



# Workforce Development: Leveraging Cleantech Workforce Opportunities

Connected Communities Webinar Series  
May 11, 2024



# Welcome

- Updates from the Connected Communities Team
  - Community Information Hub
  - Community Change Grant
  - The Workforce Development Guide
- Workforce Strategy: A TVA Perspective
- Workforce Development Panel
  - **Jamie Choate**, Director of Workforce Strategy & Development, TVA
  - **Shane Hooper**, President & CEO, Shelbyville-Bedford Partnership
  - **Jimmy Wright**, President, Tennessee College of Applied Technology (TCAT) Shelbyville
  - **Dr. Millican**, Executive Vice President for Workforce & Community Development, Motlow State Community College

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# The Latest From Connected Communities

# Connected Communities Initiative

Connected Communities are towns, main streets, neighborhoods and cities using tech- and data-related solutions to address community challenges while preparing for a modern energy system.

FOCUS AREAS		RESOURCES	
 <b>Broadband and Digital Literacy</b>	 <b>Economic Empowerment</b>	 <b>Off-the-Shelf Guides and Tools</b>	 <b>Tailored Support and Success Coaching Through Partnerships</b>
 <b>Energy and Environmental Justice</b>	 <b>Enhanced Community Resiliency</b>	 <b>Pilot Project Funding</b>	 <b>Network to Share Information and Success Models</b>

# Upcoming Connected Communities Webinars



**Smart HVAC: A Connected Communities Technology Landscape Deep Dive**



[REGISTER NOW](#)

Tuesday, June 11, 1:00 – 2:00 pm ET



**Your Playbook for Action: Successful Pathways for Building More Connected Communities**



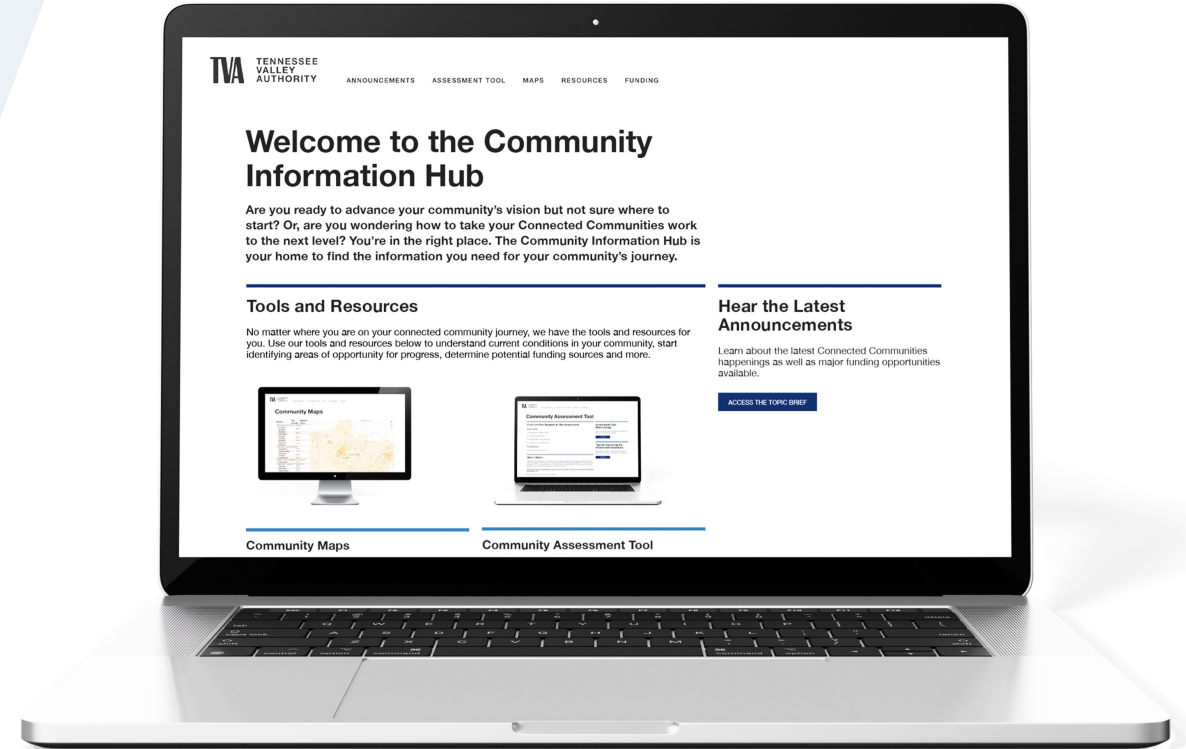
[REGISTER NOW](#)

Tuesday, July 9, 1:00 – 2:00 pm ET



# Community Information Hub

A new, interactive tool is available to help **assess your community needs, prioritize solutions and identify funding opportunities.**





# Community Maps

Use the CIH Community Maps to understand how to advance community progress. Select your community to see how you compare to the TVA service area average.

