

Apprenticeships

Since 2019 when the apprenticeship office was established in TDLWD, the number of apprenticeship completers has been steadily increasing; from 2020 (981) to 2023 (1,174). The variety of apprenticeships available is also greater; in 2023 there were apprenticeship completers in 86 different programs. The West Region has increased its percentage of completers to one in every five apprenticeships, adding 45 more completers over the year. The sponsors and the number of completers in each region and the LWDA's within each region are shown in Tables 36-38.

Table 39 lists the occupations for which the apprentices completed training. The top occupations in 2023 were electricians, pipe fitters (construction), chemical operators, sheet metal workers, and carpenters. There were nine occupations that had five or more completers that were not on the list in 2022. New programs with more than five completers included two in medical, two in computer science, and several in production and building maintenance occupations (indicated by a * by the title) responding to personnel shortages in these areas.

Table 36: East Region Apprenticeships

Table 36 East Region Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Consolidated Nuclear Security, LLC	East	Anderson County	7
Eagle Bend Manufacturing	East	Anderson County	2
Oak Ridge Electric JATC	East	Anderson County	55
Massey Construction, Inc.	East	Blount County	18
Tennessee Valley Youth Apprenticeships	East	Blount County	2
Walters State Community College	East	Hamblen County	33
Oshkosh Manufacturing LLC	East	Jefferson County	4
Electrician Training Academy Knoxville	East	Knox County	19
Funderburk Electrical Services	East	Knox County	8
Insulators Local 46 JATC	East	Knox County	10
Knoxville Area Sheet Metal Jac	East	Knox County	6
Knoxville Ironworkers Jac	East	Knox County	14
Knoxville Laborers JATC	East	Knox County	5
Knoxville Plumbers & Steamfitters JATC	East	Knox County	32
Knoxville Plumbing Heating Air Conditioning Cont	East	Knox County	6
North Knoxville Chrysler Dodge Jeep Ram	East	Knox County	1
Pellissippi State Community College	East	Knox County	2
Resource Valley	East	Knox County	20
Shoffnerkalthoff,Mes	East	Knox County	15
The University Of Tennessee Knoxville	East	Knox County	5
Dienamic Tooling System Inc	East	Roane County	4
East Tennessee Total			268
Parker Hannifin - Motion Systems Group - Pump & Motor Division	Northeast	Greene County	2
Holston Electric Co	Northeast	Hawkins County	3
Mountain Electric Cooperative	Northeast	Johnson County	2
Allen Brothers Construction	Northeast	Sullivan County	2
Eastman Chemical Co. - Coal Gas Division	Northeast	Sullivan County	4
Eastman Chemical Co. - Tn Operations	Northeast	Sullivan County	101
Northeast State Community College/Rcam	Northeast	Sullivan County	9
Primester	Northeast	Sullivan County	1
Tri-Cities Electrical JATC	Northeast	Sullivan County	2
Nuclear Fuel Services	Northeast	Unicoi County	1
Ao Smith	Northeast	Washington County	2
Plumber And Pipefitters, Local Union 538 JATC	Northeast	Washington County	6
Northeast Total			135

Table 36 East Region Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Basf	Southeast	Hamilton County	2
Chattanooga Electrical JATC	Southeast	Hamilton County	79
Chattanooga Ironworkers Jac	Southeast	Hamilton County	5
Chattanooga State Community College	Southeast	Hamilton County	8
Chattanooga State Community College (Westrock)	Southeast	Hamilton County	1
Gestamp Chattanooga, LLC	Southeast	Hamilton County	1
Tennessee Carpenters Regional Council J.A.T.C.	Southeast	Hamilton County	67
Tennessee Millwrights Regional Council JATC Local 1554	Southeast	Hamilton County	3
Ua Local 43 Plumbers Steamfitters JATC	Southeast	Hamilton County	28
Operating Engineers Local No. 917 Apprenticeship & Training Fund	Southeast	McMinn County	3
Southeast Total			197
Grand Total for East Region			600

