

## Career and Technical Education & Student Achievement

Students 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 students 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.<sup>1</sup> In fact, 49 states and Washington, D.C. report higher graduation rates for secondary CTE students than for all students.<sup>2</sup>
- A recent study in **Arkansas** found that students who concentrated in a CTE program of study were 21 percentage points more likely to graduate from high school than their peers.<sup>3</sup>
- Additionally, CTE completers in **Washington** graduated at a rate of 88 percent compared to 79 percent of all students.<sup>4</sup>
- In **Massachusetts**, students 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 students who just missed the admission cutoff and attended traditional high schools.<sup>5</sup>

### CTE & Academic Achievement

- Forty-five percent of students say CTE courses provide them with real-world examples that help them better understand academic classes.<sup>6</sup>

### Local Snapshot: Advanced Technologies Academy – Las Vegas, Nevada

CTE programs hold students to high standards, enabling them to be successful in college and careers. In the Architectural Design program at Advanced Technologies Academy (A-TECH), students 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 students 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. Students 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 students graduated from the program in 2015. All of these students either enrolled in postsecondary education or entered the workforce after graduating. Additionally, 92 percent of students 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](https://cte.careertech.org/sites/default/files/ATECH_Final-2.pdf)

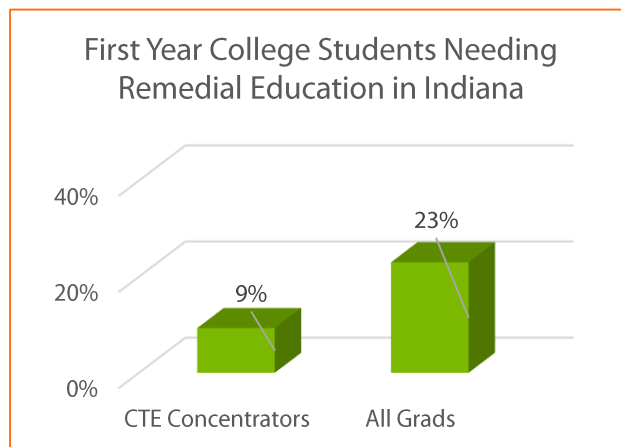
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- Early evidence shows that students engaged in high-quality CTE, like *programs of study*, do have higher achievement in academic subjects, such as English.<sup>7</sup>
- In **Indiana**, about eighty-five percent of CTE concentrators pass the state Algebra exam, compared to about sixty-eight percent of all students.<sup>8</sup>

### CTE & College Preparation

- Between 1990 and 2009, the percent of CTE students completing a “college-prep” curriculum increased significantly. In fact, graduates who took between two and four CTE courses were the **most likely to complete a college-prep course load**. Sixty percent of those CTE students completed a college-prep curriculum compared to 56 percent of all high school graduates.<sup>9</sup>
- Eighty-six percent of high school graduates nationwide who concentrated in CTE programs in 2004 went on to enroll in postsecondary education;<sup>10</sup> more than half earned a degree.<sup>11</sup>
- Students enrolled in certified pathways through **California’s** Linked Learning District Initiative were more likely than their peers to meet entry requirements for state postsecondary institutions and enroll in postsecondary education.<sup>12</sup>
- In **Indiana**, CTE concentrators were less than half as likely to need remedial education in college as their peers.<sup>13</sup>



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

<sup>2</sup> [https://s3.amazonaws.com/PCRN/uploads/Perkins\\_RTC\\_2014-15.pdf](https://s3.amazonaws.com/PCRN/uploads/Perkins_RTC_2014-15.pdf)

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

<sup>4</sup> <http://reportcard.ospi.k12.wa.us/CTEPerkins.aspx?domain=CTE&groupLevel=District&schoold+=1&reportLevel=State&yrs=2016-17&year=2016-17> and <http://www.k12.wa.us/DataAdmin/PerformanceIndicators/GraduationRates.aspx>

<sup>5</sup> <http://www.doe.mass.edu/research/reports/2014/03EdLines-CTEimpact.pdf>

<sup>6</sup> <http://ctepolicywatch.acteonline.org/2014/03/2014-acte-nrccua-survey-career-prep-technical-and-academic-skills-employer-partnerships.html>

<sup>7</sup> [http://www.nrccte.org/sites/default/files/publication-files/nrccte\\_mature\\_pos\\_final.pdf](http://www.nrccte.org/sites/default/files/publication-files/nrccte_mature_pos_final.pdf)

<sup>8</sup> <http://www.doe.in.gov/sites/default/files/cte/17-state-cte-career-readiness-report-final-3-3-17.pdf>

<sup>9</sup> [http://s3.amazonaws.com/PCRN/docs/NACTE\\_FinalReport2014.pdf](http://s3.amazonaws.com/PCRN/docs/NACTE_FinalReport2014.pdf)

<sup>10</sup> <https://nces.ed.gov/surveys/ctes/tables/h134.asp>

<sup>11</sup> <https://nces.ed.gov/surveys/ctes/tables/h131.asp>

<sup>12</sup> [http://www.linkedlearning.org/wp-content/uploads/2016/12/Executive\\_Summary\\_2016Nov22-1.pdf](http://www.linkedlearning.org/wp-content/uploads/2016/12/Executive_Summary_2016Nov22-1.pdf)

<sup>13</sup> <http://www.doe.in.gov/sites/default/files/cte/17-state-cte-career-readiness-report-final-3-3-17.pdf>

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