

GO DEEPER • RESOURCES FOR EDUCATORS

The research, the landscape, and the sources

Three shelves: the research for you, the career landscape for your students, and the Texas sources behind every number in this toolkit.

The research • Technician Economy™

For the professional-learning session, the board presentation, or the administrator who asks why this matters. The through-line: every plant runs on machinery, and more of it is automated each year. The people who install, operate, maintain, fix, and upgrade it are the limiting factor.

<u>Closing America's Innovation-Deployment Gap</u>	The core argument: new equipment and systems don't pay off until technicians install, run, and maintain them
<u>Structural Drivers of the Technician Deployment Gap</u>	Five structural shifts behind the gap, including machinery that is more connected and more complex. Good framing for a curriculum or advisory-board conversation.
<u>Beyond Job Growth: The Real Scale of America's Technician Workforce</u>	Why openings far exceed net growth, due to replacement demand, retirements, and rising complexity. Built on BLS data.
<u>The Top 10 Technician Roles Powering the Technician Economy</u>	Ten recurring roles, including maintenance, automation, controls, instrumentation, and robotics, that show up across 50+ sectors.
<u>Why Are Jobs Still Unfilled?</u>	Employers and colleges are everywhere. The problem is coordination, not absence.
<u>What Hidden Innovation Infrastructure Confirms</u>	Technician education as regional economic infrastructure, drawing on Rutgers research funded by NSF
<u>NSF's ATE Centers Are a National Asset</u>	The national network of college technician-education centers, with a link to the ATE impact report
<u>Skilled Trades Technicians Make Robots Useful</u>	The answer to "won't automation take these jobs?" Examples are from construction, but the logic holds on any plant floor.

The career landscape • Technicians of America™

For students. Show them the range, not just four roles.

<u>National Technician Role Library</u>	245+ technician roles, each with duties, wage range, skills, and training pathway
<u>Technician Careers by Industry</u>	Twelve industries, with roles, pay, and where the work is
<u>National Reference Guide for Technician Careers</u>	The plain-language answers: what a technician is, training, credentials, pay
<u>Mechatronics vs. Maintenance vs. Robotics Technician</u>	Three roles that work on the same automated equipment from different angles. Pairs with the alignment sheets.
<u>How to Become a Technician</u>	Step-by-step paths from high school, apprenticeship, or college
<u>Types of Technicians and Specializations</u>	A good opener for students who've never heard the word used this way

Note for students: national wage ranges differ from Dallas-Fort Worth figures. When you're advising a DFW student, lead with the DFW numbers in this toolkit.

The Texas sources · what's behind every figure here

BLS wages, Dallas-Fort Worth	Any DFW wage by occupation, Dallas-Fort Worth-Arlington metro (May 2025)
BLS wages, Texas	The statewide comparison for every occupation
Projections Central	Texas job growth and annual openings through 2034, from the Texas Workforce Commission
O*NET OnLine	Tasks, skills, knowledge, and local wages for any occupation code on the alignment sheets
TEA, Work-Based Learning	Career Preparation and Practicum courses: paid and unpaid industry placements for CTE students
TEA, Dual Credit	College courses, academic and technical, that count for both high school and college credit
NSF ATE Impact Report 2026 to 2027	National evidence on college technician education
Technicians of DFW marketplace	Current DFW openings by role, and online courses