Table 37: Middle Region Apprenticeships

Table 37: Middle Region: Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Abec Electric Company, LLC	Northern Middle	Davidson County	9
Asurion	Northern Middle	Davidson County	8
Dixon Management Group, LLC	Northern Middle	Davidson County	9
Elevator Constructors Local 93	Northern Middle	Davidson County	10
Fast Electrical Contractors, Inc.	Northern Middle	Davidson County	2
Harlan Electric	Northern Middle	Davidson County	2
Heat & Frost Insulators Local# 86 JATC	Northern Middle	Davidson County	3
John Bouchard & Sons Co.	Northern Middle	Davidson County	3
Nashville Electric Service	Northern Middle	Davidson County	10
Nashville Electrical JATC	Northern Middle	Davidson County	4
Nashville Ironworkers	Northern Middle	Davidson County	15
Nashville Plumbers And Pipefitters	Northern Middle	Davidson County	33
Nashville Sheetmetal JATC	Northern Middle	Davidson County	28
Nashville State Community College	Northern Middle	Davidson County	1
Next Steps At Vanderbilt University	Northern Middle	Davidson County	1
Specialty Care	Northern Middle	Davidson County	30
Stansell Electric Apprenticeship Training Program	Northern Middle	Davidson County	8
Summit Fire And Safety	Northern Middle	Davidson County	1
Tennessee College Of Applied Technology-Nashville	Northern Middle	Davidson County	15
Tennessee Department Of Education	Northern Middle	Davidson County	30
The Quiltss Institute	Northern Middle	Davidson County	3
Travis Electric Co	Northern Middle	Davidson County	3
City Light & Power, Inc.	Northern Middle	Montgomery County	2
Cumberland Electric Membership Corporation	Northern Middle	Montgomery County	2
Tennessee College Of Applied Technology Dickson	Northern Middle	Montgomery County	1
Fletchline Electrical Service, LLC	Northern Middle	Robertson County	1
Hatch Stamping Company	Northern Middle	Robertson County	1
M&M Electrical Contractor, Inc	Northern Middle	Robertson County	2
Cleopatra Electric Corp	Northern Middle	Rutherford County	1
IEC Middle Tennessee, Inc	Northern Middle	Rutherford County	2
Middle Tennessee Electric Membership Cooperative	Northern Middle	Rutherford County	6
NHC Healthcare Corporate	Northern Middle	Rutherford County	4
Tennessee Association Of Utility Districts	Northern Middle	Rutherford County	2
Tennessee College Of Applied Technology Murfreesboro	Northern Middle	Rutherford County	5
ITW Stamptech Fasteners	Northern Middle	Sumner County	1
North American Stamping Group	Northern Middle	Sumner County	11
Wil-Ro, Inc.	Northern Middle	Sumner County	1

Table 37: Middle Region: Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Hamilton-Ryker Talentgro	Northern Middle	Williamson County	17
Lee Company	Northern Middle	Williamson County	1
Wasdgap,LLC Dba Honest 1 Auto Care Spring Hill	Northern Middle	Williamson County	2
Northern Middle Total			290
Micro Craft, Inc.	Southern Middle	Coffee County	1
Markus Insurance Agency, Inc	Southern Middle	Lawrence County	1
Southern Middle Total			2
TDS Disposal, LLC.	Upper Cumberland	Clay County	2
TLD Logistics	Upper Cumberland	Cumberland County	22
Smithville Electric System	Upper Cumberland	DeKalb County	1
Mountain Barn Builders, LLC	Upper Cumberland	Fentress County	2
Live Loxx, LLC	Upper Cumberland	Putnam County	3
My Father's Mustache	Upper Cumberland	Putnam County	9
Upper Cumberland Total			39
Grand Total for Middle Region			331

