: Tennessee Department of Labor & Workforce Development, LMI Section LWDA Employment Projections, 2014-2024.

Table 5: Tennessee in Demand Middle Skill Occupations

Occupation Code	Occupation Title	Educ Level	Annual Total Openings													
			TN	LWDA 1	LWDA 2	LWD A 3	LWDA 4	LWDA 5	LWDA 6	LWDA 7	LWDA 8	LWD A 9	LWDA 10	LWDA 11	LWDA 12	LWDA 13
436013	Medical Secretaries	HS	315	15		15		35				40				75
470000	Construction and Extraction Occupations			215	155	215	240	265	75	95	455	660	65	115	75	450
472071	Paving, Surfacing, and Tamping Equipment	HS	40									15				
472073	Operating Engineers and Other Construction Equipment Operators	HS	150					15				25	15			15
472111	Electricians	HS	400	25		45	30	30				25	85			50
472152	Plumbers, Pipefitters, and Steamfitters	HS	175	15				15				20	55			30
472211	Sheet Metal Workers	HS	95					20				25				15
474011	Construction and Building Inspectors	HS	55									20				15
490000	Installation, Maintenance, and Repair Occupations			240	270	395	315	435	145	110	460	1105	125	150	175	705
492022	Telecommunications Equipment Installers and Repairers	PS	155									30	25			15
492098	Security and Fire Alarm Systems Installers	HS	55									15	20			15
499031	Home Appliance Repairers	HS	35									25				
499041	Industrial Machinery Mechanics	HS	320		15	15	20	50				100				60
499043	Maintenance Workers, Machinery	HS	85				30	15				20				15
499044	Millwrights	HS	30													15
499051	Electrical Power-Line Installers and Repairers	HS	155			15	15	20				20	50			
499052	Telecommunications Line Installers and Repairers	HS	60													
499062	Medical Equipment Repairers	AA/AS	65									20				15
499071	Maintenance and Repair Workers, General	HS	925	60	85	85	80	125		35	120	235		40	35	185
499094	Locksmiths and Safe Repairers	HS	25		20											
510000	Production Occupations			395	635	330	795	1030	490	285	845	1790	435	485	490	1035
511011	First-Line Supervisors of Production and	PS	325	15	20	15	30	50	20	15	45	80	15	15	15	45
512041	Structural Metal Fabricators and Fitters	HS	95								15	15				
512092	Team Assemblers	HS	1845	85	140	20	310	315	230	95	265	610	80	105	125	140
514011	Computer-Controlled Machine Tool Operators, Metal and	HS	170		15							30	15			20
514041	Machinists	HS	345		40		55	35	25	15	15	20	15	25	15	55

Legend: Education Level: Usual required education level. *HS* = High school diploma or equivalent; *AA/AS* = Associate's degree; *PS* = Postsecondary non-degree award; *SC* = Some college, no degree.

Source: Tennessee Department of Labor & Workforce Development, LMI Section LWDA Employment Projections, 2014-2024.

Table 5: Tennessee in Demand Middle Skill Occupations

			Annual Total Openings													
Occupation Code	Occupation Title	Educ Level	TN	LWDA 1	LWDA 2	LWDA 3	LWDA 4	LWDA 5	LWDA 6	LWDA 7	LWDA 8	LWDA 9	LWDA 10	LWDA 11	LWDA 12	LWDA 13
519061	Inspectors, Testers, Sorters, Samplers, and Weighers	HS	405	20	30	20	30	45		25	50	110		20	25	95
530000	Transportation and Material Moving Occupations			375	405	790	435	1230	330	210	815	2995	210	295	265	3090
533032	Heavy and Tractor-Trailer Truck Drivers	PS	1660	70	95	160	115	175	50	40	85	465	45	50	45	290

Legend: Education Level: Usual required education level. *HS* = High school diploma or equivalent; *AA/AS* = Associate's degree; *PS* = Postsecondary non-degree award; *SC* = Some college, no degree.

Source: Tennessee Department of Labor & Workforce Development, LMI Section LWDA Employment Projections, 2014-2024.

Tennessee Industry and Occupational Employment Projections 2016 to 2018

From a base of 3.2 million jobs in 2016, total employment for Tennessee, including agricultural, self-employed, and private household workers, is expected to grow to nearly 3.3 million by 2018 (table 6). Expected to increase by 1.8 percent annually, Tennessee's expanding economy is showing continuing signs of steady recovery across all industry sectors.

Most of the employment growth will be in the service-providing industries with a growth rate of 1.9 percent and the addition of 93,700 jobs (figure 8). The service-providing sector is expected to outperform the goods producing by about 0.6 percent over this period, with all sectors showing positive growth. Specifically, the professional and business services and the leisure and hospitality sectors with 3.0 percent annual growth rates and expected employment additions of 25,100 and 20,300 respectively will account for much of the predicted growth. In the goods producing sector (figure 7) healthy growth within construction (2.4 percent) and the creation of 5,800 new jobs can only be considered positive indicators.

The fewest number of new jobs expected over this two year period will be in natural resources and mining (900), other services except government (1,800), and information (3,200). With seven times as many new jobs to be created by the service-providing as the goods producing sector, the long term shift from the goods producing to the service sectors is being reinforced.

Fastest Growing Industries

The fastest growing industries over this period (*table 7*) not surprisingly align with the major industry sectors experiencing growth in Tennessee.

Professional and Business Services: In this sector, management of companies and enterprises (North American Industry Classification (NAICS) 5511) represent growth in home office and corporate headquarters relocating to our state, with management, scientific, and technical consulting services (NAICS 5416) in support of that expansion, as well as computer systems design and related services (NAICS 5415).

Leisure and Hospitality: As the population of the state has increased, particularly in urban areas, drinking places (NAICS 7224), and specialty food services (NAICS 7223) have experienced above- average growth.

Manufacturing: Despite national trends showing manufacturing declining, a least five manufacturing-related industries, including dairy products (NAICS 3115), other nonmetallic mineral products (NAICS 3279), food (NAICS 3119), motor vehicle parts (NAICS 3363), and motor vehicle manufacturing (NAICS 3361) are causing total manufacturing employment to move in a positive direction.

Construction and Construction-Related Industries: Growth in the other specialty trade contractors (NAICS 2389) industry is a factor in construction serving as one of the bright spots in the goods producing sector overall. Related industries such as lumber and construction wholesalers (NAICS 4233) and activities related to real estate (NAICS 5313) are expanding as well.

Information: In this sector, computer- related industries such as software publishers (NAICS 5112) and motion picture and video industries (NAICS 5121) are also among the most rapidly growing in the state.

Occupational and Wage Growth

The fastest-growing occupational groups from 2016-2018 primarily reflect those industry sectors experiencing growth; however, computer, business and financial, and managerial occupations are found in most industries.

Computer and Mathematical occupations (table 8) with an annual growth rate of 3.3 percent is the fastest growing occupational group with 1,500 or more employment in 2016. Employment is expected to top 55,900 in the state by 2018, creating net annual openings of more than 2,400 and paying the fourth highest median wages of the 22 occupational groups. The largest of the rapidly-growing occupations is computer user support specialists (10,290 employment in 2016), followed by computer systems analysts. Other smaller but rapidly-growing occupations are software developers of systems and applications software, database administrators, and web developers.

Food Preparation and Serving occupations, the second fastest growing group at 3.1 percent, has the lowest median average wage of all groups (\$18,880). This is probably due to the high number of part-time workers and low formal skill levels required for entry into the majority of occupations. The largest occupations, growing more rapidly than the average for all occupations, are combined food preparation and serving workers (70,060), their supervisors (16,680), and restaurant cooks (23,710). This occupational group is expected to have the largest number of total openings annually.

Art, Design, Entertainment, Sports and Media occupations are projected to grow 2.7 percent annually, emphasizing the importance of creative occupations to economic development. Fast-growing occupations include producers and directors and audio and video equipment technicians.

Business and Financial Operation occupations, with the fifth highest median wage, are expected to increase 2.3 percent annually. Among the faster-growing occupations are accountants and auditors, with more than 1,000 openings per year, and management analysts, with more than 450. In support of these occupations, many of which require college degrees, are **Office and Administrative** occupations, having the second largest number of annual openings expected (17, 860). Two prominent occupations in this group are customer service representatives (3,040 total openings) and first line supervisors of office and administrative workers (1,280 annual openings).

Management occupations' employment is projected to increase by 2.2 percent annually. Not surprisingly, this occupational category has the highest annual wage (\$77,680) of the 22 occupational groups. One of the fastest growing occupations is property, real estate, and community association managers, with growth fueled by the construction industry and corporate rental of homes. Other large management occupations include general and operations managers, food service managers, and financial managers (nearly 700 openings per year).

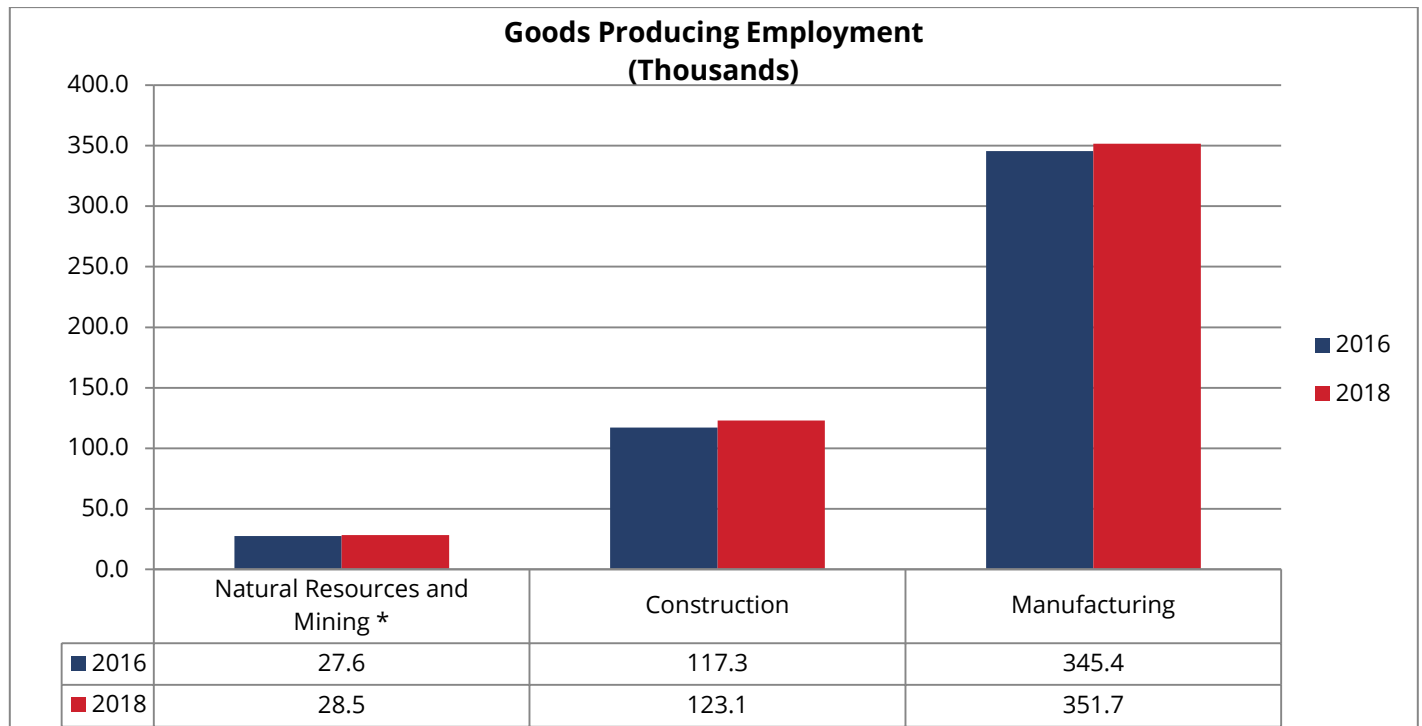
Other Major Occupational Groups with large numbers of annual openings include **sales and related occupations** (15,485 jobs), **transportation and material moving** occupations (12,770 openings), and **production occupations** (9,565 openings, the fifth largest group). **Healthcare practitioners** have the sixth largest number of openings (6, 905) and the seventh highest per capita average wage (\$52,850). Among the higher paying occupational groups are **legal occupations** with average annual wage of \$70,500 (second highest) and **life, physical, and social science**, paying on average \$54, 870.

