



TENNESSEE'S ECONOMY

2022-2023



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Executive Summary

Tennessee's economy continued a steady recovery from the pandemic downturn in 2020 by returning to total nonfarm employment in 2022 of 3,238,559 and an average annual unemployment rate of 3.4 percent. Annual average employment in 2022 climbed above that of 2019, which brought it above the pre-pandemic level. The January 2022 annual average unemployment rate was higher than the 3.4 percent annual average rate in 2019, but by February 2022 it had dropped to 3.4 percent. The Tennessee labor force increased by 0.7 percent from 2021 to 2022 to 3,352,037 as the economy continued to recover.

The Tennessee Economy in 2022: Nonfarm employment in Tennessee (by place of residence) increased by 1.7 percent from 2021 to 2022, adding 53,296 jobs over the year (see summary). Metropolitan growth (by place of employment) was positive for all major metropolitan areas with Memphis, Nashville, Knoxville, and Chattanooga all gaining employment by three percent or more. The Nashville MSA showed the greatest increase in employment. Employment increased in 89 of the 95 counties. The number of establishments grew by 10.1 percent and nominal total payroll increased by 9.9 percent to 196.1 billion dollars. The average annual median wage (not adjusted for inflation) also increased by 5.9 percent to \$39,929. The average hourly wage for production workers was \$20.38.

In June 2022 the TDLWD job bank, jobs4tn.gov, listed an average of 0.48 unemployed workers for each job opening, making it more difficult for employers to find workers in the economy. Although the unemployment rate for veterans was below the state average, rates for youth and those with disabilities, as well as the poverty rate, were still in the double digits. There was a significant increase in the unemployment rate of those under the poverty level.

Statewide Industry Employment 2022: Manufacturing jobs increased by 4.4 percent, nearly as rapidly as employment in the private service-providing sector. In services, the information and arts and entertainment industries showed the largest growth rates in the state, at 15.5% and 15.8% respectively. Other industries that experienced significant growth rates over the past year were accommodation and food services, mining, logging, and construction and professional and business services.

Manufacturing, retail trade, and healthcare and social assistance remained the largest sectors in total employment in 2022. Over the five-year period from 2017 to 2022, the industry sectors adding the most jobs were accommodation and food services; mining, logging, and construction; transportation, warehousing, and utilities; and professional, scientific, and technical services.

Labor Force: The annual average unemployment rate for the U.S. in 2012 was 8.0 percent and dropped to 5.5 percent in 2022. Tennessee's annual average unemployment rate in 2012 was 8.0 percent and declined to 3.4 percent in 2022, remaining below the U.S. rate. Tennessee's June 2023 seasonally adjusted unemployment rate declined to 3.2 percent. In June 2023, the U.S. labor force participation rate was 62.6 percent, compared to Tennessee's rate of 59.4 percent.

Tennessee Wages and Income 2022: Among the 22 major occupational groups, median wages increased for 21 of the groups. The only group experiencing a decline in median hourly wages was community and social service, with a reduction from \$22.05 to \$21.86. In the LWDAs, Northern Middle and Greater Memphis had median hourly wages slightly higher than the state.

Tennessee Safety 2021: The total recordable incidence rate for nonfatal occupational illnesses and injuries for all industries in Tennessee per 100 full-time equivalent workers during 2021 was estimated to be 2.6. The total recordable rate for private industry was 2.7 and the total recordable rate for public sector industries was 2.5, declining from 3.6 percent in 2020.

Tennessee Long Term Outlook to 2030: From a base of 3.2 million jobs in 2020, total employment for Tennessee, including agricultural, self-employed, and private household workers, is expected to grow to 3.7 million by 2030, expecting to increase by 0.9 percent annually. The high growth rate includes recovery from the lower employment base in 2020 compared to 2019.

Significant Occupational Shortages: Comparing the number of active resumes in 2022 on the jobs4tn.gov website with the number of job openings listed in the system, the top 15 occupations with the largest supply gaps for occupations requiring postsecondary education through associate's degrees, bachelor's degrees, and higher-paying high school occupations are listed. Occupational shortages include many occupations in health care, transportation, mechanical and technical areas, engineering, production and construction supervisors, and information technology. Better data on teacher vacancies is a continuing need.

Detailed Regional Analysis: Summaries of key labor force and economic trends for the West, Middle, and East Regions are included in this section. Detailed discussions include top industries, occupations, industry and occupational growth, top employers posting jobs, top tools and technologies, and the educational pipeline for the area. Each section includes a detailed description of labor force trends as well as updated data on barriers to employment presenting challenges and opportunities in each region.

West Region

- **Most major indicators** continued to increase (based on place of residence) in the West Region from 2021-2022. Nonfarm employment increased by 0.4 percent compared to the previous year's 2.8 percent, and lower than the state's 1.7 percent. By place of residence, nearly 3,000 jobs were created, about 5 percent of all new jobs in the state. More jobs, proportionately, are in the metro areas. By place of work, employment in the Memphis metropolitan area increased from 2021 to 2022 by 2.9 percent, and Jackson by 1.8 percent. In the West, total payroll increased by 4.4 percent compared to the state's 9.9 percent. Average wages for production workers increased to \$19.92 and the labor force increased by 8,036. Youth unemployment increased from 15.8 percent to 17.1 and is still higher than the state rate of 12.5 percent.
- The **three largest industries** are health care and social assistance, transportation and warehousing, and manufacturing.

- Industries **adding the most jobs** from 2018 to 2022 included transportation and warehousing (over 8,500), health care and social assistance (6,400), and professional, scientific, and technical services (over 2,200).
- The **population** decreased by 3,886 from 2021-2022.
- The **labor force challenges** of reducing poverty and increasing educational attainment need to be key targets of workforce policy. In 2021 the regional number below poverty was 263,430. White individuals with a bachelor's degree or higher were 32.62 percent of the population over the age of 25, which was higher than the state rate of 30.12 percent. Black individuals were at 58 percent and Hispanic individuals at 50 percent of the state rate, pointing to the need to increase college-going for both groups in the West Region.
- Significant **barriers to employment** include high youth unemployment, particularly in the Greater Memphis LWDA. The West Region includes 37 percent of individuals exiting TANF, 28 percent of those below the poverty line, 30 percent of the prison and jail population, 25 percent of the youth, and 26 percent of the single parents.
- **Major economic investments** in green energy will provide a boost to employment and skill gains in this region, with the Ford electric vehicle plant planning to provide 3,300 jobs, the SK On electric battery plant 2,500 jobs, and the Magna electric vehicle plant 1,300 jobs. **Jobs most in demand** in the region are listed in the Appendix.

Middle Region

- **Most major indicators** increased (based on place of residence) from 2021 to 2022, with the Middle Region leading the state with 2.9 percent in employment growth compared to the state's 1.7 percent. By place of residence, 41,000 jobs were created, more than 3 out of 4 new jobs in the state. By place of work, jobs in the major metropolitan area of Clarksville-Hopkinsville, TN-KY-MSA grew 4 percent, and in the Nashville MSA by 6.6 percent. In the region, total payroll increased by 8.8 billion. Average hourly wages for production workers topped \$20.00 in 2022. The labor force increased by 29,787, supporting job expansion. Youth unemployment increased slightly from 2020 to 2021 to 9.89 percent, still lower than the state rate of 10.2 percent.
- The **three largest industries** are healthcare and social assistance, retail trade, and manufacturing, followed by accommodation and food services.
- The **industries adding the most jobs** included transportation and warehousing (20,657), construction (13,705), and professional, scientific, and technical services (13,049).
- **The population** increased by an estimated 53,165 from 2021 to 2022, with more than 36,768 in the Northern Middle Region.
- **The labor force challenges:** The labor force participation rate in the Northern Middle LWDA (68.4 %) was 11 percent points higher than the state rate and 10 percentage points higher than the Southern Middle LWDA. In contrast, the number of individuals below poverty in the region was 330,935, with 2 of every 3 of these persons in the Northern Middle LWDA. Reducing the number of individuals in poverty and increasing wages of the low-income working population needs to be an important workforce concern.
- The **educational attainment** (percent of the population attaining a bachelor's degree or higher) of the White, Black, and Hispanic population is greater for each group in this region than in the state; however, the rate for the Hispanic population is just over half of that of the White

population, an area of concern for workforce policy.

- **Significant barriers to employment:** The Middle Region has 38 percent of the single parents in the state, 43 percent of youth aged 15 to 24, and 35 percent of the prison and jail population. The region has about 500 transitioning in the next 24 months from TANF.
- **Major economic investments:** Major investments **include** green energy investments of lithium-ion battery manufacturing (Ultium LLC), 1300 jobs; medical products manufacturing by the Puritan and Life Technologies, 632 and 1400 jobs, respectively; warehouse distribution centers—Amazon (500 jobs) and Chewy (1,200 jobs), Oracle (software development) (8,500 jobs), and Southwest Airlines (1,300 jobs). Electric vehicle production is expanding, as are outpatient medical facilities. **Jobs most in demand** in the region are listed in the Appendix.

East Region

- **Most major indicators increased** (based on place of residence) from 2021 to 2022, with East Region employment growing at nearly 1 percent compared to the state's 1.7 percent. By place of residence, nearly 10,000 jobs were created, nearly one of every five jobs created in the state. By place of work, jobs in the major metropolitan area of Knoxville grew by 4.6 percent and in the Chattanooga MSA, by 4 percent. In the region, total payroll increased by 4.9 billion. Average hourly wages for production workers topped \$20.00 in 2022. The labor force increased by nearly 4,500 workers, supporting modest job expansion. Youth unemployment was slightly lower from 2020 to 2021 at 10.6 percent.
- The **three largest industries** are manufacturing, healthcare and social assistance, and retail trade, followed by accommodation and food services.
- **Industries adding the most new jobs** from 2018 to 2022 were manufacturing; professional, scientific, and technical services; and transportation and warehousing.
- **The population** in the region increased by 33,989 from 2021 to 2022; all LWDA's had increases.
- **The labor force challenges:** The labor force participation rate in the East LWDA was the highest in the region; the rate in the Northeast was the lowest at 53.1. The number of individuals below poverty in the region was 343,879, with half of these individuals in the East LWDA. Again, reducing the number of individuals in poverty and increasing wages of the low-income working population needs to be an important workforce concern.
- The **educational attainment** (percent of the population attaining a bachelor's degree or higher) of the White, Black, and Hispanic population is lower for each group in this region than in the state, making increasing college-going for each group a workforce priority which could also increase the labor force participation rate.
- **Significant barriers to employment:** The East Region has 35 percent of the single parents in the state, 35 percent of youth aged 15 to 24, and 39 percent of the prison and jail population. The region has 633 transitioning in the next 24 months from TANF.
- **Major economic investments:** Selected investments included continued expansion of the Volkswagen plant in the Chattanooga area as electric vehicle production was added; Smith and Wesson firearms manufacturing (750 jobs); and an Amazon distribution center (800 jobs). **Jobs most in demand in the region** are listed in the Appendix.

Tennessee's Economy 2022

 <p>Employment</p>	<p>Total Nonfarm Employment 2022: 3,238,559 1.7% 2021: 3,185,263 Strong</p>	<p>New Jobs 2022: 53,296 2021: 129,433 Strong</p>	<p>MSA Employment 2021-2022 Nashville: 6.6% Memphis: 2.9% Chattanooga: 4.0% Knoxville: 4.8%</p>
 <p>Employers</p>	<p>Total Number of Establishments 2022:225,580 10.1% 2021: 204,923 Strong</p>	<p>Total Payroll 2022: \$196.1B 9.9% 2021: \$178.5B Strong</p>	<p>Counties that Increased Employment 2022: 89 2021: 78</p>
 <p>Wages & Income</p>	<p>Average Annual Wage 2022: \$52,817 7% 2021:\$49,330 Strong</p>	<p>State Median Wage 2022: \$39,929 5.9% 2021: \$37,700 Strong</p>	<p>Average Hourly Wages - Production Workers 2022: \$20.38 2021: \$19.32 Strong</p>
 <p>Labor Force & Demographics</p>	<p>Unemployment Rate 2022: 3.4% 15.6% 2021: 4.3% Strong</p>	<p>Labor Force 2022: 3,352,037 2021: 3,327,966 Strong</p>	<p>Unemployment Rates Veterans, 2021: 3.0% Youth 2021: 10.2% With Disability, 2021: 15.3% % in Poverty, 2021: 22.34%</p>
 <p>Job Outlook</p>	<p>Ratio of Unemployed to Job Openings June 2022: 0.48 June 2021: 0.55 Strong</p>	<p>Projected Annual Growth Rate, All Occupations 2020-2030: 0.94% 2018-2028: 0.71% Strong</p>	<p>Projected Job Openings 2020-2030: 4,517,230 2018-2028: 4,154,529 Strong</p>
 <p>Job Safety</p>	<p>Fatal Occupational Injuries 2021: 132 2020: 142 Stronger</p>	<p>Total Nonfatal Occupational Illnesses and Injuries, Public Sector 2021: 2.5 per 100 FTE 2020: 3.6 per 100 FTE Challenge</p>	<p>Total Nonfatal Occupational Illnesses and Injuries 2021: 2.6 per 100 FTE 2020: 2.7 per 100 FTE Challenge</p>

Tennessee Overview



Tennessee Employment 2022

Based on place of employment, Tennessee’s average annual nonfarm employment increased by 4.55 percent from 2021 to 2022. Goods producing jobs increased at a rate of 5.3 percent compared to 5.0 percent for private service-providing jobs. Jobs in the government sector grew by 1.25 percent. In the goods producing sector, mining, logging, and construction added 10,700 jobs while manufacturing added 15,400 jobs.

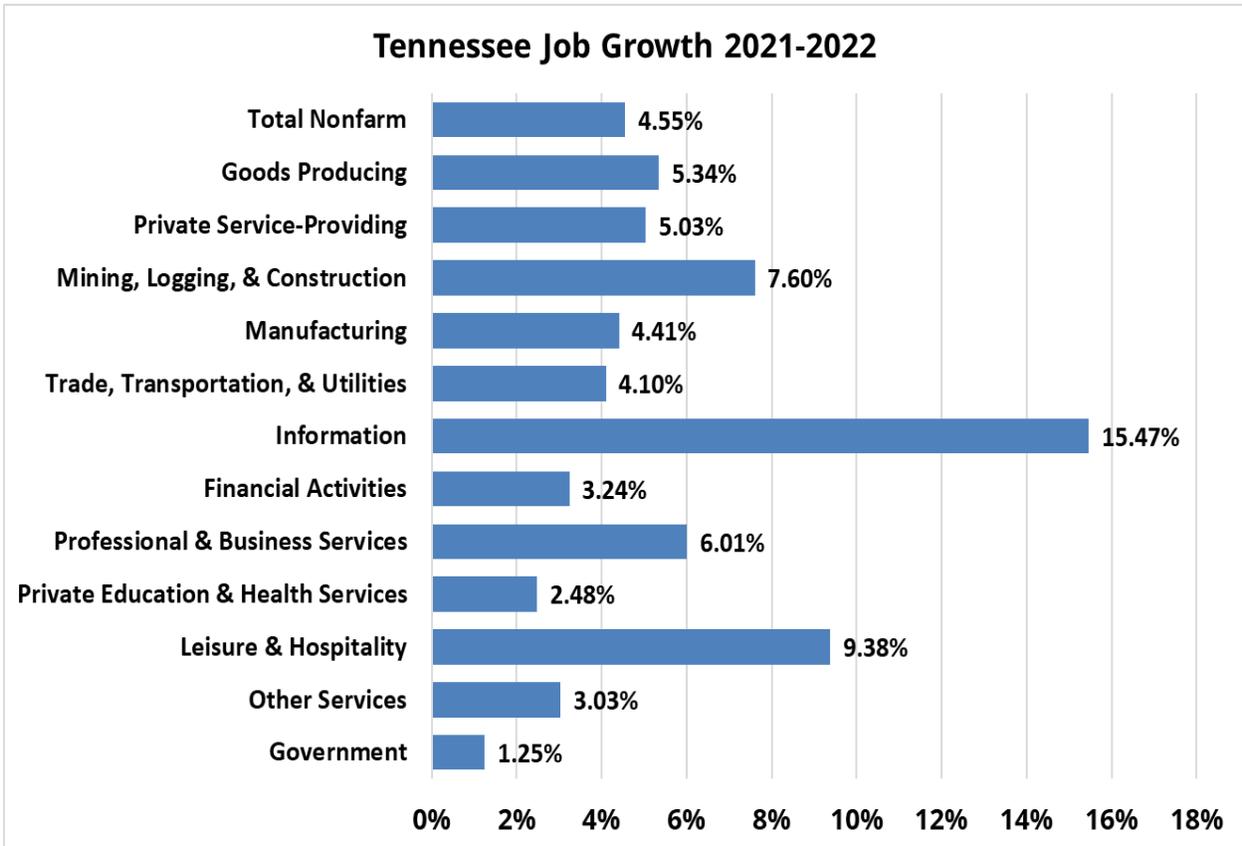


Figure 1

Source: TDLWD, WIR²ED Division, Current Employment Statistics

Table 1: Tennessee Industry Employment, 2017-2022

Industry Employment (in thousands)	2017			2021		2022		2021-2022		2017-2022	
Total Nonfarm	3,016.4	3,103.5	3,244.8	141.3	4.6%	228.4	7.6%				
Goods Producing	471.4	490.2	516.4	26.2	5.3%	45.0	9.5%				
Mining, Logging, & Construction	124.6	140.7	151.4	10.7	7.6%	26.8	21.5%				
Manufacturing	346.8	349.5	364.9	15.4	4.4%	18.1	5.2%				
Durable Goods Manuf.	222.2	221.5	232.5	11.0	5.0%	10.3	4.6%				
Non Durable Goods Manufacturing	124.6	128.0	132.4	4.4	3.4%	7.8	6.3%				
Private Service-Providing	2,114.7	2,181.8	2,291.6	109.8	5.0%	176.9	8.4%				
Trade, Transportation, & Utilities	616.4	650.6	677.3	26.7	4.1%	60.9	9.9%				
Wholesale Trade	119.3	121.3	129.5	8.2	6.8%	10.2	8.5%				
Retail Trade	332.9	331.3	341.0	9.7	2.9%	8.1	2.4%				
Transportation, Warehousing, & Utilities	164.2	197.9	206.8	8.9	4.5%	42.6	25.9%				
Information	46.3	47.2	54.5	7.3	15.5%	8.2	17.7%				
Financial Activities	162.7	169.7	175.2	5.5	3.2%	12.5	7.7%				
Finance & Insurance	123.0	128.9	132.4	3.5	2.7%	9.4	7.6%				
Real Estate, Rental & Leasing	39.8	40.7	42.8	2.1	5.2%	3.0	7.5%				
Professional & Business Services	410.7	437.8	464.1	26.3	6.0%	53.4	13.0%				
Professional, Scientific & Technical Services	137.8	158.3	170.7	12.4	7.8%	32.9	23.9%				
Management of Companies & Enterprises	46.1	51.8	54.1	2.3	4.4%	8.0	17.4%				
Admin, Support, Waste Mgt & Remediation Services	226.8	227.6	239.4	11.8	5.2%	12.6	5.6%				
Private Education & Health Services	435.0	439.9	450.8	10.9	2.5%	15.8	3.6%				
Private Educational Services	60.1	61.6	63.6	2.0	3.2%	3.5	5.8%				
Health Care & Social Assistance	374.9	378.3	387.2	8.9	2.4%	12.3	3.3%				
Leisure & Hospitality	329.2	314.5	344.0	29.5	9.4%	14.8	4.5%				
Arts, Entertainment & Recreation	37.8	37.4	43.3	5.9	15.8%	5.5	14.6%				
Accommodation & Food Services	291.4	277.2	300.7	23.5	8.5%	9.3	3.2%				
Other Services	114.5	122.1	125.8	3.7	3.0%	11.3	9.9%				
Government	430.4	431.5	436.9	5.4	1.3%	6.5	1.5%				
Federal Government	49.1	51.6	52.4	0.8	1.6%	3.3	6.7%				
State Government	98.0	94.6	94.3	-0.3	-0.3%	-3.7	-3.8%				
Local Government	283.3	285.3	290.2	4.9	1.7%	6.9	2.4%				

Source: TDLWD, WIR²ED Division, Current Employment Statistics

With this industry growth, jobs4tn.gov provides a glimpse into the top tools and technologies found most frequently in advertised jobs on the website. Top tools and technologies (shown in table 2) include computer business programs and equipment and warehouse equipment. Top certifications in advertised job listings (table 3) include a variety of medical and pharmacy certifications and those for truck driving, social work, and accounting.

Table 2: Advertised Tools and Technology Table

Tool or Technology	Job Openings
Microsoft (MS) Office	7,813
Cash Register	2,698
Microsoft PowerPoint	2,538
Forklift	2,490
Personal protective equipment	2,091
Motor vehicles	1,912
Microsoft Word	1,606
Structured query language (SQL)	1,583
Hypertext markup language (HTML)	1,343

Source: Online advertised jobs data

Table 3: Advertised Job Certifications for Tennessee

Advertised Certification Group	Job Openings
American Heart Association (AHA) CPR & First Aid Certifications	11,576
Nursing Credentials and Certifications	11,311
Commercial Drivers License (CDL)	2,027
American Institute of CPAs (AICPA) Certifications	1,004
American Organization for Nursing Leadership (AONL) Certifications	597
American Academy of Neurology (AAN) Designations	592
National Registry of Emergency Medical Technicians (NREMT)	469
Social Worker Credentials & Certifications	433
American Red Cross - First Aid Certifications	327
Pharmacy Technician Certification Board (PTCB)	280

Source: Online advertised jobs data



Tennessee Labor Force

United States and State of Tennessee Labor Force Participation Rate Comparison



Figure 2

Source: TN Department of Labor and Workforce Development and Bureau of Labor Statistics, July 2023

Tennessee’s June 2023 seasonally adjusted unemployment rate was 3.2, lower than the rate of 4.4 percent in June 2021. The U.S. unemployment rate declined from 5.9 percent in June 2021 to 3.6 percent in June 2023. The U.S. annual average rate for 2022 was 3.6 percent, down from 8.1 percent in 2012. Tennessee’s annual average unemployment rate dropped from 8.0 percent in 2012 to 3.3 percent in 2023. However, labor force participation has also declined in Tennessee from 61.7 percent in 2012 to 59.7 percent in 2023. U.S. labor force participation also declined from 63.7 percent in 2012 to 62.9 percent in 2023.



Tennessee Wages 2021-2022

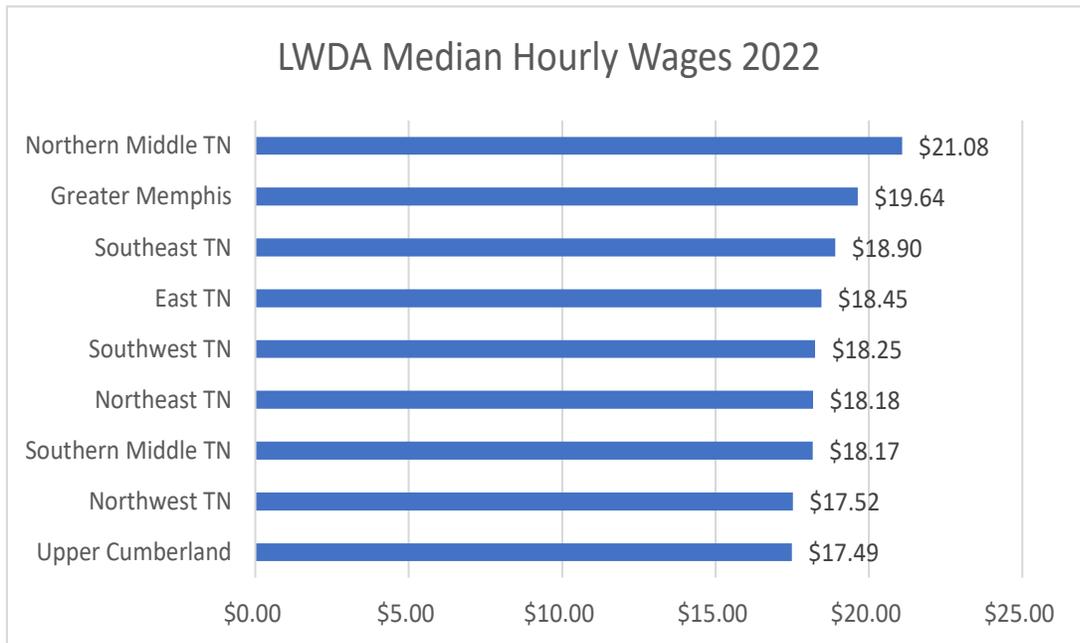


Figure 3
 Source: TDLWD, WIR²ED Division, Occupation Employment and Wages Survey

Median hourly wage growth for Tennessee from 2021 to 2022 averaged 0.7 percent. Among the 22 major occupational groups, median wages increased for 21 of the groups. The largest hourly increase was for legal occupations’ pay (up \$7.86 per hour to \$38.63), followed by construction and extraction (up \$2.66 per hour). Healthcare practitioners and technical occupations were up \$1.34 with increased demand during the post pandemic job market. The three LWDA’s experiencing median hourly wages greater than the state rate of \$19.20 included Northern Middle (\$21.08) and Greater Memphis (\$19.64).

