

CTE is *The Agenda*

Career Technical Education (CTE) is learning that works for students and the economy. CTE is also at the heart of any agenda focused on opportunity and economic competitiveness.

CTE is the Jobs Agenda:

- More than half of all jobs (53 percent) in the US today are middle-skill jobs that require more than a high school diploma, but less than a four-year degree. Many of these jobs are in technical fields such as health care, information technology and advanced manufacturing.
- Yet only 43 percent of workers are trained to the middle-skill level,¹ leading to a skills gap that leaves employers searching for qualified talent and many workers without job opportunities.
- In fact, in 2016, 46 percent of employers cite difficulty finding skilled talent, and six out of the ten hardest-to-fill positions are in technical fields or require a CTE background.²
- CTE programs directly connect learners in high school and postsecondary with employers, providing a clear pipeline of talent and unique opportunities for students to engage in internships, apprenticeships and other meaningful on-the-job experiences.³

CTE is the Education Agenda

- Only CTE offers students the academic, technical and employability skills – and opportunities to connect hands on experiences with classroom instruction – they need to be prepared for the career of their choice.
- CTE prepares students for careers and is a proven instructional strategy that keeps students engaged. Forty-five percent of students say CTE courses provide them with real-world examples that help them better understand academic classes.⁴
- Ninety-three percent of CTE concentrators graduate high school⁵ compared to a national average of 82 percent for all students.⁶
- About 75 percent of high school graduates take at least one CTE course, but only 20 percent are concentrating in a specific career field by taking an intentional sequence of courses.⁷ This is a gap that needs to be closed is more students can receive the full benefit of CTE.

CTE is the Infrastructure Agenda

- There are more than 14.5 million individuals employed in infrastructure-related activities, 11 percent of the entire U.S. workforce.⁸
- While many of these jobs are in the construction field, there are many other relevant CTE pathways that prepare individuals for infrastructure-related careers.
- CTE must be a critical component of our strategy to fill the current demand for infrastructure jobs and ensure we have the workforce to meet our national infrastructure challenge.⁹

Career Clusters

A framework for CTE that encompasses the full world of work across 16 Career Clusters, which represent all industries, sectors, careers and jobs in the global economy.

D+

Grade given by American Society of Civil Engineers on the state of America's Infrastructure

\$3.6 trillion

Estimated cost to fix America's infrastructure

Career Clusters Relevant to Infrastructure¹⁰	Career Clusters Relevant to Infrastructure You May Not Have Considered	
<p>Architecture & Construction Plan, design and build infrastructure projects. Careers include:</p> <ul style="list-style-type: none"> • Civil engineers • Contractors • Carpenters <p>Government & Public Administration Plan and implement large-scale infrastructure projects and ensure legal compliance. Careers include:</p> <ul style="list-style-type: none"> • Urban and regional planners • Inspectors • Clerks <p>Transportation, Distribution & Logistics Oversee all global logistics and supply management and vehicular maintenance. Careers include:</p> <ul style="list-style-type: none"> • Logistics analysts • Cargo and freight agents • Mechanics 	<p>Agriculture, Food & Natural Resources Ensure projects are environmentally sound and manage key elements of infrastructure. Careers include:</p> <ul style="list-style-type: none"> • Water treatment managers and technicians • Soil scientists <p>Business Administration & Management Provide critical management and operational support for all entities. Careers include:</p> <ul style="list-style-type: none"> • Office and procurement clerk • Budget analysts • Human resource specialists <p>Manufacturing Design, build, maintain and repair equipment and machines for infrastructure projects. Careers include:</p> <ul style="list-style-type: none"> • Electrical technicians and engineers • CNC machinists • Wind turbine technicians 	<p>Arts, A/V Technology & Communications Support the design process and installation of telecommunications systems. Careers include:</p> <ul style="list-style-type: none"> • Graphic designers • Telecommunications technicians <p>Information Technology Provide back-end organizational support for any and all entities. Careers include:</p> <ul style="list-style-type: none"> • Network administrators • Software developers • Web developers <p>Science, Technology, Engineering & Mathematics Lead critical aspects of the design and implementation of infrastructure projects. Careers include:</p> <ul style="list-style-type: none"> • Materials engineers • Conservation scientists • Engineering technician

¹ <http://www.nationalskillscoalition.org/resources/publications/2017-middle-skills-fact-sheets/file/United-States-MiddleSkills.pdf>

² <http://www.manpowergroup.com/talent-shortage-2016>

³ For examples of high-quality CTE programs, see www.careertech.org/excellence-in-action

⁴ [www.acteonline.org/uploadedFiles/Assets and Documents/Global/files/CTE Info/Research/2014 NRCCUA ACTE Research Report Final.pdf](http://www.acteonline.org/uploadedFiles/Assets%20and%20Documents/Global/files/CTE%20Info/Research/2014_NRCCUA_ACTE_Research_Report_Final.pdf)

⁵ Analysis of <http://cte.ed.gov/accountability/reports.cfm>

⁶ <https://nces.ed.gov/fastfacts/display.asp?id=805>

⁷ Analysis of <http://cte.ed.gov/accountability/reports.cfm>

⁸ https://www.brookings.edu/wp-content/uploads/2016/05/metro_20160510_infrastructure_skills_report.pdf

⁹ <http://www.infrastructurereportcard.org/> (2013)

¹⁰ For more, see www.careertech.org/career-clusters