Table 6: Major Industry Sector Employment Growth Rates, 2016-2018

Industry Sector Code	Title	2016 Employment (Thousands)	2018 Projected Employment (Thousands)	New Jobs Created (Thousands)	Annual Average Growth Rate (%)
00000	Total All Industries	3,170.6	3,283.7	113.1	1.8
101000	Goods Producing	490.3	503.3	13.0	1.3
101100	Natural Resources and Mining	27.6	28.5	0.9	1.7
101200	Construction	117.3	123.1	5.8	2.4
101300	Manufacturing	345.4	351.7	6.3	0.9
102000	Services Providing	2,504.3	2,598.0	93.7	1.9
102100	Trade, Transportation, and Utilities	629.9	648.4	18.5	1.5
102200	Information	45.4	48.7	3.2	3.5
102300	Financial Activities	146.1	153.8	7.7	2.6
102400	Professional and Business Services	405.5	430.6	25.1	3.0
102500	Education and Health Services, including State and Local Government	618.9	631.0	12.1	1.0
102600	Leisure and Hospitality	328.6	348.9	20.3	3.0
102700	Other Services (except Government)	131.8	133.6	1.8	0.7
102800	Government, Excluding Education and Health Services	198.1	202.9	4.8	1.2
102900	Self Employed and Unpaid Family Workers, All Jobs	176.0	182.4	6.4	1.8

Note: The Natural Resources and Mining sector also includes Agricultural employment; may not add due to rounding.

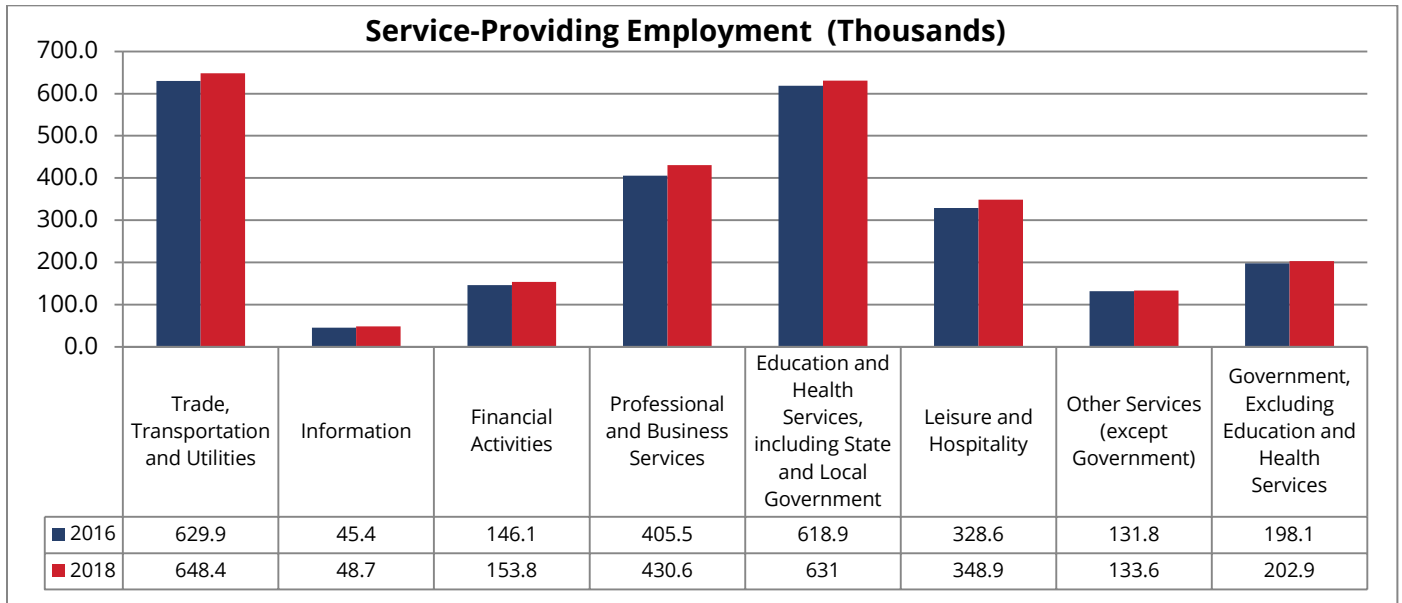
Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Tennessee Employment Projections 2016-2018.



Source: TN Department of Labor and Workforce Development, Labor Market Information

* Includes Agricultural Employment Projections 2016 to 2018.

Figure 7



Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Tennessee Employment Projections 2016-2018.

Figure 8

Table 7: Top 20 Fastest Growing Industries by Growth Rate

Industry Code and Title	2016 Base Employment (Thousands)	2018 Projected Employment (Thousands)	Total Jobs Increase (Thousands)	Growth Rate
511200 - Software Publishers	3.0	4.0	1.0	15.2
512100 - Motion Picture and Video Industries	7.8	10.1	2.3	13.8
541600 - Management, Scientific, and Technical Consulting Services	27.4	35.0	7.7	13.1
532100 - Automotive Equipment Rental and Leasing	6.3	7.5	1.2	8.7
493100 - Warehousing and Storage	33.9	40.0	6.1	8.6
423300 - Lumber and Other Construction Materials Merchant Wholesalers	5.6	6.6	1.0	8.5
238900 - Other Specialty Trade Contractors	11.0	12.9	1.9	8.2
722400 - Drinking Places (Alcoholic Beverages)	4.2	4.7	0.6	6.5
531300 - Activities Related to Real Estate	9.3	10.5	1.2	6.3
621500 - Medical and Diagnostic Laboratories	7.1	8.0	0.8	5.7
311500 - Dairy Product Manufacturing	2.6	2.9	0.3	5.3
327900 - Other Nonmetallic Mineral Product Manufacturing	2.2	2.4	0.2	5.3
331500 - Foundries	2.9	3.2	0.3	5.2
311900 - Other Food Manufacturing	5.2	5.8	0.6	5.1
336300 - Motor Vehicle Parts Manufacturing	45.7	50.4	4.7	5.0
722300 - Special Food Services	9.7	10.5	0.9	4.4
551100 - Management of Companies and Enterprises	45.2	49.1	3.9	4.3
336100 - Motor Vehicle Manufacturing	15.8	17.2	1.4	4.2
541500 - Computer Systems Design and Related Services	19.5	21.2	1.7	4.0
524200 - Agencies, Brokerages, and Other Insurance Related Activities	24.8	26.8	2.0	4.0

Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Tennessee Projections 2016-2018.

Table 8: Major Occupational Groups Summary, 2016-2018

Title	Occupational Code	Base Employment	Projected Employment	Annual Average Growth	Total Annual Openings	Median Wage (\$)
Computer and Mathematical Occupations	150000	52,380	55,910	3.3	2,430	\$67,990
Food Preparation and Serving Related Occupations	350000	268,950	285,930	3.1	19,880	\$18,880
Arts, Design, Entertainment, Sports, and Media Occupations	270000	46,710	49,300	2.7	2,420	\$38,800
Business and Financial Operations Occupations	130000	114,870	120,220	2.3	4,955	\$57,130
Management Occupations	110000	218,890	228,760	2.2	9,555	\$77,680
Construction and Extraction Occupations	470000	111,370	116,360	2.2	4,265	\$36,620
Installation, Maintenance, and Repair Occupations	490000	135,780	141,110	1.9	5,750	\$40,910
Transportation and Material Moving Occupations	530000	293,460	304,650	1.9	12,770	\$29,320
Protective Service Occupations	330000	69,860	72,520	1.9	2,920	\$33,120
Total, All Occupations	000000	3,170,600	3,283,710	1.8	134,460	\$32,800
Sales and Related Occupations	410000	306,740	317,200	1.7	15,485	\$24,720
Legal Occupations	230000	16,450	17,010	1.7	530	\$70,500
Office and Administrative Support Occupations	430000	494,710	509,670	1.5	17,860	\$31,200
Healthcare Practitioners and Technical Occupations	290000	196,080	201,870	1.5	6,905	\$52,850
Farming, Fishing, and Forestry Occupations	450000	16,650	17,100	1.4	665	\$26,910
Life, Physical, and Social Science Occupations	190000	17,660	18,120	1.3	740	\$54,870
Building and Grounds Cleaning and Maintenance Occupations	370000	110,490	113,370	1.3	3,555	\$22,390
Production Occupations	510000	271,000	277,550	1.2	9,565	\$31,200
Education, Training, and Library Occupations	250000	150,090	153,310	1.1	4,755	\$44,810
Personal Care and Service Occupations	390000	100,250	102,290	1.0	3,690	\$19,900
Healthcare Support Occupations	310000	83,590	85,280	1.0	2,615	\$25,100
Architecture and Engineering Occupations	170000	45,600	46,390	0.9	1,655	\$68,170
Community and Social Service Occupations	210000	49,020	49,810	0.8	1,480	\$37,670

Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Tennessee Employment Projections 2016-2018

Critical Skills

Based on scientifically –designed employer surveys, occupational analysts working for the U.S. Department of Labor, Employment and Training Administration, assign skills and importance rankings to occupations (www.onetonline.org). Skills are ranked as more important when the employment in occupations requiring those skills is expected to grow. The ten most critical skills needed across all occupations based on estimated employment increases through 2018 include the following: Active listening, speaking, reading comprehension, social perceptiveness, and critical thinking (table 9). The next five skills considered critical include systems analysis, monitoring, writing, coordination, and judgment and decision making skills.

As listed above, some of the critical skills needed for today’s jobs are important for all levels of education, including active listening, speaking, and communication skills. For those jobs requiring a four-year degree or above, reading comprehension and social perceptiveness are among the most important. In jobs requiring an associate’s degree or some college, learning strategies and service orientation are vital. For jobs requiring a high school diploma or no formal education, skills such as monitoring and persuasion were ranked highly along with listening skills.

More detailed occupational projections can be found at www.projectionscentral.com (Chrome browser is optimal).

Table 9: Critical Skills for Projected Employment to 2018

All Educational Levels			
Skills	2016 Employment	2018 Employment	Employment Increase 2016-2018
Active Listening	678,346	701,689	23,343
Speaking	657,052	678,502	21,450
Reading Comprehension	314,018	325,471	11,453
Social Perceptiveness	289,478	298,006	8,528
Critical Thinking	207,449	215,677	8,228
Systems Analysis	182,119	188,074	5,955
Monitoring	171,497	177,339	5,842
Writing	164,938	170,614	5,676
Coordination	145,242	150,459	5,217
Judgment and Decision Making	107,530	111,733	4,203

Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Tennessee Employment Projections 2016 - 2018



Occupational Injuries and Illnesses by Industry Sector

The Labor Research and Statistics Division of the Labor Market Information division conducts the Annual Survey of Occupational Injuries and Illnesses (SOII) from a random sample of public and private sector companies in Tennessee. The data collected from this survey is used to produce the occupational injury and illness rates for industries within the State of Tennessee as well as providing demographic and case

characteristic data for work-related injuries and illnesses that result in days away from work or days of job transfer or restriction. The calculated rates represent the number of occupational injuries and illnesses per 100 full-time equivalent employees. The survey is conducted in conjunction with the Bureau of Labor Statistics, U.S. Department of Labor.

In 2015, total nonfatal occupational injuries and illnesses in Tennessee per 100 full-time equivalent workers was 3.2. Private industry rates were 3.1, and public sector rates were 4.3.

Additional information can be found at <http://www.tn.gov/workforce/article-workforce-occupational-injuries-illnesses-and-fatalities> or <http://www.bls.gov/iif/oshstate.htm#TN>.

Tennessee Census of Fatal Occupational Injuries, 2015

Tennessee Census of Fatal Occupational Injuries, 2015

There were 112 fatal work-related injuries in Tennessee during 2015, a decrease of 12 percent compared to the 127 recorded during 2014.

Key findings of the 2015 Census of Fatal Occupational Injuries:

- There were 94 fatal work injuries to wage and salary workers and 18 to self-employed persons
 - There were 105 fatal work injuries to men and 7 fatal work injuries to women.
 - There were 91 fatal work injuries in the private sector and 21 to government workers.
 - Fatal work-related injuries due to transportation incidents decreased 20 percent from 2014 to 2015 (table 10) and fatal work-related falls decreased 26 percent during the same time period.
 - Fatal occupational injuries due to contact with objects and equipment increased 31 percent from 2014 to 2015, while exposure related deaths increased 33 percent.
 - There were 87 fatal work-related injuries to White (non-Hispanic) workers, 14 to Black or African-American (non-Hispanic) workers and 10 to Hispanic or Latino workers.
 - The highest number of fatal injury occupational injuries occurred to workers in the major occupational group of transportation and material moving workers with 47 work fatalities shown in **Table 11**.
 - The range of workers between the ages of 45 to 54 suffered the most fatal work injuries in Tennessee during 2015 with 24 or 21 percent of the yearly total.
- The number of nonfatal injuries and illnesses by occupation is shown in **Table 11**.