**Rate of Unemployment**

**3.2%**

TVA service area average

**4.4%**

national average\*

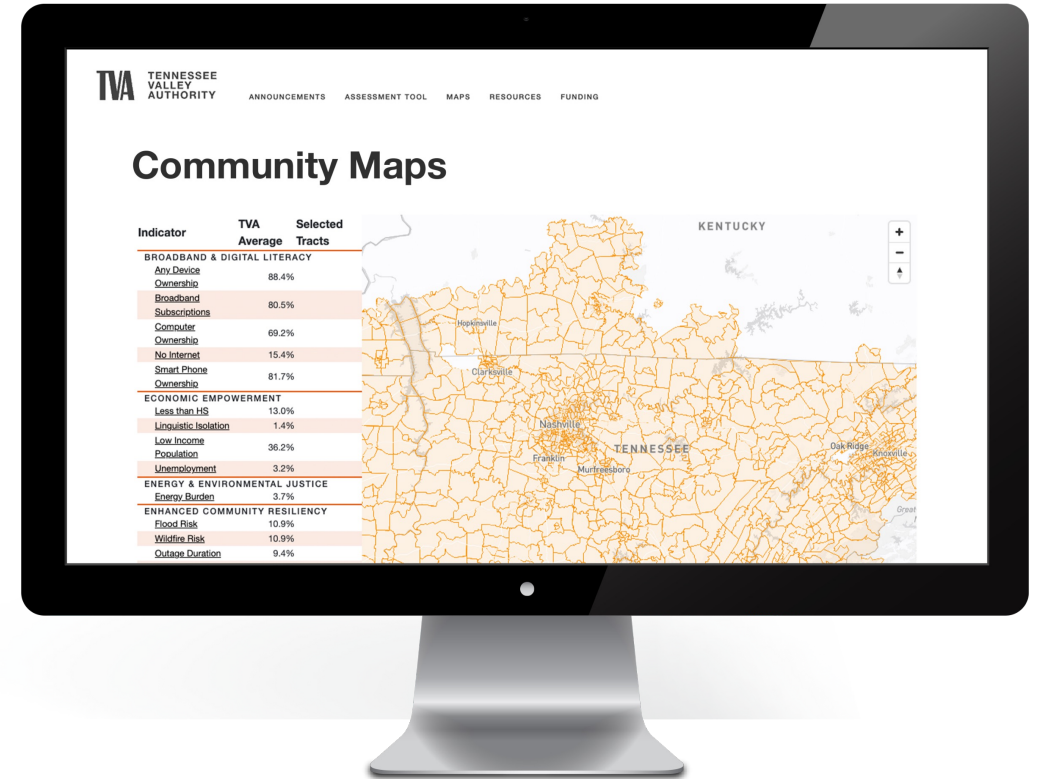
**Less Than High School Education**

**13%**

TVA service area average

**10.9%**

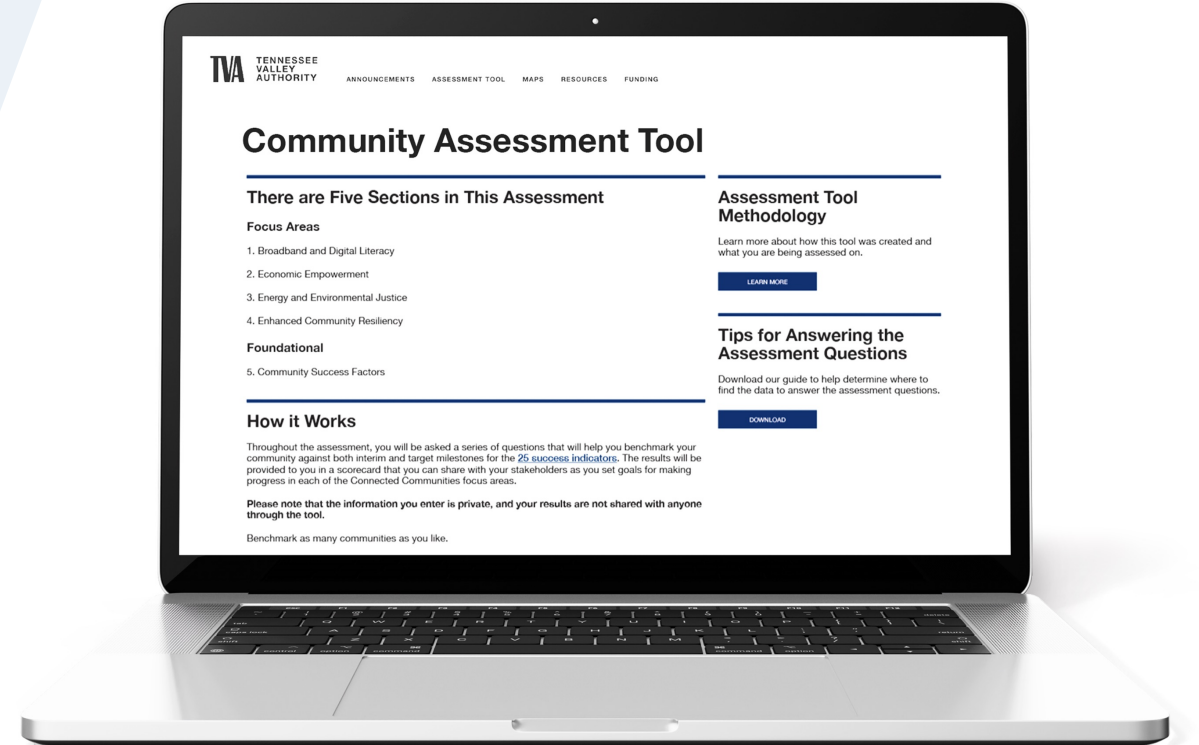
national average\*





# Community Assessment Tool

Use the CIH Community Assessment Tool to benchmark current conditions and workforce development needs, enabling prioritization of critical actions to strengthen your community.



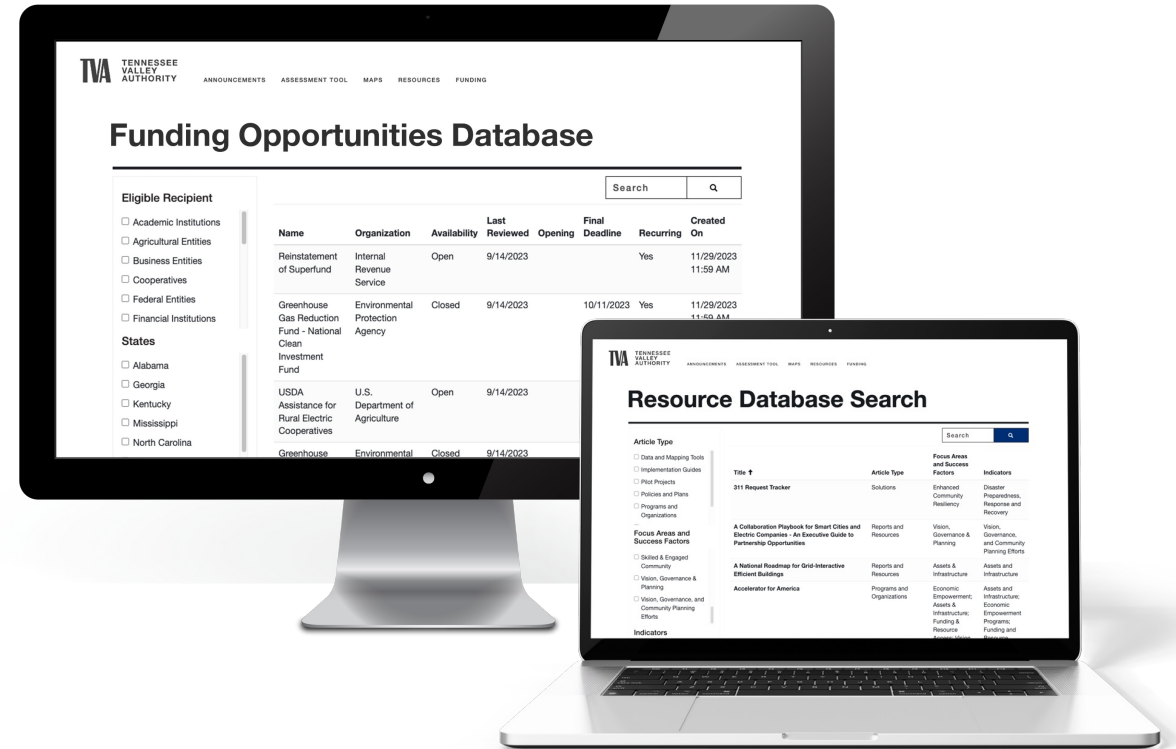




# Funding Opportunities and Resource Databases

Identify workforce development solutions and funding pathways that fit your community's needs.

[Training for Residential Energy Contractors \(TREC\) Program](#) is an example of a recent funding opportunity focused on workforce development. Search the database by related indicators to explore more!





# Community Change Grants Program

The U.S. Environmental Protection Agency's (EPA) [Community Change Grants Program](#) is a great opportunity for communities seeking to fund large-scale environmental and climate justice projects.



