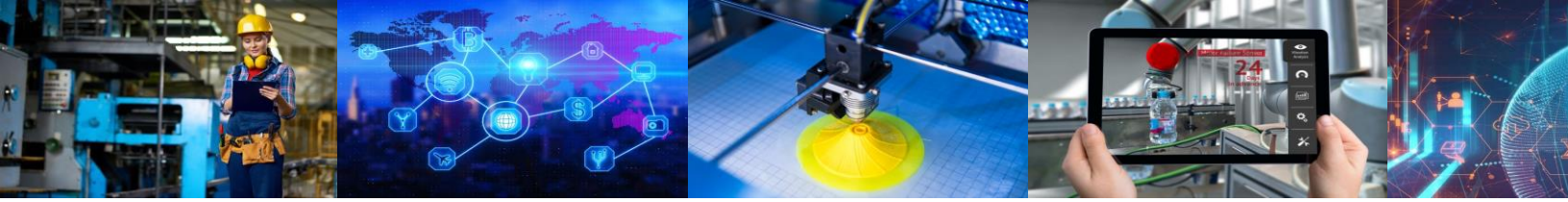
Preparing Technicians for the
FUTURE OF WORK

A project of the National Science Foundation
Advanced Technological Education (ATE) program

Technology advances are changing industries at an unprecedented pace, demanding an expanding array of knowledge, skills, and abilities from technicians in the STEM disciplines. The workplace is undergoing a major transformation driven by automation, artificial intelligence, machine learning, the internet-of-things, evolving cybersecurity needs, advanced robotics, digital design prototyping, and other technologies. These Future of Work trends are bringing about rapid changes for the technician workforce and pose both challenges and opportunities for technician training and education. Cities and organizations across the country have engaged in dialogue to understand and better prepare for the workplace shifts that are already underway.

Preparing Technicians for the Future of Work, a project led by the Center for Occupational Research and Development (CORD), has gathered input from stakeholders representing education, industry, and workforce interests to determine ways to actively prepare for the impacts of emerging technologies on the future of work and on the skilled technical workforce. Through a series of collaborative exchanges, the project has identified three broad skill areas that are becoming increasingly important for STEM technicians:

We are continuing conversations with educators and industry partners to identify how these cross-cutting skill areas apply to STEM technician jobs of the future and develop strategies to equip STEM technicians with these skills to remain competitive in the future workplace.



Project Activities

The project has engaged stakeholders with a variety of expertise (e.g., advanced manufacturing, biotechnology, information technology, cybersecurity, etc.) to identify cross-cutting technician knowledge and skills crucial to the future of work, while also developing resources—articles, blog posts, and podcasts—that illuminate Future of Work technologies and workforce needs.

Year 1 | 2019	Year 2 | 2020	Year 3 | 2021	Year 4 | 2022
Gather input from National Industry Advisory Board, ATE Leadership Caucus, and industry site visits to determine critical Future of Work implications for the nation's technicians.	Conduct regional convenings of industry and education leaders to obtain recommendations for changes to STEM technician education programs.	Establish Regional Networks of industry and advanced technology education partners to refine and adopt regional recommendations to support their future technician workforce.	Pilot, refine, and facilitate adoption of program strategies addressing Future of Work-driven issues.

Ways to Engage with the Project

- Co-host or participate in a regional convening to help develop actionable recommendations for technician education in your area.
- Help build an advanced technology Regional Network to facilitate partnerships among educators and employers supporting technician training and regional economies.
- Share our resources—videos, podcast series and blogs—with your colleagues and networks.
- Serve as a guest expert for our podcast series or write a blog post for our project website.
- Join our community! Sign up at https://www.preparingtechnicians.org/contact-us.php

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