Table 10: Fatal Work-related Injuries by Event or Exposure Tennessee, 2012 – 2015

Event or exposure	2015	2014	2013	2012
Transportation incidents	47	59	41	35
Violence and other injuries by persons or animals	15	15	15	24
Contact with objects and equipment	21	16	18	16
Falls, slips, trips	17	23	12	18
Exposure to harmful substances or environments	12	9	8	5
Fires and explosions	--	5	--	3
Yearly Totals	112	127	95	101

NOTE: Totals for major categories may not sum to yearly totals. Dashes indicate no data, or data that do not meet publication criteria.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Census of Fatal Occupational Injuries, December 6, 2016,

Table 11: Nonfatal Occupational Injuries and Illnesses Tennessee 2015

Occupation	All Ownerships ²
Total	20,230
Management occupations	500
Business and financial operations occupations	80
Computer and mathematical occupations	40
Architecture and engineering occupations	40
Community and social service occupations	140
Education, training, and library occupations	400
Arts, design, entertainment, sports, and media occupations	40
Healthcare practitioners and technical occupations	1,150
Registered nurses	350
Emergency medical technicians and paramedics	210
Psychiatric technicians	160
Healthcare support occupations	1,150
Nursing assistants	650
Medical assistants	300
Protective service occupations	1,370
Police and sheriff's patrol officer	570
Firefighters	200
Correctional officers and jailers	210
Food preparation and serving related occupations	1,270
Combined food preparation and serving workers, including fast food	340
Waiters and waitresses	150
Food preparation workers	150
Building and grounds cleaning and maintenance occupations	990
Janitors and cleaners, except maids and housekeeping cleaners	520
Landscaping and groundskeeping workers	170
Maids and housekeeping cleaners	200
Personal care and service occupations	490
Personal care aides	300
Sales and related occupations	1,100
Retail salespersons	650
Office and administrative support occupations	1,560

**Table 11: Nonfatal Occupational Injuries and Illnesses
Tennessee 2015 (continued)**

Occupation	All Ownerships²
Stock clerks and order fillers	300
Hotel, motel, and resort desk clerks	30
Farming, fishing, and forestry occupations	160
Construction and extraction occupations	1,130
Electricians	110
Construction laborers	480
Installation, maintenance, and repair occupations	2,160
Maintenance and repair workers, general	290
Heating, air conditioning, and refrigeration mechanics and installers	330
Telecommunications line installers and repairers	350
Production occupations	1,890
Inspectors, testers, sorters, samplers, and weighers	80
Transportation and material moving occupations	4,530
Heavy and tractor-trailer truck drivers	1,690
Laborers and freight, stock, and material movers, hand	1,410
Light truck or delivery services drivers	250
Driver/sales workers	230

¹ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

NOTE: Dashes indicate data that are not available. Because of rounding and data exclusion of nonclassifiable responses, data may not sum to totals.

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses in cooperation with participating State agencies, October 27, 2016.

Workforce and Labor Force Issues in Tennessee's Regions

The state is divided into three regions to better aid workforce analysis. The East Region comprises 34 counties and includes in its border Scott, Morgan, Cumberland, Bledsoe, Sequatchie, and Marion counties. The Middle Region includes 40 counties in the central region of the state, with the western border being the Tennessee River. The West Region includes 21 counties, all those to the west of the Tennessee River. The population of the Middle and the East regions increased from 2015 to 2016, with the Middle increasing by 1.6 percent and the East by 0.7 percent. The most populous area is the Middle Region, with nearly 2.7 million residents. The East Region was slightly smaller, at 2.4 million, and the population was increasing more slowly. The population of the West Region, at 1.6 million, saw a slight decrease.

Forty-two of the 95 Tennessee counties are designated as part of metropolitan statistical areas (MSAs). There are 10 metropolitan statistical areas in Tennessee; four of these include counties bordering Tennessee in other states. Within 19 other counties, there are smaller cities; these counties are grouped into micropolitan statistical areas (MCSAs). The remaining 34 of the 95 counties are in neither MSAs nor MCSAs and could be considered rural. The highest percentage of rural counties is in West Tennessee; 52 percent of counties are rural, compared to 47 percent in Middle Tennessee and 21 percent in East Tennessee. Rural and highly urban counties are usually the most challenged in terms of educational financing and educational attainment.

Table 12: Regional Labor Force Data

	East Region	Middle Region	West Region	State Total
Population 2015	2,401,867	2,628,771	1,564,418	6,595,056
Population 2016	2,418,239	2,671,496	1,561,459	6,651,194
Amount of Change	16,372	42,725	-2,959	56,138
Percent Change	0.7%	1.6%	-0.2%	0.9%
Annual Average Unemployment Rate 2015 - Percent	5.7%	4.9%	6.7%	5.6%
Annual Average Unemployment Rate 2016- Percent	5.0%	4.2%	5.7%	4.8%
Educational Attainment 25 Years and Over (2015) Some College Or Higher - Percent	50.0%	54.8%	52.6%	52.5%
Poverty Estimate, All Ages, Percent (2015)	18.0%	15.4%	20.7%	17.6%
Percent of Unemployed with a Disability	15.9%	13.0%	12.3%	13.8%
Percent of Those Not in the Labor Force with a Disability (2015)	37.8%	31.0%	33.5%	34.3%
Population 2015	2,401,867	2,628,771	1,564,418	6,595,056

Sources: TN Department of Labor and Workforce Development, LMI Section, U.S. Census, 2011-2015 American Community Survey, 5-Year estimates

Note: Unemployment rates are seasonally unadjusted.

Employment and Unemployment

All regions had significant reductions in their unemployment rates over the year. In 2016, the Middle Region had the largest labor force, at 1.3 million, an average of just over 55,000 unemployed for the year, and an unemployment rate of 4.2 percent. The unemployment rate decreased from 4.9 percent in 2015. The East, although having a smaller labor force of 1.1 million, had a higher annual average unemployment rate of 5.0 percent, so the number of unemployed was just over 55,000 as well. In 2015, the unemployment rate had been higher at 5.7 percent. The West Region had the highest annual average unemployment rate, 5.7 percent, but with a smaller labor force of 0.7 million, the average number of unemployed was just over 40,000. The rate declined from 6.7 percent in 2015.

Along with the highest average unemployment rate, in 2015 the West also had the highest poverty rate of the region, at 20.7 percent (decreasing from 2014). The East had a rate of 18.0 percent (slightly increased from 2014). The Middle had the lowest rate at 15.4 percent, decreasing from 2014.

Educational Attainment

Census data on the educational attainment of the population within the East, Middle, and West Regions compared to the average for Tennessee are shown below. For the population 25 years and older, in 2015 85.5 percent of state residents were high school graduates or had higher degrees. The rates for all regions were fairly similar, with the Middle Region about a percentage point higher at 86.7, having increased over the year.

The East Region had the lowest percentage of individuals with bachelor's degrees or greater, at 22.4 percent, followed by the West at 24.6 percent and the Middle at 27.6 percent, all regions having increased over the year.

Table 13: Educational Attainment by Area, 2015

Educational Attainment	Educational Attainment for the Population Age 25 Years and Older							
	East		Middle		West		Tennessee	
	Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage
Population 25 and older	1,655,359		1,694,831		1,029,846		4,380,036	
Less than 9th grade	105,017	6.34%	87,659	5.17%	54,152	5.26%	246,828	5.64%
9th to 12th grade, no diploma	151,165	9.13%	138,413	8.17%	99,732	9.68%	389,310	8.89%
High school graduate (includes equivalency)	571,305	34.51%	539,847	31.85%	334,314	32.46%	1,445,466	33.00%
Some college, no degree	339,516	20.51%	350,325	20.67%	228,832	22.22%	918,673	20.97%
Associate's degree	117,222	7.08%	110,319	6.51%	59,942	5.82%	287,483	6.56%
Bachelor's degree	230,944	13.95%	306,782	18.10%	158,786	15.42%	696,512	15.90%
Graduate or professional degree	140,190	8.47%	161,486	9.53%	94,088	9.14%	395,764	9.04%

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

Poverty Rates by County and Region

Poverty rates vary by region, within regions, and within counties. The latest data on poverty rates are for 2015. All regions had poverty rates of 15 percent or greater, with the West Region having the highest rate at 20.7 percent; the East at 18.0 percent; and the Middle at 15.4 percent. The poverty rates for both West and Middle decreased, with that of the East increasing slightly. Poverty rates tend to be greater in the core urban counties and rural areas in Middle Tennessee as well as in the other regions.

Disability Status

For the state in 2015, 193,990 individuals were identified with a disability in a labor force of 2,962,822 (table 14). This is 6.5 percent. Those with a disability made up 13.8 percent of the unemployed. Of those not in the labor force, approximately 34 percent of individuals had a disability, demonstrating it can be a significant barrier to employment. The highest regional percentage of those not in the labor force and having a disability was in East Tennessee with 38.7 percent.

Table 14: Disability Status of Those in the Labor Force

Area	Civilian Non-institutional Pop. (18-64)	In the Labor Force						
		Total	Employed			Unemployed		
			Total	With Disability	No Disability	Total	With Disability	No Disability
East	1,447,802	1,046,415	960,102	62,643	897,459	86,313	13,740	72,573
Middle	1,583,048	1,206,439	1,118,879	61,664	1,057,215	87,560	11,369	76,191
West	954,256	709,968	637,031	35,609	601,422	72,937	8,965	63,972
Tennessee	3,985,106	2,962,822	2,716,012	159,916	2,556,096	246,810	34,074	212,736

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

Table 15: Disability Status of Those Not in the Labor Force

Area	Civilian Non-institutional Pop. (18-64)	Not in the Labor Force				
		Total	With Disability	No Disability	Percent w/ Disability	Percent w/o Disability
East	1,447,802	401,387	151,528	249,859	37.8%	62.2%
Middle	1,583,048	376,609	116,886	259,723	31.0%	69.0%
West	954,256	244,288	81,858	162,430	33.5%	66.5%
Tennessee	3,985,106	1,022,284	350,272	672,012	34.3%	65.7%

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

Youth Unemployment

High youth unemployment (ages 16 to 24) continues to be challenge across the regions. The latest data is available for 2015 (table 16). With an average state unemployment rate in 2015 of 5.6 percent, youth unemployment was from three to four times greater, with the highest rates in West, East, and Middle Tennessee, respectively. In West Tennessee, nearly one in four youth in the Region in the labor force was unemployed.

