



## WHAT IS CAREER AND TECHNICAL EDUCATION?

- Career and technical education (CTE) prepares both youth and adults for a wide range of careers and further educational opportunities. These careers may require varying levels of education—including industry-recognized credentials, postsecondary certificates, and two- and four-year degrees.
- CTE is offered in middle schools, high schools, area career and technical centers, community and technical colleges, and other postsecondary institutions.
- According to the U.S. Department of Education’s Office of Vocational and Adult Education, approximately 12 million students participated in secondary and postsecondary CTE programs supported by the Carl D. Perkins Act during the 2010-2011 school year.
- According to the U.S. Department of Education’s National Center for Education Statistics, almost all high school students participate in CTE, and more than half take three or more credits. About 60 percent of college students are involved in CTE programs, and more than 25 percent of the adult U.S. population participates in work-related training.
- CTE is at the forefront of preparing students to be “college- and career-ready.” CTE equips students with:
  - *core academic skills* and the ability to apply those skills to concrete situations in order to function in the workplace and in routine daily activities
  - *employability skills* (such as critical thinking and responsibility) that are essential in any career area
  - *job-specific, technical skills* related to a specific career pathway
- Within CTE, occupations and career specialties are grouped into Career Clusters®. Each of the 16 clusters is based on a set of common knowledge and skills that prepare learners for a full range of opportunities.
- Further specialization is achieved through comprehensive Programs of Study, which align academic and technical content in a coordinated, non-duplicative sequence of secondary and postsecondary courses, and lead to an industry-recognized credential or certificate at the postsecondary level or an associate or baccalaureate degree.
- Career and technical student organizations (CTSOs) are an integral part of CTE. CTSOs prepare young people to become productive citizens and leaders in their communities by providing unique programs of career and leadership development, motivation, and recognition for students enrolled, or previously enrolled, in CTE programs.

➤ **CTE Increases Student Achievement:**

- A ratio of one CTE class for every two academic classes minimizes the risk of students dropping out of high school. (Plank et al., *Dropping Out of High School and the Place of Career and Technical Education*, 2005)
- 81 percent of dropouts said that “more real-world learning” may have influenced them to stay in school. (Bridgeland et al., *The Silent Epidemic*, 2006)
- The more students participate in CTSO activities, the higher their academic motivation, academic engagement, grades, career self-efficacy, college aspirations and employability skills. (Alfeld et al., *Looking Inside the Black Box: The Value Added by Career and Technical Student Organizations to Students' High School Experience*, 2007)
- Students at schools with highly integrated rigorous academic and CTE programs have significantly higher achievement in reading, mathematics and science than do students at schools with less integrated programs. (Southern Regional Education Board, *Linking Career/Technical Studies to Broader High School Reform*, 2004)
- CTE students are significantly more likely than their non-CTE counterparts to report that they developed problem-solving, project completion, research, math, college application, work-related, communication, time management, and critical thinking skills during high school. (Lekes et al., *Career and Technical Education Pathway Programs, Academic Performance, and the Transition to College and Career*, 2007)

➤ **CTE Meets Individual and Community Economic Needs:**

- According to the BLS, of the 20 fastest growing occupations, 14 require an associate degree or less. Furthermore, of the 20 occupations with the largest numbers of new jobs projected for 2020, 18 require on-the-job training, an associate degree or a postsecondary credential. (Bureau of Labor Statistics, *Occupational Outlook Handbook, 2012-13 Edition*)
- Sixty-seven percent of respondents in a 2011 manufacturing skills gap study indicated that they are experiencing a shortage of qualified workers overall – with 12 percent reporting severe shortages and 55 percent indicating moderate shortages. CTE plays a vital role in helping American business close this gap by building a competitive workforce for the 21st century. (Deloitte and The Manufacturing Institute, *Boiling Point? The Skills Gap in U.S. Manufacturing*, 2011)
- A person with a CTE-related associate degree or credential will earn an average of at least \$4,000 more a year than a person with a humanities associate degree – and those with credentials in high-demand fields such as healthcare can average almost \$20,000 more a year. (Jacobson et al., *Pathways to Boosting the Earnings of Low-Income Students by Increasing Their Educational Attainment*, 2009)
- According to the state of Washington, for every dollar spent on secondary CTE students, taxpayers will receive \$9 back. (Washington State Workforce Training and Education Coordinating Board, *2011 Workforce Training Results*)