

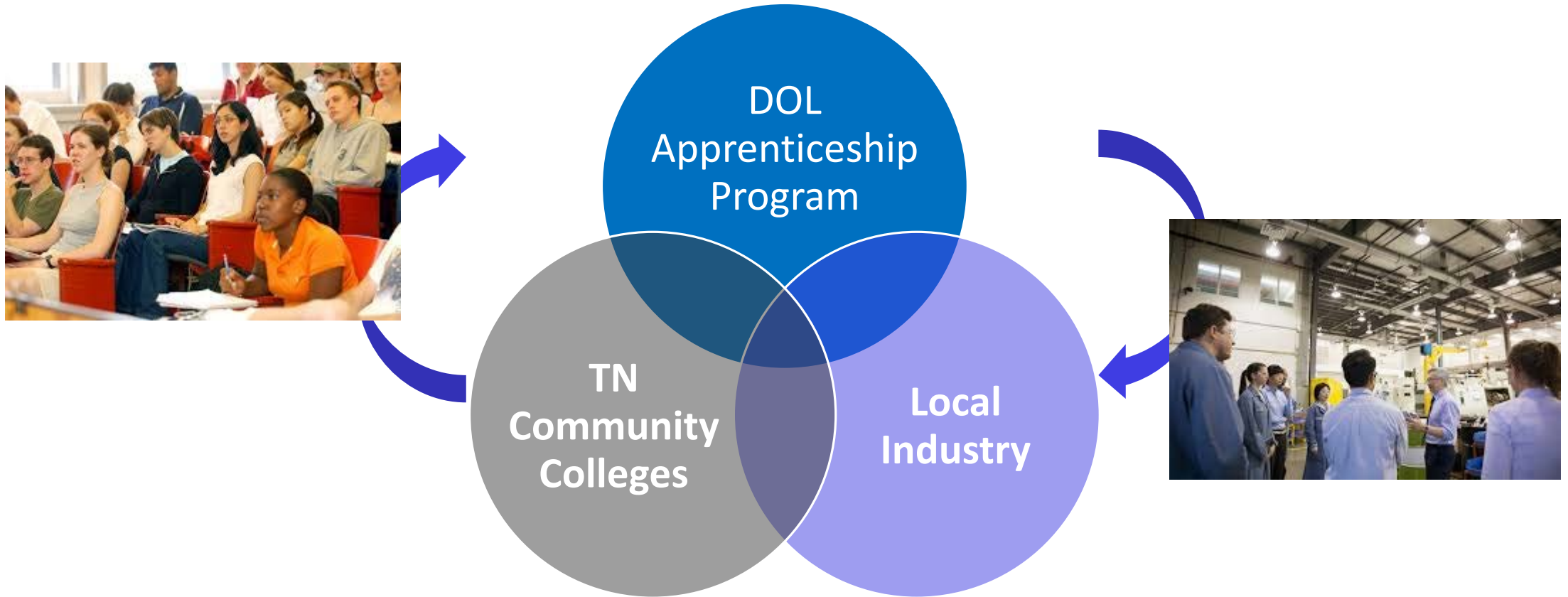


Workforce Development

Brian Burr
Sumiden Wire

TENNESSEE

LOCAL, STATE, & FEDERAL
PROGRAMS



U.S. DOL - Labor Grant Award



TENNESSEE COMMUNITY COLLEGES
Responding to education & workforce training needs.



Industrial Process Controls

Industrial Electrical Maintenance

Management

Mechatronics Electrical Engineering Tech

Mechanical Engineering

Electrical Engineering

Pre-Industrial Technology

COMMUNITY COLLEGES ARE FREE IN STATE OF TENNESSEE

Educator Role:

Apprenticeship Sponsor – Administration

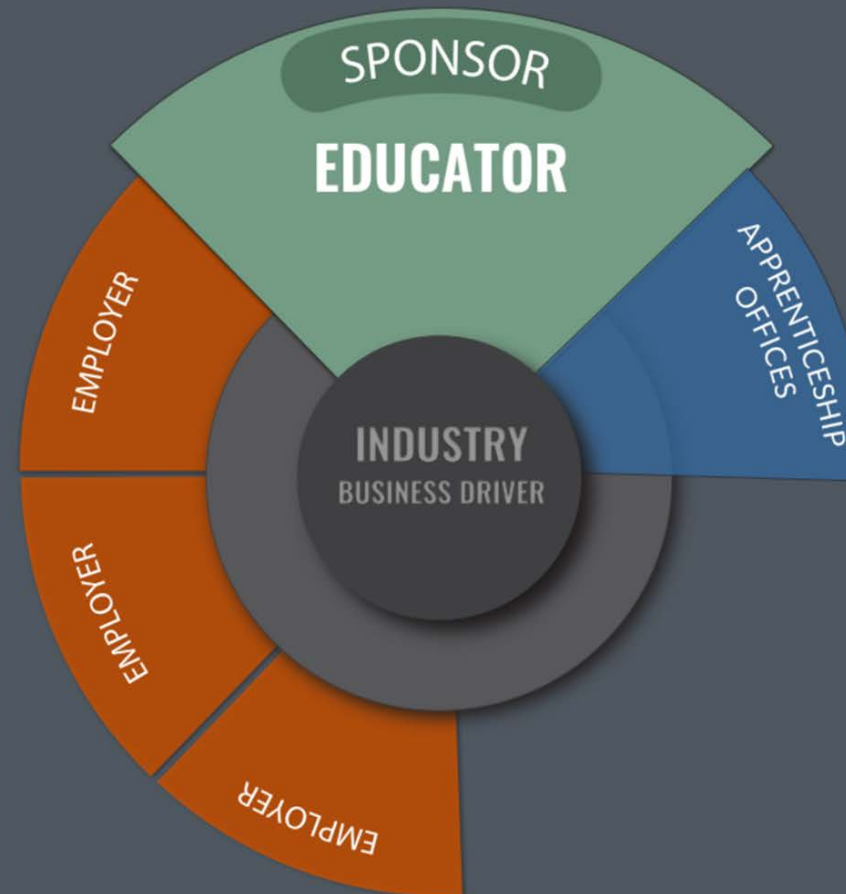
- Submit U.S. DOL documentation
- Confirm apprentice work/school schedule
- Coordinate apprentice performance reviews
- Report apprenticeship progress to U.S. DOL

Classroom Related Technical Instruction

- Register students in industry-related courses
- Review previous work experience
- Support apprentices through program

EDUCATOR-SPONSORED MODEL

Educational and instructional providers build partnerships with employers in their geography to develop industry-driven curriculum, enhance their reputation, and ensure students are connected with high-quality jobs. Employers have access to a pool of strong candidates and can leverage curriculum and classroom training delivered by the educational provider.



EDUCATOR SPONSOR

- Provides technical assistance for training plan development
- Develops curriculum for related instruction
- Delivers related instruction to apprentices

APPRENTICESHIP OFFICE

- Provides apprenticeship expertise to aid in program creation
- Provides technical assistance to sponsor throughout the program lifecycle

MULTIPLE EMPLOYERS

- Each employer signs single page agreement with sponsor
- Each employer recruits and screens its apprentices
- Each employer provides on-the-job training



Paid Job



Work-Based Learning



Classroom Learning



Mentorship



Credentials

Federal Goal:

- Expand Federally Registered Apprenticeships
- **Provide a pathway for quality jobs for workers**
- Establish new U.S. Department of Labor registered apprenticeships



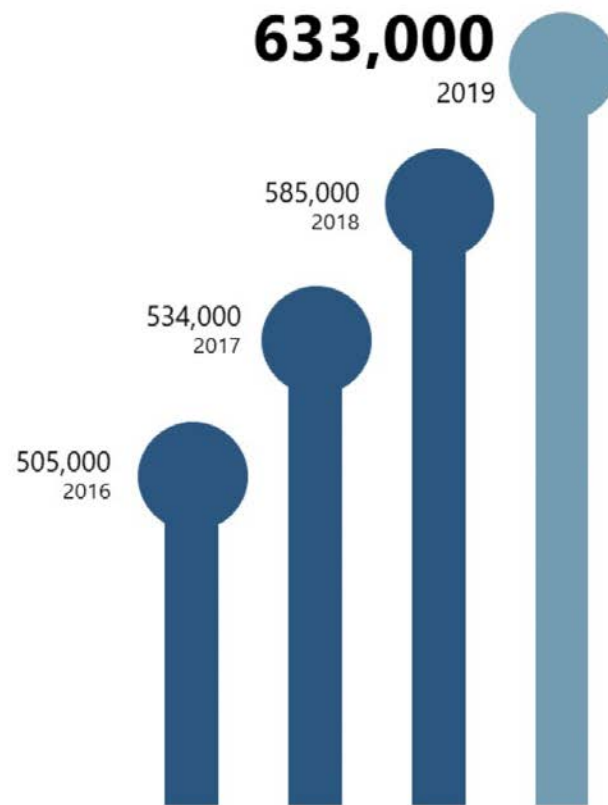
Our Apprenticeship Numbers Continue to Show Strong Growth

68%

GROWTH SINCE 2013

Key Facts

- Over 319,000 participants completed an apprenticeship in the last five years.
- Over 12,300 new apprenticeship programs created in last five years.