Table 16: Youth Unemployment, Ages 16 – 24

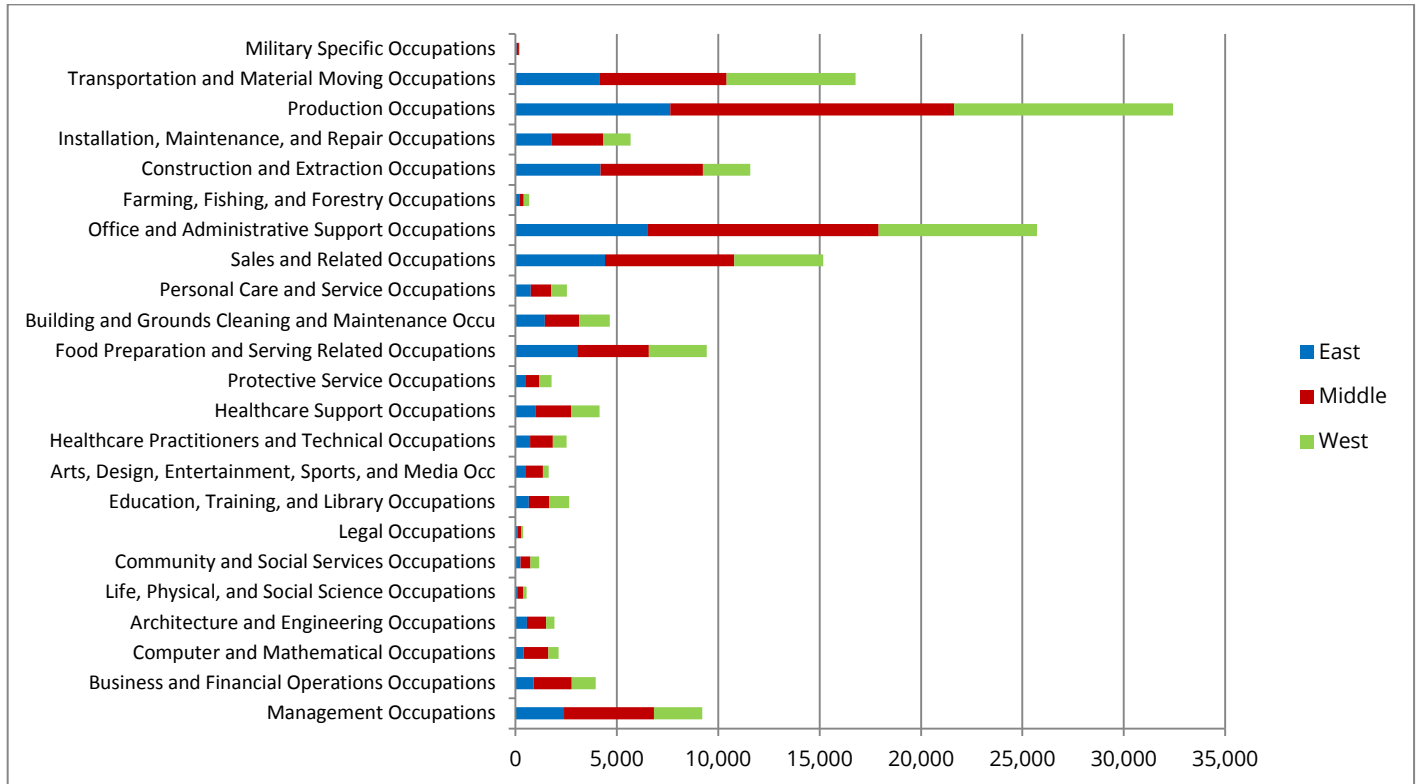
Area	Labor Force	Unemployment	Rate
East Region	167,519	27,567	16.46%
Middle Region	187,489	29,744	15.86%
West Region	112,347	25,136	22.37%

Source: American Community Survey, 2015, 5-year estimates

Unemployment Claims by Occupation

Twelve months of unemployment claims for 2016 were examined by occupation for each of the three regions. The three major occupational areas with the most claims were production, office and administrative support, and transportation and material moving occupations, followed by sales and construction occupations.

All 2016 Unemployment Claims by Major Occupational Group



Source: TN Department of Labor & Workforce Development, LMI Section

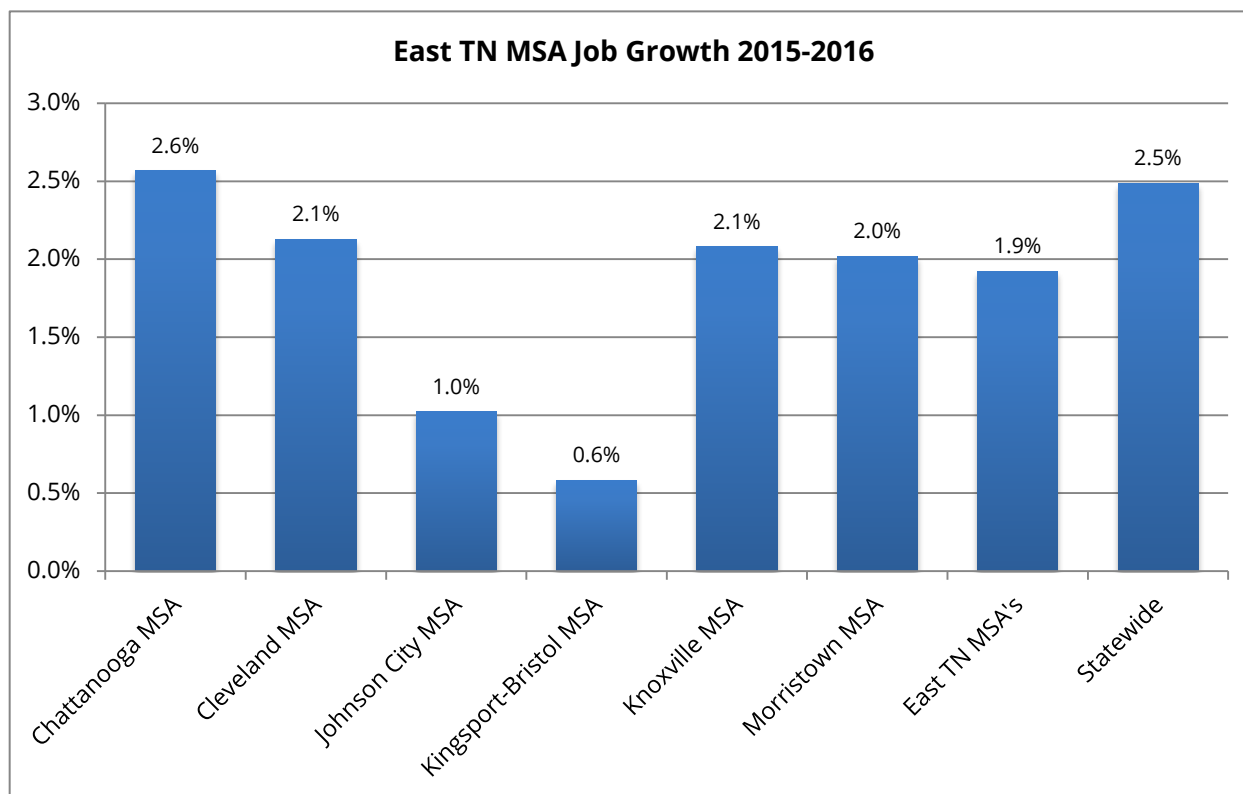
Figure 9

The two regions with the most production unemployment claims were the Middle and West regions. These regions include several manufacturing industries among the top 10 expecting to create the most new jobs; at the same time, several manufacturing industries have reduced jobs in the state. It is not surprising that sales jobs had many claimants; it is one of the largest occupational areas in the state and has many part-time and lower-paid occupations, including some which do not require a high school degree.

Claims for office and administrative support occupations were higher in the Middle and West; in those regions, administrative and support services was the top industry expected to add the most new jobs. Construction claims were higher in the Middle and East regions. The West Region also had a high number of claims in transportation occupations; as a transportation hub for the state, it also is leading in warehousing and storage as a top industry.

Detailed Regional Analysis

East Region



Source: TN Department of Labor & Workforce Development, Current Employment Statistics

Figure 10

The East Region contains six MSAs and six Micropolitan statistical areas. From 2015 to 2016, just one of the MSAs, Chattanooga, grew faster than the state, with the East Region as a whole slightly slower than the state in annual average growth (1.9 vs. 2.5 percent – figure 10). Chattanooga added 1,000 jobs in the goods-producing industries, including 900 in manufacturing. The leisure and hospitality sector added 1,400, and trade, transportation and utilities nearly 2,000, two and a half times as fast as the previous year's growth rate in this sector. The education and health care sector lost 700 jobs. Knoxville added 2,500 manufacturing, 1,400 trade, transportation, and utility, and 1,200 education and health services jobs. Cleveland added 400 manufacturing and 1,200 professional and business services jobs. The Kingsport-Bristol area experienced the slowest growth.

Where to find it: The number of jobs created by Industry in an MSA can be located at jobs4tn.gov>LMI Home>Data Trends>Employment and Wage Data>Industry Data>Current Employment Statistics

Table 17: East - Top Ten Industries Expected to Create the Most New Jobs to 2024

NAICS Industry Code	Industry Title	East Region Industry Ranking	Estimate	Projection	East Region New Jobs
621000	Ambulatory Health Care Services	1	51,240	72,640	21,410
561000	Administrative and Support Services	2	62,620	79,240	16,610
722000	Food Services and Drinking Places	3	87,690	99,600	11,910
611000	Educational Services	4	85,890	97,650	11,770
551000	Management of Companies and Enterprises	5	13,160	21,820	8,670
336000	Transportation Equipment Manufacturing	6	21,830	29,310	7,480
541000	Professional, Scientific, and Technical Services	7	36,690	43,970	7,290
622000	Hospitals	8	41,490	48,320	6,830
623000	Nursing and Residential Care Facilities	9	24,510	30,200	5,690
484000	Truck Transportation	10	23,090	27,090	4,000

Source: TN Department of Labor and Workforce Development, LMI Section, TN Employment Projections, 2014-2024

How to Find It: Locate the names of companies in these industries in your county or zip code at www.jobs4th.gov. On the home page, click on “Find Employers Near You.”

The table above (table 17) lists the top ten industries expected to create the most new jobs in the East Region between now and 2024, ranked by number of jobs to be created. One of the goods producing industries, transportation equipment manufacturing, ranks sixth of the top ten. Other top job-creating industries will be in health services (ambulatory care, hospitals, and nursing and residential facilities), education, and professional, scientific, and technical services.

The table below compares unemployment rates for 2015 and 2016 for the MSAs and MCSAs with the state and national rates. For all areas (except for Dayton) their average unemployment rates were lower in 2016 than in 2015. In 2016, two of the faster-growing MSAs, Knoxville and Cleveland, had rates lower than the state average of 4.8 percent. Within the MSAs, particularly in Knoxville, the unemployment rates varied considerably from county to county- from 7.0 percent in Campbell County to 4.1 percent in Knox.

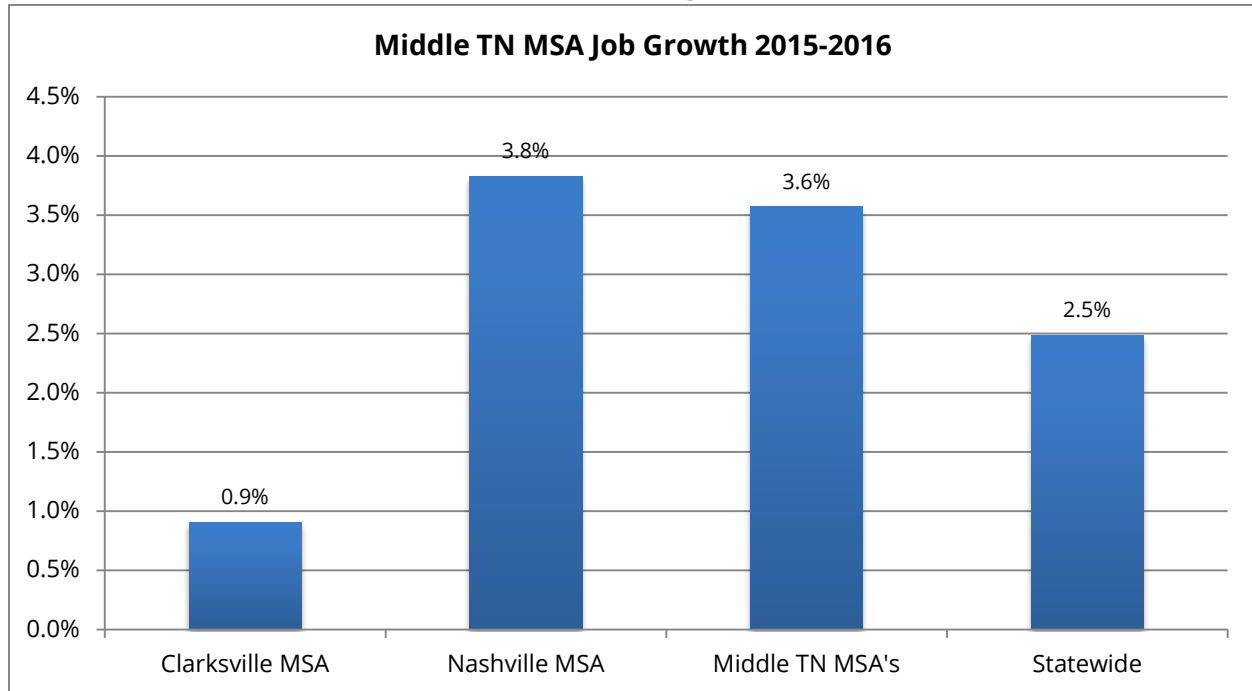
Table 18: East Region Annual Average Unemployment Rates, 2015 to 2016