Table 38: West Region Apprenticeships

Program Sponsor Name	LWDA	Program Sponsor County	Number of Completers
Medegen Medical Products	Greater Memphis	Fayette County	2
Atlantic Track	Greater Memphis	Shelby County	6
Divine Electrical, Inc	Greater Memphis	Shelby County	4
Dobbs Technical Institute	Greater Memphis	Shelby County	1
Environmental Technical Services	Greater Memphis	Shelby County	1
G.I. Apprentice Inc	Greater Memphis	Shelby County	1
Greater Memphis Auto Dealers Association	Greater Memphis	Shelby County	18
International Union Of Elevator Constructors Local	Greater Memphis	Shelby County	9
IUOE Local 369 Training Fund	Greater Memphis	Shelby County	2
Memphis Electrical JATC	Greater Memphis	Shelby County	25
Memphis Ironworkers JAC	Greater Memphis	Shelby County	5
Memphis Light, Gas, And Water	Greater Memphis	Shelby County	22
Memphis Plumbers JAC	Greater Memphis	Shelby County	9
Memphis Sheet Metal Workers JAC	Greater Memphis	Shelby County	10
Mid South Independent Electrical Contractors	Greater Memphis	Shelby County	32
National Hardwood Lumber Association	Greater Memphis	Shelby County	1
Persevere	Greater Memphis	Shelby County	2
Progeny Place	Greater Memphis	Shelby County	2
Steamfitters Local Union 614 Joint Apprenticeship Training Program	Greater Memphis	Shelby County	21
West Tn Associated Builders & Contractors	Greater Memphis	Shelby County	5
Whitewater Protection	Greater Memphis	Shelby County	33
Wright Now LLC - Career & Technical School	Greater Memphis	Shelby County	4
Greater Memphis Total			215
Amteck	Northwest	Dyer County	4
Auston Mealers Equipment Services	Northwest	Dyer County	2
Dyersburg State Community College	Northwest	Dyer County	1
Tencom Services	Northwest	Dyer County	1
Alliance Staffing Group LLC	Northwest	Gibson County	1
Northwest Total			9
Rural Health Association Of Tennessee	Southwest	Decatur County	6
Hair Expressions	Southwest	Hardeman County	1
Southwest Tennessee EMC	Southwest	Haywood County	1
Tennessee College Of Applied Technology, Jackson	Southwest	Madison County	11
Southwest Total			19
Grand Total for West Region			243

Table 39: State Apprenticeship Completers by Occupation

Apprenticeship Occupation Title	Number of Completers 2023
Electrician (Alternate Title: Interior Electrician)	318
Pipe Fitter (Construction)	95
Chemical Operator III	57
Sheet Metal Worker	47
Carpenter	46
Plumber	43
Structural Steel Worker (Alternate Titles: Ironworker or Structural Ironworker)	39
Master Homeland Security Specialist	33
K-12 Teacher	30
Surgical Technologist	30
Millwright	29
Line Installer-Repairer	27
Truck Driver, Heavy	24
Electromechanical Technician	22
Automotive Technician Specialist	21
Elevator Constructor (Alternate Title: Elevator Constructor Mechanic)	19
Medical Assistant	18
Electrician	16
Nurse Assistant Certified (Existing Title: Nurse Assistant)	16
CNC Operator And Programmer	14
Tool And Die Maker	13
Composite Plastic Fabricator (Existing Title: Insulation Worker)	11
Hair Stylist (Existing Title: Cosmetologist)	10
Chemical Laboratory Technician	9
CNC Set-Up Programmer - Milling And Turning	9
Press Setup Operator - Stamping	8
Application Developer	7
Power-Plant Operator	7
Construction Craft Laborer	6
Electronic Systems Tech	6
Line Erector (Power-Line Distribution Erector)	6
Building Maintenance Repairer (Ex. Title: Maintenance Repairer, Building)	5
Heating & Air-Conditioner Install/Ser	5
Industrial Manufacturing Technician	5
Maint Mechanic (Any Ind) (Alternate Title: Industrial Maintenance Mechanic)	5
Mechatronics Technician	5
Nurse, Licensed Practical	5
Operating Engineer (Alternate Title: Heavy Construction Equipment Mechanic)	5
Project Manager	5