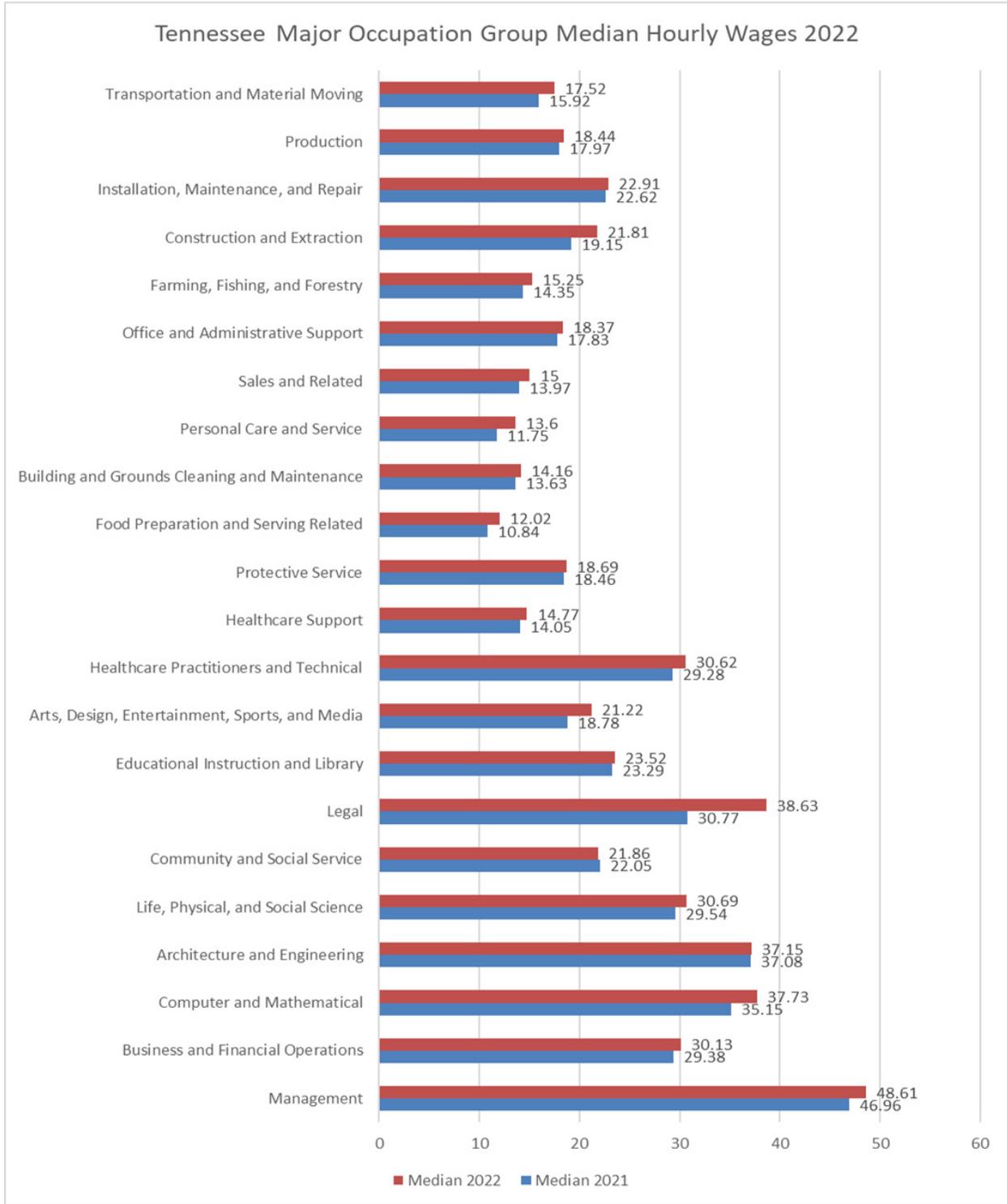


Figure 4

Source: TDLWD, WIR?ED Division, Occupation Employment and Wages Survey, May 2021 and May 2022



Tennessee Long Term Job Outlook to 2030

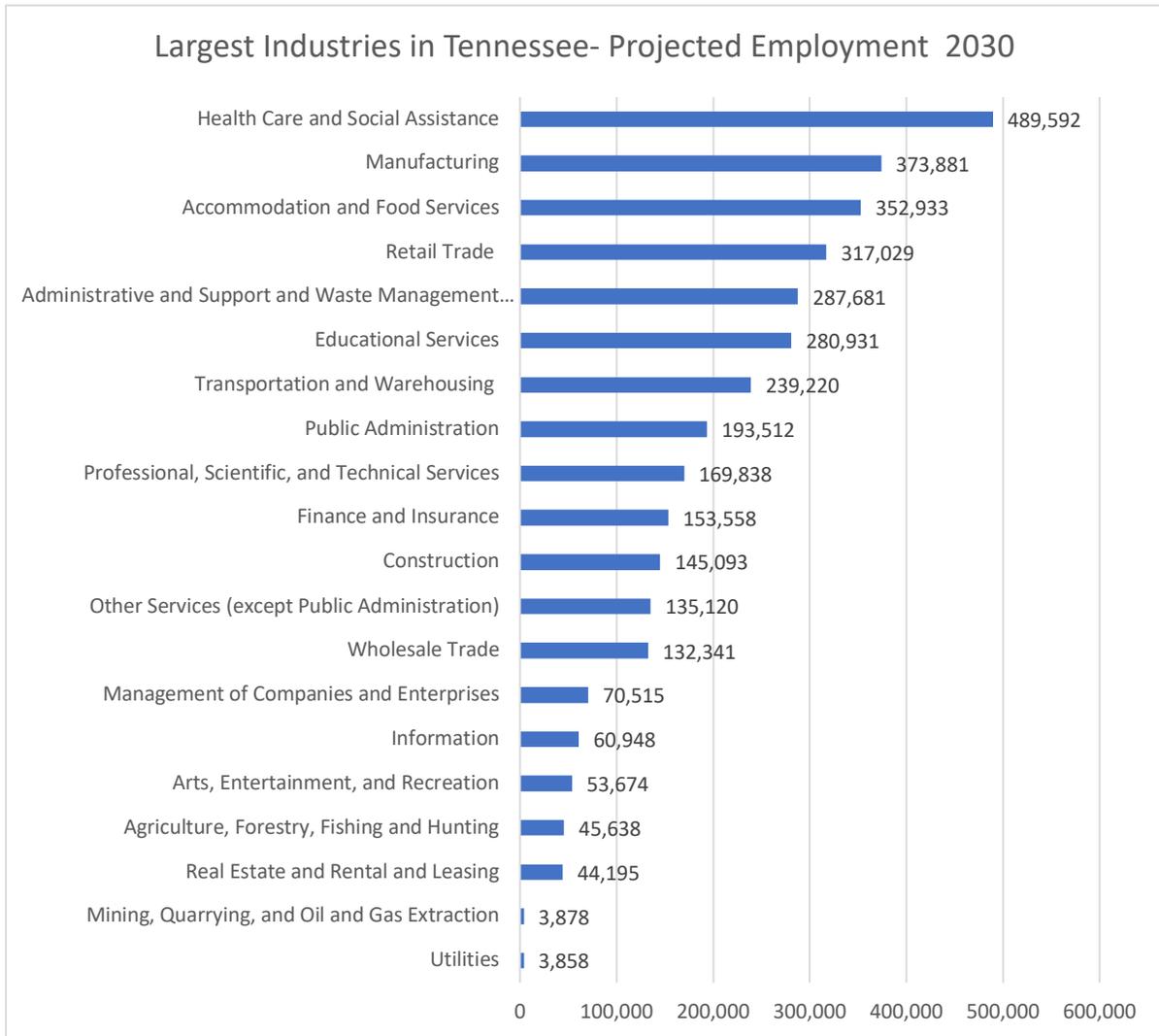


Figure 5

Source: TN Department of Labor and Workforce Development, WIR²ED Division, Tennessee Long-Term Industry Projections 2020-2030

From a base of 3.2 million jobs in 2020, total employment for Tennessee, including agricultural, self-employed, and private household workers, is expected to grow to 3.7 million by 2030. Expected to increase by 0.9 percent annually, as it recovers from lower employment in the base year of 2020 due to the pandemic, Tennessee's economy in the long run is expected to continue expansion in eleven of twelve major industry sectors, with only retail trade expected to decline in employment. The goods-producing industries are expected to expand by 1.25 percent annually and create an estimated 32,775 jobs over the 10- year period.

Starting from 2020 base year employment, arts, entertainment, and recreation is expected to be the fastest-growing industry, as it recovers from pandemic employment losses. Due to recovery from 2020, accommodation and food services is projected to be the fourth most rapidly growing industry. Industries which lost more than 10,000 employees from the first quarter of 2019 to 2020 included:

- Accommodation and food services- 48,660
- Manufacturing- 20,800
- Arts, entertainment, and recreation- 11, 340
- Administration and support and waste management- 10,040

Other rapidly growing sectors will include management of companies and enterprises and information, with tech companies planning to locate more employees in Tennessee.

Tennessee's new efforts to manufacture electric vehicles and batteries, expand charging stations across the state, and other initiatives, are expected to propel the manufacturing industry to create nearly 40,000 jobs over the decade, and construction to create nearly 15,000. With the location of additional tech firms, the information industry could create nearly 19,000 jobs.

The services-providing sector is expected to expand at an annual growth rate of 1.7 percent. Other fast-growing services industries will include administrative and support and waste management and remediation and transportation and warehousing. Health care and social assistance will be one of the fastest-growing industries but is also expected to provide the second largest number of new jobs (80,570), over the ten-year period. Educational services will continue to grow at about one percent annually.

With the expansion of e-commerce and changes in work organization, the number of self-employed and unpaid family workers is expected to grow at a slightly lower rate than the average for all employment (0.5 percent annually).

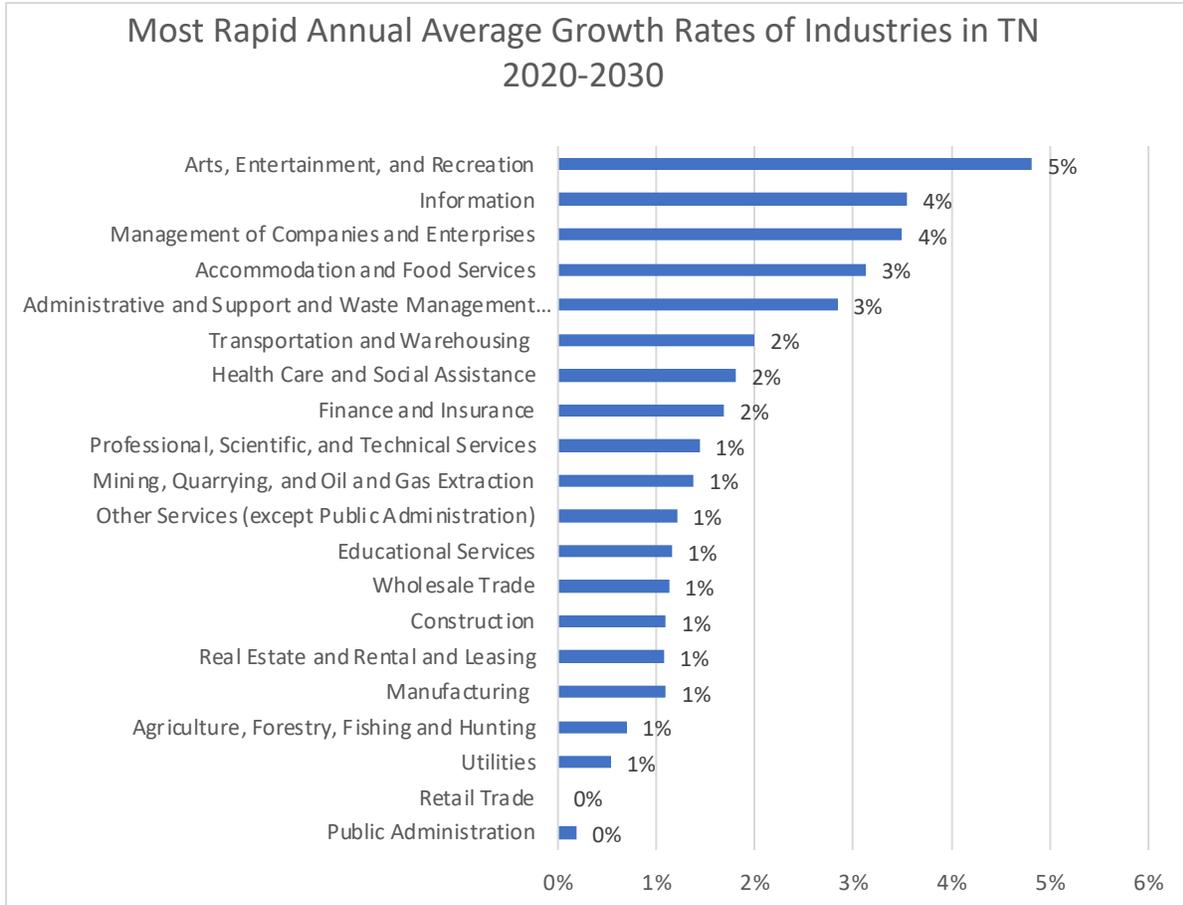


Figure 6

Source: TN Department of Labor and Workforce Development, WIR²ED Division, Tennessee Long-Term Industry Projections 2020-2030

The occupational groups expected to add the most new jobs from 2020 to 2030 are listed in the following table, sorted by 2020-2030 occupational change. Almost 520,000 new jobs are expected to be created in Tennessee in the next ten years, although some are jobs returning after the pandemic. The largest number of new jobs by occupational group is for food preparation and serving related jobs, as many of these jobs are being restored after 2020; similarly, some of the office and administrative support and production jobs are returning after 2020 losses.

Other top job-creating groups which did not suffer in the pandemic but will continue their growth include management and transportation and material moving. Healthcare practitioners and technical occupations are the fourth largest group, with healthcare support expected to create close to 37,000 jobs. Business and financial occupations also are forecast to expand. The top five occupational groups with the highest median salaries in 2020 included management, architecture and engineering, computer and mathematical, legal, and life, physical, and social science.

Table 4: Occupational Projections by Major Occupational Group in Tennessee for 2020-2030

Major Occupation Group Title	2020 Estimated Employment	2030 Projected Employment	2020-2030 Employment Change	2022 Median Annual Wage
Total, All Occupations	3,220,505	3,740,219	519,714	39,929
Food Preparation and Serving Related	251,529	329,987	78,458	24,999
Transportation and Material Moving	349,340	415,190	65,850	36,446
Management	224,930	269,230	44,300	101,116
Healthcare Practitioners and Technical	204,653	241,239	36,586	63,695
Office and Administrative Support	439,921	472,233	32,312	38,216
Production	262,343	295,118	32,775	38,364
Business and Financial Operations	149,228	180,435	31,207	62,674
Healthcare Support	106,391	133,293	26,902	30,721
Building and Grounds Cleaning and Maintenance	102,982	130,103	27,121	29,457
Computer and Mathematical	63,750	84,677	20,927	78,475
Installation, Maintenance, and Repair	129,317	148,881	19,564	47,658
Education, Training, and Library	163,357	176,783	13,426	48,923
Personal Care and Service	72,084	88,927	16,843	28,225
Construction and Extraction	118,463	136,025	17,562	45,359
Arts, Design, Entertainment, Sports, and Media	47,942	58,248	10,306	44,138
Sales and Related	296,042	308,461	12,419	31,200
Protective Service	68,177	76,602	8,425	38,884
Community and Social Service	56,181	64,152	7,971	45,476
Architecture and Engineering	43,915	51,845	7,930	77,263
Legal	17,904	21,928	4,024	80,356
Life, Physical, and Social Science	22,743	25,590	2,847	63,835
Farming, Fishing, and Forestry	29,313	31,272	1,959	31,716

Source: TN Department of Labor and Workforce Development, WIR²ED Division, OEWS 2022 and 2020-2030 Long-Term Projections

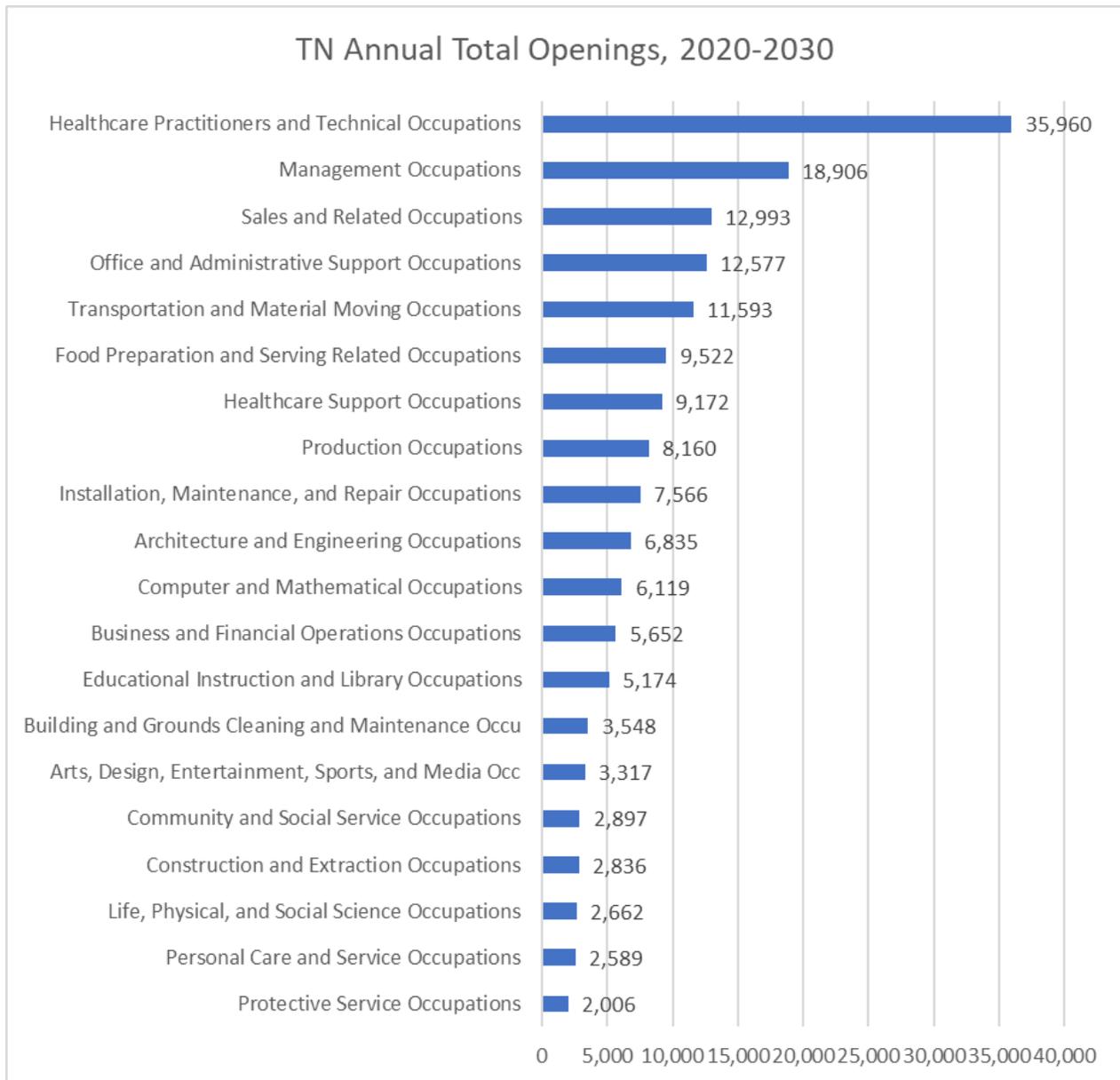


Figure 7

Source: TN Department of Labor and Workforce Development, WIR²ED Division, Tennessee Long-Term Industry Projections 2020-2030

Job openings consist of new jobs as well as jobs created by workers transferring out of job classes or exiting the labor force altogether. For most occupational groups, the number of jobs created by transfers and exits far outweighs the number of new jobs and could be 75 percent or more of the job openings. Top occupational groups expected to have the most job openings in 2020-2030 include: healthcare practitioners and technical, management, and sales occupations. The total number of occupational openings in the state of Tennessee by 2030 is projected to be over 4.5 million.

Significant Occupational Shortages (SOS)

A continuing feature in today's economy is concern by employers in Tennessee about the shortage of workers to fill available jobs. Having enough employees allows employers to maintain productivity and expand as the economy grows. The Tennessee Department of Labor and Workforce Development's web site, jobs4tn.gov, in June 2023 listed 4.3 jobs for every unemployed person in the state. This is a nearly 80 percent increase over 2022.

Table 5: Top Supply Gaps – Postsecondary Education through the Associate Degree

Occupation Title	Education Level	Sum of Job Openings 2022	Sum of Resumes 2022	Openings Minus Resumes	Entry Level Annual Wage 2022
Registered Nurses	AA	93,116	625	92,491	54,486
Licensed Practical and Licensed Vocational Nurses	PS	19,558	296	19,262	36,873
Heavy and Tractor-Trailer Truck Drivers	PS	20,026	1,558	18,468	37,627
Nursing Assistants	PS	12,949	603	12,346	26,850
Surgical Technologists	PS	5,331	34	5,297	40,456
Bookkeeping, Accounting, and Auditing Clerks	SC	5,892	976	4,916	30,253
Medical Assistants	PS	5,031	811	4,220	28,974
Radiologic Technologists and Technicians	AA	3,863	51	3,812	42,802
Computer User Support Specialists	SC	4,208	513	3,695	36,615
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	PS	3,777	192	3,585	35,517
Automotive Service Technicians and Mechanics	PS	3,348	352	2,996	31,045
Respiratory Therapists	AA	2,952	52	2,900	48,462
Phlebotomists	PS	2,929	184	2,745	29,229
Hairdressers, Hairstylists, and Cosmetologists	PS	2,621	391	2,230	20,559
Dental Assistants	PS	2,244	274	1,970	32,692

Key: AA Associate's degree; SC Some college; PS Postsecondary non-degree award

Sources: jobs4tn.gov job openings posted and active resumes 2022; OEWS 2022 entry level wages

The three tables in this section compare the number of job openings listed in jobs4tn.gov for 2022 with the number of active resumes on the system for that year. Not all employers post jobs, nor do all individuals desiring jobs post resumes, but the data do provide a snapshot of areas which appear to have sizable labor force imbalances, and which need a greater supply of workers.

Labor force shortages range across skill levels, from occupations requiring no formal education to those requiring bachelor's degrees or more. Some occupations for which few jobs are posted on jobs4tn.gov also need more employees applying for and accepting jobs, but methods to track those shortages are unavailable. The tables below use data from jobs4tn to highlight some of the more critical candidate shortages at different educational levels.

Table 5 shows the top 15 occupations in Tennessee by supply gap which require more than a high school diploma but less than a bachelor's degree. Nine of these are skilled occupations in healthcare, ranging from registered and licensed practical nurses to respiratory therapists. Most of these occupations require associate degrees. The healthcare system is recovering from severe stresses experienced by its workforce during the pandemic, lack of rural hospital expansion, and increasing demands from an aging population and low- income families without health insurance.

Significant shortages are also observed in the following occupations: heavy tractor trailer drivers, bookkeepers and administrative support workers, and computer user support specialists. As more companies expand their operations so that their workers can work remotely, this is an occupation that is projected to be in need.

Table 6: Top Supply Gaps- High School, High Wage

Occupation Title	Education Level	Sum of Job Openings 2022	Sum of Resumes 2022	Openings Minus Resumes	Entry Level Annual Wage 2022
First-Line Supervisors of Production and Operating Workers	HS	6,488	1,094	5,394	42,576
Postal Service Clerks	HS	3,228	159	3,069	46,508
Transportation, Storage, and Distribution Managers	HS	2,878	425	2,453	59,054
First-Line Supervisors of Mechanics, Installers, and Repairers	HS	2,211	232	1,979	44,257
First-Line Supervisors of Construction Trades and Extraction Workers	HS	843	355	488	44,789
Industrial Machinery Mechanics	HS	525	105	420	42,307
Power Distributors and Dispatchers	HS	423	11	412	52,008
Claims Adjusters, Examiners, and Investigators	HS	569	221	348	44,488
Chemical Plant and System Operators	HS	358	53	305	49,106
Electrical Power-Line Installers and Repairers	HS	308	30	278	48,114
Commercial Pilots	HS	290	12	278	75,976
Brokerage Clerks	HS	224	24	200	46,082
Detectives and Criminal Investigators	HS	113	37	76	45,242
Precision Instrument and Equipment Repairers, All Other	HS	58	2	56	42,857

Key: HS High school

Source: jobs4tn.gov 2022 annual online job openings; active resumes and unemployed persons with occupations 2022; OEWS 2022 entry level wages by occupation.