Area	2016 Annual Averages				2015 Annual Averages			
	Labor Force	Employment	Unemployment Number	Unemployment Percent	Labor Force	Employment	Unemployment Number	Unemployment Percent
UNITED STATES	159,187,000	151,426,000	7,751,000	4.9%	157,130,000	148,834,000	8,296,000	5.3%
TENNESSEE	3,135,100	2,984,300	150,800	4.8%	3,070,900	2,899,200	171,800	5.6%
Metropolitan Statistical Areas (MSAs)								
Chattanooga, TN-GA MSA	260,040	247,190	12,850	4.9%	253,630	239,800	13,830	5.5%
Hamilton County	171,570	163,490	8,090	4.7%	167,500	158,650	8,850	5.3%
Marion County	12,030	11,270	770	6.4%	11,720	10,940	790	6.7%
Sequatchie County	5,930	5,580	350	5.9%	5,800	5,430	380	6.5%
Georgia Portion	70,500	66,850	3,650	5.2%	68,610	64,790	3,820	5.6%
Cleveland, TN MSA	57,990	55,280	2,710	4.7%	56,820	53,770	3,050	5.4%
Bradley County	50,510	48,230	2,280	4.5%	49,490	46,920	2,570	5.2%
Polk County	7,480	7,040	430	5.8%	7,330	6,850	480	6.5%
Johnson City, TN MSA	89,320	84,580	4,740	5.3%	88,490	83,220	5,270	6.0%
Carter County	23,760	22,390	1,370	5.7%	23,550	22,040	1,510	6.4%
Unicoi County	7,100	6,590	510	7.2%	7,040	6,480	560	7.9%
Washington County	58,470	55,600	2,860	4.9%	57,900	54,700	3,200	5.5%
Kingsport-Bristol, TN-VA MSA	137,340	130,300	7,050	5.1%	136,720	129,050	7,660	5.6%
Hawkins County	23,650	22,350	1,310	5.5%	23,560	22,060	1,500	6.4%
Sullivan County	69,790	66,090	3,700	5.3%	69,220	65,240	3,980	5.7%
Virginia Portion	43,910	41,860	2,050	4.7%	43,940	41,750	2,190	5.0%
Knoxville, TN MSA	412,680	393,940	18,740	4.5%	404,880	383,750	21,130	5.2%
Anderson County	33,900	32,220	1,680	5.0%	33,320	31,390	1,930	5.8%
Blount County	60,720	58,010	2,700	4.0%	59,590	56,520	3,070	5.1%
Campbell County	14,880	13,840	1,040	7.0%	14,640	13,490	1,160	7.9%
Grainger County	9,280	8,770	510	5.5%	9,150	8,550	610	6.6%
Knox County	233,350	223,840	9,510	4.1%	228,660	218,030	10,630	4.6%
Loudon County	22,350	21,280	1,060	4.8%	21,960	20,740	1,220	5.6%
Morgan County	7,860	7,340	520	6.6%	7,720	7,150	570	7.4%
Roane County	23,020	21,720	1,300	5.6%	22,610	21,150	1,460	6.4%
Union County	7,340	6,910	430	5.8%	7,230	6,740	490	6.8%
Morristown, TN MSA	50,530	47,860	2,670	5.3%	49,810	46,690	3,120	6.3%
Hamblen County	26,880	25,480	1,400	5.2%	26,490	24,860	1,640	6.2%
Jefferson County	23,650	22,380	1,270	5.4%	23,320	21,830	1,480	6.4%
Micropolitan Statistical Areas (MCSAs)								
Athens (McMinn Co.)	22,900	21,640	1,260	5.5%	22,670	21,240	1,430	6.3%
Crossville (Cumberland Co.)	23,670	22,240	1,430	6.0%	22,950	21,340	1,610	7.0%
Dayton (Rhea Co.)	13,410	12,420	990	7.4%	13,100	12,140	960	7.3%
Greeneville (Greene Co.)	31,090	29,370	1,720	5.5%	30,640	28,670	1,970	6.4%
Newport (Cocke Co.)	14,450	13,510	940	6.5%	14,420	13,310	1,110	7.7%
Sevierville (Sevier Co.)	51,110	48,540	2,570	5.0%	49,890	46,910	2,980	6.0%

Source: TN Department of Labor and Workforce Development, LMI Section, Local Area Unemployment Statistics

The per capita income for counties is displayed in Table 23. With the state per capita income at \$42,069 in 2015, 27 of 34 counties in the East Region, or 79.4 percent, had per capita incomes more than 10 percent below (\$37,862.10) the state average. This is highest percentage of counties in the three regions.

Middle Region



Source: TN Department of Labor and Workforce Development, LMI Section, Current Employment Statistics

Figure 12

Employment in the Middle Region grew faster than the state during 2015- 2016, with the Nashville MSA advancing at a healthy pace. Nashville was the fastest growing MSA in the state with 3.8 percent. In addition to the two MSAs, the Middle Region contains five Micropolitan areas (see table 20).

The Nashville-Davidson-Rutherford MSA added 37,500 jobs, one of every two jobs created in the state. The largest job additions are listed below:

- Professional and business services, 9,100 jobs
- Leisure and hospitality 5,700 jobs
- Education and health services, 5,000 jobs
- Trade, transportation, and utilities, 4,600 jobs
- Finance, 3,100 jobs
- Manufacturing, 2,700 jobs
- Information, 2,200 jobs (seven times its growth rate in the previous year)

In 2016, the Clarksville metro area added 500 jobs; of these, 300 were in manufacturing.

Table 19 displays the ten industries expected to create the most new jobs through 2024. The strength of the Middle Region is its diversity of expanding industries across both the goods producing and services providing sectors. Among the top industries are expected to be professional and business services (administrative and support services, professional and technical services, and management of companies), health care, educational services, and leisure and hospitality. Both transportation equipment manufacturing and construction specialty trade contractors in the goods producing sector are expected to add thousands of new jobs

Table 19: Middle Region: Top Ten Industries Expected to Create the Most New Jobs

NAICS Industry Code	Industry Title	Middle Region Industry Ranking	Estimate	Projection	Middle Region New Jobs
561000	Administrative and Support Services	1	74,480	105,170	30,690
621000	Ambulatory Health Care Services	2	54,630	81,580	26,950
541000	Professional, Scientific, and Technical Services	3	53,830	77,600	23,780
551000	Management of Companies and Enterprises	4	17,010	34,630	17,620
611000	Educational Services	5	94,440	111,960	17,520
722000	Food Services and Drinking Places	6	92,180	105,810	13,640
336000	Transportation Equipment Manufacturing	7	37,560	47,810	10,250
622000	Hospitals	8	49,190	57,090	7,900
425000	Wholesale Electronic Markets and Agents and Brokers	9	7,390	13,390	6,000
238000	Specialty Trade Contractors	10	26,970	32,340	5,370

Source: TN Department of Labor and Workforce Development, LMI Section, Tennessee Employment Projections 2014-2024

Table 20 compares unemployment rates for MSAs and MCSAs in the Middle Region for 2015 and 2016. As in the East Region, all areas experienced a decrease in unemployment rates from 2015 to 2016 as the economy improved. The Nashville Metro area unemployment rate (3.8 percent) was significantly below the state’s rate, with all but one of the counties below the state’s rate as well. The unemployment rates across the counties were less divergent than found in the Knoxville MSA. The Clarksville Metro area, however, still had a rate above that of the state. One Micropolitan area, Lewisburg, had a rate below the state rate as well.

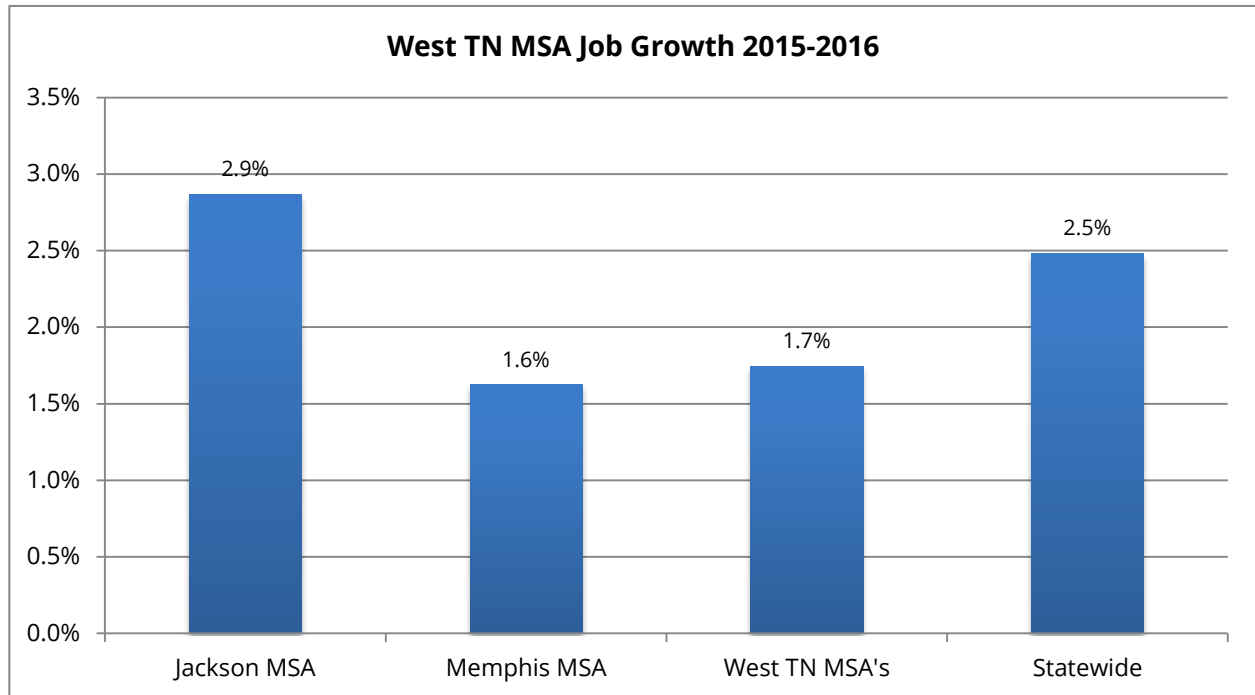
Table 20: Middle Region Annual Average Unemployment Rates, 2015 to 2016

Area	2016 Annual Averages				2015 Annual Averages			
	Labor Force	Employment	Unemployment Number	Unemployment Percent	Labor Force	Employment	Unemployment Number	Unemployment Percent
UNITED STATES	159,187,000	151,426,000	7,751,000	4.9%	157,130,000	148,834,000	8,296,000	5.3%
TENNESSEE	3,135,100	2,984,300	150,800	4.8%	3,070,900	2,899,200	171,800	5.6%
Metropolitan Statistical Areas (MSAs)								
Clarksville, TN-KY MSA	109,850	103,920	5,940	5.4%	108,860	102,410	6,450	5.9%
Montgomery County	79,410	75,280	4,130	5.2%	78,670	74,120	4,550	5.8%
Kentucky Portion	30,440	28,630	1,810	5.9%	30,190	28,300	1,900	6.3%
Nashville-Murfreesboro, TN MSA	972,600	935,690	36,910	3.8%	939,990	897,670	42,330	4.5%
Cannon County	6,050	5,760	290	4.7%	5,860	5,530	340	5.7%
Cheatham County	20,520	19,700	820	4.0%	19,890	18,930	960	4.8%
Davidson County	377,210	363,500	710	3.6%	364,540	348,680	15,870	4.4%
Dickson County	24,890	23,780	1,100	4.4%	24,120	22,810	1,310	5.4%
Hickman County	10,640	10,140	490	4.6%	10,330	9,740	580	5.7%
Macon County	10,290	9,830	460	4.4%	9,970	9,450	530	5.3%
Maury County	43,750	41,950	1,800	4.1%	42,400	40,240	2,160	5.1%
Robertson County	35,050	33,570	1,470	4.2%	33,850	32,210	1,640	4.9%
Rutherford County	161,290	155,230	6,070	3.8%	155,760	148,820	6,950	4.5%
Smith County	8,760	8,350	410	4.6%	8,500	8,020	470	5.6%
Sumner County	91,790	88,180	3,610	3.9%	88,680	84,620	4,060	4.6%
Trousdale County	3,800	3,620	190	4.9%	3,690	3,470	220	5.9%
Williamson County	111,580	107,710	3,870	3.5%	107,710	103,410	4,300	4.0%
Wilson County	67,000	64,380	2,620	3.9%	64,690	61,750	2,950	4.6%
Micropolitan Statistical Areas (MCSAs)								
Cookeville	46,920	44,450	2,480	5.3%	46,050	43,170	2,880	6.3%
Jackson Co.	4,490	4,170	320	7.2%	4,470	4,120	350	7.8%
Overton Co.	9,230	8,720	510	5.5%	9,100	8,450	650	7.1%
Putnam Co.	33,210	31,560	1,650	5.0%	32,480	30,600	1,890	5.8%
Lawrenceburg (Lawrence Co.)	17,830	16,790	1,040	5.8%	17,740	16,570	1,160	6.6%
Lewisburg (Marshall Co.)	15,190	14,480	710	4.6%	14,780	13,960	820	5.6%
Shelbyville (Bedford Co.)	19,810	18,810	1,000	5.1%	19,430	18,180	1,250	6.4%
Tullahoma-Manchester	47,670	45,380	2,300	4.8%	47,240	44,740	2,500	5.3%
Coffee Co.	24,470	1,180	1,180	4.8%	24,320	22,980	1,340	5.5%
Franklin Co.	19,820	18,830	990	5.0%	19,610	18,600	1,010	5.2%
Moore Co.	3,380	3,250	130	3.9%	3,310	3,160	150	4.5%

Source: TN Department of Labor and Workforce Development, LMI Section, Local Area Unemployment Statistics

The per capita income for counties is displayed in Table 23. With the state per capita income at \$42,069 in 2015, 31 of the 40 Middle Region Counties (77.5 percent) had incomes greater than 10 percent below the state average per capita income.

