



# CTE TODAY!



## What is Career and Technical Education?

- Encompasses 94 percent of high school students and 8.4 million individuals seeking postsecondary certificates and associate degrees in CTE fields<sup>1</sup>
- Is delivered flexibly through high schools, area career centers, career academies, community and technical colleges, four-year universities and more
- Educates students for a range of career options through 16 Career Clusters<sup>®</sup> and 79+ pathways
- Offers clear pathways to industry certifications, postsecondary certificates and degrees
- Partners with businesses to prepare students for tomorrow's workforce
- Fulfills employer needs in high-skill, high-wage, high-demand areas
- Prepares students to be college- and career-ready by providing core academic skills, employability skills and technical, job-specific skills

## CTE Works for High School Students

*High school students involved in CTE are more engaged, graduate at higher rates and typically go on to postsecondary education.*

- Taking one CTE class for every two academic classes minimizes the risk of students dropping out of high school.<sup>2</sup>
- The average high school graduation rate for students concentrating in CTE programs is 93 percent, compared to an average national freshman graduation rate of 80 percent.<sup>3</sup>
- 91 percent of high school graduates who earned 2-3 CTE credits enrolled in college.<sup>4</sup>

## CTE Works for College Students and Adults

*Postsecondary CTE prepares students and adults for in-demand careers, and allows them to take on less debt.*

- Students can attend public community and technical colleges for a fraction of the cost of tuition at other institutions: \$3,520, on average, in 2016-2017.<sup>5</sup>
- According to research in Texas, Colorado and Virginia, graduates with technical or applied science associate degrees out-earn bachelor's degree holders by \$2,000 to \$11,000.<sup>6</sup>
- 27 percent of people with less than an associate degree, including licenses and certificates, earn more than the average bachelor's degree recipient.<sup>7</sup>

**Today's cutting-edge, rigorous and relevant career and technical education (CTE) prepares youth and adults for high-wage, high-skill, high-demand careers in established and emerging industries.**

## CTE Works for Business

*CTE addresses the needs of industries and helps close the skills gap.*

- Half of all STEM jobs call for workers with less than a bachelor's degree.<sup>8</sup>
- Health care occupations, many of which require an associate degree or less, make up 12 of the 20 fastest growing occupations.<sup>9</sup>
- 3 million workers will be needed for the nation's infrastructure in the next decade, including designing, building and operating transportation, housing, utilities and telecommunications.<sup>10</sup>
- Middle-skill jobs, jobs that require education and training beyond high school but less than a bachelor's degree, are a significant part of the economy. Of the 55 million job openings created by 2020, 30 percent will require some college or a two-year associate degree.<sup>11</sup>
- More than 80 percent of manufacturers report that talent shortages will impact their ability to meet customer demand.<sup>12</sup>

## CTE Works for the Economy

*Investing in CTE yields big returns for state economies.*

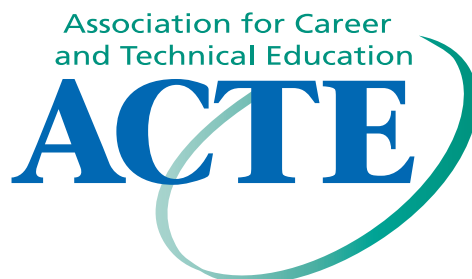
- In Wisconsin, taxpayers receive \$12.20 in benefits for every dollar invested in the technical college system.<sup>13</sup>
- In Washington, for every dollar invested in secondary CTE programs, taxpayers receive a \$9 return on investment.<sup>14</sup>
- In Tennessee, CTE returns \$2 for every \$1 invested. At the secondary level, CTE program completers account for more than \$13 million in annual tax revenues.<sup>15</sup>

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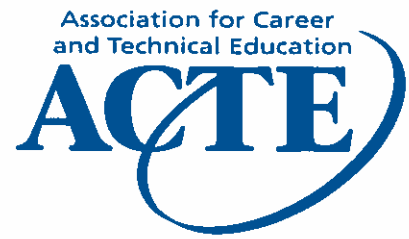


