

A young woman with long, dark, wavy hair is smiling warmly at the camera. She is wearing a black blazer over a white top. The background is a classroom with blue and green binders on a shelf and a person's head visible in the foreground on the right.

Career and Technical Education in Pennsylvania

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Today's economy demands a workforce with more advanced academic and technical skills than in previous decades. Workers are expected to adapt quickly to changes in technology and have stronger communication, critical thinking, collaboration and creative skills.

Pennsylvania's Career and Technical Education (CTE) keeps pace with these evolving demands by offering academically rigorous and technology-rich programs that prepare program completers for entry into multiple postsecondary options including skilled, well-paying careers; two- and four- year college degrees; certification programs; and apprenticeships or training programs.

Delivery of CTE in Pennsylvania

- ◇ 1,747 state-approved secondary career and technical programs
- ◇ State approved programs offered in 84 regional career and technology centers (CTC) and 140 high schools
- ◇ Approximately 1,000 postsecondary state-approved CTE programs (two-year degree programs)
- ◇ 344 adult CTE programs (offering less than a two-year degree)

No Cost for High School Students to Participate in CTE Programs

- ◇ Transportation from a student's home high school to the regional CTC is provided at no cost to the student.
- ◇ Similar CTE programs offered by private colleges charge as much as \$10,000 in annual tuition.

CTE RESULTS

In 2006, the Pennsylvania Department of Education created new accountability systems and extensive professional development opportunities designed to improve the rigor of CTE programs and build a stronger alignment between CTE programs and workforce needs. Since that time, CTE in Pennsylvania has experienced dramatic improvements.

Program Enrollments

Since 2011-12, enrollment in CTE programs have increased by five percent, while overall high school public school enrollment has decreased by three and a half percent.

Academic and Skill Attainment in CTE

All students who complete a CTE program sit for an end-of-program assessment to demonstrate achievement of technical skills and knowledge. Most assessments are offered by NOCTI, a nationally recognized skills assessment provider.

- ◇ Since 2006, the percentage of students scoring Competent or Advanced on NOCTI assessments has increased significantly:
- ◇ 2006: 55 percent

- ◇ 2010: 70 percent
- ◇ 2017: 84 percent

Industry-Recognized Certifications

CTE students have opportunities to earn industry-recognized certifications (IRC).

- ◇ 29 percent of CTE students earned at least one IRC in 2016-17.
- ◇ CTE students earned a total of 35,132 certificates in 2016-17.

Graduation Rates

Students who complete at least half of a CTE program graduate at higher rates than the general population. The graduation rate is 99 percent for CTE concentrators in Pennsylvania compared to a statewide graduation rate of approximately 86 percent in 2015-16.

ADDITIONAL INFORMATION ABOUT PENNSYLVANIA'S CAREER AND TECHNICAL EDUCATION

Shared Time CTCs and Comprehensive Schools

- ◇ Most of the 84 CTCs in Pennsylvania operate as a shared time option; students spend about half of the day at the CTC and the other half of the day at their “sending” high school where they take required academic courses and earn a high school diploma.
- ◇ 16 CTCs operate as comprehensive high schools; students complete a CTE program and all other graduation requirements leading to a high school diploma in one building.

Funding

- ◇ The Pennsylvania legislature supports CTE with important funding resources. The most recent state budget line items include:
 - » Total of \$62 million in state funding for high school CTE programming.
 - » Total of \$44 million in state funding for CTE delivered through community colleges.
- ◇ At the local level, CTCs are funded primarily through their member school districts (85 percent). An additional 10 percent (or less) comes through the state subsidy; remaining funds are provided by the federal Carl D. Perkins Act and vary due to demographics.



Career and Technical Student Organizations (CTSOs)

- ◇ Every CTE program in Pennsylvania is aligned with a nationally recognized CTSO.
- ◇ Over 70,000 Pennsylvania students participate in more than 1,000 local CTSO chapters.
- ◇ Through CTSOs, instruction is enriched: students have opportunities to develop in-demand technical and leadership skills; compete in regional and national skills competitions; and prepare for careers.

CTE Aligns with “Real World” Workplace Demands

- ◇ A locally convened Occupational Advisory Committee (OAC), whose members are experts in their field, supports every CTE program.
- ◇ OAC members meet with CTE teachers at least twice annually.
- ◇ CTE teachers are required to have several years of field experience.

CTCs Work Closely with School Districts

- ◇ Governing every CTC is a Joint Operating Committee (JOC) whose members are drawn from the school boards of member districts.
- ◇ Each CTC has a Superintendent of Record who is a superintendent from one of the member districts; this responsibility typically rotates among the district superintendents every school year.

The CTE-STEM Connection

- ◇ CTE programs generally have a strong STEM component (science, technology, engineering and mathematics).
- ◇ According to an analysis by the Brookings Institution, about 20 percent of all U.S. jobs draw heavily from STEM concepts and many of these are taught within the CTE realm. About half of these STEM-intensive jobs are available to workers without a four-year college degree, and these jobs pay \$53,000 on average—a wage 10 percent higher than jobs with similar educational requirements. Half of all STEM jobs are in manufacturing, healthcare or construction industries.

LEARN MORE ABOUT CAREER AND TECHNICAL EDUCATION

The Pennsylvania Department of Education website provides a map showing the location of all its CTCs. Contact the regional career and technical center or high school in your area to learn more about the many opportunities available to students through CTE.

<http://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Pages/default.aspx>

At the Pennsylvania Department of Education, contact Dr. Lee Burket, Director of the Bureau of Career and Technical Education by calling 717-787-5530 or emailing lburket@pa.gov.



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