West Region



Source: TN Department of Labor and Workforce Development, LMI Section, Current Employment Statistics

Figure 13

Employment in one MSAs in the West Region of the state, Memphis, grew at a pace about one percent slower than the statewide average, whereas Jackson grew slightly faster. In Jackson, over the year, 1,900 jobs were added; 500 jobs were added in manufacturing and 400 in government. Education and health services added no additional jobs. In the Memphis TN-MS-AR MSA, 12,500 jobs were added; 900 jobs in manufacturing; in the services-providing sector, 5,700 in transportation, warehousing, and utilities; 2,700 in education and health services; and 2,200 in leisure and hospitality. In addition to the two MSAs, the West Region contains four Micropolitan regions (see table 22), with a combined labor force of 60,950 workers.

Table 21 lists the top ten industries expected to create the most new jobs in the West Region. Like the other regions, business and professional services (administrative and support, professional and scientific, and management of companies) industries are expected to be prominent among job creation, as are health care and educational services. Unique to the West Region are the trade, transportation, and utility industries in the top ten, including wholesale durable goods and warehousing and storage.

Table 21: West Region Top Ten Industries Expected to Create the Most New Jobs

NAICS Industry Code	Industry Title	West Region Industry Ranking	Estimate	Projection	West Region New Jobs
561000	Administrative and Support Services	1	63390	83030	19640
621000	Ambulatory Health Care Services	2	33900	49190	15300
541000	Professional, Scientific, and Technical Services	3	21130	30090	8950
622000	Hospitals	4	35790	43150	7360
551000	Management of Companies and Enterprises	5	6650	12780	6130
611000	Educational Services	6	58380	62870	4490
623000	Nursing and Residential Care Facilities	7	16550	20470	3910
423000	Merchant Wholesalers, Durable Goods	8	18770	21490	2730
493000	Warehousing and Storage	9	6590	9280	2690
923000	Local Government, Excluding Education and Hospitals	10	30680	32840	2160

Source: TN Department of Labor and Workforce Development, LMI Section, TN Employment Projections 2014-2024

All MSAs and MCSAs in the West Region reduced their average unemployment rates from 2015 to 2016. Only the Arkansas portion of the Memphis MSA, however, had an unemployment rate lower than the state rate in 2016. The Union City MCSA had the highest unemployment rate in the region.

Table 22: West Region Annual Average Unemployment Rates, 2015 to 2016

Area	Labor Force	Employment	Unemployment Number	Unemployment Percent		Labor Force	Employment	Unemployment Number	Unemployment Percent
UNITED STATES	159,187,000	151,426,000	7,751,000	4.9%		157,130,000	148,834,000	8,296,000	5.3%
TENNESSEE	3,135,100	2,984,300	150,800	4.8%		3,070,900	2,899,200	171,800	5.6%
Metropolitan Statistical Areas (MSAs)									
Jackson, TN MSA	63,080	59,920	3,170	5.0%		61,640	58,000	3,650	5.9%
Chester County	8,440	8,010	430	5.1%		8,230	7,750	480	5.8%
Crockett County	6,970	6,590	370	5.3%		6,830	6,390	440	6.4%
Madison County	47,680	45,310	2,370	5.0%		46,580	2,730	2,730	5.9%
Memphis, TN-MS-AR MSA	623,910	590,840	33,070	5.3%		616,510	578,010	38,500	6.2%
Fayette County	18,090	17,150	940	5.2%		17,890	16,790	1,100	6.1%
Shelby County	435,620	411,850	23,760	5.5%		430,450	402,960	27,500	6.4%
Tipton County	27,750	26,140	1,610	5.8%		27,520	25,580	1,940	7.0%
Arkansas Portion	21,540	20,550	990	4.6%		21,430	20,100	1,330	6.2%
Mississippi Portion	120,920	115,150	5,780	4.8%		119,210	112,580	6,630	5.6%
Micropolitan Statistical Areas (MCSAs)									
Dyersburg (Dyer Co.)	16,510	15,470	1,040	6.3%		16,680	15,490	1,190	7.1%
Martin (Weakley Co.)	15,770	14,810	960	6.1%		15,610	14,550	1,050	6.7%
Paris (Henry Co.)	13,990	13,160	830	5.9%		13,890	12,990	900	6.5%
Union City, TN-KY	14,680	13,630	1,040	7.1%		14,560	13,330	1,230	8.4%
Obion Co.	12,600	11,700	900	7.2%		12,490	11,420	1,070	8.6%
Kentucky Portion (Fulton Co.)	2,080	1,940	140	6.7%		2,070	1,910	160	7.6%

Source: TN Department of Labor and Workforce Development, LMI Section, Local Area Unemployment Statistics

Table 23 displays the per capita income for the counties. With the state per capita income at \$42,069 in 2015, 16 of 21 counties in the West Region, or 76.2 percent, had per capita incomes more than 10 percent below (\$36,411) the state average.

Table 23: Population and Per Capita Income by County

Counties	Region	Population Estimates, as of July 1 ¹			Percent Change 2015-16	Per capita personal income ¹			Percent Change 2013-15
		2012	2015	2016		2013	2014	2015	
Anderson	East	75,326	75,698	75,936	0.31	35,840	36,972	38,637	7.80
Bledsoe	East	12,791	14,580	14,675	0.65	19,886	20,018	20,719	4.19
Blount	East	124,069	127,142	128,670	1.20	35,481	36,571	37,900	6.82
Bradley	East	101,101	103,907	104,490	0.56	34,923	35,767	37,216	6.57
Campbell	East	40,460	39,728	39,714	-0.04	29,353	29,636	30,981	5.55
Carter	East	57,309	56,430	56,502	0.13	29,218	30,337	31,407	7.49
Claiborne	East	31,770	31,687	31,757	0.22	29,878	30,069	31,161	4.29
Cocke	East	35,450	35,096	35,219	0.35	27,741	27,981	29,206	5.28
Cumberland	East	57,073	58,278	58,655	0.65	31,780	32,956	33,973	6.90
Grainger	East	22,649	22,835	23,072	1.04	27,745	28,454	29,623	6.77
Greene	East	68,654	68,551	68,615	0.09	35,524	35,879	37,622	5.91
Hamblen	East	62,712	63,414	63,785	0.59	32,269	33,243	34,696	7.52

Table 23: Population and Per Capita Income by County (continued)

		Population Estimates, as of July 1 ¹			Percent Change 2015-16	Per capita personal income ¹			Percent Change 2013-15
Counties	Region	2012	2015	2016		2013	2014	2015	
Hamilton	East	345,783	353,604	357,738	1.17	43,607	44,866	46,460	6.54
Hancock	East	6,675	6,554	6,577	0.35	21,948	22,964	23,733	8.13
Hawkins	East	56,561	56,443	56,563	0.21	29,660	30,385	31,391	5.84
Jefferson	East	52,428	53,288	53,535	0.46	29,748	30,875	31,994	7.55
Johnson	East	18,121	17,821	17,754	-0.38	28,015	28,637	30,543	9.02
Knox	East	440,793	451,444	456,132	1.04	41,158	42,981	44,849	8.97
Loudon	East	49,732	50,978	51,454	0.93	40,056	41,300	42,971	7.28
McMinn	East	52,429	52,636	52,850	0.41	31,194	31,886	33,020	5.85
Marion	East	28,218	28,462	28,446	-0.06	32,479	33,341	34,388	5.88
Meigs	East	11,701	11,872	12,005	1.12	28,348	29,947	30,386	7.19
Monroe	East	45,150	45,677	45,970	0.64	28,019	28,967	30,470	8.75
Morgan	East	21,947	21,492	21,554	0.29	25,719	25,795	27,329	6.26
Polk	East	16,606	16,744	16,772	0.17	30,073	30,593	30,937	2.87
Rhea	East	32,338	32,392	32,442	0.15	29,979	31,198	32,573	8.65
Roane	East	53,506	52,726	52,874	0.28	34,854	35,955	37,441	7.42
Scott	East	22,175	21,974	21,947	-0.12	25,897	26,557	27,231	5.15
Sequatchie	East	14,426	14,789	14,897	0.73	31,705	32,424	33,653	6.14
Sevier	East	92,299	95,661	96,673	1.06	32,289	33,397	34,693	7.45
Sullivan	East	156,547	156,661	156,667	0.00	37,044	37,571	38,799	4.74
Unicoi	East	18,227	17,820	17,719	-0.57	32,861	33,506	34,826	5.98
Union	East	19,120	19,126	19,140	0.07	26,622	27,423	28,611	7.47
Washington	East	124,907	126,357	127,440	0.86	36,773	37,624	39,034	6.15
Bedford	Middle	45,307	46,940	47,484	1.16	31,643	33,282	34,618	9.40
Cannon	Middle	13,868	13,854	14,027	1.25	30,805	31,996	33,416	8.48
Cheatham	Middle	39,245	39,690	39,880	0.48	35,584	36,074	38,177	7.29
Clay	Middle	7,801	7,773	7,752	-0.27	29,475	30,976	31,431	6.64
Coffee	Middle	53,132	54,279	54,682	0.74	34,022	35,399	36,679	7.81
Davidson	Middle	649,004	678,323	684,410	0.90	46,954	51,563	55,411	18.01
DeKalb	Middle	18,911	19,205	19,361	0.81	30,814	31,646	33,746	9.52
Dickson	Middle	50,177	51,461	52,170	1.38	32,938	34,152	35,952	9.15
Fentress	Middle	17,924	17,917	18,033	0.65	28,496	28,827	29,490	3.49
Franklin	Middle	40,786	41,514	41,700	0.45	33,553	34,575	35,757	6.57
Giles	Middle	29,006	29,079	29,307	0.78	33,446	34,374	36,189	8.20
Grundy	Middle	13,653	13,456	13,389	-0.50	27,822	27,672	28,975	4.14
Hickman	Middle	24,132	24,315	24,295	-0.08	27,325	27,634	29,238	7.00
Houston	Middle	8,408	8,131	8,134	0.04	29,342	30,729	31,624	7.78
Humphreys	Middle	18,271	18,122	18,347	1.24	32,699	34,346	36,082	10.35
Jackson	Middle	11,524	11,517	11,566	0.43	26,839	27,396	28,256	5.28
Lawrence	Middle	42,133	42,531	43,081	1.29	30,259	30,470	31,919	5.49
Lewis	Middle	11,918	11,866	11,904	0.32	26,477	28,085	29,359	10.88
Lincoln	Middle	33,442	33,695	33,645	-0.15	35,492	36,244	37,279	5.03
Macon	Middle	22,501	23,108	23,450	1.48	28,514	29,192	30,845	8.17
Marshall	Middle	30,928	31,518	31,915	1.26	30,906	32,110	33,513	8.44
Maury	Middle	81,969	87,735	89,981	2.56	35,888	36,268	37,947	5.74
Montgomery	Middle	185,225	193,294	195,734	1.26	38,904	38,552	39,400	1.27

Table 23: Population and Per Capita Income by County (continued)