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# Community Change Grant Overview

Funded projects will benefit disadvantaged communities by reducing pollution, increasing community climate resilience, and building community capacity. This includes funding for workforce development activities related to clean technology and climate action.



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## Focus

- Climate-focused grant program
- Issued by Environmental Protection Agency (EPA)



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## Funding

- \$10-20 million opportunity per applicant (estimated)
- No cost share



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## Application

- Rolling application through November 2024
- Opportunity for rejected applications to reapply following debrief with EPA



# Workforce Development Guide

This guide compiles concepts, examples, resources and considerations to provide a resource for communities. Explore specific solutions, like building job boards to connect local community members and employers.



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# Meet the Workforce Development Panel

# Meet Today's Panel



**Jamie Choate**  
Director of Workforce  
Strategy and Development,  
TVA



**Shane Hooper**  
President/CEO,  
Shelbyville-Bedford  
Partnership



**Jimmy Wright**  
President, Tennessee  
College of Applied  
Technology (TCAT)  
Shelbyville



**Dr. Millican**  
Executive VP for  
Workforce and Community  
Development, Motlow State  
Community College

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# Workforce Strategy

Jamie Choate  
Director of Workforce Strategy and Development

May 14, 2024

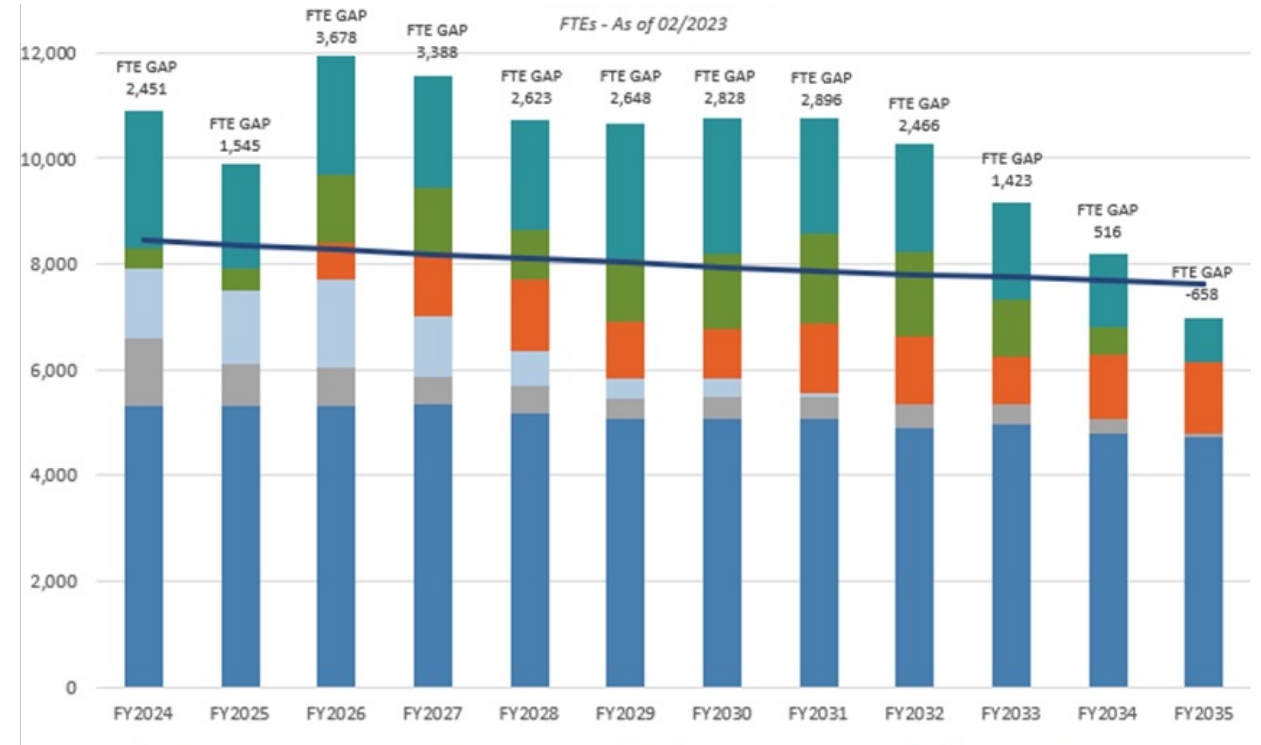
# Understanding the Need

## Vision Statement

TVA is energizing career fields necessary to build the Tennessee Valley's energy future and economic growth during the next decade. We will partner across the region to attract a consistent, diverse pipeline of people for in-demand positions.