Table 6 displays the top 15 occupations with labor supply shortages which usually require only a high school diploma or the equivalent and for which entry level wages are twenty percent above the 2022 median entry level wage in the state. Three of the occupations most in need of applicants are supervisors- of production; mechanics, installers, and repairers; and construction trades. Their wages are right on par with state median wages. Transportation occupations with shortages include transportation and distribution managers, commercial pilots, and transportation inspectors. Utility workers including electrical power line installers and repairers as well as power dispatchers are in high demand, as well as production employees like industrial machinery mechanics.

Table 7: Top Supply Gaps: Bachelor's Degree Occupations

Occupation Title	Education Level	Sum of Job Openings 2022	Sum of Job Applicants 2022	Supply Gap: Openings Minus Applicants	Entry Level Annual Wage 2022
General and Operations Managers	BA	11,472	1,466	10,006	57,596
Accountants and Auditors	BA	8,360	671	7,689	47,341
Computer Programmers	BA	4,899	74	4,825	73,015
Computer Systems Analysts	BA	4,351	175	4,176	59,031
Financial Managers	BA	4,325	357	3,968	82,470
Medical and Health Services Managers	BA	4,318	355	3,963	66,563
Human Resources Specialists	BA	4,295	803	3,492	38,070
Mechanical Engineers	BA	3,352	151	3,201	63,696
Management Analysts	BA	3,375	212	3,163	56,766
Sales Managers	BA	6,053	3,202	2,851	76,167
Industrial Engineers	BA	2,993	151	2,842	64,622
Civil Engineers	BA	2,586	43	2,543	63,044
Electrical Engineers	BA	2,568	56	2,512	69,108
Marketing Managers	BA	2,989	488	2,501	75,266
Producers and Directors	BA	2,552	220	2,332	34,885

Key: BA Bachelor's degree

Sources: jobs4tn.gov 2022 annual online job openings; active resumes and unemployed persons with occupations 2022; OEWS 2022 entry level wages by occupation.

Table 7 lists the top 15 occupations with critical shortages of candidates which require a bachelor's degree. Management occupations are prominent, including general, marketing, sales, and financial, as well as their professional support staff in accounting and human resources. As the manufacturing industries in Tennessee including the production of electrical vehicles, batteries, medical supplies, and other products grow, the demand for engineers is also increasing. Computer analysts and computer systems programmers had more than 9,000 job openings listed with fewer than 250 applicants available. As technology companies continue to move into Tennessee, this is a trend that should continue, unless training is significantly increased.

Assessing Teacher Vacancies

Job openings listed on jobs4tn provide some information on the magnitude of the gap in labor supply for some occupations, but they are not very useful in identifying the number of teacher vacancies and applicants at the elementary and secondary school level. Most teachers apply for licenses with the Tennessee Department of Education and then apply for jobs through local school district web sites. These vacancies are not posted to a central web site for the state. According to Tennessee long term projections for 2020-2030 produced by the TDLWD, 6,014 openings for kindergarten, elementary, and secondary school teachers are expected annually. However, only 1,306 jobs for these occupations (just over 20 percent) were listed on jobs4tn in 2022 and only 355 applicants were available.

Using available data, the largest supply gaps are for elementary, secondary, and middle school teachers, excluding special education. Better data could lead to more success in recruiting students into these professions, at a time when teacher shortages continue to increase¹ and education is a foundational public service. A regular inventory at the state level of numbers of teacher vacancies by subject matter is a necessary component for the healthy operation of our public schools. To begin to address these shortages, an apprentice program for teachers was begun and in 2022, 28 K-12 teachers completed the program.

¹ Katie Nixon and Nicole Young (January 26, 2022). Staffing shortage closes schools. *Ashland City Times*, p. 1A.

Table 8: Elementary and Secondary Teachers Have Few Jobs and Applications Posted

Occupational Title	2020 Employment	2030 Projected Employment	Annual Total Openings	Sum of Job Openings 2022	Sum of Resumes 2022	Openings Minus Resumes	Entry Annual Wage
Elementary School Teachers, Except Special Education	29,252	30,736	2,319	544	107	437	42,880
Secondary School Teachers, Except Special and Career/Technical Education	19,334	20,342	1,439	368	64	304	44,723
Middle School Teachers, Except Special and Career/Technical Education	12,380	13,013	982	199	48	151	43,964
Special Education Teachers, Middle School	1,212	1,269	97	20	8	12	45,040
Special Education Teachers, All Other	483	582	49	11	8	3	46,864
Career/Technical Education Teachers, Secondary School	2,217	2,320	163	23	21	2	46,044
Special Education Teachers, Kindergarten and Elementary School	3,873	4,063	308			0	45,976
Special Education Teachers, Secondary School	3,031	3,210	246	14	17	-3	46,334
Career/Technical Education Teachers, Middle School	123	129	10	12	47	-35	47,792

Source: TDLWD, WIR²ED Division, TN Occupational Projections 2020-2030; OEWS 2022; jobs4tn.gov job openings and active resumes 2022.

Tennessee's West Region's Economy | 2022

 <p>Employment</p>	<p>Total Nonfarm Employment 2022: 679,312 0.4% 2021: 676,654 Strong</p>	<p>New Jobs 2022: 2,658 2021: 18,684 Strong</p>	<p>MSA Employment 2021-2022 Jackson: 1.8% Memphis: 2.9% Strong</p>
 <p>Employers</p>	<p>Total Number of Establishments 2022: 39,983 10% 2021: 36,309 Strong</p>	<p>Total Payroll 2022: \$43.1B 4.4% 2021: \$41.3B Strong</p>	<p>Counties that Increased Employment 2022: 11 2021: 14 Strong</p>
 <p>Wages & Income</p>	<p>Average Annual Wage 2022: \$51,874 17% 2021: \$44,322 Strong</p>	<p>West Median Wage 2022: \$39,430 6.7% 2021: \$36,969 Strong</p>	<p>Average Hourly Wages - Production Workers 2022: \$19.92 2021: \$18.05 Strong</p>
 <p>Labor Force & Demographics</p>	<p>Unemployment Rate 2022: 4.2% 2021: 4.8% Strong</p>	<p>Labor Force 2022: 709,199 2021: 719,729 Challenge</p>	<p>Unemployment Rates Youth 2021: 17.1% % In Poverty, 2021: 17.3% Strong</p>
 <p>Job Outlook</p>	<p>Ratio of Unemployed to Job Openings June 2022: 0.42 June 2021: 1.42 Strong</p>	<p>Projected Annual Growth Rate, All Occupations 2020-2030: 0.65% 2018-2028: 0.55% Strong</p>	<p>Projected Job Openings 2020-2030: 106,059 2018-2028: 94,946 Strong</p>

West Region Overview

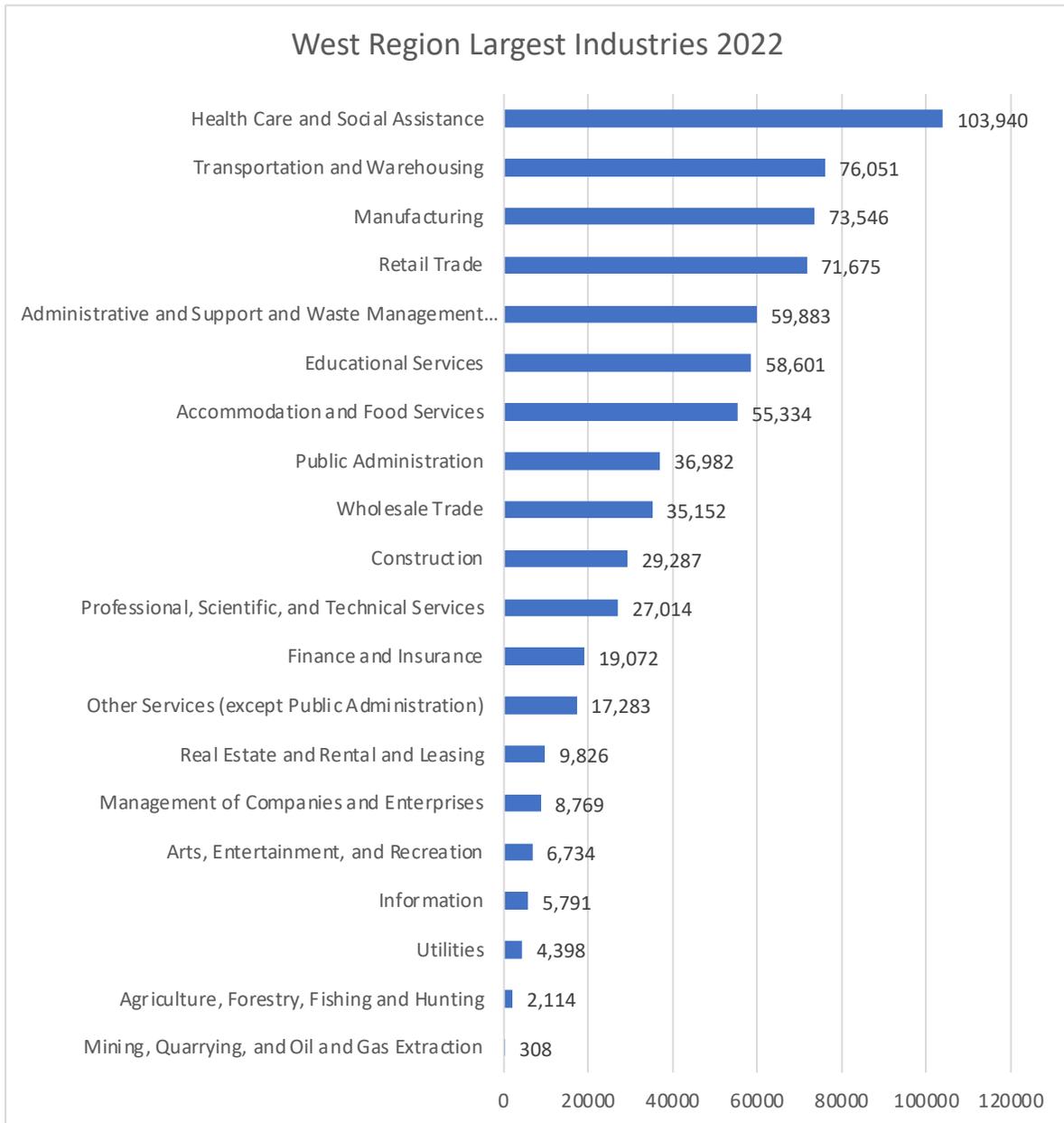


Figure 8

Source: TN Department of Labor and Workforce Development, WIR²ED Division, QCEW, September 2023

West Region's Economy, 2021-2022

Total employment in the West Region, excluding agriculture and the self-employed, increased from 676,654 to 679,312, an increase of 0.4 percent or 2,658 jobs (see West Region Summary page). This rate of job growth was slower than the state. Employment rates however are trending upward in the Memphis MSA as well as the Jackson MSA.

The West Region consists of three Local Workforce Development Areas: Greater Memphis, Southwest, and Northwest, encompassing a total of 21 counties (see list p.). Of these, 11 counties increased in employment from 2021 to 2022, compared to 14 the previous year. The average number of establishments increased to 39,938 over the year and payroll increased by 4.36% percent to \$43.1 billion. The increase in payroll was at a slower rate than the state but still accounts for nearly 1 in every four payroll dollars in the state.

The average annual industry wage in the region, calculated by dividing the total payroll by the average number of workers, was \$51,874, which represented a 17% increase from 2021. Last year, the median occupational wage decreased by 0.4 percent to \$36,969 for this region. In 2022, the median occupational wage increased by 6.7%, to \$39,430.

The region's average unemployment rate decreased from 4.8 percent in 2021 to 4.2 percent in 2022. The labor force decreased over the year. Youth unemployment in 2021 (the latest available) remained above the state average at 13.8%. However, this represented a decrease from 2021's 15.8 percent. The percent of those in poverty who were unemployed decreased to 17.3, down from the region's 2020 rate of 18.3 percent, but above the state rate of 14.3 percent. In 2022 the number of unemployed compared to the number of job listings on the state job bank, jobs4tn.gov, was 0.42 percent, still indicating more jobs than unemployed individuals in the region.

To summarize: In 2022 compared to 2021, the West Region saw growth in employment. Payroll increased, somewhat slower than the rest of the state. The median wage increased across the region, although slightly lower than the state. In 2022, unemployment rates overall and for youth and those in poverty remained higher than state rates, even though at the regional level they are declining.

West TN Industries and Occupations (2018-2022)

Total employment in the West Region in 2022, was 679,312. The five largest industry sectors in 2022 were:

- Health care and social assistance (103,940 jobs)
- Transportation and warehousing (76,051)
- Manufacturing (73,546)
- Retail (71,675)
- Administrative and Support and Waste Management (59,883)

Compared to 2018, the industries adding the most workers include transportation and warehousing (over 8,500 new jobs), health care and social assistance (6,300 new jobs), and construction (over 2,000 new jobs). Some of the region's largest industries lost jobs from 2018 to 2022, including retail trade (nearly 5,000), administrative and support (1,800), and finance and insurance (1,800). In 2021, employment in accommodation and food services was still 13 percent below its employment level in 2018. In 2022, the industry is still 8 percent below its pre-pandemic level, although it seems to be recovering slowly.

All industry sectors saw an increase from their pre-pandemic earnings per worker. The largest increases in earnings per worker were in the real estate rental and leasing, other services, and administrative and support and waste management industries. These three industries have seen their earnings per worker increase 30 and 29 percent from the pre-pandemic earnings, respectively. The industries with the highest earnings per worker were management of companies and enterprises, finance, and insurance, and utilities.

West Tennessee Local Workforce Development Areas and Counties

Southwest Tennessee LWDA

Chester	Haywood
Decatur	Henderson
Hardeman	Madison
Hardin	McNairy

Northwest Tennessee LWDA

Benton	Henry
Carroll	Lake
Crockett	Obion
Dyer	Weakley
Gibson	

Greater Memphis Tennessee LWDA

Fayette	Shelby
Lauderdale	Tipton



Figure 9

Source: TN Department of Labor and Workforce Development, WIR²ED Division, QCEW, September 2023

Table 9: Transportation and Healthcare and Social Assistance Services Added the Most Jobs
2018-2022

West Region Industries	2018 Jobs	2022 Jobs	Change in Jobs	% Change in Jobs	2018 Earnings Per Worker	2022 Earnings Per Worker	% Change in earnings per worker
Transportation and Warehousing	67,509	76,051	8,542	13%	67,286.96	78,823.96	17%
Health Care and Social Assistance	97,558	103,940	6,382	7%	53,583.39	63,523.65	19%
Professional, Scientific, and Technical Services	24,774	27,014	2,240	9%	60,871.18	77,671.63	28%
Manufacturing	71,511	73,546	2,035	3%	62,249.46	71,165.27	14%
Construction	27,277	29,287	2,010	7%	57,548.23	70,248.46	22%
Educational Services	56,798	58,601	1,803	3%	43,298.95	47,419.20	10%
Wholesale Trade	34,949	35,152	203	1%	68,665.25	82,313.12	20%
Arts, Entertainment, and Recreation	6,554	6,734	180	3%	52,348.68	53,277.81	2%
Mining, Quarrying, and Oil and Gas Extraction	321	308	-13	-4%	61,102.81	73,315.56	20%
Utilities	4,420	4,398	-22	0%	71,422.22	86,755.69	21%
Information	5,983	5,791	-192	-3%	60,551.80	74,041.65	22%
Agriculture, Forestry, Fishing and Hunting	2,311	2,114	-197	-9%	35,664.97	45,456.68	27%
Public Administration	37,224	36,982	-242	-1%	52,340.39	60,569.51	16%
Real Estate and Rental and Leasing	10,291	9,826	-465	-5%	52,444.70	67,980.91	30%
Management of Companies and Enterprises	9,430	8,769	-661	-7%	139,606.44	144,246.51	3%
Other Services (except Public Administration)	18,203	17,283	-920	-5%	37,201.99	48,428.72	30%
Finance and Insurance	20,828	19,072	-1,756	-8%	105,896.78	113,696.06	7%
Administrative and Support and Waste Management and Remediation Services	61,776	59,883	-1,893	-3%	35,811.29	46,020.72	29%
Accommodation and Food Services	60,291	55,334	-4,957	-8%	18,648.32	23,574.83	26%
Retail Trade	76,654	71,675	-4,979	-6%	33,282.05	41,131.16	24%

Source: TN Dept of Labor and Workforce, QCEW Annual Averages, 2018 and 2022

West Region Occupational Employment

The transportation and material moving occupational group remains the largest in the West Region, according to the Occupational Employment and Wages Survey for 2022, which provides data on all industries except agriculture and the self-employed. Employment in this group in May 2022 was 105,090, adding more than 13,000 jobs since May 2015. Office and administrative support, sales, and production were next in total numbers of jobs.

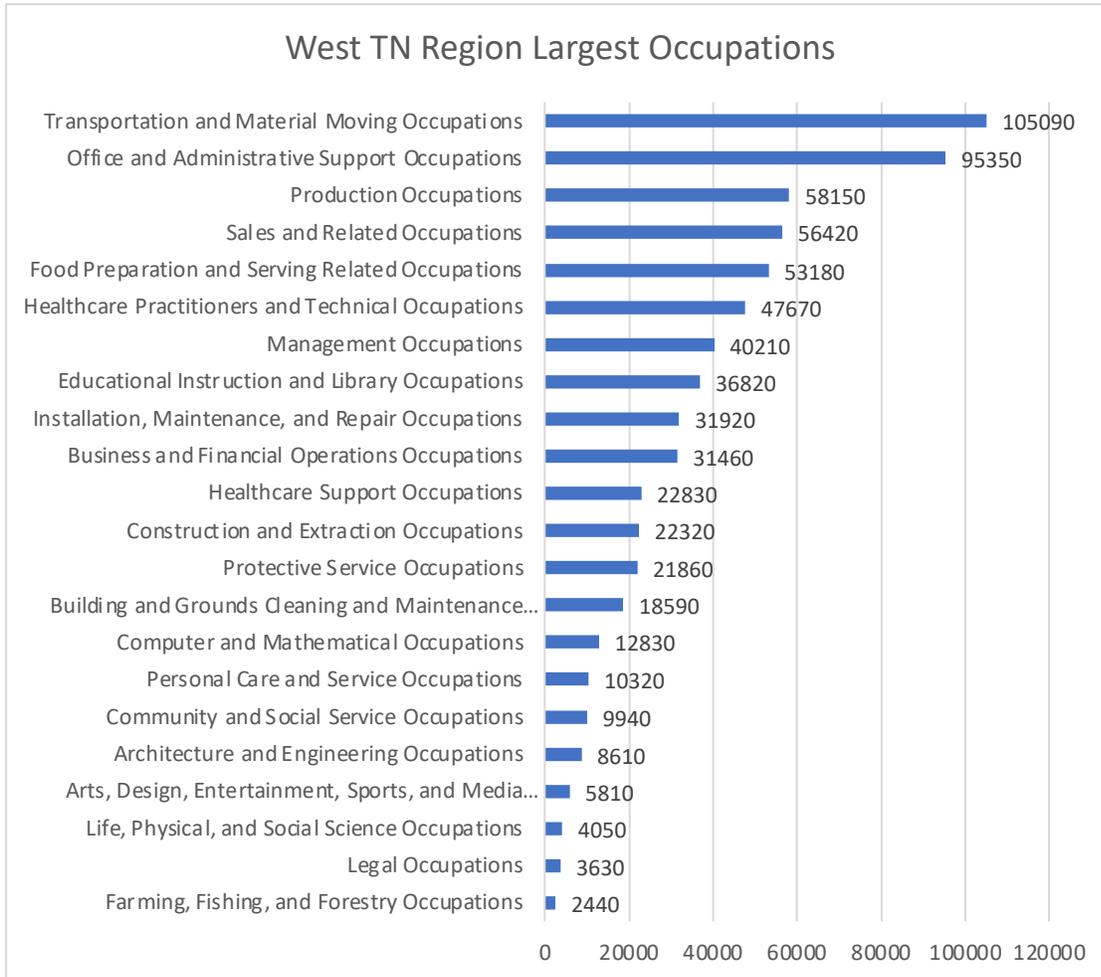
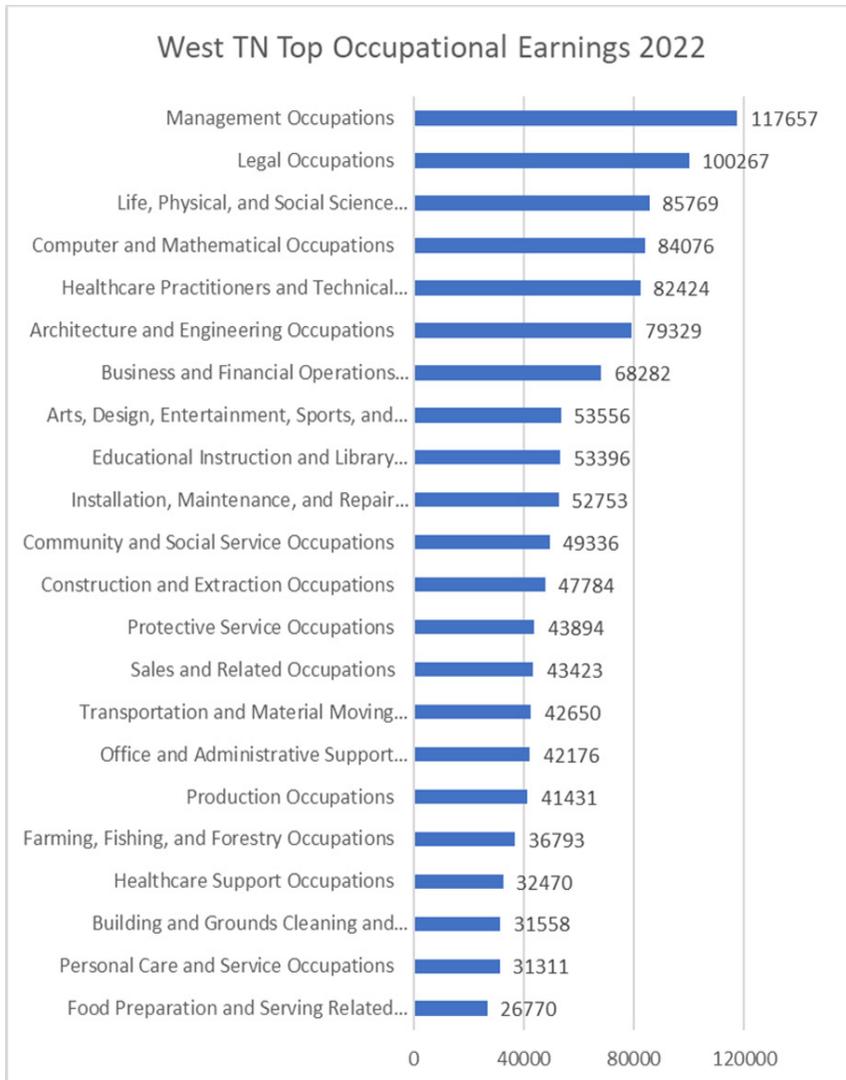


Figure 10

Source: Source: TN Department of Labor and Workforce Development, WIR²ED Division, OEWS

**Figure 11**

Source: TN Department of Labor and Workforce Development, WIR²ED Division, OEWS, May 2023

The TDLWD jobs4tn.gov web site tracks the top in-demand job certifications and tools and technologies from its advertised jobs database, updated every day. The table below shows the most requested certifications, including CPR, nursing credentials, and commercial driver license certifications. For June 2023, most requested technologies in the West Region include facility with Microsoft Office and Power Point, Word, and SQL query language, operation of cash registers and forklifts, and use of personal protective equipment. Of the top 10 employers posting jobs in the West Region on July 25, 2023, 8 included hospitals and other healthcare institutions. Reflecting the top occupational groups and those adding the newest jobs, top job postings in the region included healthcare practitioners and technical occupations, management, transportation, and material moving, sales, office, and food preparation.