	Active Apprentices
Electrician	43,814
Carpenter	25,982
Truck Driver (Heavy)	16,569
Plumber	15,123
Line Maintainer/Erector	10,128
Construction Craft Laborer	8,084
Sheet Metal Worker	8,066
Pipe Fitter	8,048
Structural Steel Worker	5,276

2018 Standard Occupational Classification System

- 51-4000 Metal Workers and Plastic Workers 51-4020 Forming Machine Setters, Operators, and Tenders, Metal and Plastic
 - 51-4021 Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.

Details Report for:

51-4021.00 - Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic

[Updated 2019](#)

Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.

Sample of reported job titles: Equipment Technician, Extruder Operator, Extrusion Operator, Extrusion Press Operator, Machine Operator, Metal Inspector, Operator, Setup Operator, Wire Mill Operator, Wire Mill Rover

View report:

[Summary](#)

[Details](#)

[Custom](#)

[Tasks](#) | [Technology Skills](#) | [Tools Used](#) | [Knowledge](#) | [Skills](#) | [Abilities](#) | [Work Activities](#) | [Detailed Work Activities](#) | [Work Context](#) | [Job Zone](#) | [Education](#) | [Credentials](#) | [Interests](#) | [Work Styles](#) | [Work Values](#) | [Related Occupations](#) | [Wages & Employment](#) | [Job Openings](#) | [Additional Information](#)

Tasks

[Save Table \(XLS/CSV\)](#)

10 of 16 displayed (16 important)

Importance	Category	Task
89	Core	Measure and examine extruded products to locate defects and to check for conformance to specifications, adjusting controls as necessary to alter products.
83	Core	Determine setup procedures and select machine dies and parts, according to specifications.
82	Core	Start machines and set controls to regulate vacuum, air pressure, sizing rings, and temperature, and to synchronize speed of extrusion.
82	Core	Reel extruded products into rolls of specified lengths and weights.
79	Core	Install dies, machine screws, and sizing rings on machines that extrude thermoplastic or metal materials.
77	Core	Change dies on extruding machines according to production line changes.
76	Core	Clean work areas.
68	Core	Troubleshoot, maintain, and make minor repairs to equipment.
74	Supplemental	Weigh and mix pelletized, granular, or powdered thermoplastic materials and coloring pigments.
74	Supplemental	Test physical properties of products with testing devices such as acid-bath testers, burst testers, and impact testers.



Apprentices and Participation Trends

- In FY 2019, more than 252,000 individuals nationwide entered the apprenticeship system.
- Nationwide, there are over 633,000 apprentices currently obtaining the skills they need to succeed while earning the wages they need to build financial security.
- 81,000 participants graduated from the apprenticeship system in FY 2019.