## LABOR FORECAST

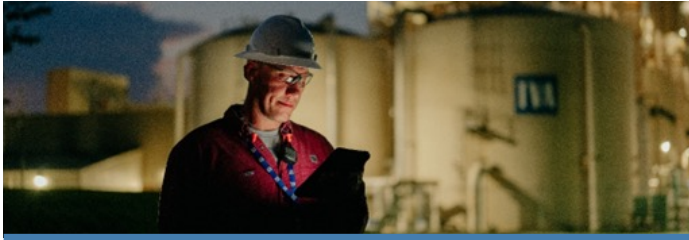
TVA estimated demand compared with union supply estimate



NOTE: Graph represents total uses of labor (demand) as bars and sources of labor (supply) in the navy line. The gap is the total shortfall, by labor category that TVA projects during the planning horizon.



# Energizing Careers – TVA Workforce Optimization



## Assess Future Needs

- Forecast long-term Valley labor supply and demand
- Stand up TVA Workforce Optimization Center
- Develop plan to prioritize future projects



## Grow Workforce Pool

- Promote Trade/Labor/Craft career opportunities
- Develop long-term pipeline tracking
- Target and expand TVA recruitment



## Expand Partnerships

- Identify all current and potential workforce partners across the Valley
- Develop comms/marketing with partners
- Expand pilot and collaboration programs



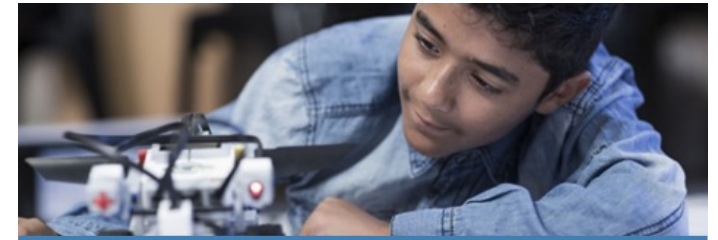
## Train for Future Skills/Tech

- Identify gaps in training and workforce skills
- Identify new skills/qualifications for projects
- Update/adjust training programs



## Streamline Hiring at TVA

- Adjust and focus TVA recruiting for Trades/Labor/Craft
- Develop technology tools for recruiting, training, onboarding



## Educate Next Generation

- Career counselor outreach (HS/College)
- “Do Good Here” recruitment campaign
- Ongoing STEM support

# Operationalizing Efforts

TVA will partner across the region to **attract** a consistent, **diverse pipeline** of people for in-demand positions to build the Tennessee Valley’s **energy future** and support **economic growth** during the next decade while creating **career fields for the future**



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# Why TVA Needs a Workforce Development Strategy



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## Problem Statement Overview

**TVA (and the region it serves) is facing a labor crisis.** Without taking swift and strategic action to develop and execute a comprehensive and holistic workforce strategy, we are limiting our ability to take on new projects, innovate sustainable technology, and continue to deliver on TVA's mission.








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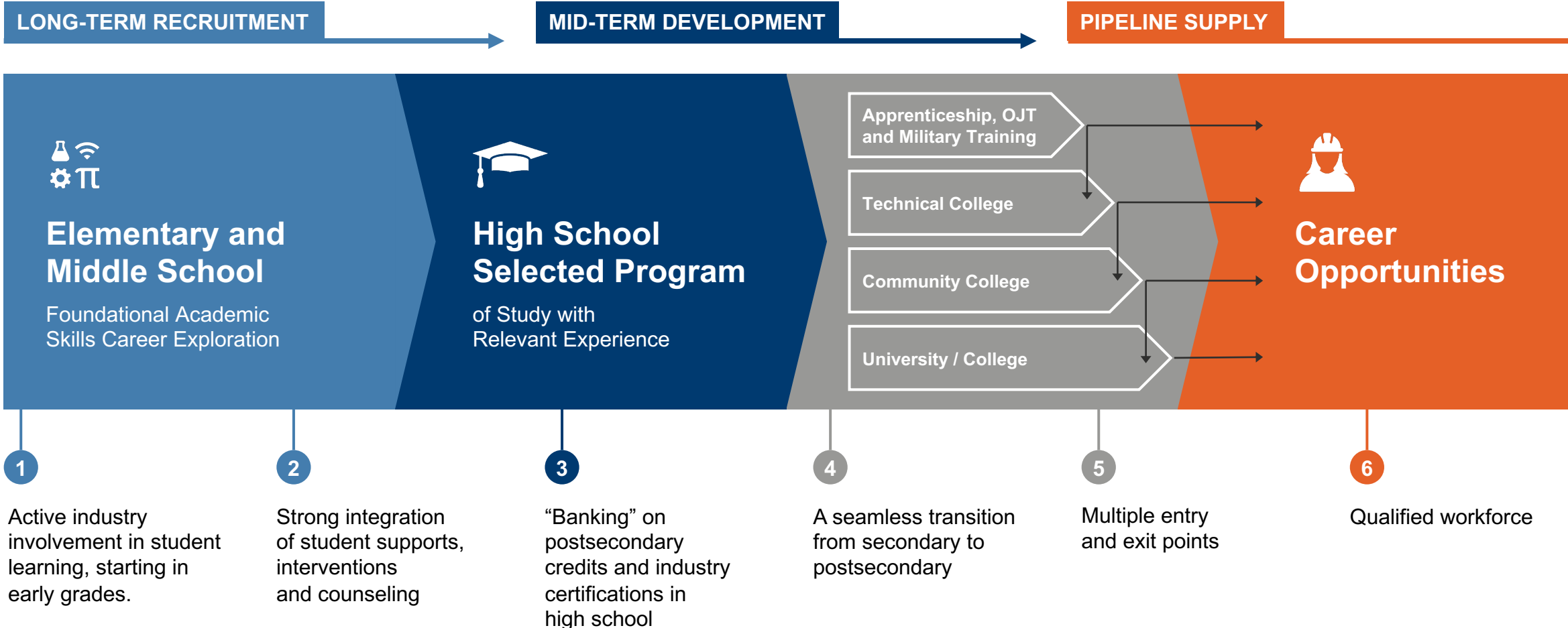
## Vision