		Population Estimates, as of July 1			Percent Change 2015-16	Per capita personal income			Percent Change 2013-15
Counties	Region	2012	2015	2016		2013	2014	2015	
Moore	Middle	6,336	6,290	6,323	0.52	34,928	36,938	38,179	9.31
Overton	Middle	22,222	22,156	22,051	-0.47	28,144	28,902	29,962	6.46
Perry	Middle	7,854	7,914	7,964	0.63	26,891	27,756	28,759	6.95
Pickett	Middle	5,070	5,142	5,142	0.00	31,281	32,510	34,472	10.20
Putnam	Middle	73,487	74,974	75,931	1.28	34,228	35,001	36,215	5.81
Robertson	Middle	66,743	68,452	69,165	1.04	35,336	35,652	37,661	6.58
Rutherford	Middle	274,386	298,423	308,251	3.29	34,818	35,948	37,654	8.15
Smith	Middle	19,114	19,253	19,447	1.01	32,869	33,887	35,182	7.04
Stewart	Middle	13,311	13,240	13,182	-0.44	36,723	36,703	38,085	3.71
Sumner	Middle	166,101	175,866	180,063	2.39	40,154	41,100	43,079	7.28
Trousdale	Middle	7,774	8,035	8,271	2.94	32,022	32,956	34,954	9.16
Van Buren	Middle	5,635	5,686	5,689	0.05	24,913	25,407	26,693	7.14
Warren	Middle	39,745	40,338	40,516	0.44	30,538	31,120	32,135	5.23
Wayne	Middle	16,996	16,738	16,713	-0.15	26,593	27,125	28,134	5.79
White	Middle	26,096	26,495	26,653	0.60	29,452	30,066	30,967	5.14
Williamson	Middle	193,095	211,674	219,107	3.51	77,841	81,903	87,419	12.30
Wilson	Middle	119,109	128,772	132,781	3.11	40,071	41,294	43,458	8.45
Benton	West	16,354	16,107	16,014	-0.58	31,778	32,334	33,443	5.24
Carroll	West	28,707	28,131	28,092	-0.14	33,711	33,553	34,865	3.42
Chester	West	17,213	17,413	17,453	0.23	28,325	28,505	29,701	4.86
Crockett	West	14,607	14,566	14,411	-1.06	36,847	35,144	35,968	-2.39
Decatur	West	11,660	11,657	11,769	0.96	33,260	32,965	34,149	2.67
Dyer	West	38,246	37,878	37,708	-0.45	36,077	37,044	38,153	5.75
Fayette	West	38,662	39,220	39,590	0.94	45,519	46,109	47,649	4.68
Gibson	West	49,689	49,442	49,401	-0.08	35,014	34,844	36,002	2.82
Hardeman	West	26,528	25,732	25,435	-1.15	26,719	26,486	27,400	2.55
Hardin	West	26,005	25,718	25,679	-0.15	33,029	33,505	34,499	4.45
Haywood	West	18,281	18,028	17,853	-0.97	32,842	28,845	28,546	-13.08
Henderson	West	28,006	27,984	27,822	-0.58	31,003	31,763	32,503	4.84
Henry	West	32,373	32,205	32,310	0.33	36,377	36,637	37,891	4.16
Lake	West	7,710	7,572	7,560	-0.16	24,904	24,010	24,256	-2.60
Lauderdale	West	27,676	26,959	26,773	-0.69	26,243	25,741	26,617	1.43
McNairy	West	26,160	25,997	25,935	-0.24	27,788	28,214	29,105	4.74
Madison	West	98,523	97,609	97,663	0.06	35,570	36,460	38,288	7.64
Obion	West	31,346	30,633	30,578	-0.18	35,376	35,289	35,699	0.91
Shelby	West	938,965	936,131	934,603	-0.16	42,461	43,709	45,153	6.34
Tipton	West	61,609	61,605	61,303	-0.49	33,288	33,635	34,721	4.30
Weakley	West	34,594	33,831	33,507	-0.96	32,548	32,082	32,575	0.08

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Workforce Challenges and Strategies

The Workforce Innovation and Opportunity Act (WIOA) was to be fully implemented by July 1, 2017. By the end of 2016, implementation was well underway. A major effort has been the integration of workforce services with shared collaborative goals among partners. This included the rebranding of workforce services into the American Job Centers, the integration of vocational rehabilitation services into the centers, the launching of GUS to provide integrated unemployment insurance and workforce services, and other innovations such as real-time workforce services tracking through one touch and Zendesk.

Challenges: Substantial Barriers to Employment

WIOA included a renewed focus on those with substantial barriers to employment (SBEs), with categories specifically defined in the WIOA guidelines. Estimates of the number of these individuals by Local Workforce Development Areas (LWDAs) in Tennessee were produced from a number of sources, including the following:

- U.S. Census Bureau
- U.S. Department of Labor, Bureau of Labor Statistics (BLS)
- Tennessee Department of Correction
- Tennessee Department of Human Services
- Tennessee Department of Children's Services

Several of these departments have different service areas than the LWDAs, so population-based estimates were created by the Department of Labor and Workforce Development, LMI Section. These estimates are displayed in Table 24. Individuals with barriers to employment by LWDA in the following categories are included:

- Number in poverty
- Number of low income individuals
- Native Americans
- Individuals with disabilities
- Older individuals
- Those in households where English is not spoken well, or not at all
- Justice-involved individuals (on probation, parole, and delinquent youth in care)
- Those in foster care and those aged out
- Single parents
- Temporary Assistance for Needy Families (TANF) case closures in FY 2016
- Numbers of homeless persons

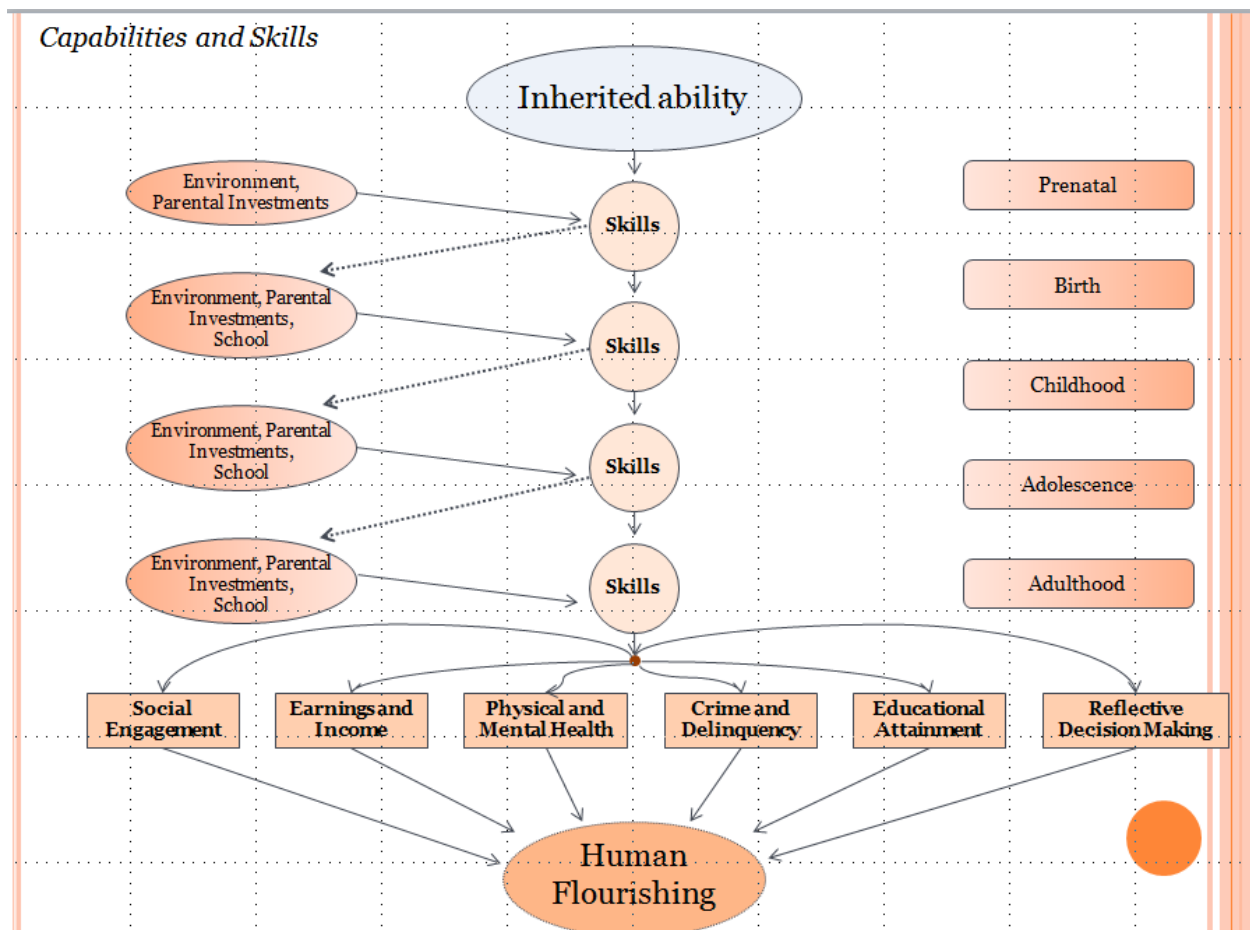
Some measures are more reliable than others. Homeless censuses are done infrequently, and may not capture many who are not living on the streets but nonetheless do not have permanent housing. The largest groups include low-income, older individuals, and those with disabilities. As integrated databases are developed, determining individuals who have two or more barriers would assist in prioritizing services.

Moving Beyond the Barriers

Heckman and Corbin (2016)² identify six areas of skill development which are essential for human flourishing – for an individual to be able to achieve well-being and operate successfully in society (figure 15). Skills are achieved through use of resources in the environment (those available to the individual in the state, city, and community into which they are born), the resources their parents are able to provide, and the education they receive. Skill development continues from the prenatal stage through adulthood.

Individuals with substantial barriers to employment are those who have not yet achieved adequate skill levels in one or more of the skill categories and therefore lack the capabilities to flourish in their communities. For example, those in poverty lack sufficient earnings and income; they may also have less than adequate physical or mental health, lower educational attainment, or lack access to social networks which could connect them to improved employment.

Individuals with disabilities may lack adequate physical and/or mental health to be able to earn sufficient income to be self-sustaining. Youth in foster care may lack opportunities to earn needed income or lack transportation to obtain additional education. Justice-involved individuals will face many barriers/skills needed for self-sufficiency; if they are parents, these deficiencies may affect their children’s opportunities. Assessment of challenges in each of the six categories is necessary to create employment and education plans to reduce the number of individuals with barriers to employment.



Source: "The Technology of Skill Formation." Heckman and Corbin (2016). Capabilities and skills.

Figure 15

² Heckman, J. & Corbin, C. (2016). Capabilities and skills. *Journal of Human Development and Capabilities*. Vol. 17 (3), 342-359.

Table 24: Substantial Barriers to Employment

LWDA	Low-Income Individuals (Number of People in Poverty)	Low-Income Individuals (Persons Earning Less Than 70% of Lower Living Standard Income Level LLSIL) Ages 16 to 64)	Native Americans	Individuals with Disabilities (Ages 18 to 64)	Older Individuals (More Than 55 Years Old)	English Language Learners (English Spoken Not Well or Not at All, Non-Native Speakers)	Justice-Involved Individuals (on Parole, 6-30-2016)	Justice-Involved Individuals (on Probation, 6-30-2016)	Justice-Involved Individuals (Delinquent Youth in Care, 5-3-2017)	Foster Care Services (Dependent, Neglected Youth, 5-3-2017)	Foster Care Services - Youth Aged Out	Single Parents	Temporary Assistance for Needy Families - Case Closures - FFY 2016	Estimated Homeless Persons
1	67,078	42,205	1,107	39,384	126,536	1,163	543	3082	37	63	37	12,026	1,271	332
2	84,551	47,110	1,023	51,183	150,553	5,081	716	3596	80	142	83	14,817	1,413	423
3	68,679	44,625	1,373	30,664	123,631	5,434	757	3499	32	100	50	13,713	1,539	748
4	84,920	45,050	1,948	49,372	175,602	3,801	620	3671	45	140	70	14,281	1,460	392
5	106,358	61,505	1,426	57,308	192,468	7,351	885	5531	85	110	78	21,352	2,302	484
6	40,304	23,575	1,130	24,017	73,289	3,584	366	1725	54	47	25	8,898	1,023	97
7	47,488	30,995	581	24,693	78,349	2,497	433	1985	42	80	47	7,404	874	108
8	80,782	41,395	3,755	50,327	194,224	5,571	1030	5281	75	95	58	24,130	2,200	282
9	156,240	99,360	3,990	67,917	253,975	32,555	3124	9725	89	210	98	39,192	4,115	2,728
10	40,349	22,590	585	22,965	77,446	2,137	322	1574	51	70	38	8,162	889	66
11	46,947	29,860	488	23,466	77,712	1,145	561	1860	38	55	23	9,494	1,560	578
12	62,641	40,205	1,520	33,316	104,030	1,896	787	2398	45	56	36	13,518	1,774	783
13	191,530	109,650	2,199	69,650	243,920	17,626	2268	7919	161	131	109	48,289	8,036	1,759