Apprenticeship Sponsors and Trends

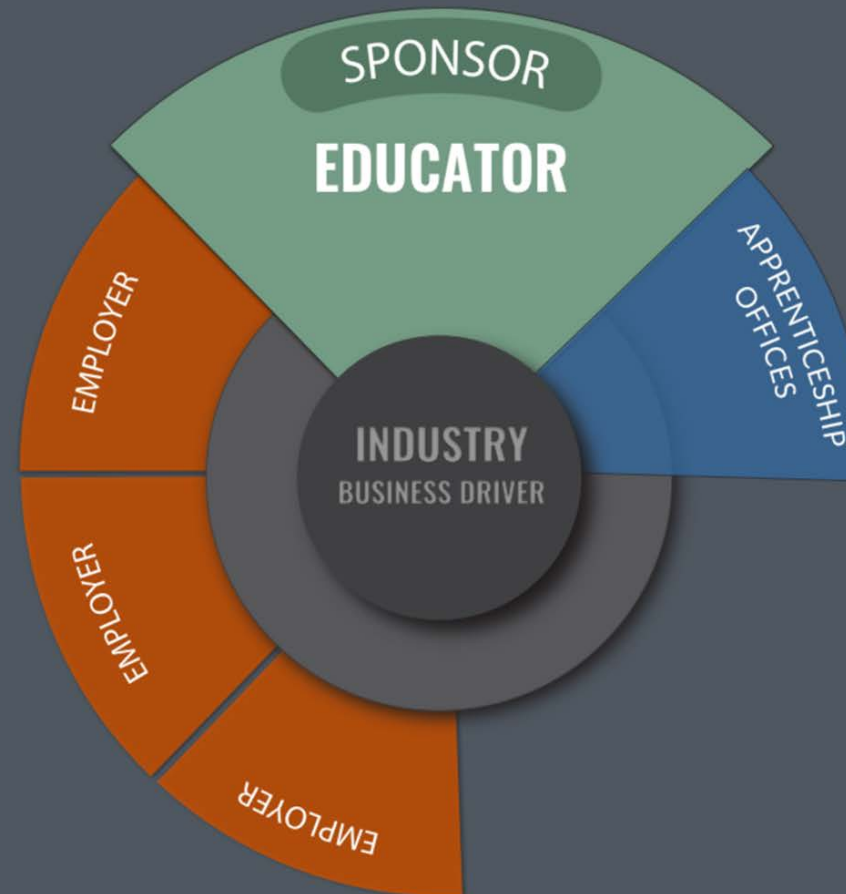
- There are nearly 25,000 registered apprenticeship programs across the nation.
- 3,133 new apprenticeship programs were established nationwide in FY 2018.

Employer Role:

- **Provide OJT (work-based learning)**
- **Confirm apprentice work/school schedule**
- **Provide input on apprentice performance**
- **Award periodic pay increase upon apprentice demonstration of required skills**
- **Support apprentices through program**

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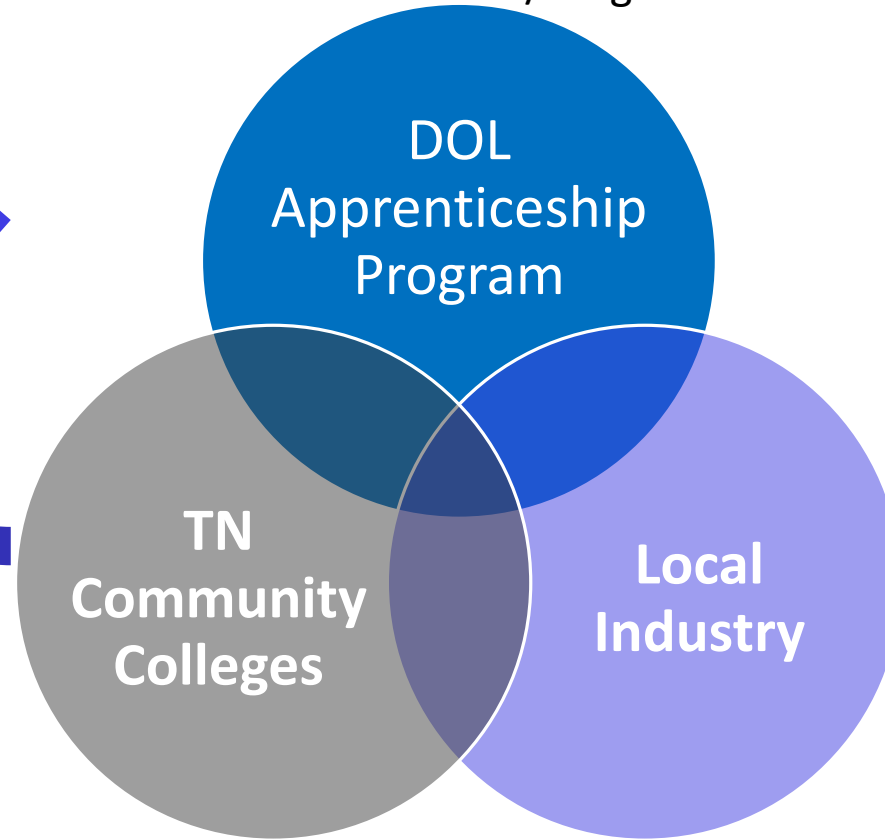
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Students with Industrial Interest



Structured Training
Infrastructure/Programs



Industry in Need of Trained Employees