**To power the Tennessee Valley region with an agile and diverse TVA workforce** built through strong community partnerships - where labor abundantly meets supply demands and is adaptable with the skills, capabilities and technology needed to safely drive TVA's energy future with a robust pipeline of talent from both established and untapped sources.

# Workforce Development Strategic Roadmap Draft

	 <b>Gap Analysis</b>	 <b>Branding / Education</b>	 <b>Pipeline Development</b>	 <b>Stakeholders / Partnerships</b>	 <b>Outcome Visibility</b>
<b>Strategies</b>	<ul style="list-style-type: none"> <li>Collaborate between labor forecast center, business units, and talent to determine full labor demands to include current operational sites, future construction and operations and supporting ecosystem</li> <li>Partner with education, labor organizations and industry partners to determine current workforce availability</li> </ul>	<ul style="list-style-type: none"> <li>Develop strategy and process to track, maintain and grow diverse staffing pipelines</li> <li>Diversify the energy workforce to ensure the industry benefits from new ways of thinking from those who are under-represented in today's workforce</li> </ul>	<ul style="list-style-type: none"> <li>Implement strategies to develop skills, capabilities and proficiencies and grow the workforce pipeline</li> <li>Develop new programs based on needs of new technologies and identified skills gaps</li> <li>Reinvigorate programs such as the Nuclear Uniform Curriculum Program (NUCP) across the Valley</li> </ul>	<ul style="list-style-type: none"> <li>Identify all current and potential partners within the regions</li> <li>Leverage existing federal, state, and local workforce development resources and advocate for those we need</li> <li>Explore cross applications for resource sharing</li> </ul>	<ul style="list-style-type: none"> <li>Develop metrics to improve workforce development processes and evaluate outcomes</li> <li>Develop communications and marketing to rebrand the public's understanding of nuclear careers and connect with students and career seekers in modernized, dynamic ways</li> </ul>
<b>Methods</b>	<ul style="list-style-type: none"> <li>Craft Workers</li> <li>Project Managers, Project Control Specialists, Schedulers, Planners</li> <li>Engineers</li> <li>Multi-skilled Operators</li> <li>Multi-skilled Maintenance Workers</li> <li>Supply Chain, Distribution, Heavy Equipment Providers, Technology, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Drive focus and visibility in nuclear careers in the K-12 education system</li> <li>Create greater awareness of careers in the energy sector</li> <li>K-12 and beyond</li> <li>Untapped talent segments</li> <li>Advocate for federal and state policies that promote careers and workforce development in energy</li> </ul>	<ul style="list-style-type: none"> <li>STEM curriculum in K-12</li> <li>High school pipelines through internships and work-based learning programs</li> <li>Pre-apprenticeship programs</li> <li>Career and technical education program partnerships</li> <li>Prioritize proven earn to learn programs</li> <li>Upskilling programs</li> <li>Development of new skill-based curriculum</li> </ul>	<ul style="list-style-type: none"> <li>State and local workforce development resources</li> <li>Department of Labor</li> <li>Industries and corporations</li> <li>K-12 school systems</li> <li>Voc/Tech and trade schools</li> <li>Labor unions</li> <li>Community based organizations</li> <li>Economic development boards</li> <li>Military</li> </ul>	<ul style="list-style-type: none"> <li>Monitor labor Imbalance</li> <li>Monitor pipeline growth</li> <li>Determine total value of funded initiatives</li> <li>Communicate career benefits</li> <li>Outline career pathways</li> <li>Career advancement</li> <li>Integration/Division of responsibilities</li> </ul>

# Workforce Development / Pipeline Development



# Mobile Workshop Trade Simulations / Sponsorship

The **Be Pro Be Proud** Mobile Workshop uses cutting-edge virtual reality (VR) and augmented reality (AR) technical career simulations to raise awareness about careers in skilled trades among 8th-12th grade students.