Table 10: Computer and Mathematical, Business and Finance, Community and Social Service
Add the Largest Percent of New Jobs 2015-2022

West TN Region Occupational Group	May 2015 Jobs	May 2022 Jobs	Change in Jobs	% Change in Jobs	2022 Median Hourly Earnings
Business and Financial Operations	22,270	31,460	9,190	41%	29.83
Computer and Mathematical	9,540	12,830	3,290	34%	37.47
Community and Social Service	7,600	9,940	2,340	31%	22
Healthcare Support	18,330	22,830	4,500	25%	14.46
Arts, Design, Entertainment, Sports, and Media	4,720	5,810	1,090	23%	20.33
Transportation and Material Moving	91,600	105,090	13,490	15%	17.65
Legal	3,280	3,630	350	11%	35.01
Management	37,900	40,210	2,310	6%	48.47
Installation, Maintenance, and Repair	30,510	31,920	1,410	5%	23.18
Life, Physical, and Social Science	3,890	4,050	160	4%	31.47
Healthcare Practitioners and Technical	46,000	47,670	1,670	4%	30.35
Production	56,790	58,150	1,360	2%	18.11
Construction and Extraction	22,040	22,320	280	1%	21.79
Building and Grounds Cleaning and Maintenance	18,400	18,590	190	1%	14.24
Protective Service	21,690	21,860	170	1%	18.06
Food Preparation and Serving Related	54,120	53,180	-940	-2%	11.52
Architecture and Engineering	8,890	8,610	-280	-3%	34.52
Educational Instruction and Library	38,540	36,820	-1,720	-4%	24.09
Office and Administrative Support	110,070	95,350	-14,720	-13%	18.35
Sales and Related	66,650	56,420	-10,230	-15%	14.72
Personal Care and Service	17,610	10,320	-7,290	-41%	13.21

Source: TN Department of Labor and Workforce Development, OEWS, May 2015 and May 2022

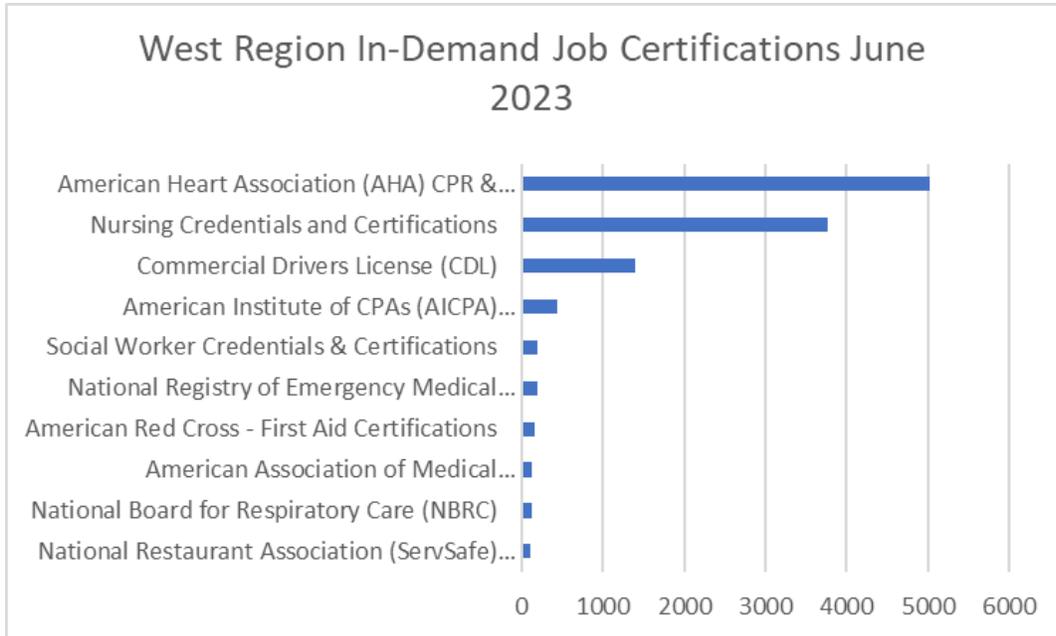


Figure 12
Source: jobs4tn.gov Online Advertised Jobs, July 2023

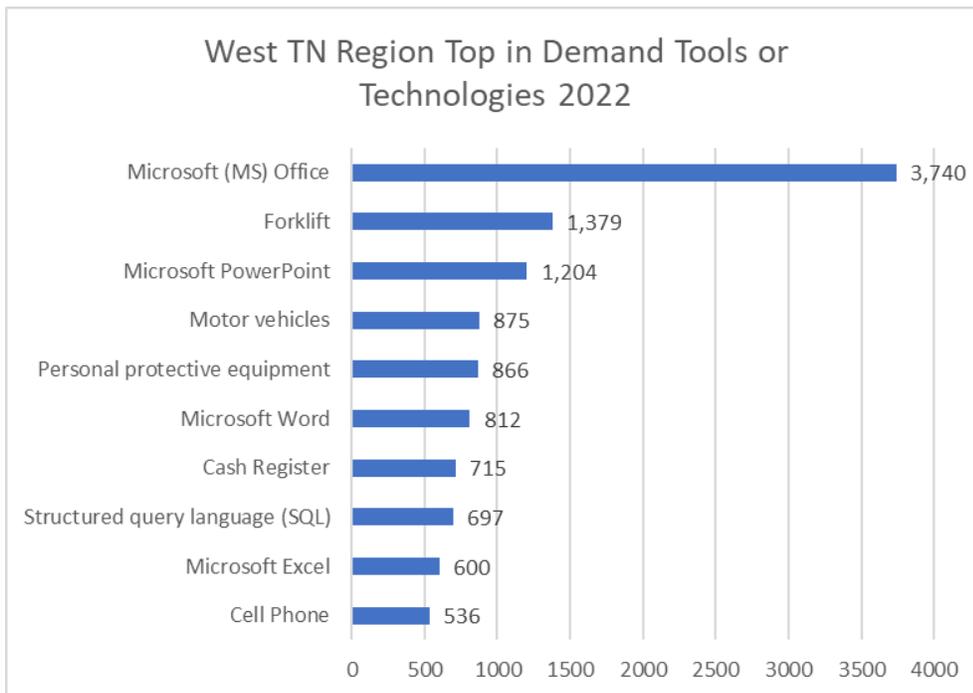


Figure 13
Source: jobs4tn.gov Online Advertised Jobs, July 2023

Table 11: Employers by Number of Job Openings

Rank	Employer Name	Job Openings
1	Methodist Le Bonheur Healthcare	955
2	Baptist Memorial Health Care Corporation	788
3	St. Jude Children's Research Hospital Inc.	519
4	Carrols Corporation	442
5	West Tennessee Healthcare	317
6	Regional One Health	290
7	BrightSpring Health Services	262
8	McDonald's Corporation	226
9	Tenet Healthcare Corporation	197
10	American Health Partners	186

Source: Online advertised jobs data; Downloaded: 07/25/2023 19:49 PM

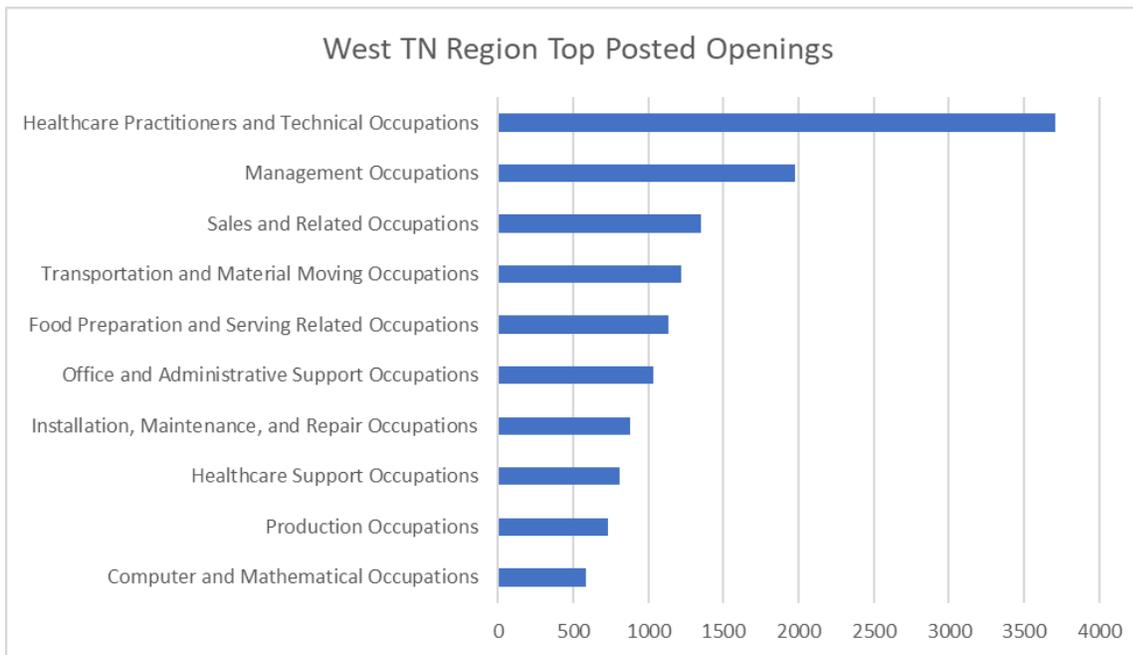


Figure 14

Source: jobs4tn.gov Online Advertised Jobs, July 2023

West Region Labor Force Summary

The population in the West Region in 2022 was estimated at 1,565,811, in increase of 0.81 percent over 2021. This is due to a large increase in Greater Memphis, as both the Southwest and Northwest LWDAs decreased in population.

Table 12: West Region Labor Force

	Southwest LWDA	Northwest LWDA	Greater Memphis LWDA	West Region	State Total
Total Population 2021	251,116	247,457	1,052,222	1,550,795	6,968,351
Total Population 2022	252,491	247,938	1,046,450	1,546,879	7,051,339
Male Population 2021	120,933	120,373	509,509	750,815	3,418,920
Female Population 2021	130,183	127,084	542,713	799,980	3,549,431
Labor Force Participation Rate 2021 (5-Year Estimate)	54.64%	53.26%	58.20%	55.4%	57.30%
Labor Force Participation Rate 2022 (5-Year Estimate)	51.25%	53.96%	54.85%	53.4%	58.60%
Annual Average Unemployment Rate 2021 Percent	5.0%	4.5%	5.3%	4.9%	4.4%
Annual Average Unemployment Rate 2022 Percent	4.2%	3.8%	4.6%	4.2%	3.4%
Educational Attainment 25 Years and Over (2021) Some College Or Higher - Percent	52.10%	48.80%	61.15%	54.0%	58.53%
Poverty Estimate, All Ages, Percent (2021)	18.12%	18.79%	15.01%	17.3%	14.30%
Percentage of Unemployed with a Disability (2021)	14.90%	12.80%	19.60%	15.8%	17.80%
Percent of Those Not in the Labor Force with a Disability (2021)	36.30%	40.21%	29.61%	35.4%	31.10%

Table 13: Educational Attainment, 2021

Educational Attainment	West Region White Only	West Region Black Only	West Region Hispanic or Latino Only	Statewide White Only	Statewide Black Only	Statewide Hispanic or Latino Only
Population 25 years and over	568,046	392,468	37,801	3,701,360	725,820	194,222
High school graduate only	186,266	145,900	9,886	1,171,517	247,651	54,356
Percent high school graduate only	32.79%	37.18%	26.15%	31.65%	34.12%	27.99%
High school graduate or higher	514,538	340,256	23,074	3,317,421	636,892	125,079
Percent high school graduate or higher	90.58%	86.69%	61.04%	89.63%	87.75%	64.40%
Bachelor's degree or higher	185,313	74,402	6,151	1,114,827	159,001	33,770
Percent bachelor's degree or higher	32.62%	18.95%	16.27%	30.12%	21.91%	17.39%

Source: U.S. Census Bureau, ACS Five-year estimates, 2021

The labor force participation rate (LFPR) in the West Region in 2022 was 53.4 percent, 2 percentage points lower than the rate in 2021. However, despite this, the state's labor force participation rate increased to 58.6 percent in 2022 for the state of Tennessee. The largest decrease for the West Region was in the Greater Memphis LWDA. A significant decrease in labor force participation rate was also seen in the Southwest area. Unemployment rates in all three LWDA's dropped in 2022, as the economy recovered from the pandemic. The West region ended the year with an average rate of 4.2 percent. This rate is higher than the state's average of 3.4 percent.

The Northwest LWDA reported the lowest rate of educational attainment in 2022, with 48.8 percent of the population aged 25 years or more having some college or additional education. However, the rate in the Greater Memphis LWDA was 61.1 percent, which is above state rate and the highest in the West Region.

The West Region of the state of Tennessee shows significant disparities concerning the post High School educational attainment of individuals based on their race or ethnic heritage. These disparities are not unique to the West Region of the state, as they reflect a pattern throughout the whole state.

In the West Region of the state, the attainment of a bachelor's degree or higher degree of individuals who are over the age of 25 and identify their race as White is 32.62 percent, which shows a significant disparity when compared to those who identify their race as Black (18.95), and those who identify their heritage as Hispanic or Latino (16.27).

Table 14: West Region Disability Status of Those in the Labor Force

Area	Civilian Non-institutional Population	Total Labor Force	Total Employed	Employed W Disability	Employed W/O Disability	Total Unemployed	Unemployed W Disability	Unemployed W/O Disability
Southwest LWDA	144,178	101,086	93,871	6,071	87,800	7,215	1080	6,135
Northwest LWDA	139,519	96,414	91,879	7,698	84,181	4,535	891	3,644
Greater Memphis LWDA	633,306	483,048	447,473	24,583	422,890	35,575	4,581	44,578
West Region	917,003	680,548	633,223	38,352	594,871	47,325	6,552	54,357
Tennessee	4,171,582	3,158,913	2,994,217	189,457	2,804,760	166,696	29,324	135,372

Source: U.S. Census Bureau, ACS Five-year estimates, 2021

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

Area	Civilian Non-institutional Population	Total Not In Labor Force	Not in Labor Force W Disability	Not In Labor Force W/O Disability	% W Disability	% W/O Disability
Southwest LWDA	144,178	49,092	15,661	27,431	36.34%	63.65%
Northwest LWDA	139,519	43,105	17,320	25,785	40.18%	59.82%
Greater Memphis LWDA	633,306	150,258	44,578	105,680	29.67%	70.33%
West Region	917,003	242,455	77,559	158,896	33.01%	66.99%
Tennessee	4,171,582	1,015,669	315,415	700,254	31.05%	68.95%

Sources: U.S. Census Bureau, ACS Five-year estimates

Poverty rates declined from 18.3 percent in 2020 to 17.3 percent for the West Region in 2021, as federal aid was targeted to individuals with the greatest needs. The highest poverty rate in the region was in the Northwest LWDA at 18.79 percent. All the LWDAs in the West Region had poverty rates higher than the state's average. The 2022 rates should be lower, given the improving economy, but reducing poverty and increasing educational attainment should be key targets of workforce policy in this region.

Like the state, about a third of those not in the labor force have a disability, with Northwest LWDA having the highest rate. As could be expected due to economic conditions in 2020, youth unemployment increased over the 2020 rate of 15.77 percent in the West Region, with the highest rates in the Southwest and Greater Memphis LWDAs in 2021.

Table 16: Youth Unemployment 2021

Area	Labor Force	Unemployment	Rate
Southwest LWDA	15,846	2,647	16.70%
Northwest LWDA	15,341	1,823	11.88%
Greater Memphis LWDA	69,268	12,696	18.33%
West Region	100,455	17,166	17.09%

Sources: U.S. Census Bureau, ACS Five-year estimates

Significant Barriers to Employment

The table below identifies numbers of individuals with significant barriers to employment in the West Region, using the latest data available. The West Region has the following populations compared to the state:

- 37 percent of individuals exiting from the TANF program within 24 months;
- 28 percent of those below poverty;
- 30 percent of the prison and jail population;
- 23 percent of the youth population; and
- 26 percent of single parent families.

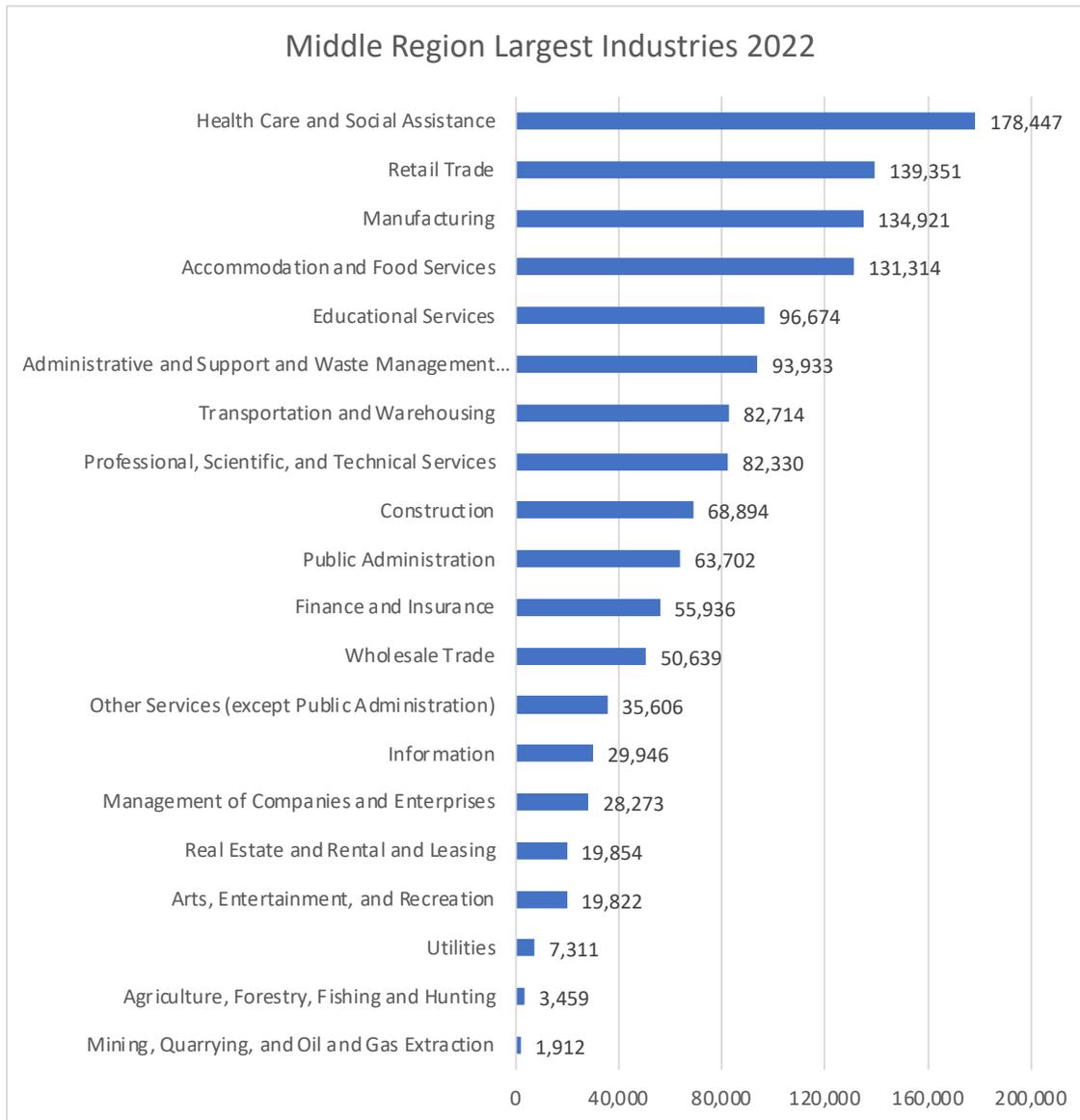
Table 17: West TN Region – Significant Barriers to Employment

	Greater Memphis LWDA	Northwest LWDA	Southwest LWDA	West Region	State Total
Number of American Indians or Alaskan Natives alone	1693	635	450	2778	15,219
Population Ages 15-19	71,528	16,602	17,066	105,196	438,290
Population Ages 20-24	70,250	15,814	15,821	101,885	443,703
Population Ages 55+	257,242	74,673	73,582	405,497	1,784,308
Number of Veterans 2022	61,449	16,650	15,368	93,467	449,163
Number Below Poverty	185,116	39,562	38,752	263,430	927,587
Number With Disability	141,247	49,867	42,863	233,977	1,019,661
Number of Single Parent Families	231,628	48,580	47,669	327,877	1,234,824
Probationers and Parolees 2023	10,397	2,876	3,878	17,151	71,142
Community Correction 2023	370	142	445	957	3,401
Mental Health Court Statistics (FY 2023)	39	0	0	39	96
Limited English Speaking	6566	496	865	7,927	42,056
Foster Care Services - Youth Aged 2022	138	30	23	191	801
Clients In Recovery Courts 2023	208	110	67	385	1,399
Disadvantaged Youth and Adults	123,895	32,555	34,240	190,690	693,590
TANF 24 Months from 2022	454	86	126	666	1,819
Prison Population Total 2023	1,887	5,206	0	7,093	19,063
Jail Population Total 2023	4,043	1,199	1,276	6,518	25,696

Sources: **Population:** U.S. Census Bureau, 2017-2021 American Community Survey, 5-year Estimates. **Probationers and Parolees:** Lisa Helton and Adam Dawson, TN Dept of Correction. **Mental Health Court and Recovery Court Statistics:** Rebekah Provost-Emmons, Recovery Court Administrator, Office of Criminal Justice Services, Division of Substance Abuse Services. **Limited English Speaking:** U.S. Census Bureau, American Community Survey, 2021. **Foster Care Services:** Dave Aguzzi, Office of Independent Living, TN Dept of Children's Services. **TANF 24 Months from Ending Eligibility:** Lakecia Peterson and Rebecca Mungle, Division of Family Assistance and Child Support, TN Dept of Human Services. **Jail Population:** Jail Summary Report, TN Dept of Correction, Decision Support, <https://www.tn.gov/content/dam/tn/correction/documents/JailJune2023.pdf>. **Prison Population:** Linda F. Booker, Tennessee Bed Space and Operating Capacity Report, <https://www.tn.gov/content/dam/tn/correction/documents/BedJune2023.pdf>. TEGL 01-23 Updated Disadvantaged Youth and Adult Data

Tennessee's Middle Region's Economy | 2022

 <p>Employment</p>	<p>Total Nonfarm Employment 2022: 1,461,565 3% 2021: 1,420,558</p>	<p>New Jobs 2022: 41,007 2021: 69,580</p> <p>Strong</p>	<p>MSA Employment 2021-2022 Jackson: 4% Memphis: 6.6%</p> <p>Strong</p>
 <p>Employers</p>	<p>Total Number of Establishments 2022: 97,982 11% 2021: 88,539</p> <p>Strong</p>	<p>Total Payroll 2022: \$85.9B 2021: \$77.1B</p> <p>Strong</p>	<p>Counties that Increased Employment</p> <p>2022: 29 2021: 32</p> <p>Strong</p>
 <p>Wages & Income</p>	<p>Average Annual Wage 2022: \$54,880 21% 2021: \$45,231</p> <p>Strong</p>	<p>Middle Median Wage 2022: \$41,530 9% 2021: \$38,264</p> <p>Strong</p>	<p>Average Hourly Wages - Production Workers 2022: \$20.74 2021: \$18.04</p> <p>Strong</p>
 <p>Labor Force & Demographics</p>	<p>Unemployment Rate 2022: 3.0% 2021: 4.0%</p> <p>Strong</p>	<p>Labor Force 2022: 1,506,260 2021: 1,476,473</p>	<p>Unemployment Rates Youth 2021: 9.89% % In Poverty, 2021: 13.4%</p> <p>Strong</p>
 <p>Job Outlook</p>	<p>Ratio of Unemployed to Job Openings June 2023: 0.23 June 2022: 1.65</p> <p>Strong</p>	<p>Projected Annual Growth Rate, All Occupations 2020-2030: 1.93% 2018-2028: 1.07%</p> <p>Strong</p>	<p>Projected Job Openings 2020-2030: 225,261 2018-2028: 178,632</p> <p>Strong</p>

**Figure 15**

Source: TN Department of Labor and Workforce Development, WIR²ED Division, QCEW

Middle Region's Economy, 2021-2022

Total employment in the Middle Region, excluding agriculture and the self-employed, increased to 1,461,565. Labor force also increased in the Middle region.

The Middle Region consists of three Local Workforce Development Areas: Northern Middle, Southern Middle, and Upper Cumberland, encompassing a total of 40 counties. Of these, 29 counties increased employment as compared to 40 the year prior. This is an expected pattern as the year prior was a year of recovery for the Tennessee economy. The average number of establishments increased to 97,982 over the year and payroll increased by 11.4 percent to \$85.9 billion. The increase in payroll was at a faster rate than the state.

The average annual industry wage in the region, calculated by dividing the total payroll by the average number of workers, increased by over 20 percent to \$54,880 from \$45,231. The median occupational wage increased by nine percent to \$41,530, which is above the state's median.

As previously mentioned, the average unemployment rate decreased from 2021 to 2022 to 3.0 percent, which is less than the state annual average. Youth unemployment in 2021 (the latest data available) is lower compared to the state rate of 11.4 percent. The percent of those in poverty was stable at 13.4 percent, below the state rate, yet higher for the Middle Region than last year.

To summarize: In 2022 compared to 2021, the Middle Region saw an increase in employment, labor force, and wages, while the unemployment rate decreased to below the state level. Payroll increased faster for the Middle Region than the rest of the state. The level of the annual average industry wage increased by more than 20 percent, and the median occupational wage also saw significant growth. Expansion of health care and information technology services as well as electric vehicle and battery manufacturing will continue to add to skill requirements and employment in the region.

