

Career Technical Education & Learner Achievement

Learners enrolled in Career Technical Education (CTE) are increasingly high performers, with higher than average graduation rates and impressive postsecondary enrollment rates. Yet the greatest value comes when learners are engaged in both high-quality CTE programs of study and a rigorous academic course load.

CTE & High School Graduation

- The graduation rate for CTE concentrators is about 95 percent, approximately 10 percentage points higher than the national average.¹ Forty-seven states and Washington, D.C. report higher graduation rates for secondary CTE learners than for all learners.²
- A 2016 study in **Arkansas** found that learners who concentrated in a CTE program of study were 21 percentage points more likely to graduate from high school than their non-CTE peers.³ Further, learners in Arkansas who took just one more CTE course than their peers had a seven percentage point higher likelihood to graduate high school within four years.⁴
- Additionally, 88 percent of CTE completers in **Washington** graduated high school compared to 79 percent of all students.⁵
- In **Massachusetts**, learners who were admitted to a vocational/ technical high school had a nearly 100 percent probability of graduating on time compared to a rate of about 60 percent for learners who just missed the admission cutoff and attended traditional high schools.⁶

CTE & Academic Achievement

- Forty-five percent of learners say CTE courses provide them with real-world examples that help them better understand academic classes.⁷

Local Snapshot: Advanced Technologies Academy – Las Vegas, Nevada

CTE programs hold learners to high standards, enabling them to be successful in college and careers. In the Architectural Design program at Advanced Technologies Academy (A-TECH) in Las Vegas, Nevada, learners get rigorous coursework in mechanical and architectural drafting, pursue work-based learning experiences and earn free college credits for CTE classes. Originally developed to prepare learners to meet the growing demand for skilled workers in Las Vegas's architecture, engineering and construction industries, the program has since been streamlined to align with the advanced curriculum offered through the University of Las Vegas. Learners in the program get exposure to hands-on learning experiences that prepare them for postsecondary education, training and careers.



As a result of A-TECH's rigorous curriculum and high standards, 100 percent of learners graduated from the program in 2015. All of them either enrolled in postsecondary education or entered the workforce after graduating. Additionally, 92 percent of learners graduated with college credit.



92%

Earned Postsecondary Credit



100%

Earned Industry-recognized Credential



100%

Graduated High School



100%

Enrolled in Postsecondary Education and/or entered workplace

https://cte.careertech.org/sites/default/files/ATECH_Final-2.pdf

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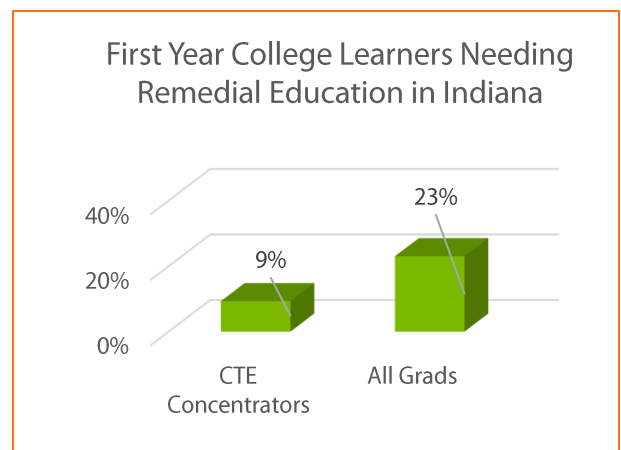
Learning that works for America

CTE[®]

- Early evidence shows that learners engaged in high-quality CTE, like *programs of study*, do have higher achievement in academic subjects, such as English.⁸
- In **Indiana**, about 85 percent of CTE concentrators pass the state Algebra exam, compared to about 68 percent of all learners.⁹

CTE & College Preparation

- Between 1990 and 2009, the percent of CTE learners completing a “college-prep” curriculum increased significantly. In fact, 60 percent of graduates who took between two and four CTE courses **completed a college-prep course load** compared to 56 percent of all high school graduates.¹⁰
- CTE completers have a significantly higher ACT composite score than their general academic counterparts, scoring four percentage points (or 1.45 test points) higher.¹¹
- Eighty-six percent of high school graduates nationwide who concentrated in CTE programs in 2004 went on to enroll in postsecondary education;¹² more than half earned a degree.¹³
- Among learners who do enroll in college, each additional course credit from an advanced vocational class increases their chances of graduating by nearly 2 percentage points.¹⁴
- Learners in **California** who completed coursework in conjunction with career concentration work had test scores that equaled or exceeded their “college prep” peers, had higher GPAs in college, and were less likely to drop out of their first year of college¹⁵
- In **Indiana**, CTE concentrators were less than half as likely to need remedial education in college as their peers.¹⁶



¹ <https://perkins.ed.gov/pims/DataExplorer/Performance> and <https://www.edweek.org/ew/section/multimedia/data-us-graduation-rates-by-state-and.html>

² https://s3.amazonaws.com/PCRN/uploads/Perkins_RTC_2014-15.pdf

³ <https://edexcellence.net/publications/career-and-technical-education-in-high-school-does-it-improve-student-outcomes>

⁴ <https://muse.jhu.edu/article/738163/pdf>

⁵ <http://reportcard.ospi.k12.wa.us/CTEPerkins.aspx?domain=CTE&groupLevel=District&schoolId+=1&reportLevel=State&yrs=2016-17&year=2016-17> and <http://www.k12.wa.us/DataAdmin/PerformanceIndicators/GraduationRates.aspx>

⁶ https://www.mitpressjournals.org/doi/full/10.1162/EDFP_a_00224

⁷ <https://www.schools.utah.gov/file/90b29938-2f20-4a47-a2e9-de818ebfd9c9>

⁸ http://www.nrccte.org/sites/default/files/publication-files/nrccte_mature_pos_final.pdf

⁹ <http://www.doe.in.gov/sites/default/files/cte/17-state-cte-career-readiness-report-final-3-3-17.pdf>

¹⁰ http://s3.amazonaws.com/PCRN/docs/NACTE_FinalReport2014.pdf

¹¹ https://scholarworks.unr.edu/bitstream/handle/11714/5705/Michaels_unr_0139D_12813.pdf

¹² <https://nces.ed.gov/pubs2018/2018043.pdf>

¹³ <https://nces.ed.gov/surveys/ctes/tables/h131.asp>

¹⁴ <https://www.educationnext.org/depth-over-breadth-value-vocational-education-u-s-high-schools/>

¹⁵ <https://www.cde.ca.gov/ci/ct/gi/cteschoolleaderfacts.asp>

¹⁶ <https://www.in.gov/gwc/files/2014-indiana-cte-achievements-report-fall-2014.pdf>

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