Apprenticeship Occupation Title	Number of Completers 2023
Welder, Combination	5
Administrative Assistant	4
Assembler, Metal Building	4
Heating & Air Conditioning Mechanic & Installer	4
Home Performance Laborer (Residential)	4
Maintenance Repairer, Industrial	4
Metal Fabricator	4
Refinery Operator	4
Home Health Aide	3
It Generalist	3
Machinist (Alternate Title: Precision Machinist)	3
Stamping Press Operator	3
User Experience Designer	3
Workforce Development Specialist	3
Cable Splicer	2
Commercial Transport Driver, Propane	2
Community Health Worker	2
Heating, Ventilation, Air Conditioning (Ex. Title: Heating & Air Conditioning Installer/Service)	2
Heavy And Tractor Trailer Truck Driver	2
Industrial Maintenance Mechanic	2
Line Maintainer (Alternate Title: High Voltage Electrician)	2
Machine Operator I	2
Manicurist	2
Pipe Coverer & Insulator	2
Pipeline Operations Technician	2
Refrigeration Mechanic (Any Ind)	2
Tree Trimmer (Line Clear)	2
Waste Treatment Operator	2
Automotive Mechanic (Existing Title: Automobile Mechanic)	1
Barber	1
Bricklayer (Construction)	1
Carpenter, Interior Systems (Alternate Title: Interior Systems Carpenter)	1
Cellar Worker (Wine)	1
Chef De Partie (Cook Hotel & Restaurant)	1
Die Manufacturer	1
Die Setter (Forging)	1
Early Childhood Educator	1
Electric Meter Repairer	1
Electrician, Substation	1
General Insurance Associate	1

Apprenticeship Occupation Title	Number of Completers 2023
Inspector, Building	1
Inspector, Outside Product	1
Stationary Engineer	1
Street-Light Servicer	1
Transformer Repairer	1
Wastewater-Treatmt - Plant Operator (Alternate Title: Water Treatment Specialist)	1
Water Systems Operation Specialist	1

Conclusion

Tennessee's annual average industry growth in 2022-2023 was 1.8 percent, creating more than 57,000 jobs. Private service-providing jobs increased slightly faster (1.9 percent), bolstering overall growth, while goods-producing jobs (primarily manufacturing and construction) grew by 1.2 percent. Employment growth was not evenly distributed across the state; employment by place of work decreased by one percent in the West Region; grew by 3.3 percent in the Middle Region; and increased by 2.2 percent in the East Region. Employment in all the state's MSAs increased except in the Memphis MSA.

The top industries in the state are listed on page 2 of this report. Among the largest industries in the state in all three regions were health care and social assistance, manufacturing, educational services, and retail trade; the Middle and West regions also had large transportation, warehousing, and utilities industries, with the Middle and East having large accommodation and food service/leisure and hospitality sectors. The industries adding the most jobs in the state from 2018 to 2023 were transportation, warehousing, and utilities, adding 34,000 jobs and most prominent in the West and Middle Regions; professional, scientific, and technical industries, adding 33,000 jobs and more prominent in the Middle and East Regions; and information, adding 10,000 jobs, with more than half of jobs in the Middle Region. The West and Middle Regions also had large job gains in health care and social assistance and construction, and the East in manufacturing.

Spurring development in the advanced energy and advanced manufacturing industries is investment in electric vehicles, batteries, and parts, EV charging infrastructure, energy efficiency, renewable energy production, especially solar; and advanced nuclear sectors, with Tennessee being one of the top 10 states for investment in electric vehicles, electric batteries, and battery components. Although purchases of electric vehicles are increasing especially in the U.S., consumer demand is not at a level to sustain profit margins expected by auto producers so product redesign is underway in the industry. The growth of artificial intelligence and the construction of data centers is another factor which requires further electrification in the state. A new innovative solution for data centers is to tap into geothermal energy, another renewable source.