Middle TN Industries and Occupations (2018-2022)

Total employment in the Middle Region in 2022, excluding self-employed and agricultural workers, was 1,461,565. The five largest industry sectors in 2022 were:

- Healthcare and social assistance (178,447)
- Retail Trade (135,359)
- Manufacturing (139,351)
- Accommodation and Food Services (131,314)
- Educational Services (96,674)

Compared to 2018, the industries adding the most new workers included the transportation and warehousing (20,657 new jobs), professional, scientific, and technical (13,049) and construction (13,705) industries. Only one industry, manufacturing, lost jobs from 2018 to 2022 (1,009). With this increase, accommodation and food services reported a growth of 3% since 2018, thus increasing its employment numbers post-pandemic. The most rapid growth was in the information, construction and transportation and warehousing sectors. The industries with the highest earnings per worker were the management of companies and enterprises, finance and insurance, professional, scientific, and technical, and information industries. The lowest earnings per employee were in the accommodation and food services industries.

Middle Tennessee Local Workforce Development Areas and Counties

Upper Cumberland Tennessee LWDA

Cannon	Overton
Clay	Pickett
Cumberland	Putnam
DeKalb	Smith
Fentress	Van Buren
Jackson	Warren
Macon	White

Southern Middle Tennessee LWDA

Bedford	Lincoln
Coffee	Marshall
Franklin	Maury
Giles	Moore
Hickman	Perry
Lawrence	Wayne
Lewis	

Northern Middle Tennessee LWDA

Cheatham	Rutherford
Davidson	Stewart
Houston	Sumner
Humphreys	Trousdale
Montgomery	Williamson
Robertson	Wilson

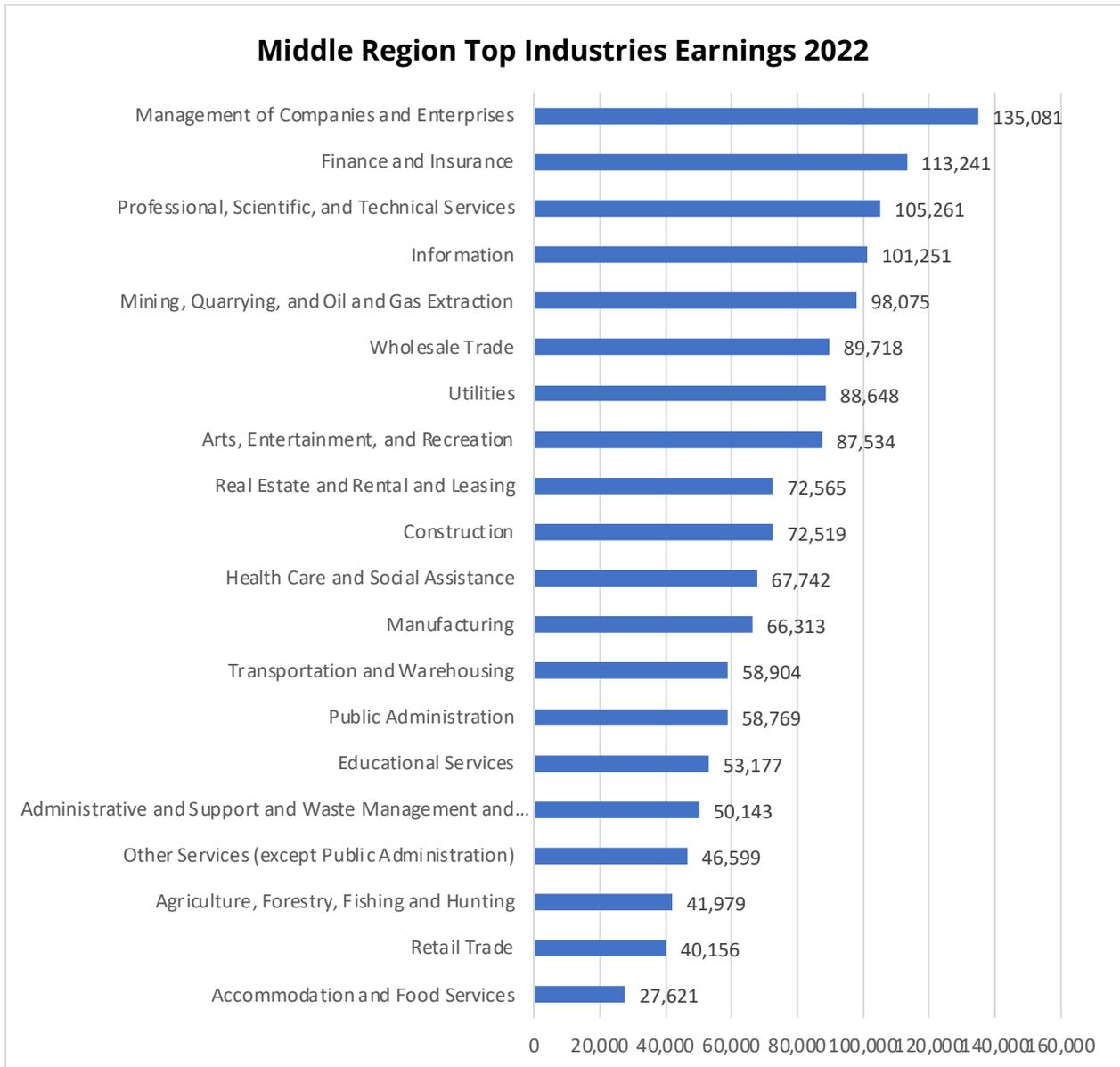


Figure 16

Source: TN Department of Labor and Workforce Development, WIR²ED Division, QCEW 2022

Table 18: Fastest Growing Industries in the Middle Region are Transportation and Warehousing and Construction

Middle Region Industries	2018 Jobs	2022 Jobs	Change in Jobs	% Change in Jobs	2018 Earnings Per Worker	2022 Earnings Per Worker	% Change in Earnings Per Worker
Transportation and Warehousing	62,057	82,714	20,657	33%	48,821.14	58,904.27	21%
Construction	55,189	68,894	13,705	25%	58,636.95	72,518.63	24%
Professional, Scientific, and Technical Services	69,281	82,330	13,049	19%	88,958.21	105,260.82	18%
Health Care and Social Assistance	168,988	178,447	9,459	6%	56,048.13	67,741.83	21%
Information	24,247	29,946	5,699	24%	72,040.91	101,251.23	41%
Management of Companies and Enterprises	23,081	28,273	5,192	22%	114,324.21	135,081.30	18%
Wholesale Trade	45,591	50,639	5,048	11%	73,210.30	89,717.56	23%
Finance and Insurance	50,898	55,936	5,038	10%	90,548.57	113,241.16	25%
Administrative and Support and Waste Management and Remediation Services	89,231	93,933	4,702	5%	37,439.42	50,142.93	34%
Accommodation and Food Services	127,583	131,314	3,731	3%	20,837.80	27,621.14	33%
Retail Trade	136,210	139,351	3,141	2%	32,758.24	40,156.24	23%
Educational Services	93,940	96,674	2,734	3%	44,467.36	53,177.46	20%
Arts, Entertainment, and Recreation	17,339	19,822	2,483	14%	76,407.32	87,533.71	15%
Public Administration	61,889	63,702	1,813	3%	50,057.19	58,768.78	17%
Other Services (except Public Administration)	34,579	35,606	1,027	3%	35,261.28	46,598.81	32%
Utilities	6,940	7,311	371	5%	75,741.87	88,648.23	17%
Real Estate and Rental and Leasing	19,490	19,854	364	2%	53,455.13	72,564.94	36%
Agriculture, Forestry, Fishing and Hunting	3,151	3,459	308	10%	33,960.20	41,978.53	24%
Mining, Quarrying, and Oil and Gas Extraction	1,682	1,912	230	14%	83,481.72	98,074.82	17%
Manufacturing	135,930	134,921	-1,009	-1%	57,468.46	66,313.10	15%

Source: TN Department of Labor and Workforce Development, QCEW Annual Averages, 2018 and 2022

Middle Region Occupational Employment

The office and administrative support occupational group remained the largest in the Middle Region, according to the Occupational Employment and Wages Survey for 2022, which provides data on all industries except agriculture and the self-employed. Employment in this group in May 2022 was 184,660; however, it decreased employment by 3% since 2015. The next three largest industries were transportation and material moving, sales and related, and food preparation and serving. Sales and related jobs declined during the pandemic as e-commerce expanded. This group in 2022 has recovered and has employment at about the same level as in 2015.

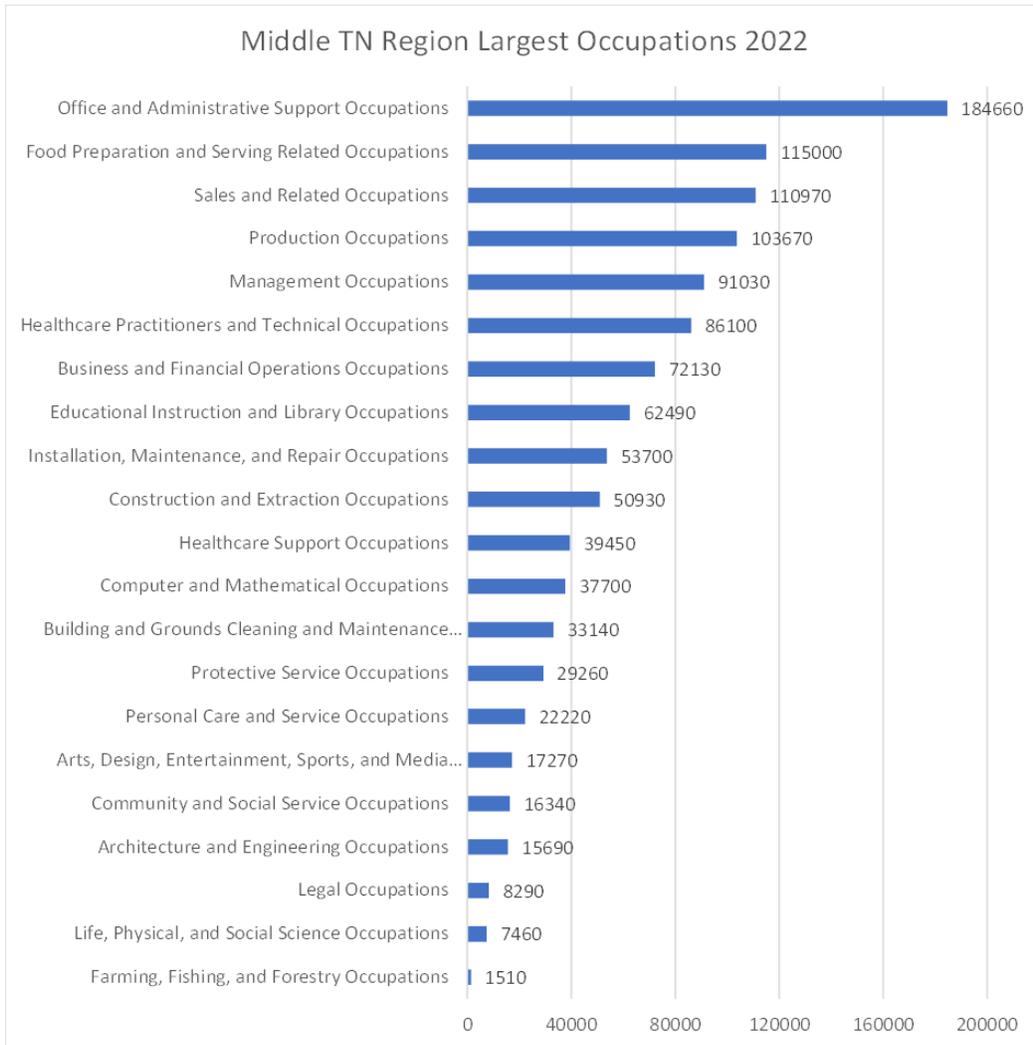


Figure 17

Source: TN Department of Labor and Workforce Development, WIR²ED, OEWS, May 2022

Occupational groups that added the most new jobs from 2015 to 2022 included transportation and material moving, computer and mathematical, business and finance, management, healthcare practitioners and technical, and construction. Office and administrative support and personal care and service lost the most jobs over the seven-year period.

Other than management, the occupational groups with the highest median earnings included computer and mathematical, architecture and engineering, legal, healthcare practitioners and technical, and business and finance. These earnings results show the importance of STEM education and training in achieving higher earning.



Figure 18

Source: TN Department of Labor and Workforce Development, WIR²ED, OEWS, May 2022

The TDLWD jobs4tn.gov web site tracks the top in-demand job certifications and tools and technologies from its advertised jobs database, updated every day. The table below shows the most requested certifications, with the top five listed as nursing credentials, CPR, commercial driver license, CPA, and nursing leadership certifications. For June 2023, the most requested tools and technologies include facility with Microsoft Office and Power Point, SQL query language and Python, operation of cash registers and forklifts, and use of personal protective equipment.

Of the top 10 employers posting jobs in the Middle Region on August 1, 2023, 4 included hospitals and other healthcare employers, as well as Kroger, Metro Nashville public schools, and fast-food companies. Reflecting the top occupational groups and those adding the most new jobs, top job postings in the region included healthcare practitioners and technical occupations, management, sales, and food related occupations.

Table 19: Middle Region Occupational Job Growth 2015-2022

Middle TN Occupational Group	May 2015 Jobs	May 2022 Jobs	Change in Jobs	% Change in Jobs	2022 Median Hourly Earnings
Architecture and Engineering	16,690	15690	-1,000	-6%	36.93
Arts, Design, Entertainment, Sports, and Media	15,140	17270	2,130	14%	21.92
Building and Grounds Cleaning and Maintenance	29,020	33140	4,120	14%	14.51
Business and Financial Operations	48,390	72130	23,740	49%	30.44
Community and Social Service	12,130	16340	4,210	35%	22.45
Computer and Mathematical	23,120	37700	14,580	63%	38.44
Construction and Extraction	34,270	50930	16,660	49%	22.14
Educational Instruction and Library	59,690	62490	2,800	5%	23.45
Farming, Fishing, and Forestry	1,330	1510	180	14%	16.74
Food Preparation and Serving Related	103,380	115000	11,620	11%	12.73
Healthcare Practitioners and Technical	70,080	86100	16,020	23%	31.63
Healthcare Support	31,460	39450	7,990	25%	15.49
Installation, Maintenance, and Repair	48,500	53700	5,200	11%	23.12
Legal	6,830	8290	1,460	21%	39.56
Life, Physical, and Social Science	5,640	7460	1,820	32%	30.41
Management	72,020	91030	19,010	26%	49.49
Office and Administrative Support	189,450	184660	-4,790	-3%	18.88
Personal Care and Service	25,270	22220	-3,050	-12%	14.01
Production	104,070	103670	-400	0%	18.66
Protective Service	23,890	29260	5,370	22%	18.91
Sales and Related	111,400	110970	-430	0%	15.84
Transportation and Material Moving	92,170	150850	58,680	64%	17.65
Total, All Occupations	1,123,490	1,439,386	315,896	28%	19.97

Source: TN Department of Labor and Workforce Development, WIR²ED, OEWS, May 2015 and May 2022

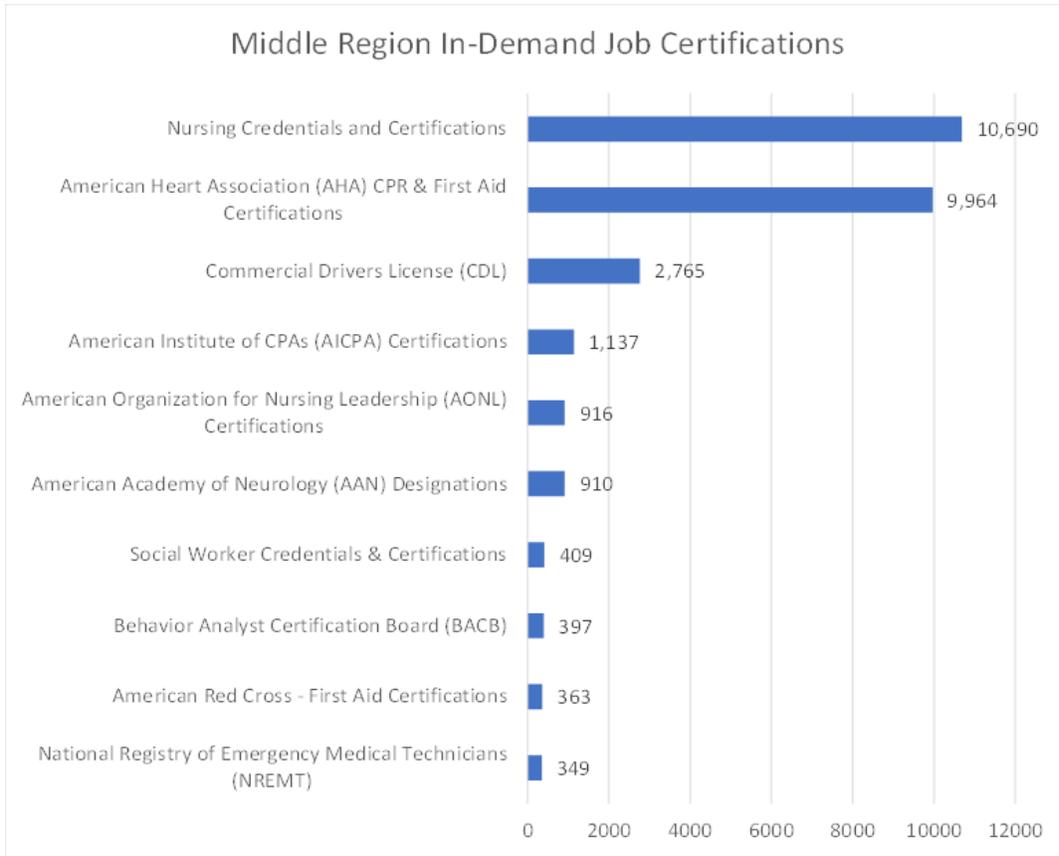


Figure 19
Source: jobs4tn.gov Online Advertised Jobs, June 2023

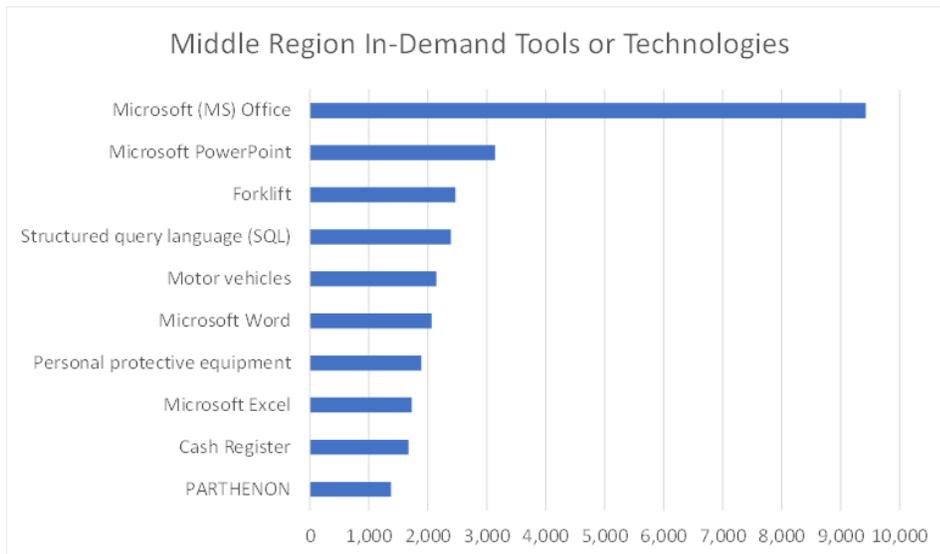


Figure 20
Source: jobs4tn.gov Online Advertised Jobs, June 2023

Table 20: Top Employers Posting Jobs – Middle Region

Rank	Employer Name	Job Openings
1	HCA Healthcare, Inc.	3,284
2	Vanderbilt University Medical Center	1,233
3	Metropolitan Nashville Public Schools	626
4	Carrols Corporation	524
5	The Kroger Co.	404
6	Bright Spring Health Services	401
7	National HealthCare Corporation	369
8	Sonic Corp.	351
9	McDonald’s Corporation	347
10	MAPCO Express, Inc.	324

Source: jobs4tn.gov Online Advertised Jobs, August 2023

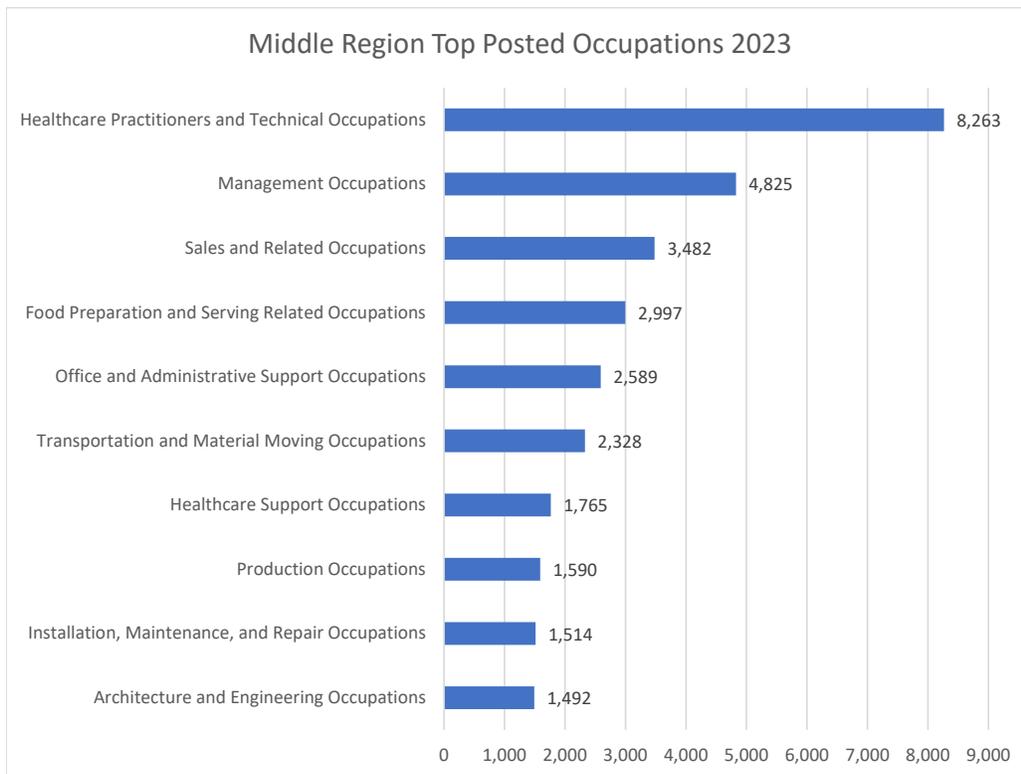


Figure 21

Source: jobs4tn.gov Online Advertised Jobs, June 2023

Middle Region Labor Force Summary

The population in the Middle Region in 2022 was estimated at 3,007,525, an increase of 1.8 percent over 2021, with all three LWDA's experiencing population gains. Three of every four new residents of the Middle Region reside in Northern Middle Tennessee.

Table 21: Middle Region Labor Force

	Upper Cumberland LWDA	Southern Middle LWDA	Northern Middle LWDA	Middle Region	State Total
Total Population 2021	366,049	473,355	2,114,956	2,954,360	6,968,351
Total Population 2022	370,024	481,777	2,153,724	3,007,525	7,051,339
Male Population 2021	182,869	231,061	1,043,119	1,457,049	3,418,920
Female Population 2021	187,513	238,400	1,090,017	1,515,930	3,595,814
Labor Force Participation Rate 2021 (5-Year Estimate)	52.03%	58.35%	68.40%	59.6%	57.30%
Labor Force Participation Rate 2022 (5-Year Estimate)	52.10%	56.90%	67.20%	58.73%	58.60%
Annual Average Unemployment Rate 2021 Percent	4.1%	4.3%	3.6%	4.0%	4.4%
Annual Average Unemployment Rate 2022 Percent	2.90%	2.90%	2.30%	3.70%	3.2%
Educational Attainment 25 Years and Over (2021) Some College Or Higher - Percent	43.20%	46.94%	66.78%	52.3%	58.53%
Poverty Estimate, All Ages, Percent (2021)	16.70%	12.59%	11.00%	13.4%	14.30%
Percentage of Unemployed with a Disability (2021)	20.03%	18.82%	14.26%	17.7%	17.80%
Percent of Those Not in the Labor Force with a Disability (2021)	36.43%	34.07%	25.76%	32.1%	31.10%

Source: TN Department of Labor and Workforce Development, WIR²ED Division, LAUS, and U.S. Census Bureau, ACS five-year estimates

Table 22: Educational Attainment, 2021

Educational Attainment	Middle Region White Only	Middle Region Black Only	Middle Region Hispanic or Latino Only	Statewide White Only	Statewide Black Only	Statewide Hispanic or Latino Only
Population 25 years and over	1,534,019	230,544	100,658	3,701,360	725,820	194,222
High school graduate only	474,318	68,564	19,937	1,171,517	247,651	54,356
Percent high school graduate only	30.92%	29.74%	19.81%	31.65%	34.12%	27.99%
High school graduate or higher	1,388,732	206,950	68,012	3,317,421	636,892	125,079
Percent high school graduate or higher	90.53%	89.77%	67.57%	89.63%	87.75%	64.40%
Bachelor degree or higher	512,239	65,703	18,717	1,114,827	159,001	33,770
Percent bachelor degree or higher	33.39%	28.50%	18.59%	30.12%	21.91%	17.39%

Source: US Census Bureau, ACS five-year estimates

The labor force participation rate (LFPR) in the Middle Region in 2022 was 58.73 percent, somewhat lower than the previous year. However, despite this, the state's labor force participation rate increased to 58.6 percent in 2022. The Middle Region's participation rate mirrors the state's. The largest decrease for the Middle Region was in the Southern Middle LWDA, which was expected given the negative population growth. A significant decrease in labor force participation rate was also seen in the Northern Middle area. Unemployment rates in all three LWDA's dropped in 2023, as the economy recovered from the pandemic, ending the year with an average rate of 3.0 percent, lower than the state's average of 3.4 percent.