## INCLUDED TRADE SIMULATIONS OF

- CNC Machining
- Welding
- Lineman
- 4 Construction Trades
- Agriculture
- Forestry
- Heavy Equipment
- CDL Truck Driving
- Diesel Tech



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# Dr. Benjamin L. Hooks Job Corps Center (BHJCC)

Job Corps is a voluntary career training and education program that prepares people ages 16-24 for careers in today's job market. Education & Training Resources (ETR), operator of the BHJCC, will partner with TVA and the International Brotherhood of Electrical Workers (IBEW) to develop and implement an Overhead Electrical Line (OHL) program in the Memphis area. Ideally, this relationship will provide another skilled talent pool for TVA.



**BHJCC**

Located in Memphis, TN



**ETR**

Operator of BHJCC



**U.S. Department of Labor,  
Office of Job Corps**

Overseer of BHJCC

## SIMILAR PARTNERSHIPS



# OHL Program Progress

1

## Signing of Agreement

Ceremonial signing of Memorandum of Agreement between the BHJCC and TVA

2

## Existing Program Replication

Oneonta, NY Job Corps Center has OHL program that the BHJCC wishes to replicate

- TVA/IBEW members visited Oneonta to see site and discuss training program

3

## Next Steps

Met in late March with education and training resource members

- Funding approved
- Site build to begin spring 2024



# New Heights Scholarship Program

Launched in summer 2023 at the Southeast Lineman Training Center (SLTC), TVA is proud to partner with the IBEW and other Chattanooga-based community organizations on the New Heights Scholarship Program to create viable career pathways for students in underserved communities.

## PARTNERS



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# New Heights Scholarship Program

During the 320-hour classroom and 150-hour field work curriculum, students are well-grounded in the fundamentals of electricity theory, safety, equipment operation, line construction and various other topics.



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## Participating Chattanooga High Schools

- Brainerd
- Central
- CGLA
- Chattanooga Prep
- East Ridge
- Howard
- Red Bank
- Tyner



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## Career Pathways

Completion of the SLTC 15-week training program qualifies students for a variety of career pathways, including:

- Apprentice Lineworker
- Telecommunications
- Apprentice Electrician
- Crane and Equipment operation



# What We Do

ECONOMIC DEVELOPMENT

*Building Tomorrow's Prosperity*

WORKFORCE DEVELOPMENT

*Empowering Talent, Fueling Growth*

TOURISM DEVELOPMENT

*Discover, Explore, Experience*

CHAMBER OF COMMERCE

*Uniting Businesses, Creating Opportunities*

THE FOUNDATION

*Strength in Solidarity, Impacting Lives*

## OUR MISSION

*The Partnerships Mission is dedicated to fostering collaborative efforts with both public and private sectors to enhance municipal revenue streams. We achieve this through strategic initiatives such as business recruitment and retention, workforce development, tourism promotion, and the implementation of projects aimed at enriching quality of life within our community.*



**326**

**students**

who completed a  
TCAT Shelbyville  
program in the  
last year

**89%**

**students**

who were  
employed in their  
field of study

**17**

**veteran  
students**

served in the  
past year

**\$0**

**student  
loan debt**

at graduation

**18**

**programs**

**13**

**full-time**

**5**

**part-time**

Machine Tool Technology

Heating Ventilation  
Air Conditioning  
and Refrigeration

Industrial Maintenance  
Automation

...and more!

**4**

**locations**

# Jimmy Wright – President of TCAT Shelbyville



## Building the future of TCAT Shelbyville

At TCAT Shelbyville, I am not just managing student job placement outreach, but also actively building new programs for the future, demonstrating my commitment to continuous improvement and innovation.



## Higher Education Experience

With over 30 years of experience in higher education, I served as the chief student affairs officer and a member of the state-wide president's leadership team. I also served on the Statewide Community and Technical College Committee.



## TCAT Shelbyville Success

Successfully oversee a student body exceeding 5000 students, ensuring their academic & technical and personal growth. I wrote workforce grants of over 2 million dollars, assisted with workforce outreach program building.



