

How Career and Technical Education for Students Expands Work Opportunities

Policies to Improve Economic Mobility and Wealth Building for All

Harley Webley, Rekha Balu, and Claire Cusella

[College Board and US Chamber of Commerce](#) research shows that hiring managers generally view high school students as unprepared to enter the workforce and see [those with credentials as significantly more job ready than those without](#) (71 versus 40 percent).

By reaching students who otherwise may not connect with high-demand industries, CTE programs [can raise the floor for employment rates and earnings](#).

Some research has found that [CTE programs lead to higher earnings immediately after high school graduation](#), particularly for [male students](#), [Black and Latino students](#), [students with disabilities](#), and [lower-income students](#).

Today's newer CTE models [do not discourage](#) college attendance for those who want to pursue it; they [encourage students to pursue course concentrations in high-growth fields](#).

Many Americans regard postsecondary education—from associate to bachelor's to graduate degrees—as the path to a good job and a better life. Those who attend college generally [earn more](#) than those who do not, but the rising cost of education, a shrinking entry-level job market, and new technologies are rewriting the future.

Today's high school students need new and different college and career pathways to ensure their future economic mobility. [Advanced vocational and career and technical education \(CTE\) in high school has led to increased wages](#) and fewer periods when young people are neither working nor in school in the early post-high school years. Public and private leaders can pursue policies that ensure young people have learning and employment opportunities that promote individual well-being and community prosperity.

COLLEGE AND CAREER PATHWAYS FOR ALL

High school CTE programs take [many forms](#), such as specialized training schools, career-specific course concentrations in high school, and dual enrollment that allows students to earn college credits, a two-year college degree, or a nondegree credential while in high school. Some programs rely solely on [federal](#) and [state funding](#), whereas others rely on private or philanthropic investments. Typically, CTE programs operate at similar or moderately higher costs compared with traditional education options.

Historically, [vocational programs reinforced occupational segregation](#) by steering low-income students and students of color away from college pathways. Newer CTE models seek to overcome this history by complementing a postsecondary degree, not replacing it. Still, [racial and gender gaps persist](#), with Black students less likely to have access to high-quality CTE programs.

Do CTE programs lead to greater economic mobility?

Yes, when they develop skills that allow students to connect with high-demand jobs. Early specialization can build skills and develop connections with local labor market needs.

Some CTE programs are designed to directly connect with local labor market and employer needs. For example, in Minnesota, high school CTE programs are aligned with local industries, and students who specialize in CTE are more likely to [work locally](#) five years after graduation. Since CTE programs are location specific, funding,

participation, and outcomes [vary by state](#). Place-specific research has found that CTE programs

- [increased high school graduation rates and earnings](#) for male students with disabilities in Connecticut;
- [led to higher earnings one year and seven years after graduation](#) in Massachusetts, especially for Black and Latino students, students with disabilities, and lower-income students; and
- [increased the likelihood of earning a postsecondary degree](#) within three years of high school for male participants in New York.

By increasing graduation rates, postsecondary degree enrollment, and future earnings, CTE programs boost economic mobility for students who may not otherwise pursue higher education or certain employment opportunities.

Do CTE programs discourage college graduation?

No. CTE programs today have not been shown to replace postsecondary education for high school students. In 2024, Lindsay and colleagues conducted a [systematic review of studies on CTE programs](#) and found no difference in four-year college enrollment and progression between similar students who did and did not participate in CTE. However, the [National Center for Education Statistics](#) reported a slight difference in the type of postsecondary degree completed. While overall rates of postsecondary enrollment were similar, CTE participants were more likely to [complete an associate degree](#), while nonparticipants were more likely to complete a bachelor's degree.

This research base underscores the potential for CTE programs to expand employment opportunities for students without sacrificing higher education. When states and philanthropies invest in these pathways and employers strengthen their connections to high schools and community colleges, students are better able to enter high-quality, higher-paying jobs.

POLICY IN ACTION: YOUTHFORCE NOLA'S WORK-BASED LEARNING

[In 2015](#), education, business, and community leaders in New Orleans, Louisiana, wanted to better prepare local students for employment and meet the growing employer demand for workers. They created [YouthForce NOLA](#), an intermediary organization and career-connected learning (or CTE) initiative, to prepare New Orleans high school students for careers in health sciences, creative media and technology, and skilled crafts, such as manufacturing or construction.

Almost a [decade later, in 2023](#), 99 percent of its alumni enrolled in postsecondary education or obtained a job, and those who earned a credential in high school saw their earnings increase by \$4,160 annually. In addition, in [2024](#),

- 97 percent of participants enrolled in additional education or entered the workforce after graduation,
- alumni who were employed earned \$0.40 above the median wage for people under age 25 in Louisiana, and
- participants who graduated with credentials earned \$2,080 more per year than those without credentials.

YouthForce NOLA created partnerships with more than 250 local businesses, invested heavily in its teaching workforce by paying for teachers' certifications and professional development, and worked with community colleges to create a dual enrollment playbook.

Working with community organizations adds a variety of career programs and pathways for students to pursue, including skilled crafts (e.g., architecture, green infrastructure, and engineering; health sciences; and digital media) and business services (e.g., accounting and entrepreneurship).

Philanthropic investment has made this approach tenable. In 2016, JPMorganChase and Bloomberg Philanthropies seeded YouthForce NOLA with [\\$7.5 million](#) to support student internships. Since then, the initiative has been supported by more than [\\$60 million](#) in public and philanthropic funding.