The Upper Cumberland LWDA reported the lowest rate of educational attainment in 2021, with 43.2 percent of the population aged 25 years or more having some college or additional education. In contrast, the rate in the Northern Middle LWDA was 66.8 percent, well above the state's average.

The Middle Region of the state of Tennessee shows significant disparities concerning the post high school educational attainment of individuals based on their race or ethnic heritage. These disparities are not unique to the Middle Region, as they reflect a pattern throughout the whole state. In the Middle Region, the attainment of a bachelor's degree or higher by individuals who are over the age of 25 and identify their race as White is 33.39 percent, which shows a significant disparity when compared to those who identify their race as Black (28.50), and those who identify their heritage as Hispanic or Latino (18.59).

Table 23: Disability Status of Those in the Labor Force, 2021

Area	Civilian Non institutional Population	Total Labor Force	Total Employed	Employed W Disability	Employed W/O Disability	Total Unemployed	Unemployed W Disability	Unemployed W/O Disability
Upper Cumberland LWDA	193,662	137,182	130,178	10,771	119,407	7,004	1403	5,601
Southern Middle LWDA	269,265	200,495	191,252	13,403	177,849	9,243	1,740	7,503
Northern Middle LWDA	1,288,279	1,034,826	991,170	59,579	931,591	43,656	6,226	37,340
Middle Region	1,751,206	1,372,503	1,312,600	83,753	1,228,847	59,903	9,369	50,444
Tennessee	4,171,582	3,158,913	2,994,217	189,457	2,804,760	166,696	29,324	135,372

Source: U.S. Census Bureau, ACS Five-year Estimates

Table 24: Disability Status of Those Not in the Labor Force, 2021

Area	Civilian Non-institutional Population	Total Not In Labor Force	Not in Labor Force W Disability	Not In Labor Force W/O Disability	% W Disability	% W/O Disability
Upper Cumberland LWDA	193,662	54,480	20,707	35,773	38.01%	65.66%
Southern Middle LWDA	296,265	68,770	23,434	45,336	34.08%	65.92%
Northern Middle LWDA	1,288,279	253,453	65,306	188,147	25.77%	74.23%
Middle Region	1,778,206	376,703	109,447	269,256	29.05%	71.48%
Tennessee	4,171,582	1,015,669	315,415	700,254	31.05%	68.95%

Source: U.S. Census Bureau, ACS Five-year Estimates

Poverty rates declined from 13.9 percent in 2020 to 13.4 percent for the Middle Region in 2021, as federal aid was targeted to individuals with the greatest needs. The highest poverty rate in the region was in the Upper Cumberland LWDA at 16.7 percent. Upper Cumberland LWDA was the only LWDA in the Middle Region that had poverty rates higher than the state's average. The 2022 rates should have been lower, given the improving economy; reducing poverty and increasing educational attainment should be key targets of workforce policy in this region. Like the state, about a third of those not in the labor force have a disability, with Upper Cumberland LWDA having the highest rate.

Youth unemployment in the Middle Region increased slightly from 9.63 in 2020 to 9.89 in 2021. All LWDAs in the Middle Region reduced their unemployment rates, but the youth labor force increased slightly over the year. Both the Southern and Northern Middle showed significant improvements in youth unemployment.

Table 25: Youth Unemployment 2021

Area	Labor Force	Unemployment	Rate
Upper Cumberland LWDA	20,867	2,546	12.20%
Southern Middle LWDA	29,118	2,576	8.85%
Northern Middle LWDA	160,777	13,875	8.63%
Middle Region	210,762	18,997	9.89%

Source: U.S. Census Bureau, ACS Five-year Estimates

Significant Barriers to Employment

Table 26 identifies numbers of individuals with significant barriers to employment in the Middle Region, using the latest data available. The Middle Region has the following populations greater than its share of the population in the state:

- 43 percent of individuals on probation or parole;
- 58 percent of those with limited English- speaking ability; and
- 40 percent of those in recovery courts.

Table 26: Middle TN Region – Significant Barriers to Employment

	Northern Middle TN LWDA	Southern Middle TN LWDA	Upper Cumberland LWDA	Middle Region	State Total
Number of American Indians or Alaskan Natives alone	5,580	1,280	929	7,789	15,219
Population Ages 15-19	134,346	31,323	22,134	187,803	438,290
Population Ages 20-24	139,907	26,953	22,911	189,771	443,703
Population Ages 55+	509,632	158,632	126,627	794,891	2,022,778
Number of Veterans 2022	119,735	30,289	22,849	172,873	423,042
Number Below Poverty	213,708	58,774	58,453	330,935	955,929
Number With Disability	238,769	74,512	65,836	379,117	1,025,259
Number of Single Parent Families	341,445	73,965	58,825	474,235	1,234,824
Probationers and Parolees 2023	22,572	4,305	3,629	30,506	71,142
Community Correction 2023	1,648	5	106	1,759	3,401
Mental Health Court Statistics (FY 2023)	47	0	0	47	96
Limited English Speaking	22,856	821	64	24,331	42,056
Foster Care Services - Youth Aged 2022	192	68	52	312	801
Clients In Recovery Courts (2023)	400	45	108	553	1,399
Disadvantaged Youth and Adults	157,655	45,750	40,300	243,705	693,590
TANF 24 Months from 2022	348	112	60	520	1,816
Prison Population 2023	4,263	2,437	0	6,700	19,063
Jail Population 2023	5,646	1,901	1,515	9,065	25,696

Sources: **Population:** U.S. Census Bureau, 2017-2021 American Community Survey, 5-year Estimates. **Probationers and Parolees:** Lisa Helton and Adam Dawson, TN Dept of Correction. **Mental Health Court and Recovery Court Statistics:** Rebekah Provost-Emmons, Recovery Court Administrator, Office of Criminal Justice Services, Division of Substance Abuse Services. **Limited English Speaking:** U.S. Census Bureau, American Community Survey, 2021. **Foster Care Services:** Dave Aguzzi, Office of Independent Living, TN Dept of Children's Services. **TANF 24 Months from Ending Eligibility:** Lakecia Peterson and Rebecca Mungle, Division of Family Assistance and Child Support, TN Dept of Human Services. **Jail Population:** Jail Summary Report, TN Dept of Correction, Decision Support, <https://www.tn.gov/content/dam/tn/correction/documents/JailJune2023.pdf>. **Prison Population:** Linda F. Booker, Tennessee Bed Space and Operating Capacity Report, <https://www.tn.gov/content/dam/tn/correction/documents/BedJune2023.pdf>. TEGl 01-23 Updated Disadvantaged Youth and Adults Data

Tennessee's East Region's Economy | 2022

 <p>Employment</p>	<p>Total Nonfarm Employment 2022: 1,097,691 0.9% 2021: 1,088,055 Strong</p>	<p>New Jobs 2022: 9,636 2021: 41,175 Strong</p>	<p>MSA Employment 2021-2022 Chattanooga: 4.0% Knoxville: 4.6%</p>
 <p>Employers</p>	<p>Total Number of Establishments 2022: 67,643 62,777 Strong</p>	<p>Total Payroll 2022: \$58.1B 2021: \$53.2B Strong</p>	<p>Counties that Increased Employment 2022: 29 2021: 32 Strong</p>
 <p>Wages & Income</p>	<p>Average Annual Wage 2022: \$56,372 2021: \$46,124 Strong</p>	<p>East Median Wage 2022: \$38,532 2021: \$35,525 Strong</p>	<p>Average Hourly Wages - Production Workers 2022: \$20.42 2021: \$18.65 Strong</p>
 <p>Labor Force & Demographics</p>	<p>Unemployment Rate 2022: 3.4% 2021: 4.3% Strong</p>	<p>Labor Force 2022: 1,136,578 2021: 1,042,879</p>	<p>Unemployment Rates Youth 2021: 10.6% % In Poverty, 2021: 15.3% Strong</p>
 <p>Job Outlook</p>	<p>Ratio of Unemployed to Job Openings June 2023: 0.85 June 2022: 1.55 Strong</p>	<p>Projected Annual Growth Rate, All Occupations 2020-2030: 1.6%</p>	<p>Projected Job Openings 2020-2030: 182,369</p>

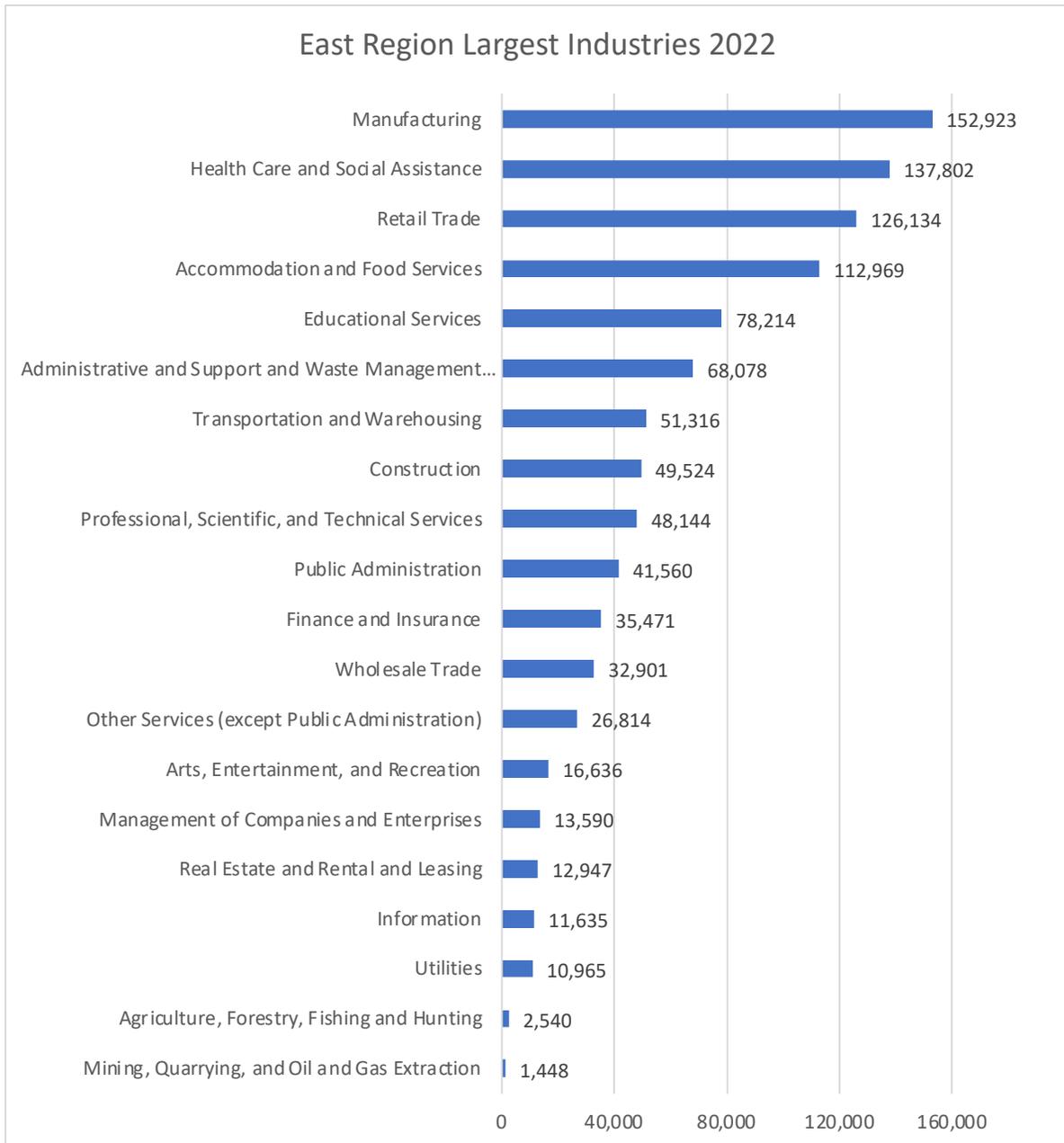


Figure 22

Source: TN Department of Labor and Workforce Development, WIR²ED Division, QCEW, August 2023

East Region's Economy, 2021-2022

Total employment in the East Region, excluding agriculture and the self-employed, increased from 1,088,055 in 2021 to 1,097,691 in 2022. Overall unemployment for the region decreased from 4.3 to 3.4, the same as the yearly average for the state. The two large metropolitan statistical areas in the Region, Chattanooga and Knoxville, increased employment.

The East Region consists of three Local Workforce Development Areas: Northeast, Southeast, and East, encompassing a total of 34 counties. Of these, 29 counties increased employment compared to 34 the year prior. This is an expected pattern as the year prior was a year of recovery for the Tennessee economy. The average number of establishments increased to 67,643 over the year and payroll increased by 9.2 percent to \$58.1 billion.

The average annual industry wage in the region, calculated by dividing the total payroll by the average number of workers, increased by over 20 percent to \$56,372 from \$46,124. The median occupational wage increased by 8.5 percent to \$38,532, which is slightly below the state's median.

As previously mentioned, the average unemployment rate decreased from 2021 to 2022 to 3.4 percent, which equals the state annual average. The labor force increased over the year by over 80,000 persons. Youth unemployment in 2021 (the latest data available) is slightly lower compared to the state rate of 11.4 percent. The percent of those in poverty was stable at 15.3 percent, below the state rate, and lower for the East Region last year.

To summarize: In 2022 compared to 2021, the East Region saw growth in employment, and an improvement in unemployment from the year prior to match the state's unemployment rate. Payroll increased at nearly the same rate for the East Region as for the rest of the state. The level of the annual average industry wage increased by more than 20 percent, and the median occupational wage also saw significant growth. Expansion of health care as well as electric vehicle and battery manufacturing will continue to add to skill requirements and employment in the region.

East TN Industries and Occupations (2018-2022)

Total employment in the East Region in 2022, excluding self-employed and agricultural workers, was 1,097,671. The five largest industry sectors in 2022 were:

- Manufacturing (152,923)
- Health care and social assistance (137,802)
- Retail (126,134)
- Accommodation and food services (112,969)
- Educational services (78,214)

Compared to 2018, the industries adding the most workers included the manufacturing (10,556), professional, scientific, and technical (7,641), and transportation and warehousing (5,203) industries. One of the largest industries, Healthcare and Social Assistance, has yet to regain its pre-pandemic level of employment. Despite showing negative growth from previously, accommodation and food services and educational services have reported growth in their industries surpassing 2018 levels. All except one industry sector increased its earnings per worker (total LWDA payroll divided by the average number of workers). The largest increases were in the accommodation and food services, administration and support, and real estate and rental and leasing. The industries with the highest earnings per worker were the management of companies and enterprises, utilities, and professional, scientific, and technical industries. The lowest earnings per worker were in the accommodations and food services industry.

East Tennessee Local Workforce Development Areas and Counties

Northeast Tennessee LWDA

Carter	Johnson
Greene	Sullivan
Hancock	Unicoi
Hawkins	Washington

East Tennessee LWDA

Anderson	Knox
Blount	Loudon
Campbell	Monroe
Claiborne	Morgan
Cocke	Roane
Grainger	Scott
Hamblen	Sevier
Jefferson	Union

Southeast Tennessee LWDA

Bledsoe	McMinn
Bradley	Meigs
Grundy	Polk
Hamilton	Rhea
Marion	Sequatchie



Figure 23

Source: TN Department of Labor and Workforce Development, WIR²ED Division, QCEW, August 2023

Table 27: East Region Among Largest Percent Change in Jobs Include Professional Scientific and Technical Services, Real Estate and Transportation and Warehousing

East Region Industries	2018 Jobs	2022 Jobs	Change in Jobs	% Change in Jobs	2018 Earnings Per Worker	2022 Earnings Per Worker	% Change in Earnings Per Worker
Manufacturing	142,367	152,923	10,556	7%	59,727.09	69,135.13	16%
Professional, Scientific, and Technical Services	40,503	48,144	7,641	19%	75,191.72	90,187.79	20%
Transportation and Warehousing	46,113	51,316	5,203	11%	50,320.44	62,903.07	25%
Construction	44,475	49,524	5,049	11%	52,471.84	64,905.78	24%
Retail Trade	121,429	126,134	4,705	4%	29,007.30	36,675.97	26%
Wholesale Trade	30,613	32,901	2,288	7%	65,245.57	81,989.26	26%
Accommodation and Food Services	110,727	112,969	2,242	2%	18,320.81	24,134.55	32%
Real Estate and Rental and Leasing	11,483	12,947	1,464	13%	43,906.13	56,284.24	28%
Finance and Insurance	34,168	35,471	1,303	4%	66,100.66	83,418.59	26%
Arts, Entertainment, and Recreation	15,925	16,636	711	4%	23,025.39	28,558.26	24%
Agriculture, Forestry, Fishing and Hunting	2,026	2,540	514	25%	34,515.54	34,548.07	0%
Utilities	10,585	10,965	380	4%	91,079.15	104,450.04	15%
Educational Services	77,868	78,214	346	0%	42,487.89	49,287.13	16%
Administrative and Support and Waste Management and Remediation Services	67,764	68,078	314	0%	34,926.63	45,032.63	29%
Mining, Quarrying, and Oil and Gas Extraction	1,464	1,448	-16	-1%	62,257.03	79,293.95	27%
Public Administration	41,807	41,560	-247	-1%	47,901.65	56,070.37	17%
Other Services (except Public Administration)	27,077	26,814	-263	-1%	31,951.61	40,746.77	28%
Information	12,274	11,635	-639	-5%	78,303.38	86,057.59	10%
Health Care and Social Assistance	138,873	137,802	-1,071	-1%	50,471.24	60,404.24	20%
Management of Companies and Enterprises	16,166	13,590	-2,576	-16%	85,520.25	103,722.62	21%

Source: TN Department of Labor and Workforce Development, QCEW Annual Averages, 2018 and 2022

East Region Occupational Employment

The office and administrative support occupational group remains the largest in the East Region, according to the Occupational Employment and Wages Survey for 2022, which provides data on all industries except agriculture and the self-employed. Employment in this group in May 2022 was 142,0410; however, it decreased by 10% between 2015 and 2022. Transportation and material moving, production, and food preparation and serving were next largest in total numbers of jobs. Occupational groups which added the most jobs from 2015 to 2022 included transportation and material moving, business and finance, construction and extraction, and production. Office and administrative support, sales and related, and personal care and service occupations lost the most jobs over the seven- year period. Other than management, the occupational groups with the highest median earnings included architecture and engineering, computer and mathematical, life, physical and social science, and legal occupations. These earnings results show the importance of STEM education and training in achieving higher earnings.

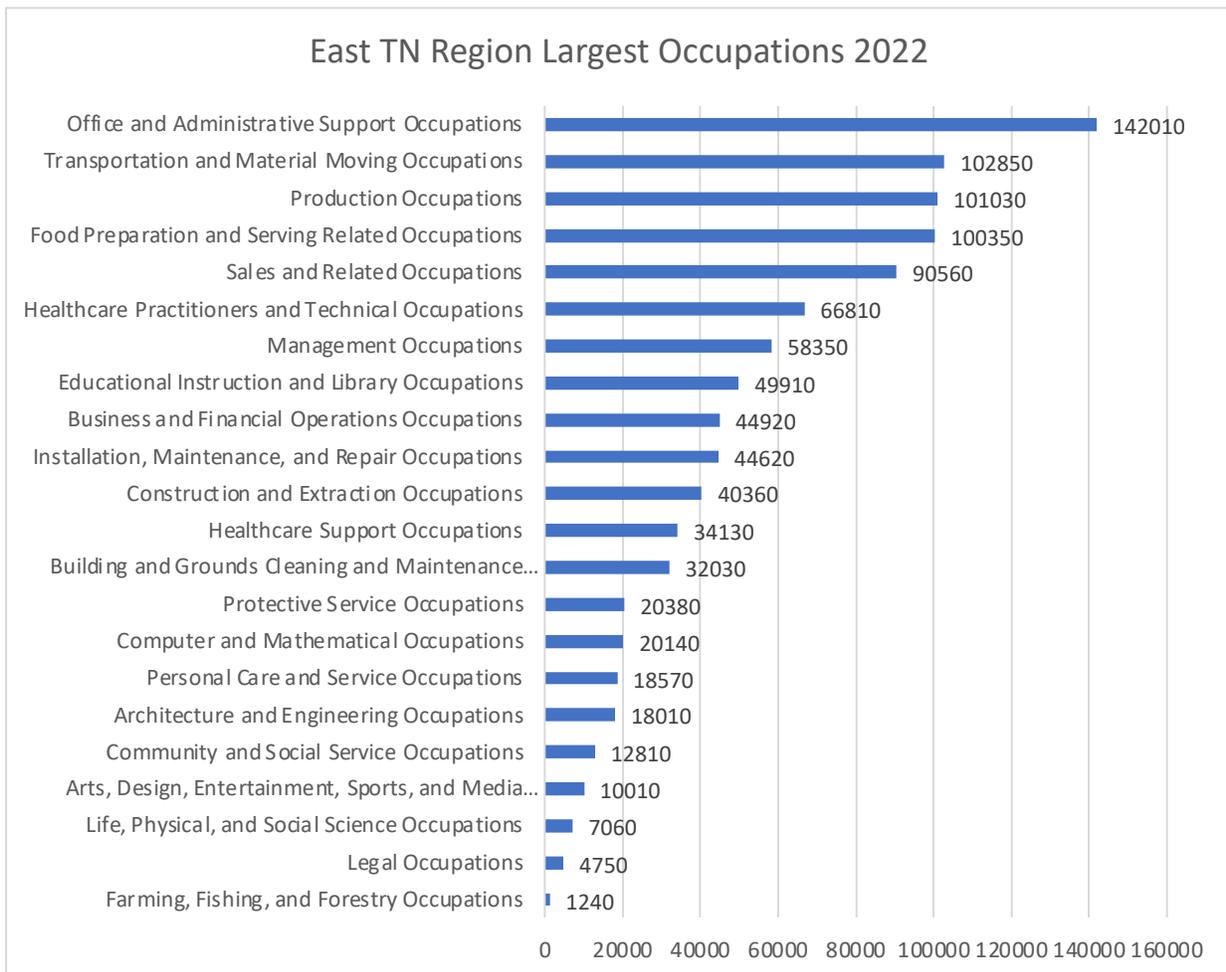


Figure 24

Source: TN Department of Labor and Workforce Development, WIR²ED Division, OEWS, May 2022



Figure 25

Source: TN Department of Labor and Workforce Development, WIR²ED Division, OEWS, May 2022

The TDLWD jobs4tn.gov web site tracks the top in-demand job certifications and tools and technologies from its advertised jobs database, updated every day. The table below shows the most requested certifications, including nursing credentials, CPR, and commercial driver license certifications, first aid, and emergency medical technician. For June 2023, the most requested technologies included facility with Microsoft Office, HTML, operation of cash registers and forklifts, and use of personal protective equipment among others.

Of the top 10 employers posting jobs in the East Region on September 1, 2022, 4 included healthcare institutions; others included grocery stores/food marts, Oak Ridge National Laboratory, and the University of Tennessee. Reflecting the top occupational groups and those adding the most new jobs, top job postings in the region included healthcare practitioners and technical occupations, management, sales, and transportation and material moving occupations.