Occupational shortages in the new manufacturing technology, health care and social assistance, construction, and digital technology and communications workforces are requiring new approaches to workforce development that are creating partnerships for recruitment, hiring, skill and credential development and social supports that can bring individuals with barriers to employment into the workforce and help sustain them there.

The Solar Census 2023 report by the Interstate Renewal Energy Council (IREC) found that Tennessee had 5,199 solar jobs in 2023, with 852 added over the year (a growth rate of nearly 20 percent) and projected 7.4 percent growth rate in 2024.³⁵ In a national survey of solar employers,

29 percent said it was very difficult to hire solar workers, especially electricians and engineers and those with skills and knowledge relating to battery storage.³⁶ Registered apprenticeships and a variety of on-the-job training programs can help reduce these shortages. Solar companies have been successful in hiring young workers and veterans; they have found partnerships with high schools and vocational schools in their communities are strategies that are increasing employment of women and people of color.

Improving Labor Force Participation Rates

New strategies are needed to improve labor force participation rates in Tennessee, which have continually lagged the national rate; the governor's goal is 63 percent. Significant improvements were made in the Southwest and Greater Memphis LWDAs over the year. In the Middle Region, the only LWDA with a labor force participation rate higher than the state was the Northern Middle, at 67 percent. The LFPRs in the East Region remain about three percentage points below the state rate.

LFPR increases will require continuous job growth in urban and rural areas, and filling in-demand jobs to provide employers with the skilled workforce they need. For the nation, the labor force participation rate of prime age working women, especially mothers with young children, was the highest ever in 2023 but started to roll back in 2024, partly due to lack of day care resources and their high cost. In response, the Biden-Harris administration awarded \$8 million through the Appalachian Regional Commission (ARC) to the Save the Children Federation to enlarge the childcare and early education workforce in Tennessee, Kentucky, and West Virginia.³⁷ Methods will include training, apprenticeships, credentialing, and technical assistance. Strategies in the state to support prime age working women to continue their high LFPRs are needed.

The state needs to step up its strategies to increase the educational attainment of low-income people, especially women and minorities. Other successful strategies include expanding health insurance to low-income families. Improving workers' health, keeping them on the job, and integrating individuals with health limitations into the job market through vocational rehabilitation and other services has reduced declining LFPRs in some counties. Younger workers and those with less job experience may need a variety of social supports such as mentorship, basic income, transportation, and educational remediation. The goal is to build a workforce system that allows labor force participants to gain the skills, abilities and supports to obtain and retain jobs that provide living wages and allow them to gain resilience and sustain their families.

Endnotes

³⁵Interstate Renewable Energy Council (IREC). <https://irecusa.org/Tennessee-solar-and-clean-energy-jobs>

³⁶<https://irecusa.org/programs/solar-jobs-census.org>

³⁷<https://www.arc.gov/wp-content/uploads/2024/08/2024.09-arise-project-snapshot-save-the-children-federation-inc.pdf>

Appendix

Regions, LWDAs, and County Alignments

Region	LWDA Title	County Name
EAST	East Tennessee	Anderson County
EAST	East Tennessee	Blount County
EAST	East Tennessee	Campbell County
EAST	East Tennessee	Claiborne County
EAST	East Tennessee	Cocke County
EAST	East Tennessee	Grainger County
EAST	East Tennessee	Hamblen County
EAST	East Tennessee	Jefferson County
EAST	East Tennessee	Knox County
EAST	East Tennessee	Loudon County
EAST	East Tennessee	Monroe County
EAST	East Tennessee	Morgan County
EAST	East Tennessee	Roane County
EAST	East Tennessee	Scott County
EAST	East Tennessee	Sevier County
EAST	East Tennessee	Union County
EAST	Northeast TN	Carter County
EAST	Northeast TN	Greene County
EAST	Northeast TN	Hancock County
EAST	Northeast TN	Hawkins County
EAST	Northeast TN	Johnson County
EAST	Northeast TN	Sullivan County
EAST	Northeast TN	Unicoi County
EAST	Northeast TN	Washington County
EAST	Southeast TN	Bledsoe County
EAST	Southeast TN	Bradley County
EAST	Southeast TN	Grundy County
EAST	Southeast TN	Hamilton County
EAST	Southeast TN	Marion County