## Endnotes

1. U.S. Department of Education, National Center for Education Statistics, *High School Transcript Study, 2009*; U.S. Department of Education, National Center for Education Statistics, *2007–08 National Postsecondary Student Aid Study*.
2. Plank et al, *Dropping Out of High School and the Place of Career and Technical Education*, National Research Center for CTE, 2005.
3. U.S. Department of Education, Office of Career, Technical and Adult Education data; Civic Enterprises et al, *Building a Grad Nation: Progress and Challenge in Ending the High School Dropout Epidemic: Annual Update*, 2014.
4. U.S. Department of Education, National Center for Education Statistics, *Data Point: Career and Technical Education Coursetaking and Postsecondary Enrollment and Attainment: High School Classes of 1992 and 2004*, 2016.
5. College Board, *Average Published Undergraduate Charges by Sector, 2016-17*.
6. Schneider, *Higher Education Pays: But a Lot More for Some Graduates Than for Others*, College Measures, 2013.
7. Harvard Graduate School of Education, *Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century*, 2011.
8. Rothwell, *The Hidden STEM Economy*, Brookings Institution, 2013.
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10. Kane and Tomer, *Infrastructure Skills: Knowledge, Tools, and Training to Increase Opportunity*, Brookings Institution, 2016.
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12. Deloitte and The Manufacturing Institute, *The Skills Gap in U.S. Manufacturing: 2015-2025 Outlook*, 2015.
13. Wisconsin Technical College System, *The Technical College Effect*, 2014.
14. Washington State Workforce Training and Education Coordinating Board, *CTE 2015 Dashboard*.
15. Harrison et al, *The Economic Impact of Secondary and Postsecondary Career and Technical Education in Tennessee*, Sparks Bureau of Business and Economic Research and the University of Memphis, 2006.



# College and Career Ready through CTE






When **APPLIED TECHNICAL LEARNING** is integrated with **RIGOROUS ACADEMICS**, students develop the **SKILLS NEEDED FOR SUCCESS.**

The technical, academic and employability skills that students gain in CTE programs, through CTE courses, work-based learning, career and technical student organizations and dual/concurrent enrollment, are essential for college and career success.

## CTE programs prepare students for college and careers:<sup>1</sup>

The top 3 **SKILLS** and experiences that students report gaining in their CTE classes are:

-  **SKILLS** to help them get jobs in the future
-  **REAL-WORLD EXAMPLES** to help them understand academic classes
-  The chance to work as **PART OF A TEAM**

More than **88** percent of CTE students are planning to continue on to postsecondary education.

**6** in 10 students are planning to pursue a career related to the CTE area they are exploring in high school.

Almost **1/3** of CTE students have the opportunity to earn college credit and/or an industry certification through CTE.

<sup>1</sup>Source: My College Openness/ACTE research study (2016). National sample includes #0,192 high school CTE students.

## CTE students demonstrate the academic, technical and employability skills needed for postsecondary and workplace success:



80 percent of students taking a college prep academic curriculum with rigorous CTE meet college and career readiness goals, compared to only 63 percent of students taking the same academic core who did not experience rigorous CTE.<sup>2</sup>



Students attending CTE high schools demonstrate higher rates of on-time graduation and credit accumulation and a greater likelihood of successfully finishing a college prep math sequence.<sup>3</sup>



CTE students are significantly more likely to report developing problem-solving, project completion, research, work-related, communication, time management and critical-thinking skills during high school.<sup>4</sup>



Postsecondary CTE concentrators earn significantly more than those who majored in academic fields, particularly when employed in an industry related to their program of study.<sup>5</sup>

<sup>2</sup> Southern Regional Education Board, High Schools That Work 2012 Assessment

<sup>3</sup> Neid et al., The Academic Impacts of Career and Technical Schools: A Case Study of a Large Urban School District, 2013

<sup>4</sup> Leikes et al., CTE Pathway Programs, Academic Performance and the Transition to College and Career, National Research Center for CTE, 2007

<sup>5</sup> Jacobson and Mokher, Florida Study of Career and Technical Education, 2014, as cited in the 2014 National Assessment of CTE Final Report

For more information about CTE, visit [www.acteonline.org](http://www.acteonline.org).