Table 28: East Region Job Growth 2015-2022

East TN Region- Occupational Group	May 2015 Jobs	May 2022 Jobs	Change in Jobs	% Change in Jobs	2022 Median Hourly Earnings
Architecture and Engineering	17,920	18,010	90	1%	37.64
Arts, Design, Entertainment, Sports, and Media	8,650	10,010	1,360	16%	20.44
Building and Grounds Cleaning and Maintenance	32,580	32,030	-550	-2%	13.89
Business and Financial Operations	29,970	44,920	14,950	50%	29.97
Community and Social Service	10,620	12,810	2,190	21%	21.13
Computer and Mathematical	14,770	20,140	5,370	36%	36.79
Construction and Extraction	33,010	40,360	7,350	22%	21.36
Educational Instruction and Library	52,210	49,910	-2,300	-4%	23.36
Farming, Fishing, and Forestry	1,020	1,240	220	22%	15.67
Food Preparation and Serving Related	96,160	100,350	4,190	4%	11.25
Healthcare Practitioners and Technical	67,360	66,810	-550	-1%	29.77
Healthcare Support	28,020	34,130	6,110	22%	14.45
Installation, Maintenance, and Repair	43,290	44,620	1,330	3%	22.49
Legal	4,020	4,750	730	18%	37.67
Life, Physical, and Social Science	6,270	7,060	790	13%	30.92
Management	54,140	58,350	4,210	8%	46.57
Office and Administrative Support	157,990	142,010	-15,980	-10%	17.94
Personal Care and Service	25,870	18,570	-7,300	-28%	13.13
Production	92,970	101,030	8,060	9%	18.55
Protective Service	20,850	20,380	-470	-2%	18.83
Sales and Related	98,510	90,560	-7,950	-8%	14.13
Transportation and Material Moving	84,650	102,850	18,200	22%	16.96
Total, All Occupations	980,830	1,020,900	40,070	4%	18.53

Source: TN Department of Labor and Workforce Development, OEWS, May 2015 and May 2022

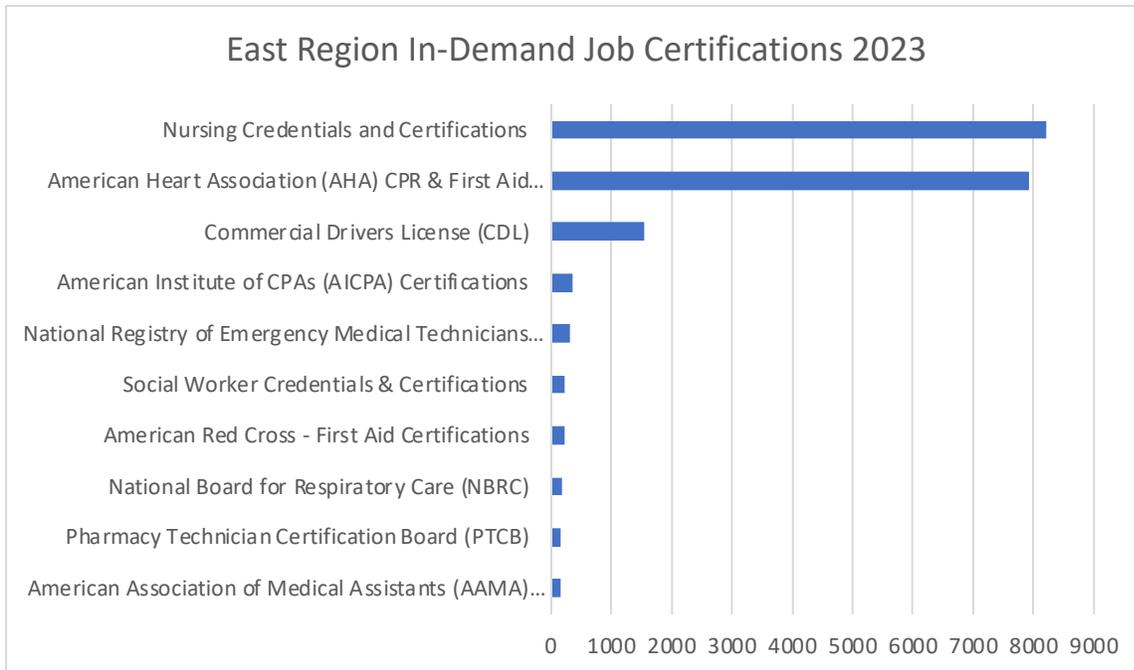


Figure 26

Source: jobs4tn.gov Online Advertised Jobs August 2023

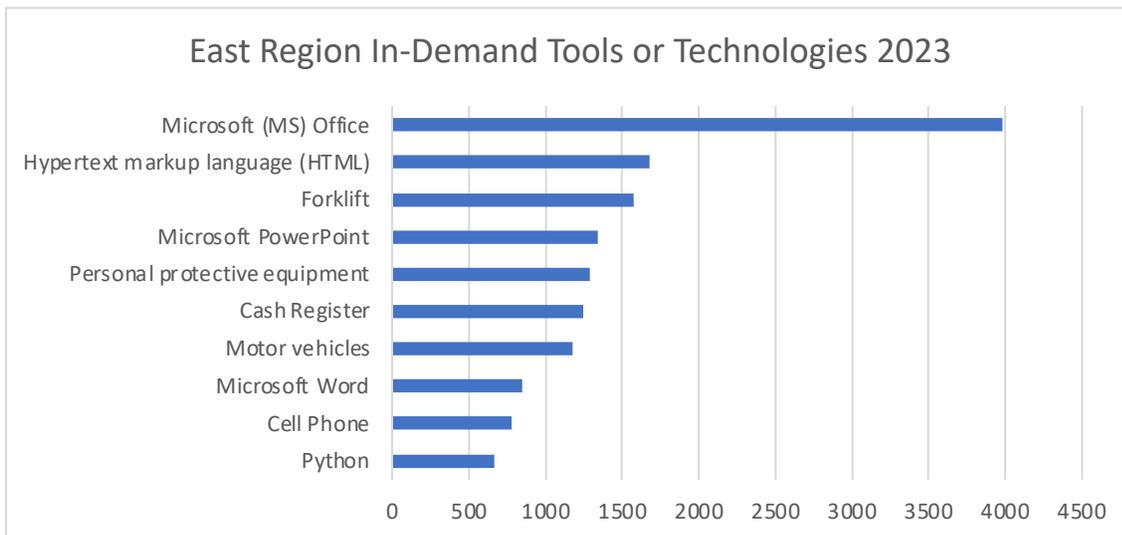


Figure 27

Source: jobs4tn.gov Online Advertised Jobs August 2023

Table 29: Top Employers Posting Jobs East Region

Rank	Employer Name	Job Openings
1	Covenant Health	1,189
2	Ballad Health	845
3	Food City	755
4	Oak Ridge National Laboratory	668
5	HCA Healthcare, Inc.	498
6	Community Health Systems, Inc.	426
7	The University of Tennessee System	403
8	The University of Tennessee Knoxville	360
9	McDonald's Corporation	317
10	Weigel's Farm Stores, Inc.	315

Source: Online advertised jobs data

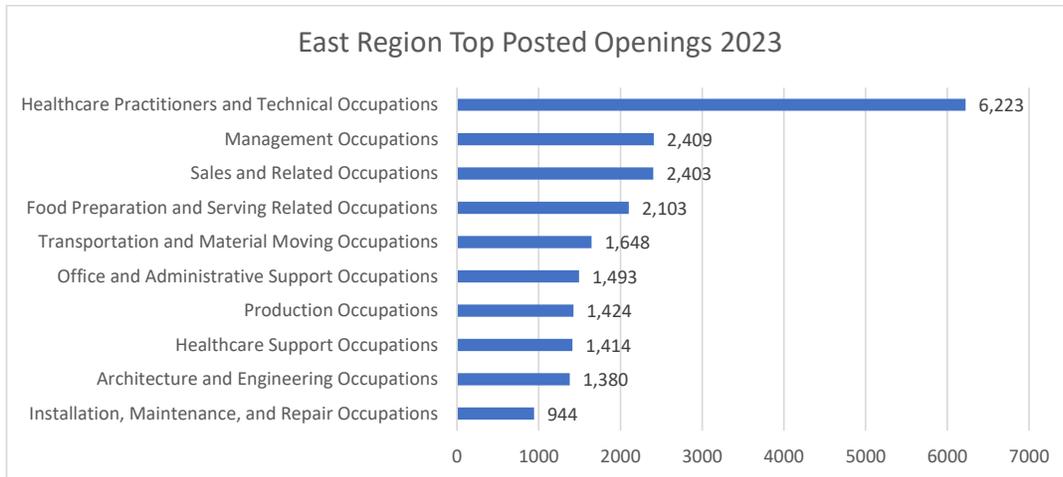


Figure 28

Source: jobs4tn.gov Online Advertised Jobs, August 2023

Table 30: East Region Labor Force 2021

	Southeast LWDA	Northeast LWDA	East LWDA	East Region	State Total
Total Population 2021	670,253	519,112	1,273,561	2,462,926	6,968,351
Total Population 2022	679,446	525,455	1,292,014	2,496,915	7,051,339
Male Population 2021	324,386	254,190	614,303	1,192,879	3,418,920
Female Population 2021	335,901	261,261	635,270	1,232,432	3,595,814
Labor Force Participation Rate 2021 (5-Year Estimate)	57.88%	53.80%	59.15%	56.90%	57.30%
Labor Force Participation Rate 2022 (5-Year Estimate)	57.40%	53.10%	59.80%	56.80%	58.60%
Annual Average Unemployment Rate 2021 Percent	4.60%	4.30%	4.10%	4.30%	4.40%
Annual Average Unemployment Rate 2022 Percent	3.10%	3.30%	2.70%	3.00%	3.20%
Educational Attainment 25 Years and Over (2021) Some College Or Higher - Percent	57.42%	52.23%	55.39%	55.00%	58.53%
Poverty Estimate, All Ages, Percent (2021)	18.82%	16.20%	11.01%	15.30%	14.30%
Percentage of Unemployed with a Disability (2021)	16.17%	18.63%	17.67%	17.50%	17.80%
Percent of Those Not in the Labor Force with a Disability (2021)	36.56%	39.82%	36.12%	37.50%	31.10%

Sources: TN Department of Labor and Workforce Development, WIR²ED Division, LAUS, and U.S. Census Bureau, ACS Five Year Estimates.

Table 31: Educational Attainment 2021

Educational Attainment	East Region White Only	East Region Black Only	East Region Hispanic or Latino Only	Statewide White Only	Statewide Black Only	Statewide Hispanic or Latino Only
Population 25 years and over	1,535,079	94,508	52,723	3,701,360	725,820	194,222
High school graduate only	505,676	33,516	16,786	1,171,517	247,651	54,356
Percent high school graduate only	32.94%	35.46%	31.84%	31.65%	34.12%	27.99%
High school graduate or higher	1,358,277	82,183	18,388	3,317,421	636,892	125,079
Percent high school graduate or higher	88.48%	86.96%	34.88%	89.63%	87.75%	64.40%
Bachelor degree or higher	404,399	17,948	8,511	1,114,827	159,001	33,770
Percent bachelor degree or higher	26.34%	18.99%	16.14%	30.12%	21.91%	17.39%

Sources: U.S. Census Bureau, ACS Five-year estimates

The labor force participation rate (LFPR) in the East Region in 2022 was 56.8 percent, somewhat lower than the previous year. However, despite this, the state's labor force participation rate increased to 58.6 percent in 2022. The largest decrease for the East Region was in the Northeast LWDA, although it was minimal, following the pattern set by the region. Unemployment rates in all three LWDA's dropped in 2023, as the economy recovered from the pandemic, ending the year with an average rate of 3.4 percent.

The Northeast LWDA reported the lowest rate of educational attainment in 2021, with just under 52.2 percent of the population aged 25 years or more having some college or additional education.

The East Region shows significant disparities among the post high school educational attainment of individuals based on their race or ethnic heritage. These disparities are not unique to the East Region, as they reflect a pattern throughout the whole state. In the East Region, the attainment of a bachelor's degree or higher by individuals who are over the age of 25 and identify their race as White is 26.34 percent, which shows a significant disparity when compared to those who identify their race as Black (18.99) and those who identify their heritage as Hispanic or Latino (16.14).

Table 32: East Region Disability Status of Those in the Labor Force 2021

Area	Civilian Non-institutional Population	Total Labor Force	Total Employed	Employed W/Disability	Employed W/O Disability	Total Unemployed	Unemployed W Disability	Unemployed W/O Disability
Southeast LWDA	397,470	298,266	283,100	19,420	263,680	15,166	2,452	12,714
Northeast LWDA	303,727	215,256	202,102	15,075	187,027	13,154	2,540	10,614
East LWDA	746,863	554,157	526,155	34,177	491,978	28,002	4,958	23,004
East Region	1,448,060	1,067,679	1,011,357	68,672	942,685	56,322	9,950	46,332
Tennessee	4,171,582	3,158,913	2,994,217	189,457	2,804,760	166,696	29,324	135,372

Source: U.S. Census Bureau ACS Tables Five-Year Estimates

Table 33: East Region Disability Status of Those Not in the Labor Force, 2021

Area	Civilian Non-institutional Population	Total Not in Labor Force	Not in Labor Force W Disability	Not In Labor Force W/O Disability	% W Disability	% W/O Disability
Southeast LWDA	397,470	99,204	36,266	62,938	36.56%	63.44%
Northeast LWDA	303,727	88,471	35,229	53,242	39.82%	60.18%
East LWDA	746,863	192,706	65,906	126,800	34.20%	65.80%
East Region	1,448,060	380,381	137,401	242,980	36.12%	63.88%
Tennessee	4,171,582	1,015,669	315,415	700,254	31.05%	68.95%

Source: U.S. Census Bureau ACS Tables Five-Year Estimates

Poverty rates remained stagnant from 15.2 percent in 2020 to 15.3 percent for the East Region in 2021, as federal aid was targeted to individuals with the greatest needs. The highest poverty rate in the region was in the Southeast LWDA at 18.8 percent. Northeast also reported higher than state average poverty rates in 2021. The 2021 rates should have been lower, given the improving economy; reducing poverty and increasing educational attainment should be key targets of workforce policy in this region.

Following the pattern set by state data, more than a third of those not in the labor force had a disability, with Northeast LWDA having the highest rate. Youth unemployment in the East Region decreased slightly from 10.97 in 2020 to 10.60 in 2021.

Table 34: Youth Unemployment 2021

Area	Labor Force	Unemployment	Rate
Southeast LWDA	44,651	4,898	10.97%
Northeast LWDA	33,478	3,878	11.58%
East LWDA	90,333	9,083	10.06%
East Region	168,462	17,859	10.60%

Source: U.S. Census Bureau, ACS Five-Year Estimates

Significant Barriers to Employment

The table below identifies numbers of individuals with significant barriers to employment in the East Region, using the latest data available. The East Region in 2021 had 35 percent of the state's population, with the following higher percent of the populations below compared to its proportion of the state's population:

- 30 percent of the American Indian/ Alaska native population.
- 45 percent of the 55 and over population.
- 34 percent of the prison and jail population.
- 37 percent of the veteran population.
- 37 percent of those below poverty.
- 39 percent of those with disabilities.
- 37 percent of the population of those aging out of foster care.
- In addition, the number of individuals with access to mental health courts is very low. The growing importance of these intervention services is being recognized nationally and needs expansion in Tennessee

Table 35: East TN Region – Significant Barriers to Employment

	Northeast LWDA	East LWDA	Southeast LWDA	West Region	State Total
Number of American Indians or Alaskan Natives alone	909	2440	1303	4652	15,219
Population Ages 15-19	38,528	83,422	41,142	163,092	438,290
Population Ages 20-24	32,305	78,180	39,488	149,973	443,703
Population Ages 55+	181,970	406,657	209,364	797,991	1,784,308
Number of Veterans 2022	39,692	86,556	40,149	166,397	449,163
Number Below Poverty	82,656	171,071	90,152	343,879	927,587
Number With Disability	102,094	187,125	112,242	401,461	1,019,661
Number of Single Parent Families	97,636	214,500	120,576	432,712	1,234,824
Probationers and Parolees 2023	5,953	12,596	4,883	23,432	71,142
Community Correction 2023	356	117	212	685	3,401
Mental Health Court Statistics (FY 2023)	0	0	10	10	96
Limited English Speaking	919	5,879	3,100	9,798	42,056
Foster Care Services - Youth Aged 2022	45	189	64	298	801
Clients In Recovery Courts 2023	65	312	84	461	1,399
Disadvantaged Youth and Adults	61,910	127,625	69,660	259,195	693,590
TANF 24 Months From 2022	176	267	190	633	1,816
Prison Population Total 2023	1,393	1,934	1,943	5,270	19,063
Jail Population Total 2023	2,728	4,558	2,819	10,105	25,696

Sources: **Population:** U.S. Census Bureau, 2017-2021 American Community Survey, 5-year Estimates. **Probationers and Parolees:** Lisa Helton and Adam Dawson, TN Dept of Correction. **Mental Health Court and Recovery Court Statistics:** Rebekah Provost-Emmons, Recovery Court Administrator, Office of Criminal Justice Services, Division of Substance Abuse Services. **Limited English Speaking:** U.S. Census Bureau, American Community Survey, 2021. **Foster Care Services:** Dave Aguzzi, Office of Independent Living, TN Dept of Children's Services. **TANF 24 Months from Ending Eligibility:** Lakecia Peterson and Rebecca Mungle, Division of Family Assistance and Child Support, TN Dept of Human Services. **Jail Population:** Jail Summary Report, TN Dept of Correction, Decision Support, <https://www.tn.gov/content/dam/tn/correction/documents/JailJune2023.pdf>. **Prison Population:** Linda F. Booker, Tennessee Bed Space and Operating Capacity Report, <https://www.tn.gov/content/dam/tn/correction/documents/BedJune2023.pdf>. TEG 01-23 Updated Disadvantaged Youth and Adults Data

Apprenticeships

The apprenticeship office was established in TDLWD in 2019 to increase the number of apprenticeships across the state and introduce new types of apprenticeships. The total number of apprenticeship completers increased from 981 in 2020 to 1135 in 2021, then held steady at 1118 for 2022. Slightly more than half of the completers were in the East Region (53 percent), with 29 percent in the Middle Region and 18 percent in the West Region. The sponsors and the number of completers in each region and in the LWDA's within the region are shown in the following tables.

Table 36: East LWDA Tops the Region in the Number of Registered Apprenticeship Sponsors with Completers in 2022

Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Consolidated Nuclear Security, LLC	East	Anderson County	2
Eagle Bend Manufacturing	East	Anderson County	5
Knoxville Painters	East	Anderson County	1
Oak Ridge Electric JATC	East	Anderson County	22
Danny Davis Electrical Contractors, Inc.	East	Blount County	3
Massey Electric #1	East	Blount County	10
Tennessee Valley Youth Apprenticeships	East	Blount County	1
Telos Global, LLC	East	Campbell County	2
Walters State Community College	East	Hamblen County	31
Oshkosh Manufacturing LLC	East	Jefferson County	5
Electrician Training Academy Knoxville	East	Knox County	24
Funderburk Electrical Services	East	Knox County	10
Insulators Local 46 JATC	East	Knox County	9
Knoxville Area Sheet Metal JAC	East	Knox County	24
Knoxville Ironworkers JAC	East	Knox County	4
Knoxville Laborers JATC	East	Knox County	12
Knoxville Plumbers & Steamfitters JATC	East	Knox County	20
Knoxville Plumbing Heating Air Conditioning Cont	East	Knox County	10
Pellissippi State Community College	East	Knox County	2
Resource Valley	East	Knox County	24
ShoffnerKalthoff,MES	East	Knox County	11
TVA	East	Knox County	29
Dienamic Tooling System Inc	East	Roane County	1
East Tennessee LWDA Total			262
Holston Electric Co	Northeast	Hawkins County	4
Mountain Electric Cooperative	Northeast	Johnson County	2
Eastman Chemical Co. - Coal Gas Division	Northeast	Sullivan County	13
Eastman Chemical Co. - Tn Operations	Northeast	Sullivan County	113
Northeast State Community College/RCAM	Northeast	Sullivan County	1
Primester	Northeast	Sullivan County	1
Tri-Cities Electrical JATC	Northeast	Sullivan County	7
AO Smith	Northeast	Washington County	2
Plumber and Pipefitters, Local Union 538 JATC	Northeast	Washington County	5
Northeast LWDA Total			148
Puerto Rico Industries for the Blind Corp	Southeast	Bradley County	4
Chattanooga Electrical JATC	Southeast	Hamilton County	55
Chattanooga Ironworkers JAC	Southeast	Hamilton County	8
Chattanooga Painters JAC	Southeast	Hamilton County	3
Chattanooga State Community College	Southeast	Hamilton County	10
Chattanooga State Community College (Westrock)	Southeast	Hamilton County	1
Gestamp Chattanooga, LLC	Southeast	Hamilton County	5
Tennessee Carpenters Regional Council JATC	Southeast	Hamilton County	70
UA Local 43 Plumbers Steamfitters JATC	Southeast	Hamilton County	19
ABB	Southeast	McMinn County	1
Operating Engineers Local No. 917 Apprenticeship &	Southeast	McMinn County	4
Southeast LWDA Total			180
Grand Total for East Region			590

Source: TDLWD Apprenticeship Data

Table 37: Northern Middle LWDA has a Wide Variety of Apprenticeship Sponsors with Completers in 2022 in the Middle Region

Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Industrial Electric Services, Inc.	Northern Middle	Cheatham County	1
Abec Electric Company, LLC	Northern Middle	Davidson County	7
American Commercial Industrial Electric, LLC	Northern Middle	Davidson County	1
Datatel Network Services	Northern Middle	Davidson County	2
Elevator Constructors Local 93	Northern Middle	Davidson County	23
Fast Electrical Contractors, Inc.	Northern Middle	Davidson County	2
John Bouchard & Sons Co.	Northern Middle	Davidson County	2
Messer Construction Co.	Northern Middle	Davidson County	2
Nashville Electric Service	Northern Middle	Davidson County	16
Nashville Electrical JATC	Northern Middle	Davidson County	47
Nashville Ironworkers	Northern Middle	Davidson County	11
Nashville Plumbers and Pipefitters	Northern Middle	Davidson County	26
Nashville Sheetmetal JATC	Northern Middle	Davidson County	30
Nashville State Community College	Northern Middle	Davidson County	3
Next Steps At Vanderbilt University	Northern Middle	Davidson County	2
Power Tek, LLC	Northern Middle	Davidson County	1
Shift.Org, Inc	Northern Middle	Davidson County	6
Specialty Care	Northern Middle	Davidson County	4
Stansell Electric Apprenticeship Training Program	Northern Middle	Davidson County	11
Summit Fire and Safety	Northern Middle	Davidson County	1
Tennessee Department Of Education	Northern Middle	Davidson County	28
Wolfe & Travis Electric	Northern Middle	Davidson County	19
Wright Industries, LLC Dba Jr Automation	Northern Middle	Davidson County	3
Cumberland Electric Membership Corporation	Northern Middle	Montgomery County	3
M&M Electrical Contractor, Inc	Northern Middle	Robertson County	1
CMS Nextech	Northern Middle	Rutherford County	1
Middle Tennessee Electric Membership Corp	Northern Middle	Rutherford County	8
Robert C Byrd Institute	Northern Middle	Sumner County	8
Hamilton-Ryker TalentGro	Northern Middle	Williamson County	26
Lee Company	Northern Middle	Williamson County	6
Northern Middle LWDA Total			301
Micro Craft, Inc.	Southern Middle	Coffee County	1
Spring Hill Manufacturing (General Motors)	Southern Middle	Maury County	2
Southern Middle LWDA Total			3
TLD Logistics	Upper Cumberland	Cumberland County	25
Shiroki North America, Inc	Upper Cumberland	Dekalb County	1
Upper Cumberland LWDA Total			26
Grand Total for Middle Region			330

Source: TDLWD Apprenticeship Data

Table 38: Greater Memphis has Nearly 150 Apprenticeship Completers 2022 in the West Region

Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Chickasaw Electric Cooperative	Greater Memphis	Fayette County	3
Atlantic Track	Greater Memphis	Shelby County	1
G.I. Apprentice Inc	Greater Memphis	Shelby County	2
Greater Memphis Auto Dealers Association	Greater Memphis	Shelby County	11
International Union Of Elevator Constructors Local	Greater Memphis	Shelby County	10
IUOE Local 369 Training Fund	Greater Memphis	Shelby County	1
Memphis Asbestos JAC	Greater Memphis	Shelby County	5
Memphis Electrical JATC	Greater Memphis	Shelby County	30
Memphis Light, Gas, and Water	Greater Memphis	Shelby County	14
Memphis Plumbers JAC	Greater Memphis	Shelby County	9
Memphis Sheet Metal Workers JAC	Greater Memphis	Shelby County	3
Mid South Independent Electrical Contractors	Greater Memphis	Shelby County	22
Steamfitters Local Union 614 Joint Apprenticeship Training Program	Greater Memphis	Shelby County	18
West Tn Associated Builders & Contractor	Greater Memphis	Shelby County	2
Whitewater Protection	Greater Memphis	Shelby County	14
Y & W Technologies	Greater Memphis	Shelby County	2
Greater Memphis LWDA Total			147
Amteck	Northwest	Dyer County	3
Auston Mealers Equipment Services	Northwest	Dyer County	4
Dyersburg State Community College	Northwest	Dyer County	2
Alliance Staffing Group LLC	Northwest	Gibson County	1
Northwest Corrections	Northwest	Lake County	29
Weakley County Electric	Northwest	Weakley County	4
Northwest LWDA Total			43
Southwest Tennessee EMC	Southwest	Haywood County	3
Jackson Energy Authority	Southwest	Madison County	2
Tennessee College Of Applied Technology, Jackson	Southwest	Madison County	3
Southwest LWDA Total			8
Grand Total			198

Source: TDLWD Apprenticeship Data

Table 39 lists the occupations for which the apprentices completed training. The top occupations were electricians, pipe fitters, chemical operators, sheet metal workers, and carpenters. There were 17 occupations that had five or more completers that were not on the list in 2021, including elevator constructors, K-12 teachers, structural steel workers, two healthcare occupations (medical assistant and medical records technician) and several manufacturing technicians, likely responding to shortages of personnel in these areas.