Region	LWDA Title	County Name
EAST	Southeast TN	McMinn County
EAST	Southeast TN	Meigs County
EAST	Southeast TN	Polk County
EAST	Southeast TN	Rhea County
EAST	Southeast TN	Sequatchie County
MIDDLE	Northern Mid. TN	Cheatham County
MIDDLE	Northern Mid. TN	Davidson County
MIDDLE	Northern Mid. TN	Dickson County
MIDDLE	Northern Mid. TN	Houston County
MIDDLE	Northern Mid. TN	Humphreys County
MIDDLE	Northern Mid. TN	Montgomery County
MIDDLE	Northern Mid. TN	Robertson County
MIDDLE	Northern Mid. TN	Rutherford County
MIDDLE	Northern Mid. TN	Stewart County
MIDDLE	Northern Mid. TN	Sumner County
MIDDLE	Northern Mid. TN	Trousdale County
MIDDLE	Northern Mid. TN	Williamson County
MIDDLE	Northern Mid. TN	Wilson County
MIDDLE	Southern Mid. TN	Bedford County
MIDDLE	Southern Mid. TN	Coffee County
MIDDLE	Southern Mid. TN	Franklin County
MIDDLE	Southern Mid. TN	Giles County
MIDDLE	Southern Mid. TN	Hickman County
MIDDLE	Southern Mid. TN	Lawrence County
MIDDLE	Southern Mid. TN	Lewis County
MIDDLE	Southern Mid. TN	Lincoln County
MIDDLE	Southern Mid. TN	Marshall County
MIDDLE	Southern Mid. TN	Maury County
MIDDLE	Southern Mid. TN	Moore County
MIDDLE	Southern Mid. TN	Perry County
MIDDLE	Southern Mid. TN	Wayne County
MIDDLE	Upper Cumberland	Cannon County
MIDDLE	Upper Cumberland	Clay County
MIDDLE	Upper Cumberland	Cumberland County
MIDDLE	Upper Cumberland	DeKalb County
MIDDLE	Upper Cumberland	Fentress County
MIDDLE	Upper Cumberland	Jackson County
MIDDLE	Upper Cumberland	Macon County
MIDDLE	Upper Cumberland	Overton County
MIDDLE	Upper Cumberland	Pickett County
MIDDLE	Upper Cumberland	Putnam County
MIDDLE	Upper Cumberland	Smith County
MIDDLE	Upper Cumberland	Van Buren County

Region	LWDA Title	County Name
MIDDLE	Upper Cumberland	Warren County
MIDDLE	Upper Cumberland	White County
WEST	Greater Memphis	Fayette County
WEST	Greater Memphis	Lauderdale County
WEST	Greater Memphis	Shelby County
WEST	Greater Memphis	Tipton County
WEST	Northwest TN	Benton County
WEST	Northwest TN	Carroll County
WEST	Northwest TN	Crockett County
WEST	Northwest TN	Dyer County
WEST	Northwest TN	Gibson County
WEST	Northwest TN	Henry County
WEST	Northwest TN	Lake County
WEST	Northwest TN	Obion County
WEST	Northwest TN	Weakley County
WEST	Southwest TN	Chester County
WEST	Southwest TN	Decatur County
WEST	Southwest TN	Hardeman County
WEST	Southwest TN	Hardin County
WEST	Southwest TN	Haywood County
WEST	Southwest TN	Henderson County
WEST	Southwest TN	Madison County
WEST	Southwest TN	McNairy County

The Tennessee Department of Labor and Workforce Development is committed to principles of equal opportunity, equal access, and affirmative action. Auxiliary aids and services are available upon request to individuals with disabilities.



Tennessee Department of Labor and Workforce Development; Authorization No. 337603; This public document was promulgated for electronic use.