Sources:

Low-income individuals (Number of people in poverty)	https://www.census.gov/did/www/saiper/
Low-income individuals (Persons Earning Less Than 70% of Lower Living Standard Income Level (LLSIL))	https://www.doleta.gov/budget/disadvantagedYouthAdults.cfm
Native Americans	U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_B02001&prodType=table
Individuals with disabilities	U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_S1810&prodType=table
Older Individuals	U.S Census Bureau Population Estimates Program https://www.census.gov/programs-surveys/popest.html
English Language Learners	U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates
Justice-Involved Individuals (Parole)	TN Department of Correction, Statistical Abstract 2016 Parole and Probation Population by District - June 30, 2016, p. 37. http://www.tn.gov/assets/entities/correction/correction/attachments/StatisticalAbstract2016.pdf
Justice-Involved Individuals (Probation)	TN Department of Correction, Statistical Abstract 2016 Parole and Probation Population by District - June 30, 2016, p. 37. http://www.tn.gov/assets/entities/correction/attachments/StatisticalAbstract2016.pdf
Justice-Involved Individuals (Delinquent Youth in Care)	Brian Stephens, Dir. of Independent Living, TN Dept. of Children's Services (brian.stephens@tn.gov)
Foster Care Services (Dependent and Neglected Youth)	Brian Stephens, Dir. of Independent Living, TN Dept. of Children's Services (brian.stephens@tn.gov)
Foster Care Services - Aged Out	Brian Stephens, Dir. of Independent Living, TN Dept. of Children's Services (brian.stephens@tn.gov)
Single Parents	U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_B19131&prodType=table
Temporary Assistance for Needy Families - Case Closures - FFY 2016	Keisha Malone, keisha.malone@tn.gov, TN Dept. of Human Services 6/1/2017
Estimated Homeless Data for Tennessee areas	Bob Currie, Division of Mental Health Services, (Bob.Currie@tn.gov) Jenna Robl, Office of Housing and Homeless Services, (Jenifer.Robl@tn.gov)

Strategy: Apprenticeships

An increasing focus in workforce services to develop high skilled, high paying jobs including on-the-job training is on apprenticeships. Funds to recruit employers to develop registered apprenticeships are available in 2017 to the LWDAs, with apprenticeship coordinators assigned in each. In addition, an apprenticeship accelerator planning grant is available to promote apprenticeships among stakeholders in Tennessee.

To inform this effort, data has been obtained from the Office of Apprenticeship in the U.S. Department of Labor on the number of apprenticeship completions in 2016 and the sponsoring organizations. Table 25 lists the 64 sponsoring organizations with registered programs and completers in Tennessee: 34 in the East, 16 in the Middle, and 14 in the West Region. A total of 656 apprentices completed programs: 381 in the East, 133 in the Middle, and 142 in the West Region.

Table 25: Registered Apprenticeship Sponsors with Completers 2016

Apprenticeship Sponsors	County	Completers
East Region		
Consolidated Nuclear Security, Llc	Anderson	22
Oak Ridge Electric JATC	Anderson	13
Arconic	Blount	1
Massey Electric Company, Inc.# 1	Blount	6
Southwest Tennessee Emc	DeKalb	2
Chattanooga Electrical JATC	Hamilton	54
Chattanooga Ironworkers JAC	Hamilton	7
EPB	Hamilton	2
Gestamp Chattanooga, Llc	Hamilton	2
Operating Engineers, Lcl No 917 JATC	Hamilton	1
Tennessee Carpenters Regional Council JATC	Hamilton	23
UA Local 43 Plumbers & Steamfitters JATC	Hamilton	20
TRW Rack And Pinion Division	Hawkins	1
Walker Forge Tennessee, Llc	Hawkins	3
Athens Utility Board	Knox	32
Electrician Training Academy Knoxville	Knox	9
Funderburk Electrical Services	Knox	5
Knoxville Asbestos Workers JATC	Knox	3
Knoxville Association Of Plumbing Heating Cooling Contractor	Knox	13
Knoxville Ironworkers JAC	Knox	2
Knoxville Labor's JATC	Knox	2
Knoxville Plumbers & Steamfitters JATC Local 102	Knox	12
Knoxville Sheetmetal Workers	Knox	1
Dienamic Tooling System Inc.	Loudon	4
Thomas & Betts Corporation	McMinn	1
Eastman Chemical Co. - Coal Gas Division	Sullivan	6
Eastman Chemical Co. - TN Operations	Sullivan	101
Massey Electric, Inc.# 2	Sullivan	1
Tri Cities Electric JAC	Sullivan	4
Domtar Paper Company	Unicoi	12
Nuclear Fuel Services Inc.	Unicoi	2
AO Smith	Washington	5
Decanter Machine, Inc.	Washington	5
Johnson City Power Board	Washington	6
Total for East Region		383

Table 25: Registered Apprenticeship Sponsors with Completers 2016 (continued)

Middle Region		
Industrial Electric Services, Inc.	Cheatham	1
Fast Electrical Contractors, Inc.	Davidson	1
Harlan Electric	Davidson	1
Heat & Frost Insulators Local # 86 JATC	Davidson	2
International Union Of Elevator Constructors Local #93 JAC	Davidson	6
Nashville Electric Service	Davidson	5
Nashville Electrical J.A.T.C.	Davidson	30
Nashville Ironworkers Local# 492 JATC	Davidson	15
Nashville Plumbers & Pipefitters JATC	Davidson	22
Nashville Sheet Metal JATC	Davidson	18
Stansell Electric	Davidson	3
Tennessee Prison For Women Food Service Department	Davidson	15
Travis Electric Company	Davidson	4
Cumberland Electric Membership Corporation	Montgomery	2
Middle Tennessee Electric Membership Corporation	Rutherford	5
North American Stamping Group	Sumner	2
Total for Middle Region		132
West Region		
Medegen Medical Products	Fayette	1
ARJ Manufacturing	Madison	3
Delta Electrical, Inc.	Madison	6
Innerspace Strategies, Inc.	Shelby	3
IUOE Local 369 Training Fund	Shelby	2
Memphis Asbestos JAC	Shelby	1
Memphis Electrical JATC	Shelby	23
Memphis Federal Correction	Shelby	25
Memphis Ironworkers JAC	Shelby	6
Memphis Light, Gas And Water Division	Shelby	26
Memphis Plumbers JAC	Shelby	3
Memphis Sheet Metal Workers JAC	Shelby	2
Memphis Steamfitters JAC	Shelby	12
Mid-South Independent Electrical Contractors	Shelby	28
Total for West Region		141
Total Number of Completers		656

Source: U.S. Department of Labor Office of Apprenticeship and Training

Table 26 lists the occupations for which the apprentices trained. In the East, the largest occupations were chemical operators, electricians, electromechanical technicians, and pipe fitters (construction). In the Middle, electricians, sheet metal workers, and structural steel/ironworkers, reflecting the significant growth in construction in the area, were the largest. In the West, electricians, line installer-repairers, and pipe fitters (construction) were the largest occupations for which apprentices trained and completed programs. Although construction and manufacturing-related training was predominant, there were cooks, greens keepers, a landscape gardener, and wastewater-treatment-plant-operator completers as well. There seems sufficient demand to diversify the number of occupations included in apprenticeships and to broaden the number of sponsors who need skilled employees and who would be willing to initiate apprenticeship programs.

Table 26: Apprentice Completers 2016 by Job Title and Region

OCCUPATIONAL JOB TITLES OF TRAINING COMPLETERS	EAST TENNESSEE	MIDDLE TENNESSEE	WEST TENNESSEE
Cable Installer-Repairer			8
Carpenter	14		
Carpenter, Interior Systems	4		
Carpenter, Maintenance	1		2
Chemical Laboratory Tech	1		
Chemical Operator III	60		
Construction Craft Laborer	2		
Control Equip Elec-Tech			3
Cook (Hotel & Restaurant)		11	
Cook, Pastry (Hotel & Restaurant)		4	
Electric Meter Repairer			3
Electrician	125	41	50
Electrician, Maintenance	2		
Electrician, Powerhouse			3
Electromechanical Technician	24		
Electronics Tester			1
Elevator Constructor Mechanic		6	
Greenskeeper II			3
Heating & Air-Conditioner Installer-Servicer	5	2	6
Insulation Worker	3	2	1
Landscape Gardener			1
Line Erector	15	5	
Line Installer-Repairer		7	17
Line Repairer	6		
Machinist	12		
Maintenance Mechanic (Any Industrial)	5		
Maintenance Repairer, Industrial	8		
Maintenance Machinist	2		
Mechanic, Industrial Truck	1		
Metal Fabricator	3		
Millwright	5		
Operating Engineer	1		2
Pipe Fitter (Construction)	32	14	12
Plumber	9	6	5
Power-Plant Operator	7		
Quality Control Technician			1
Recovery Operator (Paper)	6		
Refinery Operator	6		
Sheet Metal Worker	3	18	2
Structural Steel/Ironworker	9	15	6
Teacher Aide I			8
Telecommunications Technician			2
Tool And Die Maker	7	2	4
Transformer Repairer			2
Waste Treatment Operator	1		
Wastewater-Treatment- Plant Operator	2		
Total By Division FY 2016	381	133	142
TOTAL FOR STATE FY 2016	656		

Source: U.S. Department of Labor Office of Apprenticeship and Training

Conclusion

The Tennessee economy strengthened in 2016. Employment increased nearly 2.5 percent, creating 71,900 new jobs. The unemployment rate continued its decline. All metropolitan areas increased in employment. The average number of employers increased by two percent. The ratio of unemployed to job openings in June 2015 remained below 1.0; that is, there was less than one unemployed person with a resume per job opening listed on jobs4tn.gov in the state, indicating a potential shortage of applicants for available jobs.

This reinforces the need to retain current workers in the labor market and to increase the labor force participation rate and skills of Tennessee's population. Under WIOA, veterans, youth, those with disabilities, adults living below the poverty rate, and those living in regions with high unemployment will have more opportunities to upgrade their skills, receive targeted employment services, and strengthen their labor market performance.

Tennessee's East, Middle, and West Regions have some significant differences, with the Middle Region leading in population and job growth, as well as in educational attainment for the population 25 years of age and older. However, this area still has significant areas of poverty in the core cities and rural counties. The West Region had the highest annual average unemployment and poverty rates, as well as the highest youth unemployment rate, but has educational attainment above the state average. The Memphis MSA is growing more slowly than the state but the Jackson metropolitan area has surpassed the state's job growth rate.

Projections are that employment will continue to increase in each region. The industries expected to create the most new jobs are identified, and include some in the manufacturing sector, especially in auto-related industries, as well as education, health care, and business and financial services. The top ten industries do differ by region as shown in the tables in each section.

The Workforce Innovation and Opportunity Act (WIOA) is changing governance in the workforce system and integrating more services into the American Job Center network. To aid the LWDA's in this effort, fourteen categories of individuals with substantial barriers to employment, as identified in the WIOA guidelines, have been included in this report with estimates of the number within each category. As service databases are slowly integrated, a future possibility should be the identification of overlap within these categories so more resources can be focused on individuals with two or more barriers.

New research in human development has identified six areas of skill development essential to well-being: social engagement, earnings and income, physical and mental health, avoidance of crime and delinquency, educational attainment, and reflective decision making. In workforce development, ideally, all areas would be assessed as individual employment plans are developed and actions steps implemented.

A priority at the state and national levels in the next year will be the expansion of apprenticeships involving engaged employers/apprenticeship sponsors, classroom instruction, and paid work-based learning. Included for the first time in this report is information on the number of apprentices trained by occupation and region in Tennessee in 2016 and their sponsoring organizations. Additional information is available on request from the Labor Market Information Section.

Key supply-side strategies to improve Tennessee's labor force participation rate and job skills continue in the state: the Governor's Drive to 55 initiatives, increasing the number of Tennesseans with postsecondary credentials to 55 percent by 2025. The strategy includes the Tennessee Promise to increase youth postsecondary success, Tennessee Reconnect to increase adult postsecondary completions, improvements

in the adult education system, and the two-generation focus in the Department of Human Services to reduce intergenerational poverty.

It is hoped that the extensive industry information included in this report will aide workforce professionals and educators from the high school level through higher education to better understand employer needs within the East, Middle, and West regions and to develop demand-driven strategies and improved career pathways. This is an essential building block to strengthen Tennessee's economy and opportunity for all Tennesseans.



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