# MOTLOW STATE

WORKFORCE DEVELOPMENT

**Learn More at  
Motlow.edu/Careers**

**workforce@mscc.edu**



# Personal Development Tools: Data Points



SKILLSUSA  
COMPETITORS/ADVISORS  
ENGAGEMENT

21 State Conference  
17 National SkillsUSA



YOUSCIENCE APTITUDE  
ASSESSMENTS

333 Completed  
Assessments



HANDSHAKE EMPLOYER  
NETWORKING

28,634 Learners enrolled  
1,624 Employers



BIG INTERVIEW

367 Users



240 Graduates (up from 75)  
54 Employer Partners (up from 30)

Larry Flatt  
[Lflatt@mscc.edu](mailto:Lflatt@mscc.edu)



1,000+ Learners (up from 300)  
39 programs offered (up from 5)

SLOTS AVAILABLE!!

Walter McCord  
[Wmccord@mscc.edu](mailto:Wmccord@mscc.edu)



96 Students  
9 Employer Partners (up from 4)  
32,976 THEC Hours

Houston Austin  
[Haustin@mscc.edu](mailto:Haustin@mscc.edu)

'22-23 Total: **45,410** contact hours (18% increase over '21-22)



# Expansion of Automation & Robotics Center



# AI Vision: Machine Learning



**Charles King**  
Motoman Endorsed Robotics  
Instructor Training In:

- YRC1000 Basic Programming with Material Handling
- YRC1000 Basic Programming
- DX 200 Basic Programming with Material Handling

**robotics** MOTLOW STATE **roboticstraining.com**

An EEO/AA/Title VII/Title IX/Sections 504/ADA Institution | motlow.edu/nondiscrimination | MOT-1796-23

**Emmett Woodard**  
Instructor Lead

**PLC Training In:**

- Rockwell: Allen-Bradley Training
- Mitsubishi Training
- Omron Training
- Siemens Training

**robotics** MOTLOW STATE **roboticstraining.com**

An EEO/AA/Title VII/Title IX/Sections 504/ADA Institution | motlow.edu/nondiscrimination | MOT-1796-23

# Career Academy Micro-credentials offered '23-'24



## Software and IT roles

## Data roles

## Business roles

IT Support *** <span>ACE</span>	Front-end Developer	Data Analytics * <span>ACE</span>	Project Management * <span>ACE</span>	Social Media Marketing <span>ACE</span>
Cybersecurity	Back-End Developer	Data Analyst <span>ACE</span>	Digital Marketing & E-commerce * <span>ACE</span>	Marketing Analytics
Back-End Developer <span>ACE</span>	Front-End Developer	Data Analytics with Excel and R <span>ACE</span>	UX Design <span>ACE</span>	Bookkeeping
Full Stack Software Developer <span>ACE</span>	Database Engineer	Data Science <span>ACE</span>	Sales Development Representative <span>ACE</span>	Sales Representative
DevOps and Software Engineering <span>ACE</span>	Mobile App Developer (iOS)	Data Engineering <span>ACE</span>	Sales Operations <span>ACE</span>	Bookkeeper
Cybersecurity Analyst	Mobile App Developer (Android)	Data Warehouse Engineer	Career Coach and Navigator	Customer Consulting and Support
Technical Support	Technology Consultant		Project Manager	Call Center Customer Service
IT Project Manager	Network Engineering		Human Resources	Retail Customer Service
Cybersecurity Analyst				

\*\*\* - Original "OG" offering 2021

\* - Offering added '22-'23

**ACE** Degree credit recommendation from American Council on Education

# Technology Engagement



ARTIFICIAL  
INTELLIGENCE

- Working with Uncle Nearest on project to build immersive stories of Nearest, Jack and history/production of Tennessee Whiskey
- Connecting industry partners with use of XR for construction industry training with Rutherford Works
- Collaborating with Association for Advancement of Automation (A3) on “Industrial AI Applications” course

Motlow State 2023 SkillsUSA  
National Competition



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# Workforce Development Panel Discussion

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# Let's Stay Connected



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## Continue the Conversation

Contact Georgia Caruthers to learn more:

[gmcaruthers@tva.gov](mailto:gmcaruthers@tva.gov)

Or

[ConnectedCommunities@tva.gov](mailto:ConnectedCommunities@tva.gov)



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## Join Our Connected Communities Network

Visit the Connected Communities website and sign up to be part of the Connected Communities Network:

[tva.com/connectedcommunities](http://tva.com/connectedcommunities)



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## Access Our Resources

Access the Community Information Hub and the Community Housing Needs and Solutions guide:

- [Community Information Hub](#)
- [Workforce Development Guide](#)

**TVA**

**TENNESSEE  
VALLEY  
AUTHORITY**