Table 39: Electrician is the occupation for which most apprenticeships are completed

Apprenticeship Occupation Title	Number of Completers, 2022
Electrician (Alternate Title: Interior Electrician)	331
Pipe Fitter (Construction)	84
*Chemical Operator III	66
Sheet Metal Worker	62
Carpenter	55
*Elevator Constructor (Alternate Title: Elevator Constructor Mechanic)	33
Line Installer-Repairer	30
Plumber	30
Millwright	29
*K-12 Teacher	28
Nurse Assistant Certified (Existing Title: Nurse Assistant)	26
*Structural Steel Worker (Alternate Titles: Ironworker Or Structural Ironworker)	25
Truck Driver, Heavy	25
Line Erector (Power-Line Distribution Erector)	22
*Medical Assistant	22
*Electromechanical Technician	18
*Chemical Laboratory Technician	14
*Master Homeland Security Specialist	14
Composite Plastic Fabricator (Existing Title: Insulation Worker)	13
*Refinery Operator	13
Construction Craft Laborer	12
*Automotive Technician Specialist	11
*Refrigeration Mechanic (Any Ind)	11
Tool And Die Maker	11
*Industrial Manufacturing Technician	7
*Welder, Combination	7
*Machinist (Alternate Title: Precision Machinist)	6
Maintenance Repairer, Industrial	6
*Technical Sales Representative	6
Electrician, Maintenance	5
*Medical Record And Health Information Technician/Medical Coders	5
*Operating Engineer (Alternate Title: Heavy Construction Equipment Mechanic)	5
Electric Meter Repairer	4
Industrial Sewing Machine Operator	4
Machine Operator I	4
Metal Fabricator	4
Painter (Const)	4
Stamping Press Operator	4
Surgical Technologist	4
Automobile Mechanic (Alternate Title: Light-Wheel Vehicle Mechanic)	3
Cellar Worker (Wine)	3
Electrician, Powerhouse	3

Table 39, continued: Electrician is the occupation for which most apprenticeships are completed

Apprenticeship Occupation Title	Number of Completers, 2022
Heating, Ventilation, Air Conditioning (Ex. Tit: Heating&Air Cond. Inst/Ser)	3
Small Engine Mechanic	3
Chef De Partie (Cook Hotel & Restaurant)	2
Early Childhood Educator	2
Environmental Control Syst. Instal/Services (Hvac)	2
Heating & Air-Conditioner Install/Ser	2
Industrial Maintenance Mechanic	2
Maint Mechanic (Any Ind) (Alternate Title: Industrial Maintenance Mechanic)	2
Plater	2
Power-Plant Operator	2
Storage And Distribution Manager	2
Tool And Die Maker (Die Manufacturer)	2
Waste Treatment Operator	2
Wastewater-Treatmt - Plant Operator (Alternate Title: Water Treatment Specialist)	2
Wireless Technician	2
Bartender	1
Cable Splicer	1
Carpenter, Interior Systems (Alternate Title: Interior Systems Carpenter)	1
CDL Tractor Trailer / Tanker Operator	1
Cement Mason	1
Electrician	1
Electrician, Substation	1
Inspector, Building	1
IT Generalist	1
Maintenance Tech Municipal	1
Mechanical Engineering Technician	1
Mechatronics Technician	1
Meter Repairer (Any Ind)	1
Office Manager/Admin Services	1
Pipe Coverer & Insulator	1
Press Setup Operator - Stamping	1
Substation Operator	1
Grand Total	1118

*New occupation for 2022 with 5 or more completers
Source: TDLWD Apprenticeship Data

Emerging Industries and Conclusion

In 2021-2022, based on place of work, Tennessee employment grew by nearly 4.6 percent, a notable recovery from the pandemic. Nonfarm employment in 2022 averaged 3,244,800 jobs, which was 141,300 more jobs than in 2021. All of Tennessee's 10 MSAs had positive employment growth from 2021 to 2022. The Nashville MSA had the largest increase- 69,900 jobs.

Notably, for the state, growth in the goods-producing sector of 5.34 percent outpaced that of the private service-providing sector (5.03) as in-sourcing of manufacturing increased with billions of dollars in investment pouring into Tennessee. The growth in technology across many sectors contributed to the information industry being the most rapidly-growing sector in 2021-2022. Based on their historical growth, recent growth, employment size, projected growth, and for most, average weekly wages being above that of the state for 2022, seven industries were selected as top industries on which to focus employment services.

Spurring employment growth in the state are Tennessee's top industries, including:

- **Leisure & Hospitality** – The industry “Art, Entertainment and Recreation” is first in terms of the number of jobs expected (60%) to be added by 2030 and the industry “Accommodation and Food Services” is placed fourth in terms of projected job growth (36%).
- **Health care and social assistance** – The largest industry in 2020 and projected to be the largest in 2030, it ranks second in the number of jobs expected to be added by 2030.
- **Manufacturing** – Ranked second in employment, and fifth in employment growth in 2021-2022, it also ranked fifth in the number of jobs expected to be added by 2030.
- **Transportation, warehousing, and utilities** – ranked first in the percent growth of new jobs from 2017-2022, it also ranked fourth in the number of new jobs expected to be added by 2030.
- **Professional, scientific, and technical services** – Ranked second in new jobs added in the five-year period, and one of the top five industries in growth in 2021-2022.
- **Construction** – It was in the top three industries for growth of new jobs in the last five years and in new jobs added from 2021-2022.
- **Information** – The industry grew at the most rapid pace of any in Tennessee from 2021-2022 at more than 15 percent in employment.

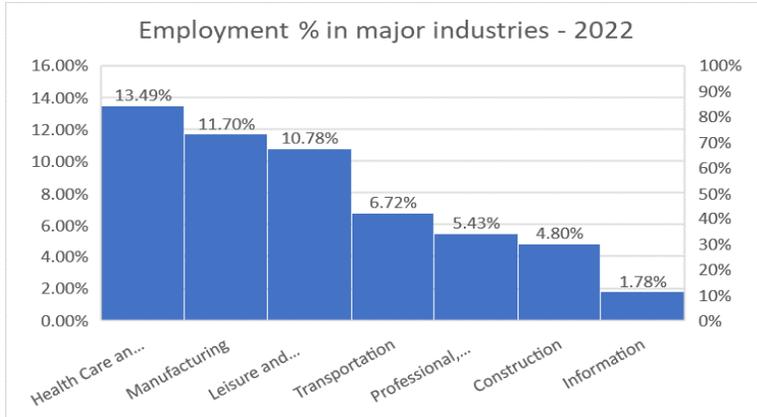


Figure 29

Source: TDLWD, TN QCEW Annual Averages, 2022

According to annual averages for 2022, these industries employ 54.7% of the total workforce. Health care and social assistance ranks first with a 13.5% market share, followed by manufacturing with an 11.7% market share and leisure and hospitality with a 10.78% market share.

Emerging Industries: Within each of the major industries, emerging industries were identified—those expected to have the highest growth rates between now and 2030. In the information industry, software publishers are expected to have the highest growth. Within health care and social assistance, residential facilities for substance abuse, mental health, and intellectual disability have the greatest growth rate as funds for treatment are increasing; with an aging population, more assisted living facilities are being developed. Manufacturing is forecast to have the highest growth in the electric vehicle and battery manufacturing industries. In construction, nonresidential building structures include hotels, medical facilities, and manufacturing plants, among others.

From 2015 to 2023, investment and employment in electric vehicles, electric vehicle battery employment, and battery components have boomed in the U.S., with announced investments of \$120.1 billion and 143,000 jobs. Tennessee, as one of the top 10 states, is the recipient of \$16.6 billion in announced investments, expected to create 18,300 jobs.¹ These and other clean tech investments will create jobs for electricians, mechanics, construction workers, technicians, support staff, engineers, chemists, and related jobs.

Many grants being awarded are now specifying that plans for workforce development in emerging and traditional occupations be included in grant applications,² with an emphasis on quality jobs and increasing equity in employment, encouraged by the U.S. Department of Labor.³ In a recent national survey, four of five employers in energy technologies industries reported “some difficulty” in finding qualified workers.

¹ Environmental Defense Fund, March 2023. US Electric Vehicle Manufacturing Investments and Jobs, p. 3. State-Electric-Vehicle-Policy-Landscape.pdf

² Kery Murakami (February 28, 2023). Feds to hand out \$39B to chip makers in workforce development subsidies. Route Fifty Feds to Hand Out \$39B to Chip Makers in Workforce Development Subsidies - Route Fifty (route-fifty.com)

³ Employment and Training Advisory System, U.S. Department of Labor, Washington, D.C. January 18, 2023. Training and Employment Guidance Letter No. 07-22. <https://www.dol.gov/agencies/eta/advisories/tegl-07-22>

Occupational Shortages: The Tennessee Hospital Association released a report in October 2022¹ stating that the changing demographics of the population in Tennessee will not only increase the demand for health care, but also make it more difficult to recruit and retain enough health care workers to meet the demand. While they project overall population growth will be 9.7 percent during that time, the population of 65- to-74-year-olds will increase by 13.3 percent and those 75 and older by 54.1 percent.

They report current shortages include registered nurses, respiratory therapists, medical laboratory technologists and technicians, and emergency medical technicians. The number of social workers being trained is adequate, but low pay is creating problems with retention.

The significant occupational shortages section of this report lists occupations at every level- high school, postsecondary training from certificate to associate's degree, and bachelor's degree occupations for which large gaps exist between the number of job openings listed on jobs4tn and the number of resumes currently in the system. In addition, the media and school districts report many unfilled positions for elementary and secondary teachers for which accurate numbers are not available.

The appendix to this report lists by East, Middle, and West Region occupations in demand alphabetically by job title. This list was developed by a collaboration of the Tennessee Departments of Labor and Workforce Development, Education, Economic and Community Development, and the Tennessee Higher Education Commission. The criteria for developing this list can be found in the related publication *Improving the Pipeline for Tennessee's Workforce* (March 2023) <https://www.tn.gov/content/tn/thec/research/supply-and-demand.html>.

With Tennessee's growth comes the challenge of filling the current and emerging gaps in its workforce. Tennessee's labor force participation rate is lower than that of the U.S. Governor Lee's goal is to increase the labor force participation rate to 62 percent by 2024, encompassing a variety of initiatives across the state. This dashboard [Labor Force Participation Analysis \(tn.gov\)](#) tracks those results monthly as the workforce system acts to reduce barriers to employment in each region needed to sustain growth.

¹ Tennessee Hospital Association (October 2022). Health Workforce Projections 2021-2035.

Appendix: Occupations in Demand by Region 2022

Occupation Title	West	Middle	East
Accountants and Auditors	X	X	X
Administrative Services Managers	X	X	
Advertising Sales Agents	X	X	X
Agricultural Equipment Operators	X		
Architectural and Civil Drafters	X		X
Architectural and Engineering Managers	X	X	
Art Directors		X	
Audio and Video Technicians		X	
Automotive Body and Related Repairers	X	X	X
Automotive Service Technicians and Mechanics	X	X	X
Bakers		X	X
Bill and Account Collectors	X	X	X
Billing and Posting Clerks	X	X	X
Bookkeeping, Accounting, and Auditing Clerks	X	X	X
Brickmasons and Blockmasons		X	X
Bus and Truck Mechanics and Diesel Engine Specialists	X	X	X
Bus Drivers, Transit and Intercity	X		X
Butchers and Meat Cutters	X	X	
Buyers and Purchasing Agents	X	X	X
Cabinetmakers and Bench Carpenters		X	X
Captains, Mates, and Pilots of Water Vessels	X		
Career/Technical Education Teachers, Postsecondary	X	X	
Cargo and Freight Agents			X
Carpenters	X	X	X
Cement Masons and Concrete Finishers	X	X	X
Chefs and Head Cooks	X	X	X
Chemical Technicians	X		
Chemists	X		X
Chief Executives	X	X	X
Child, Family, and School Social Workers			X
Civil Engineers	X	X	X
Claims Adjusters, Examiners, and Investigators	X		X
Clinical Laboratory Technologists and Technicians	X	X	X
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	X	X	X
Compensation, Benefits, and Job Analysis Specialists	X	X	
Compliance Officers	X		
Computer and Information Systems Managers	X	X	
Computer Network Architects	X	X	X
Computer Network Support Specialists		X	
Computer Numerically Controlled Tool Operators	X	X	X
Computer Occupations, All Other		X	
Computer Programmers	X	X	X

Occupation Title	West	Middle	East
Computer Systems Analysts	X	X	X
Computer User Support Specialists	X	X	X
Computer, Automated Teller, and Office Machine Repairers	X		X
Construction and Building Inspectors	X	X	X
Construction Laborers	X	X	X
Construction Managers	X	X	X
Conveyor Operators and Tenders	X		
Correctional Officers and Jailers	X	X	
Cost Estimators	X	X	X
Counselors, All Other			X
Credit Analysts (Tennessee only)			
Crossing Guards and Flaggers	X	X	
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders		X	
Customer Service Representatives	X	X	X
Cutting and Slicing Machine Setters, Operators, and Tenders	X	X	X
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	X		X
Data Entry Keyers	X	X	X
Database Administrators	X	X	X
Dental Assistants	X	X	X
Dental Hygienists	X	X	X
Diagnostic Medical Sonographers	X	X	X
Dietitians and Nutritionists	X		
Dispatchers, Except Police, Fire, and Ambulance	X	X	X
Editors		X	X
Education Administrators, Postsecondary	X	X	X
Educational, Guidance, and Career Counselors and Advisors	X	X	X
Electrical and Electronic Engineering Technologists and Technicians	X	X	X
Electrical and Electronics Repairers, Commercial and Industrial Equipment	X	X	X
Electrical Engineers	X	X	X
Electrical Power-Line Installers and Repairers	X		X
Electricians	X	X	X
Emergency Medical Technicians	X	X	X
Engineering Technologists and Technicians, Except Drafters, All Other			X
Engineers, All Other	X		X
Executive Secretaries and Executive Administrative Assistants	X	X	X
Exercise Trainers and Group Fitness Instructors	X	X	X
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic		X	
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers			X
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders			X
Facilities Managers		X	X
Fiberglass Laminators and Fabricators			X
File Clerks	X		X

Occupation Title	West	Middle	East
Financial and Investment Analysts	X	X	X
Financial Managers	X	X	X
Financial Risk Specialists		X	
First-Line Supervisors of Construction Trades and Extraction Workers	X	X	X
First-Line Supervisors of Firefighting and Prevention Workers			X
First-Line Supervisors of Food Preparation and Serving Workers	X	X	X
First-Line Supervisors of Housekeeping and Janitorial Workers	X	X	X
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	X	X	X
First-Line Supervisors of Mechanics, Installers, and Repairers	X	X	X
First-Line Supervisors of Non-Retail Sales Workers		X	
First-Line Supervisors of Office and Administrative Support Workers	X	X	X
First-Line Supervisors of Personal Service Workers	X	X	X
First-Line Supervisors of Production and Operating Workers	X	X	X
First-Line Supervisors of Retail Sales Workers	X	X	X
First-Line Supervisors of Security Workers	X		X
Food Batchmakers	X	X	X
Food Processing Workers, All Other	X		X
Food Service Managers	X	X	X
Forging Machine Setters, Operators, and Tenders, Metal and Plastic	X		
Foundry Mold and Coremakers			X
General and Operations Managers	X	X	X
Glaziers		X	
Graders and Sorters, Agricultural Products	X		
Graphic Designers	X	X	X
Grinding, Polishing, etc. Machine Tool Setters, Operators, and Tenders, Metal and Plastic	X		X
Hairdressers, Hairstylists, and Cosmetologists		X	
Health Education Specialists			X
Health Technologists and Technicians, All Other	X		
Healthcare Social Workers	X	X	X
Healthcare Support Workers, All Other	X	X	X
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic		X	
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	X	X	X
Heavy and Tractor-Trailer Truck Drivers	X	X	X
Helpers--Carpenters	X		
Helpers--Electricians	X	X	X
Helpers--Installation, Maintenance, and Repair Workers	X	X	
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	X	X	X
Helpers--Production Workers	X	X	X
Human Resources Assistants, Except Payroll and Timekeeping	X	X	X
Human Resources Managers	X	X	X
Human Resources Specialists	X	X	X
Industrial Engineering Technologists and Technicians	X		X

Occupation Title	West	Middle	East
Industrial Engineers	X	X	
Industrial Machinery Mechanics	X	X	
Industrial Production Managers	X		
Industrial Truck and Tractor Operators	X	X	X
Information and Record Clerks, All Other		X	
Information Security Analysts	X	X	X
Inspectors, Testers, Sorters, Samplers, and Weighers	X	X	X
Installation, Maintenance, and Repair Workers, All Other	X	X	X
Insurance Sales Agents	X	X	X
Interior Designers		X	
Interviewers, Except Eligibility and Loan	X	X	X
Laborers and Freight, Stock, and Material Movers, Hand	X	X	X
Landscaping and Groundskeeping Workers	X	X	X
Lawyers	X		X
Librarians and Media Collections Specialists	X	X	X
Licensed Practical and Licensed Vocational Nurses	X	X	X
Life, Physical, and Social Science Technicians, All Other	X		
Light Truck Drivers	X	X	
Loan Interviewers and Clerks	X	X	X
Loan Officers	X	X	
Lodging Managers		X	X
Logging Equipment Operators		X	
Logisticians	X	X	X
Machine Feeders and Offbearers		X	X
Machinists	X	X	X
Maintenance and Repair Workers, General	X	X	X
Maintenance Workers, Machinery	X		
Management Analysts	X	X	X
Market Research Analysts and Marketing Specialists	X	X	X
Marketing Managers	X		X
Marriage and Family Therapists			X
Massage Therapists	X	X	X
Meat, Poultry, and Fish Cutters and Trimmers	X		
Mechanical Engineers	X	X	X
Medical and Health Services Managers	X	X	X
Medical Assistants	X	X	X
Medical Equipment Preparers			X
Medical Records Specialists	X	X	X
Medical Scientists, Except Epidemiologists			X
Medical Secretaries and Administrative Assistants	X		
Meeting, Convention, and Event Planners		X	X
Mental Health and Substance Abuse Social Workers	X		

Occupation Title	West	Middle	East
Merchandise Displayers and Window Trimmers	X	X	X
Metal Workers and Plastic Workers, All Other	X	X	X
Millwrights	X		X
Miscellaneous Construction and Related Workers (Tennessee only)			
Mixing and Blending Machine Setters, Operators, and Tenders	X	X	X
Mobile Heavy Equipment Mechanics, Except Engines	X	X	X
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	X	X	
Motor Vehicle Operators, All Other	X		
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	X	X	
Musicians and Singers		X	
Network and Computer Systems Administrators	X	X	X
New Accounts Clerks	X		
Nurse Anesthetists		X	
Nurse Practitioners	X	X	
Occupational Health and Safety Specialists	X		
Occupational Therapists	X	X	
Occupational Therapy Assistants		X	X
Office and Administrative Support Workers, All Other	X		X
Office Clerks, General	X	X	X
Operating Engineers and Other Construction Equipment Operators	X	X	X
Operations Research Analysts	X	X	X
Ophthalmic Medical Technicians		X	
Opticians, Dispensing	X	X	
Order Clerks		X	X
Outdoor Power Equipment and Other Small Engine Mechanics		X	
Packaging and Filling Machine Operators and Tenders	X	X	X
Packers and Packagers, Hand	X	X	
Painters, Construction and Maintenance	X	X	X
Paralegals and Legal Assistants	X		X
Parts Salespersons	X		
Paving, Surfacing, and Tamping Equipment Operators		X	X
Payroll and Timekeeping Clerks	X	X	X
Personal Financial Advisors	X	X	X
Pest Control Workers	X	X	X
Pesticide Handlers, Sprayers, and Applicators, Vegetation	X		
Pharmacy Technicians	X	X	X
Phlebotomists	X	X	X
Physical Therapist Assistants	X	X	X
Physical Therapists	X	X	
Physician Assistants	X	X	X
Physicians, All Other		X	
Pipelayers	X		X

Occupation Title	West	Middle	East
Plumbers, Pipefitters, and Steamfitters	X	X	X
Postal Service Clerks		X	X
Postal Service Mail Carriers	X		
Power Plant Operators		X	X
Prepress Technicians and Workers		X	
Preschool Teachers, Except Special Education	X	X	X
Print Binding and Finishing Workers	X		
Printing Press Operators	X	X	X
Probation Officers and Correctional Treatment Specialists	X		
Procurement Clerks (Tennessee only)			
Producers and Directors		X	
Production Workers, All Other	X	X	X
Production, Planning, and Expediting Clerks	X	X	X
Project Management Specialists	X	X	X
Property, Real Estate, and Community Association Managers	X	X	X
Protective Service Workers, All Other	X	X	X
Public Relations Specialists	X	X	X
Purchasing Managers	X		X
Radiologic Technologists and Technicians	X		
Real Estate Sales Agents	X		X
Refuse and Recyclable Material Collectors	X		
Registered Nurses	X		
Reservation and Transportation Ticket Agents and Travel Clerks		X	
Respiratory Therapists	X	X	X
Roofers	X	X	X
Sales Managers			X
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	X		X
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	X	X	X
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products		X	X
Sawing Machine Setters, Operators, and Tenders, Wood	X	X	X
School Bus Monitors		X	
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	X	X	X
Securities, Commodities, and Financial Services Sales Agents	X		X
Security and Fire Alarm Systems Installers	X	X	
Security Guards	X	X	X
Self-Enrichment Teachers			X
Sewing Machine Operators	X		
Sheet Metal Workers	X	X	X
Shipping, Receiving, and Inventory Clerks	X	X	X
Social and Community Service Managers	X	X	X
Social and Human Service Assistants	X	X	X
Software Developers	X	X	X

Occupation Title	West	Middle	East
Software Quality Assurance Analysts and Testers	X	X	
Speech-Language Pathologists	X	X	X
Structural Iron and Steel Workers		X	X
Structural Metal Fabricators and Fitters			X
Surgical Technologists	X	X	X
Surveying and Mapping Technicians			X
Tax Preparers	X		
Telecommunications Equipment Installers and Repairers, Except Line Installers	X	X	X
Telecommunications Line Installers and Repairers		X	X
Tellers		X	
Tool and Die Makers	X		
Training and Development Managers		X	
Training and Development Specialists	X	X	X
Transportation, Storage, and Distribution Managers	X	X	X
Tree Trimmers and Pruners	X		
Upholsterers			X
Veterinarians		X	X
Veterinary Assistants and Laboratory Animal Caretakers		X	
Veterinary Technologists and Technicians	X		X
Water and Wastewater Treatment Plant and System Operators	X	X	X
Web Developers (Tennessee only)			
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	X		
Welders, Cutters, Solderers, and Brazers	X	X	X
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	X		X
Woodworkers, All Other			X
Woodworking Machine Setters, Operators, and Tenders, Except Sawing			X

Definition of Occupations in Demand in a Region

These lists of occupations in demand by region were developed using data from the Tennessee Departments of Labor and Workforce Development and Economic and Community Development for the publication *Improving the Pipeline for Tennessee's Workforce 2023*: <https://www.tn.gov/content/tn/thec/research/supply-and-demand.html>

Methodology: Occupations must meet the following thresholds for wages and employment:

- **Median Wage:** To encourage job creation and skill development in high-quality jobs, occupations must meet a minimum median wage threshold. All occupations identified as in demand have a median wage which is at least 80 percent of the median wage for the LWDA.
- **Employment:** Additionally, to prevent reporting positions with very low employment levels as in-demand, occupations must meet a minimum employment threshold of 0.04 percent of an LWDA's total employment.

Ratios to identify demand: To measure jobs with high employer demand, postings, openings, and hires for an occupation were analyzed relative to the total number of individuals employed in the occupation within each LWDA. Occupations which meet at least two of these three requirements are identified as having high employer demand:

- **The ratio of job openings** (2021) to the number of individuals employed in an occupation is greater than or equal to the median ratio for all occupations in the region.
- **The ratio of hires** (2021) to the number of individuals employed in an occupation is greater than or equal to the median ratio for all occupations in the region.
- **The ratio of projected annual job openings** from 2020 to 2030 for the state and 2018-2028 for the LWDAs to employment for an occupation is greater than or equal to the median ratio for all occupations in the LWDA.

Regional Demand: An occupation was considered in demand in a region if it was in demand in at least one LWDA in the region.

Data Sources: TDLWD: Occupational Employment and Wages Survey (OEWS), TN and LWDAs, 2021; Long-Term Employment Projections, TN (2020-2030) and LWDAs (2018-2028) (jobs4tn.gov); annual job openings by occupation 2021 (jobs4tn.gov); TNECD (EMSI), 2021.

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